



DISTRICT DISASTER MANAGEMENT PLAN

2023



LUNGLEI DISTRICT



**Deputy Commissioner
Lunglei District
Mizoram**



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PREFACE



Disasters occur with unfailing regularity causing immense loss of life, assets and livelihood. In the present administrative set-up of the country, the District Administration is charged with the responsibility of executing a major portion of all disaster management activities.

The updated District Disaster Management Plan, 2023 for Lunglei District has been prepared by incorporating the suggestions contributed by the members of District Disaster Management Authority, Lunglei District. I hope that this document will serve as a useful guide for all functionaries and stakeholders in adopting precautionary measures, executing rescue and relief operations, carrying out post-disaster management activities and in handling any disaster that may befall the District.

I appreciate the diligence and commitment of the Branch Officer, District Organiser and staff of DM&R Branch of the Deputy Commissioner's office, in particular, in keeping the District Disaster Management Plan, 2023 as updated as possible amidst the ever-changing incumbents of various designated posts.

I also place on record my sincere gratitude to all departments, NGOs and civil society organisations for their unfailing support to the District Administration in times of disaster and I request for their continued assistance and advice in the mitigation and prevention of disasters and also in the preparedness for disasters.

Any suggestion for improvement of the DDMP, 2023 is welcome.

Lunglei, the 15th of December, 2023


(Ramdinliani)

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DISTRICT PROFILE AT A GLANCE

Area (Sq.Kms)	: 3552.61 sq. km.
Distance from Capital Aizawl	
Via NH-54	: 235 km
Via World Bank Road	: 164 km
Population (as per census 2011)	
Males	: 82,891(with Hnahthial -Males-3,573)
Females	: 78,537 (with Hnahthial -Females-3,573)
Literacy Rate	: 88.86 %
No. of Villages (as per NREGS record)	
Lunglei RD Block	: 57
Bunghmun RD Block	: 22
Lungsen RD Block	: 24
Tlabung RD Block	: 27
Administrative Divisions	
Sub-Divisions	: 2
Namely:	
i) Lungle Sadar Sub-Division	
ii) Tlabung Sub-Division	
RD Blocks	: 4
Namely:	
i) Lunglei RD Block	
ii) Bunghmun RD Block	
iii) Lungsen RD Block	
iv) Tlabung RD Block	
No. of Hospitals	: 6
Government Hospital	: 2
Private Hospital	: 4
Average Rainfall	: 3133 mm
No. of Police Station	: 6
No. of Police Outpost	: 2
No. of Gas Agency	: 3
No. of Petrol Pump	: 2

Important District Administration Number (DC's Office)

Sl. No	Name	Designation	Contact Number
1	Ramdinliani , IAS	DC & Chairman, DDMA	9436141342
2	Donny Lalruatsanga	Addl. DC & CEO,DDMA	9612638126
3	Liansangzuala Chhakchhuak	Addl. DC Member, DDMC	9774008277
4	T.T. Beikhaizi	Election Officer, Member, DDMC	8415853376
5	Lahlimpua Ralte	SDO(S), Member, DDMC	9863225008
6	K. Lahlimpua	SDC & Nodal Officer, DM&R	9612123192
7	Malsawmhriatzuali	SDC Member, DDMC	9436768944
8	Lalsiamthari Bawitlung	Superintendent	9436747887
9	District Emergency Operation Center		1077(2325949)/ 0372-2323635

HEAD OF OFFICES WITH PRESENT INCUMBENT IN LUNGLEI DISTRICT

Sl. No	Name of incumbent	Designation of the Officer	Phone No. Mobile
1	Ramdinliani, IAS	Deputy Commissioner	9943739336
2	Rahul Alwal, IPS	Superintendent of Police	9000705558
5	H. Ramthlengliana, IPS	D.I.G. Southern Range	9436140003
4	ST. Lalvensangi	P.D. DRDO	9862286368
5	Francis Lalnuntluanga	Commandant, 2 nd Bn, MAP	7005608991
6	Col Jaswinder Singh, Sena Medal	Commandant, 20 Bn Assam Rifle	6909369120
7	Kesar Singh Nautyal	Commandant, 131 Bn, BSF	9862655508
8	Sh. Neeraj Sharma	Commandant, 199 Bn, BSF	
9	Sh. Rakesh Kumar Tiwari	2 IC, 184 Bn BSF	9305655529
10	Laltlanhlua Zathang	Conservator of Forest, Southern Circle	9436195286
11	Dr. LC Liana	Chief Medical Officer	8416075016
12	Dr. Zonunmawii Pachuau	Medical Superintendent	9615330920
12	Thanglianmang Guite	District & Sessions Judge	9436140907
13	C. Vanlalmuana	Chief Planning Officer, HPC	9436147956
14	Er. T.Lalnunsanga	S.E. PWD	9612089163
15	Er. K. Zohmingliana	S.E. PHED, Lunglei Watsan Circle	8731914282
16	Er. Laltlanthanga	S.E. P&E, Lunglei Power Circle	9436151579
17	Kitsuto Kits	Deputy Central Intelligence Officer, SIB	8974024786
18	TT. Beikhaizi	Election Officer	8415853376

19	Lalhlimpuii Ralte	District Civil Supply Officer	9612638126
20	Vanlalrova	Settlement Officer, LR&S	9436146135
21	Lalvenhimi Ralte	BDO, Lunglei & DTO	
22	H.Zonunmawia	SDO(C), Tlabung & BDO, Tlabung	8415051047
23	H. Lalramenga	BDO, Bunglemun	7005968251
24	Beitlotha Nohro	District Local Administration Officer	7629972318
25	JH.Lalbiakliana	Deputy Chief Executive Officer, KVI Lunglei	9612747704
26	B.Lalremruati	Deputy Commissioner of State Taxes, Lunglei Zone	9436157535
27	Lalrinthanga	Deputy Controller, Legal Metrology, Lunglei	9436196512
28	Beitlotha Nohro	District Transport Officer	7629972318
29	Major Jonny Malsawmzuala (Retd)	District Sainik & Resettlement Officer, Lunglei	7627912547
30	R.Lalthlengliana	District Adult Education Officer	7005733678
31	C.Malsawmkima	District Agriculture Officer	8413946518
32	Dr. Vanlalhruaia	District Animal Husbandry & Veterinary Officer	9436147667
33	Lalrinkimi Hmar	District Child Protection Officer	8414051481
34	Lallianzuali Bawitlung	District Education Officer/ District Project Coordinator, Samagra Shiksha	9436153460
35	Christina Lalramchhani	District Fisheries Development Officer	9820868995
36	N. Vabeirotlua	District Information & Public Relations Officer	9436379394
37	Moringthem Krishnananda Singh	District Informatics Officer, NIC Lunglei	8730884411
38	Vanlalawmpuia	District Labour & Employment Officer/Principal Industrial Training Institution	8131875533
39	Dr. Lalhruaitluangi Chhangte	District Programme Officer, Women & Child Development	9436143748
40	TC Zonunsanga	District Research Officer, Economic & Statistics	8974212404
41	ZD. Zoramthanga	District Sericulture Officer	7005126615
42	Ngurthanmawia Sailo	District Social Welfare Officer	8732828339
43	V. Zothanbuangi	District Sports & Youth Officer	9436147878
44	C. Sawihlira	District urban Development Officer, UD& PA	8131935414
45	F. Lalramnghinglova	Divisional Officer, LR, Soil & Water Resources Department	9436370051
46	Lalrinsanga	Divisional Horticulture Officer, Lunglei	7085207805
47	Er. Lalramthanga	Executive Engineer, PWD Lunglei Road Division-I, Lunglei	9436148165
48	Laldingliana Hrahsel	Executive Engineer, Lunglei Division I&WRD	8837419719

49	Hemsat Chawnglawi	EE, Planning	
50	Er. Lalropuia Hmar	Executive Engineer, PHED, Lunglei Water Supply Maintenance Division.	9612905823
51	Er. Lalnunpuii	Execytive Engineer, PMD-I, P&E	9436154040
52	Er. Lalngaihsaka	Executive Engineer, PMD-II, P&E	8119866778
53	Er. Lalramsanga	Executive Engineer, PWD, Lunglei Road Division – II	9612505336
54	Er. Saihmingliana	Executive Engineer, PWD, Electrical Division	9366565521
55	Er. Malsawmdawngliani	Executive Engineer, PWD, Lunglei Building Project Division, Lunglei	9862312331
56	R.Vanlalsanga	General Manager, District Industries Center	9436371483
57	F. Laltlanthanga	Inspector Wireless, MPRO	9862644711
58	Thara Lungtau	Joint Director, Accounts & Treasuries, Southern Zone, Lunglei	9436152158
59	Dr. Vanlalbuanga	Joint Director, Animal Husbandry & Veterinary, Southern Zone, Lunglei	9436371158
60	Benjamin K Lalbiakchama	Junior Telegram Officer, BSNL	9436372782
61	Malsawmkima	Officer Commanding, Mizoram Home Guard & Civil defence	8131990884
62	H. Biakdawla	Post Master, Lunglei Post Office	9436157290
63	H. Lalthansanga	President, MJA Lunglei	9863711999
64	Malsawmtluanga Fanai	Principal (ETC, SIRD) Pukpui	7005366569
65	V. Lalliansangi	Principal, District Institute of Education & Training, Lunglei	
66	Prof. Lallianzuala	Principal, Govt. J. Buana College, Lunglei	8575953432
67	Dr. F. Lalramhluna	Principal, Integrated Animal Husbandry & Veterinary Institute(School of Vety. Science), Lungpuizawl	9366984867
68	LH. Rothanga	Principal, Lunglei Government College	9436370237
69	Er. Lalnuntluanga	Principal, Mizoram Polytechnic	8974259804
70	Judy Darhmingmawii	Programme Executive,AIR	9436159240
71	Rangkhuma	Regional Officer, MBSE	9862374100
72	PC Zosangpuii	Senior Research Officer, Art & Culture Department Lunglei	9436352426
73	Laltlanchhunga	Sr.Executive Engineer, PHED Rural Watsan Division	9612161887
74	T. Lalchhandama	Station Officer, Fire & Emergency Department	9863194473
75	Lianchhingpuii	Superintendent, Custom Preventive Force, Lunglei	9402508019
76	HS Zosangliana	Superintendent, District Jail, Lunglei	9862766756
77	C. Rolianthangi	Assistant Tourist Officer, Lunglei	9612866126
78	Vanlalrosiama Ralte	Treasury Officer, Lunglei	9176655995
79	Solai Azyu	Working Plan Officer, EF&CC	9862705396

		Lunglei	
80	Col. Arun Sharma	(Retd) OIC/ECHS (Polyclinic)	9800013350
81	H. Vanlalhlupua	Assistant Registrar, Cooperative Society	
82	Malsawmdawngliana	District Marketing Officer	8787363254
83	H.Sangthanga	Sub-Divisional Education Officer,Lunglei South	7085628935
84	V. Zoremthuanga	Sub-Divisional Education Officer,Lunglei North	9862788607

Assembly Constituency of Lunglei District

Name of MLA	Constituency	Contact
V. Malsawmtluanga	30-Lunglei North AC	8794363421
Lalrinpuui	31-Lunglei East AC	9448136598
T. Lalhlimpaia	32-Lunglei West AC	9436150892
Lalramliana Papuaia	33-Lunglei South AC	8787381770
R. Rohmingliana	34-Thorang AC	
Prova Chakma	35-West Tuipui AC	9612596148

CHAPTER – I

INTRODUCTION

This plan shall be known as “**Lunglei District Disaster Management Plan**” and will be applicable throughout the District of Lunglei.

1.1 District Profile at a Glance**1.1.1 Demography (Statistical Handbook Lunglei, 2016, 2011 Census)**

Population	1,61,428 (with Hnahthial) 1,31,736 (excluding Hnathial)
Male Population	82,891
Female Population	78,537
Sex Ratio	947(Females per 1000 Males)
Population Density	36 persons per sq.km
Rural Population	92676
Decadal Growth Rate	17.6 %
Effective Literacy rate	85.49 %

1.1.2 Geography

The District of Lunglei is located in the southern part of Mizoram State. It occupies a more or less central part of Mizoram extending to the southern side; 235 km from Aizawl along NH 54 and 164 km along World Bank Road.

Geographical Area	4536 sq.km (Hnathial undivided)
Geographical Location	Latitude : 22°30'N to 23°18' N' Longitude : 92°15' E to 93°10' E Altitude : 1222 meters.
Length(Aerial Distance)	North to South : 100.88 Kms East to West : 81.22 Kms
International border	<ul style="list-style-type: none"> • Myanmar in the East (31 kms long). • Bangladesh in the West (107 kms long).
Connected Districts	<ul style="list-style-type: none"> • Saiha District in the south-east. • Lawngtlai District in the south-west. • Serchhip District in the north-east. • Mamit in the north-east
Forest Cover	Dense Forest : 524.63 sq.km. Medium Dense Forest : 486.08 sq.km. Less Dense Forest : 733.08 sq.km. Bamboo Forest : 1736.08 sq.km. Forest Plantation : 23.29 sq.km.
Rainfall	The average rainfall for Lunglei District is 3133 mm. per annum. The total rainfall received for the year 2016 is 2295.5 mm. The highest rainfall recorded is for 2016 June, 520.3 mm.

1.1.3 Critical Infrastructure and Key Resources

Hospitals(Town Area)	<ul style="list-style-type: none"> • Civil Hospital Lunglei • Christian Hospital Serkawn • John William Memorial Hospital • Hope Hospital • Faith Hospital
Veterinary Hospital	<ul style="list-style-type: none"> • District Veterinary Hospital
Institutes(Town Area)	<ul style="list-style-type: none"> • HATIM • Mizoram Polytechnic • NIELIT • DIET • SIRD-ETC • Nursing School Lunglei • Nursing School Serkawn
Colleges(Town Area)	<ul style="list-style-type: none"> • Government College Lunglei • JB College • KT College
No. of Playground in the District	125
No. of Medical Institution /Facilities in Rural areas(District)	65
No. of Post Office (Head, Sub, Br)	64
No. of Police stations outpost	8
No. of Godown	15

1.1.4 Area and Administrative Division

Civil Sub-Division	<ul style="list-style-type: none"> • Lunglei Sadar Sub-Division. • Tlabung Sub-Division
Area of Civil Sub-Division (2011 Census)	Lunglei Sadar Sub-Division – 3178.57 Sq.Km Tlabung Sub-Division – 880.01 Sq.Km
Rural Development Blocks	Lunglei R.D.Block - 1,117.06 Sq. Km Lungsen R.D.Block - 1,046.29 Sq. Km Bunghmun R.D.Block - 1,389.26 Sq. Km
	<ul style="list-style-type: none"> • 30-Lunglei ‘N’ • 31-Lunglei ‘E’ • 32-Lunglei ‘W’ • 33- Lunglei ‘S’ • 34-Thorang • 35-West Tuipui.

1.1.5 Block wise Urban & Rural Population (2011 Census)

Name of RD Block	Population
Bunghmun RD Block	18815
Lungsen RD Block	38910
Lunglei RD Block	53999
Tlabung RD Block	20636

1.2 Aims and Objectives of the DDMP

Section 31 of Disaster Management Act 2005(DM Act) makes it mandatory to have disaster management plan for every district. The main aims & objectives of Lunglei District Disaster management Plan is to ensure that the following components of Disaster Management are addressed to facilitate planning, preparedness, operation, coordination and community participation:

- To identify the areas vulnerable to major types of hazards in the district.
- To adopt proactive measures at district level by all the govt. Departments to prevent disaster and mitigate its effects.
- To define and assign the different tasks and responsibilities to stakeholders during the pre-disaster and post-disaster phases of the disaster.
- To enhance disaster resilience of the people in the district by way of capacity building.
- Reduce the loss of public and private property, especially critical facilities and infrastructure, through proper planning.
- Manage future development to mitigate the effect of natural hazards in the district.
- To set up an Emergency Operation Center at the District level to function effectively in search, rescue, response.
- To develop the standardized mechanism to respond to disaster situation to manage the disaster efficiently.
- To set up an early warning system so as to prepare the community to deal with the disaster and responsive communication system based upon fail-proof proven technology.
- To prepare a response plan based upon the guidelines issued in the State Disaster Management Plan so as to provide prompt relief, rescue and search support in the disaster affected areas.
- To adopt disaster resilient construction mechanism in the district by way of using Information, Education and Communication for aiming the community aware of the need of disaster resilient future development.
- To make use of media in disaster management.
- Rehabilitation plan of the affected people and reconstruction measures to be taken by different govt. Departments at district level and local authority.

1.2.1 Vision and Policy

The District Disaster Management Plan (DDMP) is prepared with a vision that it shall act as the guide for achieving the objective i.e. mitigation, preparedness, response and recovery. This plan is prepared to respond to disaster with a sense of urgency in a planned way to minimize human, property and environmental loss.

Under **Sections 2(e)** of the Disaster Management Act, 2005 define Disaster Management as “A continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary or expedient for:-

- Prevention of danger or threat of any disaster.
- Mitigation or reduction of risk of any disaster or its severity or consequences.
- Capacity building

- Preparedness to deal with any disaster.
- Prompt response to any threatening disaster situation or disaster.
- Assessing the severity or magnitude of effects of any disaster.
- Evacuation, rescue and relief.
- Rehabilitation and reconstruction.

1.2.2 Authority for DDMP

Under **Section 31** of the Disaster management Act, 2005- it is mandatory for every district to have a District Disaster Management Plan (DDMP) which shall be prepared by the District Authority to be approved by the State Authority.

1.2.3 Evolution of Lunglei District Disaster Management Plan

Section 31 (2) of the DM Act, the District Plan shall be prepared by the District Authority, after consultation with the local authorities and having regards to the National Plan and the State Plan, to be approved by the State Authority. The District Plan shall include-

1. The areas in the district vulnerable to different forms of disasters;
2. The measures to be taken, for prevention and mitigation of disasters, by the Departments of the Government at district level and local authorities in the districts;
3. The capacity-building and preparedness measures required to be taken by the Departments of the Government at district level and the local authorities in the district to respond to any threatening disaster situation or disaster;
4. The response plans and procedures, in the event of a disaster, providing for-
 - (i) Allocation of responsibilities to the Departments of the Government at district level and the local authorities in the district;
 - (ii) Prompt response to disaster and relief thereof;
 - (iii) Establishment of communication links; and
 - (iv) The dissemination of information to the public;
5. Such other matters as may be required by the State Authority.

1.2.4 Plan Activation

The disaster response structure will be activated on the receipt of disaster warning/on the occurrence of the disaster. The occurrence of disaster may be reported by the concerned monitoring authority to the Chairman, DDMA by the fastest means. The Chairman, DDMA will activate all department for emergency response including the District EOC and Emergency Support Functionaries. He will also issue instructions to include the following details:

- Exact quantum of resources (in terms of manpower, equipments and essential items from key departments/stakeholders) that is required.
- The type of assistance to be provided.
- The time limit within which assistance is needed.
- Detail of Task/Response Forces through which coordination should take place.

The District EOC, ESF's and other control rooms at the District level should be activated with full strength. Once the situation is totally controlled and normalcy is restored, the Chairman, DDMA

declares End of Emergency Response and issues instructions to withdraw the staff deployed in emergencies duties.

1.3 Stakeholders and their Responsibilities

At the District level, District Disaster Management Authority, the District Collector designated as Responsible Officer (RO) will coordinate with other line departments at district HQ and will be responsible to deal with all phases of disaster management within district. All the major line departments of the district and the emergency support functions agencies will converge into DEOC during disasters and IRS will be activated when disaster strike the district.

Other technical institutions, community at large, local self-governments, NGOs etc. are also stakeholders of the District Disaster Management Plan. Their role has been prepared with the sole objective of making the concerned organizations understand their duties and responsibilities regarding disaster management at all levels and accomplishing them.

1.3.1 The Deputy Commissioner has the following duties

- To facilitate and coordinate with local Government bodies to ensure that pre and post disaster management activities in the district are carried out.
- To assist community training, awareness programmes and the installations of emergency facilities with the support of local administration, non-governmental organizations and the private sector.
- To function as a leader of the team and take appropriate actions to smoothen the response and relief activities to minimize the adverse impact of disaster.
- To recommend the Commissioner of Relief (CoR) and State Government for declaration of disaster.

1.3.2 Role of Private Sector

- The private sector should be encouraged to ensure their active participation in the pre-disaster activities in alignment with the overall plan developed by the DDMA or the Collector.
- They should adhere to the relevant rules regarding prevention of disasters, as may be stipulated by relevant local authorities.
- As part of CSR, undertake DRR projects in consultation with district collector for enhancing district's resilience.

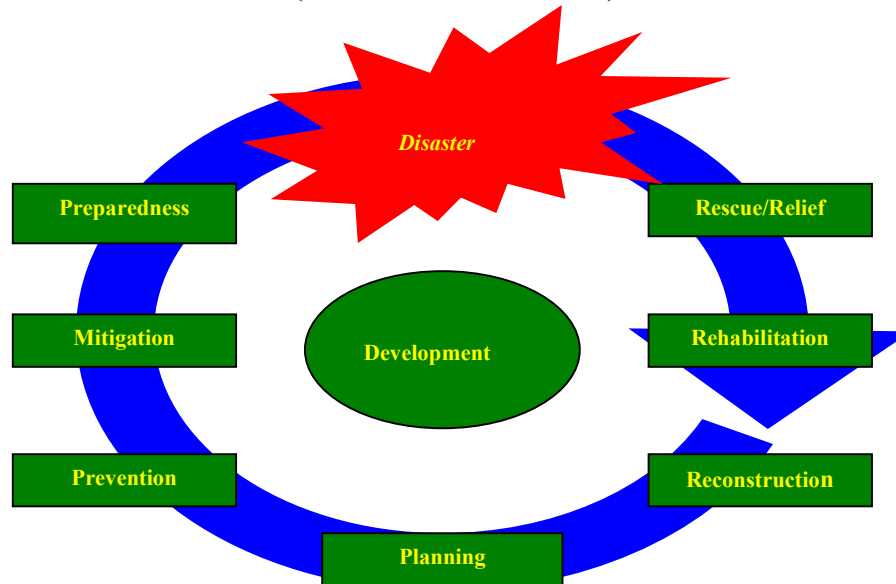
1.3.3 Role of Community Groups and Volunteers Agencies

- Local community groups and voluntary agencies including NGOs normally help in prevention and mitigation activities under the overall direction and supervision of the DDMA or the Collector.
- They should be encouraged to participate in all training activities as may be organized and should familiarize themselves with their role in disaster management.

1.3.4 Role of Citizens

- It is the duty of every citizen to assist the Deputy Commissioner or such other person entrusted with or engaged in disaster management whenever demanded generally for the purpose of disaster management.

1.4 HOW TO USE THE PLAN (DDMP FRAMEWORK)



Since the District Disaster Management Plan is concerned with response plan of the many hazards to which the district and the citizens may be exposed to before, during and after a disaster, it will operate in accordance with the six phases of disaster management cycle;

- In significant emergencies or disasters, Deputy Commissioner or the chairperson of DDMA will have the powers of overall supervision direction and control as may be specified under State Government Rules/State Disaster Management Plan guidelines.
- The district EOC will be staffed and operated as the situation dictates. When activated, operations will be supported by senior officers from line departments and central government agencies; private sector and volunteers organizations may be used to provide information. Data and resources to cope with the situation.
- The DDMA may recommend for action under Section 30 of DM Act.
- Facilities that have been identified vital to operation of the district government functions have been identified.
- The Deputy Commissioner or his designee will coordinate and control resources of the District.
- Emergency public information will be disseminated by all available media outlets through the designated media and information officer.
- Prior planning and training of personnel are prerequisites to effective emergency operations and must be considered as integral parts of disaster preparations.
- Coordination with surrounding districts is essential, when an event occurs, that impacts beyond district boundaries. Procedure should be established and exercised for inter district collaboration.
- Departments, agencies and organizations assigned either primary or supporting responsibilities in this document must develop implementation documents in order to support this plan.

- When local resources prove to be inadequate during emergency operations, request for assistance will be made to the State or higher levels of government and other agencies in accordance with set rules and procedures.
- District authority will use normal channel for requesting assistance and / or resources, i.e., through the District Emergency Operations Center (DEOC) to the State EOC. If state resources have been exhausted, the state will be provided to the citizens of the affected areas in the district.
- The District EOC will coordinate with the State EOC, Agencies of the Govt. Of India like IMD/CWC to maintain upto-date information concerning potential flooding, cyclones etc. As appropriate, such information will be provided to the citizens of the affected areas in the district.
- Upon receipt of potential problems in these areas, DEOC/designated officials will appropriately issue alert and notify action to be taken by the residents.
- Disaster occurrence could result in disruption of government functions and, therefore, all levels of local government and their departments should develop and maintain procedures to ensure continuity of Government action.

1.5 Levels of Disasters

According to **Section 2(d)** of the Disaster management Act, 2005 “**Disaster means a catastrophe, mishap, calamity or a grave occurrence in any area, arising from natural or man-made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.**”

The plan would be put into action considering the situation prevailing at a given point of times as per the level of disaster in hand.

L concept has been developed to define different levels of disasters in order to facilitate the responses and assistances to States and Districts.

- **L0 level** denotes normal times which will be utilized for close monitoring, documentation, prevention and preparatory activities. Training on search and rescue, rehearsals, evaluation and inventory updating for response activities will be carried out during this time.
- **L1 level** specifies disaster that can be managed at the District level, however, the State and Centre will remain in readiness to provide assistance if needed.
- **L2 level** disaster situations are those, which require assistance and active participation of the State, mobilization of its resources for management of disasters.
- **L3 level** disaster situation is in case of large scale disaster where the State and District authorities have been overwhelmed and require assistance from the Central Government for reinstating the State and District machinery as well as for rescue, relief, other response and recovery measures. In most cases, the scale and intensity of the disaster as determined by the concerned technical agency like IMD are sufficient for the declaration of L3 disaster.

1.5.1 Trigger Mechanism

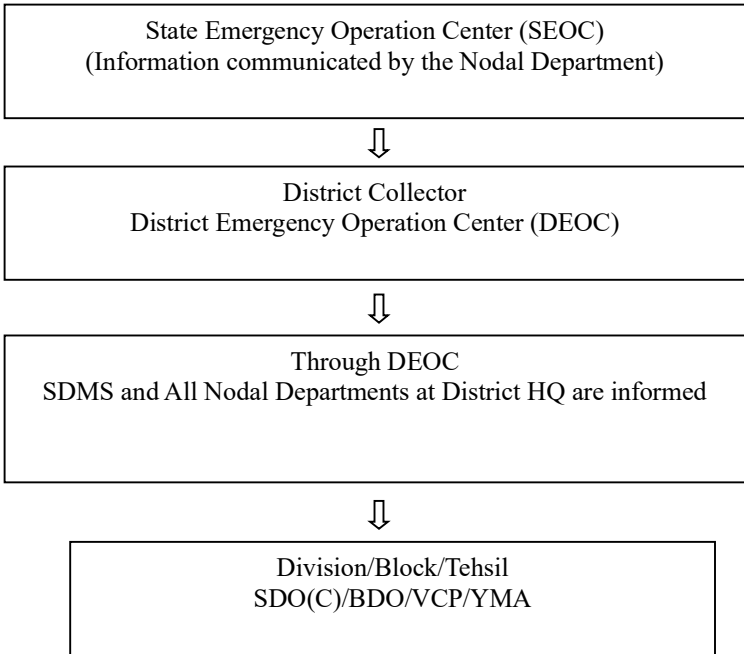


Figure 1. With Warning information flows from Top- Down

(a)Warning Signal Available

In such case the Govt. Of India/State Govt. has authorized agencies generating such early warning signals; in such case the matter is very urgent needing action at Sub-Division/Block/Tehsil/Village levels, the alerts and action points will go directly to all concerned. Arrangements need to be in place to ensure prompt receipt of these signals and action thereon. After such warning/advisory received by the State Govt., the SEOC will communicate to the DEOC urgently. The DEOC will communicate such warnings to the departments at the district level. The information flow in such case will be as follows:

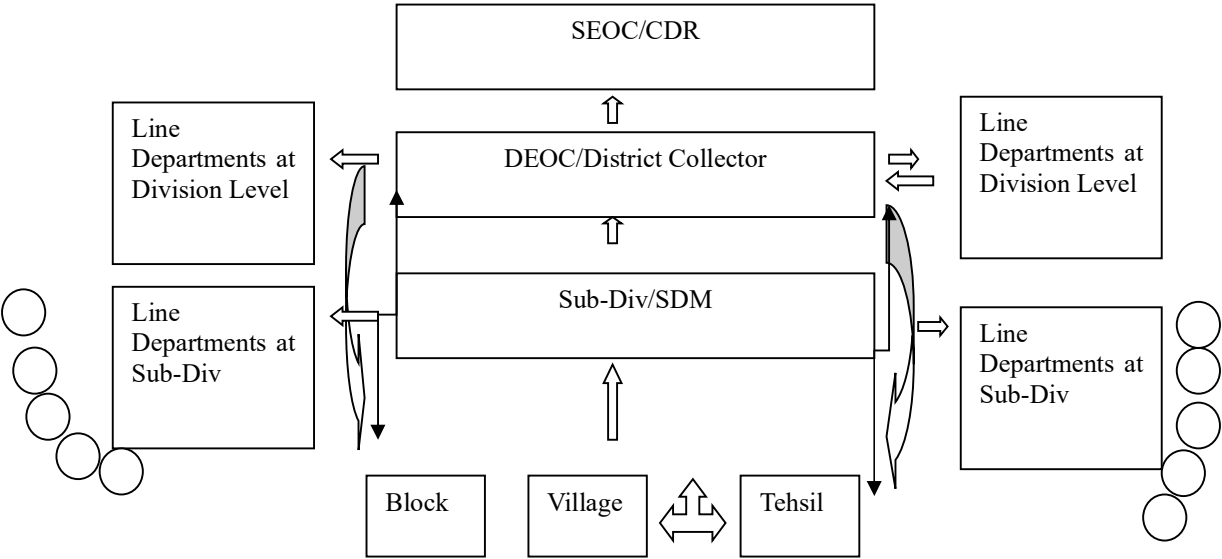


Figure 2. Without warning-information, generally, should flow bottom side-up but it is a crisscross scenario

(b) Without Early Warning Signal

When disaster occurs without any early warning in that case the information starts from the place of incidents through government agency or otherwise and the institutional mechanism in such cases will be as follows:-

- The concerned village will report to the Panchayat, block, police station/SDM/DM and the information will be sent to the Deputy Commissioner.
- DDMA will assess the information and assess the disaster to be of the level **L0, L1, L2 or L3**.
- DEOC will be activated and if required the SEOC will be kept at alert if assistance needed; otherwise information of the incident will be passed on to SEOC.
- DDMA will convene the meeting of DEOC and plan the management of the disaster as Incident Response Plan.
- The respective Incident response teams will be rushed to the site for effective management.

1.6 Approval mechanism of the Plan

As per **Section 30(1)** of the DM Act 2005, DDMA 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 and as per **Section 31 (2)** of the DM Act, the District Plan shall be prepared by the District Authority, after consultation with the local authorities and having regards to the National Plan and the State Plan, to be approved by the State Authority.

1.7 Plan review and updation periodicity

1. Training: After developing a plan, it must be disseminated and managers must be requested to train their personnel so that they have knowledge, skills and abilities needed to perform the task identified in the plan. Personnel should also be trained on the organization-specific procedure necessary to support those plan tasks.

2. Exercise the Plan: Evaluating the effectiveness of plan involves a combination of training events, exercise and real-world incidents to determine whether the goals, objectives, decisions, actions and timing outlined in the plan led to a successful response. The purpose of an exercise is to promote preparedness by testing polices plans and training personnel.

3. Revise and Maintain: Planning teams should establish a process for reviewing and revising the plan. Reviews should be a recurring activity. Review on an annual basis is considered minimum. It should be mandatory to consider reviewing and updating the plan after the following events:

- a. A major event.
- b. A change in operational resources (e.g., policy, personnel, organizational structures, Management processes, facilities, equipment)
- c. A formal update of planning guidance or standards.
- d. Each activation.
- e. Major exercises.
- f. A change in the district's demographics or hazard or threat profile.
- g. The enactment of new or amended laws or ordinances.

Therefore the District Disaster Management Plan (DDMP) of Lunglei will be internally reviewed on a yearly basis and will be updated or re-affirmed. The updates or re-affirmed documents may be used to summarize the accomplishment of the past years and help the administration to prioritize mitigation goals for the next year.

CHAPTER - II

HAZARD, VULNERABILITY, CAPACITY AND RISK ASSESSMENT (HVCRA)

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

2.1 Socio Economic Profile of the District

2.1.1 Location

Lunglei District is located in the southern part of Mizoram. It is bounded by the Saiha District, Lawngtlai district, Serchhip District and Mamit District on the south-east, south-west, north-east and north-west respectively. It shares international borders with Myanmar in the east and Bangladesh on the west.

Lunglei District occupies more or less the central part of Mizoram, the National Highway 2 coming from Manipur viz Seling and Serchhip passes through the town which links Aizawl, the state capital of Mizoram at a distance of 235 kms. Another route named World Bank road originating from Aizawl via Thenzawl town also links Lunglei at a distance of 164 kms.

Location : 22°30' N - 23°18' N latitude
92°15' E - 93°10' E longitude
Altitude: 1222 metres.

2.1.2 Area and administrative division

Lunglei Town is the second largest settlement of Mizoram and the district headquarters of Lunglei District is located in the south-central part of Mizoram. Lunglei Town is located between longitudes 92°42'45" E to 92°50'05" E and latitudes 22°48'18" N to 22°56'55" N, falling within the Survey of India topographical maps Nos.84B/09 and 84B/13. The total geographical area of Lunglei town, spanning from Thaizawl in the south to Kawmzawl in the north, and Hauruang in the west including Vanhne in the north-west to Zobawk in the east is 55.08 sq.km in terms of dimensions.

The District had been divided into two Sub-Divisions and also divided into three Rural Development Blocks as below:

- Lunglei Sub-Division.
- Tlabung Sub-Division.

Lunglei R. D. Block	: 1,117.06 sq. km.
Lungsen R. D. Block	: 1,046.29 sq. km.
Bunghmun R. D. Block	: 1,389.26 sq. km.
Total area of the District	: 3552.61 sq. km.

2.1.3 Demographic Details(Stastical Handbook Lunglei, 2016, 2011 Census)

Total Population	: 1, 61,428
Male	: 82,891
Female	: 78,537
Density	: 36 persons per sq.km

2.1.4 Household Details

Lunglei R. D. Block	:	12,107
Lungsen R. D. Block	:	7788
Bunghmun R. D. Block	:	3,201

2.1.5 Literacy Rate in Percentage

Literacy percentage of the District	:	88.86
Literacy percentage of Male	:	92.04
Literacy percentage of Female	:	85.49

2.2 Disasters Identified by High Power Committee, India

Water and Climate Related Disaster	Floods and Drainage Management
	Cyclones
	Tornadoes & Hurricanes
	Hailstorm
	Cloud Burst
	Heat Wave & Cold Wave
	Snow Avalanches
	Droughts
	Sea Erosion
	Thunder & Lightning
Geologically Related Disaster	Landslides & Mudflow
	Earthquakes
	Dam Failures/Dam Bursts
	Mine Fires
Chemical, Industrial & Nuclear Related Disaster	Chemical & Industrial Disasters
	Nuclear Disasters
Accident Related Disasters	Forest Fires
	Urban Fires
	Mine Flooding
	Oil Spill
	Major Building Collapse
	Serial Bomb Blasts
	Festival Related Disasters
	Electrical Disasters and Fires
	Air, Road and Rail Accidents
	Boat Capsizing
Village Fire	
Biologically Related Disasters	Biological Disasters & Epidemics
	Pest Attacks
	Cattle Epidemics

2.3 Matrix of Past Disaster in the District from Natural and Manmade

As per records of DM&R Branch DCs Office., incidents of disasters in the district for the past three years are shown as under:

2.3.1 Record of Natural Calamities (2021-2022)

Sl. No	Calamity	Damage					
		Residential Houses damaged			Casualty		Agriculture
		Fully	Severely	Partially	No. of lives lost	No. of injured	Cropped area damaged (in lakh ha.)
1	Landslide	-	-	-	-	-	-
2	Cyclone/ Storm	-	-	-	-	-	-
3	Fire	12	-	2	-	-	0.0017
4	Flood	-	-	-	-	-	0.002
5	Pest Attack	-	-	-	-	-	-
6	Cloudburst	-	-	-	-	-	-
7	Hailstorm	-	-	-	-	-	-

2.3.2 Record of Natural Calamities (2022-2023)

Sl. No	Calamity	Damage					
		Residential Houses damaged			Casualty		Agriculture
		Fully	Severely	Partially	No. of lives lost	No. of injured	Cropped area damaged (in lakh ha.)
1	Landslide	1	1	2	-	-	0.0000066
2	Storm/ Cyclone	1	-	2	-	-	-
3	Fire	7	3	2	-	-	0.0000121
4	Flood	7	34	29	-	-	0.0002901
5	Pest Attack	-	-	-	-	-	-
6	Cloudburst	-	-	-	-	-	-
7	Hailstorm	-	-	-	-	-	-

2.3.4 Road Transport Accidents

The figures of road accidents as per record from SP Office, Lunglei District is shown in the following table:

Road Accidents in Lunglei District			
Year	No of Accident	No of person	
		Killed	Injured
2019	4	3	2
2020	1	1	1
2021	1	-	-
2022	1	-	-
2023	6	5	1

2.4 Hazard Risk Assessment and Vulnerability Mapping

For the purpose of HRVA the following are taken into consideration.

2.4.1 Urbanization

Being the second largest settlement of Mizoram the District headquarters has been

experiencing a steady urbanization and increase in population. A number of developmental activities are being taken up in various parts of the district. These activities are generally undertaken without considering the geo-environmental factors like instabilities of the existing slopes, bearing capacity of the land, etc.

2.4.2 Climate

The climate of Mizoram, as a whole, is controlled by its locations, physiographic, pressure regime in the North-West India and Bay of Bengal, local mountain and valleys winds. In addition, the Chin Hills, Arakan Yoma Hill Tracts and Chittagong Hill Tracts also play an important role in shaping the climatic condition of the State. The Climate of Mizoram is of Tropical Monsoon Type. So, Lunglei District enjoys a moderate climate owing to its tropical location. It is neither very nor too cold throughout the year. The District falls under the direct influence of the south west monsoon. As such the area receives an adequate quantity of rainfall which is responsible for a humid tropical climate characterized by short winter and long summer with heavy rainfall.

2.4.3 Rainfall

Heavy rainfall generally starts from the second part of May and this heavy downpour usually ends in the first part of October. The total amount of rainfall increases at the rate of 8.53 mm per year.

In the case of Lunglei Town, during the period of 32 years, total annual rainfall is highest in 2000(5554mm) and lowest in 2008 (1742.5mm). The average rainfall received every year is 3204.73 mm.

The monthly rainfall data for the District recorded for a period of six years i.e. 2016 – 2021 and upto August 2021 from DAO Office, Lunglei is shown in Table below:

Months	2018	2019	2020	2021	2022	2023
January	Nil	Nil	Nil	Nil	7.7	
February	-	50.5	15.1	Nil	6.4	
March	-	53.4	Nil	Nil	0.2	
April	-	214.5	102.6	13.5	14.3	
May	-	468.8	296.3	121	115.9	
June	104.08	928.2	551.94	955.1	258.5	
July	189.16	2271.4	1579.2	601.5	-	
August	445.75	1079	571.9	195.5	-	
September	219.5	861.5	637.8	116.4	-	
October	155	98	663.2	85.2	-	
November	42.2	Nil	95.2	9.8	-	
December	Nil	Nil	Nil	42.7	-	
Total	1155.6	6022.3	4513.24	2031.2	403	

2.4.4 Geology

Lunglei District occupies the mid way between the northern and the southern region of the state and is within the tropical region which can be proved that the Tropic of Cancer 23°N passes through Hmuifang village which is about 50 km. away from the State capital. The rocks formation represents a monotonous sedimentary sequence of argillaceous and arenaceous rocks of Surma group. The sediments are mainly represented by sandstones, siltstones, shales and their intermixtures in different proportions. The formations are folded into almost N-S trending doubly plunging anticlines and corresponding synclines, and affected by longitudinal, oblique and transverse faults of varying magnitudes.

2.4.5 Topographic Details

The general topography of Lunglei District varies widely. While the eastern and northern parts of the District are characterized by a rather hilly terrain with a high and prominent relief, the western and south western parts of the district, on the other hand is portrayed by comparatively low and less prominent ridges. The areas, as a whole is characterized mainly by several ridge lines and the intervening valleys.

The western flank of the District bordering Bangladesh is characterized by several low undulating hillocks with varying dimensions. The western boundary of the district is formed by Sazuk lui (Bara Harina Chhara) until it joins the Karnaphuli River. Sazuk lui originates in the north-western side of the district near Saisen village, and flows towards southern direction for about 50km before it ultimately empties itself into the Karnaphuli River. The other half of the western boundary, i.e., the south western boundary of the district, on the other hand, is formed by another two major rivers. Tuichawng River, which enters the district from Chawngte village flows towards north and forms the south-western boundary for about 25 km., before it flows inside the district. The Khawthlangtuipui (Karnaphuli) river is one of the most important rivers within the district. The total length of the Khawthlangtuipui River within the District is about 34 kilometers.

The western and southern parts of the District are characterized by linear ridges which run more or less parallel to one another. The hills in these areas are generally low dissected, undulating and low relief. The ridges are long and slender and separated by wide valleys and small hills. One ridge starts from the south of Chawilung village which extends towards north for a distance of about 15 km. This ridge passes through Chawilung, Hmunthar and Zohmun villages, and is terminated by the Karnaphuli River. This ridge is locally named Puankhai Tlangdung.

To the east of this Puankhai Tlangdung, runs Tuilianpui or Sazai lui which enters the study area from Mamit district near Mar S village. On the eastern side of this ridge, flows Kau lui which originates from Thorang tlang in the north. To the north Kau lui, extends a long ridge towards north which starts from Tleu tlang near Tleu village. This ridge passes through Kawnpui and Darngawn villages. The eastern side of this ridge is bounded by Tut (Gutur) river. The north-western boundary of the District is formed by Mar lui which enters the town area from Mamit district.

The Chhimtuipui (Kolodyne) river is one of the most important rivers within the district. It enters the district from Myanmar and flows in the northwest direction till it is joined by the Tuichang River from where it flows in the southward direction. The total length of the river within the district is measured to be 77 kilometers.

2.4. 6 Geomorphologic Statistics of Lunglei District

Sl. No	Geomorphic Unit	Area (in sq.km)	Village within	%
1	High Structural Hill	95.63	S. Chawngtui, Aithur, Tarpho, Cherhlun, Thingsai, S. Lungleng, Lungpuitlang, S. Vanlaiphai, Darzo, Sairep and Mamte	2.11
2	Medium Structural Hill	592.82	Bualpui V - Zote S ridge, Dengsur and Khawlek, Ngharchhip, Thingsai, Muallianpui and Khawhri Villages, Thingfal, Thlengang and Tawipui Villages, Thualthu in the south to Kawmzawl in the north.	13.06
3	Low Structural Hill	3322.52	Khawthlangtuipui, Karnaphuli, Sazuk tui, Tuichawng, De, Kau,	73.22

			Tuichang, Mat, Tlawng, Tiau and Tuipui rivers and along their tributaries	
4	Valley Fill	213.63		4.71
5	Flood Plain	12.94		0.29
6	Linear Ridge Area	300.45		6.62
	Total	4538.00		100

2.4.7 Litho logical Statistics of Lunglei District

S.No	Rock types	Area in sq.km	%
1	Sandstones	2264.51	49.90
2	Siltstone & Shale	2041.18	44.98
3	Clay sand	218.14	4.81
4	Gravel, Sand & Silt	14.7	0.31
	Total	4538	100

2.4.8 Slope

Lunglei District is uniquely characterized by several hill ridges running almost parallel to one another, most of which roughly run from north to south, except the eastern hill ridges around Tarpho, Ngharchhip, Thingsai, Lungleng and Muallianpui villages, where the hill ridges almost run in different directions.

S.No	Slope (%)	Area (in sq. km.)	%
1.	0 – 3	93.63	2.06
2.	3 – 10	593.77	13.08
3.	10 – 15	13.99	0.31
4.	15 – 25	201.86	4.45
5.	25 – 35	430.73	9.49
6.	35 – 50	1490.92	32.85
7.	50 – 70	1095.47	24.14
8.	70 – 100	483.49	10.65
9.	>100	134.13	2.96
	Total	4538.00	100.00

2.4.9 Slope Aspects

The aspect of the area has been conveniently divided into nine (9) slope facts as per the table given below:

S.No	Aspect	Area (in sq. km.)	%
1.	Flatland	188.85	4.16
2.	North	401.28	8.84
3.	North-East	569.33	12.55
4.	East	684.11	15.08
5.	South-East	459.18	10.12
6.	South	427.61	9.42
7.	South-West	671.51	14.80
8.	West	696.73	15.35
9.	North-West	439.40	9.68

	Total	4538.00	100.00
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2.4.10 Land Use /Land Cover

The major land use/land cover classes within the district can be broadly categorized into built-up land, agricultural land/ horticultural land, forests, bamboo forest, forest plantations, shifting cultivation, scrubland and river/water body. Built-up land includes settlement, recreational, commercial areas, quarries, isolated government builds etc.

S.No	Category	Area (in sq. km)	%
	Built-up land		
1.	Town	6.70	0.15
	Village	17.19	0.38
	Agriculture Land		
2.	2.1 Cropland		
	Kharif	8.99	0.20
	2.2 Plantation		
	Citrus woodland	2.31	0.05
	Banana	3.89	0.09
	Pineapple	0.21	0.005
	Tea	0.20	0.005
	Tung	0.61	0.01
	Misc. Agriculture plantation	0.81	0.02
	Forest		
3.	3.1 Dense	524.63	11.56
	3.2 Medium dense	486.08	10.71
	3.3 Less dense	733.08	16.15
	3.4 Bamboo	1736.08	38.26
	3.5 Forest plantation		
	Teak	22.46	0.49
	Miscellaneous	0.83	0.02
	Shifting Cultivation		
4.	4.1 Current shifting cultivation	255.67	5.63
	4.2 Abandoned shifting cultivation	623.57	13.74
5.	Scrub land	83.52	1.84
6.	Water body	31.17	0.69
	Total	4538.00	100.00

2.5 Identification of Hazards that can occurred in the District

Natural disaster	Man-made disasters
Earthquake	Forest fire
Landslides/Landslip/Mudflow/Land sinking	Road accident
Cyclone (Thlipui)/ Hail storm(Rial Tla) /Clouds burst (Ruah Bawhawk)	Urban fire
High speed wind/ Tropical Storm	Stampede
Droughts	Electrical disaster
Bamboo flowering (Mautam)	

Floods	
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2.5.1 Hazard Analysis

Sl. No	Hazard	Community/ Area Prone to Hazard	Historical Data	
			Year of occurrence	Frequency / Intensity
1	Earthquake	Whole District	Every year	
2	Flood	Tlabung/Lungsen/Bunghmun Block	Every year	M
3	Storm/ Cyclone	Whole District	Every year	H
4	Landslide	Whole District	Every year	H
5	Drought	Agricultural areas	Dry season	L
6	Accident(s)	Whole District	Every year	M
7	Fire	Whole District	Every year	H

2.5.2 Probable Months for occurrence of Various Hazards

Sl. No	TYPES OF HAZARDS	MONTH OF OCCURRENCE												
		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	
1	Cyclone				◄			►			◄			►
2	Flood						◄			►				
3	Drought			◄			►							
4	Earthquake	◄												►
5	Fire	◄												►
6	Landslide				◄						►			
7	Accidents	◄												►

2.5.3 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,	Whole district

			educational institutions.	
2	Flood	Loss of crop, agricultural produce disrupted, spread of diseases, epidemics.	Agriculture, embankments, livelihood and livestock.	Tlabung, Lungsen, Bunghmun RD Block, parts of it.
3	Drought	Failure of farming, loss of crops, scarcity of water supplies, livestock.	Crops, irrigation sources, livestock and drinking water supplies.	Whole district
4	Earthquake	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, live stocks. Agriculture, educational institutions.	Whole district
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	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.	Whole district

2.5.4 Vulnerability Analysis

Sl . No	Vulnerability	Vulnerability Against Each Hazards				
		Cyclone	Landslide	Fire	Earthquake	Epidemic
1	Roadways	Whole district	Whole district		Whole district	
2	Water ways		Tlawng pump areas and water lines		Whole district	Whole district
3	Hospitals	Hospitals	Whole district water lines	Hospitals	Whole district	Whole district
4	Food supplies	Whole district	Whole district	Centers in rural and urban area	Whole district	Whole district
5	Communica-tion	Whole district	Whole district		Whole district	Whole district
6	Population	Whole district	Whole district	Whole district	Whole district	Whole district

2.5 Specific Hazard Analysis

2.5.1 Landslide

Causes of landslide in Lunglei District:

1. Almost all the landslides in the district have been caused by the combined effect of two or more factors:-

- Steep Slopes with loose overburden consisting of clayey and silky materials.
- Heavy rain and occasional cloud burst, resulting in percolation of water into the loose overburden and along tension cracks.
- Soil erosion and head ward erosion by streams.
- Disturbance of the slope by excavation for construction of buildings and roads.
- Loading of vulnerable slopes by concrete building and structures.

2. Though removal of natural vegetation for jhum cultivation is considered as a cause of slope failure such instances are very few in Lunglei District.

3. A potential source of future landslide in the dumping of debris from rock quarries along steep hill slopes which may result in destruction of vegetation cover leading to slope erosion and ultimately to slope failure.

2.5.1.1 LANDSLIDE HAZARD ZONATION OF LUNGLEI TOWN

A) VERY HIGH HAZARD ZONE:

This zone is highly unstable, and is at a constant threat of landslides, especially during and after an intense spell of rain. This zone has steep slopes with loose and unconsolidated materials, and also areas where active landslides had occurred. This zone is dispersed in few places as found in eastern side of Bazar Veng along Parallel road, part of Zohnuai and Serkawn area, Zotlang (below Tourist Lodge) and Rahsi Veng – Sazaikawn road below Chanmari and Lunglawn. The Lower part of Theiriati locality along Aizawl road also falls within the Very High Hazard Zone. It includes areas where unplanned quarrying, such as Vawngzawl quarry, road cutting and other human activities are actively undertaken. The vegetation is generally sparse. The exposed rocks are characterized by numerous bedding and joint planes which facilitates the chance of sliding down along the slope. Therefore, it is best to avoid this zone as far as possible, except if unavoidable. This zone constitutes an area of 1.022 sq.km. and forms 1.84 % of the total town area.

B) HIGH HAZARD ZONE:

It includes areas where the probability of sliding debris is at a high risk due to weathers rock and soil debris covering steep slopes which when disturbed are prone to landslides. Most of the pre-existing landslides fall within this category. This zone comprises areas where the slope aspect and dip direction of the rocks, which are usually very steep, (about 45 degrees or more) are parallel to each other. This makes them susceptible to slide along the slope. Several lineaments, fractured zones and fault planes also traverse the high hazard zone. Areas which experience constant erosion by streams because of the soft nature of the lithology and loose overlying soil, fall under this class. Vegetation is generally either absent or sparse. Owing to the above reasons, this zone is geologically unstable and should be avoided. This zone occupies a fairly large area i.e, about 7.70 sq km which is 13.92 % of the total area. This zone is found in Rahsi Veng, College Veng, Hauruang, Theiriati, eastern side of Bazar Veng, etc. The High hazard Zone is also found along the intersection of steep slope with road cutting.

Hazard Zones	Area (in sq. km)	Percentage
Very High Hazard Zone	1.01	1.84

High Hazard Zone	7.67	13.92
Moderate Hazard Zone	19.76	35.87
Low Hazard Zone	17.05	30.96
Very Low Hazard Zone	9.59	17.41
Grand Total	55.08	100.00

Table showing Hazard Zone of Lunglei District (Town Area)

C) LOW HAZARD ZONE

This includes areas where the combination of various controlling parameters is unlikely to adversely influence the slope stability. In other words, this zone comprises areas where the chance of slope failure is low or unlikely to occur. Vegetation is relatively dense, though some areas may not be covered with soft and unconsolidated sediments, the slope angles are generally low, about 30 degrees or below. This zone extends over an area of about 17.11 sq.km and form 30.96 % of the total town area.

D) VERY LOW HAZARD ZONE

This zone mainly comprises vegetative areas and is located away from human settlement. As such, it is assumed to be free from present and future landslide hazards. The dip and slope angles of the rocks are fairly low. Although the lithology may comprises of soft rocks and overlying soil debris in some areas, the chance of slope failure is minimized by low slope angle and vegetation present within its vicinity. This zone covers an area of about 9.62 sq.km and forms 17.41 % of the total town area.

2.5.2 Earthquake

Earthquake is the result of a sudden release of energy in the Earth's crust that creates seismic waves. The occurrence of earthquake is a global phenomenon. They are generated due to the accumulation of stress within rocks which have results in movement along the faults that have evolved through geological and tectonic processes. Earthquakes produce various effects to the area they act upon. The effect of the vibration produced by earthquake usually leads to destruction of structures such as buildings, bridges and dams. Amongst the natural hazards, earthquake is the most devastating phenomenon resulting in disruption of public property and loss of human life. Earthquake can also trigger landslides and those that take place under the ocean can sometimes cause Tsunami.

Mizoram falls under Zone V of the Very High Damage Risk Zone. If an earthquake occurs in Lunglei, it could be a magnitude of 7.5 and above on the richter scale. Accordingly, earthquakes occur at intervals ranging from 35-40 years. The last major earthquake that occurred in the north east was in the year Shillong in 1897 ($M \leq 7$) and Assam in 1950 ($M=8.7$). As such, a major earthquake can be predicted in the NE India, particularly in Mizoram. As we already know, Mizoram is steadily developing state and there is extensive organization. However, we do not have any guideline, rules, regulations or bye-laws for earthquake resistant buildings. In fact, Mizoram was shaken by tremors measuring 5.1 R.c. on 4.3.2001. Though it may not have caused any extensive damage, it could well have been a warning to major earthquake in the near future.

- The state forms a part of the most severe seismic zone in the country, namely Zone V of Seismic Zoning Map of India that is referred as Very High Damage Risk Zone. A large number of moderate to large magnitude earthquakes have occurred within the State boundary as well as within 100 Km distance around it.

- According to the study conducted by MIRSAC (Seismic Hazard Zonation of Mizoram), the seismic vulnerability of Mizoram shows longitudinal variations in hazard levels which is very correlated with the seismicity map of the entire North-East India region. The hazard level is maximum in the northern part and gradually decreases towards the southern part of the State. In the Seismic Zoning map of India, zone II, III, IV and V have been respectively assigned hazard factor of MSK intensity of VI (or less), VII, VIII and IX (or above) with the corresponding zone factors designated as 0.10 g, 0.16 g, 0.24 g, 0.36 g respectively. When the PGA values within the State is compared with that of the seismic zone map of India, it has been found that almost all part of the State fall within zone V, the highest seismicity in the country
- For better understanding of each of the hazard classes within the state, a rough and approximate relationship between peak ground acceleration (PGA) and magnitude (in Richter) is presented. Hazard class having PGA values ranging from 0.45 g to 0.5 g may experience earthquakes of magnitude ranging from 7 to 8 within a span of 100 years with a chance of 10 out of hundred.
- There are twelve different hazard classes characterized by different peak ground acceleration (PGA) values which are classified on the basis of 0.02 g interval. 0.52-0.54 g class covers the northern most part of the state, it constitutes an area of 755.02 sq km from 3.58 per cent of the total study area. 0.50-0.52 g class zone occupies 1132.92 sq km which is 5.37 per cent of the total study area. 0.48-0.50g class spread over an area of about 756.77 sq km and occupies 3.59 per cent of the total study area. 0.46-0.48g and 0.44-0.46g classes extend over 668.23 sq km and 772.00 sq km, they form 3.17 percent and 3.66 per cent of the total study area respectively. 0.42-0.44g and 0.40-0.42g classes cover 727.32 sq km and 787.41 sq km which comprise 3.45 per cent and 3.74 per cent of the total study area respectively. 0.38-0.40g class extends over an area of 1046.63 sq km which is 4.96 per cent of the study area and 0.36-0.38 class covers 6055.78 sq km which comprises 28.73 per cent . 0.34-0.36g zone occupies 5923.26 sq km which is 28.10 per cent. 0.32-0.34g and 0.30-0.32 classes extend over 2350.06 sq km and 105.60sq km, they form 11.15per cent of the total study area respectively.

2.5.3 Cyclones

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

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

2.5.3.1 Role of the District Administration in Lunglei District:

The role of the District administration in the event of cyclone disaster is based on two norms:

1. The Deputy Commissioner should be familiar with the measure to be taken in the event of a disaster.
2. Action to be taken by various administrative wings in the event of a cyclone should be clearly defined through issue of orders.

The District Administration has a lot of responsibilities before and after the cyclone.

A. Before Cyclone:

1. The District administration should review and co-ordinates regularly the measures necessary to face cyclone threat.

2. The District administration should make arrangements for ensuring the following items in the cyclone shelters-
 - 1) Storage of food items essential commodities (with the help of F&CS Dept).
 - 2) First-aid kits (with the help of H&FW Dept).
 - 3) Availability of water (with the help of PHE Dept).

District administration should ensure wide publicity of cyclone warnings through local mass media including AIR and DDK.

B. After the Cyclone:

1. The District administration should arrange for construction of temporary shelters and provide water proof plastic sheets (silpaulin) as and when necessary (with the help of DM&R Department).
2. Supply of all essential commodities and petroleum products should be ensured to all the habitants in the disaster affected areas.
3. Supply of electricity must be restored by carrying out repair work to dismantle wires of uprooted posts and the damaged transformers.
4. Minimum communication in the affected District should be restored immediately.
5. The District administration should stay vigilant on the possible outbreak of epidemics. Appropriate measures for inoculation and vaccination must be undertaken to prevent the outbreak of epidemic.
6. The District administration can also take help from voluntary organizations like the YMA, which is having mass support for maintaining relief operation.

2.5.4 Drought

Most of the agricultural land in Lunglei is rain-fed excepting some areas with assured irrigation. It received rainfall under the influence of the monsoon which starts in May and ceases in late October in normal years with monsoon becoming more and more erratic, drought situation poses a serious threat each year, the impact of drought is severely felt in the hilly areas where the drainage of water on the hill slopes are very fast.

Indicator of Drought:

- i) Low storage in reservoirs.
- ii) Poor recharge of ground water (measured by water in wells and tube wells).
- iii) Wilting of crops.
- iv) Meteorological drought-inadequate rainfall, uncertainly, long dry spells and unequal distribution.
- v) Hydrological drought-Water scarcity, lowering of the ground water table, depletion of water resources, drying up of tanks, wells and reservoirs.
- vi) Soil moisture drought-Run-off, seepage, evaporation and transpiration.
- vii) Agronomic drought-damage to the environment due to the factors mentioned above.

Factors to be Drought proofing:

- i) Looking for a pattern occurring in the past-when drought had occurred in the district, what was the intensity, and which were the affected areas in the District
- ii) Refer those reports-acts on the lesson from the past.

- iii) Keep the reservoirs, dams, water, harvesting structures, etc. filled up with available water. Teach the people not to waste.
- iv) Made the department/agency concerned responsible to do drought proofing and effectively monitor.
- v) Release of water to irrigation and drinking to be done economically and to reduce transmission loss.
- vi) Drinking water should take precedence over agriculture.
- vii) If the water supply is from reservoirs, regulate supply to enable it last till the monsoon comes.
- viii) Launch awareness drive; build on traditional practice for economic use of water.
- ix) Make use of the media and spread the message of Do's and don'ts by the community.
- x) 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.

2.5.5 Forest Fire

2.5.5.1 Main causes of forest fire in Lunglei District:

Man-made Fires: Fire accidents are quite common especially during the dry seasons.

- During jhum burning highly inflammable bamboo flakes and kindling charcoal makes way through wind velocity to adjoining area and sets fire to dry grass and leaf litter. Neglect on the part of the farmers to extinguish and control to the fire flames causes the spread of fire outside the jhum lands.
- Non clearance of safety zone around the jhum land before the commencement of jhum burning.
- Carelessness to put off the fire during the annual road side clearing spreads fire into the adjoining forests and plantations.
- Usually the grazers in order to obtain new flush of grass burn the forest floor intentionally and such repeated burning in the same locality ultimately eliminates the woody plants and even the palatable grasses, thus decreasing the forest value by declining productivity of fodder.
- Negligence in extinguishing charcoal kilns inside clear forests.
- Burning the forest floor by the hunters to obtain clear visibility of wild animals.
- Carelessness in the control of burning operation during site preparation and annual fire-line tracing.
- Burning cigarettes stub by passer-by is sufficient to ignite the grass and leafy matter during summer.
- Wood gatherers and wood cutters also cause fire damage due to carelessness.
- Accidents caused by fire affect both property and life. Hence, its effect cannot be neglected while considering disaster planning and mitigation of the state.
- Habitations in Urban and Rural areas in Mizoram are vulnerable to fire incidents due to many reasons. Most of which has been attributed to damage accidents caused by erroneous human activities leading to outbreak of fire.
- The State is also becoming increasingly vulnerable to electric accidents. The main causes of such accidents are :
 - Use of sub-standard electrical fittings.
 - Lack of routine check-up of over utilized electrical system.
 - Lack of trained electrician for wiring of homes.
 - Faulty electrical wiring at home.

- A combination of the above factors
- Another aspect of fire vulnerability of Urban areas is due to closely spaced house in the city.
- Most of the Urban houses are also not equipped with standard fire fighting tools (eg, extinguisher etc), let alone the construction of fire –escapes, as found mandatory in cities of developed countries.
- Rural areas are often the worst hit during fire outbreak as most of the facilities for fire-fighting are limited and people have to rely on convention system of fighting fire, which is less effective in case of large fire outbreaks.
- Unattended fire during shifting cultivation coupled with dry season and windy condition can propagate the fire to spread to adjoining settlement areas.
- Most of the villages in Mizoram still rely on fuel-wood on domestic purpose as well as for cattle fodder preparation. Such dry combustible materials are stored in close proximity to the houses which are vulnerable to fire and cause wider destruction if it spread
- Forest fires are another form of fire hazard that affects the State every year. Majority of the cause can be attributed to uncontrolled burning of jhum fields and unattended fire adjoining forest areas. The vegetation composition is also a factor influencing the vulnerabilities of areas to forest fires.

2.5.6 Tropical Storms and Wind Storms

- As far as wind hazard is concerned, the design wind speed in the whole state is 55m/s (198 km/h) which is the highest value specified in the country, occasionally reached when cyclonic wind made landfalls crossing Bangladesh and southern Myanmar. In such events, weakly built homes of wood, bamboo, thatched etc, as in category X in the atlas, and sloping roof such as thatched and tiles and those AC sheet and corrugated galvanized iron (GGI) sheet root which are not fully anchored and integrated will suffer more damage. The damage occurred in such high winds are of localizes nature and do not result in a disaster at the state level. But it will be very useful if wind resistance construction Guidelines are adopted and implemented for minimizing wind damages to buildings.
- The devastation caused by cyclone/wind storms on human life, domestic animals, agriculture, houses and public infrastructure has been recorded by DM & R Dept. for the period of 2008-2009 to 2013-2014.
- Wind and Cyclone Hazard classes of Mizoram can be classified as Very high, High and Moderate zones. Very high hazard zone covers an area of 3736.34 sq km which is 17.68 per cent of the total state area. High hazard zone extend over 7283.50 sq km which comprises 34.50 per cent of the total study area and moderate hazard zone covers 10061.17 sq km which constitutes 47.82 per cent of the total study area. The area statistic and map of Wind and Cyclone hazard zones of Mizoram is shown in the following table and figure respectively.

Hazard code	Hazard Class	Area (sq,km)	%
1	Very High	3736.34	17.68
2	High	7283.50	34.50
3	Moderate	10061.17	47.82
Total		21081.00	100.00

2.5.7 Floods

2.4.7.1 Causes of Flood

- Floods occur in river valleys, and low lying areas when river flow exceeds the capacity of the river channel, particularly at bends or meanders. Flood is one of the main Natural Calamities

faced by Lunglei District. Every year Lunglei District experience flood disaster in and around Tlabung Civil Sub-Division and some part of Bunglemun R.D Block. Floods often caused damage to homes, public places and crop lands. Settlements laying in close proximity to the river are prone to flood hazard and hence drowning often happens due to occupational and recreational activities close by the river. This happens especially during the monsoon period. In general most significant damages occur only to the crops and erosion of cropland lying in the fluvial flood plains of Tuipui (Karnaphuli).

2.5.7.2 Affected Village under Tlabung by Flood for past years

The following villages under Tlabung Sub-Division have been identified as flooding areas from verification reports of damages by flood received from Tlabung Division for three consecutive years 2017, 2018 and 2019.

Sl no	Names of Villages	Names of Villages	Names of Villages
1	Serhuan	Nunsury- I & II	Tlabung
2	Bindasora	Tablabagh	Balukaisury
3	Thekaduar	Silkur	Diblibagh
4	Tipperaghat	Ukdasury	Muriskata
6	Sugarbasora	Tuichawng	Samuksury
6	Khojoysury Chhuah		

2.5.8 Road Transport Accidents

2.5.8.1 Cause of road accidents

- Road accidents occur due to recklessness and carelessness of drivers.
- It can be a result of combination of recklessness and narrowness of roads in Lunglei.
- Damaged and steep roads can cause accidents.

2.5.8.2 Steps taken for prevention of road accidents

- Number of road accident is higher, except for the observance of the Traffic Week, No Tolerance Week, Safety Week annually, there must be regular and sustained campaigns to prevent and reduce the road accidents.

2.5.9 Pest Attack and Mautam (Bamboo flowering)

- Pest attack caused a tremendous loss to farmers during the growing season as well as after harvest. The most common pest causing loss to the farmer in Mizoram is rodents, grasshoppers, birds and worms.
- Mautam is a cyclic ecological phenomenon that occurs every 48/49 years in the north eastern Indian states of Mizoram and Manipur, where thirty percent of geographical area is covered by wild bamboos forests creating a wide spread famine in those areas.
- *Melocanna baccifera*, a species of bamboo, flowers at one time across a wide area.
- This event is followed invariably by a plague of Black Rats, which is called a 'rat flood' by the locals. This occurs as the rats multiply in response to the temporary windfall of seeds and leave the forest to forage on stored grain when the bamboo seeds are exhausted, which in turn cause devastating famine.
- In the past, famine caused by this phenomenon has played a significant part in shaping the region's political history. The most recent spate of flowering, on the bamboo species' genetically linked timetable, began in May 2006, and the state government had developed BAFFACOS (Bamboo Flowering Famine Combat Scheme) to mitigate the famine.

- Records from the British Raj indicate that Mizoram suffered famine in 1862 and again in 1911, after the region witnessed similar bamboo flowerings. The rats increased led to raid on granaries and the destruction of paddy fields, and subsequently to a year-long famine.
- The rodent outbreak in 2007 affected 91,892 families in 769 villages, due to this the villages in the rural areas had faced acute shortage of food supply. However, the Mizoram Government arranged continuous food supply to all the villages to provide the need to the affected families. The government has also taken steps to control the rodent population and also floated the Mizoram New Land Use Policy to address the problems of rural community.

CHAPTER -III

INSTITUTIONAL ARRANGEMENTS FOR DISASTER MANAGEMENT (DM)

The Disaster Management Act 2005 provides for an effective institutional mechanism for drawing up and monitoring implementation of disaster management plan for prevention and mitigating effects of disasters and for taking a holistic, coordinated and prompt response to any disaster situation. Under Section 78 of the DM Act 2005, powers are conferred to the State Government for making rules to carry out the provision of this Act and notify such rules in the official gazette.

3.1 District Disaster Management Authority

Section 25 of DM Act 2005 & National Policy on DM 2009 mandates establishment of District Disaster Management Authority for every district and provides its composition. District Disaster Management Authority will be headed by the respective Deputy Commissioner as the case may be, with the elected representative of the Local Authority as the Co-Chairperson ex officio. District Disaster Management Authority will act as the planning, coordinating and implementing body for Disaster Management at District level and take all necessary measures for the purpose of Disaster Management in accordance with the Guidelines laid down by the National Disaster Management Authority and State Disaster Management Authority. It will, inter alia, prepare the District DM plan for the District and monitor the implementation of the National Policy, the State Policy, the National Plan and the State Plan concerning its District.

The District Disaster Management Authority will also ensure that the Guidelines for prevention, mitigation, preparedness and response measures lay down by National Disaster Management Authority and State Disaster Management Authority are followed by all Departments of the State Government, at the District level and the Local Authorities in the District.

As per **Notification No.B.13011/102/2015-DMR Dated Aizawl, the 25th October, 2019**: and 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 Lunglei District comprising as below.

S. No	Name of Functionaries	Designation	Contact Number
1	Deputy Commissioner	Chairman	9943739336
2	Project Director, DRDA	Co-Chairman	9862286368
3	Additional D.C	Chief Executive Officer	9612638126
4	The Superintendent of Police	Member	9000705558
5	The Chief Medical Officer	Member	9436147956
6	The Superintending Engineer (P.W.D)	Member	9611208963
7	The Superintending Engineer (P.H.E.D)	Member	8731914282

3.1.1 Designated Meeting Venue

In the event of a major disaster with catastrophic consequences affecting the District capital i. e. Lunglei or any other parts of the District, when there is total disruption of communication system,

all members of the **District Disaster Management Authority** will have to assemble immediately within 1(one) hour after the occurrence of such disaster, in a pre-destined venue without waiting for any formal correspondence or any other means of communication from the Chairman or other Officers authorized in that behalf.

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

- 1) **Office of the S.P., Lunglei**
- 2) **D.C.'s Circuit House**

The Chairman/Deputy Commissioner shall be the Responsible Officer. He/She shall ensure the operation of the District Emergency Operation Centre (DEOC)/Control room round the clock during crisis period. The DEOC is responsible for maintaining the Resource Inventory in the IDRN Website.

If the Chairman is unable to preside over the meeting or fails to attend such meetings for any reason, the Co-chairman, the Project Director, DRDA will take the chair. If the Co-chairman is also absent, one of the senior members of the committee nominated by other members will preside over the meeting. There will be no quorum.

3.1.2 District Disaster Management Advisory Committee

As per **Section 28 of DM Act 2005**, the District Authority can constitute one or more advisory committee or sub-committees. In case of disaster in the district, response management will be the responsibility of the DDMA and its Advisory Committee(s), District Disaster Management Committee with the following members;

Sl. No	Committee Members by Designations	Sl. No	Committee Members by Designations
1	Sub-Divisional Officer(Sadar)	11	District Local Administrative Officer
2	Sub-Deputy Commissioner(DMR)	12	District Fisheries Development Officer
3	Commandant 2 Bn. MAP	13	District Research Officer
4	Superintendent Engineer (P&E)	14	Sport & Youth Service Officer
5	District Agriculture Officer	15	DCSO
6	District Education Officer	16	DI&PRO
7	District Urban Development Officer	17	Representative from Assam Riffle
8	Medical Superintendent, Civil Hospital	18	Representative from BSF
9	District Transport Officer	19	SDE(G)-BSNL

10	District Veterinary Officer	20	President, Sub. Hqrs YMA
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3.1.3 Block Disaster Management Committee: There shall be a Disaster Management Committee at the Block level. This Committee will assist in the implementation and coordinate with the programmes undertaken by the Block and of the Village Level Committee. The Committee shall consist of the following members:

- Chairman : BDO.
 Member Secretary : Principal/Headmaster of local High School or of Higher Secondary School.
 Members : 1. SDPO or his representatives.
 2. Medical Officer.
 3. EE/SDO, PWD/PHE/P&E.
 4. CEO (Edn).
 5. Representatives of YMA, MHIP, MUP.
 6. Representatives of local Churches.
 7. President, Village Council.
 8. Any other member co-opted by the Chairman.

3.2 Local Self Government Authorities

Local Authorities include Panchayati Raj Institution (PRSs), Municipal bodies, District and Cantonment Boards and Town Planning Authorities, which control and manage civic service. They will prepare DM Plans in consonance with the Guidelines of NDMA, SDMAs and DDMAs and will ensure capacity building of their officers and employees for managing disasters, carry out relief, rehabilitation and reconstruction activities in the affected areas

3.2.1 Village Disaster Management Committee:

A Village Disaster Management Committee shall be formed comprising of the following members:

- Chairman : President, Village Council
 Vice Chairman : President YMA/YLA/MTP
 Member Secy. : Secretary, YMA/YLA/MTP
 Asst Secy. : VC Secretary
 Treasurer : VC Treasurer
 Members :
 1. Members, VC.
 2. All OB's YMA/YLA/MTP
 3. Representatives from MUP, MHIP, Ex Service
 4. Kohhran VC huam chhunga Biak in neite aiawh.
 5. Representative of recognized Political Party.
 6. Prominent Citizens (not more than three)

Village Disaster Management Committees have been formed in Lunglei District. 113 Village Council President were called for training of Village Disaster Management Committee. Village Council Presidents were instructed to form Village Disaster Management Plans and identify hazards pertaining to their own villages.

3.2.1.1 Roles and Responsibilities of VDMC

- i) As supporting agency for Incident response for various types of disasters.

- ii) Ensuring proper maintenance of shelter places constructed by default agencies.
- iii) Repair/Restoration of vulnerable points on roads before onset of monsoon.

3.3 Incident Response System

The National Disaster Management Authority (NDMA) has issued guidelines on the Incident Response System (IRS) under **Section 6 of the DM Act, 2005** for effective and comprehensive management of disasters in India. The vision is to minimize loss of life and property by strengthening and standardizing the disaster response mechanism in the country.

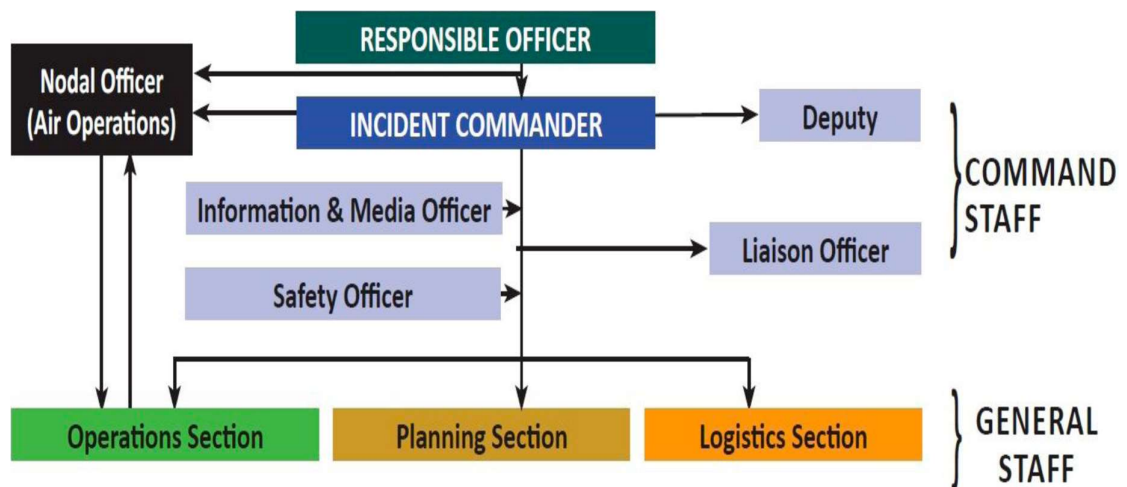
The Incident Response System (IRS) is an effective mechanism for reducing ad-hoc measures in response. It envisages a composite team with various Sections to attend all the possible response requirements. The IRs designates officers to perform various duties and get them trained in their respective roles. It also emphasizes the need for proper documentation of various activities for better planning, accountability and analysis. This will greatly help in reducing chaos and confusion during the response phase. Everyone will know what needs to be done, who will do it and who is in command.

3.3.1 IRS Organization

The broad organization of IRS is as under. Responsible Officer has been designated at the State and District level as overall in charge of the incident response management. The Responsible Officer may delegate responsibilities to the Incident Commander who in turn will manage the incident through Incident Response teams.

Apart from the RO and Nodal officers, the IS has two main components a) Command Staff b) General Staff. And the IRS organisation has three sections :

- a) Operation Section
- b) Planning Section
- c) Logistic Section



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

positions of IRS organization as shown in figure below headed by IC. The IRTs will be pre-designated at all levels of State and District, Sub-Divisions, Blocks, Villages. On receipt of early warning, they will be activated by the Responsible Officer. A Nodal Officer has to be designated for proper coordination between the District, State and National level in activating air support for response.

3.3.2 Organizational Flexibility

The IRS organization is a need based, flexible organization. All the components need not be activated simultaneously. Only that Section, Branch and Unit that needs to be activated would be required for the given disaster. Each activated Section, Branch or Unit must have a person in charge to perform its role. The organizational elements that are no longer required should be deactivated to reduce the size of the organization and to ensure appropriate use of resources.

3.3.3 IRS Positions and suitable officers at Lunglei District

IRS Position	Suitable officers
RESPONSIBLE OFFICER	Deputy Commissioner
INCIDENT COMMANDER	Additional Deputy Commissioner
Deputy IC	Superintendent of Police
Information & Media Officer	District Information & Public Relations Officer
Liaison Officer	SDO(Sadar)
Safety Officer	SDC, i/c Disaster Management, Dc's Office
OPERATIONS SECTION CHIEF	Additional Superintendent of Police
Staging Area Manager	SDO(Sadar)/ SDO(C)
Response Branch Director	SDC, i/c Disaster Management, DC's Office
Division Supervisor / Group-in-charge	Dy. Superintendent of Police
Task Force / Strike Team	Commander/Leaders of SDRF, MRP, MAP, IR, F&ES, YMA
Single Resources	CMO-Health & Family Welfare Department
Transportation Branch	SDO- PWD/P&E, Station Officer-F&ES
Road Group	
Group-in-charge	Dy. Superintendent of Police
Vehicle Coordinator	District Transport Officer
Loading-in-charge /Unloading-	Motor Vehicle Inspector, Transport Department

in-charge	
Power Group	
Group-in-charge	Superintending Engineer, P&E Department
Coordinator	Executive Engineer, PMD-I, P & E Department
Loading-in-charge / Unloading-in-charge	SDO, P&E Department
Water Group	
Group-in-charge	Superintending Engineer , PHED
Coordinator	Executive Engineer, PHED, LWSM (For Town area) Exectuive Engineer, PHED, Rural WATSAN Division (For Rural Area)
Loading-in-charge / Unloading-in-charge	SDO, PHED Lunglei Water Transmission Sub-Division SDO, PHED, Lunglei Water Distribution Sub-Division
Air Operations Group	
Group-in-charge Air Operations	Deputy Commissioner
Helibase / Helipad-in-charge	SDC, i/c Helipad, DC's Office
Loading / Unloading-in-charge	Asst. Commissioner of Excise & Narcotics/Station Officer-F&ES
PLANNING SECTION CHIEF	
Resource unit	Commandant, 2 Bn MAP
Check-in-status Recorder	DFO, Environment & Forests Department
Situation unit	Sub-Divisional Police Officer
Display Processor	District Information & Public Relations Officer
Field Observer	Representative of Sub Hqrs YMA
Weather Observer	DAO, Agriculture Department
Documentation Unit	DEO, Education Department assisted by DIPRO, Lunglei
Demobilization Unit	Superintendent of Police
Technical Specialist	Superintending Engineer/Executive Engineer, P&E

	Dept.
LOGISTICS SECTION CHIEF	Superintendent of Police
Service Branch Director	District Local Administrative Officer
Communication unit	Inspector (Wireless), MPRO.
Medical Unit	CMO, Health & Family Welfare Dept.
Food Unit	DCSO, FCS&CA Dept.
Support Branch Director	District Local Administrative Officer
Resource Provisioning Unit	DCSO, FCS&CA Dept
Facilities Unit	Superintendent of Taxes
Ground Support Unit	Executive Engineer, PWD, Lunglei Division(Road)
Finance Branch Director	District Treasury Officer, Accounts & Treasuries Dept.
Time Unit	District Research Officer, Economic & Statistic
Compensation / Claim Unit	Settlement Officer-LR&S, DAO,DHO,EE- I&WRD,DFDO
Procurement Unit	Deputy Commissioner
Cost Unit	Deputy Commissioner

3.4 District Emergency Operation Center, Lunglei

Lunglei District has an exclusive District Control Room/Emergency Operation Centre (EOC) at the premises of the office of the Deputy Commissioner, Lunglei District. This shall be around the clock set up with sufficient man power and the most modern equipments. Considering the unique responsibility of the District Emergency Operation Centre, the equipments provided to it shall not be taken out for any purpose other than those of the disaster managements. This centre is intended to coordinate all disaster related activities in the district starting from preparedness to rehabilitation and reconstruction.

The DEOC will be the hub of activity in a disaster situation in the district. This is, however not to be underestimate its normal time activities. The EOC should have the flexibility to expand when demand increases and contract when the situation comes to normal. The DEOC is connected with State EOC in the upstream (which further connects to National EOC) and other EOC(s) in the downstream including other field offices during emergencies.

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

The Control Room will require participation of key officers from the line departments and other officers from the District administration directly involved in the Disaster Management. The

facilities and amenities available with the D. C. will be at the disposal of the officials on duty. The Control Room will perform the following functions:

- i) Collection and compilation of information from the affected areas.
- ii) Documenting information flow.
- iii) Decision making regarding resources management.
- iv) Allocation of tasks to different resources organizations.
- v) Supply of information to State Government.

It may not be possible for the Deputy Commissioner and his team to man the EOC round the clock, a specialized team of Desk Officers from key source departments from the following departments should be formed:

- i) Police Department
- ii) Medical (Health and Family Welfare)
- iii) PWD/PHE/P&E Deptts.
- iv) UD&PA

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

3.4.1 Alternate EOC

If case or situation arises when the EOC at Deputy Commissioner's Office is not fit to function due collapsed or damage Office of the Project Director DRDA, will function as alternate DEOC or Circuit House will be used as alternate EOC if the first is not fit.

3.4.2 Site Incident Operation Center

Site Operation Centre, a complementary unit to the EOC would operate close to the district site. This will be directly linked with the EOC. 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 without waiting for government agencies to reach the site. Thus, if the SOC has already been set up 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 such officers conveniently available near the site will see to 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.

3.5 Quick Response Team

3.5.1 State Disaster Response Force

The State Government of Mizoram has a team of trained specialist called State Disaster Response Force. There are 60 trained personnel of SDRF located at 2nd Bn MAP headquarter of, Luangmual, Lunglei. In the event of any incidents the SDRF shall be the first responder to the incident.

3.5.2 Quick Response Team for the District

As decided by meeting of the State Disaster Management Authority and instruction of Government of Mizoram, Disaster Management & Rehabilitation Department letter No. B.13016/69/2029-DTE (DMR) dt.27.01.2021, a team of trained specialist known as Quick Response Team to function as first responder to any incidents on behalf of the District Disaster Management Authority, Lunglei is formed. The QRT members are trained in mountaineering techniques, search and rescue of slopes etc. At present there are seven (7) members of Quick Response Team, DDMA at the District.

3.6 COVID-19 Pandemic

Coronavirus disease was first detected in Wuhan Province in the Country of China. After the detection of coronavirus in China, it spread across many countries and COVID-19 causes havoc around the world. WHO declares Coronavirus (COVID-19) as pandemic on 11, March, 2020. After the declaration Covid-19 as pandemic by WHO it was declared as “notified disaster” by the Government of India on 14, March, 2020 so as to enable the Government to provide assistance and spend more funds to fight the pandemic.

3.6.2 Key Steps Taken by the Indian Government to fight Covid-19

1. Precautionary steps

Indian Government declared Total Lockdown for the whole country on 23 March, 2020 for controlling the widespread of the disease. Night curfew was initiated in many States. Guidelines were issued by the Government to be followed by every State. Awareness of preventive measures of Covid-19 like hand washing, wearing mask, social distancing etc was publicized widely through media by the Ministry of Health & Family Welfare Department.

2. Vaccinations Steps

Since May, 2021, vaccinations is open for all Indians aged 18 and above. So far, over 25% of the Indians have received the vaccine and with over 7% being fully vaccinated. The process of vaccination is a preventive measure for fighting the possibility of future waves and for the return of normalcy.

3. Financial Steps

The Government of India has launched the Pradhan Mantri Garib Kalyan insurance in an effort to secure the life of the front line public health workers. The policy covers the families of those who have lost their lives on Covid-19 related duty.

3.6.3 Key Steps Taken by the District Administration, Lunglei District.

The District Administration, Lunglei in line with the guidelines set up the Central Government has taken key steps as below:

The State of Mizoram has set up Committees from the State Level to the Village Level known as “Task Force” for mitigation of spreading of Covid-19. Mizoram has 11 Districts and the response of the Districts though is uniform at some point but some differed base on the District population, resources the Districts has at hand and the geographical location of the District.

1. Formation District Level Task Force & Village Level Task Force

As per notification from the State Government, the District Level Task Force Committee, the highest committee body in the District headed by Deputy Commissioner was formed. This body decide, plan, and give direction to Village Level Task Force and other stakeholders involve for containment of the pandemic in the District. Under the direct supervision of the DLTF, the guidelines

and order issued by the Ministry of Home Affairs, Government of India, Government of Mizoram and the District Administration was strictly implemented by the Village Level Task Force.

Lunglei District also has Sub-Divisional Level Task Force Committee. The Sub-Divisional Level Task Force followed the instruction received from District Level Task Force. Since the District shared International Boundary with the Country of Bangladesh, screening point was first established at Kawrpuichhuah of Indo-Bangla Border, to monitor the movement of permitted trade and that of people. Afterwards, two screening points was established, at Kawrpuichhuah and Missionary Kai of Tlabung Sub-Division, Lunglei District. The screening points were tirelessly manned 24x7 by Health & Family Department, Police Department, other Government Departments and NGOs till instruction was received from the State Government to close these points at Indo-Bangla Border.

2. Establishment of Quarantine Facility Centers and Quarantine

To contain the spreading of the epidemic Covid-19, quarantine facility for isolation of persons returning from outside the State was established. Though the District has limited resources it identified and established its first seven (7) quarantine facilities with a capacity of 180 on 21st March, 2020. The identified centers were located not only at the District Capital but also at the Sub-Divisional Level and the Block Levels.

During the peak period of stranded returnees the District had eight (8) Government Quarantine Facility Centers, twenty one (20) Community Quarantine Centers, two (2) Covid Care Centers and one(1) Dedicated Covid Health Care Center at the District Capital and at the Sub-Divisional Level had six(7) Government Quarantine Center Facility and one (1) Covid Care Center, and the Block Level had seven (7) Government Quarantine Centers, all actively and efficiently ran and monitored by Government Departments combined.

3. Awareness Campaign

The whole District was in state of panic because of the first incident of positive case of covid-19 and contacts. The community was in anxiety and in fear of the spreading of the disease. District Level Task Force Committee was immediately convened. The meeting decided to immediately conduct awareness campaign within the localities of Lunglei. Chief Medical Officer's Medical Team, Lunglei visited all the VLTF of Lunglei City and also some Villages nearby the Capital to impart awareness training on safety precautions, hand washing technique and the importance of maintaining social distancing. Awareness campaign was also imparted among the Church Leaders, Leaders of Non-Government Organizations Mask and sanitizers were also distributed to the Village Level Task Force during the campaign.

Awareness training on safety, hand washing techniques and prevention measures of Covid-19 is also imparted to people living nearby after schools and buildings are requisitioned and before the requisitioned buildings etc are activated as quarantine centers. Training is also imparted to staffs requisitioned as Nodal Officers of various task for quarantine centers by Medical Team as instructed by the District Administration.

Trauma counseling is also imparted to inmates at the quarantine centers by Trauma Counseling Team as instructed by the District Authority.

4. Distribution of Items to Strengthen VLTF's

It is worth mentioning that Village Level Task Forces are one of frontline workers and the resilient forces in mitigation of Covid-19. During the period of total lockdown imposed at the District, Village Level Task Forces help the Administration in carrying out laws and order to be followed by the Civilians. To strengthen the Village Level Task Forces and to acknowledge their duties performed the District Administration distributed mask, sanitizers, PPE etc to ensure their safety.

Also, Incident Commander/Magistrate and members of District Level Task Force conducted routine site visiting of the Village Level Task Forces to find out problems faced by Village Level Task Forces for higher authority to intervene.

5. Establishment of Vegetable Supply Chain & Distribution of Free Rice etc: During the First total lock down period, in order to avoid scarcity of vegetables and fruits the District Administration response to the cry of the people by supervising and guiding the District Horticulture Department which acted as the Nodal Department for supply of vegetables and other fruits. The Nodal Department coordinated with twenty (20) vegetables supplying villages. Since the Department directly coordinated with the farmers, the vegetables were available for the people at a rate much lower than the normal marketing rate. The farmers and consumers were both able to get direct benefit through this arrangement. Arrangement and transportation of fresh fruits like strawberry from other District (Siaha) through refrigerated van was also made by the Nodal Department.

Deputy Commissioners' Office, Lunglei made an effort to see that the shelters homes within the District do not suffer from lack of food. Therefore, during the period of the first total lockdown distribution and provision of free rice and vegetables to 11 shelter homes was monitored by Deputy Commissioner's Office, Lunglei.

6. Receiving Large Number of Stranded Returnees

During the period of large number of returnees from outside the State the District Administration performed its best in welcoming and receiving not only its people within the District but also from other Districts as well.

Receiving Teams headed by District Magistrate were detailed to be on stationed at each earmarked quarantine centers. The Receiving Teams were on duty 24 X 7. Fooding, clean drinking water and other refreshment were arranged and distributed on arrival for the returnees who had travelled a long and tiring journey to reach their home villages.

7. Inter Departmental Co-ordination and Community Participation

During the peak period of large numbers of stranded returnees, the District Administration pulled in its resources from all sides to combat the fight against spreading of Covid-19 pandemic. Government workers from different departments were pulled and manpower of the community was also effectively utilized.

Farmers and villagers, out of their own free will donate vegetables of all kinds to the District Administration for running of Quarantine Centers. Donations of fund from individuals, organizations etc was received. Individuals' volunteers step out to help the District Administration in the fight against containment and spreading of Covid-19.

3.7 Planning Consideration

Disaster Management planning includes the key areas involved in addressing any threat or hazard, prevention, mitigation, response and recovery.

3.8 Public Private Partnership

Development activities involve for both private and public enterprises. To mitigate disasters and create better prepared society for disasters and other hazards, strong public private coordination is critical. In order to achieve community resilience and preparedness, public and private owners of critical infrastructures and key resources like man-power, technical expertise and equipments need to work together, before, during and after a disaster. The key issue to recognize and embrace the public private interfaces that can improve the ability of a community to manage the response phases of disaster management. District Disaster Management Plan spell out clear role and responsibilities of both public and private sector and private sector must be involved closely into community

development and organization of mock drills etc. A resource inventory be maintained indicating the capabilities in terms of human, equipments and infrastructure both in public and private sector.

CHAPTER - IV

PREVENTION AND MITIGATION MEASURES

It is good to have long term mitigation goals in place and connect these goals with measures that the district has planned and implemented. These goals may include:

1. Provide better early warning methods for floods, storms, and cyclone.
2. Reduce the destruction and loss of life within buildings.
3. Provide for safer environments for transportation systems.
4. Eliminate flooding in populated areas.
5. Ensure redundant water supply systems.
6. Reduce environmental degradation and restoration of livelihood.
7. Reduce effects of the natural environment on the infrastructure.
8. Ensure redundant power systems on critical facilities.
9. Ensure adequate materials available for road maintenance.

4.1 Protection and Prevention

Reduces or eliminates a threat to people, property and the environment. Primarily focused on adversarial incidents, the protection of Critical Infrastructure and Key Resources (CIKR) is vital to local districts, national security, public health & safety assets from exposure, injury or destruction. Protective actions may occur before, during or after an incident and prevents, minimize or contain the impact of an incident.

Prevention consists of actions that reduce risk from natural or manmade disaster incidents. A better disaster management with minimum vulnerability is possible only by means of preventive, preparedness and mitigation measures. Proper preparedness and mitigation measures instantly help to respond to disaster in time. So, district wise preparedness and mitigation is highly required. A prepared community is the best community to minimize the loss and damaged caused by the disaster. Mitigation focuses on various ways and means of reducing the impact of disasters to the communities through damage prevention.

4.2 Mitigation Measures

Mitigation with its focus on the impact of hazard encompasses the structural and non-structural approaches taken to eliminate or limit a hazard's exposure, impact on people, property and the environment. Structural measures are undertaken to strengthen weak existing buildings, life lines and infrastructure and re-enforcing water and electricity supply lines. Non-structural measures, on the other hand, emphasize on proper land-use planning sustaining awareness and discrimination of information on do's and don'ts at the time of disaster.

4.2.1 Structural Mitigation Measures

1. Town Planning Act: The Department of UD&PA will develop a master plan for Lunglei District which is an ongoing project. The master plan shall include planning, adopting and enforcing stringent building codes, flood-proofing requirement, seismic design standards and cyclone wind-bracing requirement for new construction or repairing existing buildings. It will incorporate planning the

disaster management concerns into development. It will incorporate planning and adopting zoning ordinances that steer development away from areas subjects to flooding, storm surge, cyclone and landslide.

2. Development Control Regulations: Incorporate the disaster management concerns in development. This should include all Government Sponsored Developmental Programs and Schemes.

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

4.2.2 Non-Structural Measures: The following aspects required to be look into for the purpose of non-structural mitigation:

a. Land-Use Regulation:

- i) Which area should be spared for human settlement, agriculture, forestation etc.
- ii) Hazard zoning of areas.
- iii) Areas where new roadways and infrastructure should be avoided.
- iv) Planning and building community shelters and cyclone safe rooms to help protect people in their homes.

b. Safety Norms for Economic and Social Infrastructure including places of worships and crowd management

i) Steps taken for developing and implementing public safety norms for critical infrastructures and places of worships.

c. Capacity Building for Mitigation

i) Steps taken for human resource development and capacity building for effective disaster mitigation at District Level.

ii) Awareness generation in disaster management.

d. Building improvement Programme:

i) Buildings should be improved in terms of making them earthquake resistant.

The rapid urbanization is leading to the increase in housing and buildings are primarily responsible for damage and loss of lives, it is extremely important to have systematic building by-laws which is, nowadays, not imposed in the district.

e. Mainstreaming of DRR in development planning

i) DDMA has to issue directions time to time in accordance with all stakeholders regarding inclusion of Disaster Risk Reduction (DRR) in developmental Planning. Disaster Risk Reduction (DRR) issues in Development Plans etc. is to be interlinked vertically and horizontally for fail-safe infrastructures in Lunglei district. Mainstreaming disaster management into the development planning process essentially means looking critically at each activity that is being planned, not only from the perspective of reducing the disaster vulnerability of that activity, but also from the perspective of minimizing that activity's potential contribution to the hazard. Every development plan of a department should incorporate elements of impact assessment, risk reduction, and the 'do not harm' approach. Examples of this approach are urban planning and zoning, upgradation of building codes and their effective enforcement, adoption of disaster resilient housing designs and construction of school and hospitals, flood proofing, response preparedness planning, insurance, establishment of early warning systems for various types of disasters, generating community awareness, creating technical competence and promoting research among engineers, architects, health experts, and

scientists. In this district, DDMA has to sensitize officials of PWD, PHE, LAD/UD, RD/DRDA and also masons and community towards DRR issues.

4.3 Mitigation & Preparedness Measures for Vulnerable Groups

The District Administration shall take up the responsibility of training vulnerable groups based on their level of capacity. The District Administration shall also set up a special shelter or reserve a special shelter for them during disaster event.

4.3.1 Identification of Disabled Population by type of Disability (2011 census)

Sl No	Type of Disability							
	Seeing	Hearing	Speech	Movement	Mental retardation	Mental illness	Other disability	Multiple disability
	135	228	72	157	95	31	100	173

4.3.2 Creating Special Working Group

Special attention needs to be focused on vulnerable persons because their needs differ from normal persons. For this purpose a special working group may be created from Disaster Management Volunteers in each locality or village council for vulnerable groups. The special group created may undergo training under the Primary Agency already identified in the District.

4.4 Prevention and Mitigation Measures for specific hazards

4.4.1 Forest Fire

1. Setting up of Forest Fire Protection Committees

○ District Level Fire Protection Committee:

Chairman : Deputy Commissioner, Lunglei
 Member Secretary : DFO, Lunglei
 Members : S.P., Lunglei
 DLAO, Lunglei
 ASO, LR&S
 Heads of Colleges and Schools
 Presidents, Jt. YMA, MUP, MHIP
 Presidents, Branch YMA, MUP, MHIP, VC

○ Sub-Division/Block Level Fire Protection Committee:

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

○ Village Level Fire Protection Committee:

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

4.4.2 Floods- Tlabung

1. Setting up of Sub-Divisional Disaster Management Committee

To tackle floods and any other disaster under the Chairmanship of SDO(Civil), Tlabung , Sub-Divisional Disaster Management Committee is set up as follows:-

Chairman	:	SDC(C), Tlabung.
Member Secretary	:	HA, SDO(C) Office, Tlabung
Members	:	i. All Head of Offices, Tlabung. ii. All head of institutions, Tlabung iii. VCP, Tlabung & Zodin. iv. President, YMA- Tlabung, Zodin & Chawnpui.

The SDDMC shall be the overall in charge for all disaster management works especially for floods. Under SDDMC different teams are formed. These teams will perform response to any disaster management related works. The following teams are formed under SDDMC, Tlabung:

- | | |
|--------------------------------|--------------------------------------|
| a) Incident Response Team | b) Inspection Team |
| c) Documentation team –I | d) Fire & Emergency Team |
| e) Supply of Clean Water Team | f) Supply of food & Needs |
| g) Search, Rescue & Evacuation | h) Medical & Trauma Counselling Team |
| i) Documentation Team -II | j) Information & Communication Team |

4.4.3 Landslide, Cyclone, Drought, Floods etc

1. Allocation of zone to officers for disaster quick response

SI NO	NAME OF ZONAL OFFICER	COVER AREA	Contact No
1	Pi Lahlimpuii Ralte SDO(Sadar)	Pukpuii, Serkawn, Zohnuai, Zotlang	9863225008
2	Pu H. Zonunmawia SDO(C), Tlabung and BDO, Tlabung	Tlabung RD Block	8415051047
3	Pi T.T. Beikhaizi	Venglai, Chanmari, Bazar Veng	8415853376
4	Pu Beitlotha Nohro	Ramthar, Electric Veng, Salem, Farm Veng, Lunglawn	7229972318
5	Pu H. Lalramenga BDO, Bungmun	Bungmun RD Block	7005751606
6	Pu Obed Lalmalsawma BDO, Lungsen	Lungsen RD Block	9612345829
8	Pu K. Lahlimpuia SDC/ASO	College Veng, Sazaikawn, Hauruang, Rahsi Veng, Venghlun	9612123192

9	Pi Lalvenhimi Ralte	Sethlun, Theiriat and Lunglei RD Block Rural Areas	8974761551
10	Pi Malsawmhriatzuali SDC	Hrangchalkawn, Luangmual, Lungpuizawl, Zobawk N & S	9436768944

4.5 Livestock Management Plan

Livestock Disaster Management, be it due to infectious disease or natural calamities is inadequately addressed. The professional and other stakeholders dealing with livestock are not adequately trained in this vital aspect of livestock management. The capacity for timely detection of an exotic disease which has the potential of becoming a disaster and its subsequent management so that it can be minimized is required to be built up. Monitoring and controlling animal diseases are as important as any other epidemics as it can be transmit to human beings.

4.5.1 Consequences of loss of livestock

Be it animal disease or natural disaster, the consequences of loss of livestock in large numbers are predictable. These are primarily:

- 1) Food scarcity due to shortage of animal origin food e.g, Milk, meat and eggs.
- 2) Economic crisis due to escalation of food prices (the value of milk output in India is equal to the combined value of paddy and wheat produced).
- 3) Environmental contamination leading to epidemics due to massive animal mortality.
- 4) Loss of valuable germ-plasm and biodiversity.
- 5) Loss of employment starting from primary producers, down the food processing and marketing chain.
- 6) Loss of traction power, shortage of manure.
- 7) Emotional shock to animal owners.

4.5.2 Risk and Vulnerability Assessment

1) Natural Disaster: Lunglei District is vulnerable to most type of natural calamities, causing a significant disruption of the social and economic life of communities including livestock. Calamities like cyclone, landslide, fire, flood and hailstorm are the main deterrent that has the high risk to cause livestock mortality.

2) Infectious diseases: The entire district is at high risk for outbreak of an endemic diseases like swine flu, bird flu, Foot and Mouth Diseases (FMD),PRRS and other viral diseases which can claim enormous lives of animal husbandry.

3) Fodder Poisoning: Accumulation of nitrate in plants leads to nitrate/nitrite poisoning which is a potential danger to grazing animal like cattle, goat and sheep. Most of the farmers /owners of animal unaware of the content of the food fees to their animal, which could contain poisonous toxic materials.

4) Trans-boundary animal diseases: The import of livestock form outside can caused spread of trans-boundary animal diseases.

4.5.3 Prevention and Mitigation Methodology:

Animal Husbandry & Veterinary Department, a nodal department in livestock disaster management shall take measures towards prevention and mitigation of disaster against animal husbandry. The Veterinary Officers, Vety Field Assistant shall take measure for the prevention and mitigation of

livestock disaster as follows:-

- 1) Every veterinarian, on receipt of warning shall move or cause to move the animal to the safe place until the warning is withdrawn.
- 2) Every veterinarian, on receipt of report or has reason to believe that any animal is infected with disease shall report the matter to Veterinary Officer and direct the owner of the person or in-charge of such animal to segregate such animal and have kept in a place away from all other animals which are healthy and take appropriate steps to prevent it from grazing in a common place or drink water from a common place.
- 3) The veterinarian shall take measure to the treatment and control of the infected animals. If required, Euthanasia to be resorted for preventing the spread of the disease to other animals in the area or to protect public health if the disease is of zoonotic importance.
- 4) The veterinarian shall take step to compulsory vaccination at infected area to prevent spreading of the disease.
- 5) The veterinarian shall keep abreast of the incidence of animal diseases in the neighboring areas, and if so prevent any animals to enter his jurisdiction.
- 6) The veterinary office may report to the District Magistrate, upon receipt of report of the prevalence of diseases in the neighboring states to prohibit the import of any animals from such state.
- 7) Every veterinarian shall direct the person in possession of carcass of any animal infected with any disease to dispose of it in such a manner as may be prescribed.

4.5.4 Cattle Camp

In case of a severe disaster when relief shelter is required, the veterinary officer shall make an arrangement to assign a cattle camp in appropriate place within their respective jurisdiction. Provision of fodder/feed concentrate including water supply and medicines shall be arranged by him as per the rate of norms of assistance of SDRF/NDRF. For this purpose he shall maintain a proper record of the numbers and the period to which the animals are kept in relief shelter.

4.5.5 Compensation

As per the items and norms of assistance under SDRF/NDRF for a period of 2022-2026 made by Ministry of Home Affairs (Disaster Management Division) assistance is available in case of natural calamity in the following rates:

Milch animals

Rs. 37,500/- Buffalo/cow/camel/yak/mithun etc

Rs. 4,000/- Sheep/goat/pig.

4.6 Heat Wave Management

At the District Level the District Nodal Officer for the district must create awareness among the public on Heat Wave precautionary measures.(Do's and Don'ts). They will make Heat Wave Action Plan and hold press conferences on the risks and dangers of heat related illness create awareness among the public on measure to be taken in Heat Wave conditions and alert critical facilities in case of emergencies.

4.6.1 Heat Wave Mitigation Measure for Departments

1) I & PR Department

- a. Developing & Designing information materials in local languages like posters, pamphlets etc, and giving wide publicity for creating awareness.
- b. Create public awareness on heat-related illnesses, preventive tips on Do's and Don'ts of Heat

wave through electronic media (TV, FM, Radio) print media (news paper) and social media (facebook, whastapp etc).

2) Medical & Health Department

- a. Training orientations and issue of alerts to village level functionaries.
- b. Adoption of Heat focused examination procedures at local hospitals.
- c. Alert public as well as deploy additional staff to take care of public affected due to Sunstroke, activate emergencies services and also keep adequate stocks ORS and IV fluids in all hospitals/PHC's/UHC's.

3) Labour & Employment Department

- a. Organize awareness camps and publish health advisories on Heat related illness.
- b. Activate employers to shift the outdoor workers schedules away from peak afternoon hours.
- c. Provide emergency working hours for employees in private sectors.

4) AH & Vety Department

- a. Preparation, implementation and review of Heat wave action plan for safeguard of cattle.
- b. Activate field staff create awareness among the Livestock farmers on the Animal Management during Heat Wave conditions.
- c. Print posters designed especially on precautionary measures and exhibit in the public places.

5) Information Technology Department

- a. Preparation of dashboard/interface for monitoring of Heat wave conditions in the district.
- b. Bilk SMS alert to be sent through this dashboard/portal/

6) Transport Department

- a. Establish health teams at major bus stand/ terminals and other public places for safe transportation by changing the timings of buses during peak hours.

7) Education Department

- a. Ensure availability of proper shade and cool drinking water, ice packs, ORS, etc at schools and examination centers.
- b. Restrict school timings between 11 to 3 pm and also start mid day schools and no open air classes.

8) Forest Department

- a. Ensure proper afforestation under public place.
- b. Continuous watch in the forest area to avoid forest fires.
- c. Provide safe drinking water and ensure shade areas for the public in the stretch of forest area.
- d. Maintain water bodies/ ponds in the forest area for wild animals & birds.

9) Tourism Department

- a. Ensure proper registration of tourist who are visiting the State.
- b. Publicizing proper advisories to tourists regarding Heat wave conditions in the State.
- c. To build temporary shaded areas and also provide safe drinking water to the pilgrims at times.

4.7 Industrial Disaster Management

District Disaster Management Committee for MSME Units is formed with the following members

Chairman	-	General Manager, District Industries Center.
Secretary	-	Concerned File dealer.
Member	-	Gazetted Officers, District Industries Center, Lunglei.
Member	-	Representatives of Industrial Unit.

Responsibility:

1. The Committee shall call a meeting when disaster occurred in an industries or units.
2. The committee shall take necessary action if any disaster befalls on industries.
3. The committee shall develop IEC materials or handout for distribution to industries.

Mitigation Measures for Micro, Small and Medium Enterprise Unit

- The owner of Industries shall follow rules and regulations of Indian factories Act, 1948.
- There should be proper electrical wiring and good quality circuit breaker in industries.
- There should be First Aid Box and emergency medicines in industries.
- Motor Workshop should conduct welding carefully, waste oil and flammable materials should be disposed properly.
- Small scale industries like weavers, tailors etc electric consumption should not be more than the connected load to avoid electrical disaster.
- The owner of Quarry shall follow rules and regulations of The Mizoram Minerals Concession Rules 2000. Stone extraction and quarrying should be practice carefully with regards to safety of labourers.
- Equipments used in industries should be kept in proper places so as to avoid falling off etc.
- All industries should have emergency exit. The contact number of Police, Fire, and Administration should be displayed in every industry.

4.7 Hazard-Wise Structural & Non-Structural Mitigation Measures

a) Earthquake

- Construction of earthquake resistant buildings in safe location.
- Reconstruction/retrofitting of unsafe old buildings and structures.
- Enforcement of building code and byelaws.
- Ensure the safety of buildings or institutions where mass gathering usually takes place as in schools, public halls etc.
- Strict regulation for approvals of building design and to ensure safe construction practices are followed while construction of new buildings is undertaken.
- Mass education on safe construction practices and protection of human being from earthquake. Practice do's and don't's on regular basis.
- Have mock drills with all stakeholders and institutions and the general public to ensure the preparedness level.
- Training of engineers and masons on safe construction practices.

a) Flood

- Strengthen the early warning system for accurate warning to the community.
- Storm drains should be strengthened and cleared before rainy season.

- Land use planning to avoid mudslide and landslide due to heavy rainfall.
- Community awareness and education to prevent flood.
- Mapping of flood prone areas and flood risk mapping which can assist during pre-disaster decision making.
- Formulation of flood preparedness plan which includes emergency response planning and training.

b) Cyclones/High wind

- Structural modification in existing houses to keep the roof intact during heavy wind. Construction of Cyclone shelters that can act as safe place to flee during cyclone
- Construction of wind breakers to minimize the effect of high wind on the houses.
- Strengthen early warning system in the district. Coordinate with Meteorology Dept. to get localized cyclonic information and alert the people for preparedness.
- Mapping, delineation and demarcation of cyclone hazard areas and sensitive areas.

c) Landslides

- Identify all streams runoff and clear blocked areas before the rainy season, to avoid blockade.
- Maintain and protect both sides of river and stream to avoid erosion and improve the channels for free flow of water.
- Monitoring of landslide prone areas either through and automated system or by preparation of hazard area maps and following up ground check on such areas during monsoon or raining season.
- House site allotment should be considered only after careful consultation with Land Use Plan to avoid risk against landslide and land-sinking.
- Campaigns to create public awareness on the importance of proper drainage system.

d) Drought

- Tracking the behavior of monsoon and taking advance action to reduce the drought situation.
- Construction of rainwater harvesting structures in prone areas to ensure that water chances of hazards available during drought prevalence.
- Crop insurance should be promoted to transfer risk.
- Schemes like Mahatma Gandhi National Rural Employment Gaurantee Scheme (MGNREGS), Intergrated Watershed Management Programme (IWMP) Drought Prone Area Programme (DPAP), National Rural Drinking Water Programme (NRDWP), Swarnjayanthi Grameen Swarozgar Yojana (SGSY), Rashtriya Krishi Vikas Yojna (RKVY), Fodder & Feed Development Scheme etc.to address the need for medium and long term drought mitigation requirements.

e) Fire

- Identify vulnerable forest areas prone to fire damage annually and prepare a fire damage map.
- 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.
- Constitution of Village Fire Protection Committee of permanent nature.

- Effective communication system for early detection of fire incident through fire watchers and carrying out intensive patrolling during dry season. Imparting training to staff and villages for fire fighting.
- Strict enforcement of existing Fire Protection Regulation Act.

f) Epidemics

- Health department needs to be provided with more water quality monitoring centers for effective surveillance of water quality principally during the monsoon months and during flood events.
- Bleaching powder should be adequately available with all the villages.
- Rural hospitals should be upgraded to include blood bank and surgical facilities.
- Contingency plan for response should be prepared after identifying the epidemics that are likely to occur in the region.
- First aid training will help to cope better during the emergency response period for epidemics.
- Improving the sanitary conditions, drive to check and fumigate breeding places of any vector, disinfecting the water sources etc.

g) Road accidents

- Setting up of highway safety patrol team along the Aizawl-Serchhip highway which will be a specialized division of police to tackle road accident.
- Provision of adequate signboards, speed breakers and guard stones/steels near cliffs and accident prone spots.
- The risk at the accident prone spots and cliffs must be minimized by adequate construction signboards.

h) Hailstorm

- Measures such as structural bracing, shutters, laminated glass in window panes, and hail-resistant roof coverings or flashing in building design to minimize damage.
- Improving roof sheathing to prevent hail penetration;
- Installing hail resistant roofing and sliding.
- Teaching school children about the dangers of hail and how to take safety precautions.

i) Pest attack

- 10 % cow's urine is sprayed once in 10 days thrice.
- Half litre cow's urine along with ½ litre sour butter milk is mixed with 9 litres of water. This is sprayed once in 7 days twice.
- Cow's urine and water is mixed in the ratio 1:2. The seeds or roots of seedlings are soaked in this mixture for half an hour before sowing or transplanting.
- 40 kgs of neem cake per acre is applied as basal manure for vegetable crops to prevent diseases.
- If there is a disease attack in the nursery, then add 10 % cow's urine extract along with the water that is used to irrigate the nursery.

j) Frost and Cold Wave

- Department of Agriculture & Cooperation, Ministry of Agriculture closely monitors cold wave situation in consultation with the Indian Meteorological Department (IMD) and the State governments.

- In case of cold wave/frost situation, States need to initiate location specific measures as outlined in the District Crop Contingency Plans and in consultation with their respective State Agricultural Universities to minimize the impact.
- Farmers are to be provided with light irrigation as per need, immediately prune damaged tips of branches or shoot, burn leave/waste material in the orchard to create smoke and manage rejuvenation of damaged crops through pruning of dead material, application of extra doses of fertilizer through foliar sprays.

CHAPTER V

PREPAREDNESS MEASURES

Planning is the one of the key elements in the Preparedness cycle. Preparedness cycle illustrates the way the plans are continuously evaluated and improved through a round of planning, organizing, training, equipping, exercising, evaluating and taking corrective actions.

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 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.

5.1 GENERAL PREPAREDNESS MEASURES

1. Establishment of the control rooms:

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

2. Communication system

Widespread awareness programme through media have been conducted so that communities are sensitized on the importance of emergency communication numbers like police, fire and medical service and other important control rooms.

3. Training for disaster management team

The First Aid Team and Search & Rescue Team are provided with training from time to time so that their timely help can be used during any disaster. DDMA Lunglei had conducted a workshop on CBDM in which local people, NGOs members, Students, etc. took participation.

4. Organization of mock drill exercise

Mock drill has been conducted at the district level, block, government offices, schools and community.

5. Risk Assessment and Vulnerability Analysis

Risk assessment and vulnerability assessment of public bridges, schools and buildings has been conducted involving concerned departments every year.

6. Training and Capacity Building

Training and Capacity Building programme for Govt. Officials, community, schools and volunteers has been conducted in Lunglei District every year.

7. Community Level Training and Public Awareness Activities:

DDMA, Lunglei has organized Quiz, Essay Writing and Painting on Disaster Management related topic for Higher Secondary, High School and Middle school students as part of

awareness activities. IEC materials had been distributed to public and awareness slogan run through local media time to time. Workshop and training on community based disaster management (CBDM) has been organized to spread awareness of disasters management and capacity building. Special focus had been given to local contractors and masons, who are the prime responsible for construction work.

8. Projects/Programs for disabled persons

Disabled person is ‘any person who has a physical or mental impairment that substantially limits one or more major life activities; has a record of such impairment; or is regarded as having such impairment.’ When an emergency or disaster occurs, disable and physically handicapped person are more vulnerable, they are needed more care and service. Physically handicapped person can also define as loss of or failure to develop a specific bodily function or functions, whether of movement, sensation, coordination, or speech, but excluding mental impairments or disabilities

The Government of India gave a provision for the reservation of 3% of every post in public sector for physically handicapped person. It is obvious that in every department and office, there are some numbers of physically handicapped persons including visitors, when emergency broke out, these people cannot move easily in safe places and they have a little chance for surviving. Not only in an office, but also in a school, old age pension home, blind school, market, shopping mall etc. the situation is also same. It is necessary to have a good evacuation plan for this special group. Every departmental and office disaster management plan should include provision for evacuation plan for the disable and the physically handicapped persons.

In Lunglei District, there are a large number of disabled persons. These persons are not belonging to same places. They live in different villages. The District Social Welfare Office does not have any record or documents about the profile of these persons and their disability. It is necessary to organize special camp for having a numbers of disable persons and their particulars. Besides these every department, every office, school and Village Council should maintain documents for these persons. In office and school, and also in other public place, it is necessary to make ramps for persons who are using wheel chairs. We can find such ramps in Lunglei in the Government Higher Secondary School in and the D. C’s Conference Hall.

A special disaster management awareness campaign is needed by the disabled and the physically handicapped persons. They need to know special management method at the time of disaster. The D.M Act of 2005 makes a provision that ‘every department and office should have their respective Disaster Management Plan’. When the Disaster Management plan is made, it is necessary to incorporate a special plan for the disabled. The in-charge of disaster management in every office should appoint a particular staff who can handle the disabled persons at the time of an emergency. Similarly, in the schools also, the teacher should select the helpful student who can take care of the physically handicapped students at the time of emergency.

The Adventure Clubs, Search and rescue team, YMA and other voluntary organization needs to have special training for evacuating this group. It is a better to provide safety helmets for disable persons in their work place, school for preparation of earthquake.

When mock drill exercise is done, evacuation method for the disabled should also be conducted. Special mock drill exercise should also be conducted for the blind schools, old-age pension homes, motherless homes, Anganwadi Centers and the Crèches. This exercise would be helpful for preparation in an emergency.

In the rehabilitation phase also, those people need special care. As stated earlier, they are more vulnerable physically and mentally. In a relief camp epidemic can easily spread. The health and sanitation team need more to focus on this group. They should ensure whether they receive proper care

and immunization or not.

9. Responsibilities of Government for Disabled Persons

In the Disaster Management, we should give priority to these people because, in any disaster, disabled persons, physically handicapped persons, old age and small children contribute a good number of casualties due to their vulnerability. Besides search and rescue team, these departments should be responsible for this group.

1. Social Welfare Department
2. SSA and RMSA
3. Health & Family Welfare Department

10. Contingency Plan

The Contingency plans are made for facing the disaster and making the different authorities prepared when hazards strike the vulnerable areas. The work would start after getting the warning for cyclone, floods and drought. The contingency plan would be activated after earthquake and landslide incidents. In other words, it is also called as crisis management plan for any event. After getting the warning, the district disaster management executive would be activated and will start monitoring/tracking the incident. The district authority would also activate the block level disaster management committees and instruct them as per the plan, to save the life and property of the potentially affected population.

11. Response and Evacuation of Disabled

Priorities should be given to physically challenged persons. When any emergency occurs, we should be aware of the following guidelines

- Do not use exit in a route made for the physically handicapped persons.
- Remember where those people are seated/located.
- Ensure whether they needed help.
- Don't panic among them
- Ensure whether their route is clear or not,
- When the route is clear, it can be used for evacuation
- When their route is not clear, you can use stretcher or rope
- If a stretcher is not available, you can also make an improvise stretcher.
- You can also apply different method of lift but not leave them.

5.2 Identification of Stakeholders Involved in Disaster Response

<i>Man-made disasters</i>	<i>Nodal Department</i>
Forest Fire	Environment & Forest, DC
Biological Disaster	Health & Family Welfare, PHE
Major breakdown of law & order	Home Department, DC
Major road accidents	Transport Department, DC
Cyber Terrorism	Information & Communication Technology, Police
Large scale refugees from any neighboring	Home Department/DC/FCS&CA

country/state	
Collapse structure	PWD, P&E, Police, DC
<i>Natural Disaster</i>	
Drought	Agriculture, Minor Irrigation & Horticulture, DC
Earthquake, Landslide, Cyclone, Floods etc	DM&R, DC, Home Department
<i>Physically Challenged Population</i>	Social Welfare Department, SSA and RMSA, Health & Family Welfare Department, DC

5.2.1 Nodal Officer for Various Departments/Offices

The District Administration has designated Officers from line departments as Nodal Officers for Disaster Preparedness and response as follows:

SI No	Nodal Officers Designated	Department
1	AE	DRDA
2	SDPO	Police
3	Med. Supdt.	H&FW Dept.
4	SDC(DM&R)	DC's Office
5	EE, Lunglei Division	PWD
6	EE, RWD	PHED
7	EE, PMD-I	P&E Dept.
8	DFDO	District Fisheries Dept.
9	DVO	AH&Vety Dept.
10	DPC	SSA
11	DMO	Trade & Commerce Dept.
12	DSO	Sericulture Dept.
13	DAO	Agri.Dept.
14	DTO	Transport Dept.
15	DRO	Eco& Stats. Dept.
16	SO	F&ES
17	IPRO	DIPRO
18	SRO	Arts& Culture Dept.
19	GM	DIC
20	TO	Treasury Office
21	DEO	Education Dept.
22	DCSO	FCS&CA
23	CDPO	SWD
24	DCPO	Dist. Child Protection Unit
25	DUDO	UD&PA
26	ACT	Taxation Dept.
27	JD	A&T (SZ)
28	Inspector	Legal Metrology
29	Asst. Commissioner	Excise & Narcotics Dept.
30	DLAO	LAD
31	DHO	Horti. Dept.
32	ASO	LR&S
33	DSYO	Sports & Youth Dept.

34	EE	Minor Irrigation Dept.
35	DFO	E&F Dept.
36	District & Session Judge	District Court
37	DEG	BSNL
38	Principal	Lunglei Govt.College
39	Principal	DIET
40	Principal	JB College
41	BDO's	RD Dept.
42	Asst. Registrar	Cooperative Societies
43	Med. Superintendent	Christian Hospital Serkawn
44	Programme Executive	AIR

5.3 Disaster Specific Measures and Approaches

Sector	Mitigation Measures	Agency responsible
INFRASTRUCTURAL DEVELOPMENT	Improving Information Education Communication activities through walling, posters, street play, volunteer's train, and village task force training. Mass rallies during normal period	Leading NGOs, BDOs
	Repair/Restoration of vulnerable points on roads before onset of monsoon.	PWD, BRTF, BDOs, VCs
	Ensuring proper maintenance of shelter places constructed by default agencies.	Concerned village committee and BDOs
	Ensure maintenance and proper functioning of electronic communication system.	BSNL/Police department BDOs
	Immediate response for repair/replacement of pipe water supply system.	PHED, BDOs and CBOs
	Proper maintenance of VHF system installed by police department.	Head of office of the concerned location (Police wireless)
HEALTH/ ANIMAL HUSBANDRY	By way of IEC activities through walling posters, street play, village task force/volunteers training, during normal period.	By leading NGOs, DM&R, BDOs
	Adequate stock piling of vaccines should be ensuring for vaccination before disaster.	CMO, DVO, BDOs
	Training Programme of common people should be programmed for Health care, sanitation and first aid from village level to district level.	CMO, DVO, BDOs
LIVELIHOOD SECTOR	By way of IEC activities through walling posters, street play, village task force/volunteers training, during normal period.	CMO, DM&R, BDOs lead NGOs
	To reduce adverse impact on AGRICULTURE farmers should be advised alternating cropping pattern/flood resistance crops. Drought	DAO, DHO and BDOs.

	resistance short duration paddy seeds are made available to farmers. Ensuring crop insurance.	
	Rising of Nursery in the horticulture farms & insurance coverage of horticultural products.	DHO, BDOs and NGOs.
INSURANCE	By way of IEC activities through walling posters, street play, village task forces/volunteers training, during normal period.	CMO/DVO/NGOs/DM&R
	Emphasizing on insurance coverage of live stock, crops, industry, workshop, etc.	DAO, BDOs and NGOs
	Creating awareness among general public. During normal time to insured human life.	Leading NGOs, BDOs

5.4 Formation of Teams

5.4.1 Joint Verification Team for Disaster Management

Depending on a disaster that occurred, the nature and magnitude of a disasters the District Disaster Management Authority when and deem necessary formed a joint verification team to investigate risk and vulnerable sites within Lunglei District. The members of the verification teams depend on the type of hazards to be verified, the nature and causes.

5.4.2 Different Teams for Disaster Response of Government Departments

The District Disaster Management Authority also formed and assigned departments for Quick Response in the event of any threatening situations and to act upon emergency. The following Departments are the QRT for Lunglei District.

1. Early Warning & Information Team

Chairman : DC
Members : DRO, Eco & Stats, IPRO

2. Search & Rescue Team

Chairman : Superintendent of Police
Members : SDC, O/C, F&ES, SDRF

3. Evacuation Team

Chairman : DC
Members : SP, SYS, 2nd Bn MAP (SDRF), LDAA

4. Damage & Loss Assessment Team

Chairman : DC
Members : BDOs, SDOs, PWD, P&E, PHE, Agri, Irrigation, DFDO

5. First Aid Team & Medical Team

Chairman : CMO, H&FW
Members : DMS, SDRF, LDAA

6. Shelter Management Team

Chairman : DC
Members : SO, PWD, P&E, BDOs, SDOs

7. Food & Water Management Team

Chairman : DCSO, Lunglei.
Members : PHE, BDOs, SDOs, PWD

8. Relief Coordination Team

Chairman : DC
 Members : PD, DRDA, BDOs, SDOs, DCSO

9. Trauma Counseling Team

Chairman : CMO, H&FW
 Members : District Child Protection Unit, DSWO

10. Patrolling Team

Chairman : SP
 Members : DC, BDOs, SDO's, 2nd Bn MAP, Excise & Narcotics

5.5 Activation of IRS in the District

The Responsible Officer, Deputy Commissioner has to ensure that the Incident Command System and IRS Teams are activated. He has to make sure that all IRS teams are ready with equipments, fund and other logistics for any other operations. As IRS in corporate all task to be performed, District Level IRS will be activated on recipient of warning of disasters.

5.6 Protocol for Seeking Help from any Other Agencies

District Disaster Management Authority shall make all logistics arrangement for seeking help from any other agencies such as Govt. of India, State Government, NDRF, SDRF etc. LDDMA will also coordinate and link with other DDMA/DDMPs of other district.

5.7 Inclusion of qualified ex-military personnel for DM

The District has qualified ex-military personnel who can be called and assigned duties of recue work in case of shortage of manpower during disaster. The DC will coordinate with officers of District Sainik Office in such even. The District Sainik Office has identified qualified ex-military personnel who are in between the age group of 35-40 for the purpose of DM. The detailed names and address of those officials are in **annexure**.

5.8 Operational Check-up for EOC

EOC is an offsite facility which will be functioning from the State / District headquarters and which is actually an augmented control room having communication facilities and space to accommodate the various ESFs. It is a combination of various line departments of Government and other agencies whose services are generally required during incident response. These officials will be able to take decisions on the spot under the guidance of RO and will be able to assist the RO in achieving the incident objectives. RO will also ensure that the line departments do not issue parallel and contradictory instructions to their field level officers. The EOC will take stock of the emerging situation and assist the RO in mobilizing the respective line department's resources, manpower and expertise along with appropriate delegated authorities for the on-scene IRT(s). EOC will keep the RO informed of the changing situation and support extended.

This responsibility can be discharged most effectively only if it has the required information through a fail-safe communication facility and an ideal information technology solution with DSS. In addition to the above a web-based connectivity will further help in accessing situational awareness, decision support and multi-agency coordination. It will allow all collaborating agencies and departments inside and outside EOC environment to share information, make decisions, activate plans, deploy IRTs, perform and log all necessary response and relief activities and make the EOC effective. It is very important to put the above capabilities in place.

5.8.1 Role of the Emergency Operation Centre in normal time

The Deputy Commissioner, Lunglei District shall be empowered to appoint an Administrative Officer as officer-in-charge of the EOC. The latter will be responsible for the effective functioning of the EOC. Responsibilities of the Officer-in-charge in normal time shall include:

- ensuring all equipments in the EOC are in working condition,
- Collection of data on routine basis from line departments for disaster management.
- develop status reports of preparedness and mitigation activities in the District.
- ensuring appropriate implementation of the District Disaster Management Plan.
- maintenance of data bank with regular updating maintenance of data bank with regular updating.
- activate the trigger mechanism on receipt of any disaster warning and/or the occurrence of any disaster.

5.8.2 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 to the departments, which play a vital role during emergencies. Issuing correct and timely warning would be one of the prime responsibilities of the EOC. For effective dissemination of warning, the EOC should have a well-planned line of communication. The D.C shall be the competent authority to disseminate a disaster warning. The warning on the occurrence of a disaster will also be communicated to-

1. All Emergency Support Functions
2. Members of the DDMA, Lunglei
3. Hospitals in the disaster area
4. State Relief Commissioner
5. Emergency Operation Centre in the neighboring districts
6. State Emergency Operation Centre
7. People's representatives from the District

During Emergency, the Officer in Charge must ensure the availability of the following equipments in the Control Room and ensure they are fully functional for proper disaster management activities:

1. Communication facilities, phone (landline and mobile including wireless set).
2. Generator, inverter with batteries.
3. Radio/TV for collection of information.
4. Record Book for entry of important notes and warning received about disaster.
5. Sufficient fuel for running the generator.
6. Vehicles for emergency (two and/or four wheelers).
7. Disaster mapping of different aspect like vulnerable and safe areas etc.
8. Standard Operating Procedure for line departments.
9. Important contact numbers for emergency.
10. List of NGOs, NSS, and NCC with their capability to respond disaster.

Apart from this, the District Emergency Operational Centre (DEOC) must arrange desk for the Emergency Support Function in its complex for better co-ordination and help. Simultaneously the onsite EOCs are to be set up with the help of the District EOC. Constant communication between the EOC, District EOC and onsite EOC is mandatory for updates on the disaster, which happened.

5.9 Command & Coordination of Response at the District Level

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

5.9 NGO's and Other Stakeholders Coordination

5.9.1 Activation of the DM Committees

As disasters affect the whole society, implementation of Disaster Management Plan need vertical and horizontal linkages with Government and NGO's, CBO's, local bodies, educational institutes and community organizations. All DM committees and task forces will be activated as the first responders to disaster. NGO coordination will be activated. Working group created will act in rescue operations as per activities assigned to them.

5.9.2 District Legal Services Authority

The District Legal Services authority, Lunglei is part of the stakeholder in Disaster Management Strategy. They will be responsible for helping the victims of natural calamities and ensure that the assistance from SDRF goes directly to the hands of the eligible beneficiaries only. They will also provide (i) Legal Aid, (ii) Legal Awareness and (iii) Capacity Building. They had been conducting various activities to help the victims of disasters.

5.9.3 Ensure the Function of all Control rooms

DEOC should function properly 24×7. Quick and correct early warning disseminations should also be ensured. Collection of accurate and correct information from the affected area is necessary to assist in providing necessary support.

CHAPTER – VI

CAPACITY BUILDING AND TRAINING MEASURES

Approaches

Developing a DDMP without building capacity or raising awareness amongst stakeholders can be detrimental to the development of a successful and sustainable plan. Stakeholders and communities are critical components to a successful, long-term, sustainable disaster management plan. Capacity Building develops and strengthens skills, competencies and abilities of both Government and no-government officials and communities to achieve their desired results during and after disasters, as well as preventing hazardous events from becoming disasters.

When Developing a DDMP without building capacity or raising awareness amongst stakeholders can be detrimental to the development of a successful and suitable plan. Stakeholders and communities are critical components to a successful, long-term, sustainable disaster management plan. Capacity Building develops and strengthens skills, competencies and abilities of both Government and non-government officials and communities to achieve their desired results during and after disasters, as well as preventing hazardous events from becoming disasters.

6.1 Capacity Building Plan

As per the 15th Financial Commission, sum is annually earmarked for the State of Mizoram under the “Grant for Capacity Building. Under this grant, the State Government had drawn up their perspective plan which focuses on trainings and various other activities to build up the capacity of different stakeholders including community based organization.

6.2 Institutional Capacity Building

For better disaster management in Lunglei District the district administration has taken initiatives by dividing the District into different zones. The divided zones are allocated to zonal officers. The zonal officers are allocated the task of first responder for any reported disasters. Law and order management, spot verification and any other necessary action need to be taken.

The district administration has also designated Nodal Officer for coordinating with State Disaster Management Authority and also Department of Disasters Management & Rehabilitations is as under:

NODAL OFFICER	
Name –Lalhlimpuii Ralte Designation - Sub-Divisional Officer (Sadar)	Mobile - 9863225008
ALTERNATE NODAL OFFICER (I)	
Name –K. Lalhlimpuia Designation -Sub-Deputy Commissioner	Mobile - 9436747887

6.3.1 Zone Allocation for Capacity Building & Recovery Measures

The District Administration has set up Quick Response at the HQs for emergency response Vide. Letter No.B.13018/17/V-2/16-17/DCLR dated 23.08.2023 in the interest of Public Service and for the smooth functioning of works in respect of Disaster Management for Lunglei Town with the area of operation of Zonal Officers as under:-

1. Allocation of zone to officers for disaster quick response (Town Area)

SI NO	NAME OF ZONAL OFFICER	COVER AREA	Contact No
1	Pi Lahlimpuii Ralte SDO(Sadar)	Pukpui, Serkawn, Zohuai, Zotlang	9863225008
2	Pu H. Zonunmawia SDO(C) Tlabung & BDO, Tlabung	Tlabung RD Block	8415051047
3	Pi T.T. Beikhaizi Election Officer	Venglai, Chanmari, Bazar Veng	8415853376
4	Pu Beitlotha Nohro DTO/DLAO	Ramthar, Electric Veng, Salem, Farm Veng, Lunglawn	7229972318
5	Pu H. Lalramenga, BDO Bungmun/ SDC	Bungmun RD Block	7005751606
6	Pu Obed Lalmalsawma BDO Lungsen	Lungsen RD Block	9612345829
7	Pu K. Lahlimpuia SDC/ASO	College Veng, Sazaikawn, Hauruang, Rahsi Veng, Venghlun	9612123193
8	Pi Lalvenhimi Ralte BDO Lunglei/SDC	Sethlun, Theirat Lunglei RD Block	8974761551
9	Pi Malsawmhriatzuali SDC	Hraangchalkawn, Lunagmual, Lungpuizawl Zobawk N& S	9436768944

6.4 Capacity Building & Community Based Disaster Management

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

- Disaster Management Training calendar has been made for 2022-2023. Communities are trained and awareness programme are organized for community. Volunteers are identified and they are given training so that they will be able to response more effectively during real crisis situations.
- Every villages and block are requested to make their own village and block disaster management plan.
- Village Disaster Management Committee and Block Disaster Management Committee are formed.
- Disaster Management Teams like Search & Rescue, Evacuation and First Aid Team are formed in every village and block level.
- District Level Mock drill involving Govt. Departments and community is conducted

occasionally.

6.4.1 Community Disaster Management Teams

- **First Aid and Medical:** This team attends to all the casualties in the event of any disaster. They will be provided with First aid kits and they will be trained by the Health Department.

SOP for First Aid and Medical Group:

Pre-Disaster

- Maintain a list of pregnant women, infants, disabled, sick, old and infirm.
- Keep First aid kits ready and ensure that expired drugs are replaced with new ones.
- Distribute basic medicines and demonstrate their use.
- To keep stretchers/local-made alternative ready for carrying the injured people.

On receipt of warning

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

Post Disaster

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

2. Search and Rescue Group: This team will also perform evacuation besides search and rescue operation. They will undergo training on:

i) drowning, ii) Fire fighting and, iii) search and rescue of collapsed building victims.

SOP for S & R Team

Pre-Disaster

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

On receipt of warning

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

Post Disaster

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

3. Shelter Management: This team will identify building for accommodation of shelter less people due to disaster.

SOP for Shelter Management Team**Pre-Disaster**

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

On Receipt of warning

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

During Disaster

- If caught inside withstand with their backs against a strong indoor wall.
- If outside during disaster, run to an open space away from trees, building etc.
- If in a moving vehicles; stop and stay inside.

Post Disaster

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

4. Food and Water Management: This team will ensure that sufficient food stuff and water supply are made available for the emergency response. They will be responsible for fair distribution of food and water during relief works.

SOP for Food & Water Management Team**Pre-Disaster Preparedness Activities:**

- Ensure sufficient supplies of chlorine tablets etc. for disinfecting drinking water.
- Ensure sufficient stocks of lime powder for disinfecting large water bodies.
- Ensure that sufficient water is stored in proper tanks and jerry cans in safe shelters.
- Ensure that there is list of contact persons at Dist.com and PHE for assistance.

- Raise prior awareness amongst the community about how to treat water sources.
- Set a minimum standard in advance for distribution of water in emergency.
- Ensure sufficient number of raised platforms, deep tube wells etc. constructed.
- Stock long steel rods, kerosene and fuel wood to dispose corpus and carcasses.
- Help of the local administration to construct temporary sanitary facilities.
- Identify the tractors and labourers required for sanitation purposes.
- Contact the P.H.E Department for assistance in acquiring diesel engines and generators.

On receipt of warning

- Assess the drinking water supply and available water resources.
- Organize for alternate power supply by procuring generators/diesel engines.
- Ensure that the sanitation facilities at the safe shelter are in working order.
- Move into the safe shelter for one's own safety.

Post Disaster

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

5. Relief Co-ordination: This will operate collection and distribution of all other collection and distribution of all other relief material except food and water supply.

SOP for Relief Coordination Team

Pre-Disaster

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

On receipt of Warning

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

Post Disaster

- Conduct a complete damage and need assessment.
- 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.
- Communicate the assessment findings to other task force groups and local authorities.
- Establish a distribution centre or community kitchen begin distribution.
- Ensure that food and other materials are distributed in an equitable manner.
- Prioritize the elderly persons, pregnant women, children etc.
- Maintain a list of the households receiving assistance.
- Work closely with the communication group to stay in touch with control room.
- Organize a meeting to evacuate the experience, internalize learning.
- Make a physical inventory of stocks when external assistance arrives.
- Keep the undistributed relief material in a safe place/Go down and preserve it.

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.

SOP for Information & Damage Assessment Team

Pre-Disaster

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

During Disaster

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

After a Disaster

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

7. Warning and Communication Group

SOP for warning and Communication Group

Pre-Disaster:

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

On receipt of warning

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

During Disaster

- Remain in the safe shelters and provide evacuates with the regular updates.

After a Disaster

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

6.5 Trainer of Trainers

The District Authority organized training for identification of trainers for community, schools and offices.

6.6 School Safety Programme

School Safety Programme and awareness programme for schools is conducted. Teachers are trained by district authority so that they can impart knowledge and information to students. Schools are instructed to make Safety Plan /Schools DM plans of their school. Mock drill is also conducted at schools

6.7 Specific Projects/Programs for disabled persons

Disabled person is 'any person who has a physical or mental impairment that substantially limits one or more major life activities; has a record of such impairment; or is regarded as having such impairment.' When an emergency or disaster occurs, disabled and physically handicapped person are more vulnerable, they are needed more care and service. Physically handicapped person can also define as loss of or failure to develop a specific bodily function or functions, whether of movement, sensation, coordination, or speech, but excluding mental impairments or disabilities

The Government of India gave a provision for the reservation of 3% of every post in public sector for physically handicapped person. It is obvious that in every department and office, there are some numbers of physically handicapped persons including visitors, when emergency broke out, these people cannot move easily in safe places and they have a little chance for surviving. Not only in an office, but also in a school, old age pension home, blind school, market, shopping mall etc. the situation is also same. It is necessary to have a good evacuation plan for this special group. Every departmental and office disaster management plan should include provision for evacuation plan for the disable and the physically handicapped persons.

In Lunglei District, there are a large number of disabled persons. These persons are not belonging to same places. They live in different villages. The District Social Welfare Office does not have any record or documents about the profile of these persons and their disability. It is necessary to organize special camp for having a numbers of disabled persons and their particulars. Besides these every department, every office, school and Village Council should maintain documents for these persons. In office and school, and also in other public place, it is necessary to make ramps for persons who are using wheel chairs. We can find such ramps in Lunglei in the Government Higher Secondary School in and the D. C's Conference Hall.

A special disaster management awareness campaign is needed by the disabled and the physically handicapped persons. They need to know special management method at the time of disaster. The D.M Act of 2005 makes a provision that 'every department and office should have their respective Disaster Management Plan'. When the Disaster Management plan is made, it is necessary to

incorporate a special plan for the disabled. The in-charge of disaster management in every office should appoint a particular staff who can handle the disable persons at the time of an emergency. Similarly, in the schools also, the teacher should select the helpful student who can take care of the physically handicapped students at the time of emergency.

CHAPTER - VII

RESPONSE MECHANISM AND RELIEF MEASURES

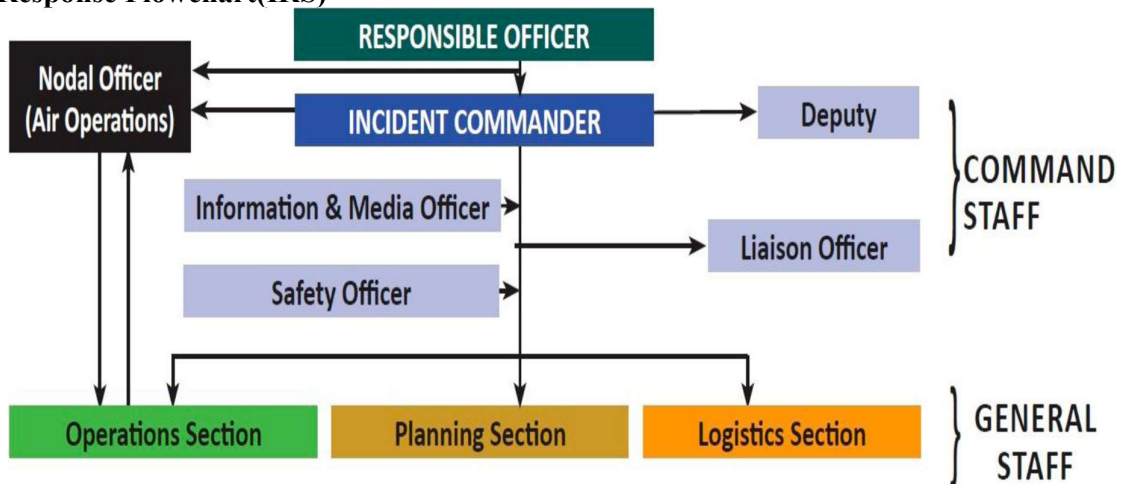
Response planning provides rapid and disciplined incident assessment to ensure a quickly scalable, adaptable and flexible response. It incorporates doctrines which defines basic roles and responsibilities for incident response across all levels of government and the private sectors.

A meeting will be held before taking up response activities. The meeting will look into the stock of the situation, availability and mobilization of resources for listing out the various tasks and to provide proper briefing to the responders. The Incident Action Plan will be drawn and put into action based on the situation assessment. The DC/RO will nominate Operation Section Commander (OSC) based on “incident type” and rest will follow as per IRS/IRT and other procedural guidelines issued by the State.

7.1 Plan Activation (IRS)

The disaster response structure will be activated, on the receipt of disaster warning or on the occurrence of the disaster, with approval from the competent authority .The occurrence of disaster may be reported by the concerned monitoring authority to the DDMA by the fastest means. DDMA will activate all departments for emergency response including District EOC and ERCs. Also, instruction will issue through them.

7.2 Response Flowchart(IRS)



7.4 Warning, Alert and Action Plan

7.4.1 Short Term Response Plan

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

information is found correct, it has to be reported to the Incident Commander via 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 EOC's.
3. Disseminate information to vertical and horizontal Administrators and DMT's.
4. Declare Disaster based on the severity/vulnerability.

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 press/media people
8. Ensure basic logistic arrangements for disaster managers and the Operation Centers
9. Mobilize resources/call assistance from various stake holders

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 the Deputy Commissioner is responsible for providing relief to the victims of natural and man- made disasters like fire, flood, draught, earthquakes, riots, terrorist attacks, accidents etc. The relief shall be provided as per the scale fixed by the government.

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

7.4.2 Long Term Action Plan

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

1. Constitution of Emergency Support Functions (ESF), Disaster Management Teams, Quick Response Teams, Fields Response Teams
2. Refreshers trainings for all such teams in regular interval of time and exercise of Mock Drills
3. Continuous of awareness/sensitization programme for the stakeholders and the general public
4. Getting pre-contract with vendors and merchant establishment to procure relief materials in times of disaster.

The actions Plans for ESFs for disaster management are discussed below. The DDMA shall ensure these action plans are updated by annually and practice dough mock drills in the district.

ACTION PLAN FOR POLICE:**Response Activation:**

- The Nodal officer from the Police will activate the Quick Response team.
- The Quick Response Teams will be deployed at the Onsite EOCs.
- 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 on lookers, 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.
- Arrangement for controlling situations like rioting and looting.
- QRTs will guard property and valuable in affected areas.
- Control and monitor traffic movement.
- QRTs will provide diversion of traffic on alternate routes as and when it is necessary.
- The 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:

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

1. Action Plan for Fire Service**Response Activation:**

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

Actions to be taken:

- At the site, QRTs should contact the local volunteers and local people together information about vulnerable areas so that search and rescue operation can take place through a proper channel in heavily dense areas, large buildings, community center, 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.

- The injured people should be taken out of damaged buildings etc. with utmost care.
- Special care to women and children group should be given as they are expected to be more affected and helpless in case of any emergency situation.
- 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.

2. Action Plan for Home Guards/Civil Defence

Response Activation:

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

Actions to be taken:

- Support and coordinate with the Incident Command System for Law and Order, Search and Rescue and medical response and Trauma Counseling functions.
- Locate the damaged and collapsed structures and rescue the population buried and trapped in rubble.
- The injured people should be taken out of damaged buildings etc. with utmost care.
- Special care to women and children groups should be given as they are expected to be more affected and helpless in case of any emergency situation.
- First Aid should be provided along with the members of ESF on medical response
- Demonstrate Search and Rescue.

3. Action Plan for P&E Deptt.

Response Activation:

- Get the power ESF activated.
- Nodal officer of primary agency will call nodal officers of supporting agencies
- As per the information from IMTs, the nodal officer of primary agency will activate the State Quick Response Teams at field level.
- The Quick Response Teams will be deployed at the affected areas.

Actions to be taken: Team Leader will dispatch emergency repair teams equipped with tools, tents etc.

4. Action Plan for BSNL

Response Activation:

- Soon after receiving information about disaster (from any source), Nodal Officer will contact State/District Emergency Operations Centre.
- The Nodal Officer from BSNL will activate the Quick Response Teams.
- The Quick Response Teams will be deployed at the Incident Sites.
- As per the information from Incident Management Team, more teams may be deployed.

Actions to be taken:

- Communicate situation to support agencies and request for detailed information on the status of equipment and infrastructure damaged in the affected areas.
- Launch assessment mission to understand better the nature of damage 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 Reports 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 clearance of the work required.
- Initiate temporary rehabilitation work required.
- Launch rehabilitation work and arrange for repairs and relocation, if required.
- Other necessary equipments to restore communication network/set-up alternative emergency communication.

5. Action Plan for UD&PA Deptt.

Actions to be taken:

- UD&PA will bring debris of heavy R.C.C structures (having beams/columns) and put dummies beneath the debris. This will facilitate demonstration of search and rescue operations. Soon after search and rescue team leave the site, UD&PA will mobilize equipments for debris clearance.
- UD&PA will assume main role in Equipment support, debris and road clearance, on receiving the intimation of the disaster from state EOC.
- UD&PA will coordinate with the supporting agency's officers to mobilize equipments.
- From the ware houses.
- The respective supporting agencies will contact their respective 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 of the intensity of the damages of structure, the nodal officer will make an assessment of the damages of roads and structures reported at the site and surrounding areas.
- The Supporting Agencies Nodal officers will call for personal immediately start debris clearance operation to enable movement to the affected site.
- All supporting agencies will inspect the road/rail network and structures within the disaster site and surrounding.
- UD&PA will also ensure proper corpse disposal and post mortem by coordinating with ESF on medical response.
- Assessment of damage (locations, no. of damaged, severity of damage)
- The QRTs will be deployed at the affected site.

- Enlisting the types of equipments 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 constructions 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 metal ling, 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 specialist from outside the state.
- If temporary living arrangements are being made from affected populace, the UD&PA must ensure high standards of sanitation in settlements in order to prevent the multiplicity of the disaster.
- It should also ensure the provision of medicine and other medical facilities required at the disaster site and the hospital health centers catering to the disaster victims.
- 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.
- Compiled an itemized assessment of damage, from reports made by various receiving centers and sub-centers.

6. Action Plan for PWD

Actions to be taken:

- The above agencies will bring debris of heavy R.C.C structures (having beams/columns) and put dummies beneath the debris. This will facilitate demonstration of search and rescue operations. Soon after search and rescue team leave the site, 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 UD&PA.
- Coordinate with the UD&PA officers to mobilize equipments from the 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 structures, the nodal officer will make an assessment on the damages of roads and structures reported at the site and surrounding areas.
- The Nodal Officer 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 operational.
- All supporting agencies will inspect the road network and structure 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 equipments as compiled from resource inventory required for conducting the debris clearance.
- The QRTs will report the situation and progress in response activities to the respective EOCs.
- Undertake constructions 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 metal ling, 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 professionals to reach the site including specialist 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 Supports, relief camps establishment, and sanitation health assistances.
- Mobilizes different modes of transportation e.g. truck, etc to be put on stand-by.
- Assist timely re-establishment of the critical transportation links.
- Establish temporary electricity supplies for relief material go downs and relief camps.
- Compiled an itemized assessment of damage, from reports made by various receiving centers and sub-centers.
- Other disaster management related equipments. JCB, concrete breakers, cranes, Grader, Jack Hammer, tipper, Folkanes, dumper, Aromatic Hammer for debris/road clearance, supporting rescue operations.
- Vehicles (truck), earth movers, mobile medical vans.
- Other disaster management related equipments.

7. Action Plan for H&FW Deptt.

Response Activation:

- Nodal Officer will call nodal officers of supporting agencies.
- In coordination with the transportation ESF, it will ensure a critical number of professionals to reach the sites including specialists.
- If temporary living arrangements are being made from the affected populace, must ensure high standards of sanitation in settlements in order to prevent the multiplicity of the disaster.
- Also ensure the provision of medicine and other medical facilities required at the disaster site and the hospital health centers catering to disasters victims.
- In case of orthopedic care required, immediate response would have to be complimented by a follow up treatment schedule for a majority of the patients in/near their place of residence.
- Trained professional should be mobilized by psychosocial support.
- Ensure setting up of temporary information centers at hospital with the help of ESF on help lines and warning dissemination.
- Coordinate, direct, and integrate state level response to provide medical and sanitation health assistances.

Actions to be taken:

- Ready all hospitals (including private hospitals) for managing large no. of casualties and severely injured population.
- Sufficient stock of required medicines, vaccines, drugs, plasters, syringes, etc.
- Provide systematic approach to patient care (Mass casualty management).
- Triage done to determine who needs to be taken to a medical facility on a priority basis and who can be treated on-site.
 - First –aid provided as required
 - Patients stabilized before transport
 - Patients transported to nearest available medical facility having the required facilities.
 - Trauma counseling provided to the victims and their relatives at the site and in the hospital.
 - In the hospital emergency department, triage carried out again to prioritize treatment, and appropriate care provided.
 - Maintain patient tracking system to keep to record of all patients treated.
 - Deploy mobile hospital as needed.
- Arrange for additional blood supply: organize blood donation camp for additional blood requirement.
- Provide for sending additional medical personnel equipped with food, bedding and tents.
- Send vehicles and any additional medical equipment.
- QRTs will report the situation and the progress on action taken by the team to the respective EOCs.
- QRTs quickly assess type of injuries, no. of people affected, and possible medical needs.
- QRTs will ensure timely response to the needs of the affected victims.
- Establish health facility and treatment centers at disaster sites.
- The district Civil Surgeon with district/state control room should coordinate the provision of medical services.
- Procedure should be clarified 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 threat or existence of an epidemic.

8. Action Plan for PHE Deptt.

Response activation:

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

Actions 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 damaged after disaster.

- Quick assessment of water contamination levels and taking steps to restore clean drinking water.
- Provide information to IMT, district EOC and state EOC about extent of damage.

9. Action Plan for Transport Deptt.

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

Actions to be taken:

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

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

7.5 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 :

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

7.6 Activation of EOC

District Control and other control rooms at the District Level will be activated with full strength. Once the situation is totally controlled and normalcy is restored, the DC shall declare end of Emergency Response and issues instructions to withdraw the staff deployed in emergency duties. The EOC is a nodal point for overall coordination and control of relief work. In case of L1 Disaster the DEOC will be activated, in case of an L2 and L3 disaster State SEOC will be activated along with the DEOC.

CHAPTER – VIII

RESPONSIBILITIES OF IRS POSITION HOLDER

8.1 Incident Commander (IC) and Command Staff

The Incident Commander is the overall in-charge for the management of onsite response to any incident. He is appointed by the Responsible Officer. He may have a deputy with him depending upon the magnitude and nature of the incident. For his assistance and management of the incident there are two sets of staff: a) Command Staff and b) General Staff. The command staffs comprise Incident Commander, Information & Media Officer (IMO), Safety Officer (SO), and the Liaison Officer (LO).

8.1.1 Roles and Responsibilities of IC

The IC will: obtain information on:

Situation status like number of people and the area affected etc.

- ❖ Availability and procurement of resources.
- ❖ Requirement of facilities like ICP, Staging Area, Incident Base, Camp, Relief Camp, etc.
- ❖ Availability and requirements of Communication system.
- ❖ Future weather behaviour from IMD.
- ❖ Any other information required for response from all available sources and analyze the situation.
- ❖ Determine incident objectives and strategies based on the available information and resources.
- ❖ Establish immediate priorities, including search & rescue and relief distribution strategies.
- ❖ Assess requirements for maintenance of law and order, traffic etc. if any at the incident site, and make arrangements with help of the local police.
- ❖ Brief higher authorities about the situation.
- ❖ Extend support for implementation of AC and UC if considered necessary by the RO.
- ❖ Establish appropriate IRS organization with Sections, Branches, Divisions and/or Units based on the span of control and scale of the incident.
- ❖ Establish ICP at a suitable place. There will be one ICP even if the incident is multijurisdictional. Even a mobile van with complete communication equipment and appropriate personnel may be used as ICP. In case of total destruction of buildings, tents, or temporary shelters may be used. If appropriate or enough space is not available, other Sections can function from a different convenient location. But there should be proper and fail safe contact with the ICP in order to provide quick assistance.
- ❖ Ensure that the IAP is prepared.
- ❖ Ensure that team members are briefed on performance of various activities as per IAP.
- ❖ Approve and authorize the implementation of an IAP and ensure that IAP is regularly developed and updated as per debriefing of IRT members. It will be reviewed every 24 hours and circulated to all concerned.

- ❖ Ensure that planning meetings are held at regular intervals. The meetings will draw out an implementation strategy and IAP for effective incident response. The decision to hold this meeting is solely the responsibility of the IC. Apart from other members, ensure that PSC attend all briefing and debriefing meetings.
- ❖ Ensure that all Sections or Units are working as per IAP.
- ❖ Ensure that adequate safety measures for responders and affected communities are in place.
- ❖ Ensure proper coordination between all Sections of the IRT, agencies working in the response activities and make sure that all conflicts are resolved.
- ❖ Ensure that computerized and web based IT solutions are used for planning, resource mobilization and deployment of trained IRT members. Consider requirement of resources, equipment which are not available in the functional jurisdiction, discuss with PSC and LSC and inform RO regarding their procurement.
- ❖ approve and ensure that the required additional resources are procured and issued to the concerned Sections, Branches and Units etc. and are properly utilized. On completion of assigned work, the resources will be returned immediately for utilization elsewhere or to the department concerned.
- ❖ If required, establish contact with PRIs, ULBs, CBOs, NGOs etc. and seek their cooperation in achieving the objectives of IAP and enlist their support to act as local guides in assisting the external rescue and relief teams.
- ❖ Approve the deployment of volunteers and such other personnel and ensure that they follow the chain of command.
- ❖ Authorize release of information to the media.
- ❖ Ensure that the record of resources mobilized from outside is maintained so that prompt payment can be made for hired resources.
- ❖ Ensure that Incident Status Summary (ISS) is completed and forwarded to the RO.
- ❖ Recommend demobilization of the IRT, when appropriate;
- ❖ Review public complaints and recommend suitable grievance redressal measures to the RO.
- ❖ Ensure that the NGOs and other social organizations deployed in the affected sites are working properly and in an equitable manner.
- ❖ Ensure preparation of After Action Report (AAR) prior to the demobilization of the IRT on completion of the incident response.
- ❖ Perform any other duties that may be required for the management of the incident.
- ❖ Ensure that the record of various activities performed by members of Branches, Divisions, Units/Groups are collected and maintained in the Unit Log.
- ❖ Perform such other duties as assigned by RO.

8.1.2 Roles and Responsibilities of Information and Media Officer (IMO)

The IMO will:

- ❖ Prepare and release information about the incident to the media agencies and others with the approval of IC; ii. jot down decisions taken and directions issued in case of sudden disasters when the IRT has not been fully activated and hand it over to the PS on its activation for incorporation in the IAP.
- ❖ Ask for additional personnel support depending on the scale of incident and workload.
- ❖ Monitor and review various media reports regarding the incident that may be useful for incident planning.
- ❖ Organize IAP meetings as directed by the IC or when required.
- ❖ Coordinate with IMD to collect weather information and disseminate it to all concerned.
- ❖ Maintain record of various activities performed.
- ❖ Perform such other duties as assigned by IC.

8.1.3 Roles and Responsibilities of Liaison Officer (LO)

The LO is the focal point of contact for various line departments, representatives of NGOs, PRIs and ULBs etc. participating in the response. The LO is the point of contact to assist the first responders, cooperating agencies and line departments. LO may be designated depending on the number of agencies involved and the spread of affected area. The LO will:

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

8.1.4 Roles and Responsibilities of Safety Officer (SO):

The SO's function is to develop and recommend measures for ensuring safety of personnel, and to assess and/or anticipate hazardous and unsafe situations. The SO is authorized to stop or prevent unsafe acts. SO may also give general advice on safety of affected communities. The SO will:

- ❖ Recommend measures for assuring safety of responders and to assess or anticipate hazardous and unsafe situations and review it regularly.
- ❖ Ask for assistants and assign responsibilities as required.
- ❖ Participate in planning meetings for preparation of IAP.
- ❖ Review the IAP for safety implications.
- ❖ Obtain details of accidents that have occurred within the incident area if required or as directed by IC and inform the appropriate authorities.
- ❖ Review and approve the Site Safety Plan, as and when required.
- ❖ Maintain record of various activities performed as per IRS Form-004.
- ❖ Perform such other duties as assigned by IC.

8.2 Operations Section Chief (OSC)

On activation of the OS, the OSC will assume command of all the field operations and will be fully responsible for directing all tactical actions to meet the incident objectives. The OSC will report to the IC. He will be responsible for activation, deployment and expansion of his Section as per IAP. As the operational activities increase and because of geographical reasons, the OSC will introduce or activate and expand the Branch into Divisions for proper span of control and effective supervision.

8.2.1 Roles and Responsibilities of OSC.

The OSC will:

- ❖ Coordinate with the activated Section Chiefs.
- ❖ Manage all field operations for the accomplishment of the incident objectives.
- ❖ Ensure the overall safety of personnel involved in the OS and the affected communities.
- ❖ Deploy, activate, expand and supervise organizational elements (Branch, Division, Group, etc.) in his Section in consultation with IC and in accordance with the IAP.

- ❖ Assign appropriate personnel, keeping their capabilities for the task in mind and maintain On Duty Officers list for the day.
- ❖ Request IC for providing a Deputy OSC for assistance, if required.
- ❖ Brief the personnel in OS at the beginning of each operational period.
- ❖ Ensure resolution of all conflicts, information sharing, coordination and cooperation between the various Branches of his Section.
- ❖ Prepare Section Operational Plan in accordance with the IAP.
- ❖ Suggest expedient changes in the IAP to the IC.
- ❖ Consult the IC from time-to-time and keep him fully briefed.
- ❖ Determine the need for additional resources and place demands accordingly and ensure their arrival.
- ❖ Ensure record of various activities performed by members of Branches, Divisions, Units/Groups are collected and maintained in the Unit Log.
- ❖ Perform such other duties as assigned by RO / IC.

8.2.1 Roles and Responsibilities of the Staging Area Manager (SAM)

The SA is an area where resources are collected and kept ready for deployment for field operations. These may include things like food, vehicles and other materials and equipment. The SA will be established at a suitable area near the affected site for immediate, effective and quick deployment of resources. More than one SA may be established if required. If resources are mobilized at other locations to be ultimately dispatched to the affected areas, these locations are also known as SAs.

The overall in-charge of the SA is known as Staging Area Manager (SAM) and he needs to work in close liaison with both the LS and PS through the OSC. School and college playgrounds, community halls, cyclone shelters and Panchayat Offices, stadia etc. may be used as SA. In case of total destruction of buildings in an incident, tents or temporary shelters may be used for such purposes. For Air Operations, open space of Airport Authority of India (AAI) may be used for loading and unloading of relief materials.

If area of AAI is not available, other suitable places near Helipads, Helibases etc. will have to be selected for such purpose. For parking of vehicles, playgrounds of the schools or any large plain areas may be used. Such parking area will preferably have separate entry and exit points. The SAM will arrange for separate entry and exit points to avoid and reduce traffic jam in an emergency.

The SAM will:

- ❖ Establish the SA with proper layout, maintain it in an orderly condition and ensure that there is no obstruction to the incoming and outgoing vehicles, resources etc.
- ❖ Organize storage and dispatch of resources received and dispatch it as per IAP.
- ❖ Report all receipts and dispatches to OSC and maintain their records.
- ❖ Manage all activities of the SA.
- ❖ Utilize all perishable supplies expeditiously.
- ❖ Establish check-in function as appropriate.
- ❖ Request maintenance and repair of equipment at SA, as needed.
- ❖ Ensure that communications are established with the ICP and other required locations e.g. different SAs, Incident Base, Camp, Relief Camp etc.
- ❖ Maintain and provide resource status to PS and LS.
- ❖ Demobilize SA in accordance with the Demobilization Plan.
- ❖ Maintain record of various activities performed and send to Sections concerned.
- ❖ Perform any other duties as assigned by OSC.

8.2.2 Roles and Responsibilities of Response Branch Director (RBD)

Response Branch is the main responder in the field dealing with the situation and performing various functions. Depending on the scale of disaster, the RBD may have to expand the number of Groups which in turn may require creation of Division. This structure is meant for close supervision by the OSC in the management of a large incident. The ideal span for supervision is 1:5. i.e. one Branch Director can supervise up to five Divisions, one Division Supervisor can supervise up to five Groups and one Group-in-charge can supervise five teams as shown in Fig. 10. More Branches, Divisions, Groups may be formed as required.

The RBD will:

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

8.2.3 Roles and Responsibilities of Division Supervisor and Groups-in-charge

As the operational activity increase because of the largeness and magnitude of the disaster, the OSC who is responsible for directing all tactical actions to meet the incident objectives will have to deploy more and more functional teams. There may be such locations which are distant, isolated and difficult to reach. There may also be a situation when simultaneously different types of incidents occur requiring different specialized handling. For example while a lot of building may have collapsed in case of earthquake, gas leaks may also have occurred resulting in fire at a number of places. The OSC may create a Division for close and proper supervision, when the span of control becomes larger or when some locations are very distant and difficult to reach. Except for the hierarchical difference, the roles and responsibilities of the Division Supervisors and the Groups-in-charge are the same. Divisions are activated when there are supervisory requirements in an isolated and distant geographical area or for the purpose of a proper span of control when the number of functional Groups increases or for various specialized response. While Groups-in-charge are assigned to accomplish specific functions within the Branch, Divisions are created for effective supervision over a large number of Groups.

8.2.4 Division Supervisors and Group-in-charge will

- ❖ Implement Division or Group assignment list.
- ❖ Assign resources within the Division or Group under them.
- ❖ Report on the progress of Operations, and the status of resources within the Division or Group.
- ❖ Circulate Organizational Assignment List (Divisional / Group) to the leaders of the Group, Strike Team and Task Force.
- ❖ Review assignments and incident activities with subordinates and assign tasks as per the situation.

- ❖ Coordinate activities with adjacent Divisions or Groups, if required.
- ❖ Submit situation and resource status to the RBD and the OSC.
- ❖ Report all hazardous situations, special occurrences or significant events (e.g., accidents, sickness, deteriorating weather conditions, etc.) to the RBD and the OSC.
- ❖ Resolve problems within the Division or Group.
- ❖ Participate in the development of IAP for next operational period, if required.
- ❖ Ensure that record of various activities performed enclosed in are collected and sent to the RBD and OSC.
- ❖ Perform any other duties as assigned by the RBD/OSC.

8.2.5 Strike Team or Task Force

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

A Task Force may be grouped with different 'kinds' and 'types' of Single Resource and dispatched under a leader, when a number of different tasks requiring different expertise need to be performed. For example, if a combination of Medical team, Rescue personnel, Fire personnel, Sanitation workers and workers for disposal of dead bodies and animal carcasses is required to be sent to a particular location, the team so constituted will be called a Task Force. The concept of proper span of control should be kept in mind while constituting the Task Force. The Strike Team or Task Force Leader reports to the Division Supervisor or Group Supervisor and is responsible for performing the tactical assignments assigned to the Strike Team or Task Force. The leader of the Strike Team and Task Force reports on work progress and status of resources maintains work records on assigned personnel and relays important information to their supervisor. In case the Branch, Division, or Group is not activated, the team leader will directly report to the OSC.

8.2.6 Roles and Responsibilities of Strike Team or Task Force Leader

The Strike Team or Task Force Leader will:

- ❖ Review assignments with members of his team.
- ❖ Report on work progress.
- ❖ Coordinate activities with adjacent Single Resource, Strike Teams and Task Forces if assigned.
- ❖ Establish and ensure communications.
- ❖ Perform any other duties assigned.
- ❖ Maintain record of various activities.

Transportation Branch (TB):

The TB in the OS supports the response effort by transporting different resources, relief materials, personnel to the affected site and also transportation of victims if necessary. Though there is a Ground Support Unit (GSU) in the LS which is responsible for providing all transportation and other related resources, the TB in the OS manages the actual deployment and utilization of the transport at ground zero according to the needs of the IRT and the IAP. The TB may comprise four operational Groups such as Road, Rail, Water and Air. These Groups may be activated as and when required. Air Operations is an important transportation activity during disasters which requires coordination at the National, State and District level. For coordination of Air Operations, the RO of the State and District will identify and designate a NO.

8.2.7 Roles and Responsibilities of Transportation Branch Director (TBD)

All functional Groups (Road, Rail, Water and Air) of the TB are managed by the TBD. Since the air transportation is to be coordinated at the State and District levels, the TBD also needs to function in close coordination with RO, IC and NO for Air Operations. He will collect the details of all related flights from the concerned NO and organize the ground support requirement. The TBD will also be responsible for the activation and expansion of various functional Groups as per the IAP.

The TBD will:

- ❖ Activates and manages different Operations Groups like Road, Rail, Water and Air.
- ❖ Coordinate with the LS for required resources, and activate Groups of his Branch.
- ❖ Coordinate with railways, road transport, waterways and airport authorities for support as required.
- ❖ Operations Section ensures that Organizational Assignment List is circulated among the Group-in-charge(s) and other responders of his Branch.
- ❖ Provide ground support to the air operations and ensure appropriate security arrangements.
- ❖ Provide Road transport support to the Rail and Water Operations Group as required.
- ❖ Ensure safety of all personnel of his Branch involved in the Incident Response activities.
- ❖ Ensure that all units moving in the area are familiarized with route with the help of road maps or local guides.
- ❖ Report to the OSC and IC about progress of the TB.
- ❖ Prepare transportation plan as per the IAP, if required.
- ❖ Determine the need for additional resources, their proper and full use and placed demand accordingly in advance.
- ❖ Resolve problems and conflicts, if any.
- ❖ Ensure the maintenance of the status of hired resources, their full utilization and timely release.
- ❖ Ensure that the record of various activities performed by different operational groups (Road, Rail, Water and Air) are collected and sent to the Section concerned.
- ❖ Perform any other duties assigned by the IC or OSC.

8.2.6 Roles and Responsibilities of Group-in-charge (Road Operations)

The Group-in-charge (Road Operations) works under the TBD and is responsible for all road transportation activities. He has a Coordinator (Road Operations) under him for assistance. If the scale of operations increases, the TBD may activate the position of an Assistant Coordinator. The Loading and Unloading-in-charge will work under the Coordinator.

The Group-in-charge (Road Operations) will:

- ❖ Ensures transportation of resources by Road to the affected sites.
- ❖ Requisition additional personnel support, if required.
- ❖ Attend planning meetings on the direction of OSC.
- ❖ Determine coordination procedures with various destinations as per IAP.
- ❖ Ensure proper parking locations.
- ❖ Resolve conflicts of the Group, if any.
- ❖ Update Road Operations plan as required and share them with higher authorities.
- ❖ In case of accidents, inform the TBD, the local police and provide assistance in investigation, if required.
- ❖ Ensure that mechanics are available for repair of vehicles and also ensure adequate availability of Petrol, Oil and Lubricants (POL).

- ❖ Maintain the records of all important activities relating to the number of vehicles deployed, source of vehicles (i.e. Government or private), locations where vehicles are deployed along with resource details they are carrying, etc.
- ❖ Support and coordinate the Road Operations part of the Rail, Water and Air Operations as required.
- ❖ Collect record of various activities performed from coordinator and other members and send to TBD or OSC.
- ❖ Perform any other duties assigned by the TBD or OSC.

8.2.7 Roles and Responsibilities of Coordinator (Road Operations)

The Coordinator (Road Operations) is primarily responsible for coordinating the Road transport needs. There may be more than one coordinator depending upon the number of vehicles deployed.

The Coordinator (Road Operations) will:

- ❖ Survey the assigned incident area to analyze situation and identify other potential problems in the context of transportation.
- ❖ Requisition an Assistant Coordinator (Road Operations) depending on the magnitude of the incident and requirement.
- ❖ Coordinate with SAM for smooth transportation of resources.
- ❖ Receive assignments, brief drivers regarding the routes, assign missions, supervise vehicle movement and attend to the vehicle maintenance and repair needs.
- ❖ Monitor activities of all assigned vehicles and keep senior officers informed.
- ❖ Report incidents or accidents that occur in Road Operations to the TBD.
- ❖ Maintain the records of supplies to different locations.
- ❖ Keep track of vehicle movements. Provide GPS support, if available.
- ❖ Request security support for transportation of relief materials if required and alert the police administration in the affected areas along the transportation route.
- ❖ Maintain coordination at loading and unloading points.
- ❖ Ensure that communication facilities are established at loading stations, SAs and destination points.
- ❖ Attend to and resolve the needs of the personnel working under him.
- ❖ Maintain record of various activities performed and send to the Group-in-charge or TBD.
- ❖ Perform any other duties assigned by the OSC or TBD.

8.2.8 Roles and Responsibilities of Loading / Unloading-in-Charge (Road, Rail and Water)

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

- ❖ Request security support for transportation of relief materials if required and alert the police administration in the affected areas along the transportation route.
- ❖ Maintain coordination at loading and unloading points.
- ❖ Ensure that communication facilities are established at loading stations, SAs and destination points.
- ❖ Attend to and resolve the needs of the personnel working under him.
- ❖ Maintain record of various activities performed and send to the Group-in-charge or TBD.
- ❖ Perform any other duties assigned by the OSC or TBD.

8.2.9 Roles and Responsibilities of Loading / Unloading-in-Charge (Road, Rail and Water)

The Loading and Unloading-in-charge has a very significant role to play in any disaster response. The roles and responsibilities in Road, Rail and Water Operations are the same where as the roles and responsibilities for the Air Operations is slightly different. Therefore the roles and responsibilities of Loading / Unloading-in-charge are being dealt together for the Rail, Road and Water and separately for the Air Operations.

The Loading / Unloading-in charge will work under the Road, Rail and Water Coordinator. The Loading / Unloading-in-charge (Road, Rail and Water) will

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

8.2.10 Roles and Responsibilities of Group-in-charge (Rail Operations)

In most disaster response situations, Rail Transportation is utilized for transporting relief materials and resources from very distant places. It requires coordination with the railway authorities for making available trains and wagons at appropriate places. Railway stations are located at specific locations, sometimes far away from the affected sites. Loading and Unloading may be required from Rail to Road and Road to Rail. Whenever.

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

8.2.11 Roles and Responsibilities of Group-in-charge (Rail Operations):

In most disaster response situations, Rail Transportation is utilized for transporting relief materials and resources from very distant places. It requires coordination with the railway authorities for making available trains and wagons at appropriate places. Railway stations are located at specific locations, sometimes far away from the affected sites. Loading and Unloading may be required from Rail to Road and Road to Rail. Whenever transportation by Rail is envisaged, a Rail Operations Group needs to be activated and they should have close liaison with the Road Operations Group-in-charge. The Group-in-charge (Rail) works under the TBD and is responsible for supervision of all Rail Transportation activities. In keeping with the scale of transportation requirements and management of proper span of control, the TBD may activate position of Assistant Coordinator if required.

The Group-in-charge (Rail Operations) will:

- ❖ Work under the TBD and coordinate all Rail Operations.
- ❖ Organize crew for Loading and Unloading.
- ❖ Ensure safe storage and warehousing of the materials.
- ❖ Evaluate storage locations, ensure safety and obtain guidance from the TBD, if required.
- ❖ Coordinate with Road Operations Group for movement of resources.
- ❖ Prepare and provide Rail Operations Summary including time of departure and arrival, destinations, resource details, etc as and when required by the senior officers.
- ❖ Request for additional personnel support, if required.
- ❖ Update the TBD from time to time and seek support, if required.
- ❖ Resolve conflicts within his Group, if any.
- ❖ Update Rail Operations Plan.
- ❖ Establish and maintain communications with various storage and warehousing areas, destination points and railway officers.
- ❖ Collect record of various activities performed from Coordinator and other in-charges and send to TBD or OSC.
- ❖ Perform any other duties assigned by OSC or TBD.

8.2.12 Roles and Responsibilities of Coordinator (Rail Operations)

The Coordinator (Rail Operations) will:

- ❖ Work under the Group-in-charge and provide coordination services for transportation of relief materials by Rail.
- ❖ Survey assigned stations or points, to analyze the situation and other potential problems.
- ❖ Ask for additional personnel support, if required.
- ❖ Receive assignments, and supervise movement of resources.
- ❖ Maintain liaison with Railway authorities regarding train timings etc.
- ❖ Report incidents or accidents that may occur in Rail Operations.
- ❖ Ask for and monitor security arrangements of the resources.
- ❖ Maintain record of various activities performed send to the Group-in-charge or TBD.
- ❖ Perform any other duties assigned by Group-in-charge.

8.2.13 Roles and Responsibilities of Loading / Unloading-in-charge (Rail Operations): The roles and responsibilities of Loading/Unloading-in-charge of Rail Operations are similar to those of the Loading/Unloading-in-charge of Road Operations.

8.2.14 Roles and Responsibilities of Group-in-charge (Water Operations)

In some disasters, especially floods and cyclones, the need for Water Operations may become essential. The deployment of boats / country boats and other water transport may be necessary both for rescue work and transportation of relief materials. Depending on the scale of the disaster, the TBD may activate a Water Operations Group, consisting of Group-in charge, Coordinator and Loading / Unloading-in-charge. If required, the Group-in-charge may request for an Assistant Coordinator.

The Group-in-charge (Water Operations) will

- ❖ Ensure transportation of rescue teams and relief materials by motor boats / country boats or by any other water transport to the affected sites with communication facilities and a local guide for guidance with each team.
- ❖ Requisition personnel support, if required.
- ❖ Determine coordination procedures with various destinations as per IAP.
- ❖ Supervise all Water Operations and related activities associated with the incident.
- ❖ Evaluate and ensure docking or harboring locations.

- ❖ Resolve conflicts, if any.
- ❖ Update Water Operations plan and share it with the higher authorities, including the LSC.
- ❖ Arrange for an accident investigation team as and when required and cooperate with the appropriate investigating authorities.
- ❖ Ensure availability of POL and other logistic support for boat operations.
- ❖ Attend to the needs of the personnel working with him.
- ❖ Collect record of various activities performed from Coordinator and other in-charges and send to TBD or OSC.
- ❖ Perform such other duties as assigned by TBD or OSC.

8.2.15 Roles and Responsibilities of Coordinator (Water Operations):

The Coordinator (Water Operations) will:

- ❖ Coordinate all activities relating to transportation of resources by motor boats /country boats etc. Activation of this position is contingent upon the complexity of the incident. There may be more than one Coordinator (Water) assigned to an incident with Loading and Unloading-in-charge.
- ❖ Survey assigned incident areas to analyze the situation and other potential problems.
- ❖ Coordinate with SAM for smooth transportation of relief materials, if required.
- ❖ Receive assignments and supervise Water transport movement activities.
- ❖ Monitor all Water Operations for their safety.
- ❖ Ensure proper communications with Water transport personnel deployed in search and rescue as well as relief operations;
- ❖ Keep the records of supplies to different locations, Water transport movements etc.
- ❖ Report incidents or accidents that may occur in Water Operations to the TBD and other designated authorities.
- ❖ Assess requirements of POL etc. for Water Operations and ensure their availability.
- ❖ Maintain liaison with Coordinator (Road Operations) as most relief supplies will arrive by road.
- ❖ Maintain record of various activities and send to the Group-in-charge or TBD.
- ❖ Perform any other duties assigned by the OSC or TBD.

8.2.16 Roles and Responsibilities of the Loading and Unloading-in-charge (Water Operations):

The roles and responsibilities of Loading and Unloading-in-charge for Water Operations will be similar to those of their counterparts in the Road Operations Group.

Air Operations For disaster response in India air operations may be needed for four tasks: (a) quick transportation of relief materials and resources to the affected area, (b) quick distribution of relief materials, food, medicine etc (Air dropping) in inaccessible and affected areas, (c) search and rescue of victims trapped in inaccessible areas, and (d) evacuation of casualties.

Normally, the Indian Air Force will be tasked for Air support Operations. At times, Indian Airlines, Pawan Hans and other private Airlines may also be utilized for transportation purposes. Different types of Aircrafts may need to be utilized for different mission requirements e.g. transport Aircraft or helicopter etc. from any of the agencies discussed above.

Close coordination at the National Level is essential for the launch of any Air Operations. It needs a close liaison among the NDMA, NEC, Air Force, Ministry of Civil Aviation, State RO and the ROs of the Districts where the Air Operations is to be performed. It is therefore very essential that a NO should be identified and designated in advance at all these levels for coordination and activation of the Air Support. The stakeholders should be aware of the designated NO for Air Operations.

In the context of the IRS, a ground support element will have to be placed at all required landing and takeoff facilities in the affected areas. The ground support requirements including Aviation Turbine Fuel (ATF), security etc. for the Air Operations will be the responsibility of the

TBD. On taking the decision to launch Air Operations, the TBD will activate the Air Operations Group under him. The Group will be headed by a supervisor and necessary organizational elements will have to be activated at all required landing and takeoff locations headed by an in-charge at airbases, helibases and helipads.

The composition of the Air Operations (Fig. 14.) will be: NOs who will be designated by the State and District level ROs at their respective level, Group-in-charge, who will work directly under the TBD for coordination of logistic support at Airbase, Helibase and Helipad.

8.2.17 Roles and Responsibilities of Nodal Officer (NO)

The Nodal Officer (Air Operations) will:

- ❖ Coordinate with concerned authorities for air operations.
- ❖ Project the type of Air support required to the appropriate authorities based on the IAP and place the demand at least 24 hours in advance or as early as possible.
- ❖ Inform the IC and OSC about the Air movements and landing schedules in their respective areas.
- ❖ Ensure that relevant Maps of the incident locations are available with all agencies involved in the Air Operations to give the correct coordinates etc. of the locations where Air support is required.
- ❖ Determine the suitability of Helipads or Helibases in coordination with the Air Force authorities and the State authorities.
- ❖ Maintain communication with Air Traffic Control and the ground support staff regarding the Air movements and other related activities.
- ❖ Assist the IC and the LSC in the procurement of required ATF etc.
- ❖ Report on Air Operations activities to the RO.
- ❖ Perform any other duties assigned by the RO and IC.

8.2.18 Roles and Responsibilities of Group-in-charge (Air Operations)

The Group-in-charge (Air Operations) will:

- ❖ Provide ground support to Air Operations as per the IAP.
- ❖ Report to TBD the progress of Air Operations and work in close coordination with the NO, IC, OSC and TBD.
- ❖ Ensure resources and supplies required for the Air Operations are available at the concerned locations.
- ❖ Keep appropriate Maps in order to provide correct coordinates to the pilots and others involved in the Air Operations.
- ❖ Requisition additional personnel support, if required.
- ❖ Ensure refueling facilities are available at the landing and takeoff locations.
- ❖ Ensure that Helibase and Helipad locations are identified and approved by the appropriate authorities.
- ❖ Determine the need for assignment of personnel and equipment at each Helibase and Helipad.
- ❖ Ensure identification and marking of Helibases and Helipads.
- ❖ Ensure that the communication systems are in place.
- ❖ Update landing and takeoff schedule of Aircrafts and Helicopters as informed by NO.
- ❖ Ensure preparation of the load manifest for proper loading or unloading of relief supplies.
- ❖ Arrange for unloading and dispatch or storage of relief materials that arrive at the airports, helipads and helibase. In order to keep airports operational, special attention needs to be paid to unsolicited relief supplies that may arrive. They should be immediately cleared from the operational area.
- ❖ Ensure that proper packaging and weighing facilities are in place and used for loading of relief materials.

- ❖ Liaise with the road operations group for the road transportation needs.
- ❖ Ensure the functionality of Aircraft rescue and fire fighting service at Helibases and Helipads, security, proper lights, smoke candles/devices, weighing facilities, wind direction socks, etc. are in place.
- ❖ Collect record of various activities performed from Helibase and Helipad-in-charge and send to TBD or OSC or IC.
- ❖ Perform any other duties assigned by the TBD.

8.2.19 Roles and Responsibilities of Helibase / Helipad-in-Charge

A Helibase is the main location for parking, fueling and carrying out the maintenance of the Helicopters. It may also be used for loading and unloading of relief materials. Helipads are temporary locations in the incident area where Helicopters can safely land and take off. The Helibase is often located at the Airport or at another location decided by the District administration in consultation and approval by the agency operating the Helicopter. When more than one Helibase is established it will be designated by name of the incident with number. Helipads are established and used for operational purpose only like loading unloading of personnel and equipment and other relief materials etc. The Helibase / Helipad-in-charge will report to the TBD.

The Helibase, Helipad-in-charge will:

- ❖ Provides all ground support requirement of Helicopters at the location.
- ❖ Keep appropriate Maps in order to provide correct coordinates to the pilots.
- ❖ Survey the Helibase / Helipad area to analyze situation, potential Aircraft hazards and other likely problems.
- ❖ Ensure that the Helipad and Helibase is properly marked so that it is visible from the air for smooth landing of Aircrafts.
- ❖ Coordinate with the ground supervisor for Helicopter Operations.
- ❖ Determine and implement ground and air safety requirements and procedures.
- ❖ Maintain continuous monitoring of the assigned Helibases and Helipads and remain vigilant for unusual happening or hazards that may affect the AirOperations and take precautionary measures.
- ❖ Ensure that all personnel deployed at the Helibases and Helipads are aware of the safety requirements.
- ❖ Establish ground communication facilities.
- ❖ Notify supervisor immediately of any delays in Helicopter schedules.
- ❖ Ensure Aircraft rescue measures, fire fighting services, lights, smoke candles, weighing facilities, wind direction socks, dust abatement measures and security etc. are in place and working properly at Helibases and Helipads.
- ❖ Ensure proper facilities for rest, refreshment, water and sanitation for the Air crew.
- ❖ Inform the supervisor about the mission completion.
- ❖ Maintain record of various activities performed and send to Group-in-charge.
- ❖ Perform any other duties assigned by the Group-in-charge.

8.2.20 Roles and Responsibilities of Loading / Unloading-in-Charge

The Loading / Unloading-in-charge will:

- ❖ Be responsible for the safe Operations of Loading and Unloading of cargo and personnel at Helibases.
- ❖ Report to the Airbases, Helibases and Helipad-in-charge.
- ❖ Ensure load manifest of personnel and cargo.
- ❖ Ensure no inflammable material is loaded on the Aircrafts.
- ❖ Supervise loading and unloading crew.

- ❖ Ensure proper packaging of the loads, keeping in view the weight restriction that may be imposed by the pilots due to weather conditions and make sure that weighing facilities are available for such purpose.
- ❖ Maintain record of various activities performed as and send to Group-in-charge.
- ❖ Perform any other duties as assigned by the Group-in-charge, Helibase-in-charge and Helipad-in-charge.

8.3 Planning Section (PS)

PS comprises Resource Unit, Situation Unit, Documentation Unit and Demobilisation Unit. The Section is headed by a chief known as Planning Section Chief.

8.3.1 Planning Section Chief (PSC)

The PSC is responsible for collection, evaluation, dissemination and use of information. It keeps track of the developing scenario and status of the resources. In case of need, the PS may also have Technical Specialist for addressing the technical planning matters in the management of an incident. A list of such specialists will be kept available in the PS.

The PSC reports to the IC and will be responsible for the activation of Units and deployment of personnel in his Section as per requirement.

8.3.2 Roles and Responsibilities of PSC.

The PSC will:

- ❖ Coordinate with the activated Section Chiefs for planning and preparation of IAP in consultation with IC.
- ❖ Ensure that decisions taken and directions issued in case of sudden disasters when the PS had not been activated are obtained from the IMO (Command Staff) and incorporated in the IAP.
- ❖ Ensure collection, evaluation, and dissemination of information about the incidents including weather, environment toxicity, availability of resources etc. from concerned departments and other sources. The PS must have a databank of available resources with their locations from where it can be mobilised.
- ❖ Coordinate by assessing the current situation, predicting probable course of the incident and preparing alternative strategies for the Operations by preparing the IAP. The IAP contains objectives reflecting the overall incident strategy and specific tactical actions and supporting information for the next operational period (24 hours is considered as one operational period). The plan may be oral or written. Written plan may have a number of attachments, including incident objectives, organization assignment incident communication plan demobilization plan traffic plan, safety plan, and incident map etc. The major steps for preparing IAP are as follows;
 - a. Initial information and assessment of the damage and threat.
 - b. Assessment of resources required.
 - c. Formation of incident objectives and conducting strategy meetings.
 - d. Operations briefing.
 - e. Implementation of IAP.
 - f. Review of the IAP.
 - g. Formulation of incident objectives for the next operational period, if required.
- ❖ Ensure that Incident Status Summary is filled and incorporated in the IAP.
- ❖ Ensure that Organizational Assignment List (Divisional / Group) IRS is circulated among the Unit leaders and other responders of his Section.
- ❖ Plan to activate and deactivate IRS organizational positions as appropriate, in consultation with the IC and OSC.

- ❖ Determine the need for any specialized resources for the incident management.
- ❖ Utilize IT solutions for pro-active planning, GIS for decision support and modelling capabilities for assessing and estimating casualties and for comprehensive response management plan.
- ❖ Provide periodic projections on incident potential.
- ❖ Report to the IC of any significant changes that take place in the incident status.
- ❖ Compile and display incident status summary at the ICP.
- ❖ Oversee preparation and implementation of Incident Demobilization Plan.
- ❖ Assign appropriate personnel, keeping their capabilities for the tasks in mind and maintain On Duty Officers for the day.
- ❖ Ensure that record of various activities performed by members of Units are collected and maintained in the Unit
- ❖ Perform any other duties assigned by IC.

8.3.3 Roles and Responsibilities of Resource Unit Leader (RUL)

The Resource Unit Leader will:

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

8.3.4 Roles and Responsibilities of Check-in/Status Recorder

The Check-in and Deployment Status Recorder will:

- ❖ Report to the RUL.
- ❖ Ensure that all resources assigned to an incident are accounted for at each check-in point.
- ❖ Obtain required work materials, including Check-in Lists, Resource Status display boards showing different locations for deployment of resources, collection of resources with time of arrival and type of resources etc. The status of resources would be displayed through T card board or through a computerized programme on the computers.
 - ❖ Establish communications with the EOC and Ground Support Unit (GSU) of LS.
 - ❖ Ensure displays of check-in locations on signboard so that arriving resources can easily locate the Check-in location(s).
 - ❖ Enter or record information on Incident Check-in and deployment list.
 - ❖ Transmit Incident Check-in and deployment information to Resource Unit on a regular and prearranged schedule or as needed.
 - ❖ Forward completed Check-in Lists to the Resource Unit.
 - ❖ Maintain record of various activities performed and send to Sections concerned.
 - ❖ Perform any other duties as assigned by PSC.

8.3.5 Roles and Responsibilities of Situation Unit Leader (SUL)

The SUL will:

- ❖ Collect process and organise all incident information as soon as possible for analysis. For such purposes, he can take the help of members of the Single Resource, Task Forces, Strike Teams, field level Government officers and members of PRIs, CBOs, NGOs etc.
- ❖ Prepare periodic future projections of the development of the incident (along with maps if required) and keep the PSC and IC informed.
- ❖ Prepare situation and resource status reports and disseminate as required.
- ❖ Provide authorized maps, photographic services to responders, if required.
- ❖ Attend IAP Meeting with required information, data, documents and Survey of India maps etc.
- ❖ Maintain record of various activities performed and send to Section concerned.
- ❖ Perform such other duties assigned by SUL or PSC.

8.3.6 Roles and Responsibilities of Display Processor (DP)

The DP is responsible for the display of incident status information obtained from Field Observers (FOs), Single Resource, Strike Teams, Task Forces, and through other sources.

The DP will:

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

8.3.7 Roles and Responsibilities of Field Observer (FO):

The FO is responsible for collecting situation information from personal observations of the incident and provides this information to the SUL. He may be a local private individual or a member of any of the operational Units / Groups. The PSC will specially designate the individuals for such purpose.

The FO will:

- ❖ Report to SUL immediately on any situation observed which may cause danger and safety hazard to responders and affected communities. This should also include local weather conditions.
- ❖ Gather intelligence that may facilitate better planning and effective response.
- ❖ Maintain record of various activities performed and send to the SUL.
- ❖ Perform such other duties as assigned by SUL or PSC.

8.3.8 Roles and Responsibilities of Documentation Unit Leader (DUL):

The DUL will:

- ❖ Ensures that all the required forms and stationery are procured and issued to all the activated Sections, Branches, Divisions, Groups and Units.
- ❖ Compile all information and reports related to the incident.
- ❖ Review and scrutinize the records and various IRS forms for accuracy and completeness.
- ❖ Inform appropriate Units of errors or omissions in their documentation, if any, and ensure that errors and omissions are rectified.
- ❖ Store files properly for post-incident analysis.

- ❖ Maintain record of various activities performed and send to Sections concerned.
- ❖ Perform any other duties as assigned by the PSC.

8.3.9 Roles and Responsibilities of Demobilization Unit Leader (Demob. UL)

In the management of a large incident, demobilization can be quite a complex activity and requires proper and separate planning. When the disaster response is nearing completion, the resources mobilized for response need to be returned. This should be done in a planned and phased manner. Demobilization requires organizing transportation of both equipment and personnel to a large number of different places both near and far away.

The Demob. Unit will prepare the demobilization plan in consultation with RO, IC and PSC. The plan should include the details of the responders to be demobilized, the date, mode of transport, location from where they will be demobilized, the destination where they have to finally reach etc. There will be a similar plan for out of service equipment and sick personnel also.

The Demob. UL will:

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

8.3.10 Technical Specialists (TS)

In consultation with the RO and IC, the PSC may mobilize Technical Resources and Specialists for specialized response, if required. They may be deployed for technical planning or specialized technical response and will function under the concerned section chief. The TSs will provide technical support to the response management. A data base of TS will be prepared in advance at the District, State, Metropolitan City and Union Territory levels and incorporated in their DM Plan.

8.4 Logistics Section (LS)

LS provide all logistic support for effective response management. The Units under different Branches of the LS are responsible not only for the supply of various 'kinds' and 'types' of resources, but also for the setting up of different facilities like the Incident Base, Camp, ICP and Relief Camp etc. This would entail the involvement of several line departments of Government and other agencies. It would require a proper and smooth coordination at the highest level of the administration. The LS will work closely with the RO, EOC and the IC. The State and District DM plans will have comprehensive details like where the required resources can be procured from and manpower mobilized, etc. IDKN, IDRN and CDRN may also be useful for the mobilization of equipment and manpower.

8.4.1 Logistics Section Chief (LSC)

The LS comprises Service, Support and Finance Branches. Structure and details of each Branch are shown in Fig. 16. The Section is headed by a chief known as the LSC. The activation of various Branches of the LS is context specific and would depend on the enormity and requirements of the incident. The Finance Branch (FB) constitutes an important component of the LS to specially facilitate speedy procurement, and proper accounting following financial procedures and rules.

8.4.2 Roles and Responsibilities of LSC

The LSC will:

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

8.4.3 Roles and Responsibilities of Service Branch Director (SBD)

The SBD will:

- ❖ Work under the supervision of LSC, and manage all required service support for the incident management.
- ❖ Manage and supervise various Units of the Branch like Communication Unit, Medical Unit, Food Unit and any other activated Unit.
- ❖ Discuss with activated Unit leaders for the materials and resources required and procure the same through LS.
- ❖ Ensure proper dispatch of personnel, teams, resources etc as per the IAP.
- ❖ Prepare an assignment list, if required.

- ❖ Keep the LSC informed about the progress of Service Branch, from time-to-time.
- ❖ Resolve Service Branch problems, if any.
- ❖ Maintain record of various activities performed and send to sections concerned.
- ❖ Perform any other duties assigned by the IC and LSC.

8.4.4 Roles and Responsibilities of Communication Unit Leader (Com. UL)

The Com. UL will:

- ❖ Work under the direction of the SBD.
- ❖ Provide communications facility as and when required.
- ❖ Ensure that all communications equipment available are in working condition and that the network is functional.
- ❖ Supervise Communication Unit activities.
- ❖ Maintain the records of all communications equipment deployed in the field.
- ❖ Recover equipment provided by Communication Unit after the incident is over. Ensure that it is properly linked with the IDP.
- ❖ Ensure setting up of a message centre to receive and transmit radio, telephone and other messages from various activated Sections, Branches, Units and higher authorities and maintain their records.
- ❖ Prepare an alternative communication plan for execution in case of possible failure of the normal communications network. The alternative communications network may have wireless, satellite phones, cell phones, HAM radios etc.
- ❖ prepare a plan for integration of the communications set up of the central teams (NDRF, Armed Forces) with the local communications set up for the management of large scale disasters when they come to assist in the response effort.
- ❖ Ask for and ensure adequate staffing support.
- ❖ Ensure that the communications plan is supporting the IAP.
- ❖ Demobilise Communications Centre in accordance with the IDP.
- ❖ Maintain record of various activities performed and send to SBD.
- ❖ Perform any other duties assigned by the SBD or LSC.

8.4.5 Roles and Responsibilities of Medical Unit Leader (MUL)

The MUL will:

- ❖ Work under the direction of the SBD.
- ❖ prepare the Medical Plan and procurement of required resources as per IAP, provide medical aid and ambulance for transportation of victims and maintain the records of the same, obtain a road map of the area from the PS for the ambulance services, transportation of medical personnel and victims.
- ❖ Respond to requests of the OS for medical aid, transportation and medical supplies etc. under intimation to the SBD and LSC.
- ❖ Maintain the list of medical personnel who could be mobilized in times of need.
- ❖ Requisition more human resources as and when required to meet the incident objectives.
- ❖ Prepare and circulate list of referral service centres to all the medical team leaders.
- ❖ Maintain record of various activities performed and send to SBD.
- ❖ Perform any other duties assigned by the SBD and LSC.

8.4.6 Roles and Responsibilities of Food Unit Leader (FUL)

The FUL will:

- ❖ Work under the direction of the SBD.
- ❖ Supply resources to various activated Sections, Branches, Units and Groups of IRT as per direction of the SBD.

- ❖ Supply food to: a) Personnel of IRT(s) at ICP, Camps, Incident Base, SA, etc., and b) Victims at the temporary shelters, relief camps etc.
- ❖ Request for assistants if the task becomes very large. The FUL may request the LSC to split the unit into two groups—one to supply food for personnel and another for victims. Requisition transport for supply of food to incident base, relief camp and other facilities.
- ❖ Determine food and drinking water requirements and their transportation, and brief the SBD and LSC.
- ❖ Maintain an inventory of receipt and dispatch of resources.
- ❖ Supervise the Unit activities.
- ❖ Maintain record of various activities performed and send to SBD.
- ❖ Perform any other duties assigned by the SBD and LSC.

8.4.7 Roles and Responsibilities of Support Branch Director (Sup. BD)

The Sup. BD will:

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

8.4.8 Roles and Responsibilities of Resource Provisioning Unit Leader (RPUL):

The RPUL will:

- ❖ Work under the supervision of Sup.BD.
- ❖ Organize movement of personnel, equipment and supplies.
- ❖ Receive and store safely all supplies required for the incident response.
- ❖ Maintain the inventory of supplies and equipment.
- ❖ Maintain the records of receipt and dispatch of supplies including equipment and personnel.
- ❖ Organize repair and servicing of non-expendable supplies and equipment;
- ❖ Participate in the planning meeting of LS.
- ❖ Monitor the 'Kind', 'Type' and quantity of supplies available and dispatched.
- ❖ Receive and respond to requests for personnel, supplies and equipment from the activated Sections, Branches, Divisions, Units and Groups of the IRS organization under intimation to Sup. B.D.
- ❖ Requisition additional human resource assistance, if needed. These assistants may be deployed for different functional activities such as Resource Ordering, Resource Receiving and Tool & Equipment maintenance.
- ❖ Maintain record of various activities performed and send to Sup.BD.
- ❖ Perform any other duty as assigned by LSC or Sup.BD.

8.4.9 Roles and Responsibilities of Resource Ordering-in-charge

The Resource Ordering-in-charge will:

- ❖ Report to the RPUL.
- ❖ Prepare a list of resources to be procured and obtain its approval.

- ❖ Place resource orders in a timely manner as per procedure lay down.
- ❖ Maintain record of various activities performed and send to RPUL.
- ❖ Perform any other duties assigned by the RPUL.

8.4.10 Roles and Responsibilities of Resource Receiving and Distribution-in-Charge

The Resource Receiving and Distribution-in-Charge will:

- ❖ Report to the RPUL.
- ❖ Receive and distribute all resources and services which have been ordered.
- ❖ Identify and ensure time and locations for delivery of supplies and equipment.
- ❖ Prepare separate lists for the resources received from line departments of Government and from other sources.
- ❖ Organize physical layout of supply area.
- ❖ Set up a filing system for receiving and distributing supplies and equipment and keep RPUL informed.
- ❖ Ensure security requirements.
- ❖ Keep the Resource Ordering-in-Charge informed about the positions of supplies and equipment received.
- ❖ Maintain record of various activities performed and send to RPUL.
- ❖ Perform any other duties assigned by the RPUL.

8.4.11 Roles and Responsibilities of the Tool and Equipment Specialist

The Tool and Equipment Specialist will:

- ❖ Report to RPUL.
- ❖ Supervise the service and repair all tools and equipment and keep the RPUL informed of their status.
- ❖ Maintain record of activities performed and send to RPUL.
- ❖ Perform any other duties assigned by the RPUL.

8.4.12 Roles and Responsibilities of Facilities Unit Leader (Fac. UL)

The Fac. UL will:

- ❖ Prepare the layout and activation of incident facilities, e.g., Incident Base, Camp(s), Relief Camp(s), ICP, etc., and provide basic amenities to the responders.
- ❖ Report to the Sup.BD.
- ❖ Locate the different facilities as per the IAP.
- ❖ Participate in the planning meeting of the Section, prepare list for each facilities and its requirements in coordination with the LSC.
- ❖ Ask for additional personnel support if required to monitor and manage facilities at Incident Base and Camp etc.
- ❖ Maintain record of various activities performed and send to Sup. BD.
- ❖ Perform such other duties as assigned by the Sup. BD.
 - a. Other in-charges under the Fac. UL Depending on the enormity and magnitude of the arrangements required, the Fac. UL may need to deploy other in charge under him for maintenance of various facilities and their security.

8.4.13 Roles and Responsibilities of Facility Maintenance-in-charge

The Facility Maintenance-in-charge will:

- ❖ Ensure that proper sleeping and resting facilities are organized.
- ❖ Organize and provide toilet, bath and sanitation.
- ❖ Maintain lighting arrangements.
- ❖ Maintain general cleanliness in Incident Base, Camp(s), Relief Camp(s), ICP etc.

- ❖ Maintain record of various activities performed and send to Fac. UL.
- ❖ Perform any other duties directed by the Fac. UL.

8.4.15 Roles and Responsibilities of Security-in-charge

The Security-in-charge will:

- ❖ Provide security to the deployed resources including responders, relief materials at the required places and relief camps.
- ❖ Establish contact with local law enforcement agencies, as required.
- ❖ Request personnel support to accomplish work assignments, if required.
- ❖ Coordinate security plan for incident facilities.
- ❖ Maintain record of various activities performed and send to Fac. UL.
- ❖ Perform any other duties assigned by the Fac. UL.

8.4.16 Roles and Responsibilities of Ground Support Unit Leader (GSUL)

The GSUL will:

- ❖ Work under the supervision of the Sup. BD.
- ❖ Provide transportation services for field operations to TBD.
- ❖ In case Air Operations are activated, organize and provide required ground support through TBD.
- ❖ Provide maintenance and repair services for all the vehicles and related equipment used for incident management as per proper procedures and keep the concerned line departments informed through the Sup. BD and LSC;
- ❖ Develop and implement the Incident Traffic Plan.
- ❖ Inform Resource Unit about the availability and serviceability of all vehicles and equipment.
- ❖ Arrange for and activate fuelling requirements for all transport including Aircrafts in consultation with the Sup. BD.
- ❖ Maintain inventory of assigned, available and off road or out of service resources.
- ❖ Ensure safety measures within his jurisdiction; x. maintain record of various activities performed and send to the Sup. BD.
- ❖ Perform any other duties as assigned by the Sup. BD.

8.4.17 Roles and Responsibilities of Finance Branch Director (FBD)

The FB is responsible for managing all financial aspects of response management. The FB has been kept under the LS for quick and effective procurement. Due diligence is very important in all financial transactions and proper procedure needs to be followed. Special precautions will be taken in selecting knowledgeable and experienced personnel conversant with the financial rules for functioning in this Branch.

The FBD will:

- ❖ Work under the LSC.
- ❖ Attend planning meetings.
- ❖ Prepare a list of resources to be mobilized, procured or hired in accordance with the IAP. Obtain orders of the competent authority as per financial rules and take steps for their procurement without delay.
- ❖ Ensure that time records of hired equipment, personnel and their services are accurately maintained as per Government norms for payment.
- ❖ Examine and scrutinize cost involved in the entire response activity including the demobilization, analysis the cost effectiveness and keep the LSC informed.
- ❖ Ensure that all obligation documents initiated at the incident are properly prepared, completed, verified and signed by the appropriate Section Chief and BD.

- ❖ Brief the LSC or IC on all incident related financial issues needing attention or follow-up.
- ❖ Maintain record of various activities performed and send to Sections concerned.
- ❖ Perform any other duties as assigned by the LSC or IC.

8.4.18 Roles and Responsibilities of Time Unit Leader (TUL)

The TUL will:

- ❖ Maintain time recording of hired equipment and personnel and ensure that it is maintained on a daily basis and according to government norms.
- ❖ Examine logs of all hired equipment and personnel with regard to their optimal utilization.
- ❖ Ensure that all records are correct and complete prior to demobilization of hired resources.
- ❖ Brief the FBD on current problems with recommendations on outstanding issues, and any follow-up required.
- ❖ Ask for additional support of human resources for assistance, if required.
- ❖ Maintain record of the activities performed and send to FBD.
- ❖ Perform any other duties as assigned by the FBD.

8.4.19 Roles and Responsibilities of Procurement Unit Leader (PUL)

The PUL will:

- ❖ Attend to all financial matters pertaining to vendors and contracts.
- ❖ Review procurement needs in consultation with the FBD.
- ❖ Prepare a list of vendors from whom procurement can be done and follow proper procedures.
- ❖ Ensure all procurements ordered are delivered on time.
- ❖ Coordinate with the FBD for use of imprest funds, as required.
- ❖ Complete final processing of all bills arising out of the response management and send documents for payment with the approval of the FBD, LSC and IC.
- ❖ Brief FBD on current problems with recommendations on outstanding issues and follow-up requirements.
- ❖ Maintain record of activities performed and send to FBD.
- ❖ Perform any other duties as assigned by the FBD.

8.4.20 Roles and Responsibilities of Compensation / Claims Unit Leader (Com./CUL)

DM Act 2005, Section 65 and 66 provides for payment of compensation. Payments are also to be made for requisitioned premises, hired services, resources and vehicles for the purpose of disaster response and rescue operations etc. The Government may also decide to make ex-gratia payments depending upon the magnitude and the quantum of damage. There are some benchmarks for quantifying the level of loss in different scenarios like flood, drought, etc. While some states may have their own norms for such purposes the GoI has also laid down the CRF Norms which should be followed. If the incident is such that there may be a requirement of making payments concerning compensations and claims, the IC in consultation with the RO will activate a Compensation / Claims Unit and appoint a leader to collect and compile figures of loss of life and property etc. as provided by the relevant Government norms and directions (CRF norms - enclosed in Annexure - XIII). The leader in such cases should be advised to get photographs taken of the damages that may have occurred and even get the photographs of the dead victims and animals. He will also compile details of premises requisitioned, services and resources hired for which payments have to be made. These details should be sent to RO through IC for further necessary orders and payments.

The Com./CUL will:

- ❖ Collect all cost data and provide cost estimates.
- ❖ Prepare and maintain a list of requisitioned premises, services, resources and vehicles, etc. with correct date and time of such requisition.

- ❖ Follow appropriate procedures for preparation of claims and compensation.
- ❖ Requisition additional human resources, if required.
- ❖ Maintain record of various activities performed and send to FBD.
- ❖ Perform any other duties as assigned by the FBD.

8.4.21 Roles and responsibilities of Cost Unit Leader (CUL)

The CUL is responsible for collecting all cost data, and providing cost estimates. At the end of the response the CUL provides cost effectiveness analysis.

The CUL will:

- ❖ Develop incident cost summaries in consultation with the FBD on the basis of Cost Analysis Report.
- ❖ Make cost-saving recommendations to the FBD.
- ❖ Complete all records relating to financial matters prior to demobilization.
- ❖ Maintain record of various activities performed and send to FBD.
- ❖ Perform any other duties as assigned by the FBD.

CHAPTER – IX

RECONSTRUCTION, REHABILITATION AND RECOVER MEASURES

Recovery encompasses both short-term and long-term efforts for the rebuilding and revitalization of affected communities. Recovery planning must provide for a near seamless transition from response activities to short-term recovery operations. It includes restoration of interrupted utility services, re-establishment of transportation routes and the provision of food and shelter to displaced person.

9.1 General Policy Guidelines

The District Administration will give assistance to victims of Natural Calamities based on the nature of damages. All assistance given to victims is based on the guidelines of SDRF norms.

9.1.1 Short Term Plan

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

9.1.2 Sequences of actions to be taken at the time of disaster by DDMA

- In the event of disaster, DC, Lunglei, SP and Project Director, DRDA shall be informed immediately about the incident. Then, these three officers would inform the concerned officials based upon the kind of disasters. The DEOC would also be activated in emergency mode. Besides, immediate relief and rescue operation would start at the places. Then, the DC will inform the level of disaster and accordingly action will be taken.
- The Site EOC should be established near the incident site with one responsible officer to see the overall management and coordination. He/ She will be assisted by one or more officials from NGO's.
- The fire brigade should be kept ready near the incident area to control any outbreak of fire.
- The Medical Team should be sent immediately to provide first aid medical help and look after any injury. Casualties with serious injurious will be immediately sent to hospitals.
- District Quick Response Team and other District DM Teams should be sent to the site of disaster immediately.
- Different aspect of relief and rehabilitation of the affected persons should be started immediately. Eg. Shelter, food, clothing etc.
- The overall management will be looked after by DC or any other officials present at the site designated by DC or in their absence by Village level officials including NGO's.

9.2 Management of Response Operations In Lunglei District

- It is the responsibility of the District Administration to organize the response activities very quickly on occurrence of a disaster so as to limit casualties, alleviate hardship and suffering, to restore life support and community system, to mitigate further damage of loss and to provide the donation for subsequent recovery. Clear cut identification of response activities in Lunglei District are broadly identified in this section. In the event of a disaster like earthquake, it is the local community that gets involved in the search and rescue operations even before the government agencies reach the spot.
- **Search and Rescue:** Local communities and neighbourhood will provide search and rescue services in the event of any disaster. In the case of an earthquake, additional support from SDRF, Fire Service and NCC will be provided at the earliest and PWD will be required for clearing debris in order to rescue people trapped in collapsed buildings. The man-power of Police Department may also supplement the man-power resources of local community and neighborhood.
- **Medical Relief:** Victims of disasters like earthquake required immediate medical care. The Health and Family Welfare Department will be responsible for providing necessary medical services to the victims. It also has to be seen that precautionary actions to prevent the outbreak of epidemics is taken as the risk is normally very high. ASHA, local medical practitioners, other Hospital and Community volunteers could support the efforts of the Health and Family Welfare Department. The Chief Medical Officer, Lunglei could act as the Head of Combat Agency.
- **Evacuation and Shelter:** Evacuation may be required to avoid loss of human life from after-shocks (especially in a disaster like earthquake). Traditionally, the Home guards perform the responsibilities of evacuation with support from other government agencies. In Lunglei District (Not only in Lunglei District, but also in the whole of Mizoram), a major role will have to be played by NGOs, especially the biggest NGO in the State-Young Mizo Association. Provision of shelter to the evacuated people and to those who have been rendered homeless is another important requirement. Here, the joint efforts of the government agencies as well as local communities and NGOs will be required. Temporary shelters will have to establish and the DC will assign duties to the officers from welfare departments for running and maintaining these shelters.
- **Restoration of Life-line Facilities:** Another important response activity is the prompt restoration of vital life-line facilities. Bringing such life line facilities like water and power supply is the responsibility of Technical Department like PWD, PHED and Power & Electricity Department. We also have to see that Public Distribution System of Food & Civil Supplies is also regulated.
- **Law and Order and Security of Properties of Affected Population:** In the event of a disaster, many people are compelled to leave their homes and properties. Simultaneously, law and order conditions tend to deteriorate. It is the responsibility of the Police Department to maintain law and order as well as provide security to the properties of affected population.

9.3 Institutional Arrangements for Reconstruction, Rehabilitation and Recovery Measures

1. Civil Administration: The Deputy Commissioner/District Magistrate of District Disaster Management Authority will be over-all in charge of the activities for management of disaster, as soon as the authority receive occurrences of such disasters, the concerned Sub-Divisional Officers/BDO will reach the place of disaster for coordinating relief operations. They will also maintain close contact with the District Control Room through any means of communication available on the spot and coordinates responses of different agencies on need basis.

2. Police Department: Under the operational control of District Magistrate/ Chairman, Disaster Management Authority and supervision of Superintendent of Police in the District, Police

Department will follow the under mentioned procedures. On receipt of information regarding road accident, a responsible police officer with adequate personnel will immediately rush to the place of accident, and:

1. Look for the survivors and rescue the injured or those trapped under the vehicle.
2. Initiate codal formalities/legal proceedings required under law-like inquest, sending of dead body for postmortem, etc.
3. Arrange first-aid to the injured people in the absence of Medical Relief Team.
4. Ensure security of the properties of the victims and maintenance of law and order
5. Take up traffic management at the place of accident.
6. Start investigation of offences, if any.

Operation co-ordination: The Superintendent of Police, Lunglei will immediately instruct all the Police Stations of the District to communicate the message to the Police in their respective areas. A radio announcement for the same can also be done for effective communication. The District Superintendent of Police will also work out a deployment plan for the Polices keeping in view the disaster situation and will make arrangements for the transport of the Police to their duty point.

Direction and co-ordination:

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

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

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

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

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

6. NGOs/Voluntary organizations: It has been experienced in the past that in the event of fatal accident, members of NGOs like YMA and Adventure Clubs used to carry highly commendable service to the victims and the relatives even before the civil administration come up for relief operation. As usual practice, in the event of fatal accident, members of NGOs will quickly send necessary information about the accident to the nearest civil administration, nearest Police Station and Health Centre through any means of communication available with them so that the civil administration with NGOs will be able to keep in touch each and every members or relief team the civil authority for effective relief operation.

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

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

The Department should also identify sources from which it can procure the additional equipment and materials on a very short notice to supplement its resources.

The inventory of all such resources should be maintained in the resource database. This database should be validated and updated every year.

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

Chief medical Officer (CMO) and Medical Superintendent (MS) of Lunglei District will send preparedness report to the District collector for rural areas. The Department is responsible for providing the medical relief to the people affected from flood or earthquake and is also responsible for prevention of outbreak of epidemics during preparedness.

- Surgical packs should be assembled and sterilized. A large enough number should be sterilized to last four to five days. The sterilized surgical packs must be stored in protective cabinets to ensure that they do not wet. Covering the stock with polythene is recommended as an added safety measure.
- The emergency electrical generator should be checked to ensure that it is operational and that a buffer stock of fuels exists. If an emergency generator is not available at the Hospital, arrange for one on loan.

- All valuable instruments such as surgical tools, ophthalmoscopes, portable sterilizers, CGS, dental equipments, etc. should be packed in protective covering and stored in rooms considered being the most damage-proof.
- All fracture equipments should be made ready, if surgery is to be performed following the disaster, arrange for emergency supplies of anesthetics gases (usually supplied on a daily basis).
- Stocks of equipments and drugs which are likely to be most needed after the disaster should be checked. This can be categorized generally as:
 - a. Drugs used in treatment of cuts and fractures such as tetanus, typhoid, analgesics and antibiotics.
 - b. Drugs used for the treatment of diarrhea, water-borne diseases and flu (including oral dehydrating supplies).
 - c. Drugs required treating burns and fighting infections.
 - d. Drugs needed for detoxification including breathing equipments.

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

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

Operational Tasks and Control: The Department is responsible for the following:

- (i) Providing efficient and quick treatment
- (ii) Preventing outbreak for epidemics

On receipt of a warning of an impending disaster from the District Control Room, the CMO/MS will immediately put his doctors and the paramedical staff on alert for preventing outbreak of epidemic. It will constitute medical teams for the survey in the affected area and for decontamination of drinking water sources.

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

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

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

Direction and Co-ordination:

- ❖ Determine type of injuries/illness expected and drugs other medical items required, and accordingly ensure that extra supplies of medical items be obtained quickly. Provide information to all hospital staff about the disasters, likely damages and effects, and information about ways to protect life, equipment and property.
- ❖ Discharge all ambulance patients whose release does not pose a health risk to them. If possible, they should be transported to their home areas.
- ❖ Non-ambulatory patients should be relocated to the safest areas within the hospital. The safest rooms are likely to be:
 - a. One ground floor
 - b. Room in the centre of the building away from windows
 - c. With concrete ceilings
- ❖ Assess the level of medical supplies in stock, including:
 - a. Fissure materials
 - b. Surgical dressings
 - c. Splints
 - d. Disposable needles and syringes
 - e. Plaster rolls
 - f. Local antiseptic
- ❖ Request resources identified to immediately dispatch of supplies likely to be needed, to hospitals, on an emergency priority basis.
- ❖ Fill hospital water storage tanks and encourage water savings. If no storage tanks exist, water for drinking should be drawn in clean containers and protected.
- ❖ Prepare an area of the hospital for receiving large number of casualties.
- ❖ Develop emergency admission procedure (with adequate record keeping)

Task Allocation:

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

Sorting of Casualties:

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

2. **Action:**
 - (i) Priority I will be attended to in the Emergency/Casualty Dept .
 - (ii) Priority II will be transferred immediately to OT
 - (iii) Priority III will be given first-aid and admitted if bed is available.
 - (iv) Priority IV will be given first-aid and discharged
 - (v) In some cases 'brought dead' cases are categorized as priority –V.

Operation Completion Report:

The CMO/MS will send report to the District Magistrate through Disaster Emergency Control Room as soon as the task is over. The task completion report will indicate the number of injured people, the number of injured and dead.

On completion of all the tasks relating to Medical relief assigned to the Health Department by

all the District Magistrate, the CMO will take a brief session with his doctors and submit a briefing report to the District Magistrate.

8. Public Works Department:

The Public Works Department has the responsibility for the construction and maintenance of Government buildings, public roads and bridges in the State. The infrastructure is required for not only the general economic activities in the area, but also for the performance of the task functions of the Government. These search rescue and evacuation operations in case of disaster and for organizing medical relief and relief centers.

Preparedness action:

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

The department should take immediate measures for the retrofitting of all government buildings under its charge for making them seismic resistant. The department should ensure that all officers of the rank of SDOs or above are made familiar about the responsibilities of the department and the resources that may be required for discharging his responsibility in case of a disaster. This should be achieved by organizing orientation training to all such officers once every year.

The department should identify the equipment and material that maybe required for discharging the responsibilities assigned to it in case of a disaster. It should also workout the availability of the same with the department and identifies the external resources for the same and workout arrangement for procuring the same in case of a disaster.

The department should do a stock verification of the equipment and material available with it, require for its responsibility under the plan every year. It should validate and update the resource database also every year. It will also identify the source in the community and the local market from which additional resources may be obtained for performing the responsibilities of the department with the assistance of the Nodal Department (DM&R) and V.C and work out the arrangements for procuring the same. The Executive Engineer should ensure compliance of all the points mentioned above and send compliance report to the DC in general every year.

Operational Details:

The department will be responsible for performing the following tasks:

- ❖ The department will take up temporary construction of diversion and other structures to ensure road communication in case of disaster for conducting search, rescue and evacuation operation and providing relief to the affected people.
- ❖ It will establish temporary relief centers on the direction of the District Magistrate for the affected people.
- ❖ Debris clearance to support search and rescue operation.
- ❖ Identification of unsafe buildings.
- ❖ Assessment of damage to the buildings.

Operation Control:

The Executive Engineers will immediately try to get information regarding the road communication available for reaching the search and rescue team and the relief material to the

affected area and will take immediate action for construction of the diversion and other structures for communication of the affected area. The Executive Engineer will also constitute survey teams for identification of unsafe buildings both private and Government which need to be demolished in the interest of the public safety and send a report of the identified unsafe buildings to the Local Executive Magistrate through the local Police Station.

The Executive Engineers will also nominate SDOs for damage assessment of private buildings in consultation with the Deputy Commissioner.

Resource Available:

The department will prepare the resource database for the essential manpower, equipment and material resources available with the department in the database after identifying the needs of the disaster time.

Activation Guidelines:-In case of occurrence of disaster, all the officers of the department of the rank of SDOs and above will immediately report with the District Control Room (DCR) through the Executive Engineers and seek instruction.

Operation Completion Report:

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

The Executive will also prepare a preliminary proposal indicating estimates of different construction works for restoring the infrastructure in the affected area and send it to the department through the D.C.

9. Public Health Engineering Department:

Public Health Engineering Department has the responsibility for the construction and maintenance of water supply in the state. This infrastructure is required for not only general economic activities in the area, but also for the performance of the task function of the government. These infrastructures will also be required for performing functions of water availability to the disaster affected area and relief centre.

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

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

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

Operation Details: The department will be responsible for performing the following task:

The department will take up temporary restoration of water supply to affected area.

It will also establish electric supply at relief centers on the direction of the District Magistrate for the affected people.

Operation Control: The Executive Engineer Immediately tries to get information regarding the water supply to the affected area and will take immediate action for restoration of it. The Executive Engineer will also constitute survey teams for identification of damaged infrastructure.

The department will prepare the resource database for the essential manpower, equipment and material resources available with the department.

Activities guidelines and task allocation: In case of occurrence of disaster, all the officers of the department of the rank of SDOs and above will immediately report with the DCR through the Executive Engineer and seek instructions.

The Executive Engineer will allocate the task after consultation with DDMA chairman.

Operation Completion Report: After completion of all the tasks assigned to the department relating to immediate response, the E.E. will take a briefing session with all officers of the rank of SDO and above and send a brief report to the D.C. which will also include an expenditure statement including the debris case and establishment of the centers and construction of the diversion for ensuring communication in the affected areas.

The E.E. will also prepare a preliminary proposal indicating the estimates of different constructions works for restoring the infrastructure in the affected area and sent it to the department through the D.C.

10. P&E Department:

The Power & Electricity Department has the responsibility for the construction and maintenance of electric supply in the state. This infrastructure is required for not only the general activities in the areas, but also for the performance of the task functions of the Government. This infrastructure will also be required for performing functions of electric availability to disaster affected area, relief centers.

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

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

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

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

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

Operational Detail: The department will be responsible for performing the following tasks:

- ❖ The department will take up temporary restoration of electric supply to affected area.
- ❖ It will also establish electric supply at relief centers on the direction of the District Magistrate for the affected people.

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

The department will prepare the resource database for the essential manpower, equipment and material resources available with the department.

Activities guidelines and task allocation: In case of occurrence of disaster, all the officers of the department of the rank of SDOs and above will immediately report with the DCR through the Executive Engineer and seek instructions.

The Executive Engineer will allocate the task after consultation with DDMA chairman.

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

9.4 Financial Arrangement

To ensure the long-term sustenance and permanency of the organisation, funds would be generated and deployed on an ongoing basis. There are different ways to raise the fund in the State as described below;

9.4.1 State Budget

The Authority submit to the State Government for approval a budget in the prescribed form for the next financial year, showing the estimated receipts and expenditure, and the sums which would be required from the State Government during the financial year.

As per the provisions of the Disaster Management Act, 2005 the Authority may accept grants, subventions, donations and gift from Central or State Government or a local authority or any individual or body, whether incorporated or not.

9.4.2 State Disaster Response Fund

To carry out Emergency Response & Relief activities after any disaster the State Disaster Response Fund is made available to Secretary, Disaster Management & Rehabilitation Department under which the Central Government will share 90 % and the Govt. of Mizoram has to share 10% as per the recommendation of the 15th Finance Commission.

9.4.3 Grant in Aid

Further, the State may receive a grant in aid from Central Govt .Ministry of DoNER, NDRF, NEC and/or other departments/agencies to carry out specific projects/schemes related to disaster management/mitigation/capacity building.

9.4.4 Partnership

These are projects/schemes in which funding can be done by a public authority and a private party in partnership (also called a PPP mode funding) in which the State Govt. along with Private organizations and Central Govt. share their part.

9.5 Finance and Budgeting

Budget planning is a comprehensive exercise for annual financial planning. For DM, there can be two categories of budget heads:-

- Line Department's own fund through various schemes and programmes and
- Additional budget required particularly for DM activities. Following are the source available (or to be tapped) for different components of disaster management

Name	Purpose	Finance Arrangement	Activities that can be taken under scheme	Nodal Agency
NDRF (NCCF)	Relief Assistance	100% Central Government	Cash and kind relief	DM&R Department
SDRF (CRF)	Relief Assistance	90 % Center 10% State	Cash and kind relief	DM&R Department
District Planning Fund	Any public work	MPLAD and MLALAD	Preparedness, Mitigation, Capacity building, recovery	Local Bodies, Line departments
Donor	Any	Total donation in cash and kind	Any	SDMA/DDMA

9.6 Roles and Responsibilities of Stakeholder in Reconstruction Works

9.6.1 Role of the Deputy Commissioner/Chairman, DDMA

- Chairman, Responsible Officer and Supervision of overall disaster management.
- Established coordination with all line departments and other private agencies.
- Update the Resource Inventories at Indian Disaster Resource Network.
- Prepare disaster mapping on different aspects viz., Vulnerability, Safe, Resource and Social mapping.
- Detailment of man-powers at various site operation centers.
- Assign roles and responsibilities of all line departments.
- Preparation of the Disaster Management Action Plan for the District.
- To implement the disaster management action plan.
- Setting up the District Control Room and making it function effectively.
- To liaise with the Government periodically about the disaster and the action taken.
- Make the district machinery to equip and to be prepared before the disaster.
- Setting up relief camps and transit camps.
- Conducting relief and rescue operations, organize training and mock drills
- Corresponding with the Defense Ministry Personnel.
- To interact with the donor agencies for relief and rehabilitation.
- Providing information at district level, local level and disaster prone areas through appropriate media.
- Brief the media of the situations and day to day reports during the disaster.

9.6.2 Responsibilities of the Nodal Officer (DM & R):

The Nodal Officer (DM & R) will act as the overall in-charge of emergency preparedness and operation. He will coordinate in the following activities:

- Liaison with all the concerned depts. / officials of the dist. in conducting Disaster Management/Natural Calamity Committee meeting to be conducted twice in a year, i.e. May and November.
- Supervise the activity of Dist. Control Room and communicate the information to the District Collector,
- Co-ordinate the programme during preparedness, disaster and natural calamity, rescue operation, relief operation, resettlement and rehabilitation,
- Monitor the programme during relief operation, rescue operation etc.
- Evaluation of the operation process,
- Report return and forward to dist. Collector for approval, sanction and onward action.

9.6.3 Roles and Responsibilities of Superintendent of Police:

The Superintendent of Police in the district will get in touch with the District Collector for assistance in rescue, evacuation and emergency relief measures under intimation to the State Relief Commissioner. The responsibilities of the Superintendent of Police:

- The Superintendent of Police must work in close co-ordination with the District Collector on receipt of a warning or alert on an emergency situation.
- The Superintendent of Police must designate three senior officers of the district Collector for co-coordinating the activities of the police Department in the District Control Room.
- These senior officers deputed by the Superintendent of Police for the District Control Room will work in three shifts in the control Room.
- During normal times, the police department under the Superintendent of Police must assess the preparedness level and report the same as per format (Preparedness Checklist for police as given below) to the District Control Room every six months.
- They should have continued contact with the District Control Room over V.H.F during the crisis
- The Police Department under the Superintendent of Police must maintain a list of disaster prone areas in the district, along with the details of nearest police Stations and their contact phone numbers.
- The police Department under the Superintendent of police must organize training programmes on handling of hazardous chemicals for Police Officers in collaboration with Deputy Director of industrial Safety and health to facilitate more effective handling of road accidents involving hazardous substances.
- The Police Department under the Superintendent of Police must identify a police Station in the city, which can be used as a public information center for disseminating information to the public.
- Communicate with district headquarters and various centres for co-operation.
- Provide assistance to the authority in taking necessary action in solving the problems.
- Ensure security measures in the disaster affected areas and provide security in the transportation of relief commodities.

- Maintain law and order coordinating with local NGOs, control the mobs, onlooker crowding by cordoning the disaster area. Control vehicle movement and traffic system.
- Assess the situation of law and order and inform the district authority.
- Control the possible looting and pilfering of the relief supplies and private properties at the affected areas at the same time provision of safeguarding the stock centers, relief camps, food stores and distribution centers.
- Keep vigil of the activities of black marketers and check the misuse and diverting of the relief materials.
- Coordination with other line departments.

9.6.4 Roles and responsibilities of Block Development Officers:

- Convener and Chairman of the Block Disaster Management Committee.
- Incident Commander and Supervise the overall management in Block Level.
- Prepare a Block Disaster Management Plan and set up Control Room equipped with modern facilities.
- Establish coordination with all line departments and other private agencies.
- To oversee overall disaster management activities.
- Appraise community participation in disaster management at all levels.
- Ensure linking of Block Control Room (Emergency Operation Centre) with other District Field Control Room (Emergency Operation Centre).

9.6.5 Roles and responsibilities of the Food & Civil Supply Officer:

- Public Distribution System may be kept actively working. Fair price shops should function well and allotment of Commodities and its lifting in time be ensured.
- Functioning of Storage Agents should be closely watched and the stocks in the stores should be verified by the responsible officers very often to ensure transparency.

9.6.6 Roles and Responsibilities of Station Officer (F&ES):

- He shall be in alert during Jan – June and his team is ready for action at short call. The drivers and the staff engaged with the Fire Brigade should not be allowed to take leave during this period.
- Storing of fire extinguishers in an easy to access places.
- Training volunteers on use of fire extinguishing materials.
- Sending of important equipments to various field operation sites.
- Maintain communication channel all the times.
- Arrange fire tender duties with standby motors.
- Main actors in search and rescue operation.
- Identify water point for emergency use.
- Co-operate other line departments.
- Coordinate with police and NGOs for quick response.

9.6.7 Roles and responsibilities of DIPRO:

- He must make arrangement for release of news bulletin to the press and media regarding rain fall, weather. Preventive measures taken and all other activities, the district administration is taking to mitigate the distress of the people.
- He must keep close liaison with the Nodal Officer (DM & R)/District Emergency Officer and the Collector for the purpose.
- In case of occurrence of calamity in the district or any part thereof, authentic news must be provided by the Information Officer at the earliest to the public by the Information Officer in order to evade from unreliable rumors.

9.6.8 Roles and responsibilities of the S.E. Power and Electricity Department:

- He is (Nodal Officer) appointed as overall in charge of disaster management.
- Provide uninterrupted power supply. Arrange alternate source of power supply.
- Arrange power supply to the relief camps and temporary shelter camps.
- Spread awareness in economic use of electricity.
- Communicate with field operation centers to ensure power condition.
- Trimming and cutting of tree branches to avoid power shortage and electrocution.
- Provide assistance to other line departments.
- Appreciate participation of community and provide necessary back up.
- Generate power as soon as possible to normalize the situation.

9.6.9 Roles and responsibilities of Chief Medical Officer:

- He is (Nodal Officer) a Supreme Incident Commander.
- Ensure good communication link with all field centers.
- Stocks piling of life saving drugs and other medicines.
- Disseminate awareness to the people about hygiene and healthy practices.
- Set up the mobile medical unit and keep it ready for immediate action.
- Activate linking with others line departments.
- Arrangement of ambulance duty.
- Deploy vehicles with medicines and man power to the site operation centers.
- Check-list the stock of requirements and its distribution.
- Survey the health condition and medicinal requirements at various relief camps.
- Ensure provision of sanitary measures to the victims at shelter centers.
- Establish easy to approach temporary health centers and hospital at disaster site.

9.6.10 Roles and responsibilities of S.E. PWD:

- Emergency repair of damaged road and bridges.
- Communication with official at all levels viz., District, Block, Sub-Division and Village levels.
- Detailment of heavy machines, earth movers, towing vehicle, cranes etc.
- Contact private owners having earth moving machines.
- Arrange alternate road for transporting relief and rescue materials.
- Assess the infrastructure damage and plan quick restoration procedure.
- Clearance of road block for easy transit of relief materials.
- Keep a direct link to the control room,
- Survey the disaster site and surrounding areas for structure collapse and check out buildings, bridges etc. which are at risk of collapsing.

9.6.11 Roles and responsibilities of S.E. PHED:

- Supply of drinking water to relief and shelter camps.
- Provision for disinfecting water by bleaching, halogen tablets at the relief camps.
- Assess the water line disruption and repair the damage.
- Keep information to and fro from the control room.
- Arrangement of vehicles for distributing water at relief camps.
- Communication system to various site operation centers and headquarters should also be ensured.
- Check the pollution of water.
- Encouragement of proper sanitation at all relief camps.
- Provision of water tanks and mobile water tanker.
- Identification of water sources.
- Report the situation update to the control room.

9.6.12 Roles and responsibilities of D.T.O. (Transport):

- Cross check the vehicle registration from response plan and make necessary requisition of transport materials.
- Provide vehicular assistance for response activities.
- Arrange vehicles for relief transportation and its distribution at various centers.
- Help human transit to safe shelters.
- Coordinate PWD to restore the transport system to normalcy.
- Transport of relief materials and civil supplies to relief camps and other safe shelters.
- Establishment of communication with district, block, sub- division and village level.
- Moving the victims to hospitals and relief camps.
- Work side by side with other line departments such as PHE, Health, Civil Supplies and NGOs.

9.6.13 Roles and responsibilities of DVO (AH & Vety):

- Record the livestock population.
- Arrange field operation centers at various places.
- Stock piling of medicine, water and animal feeds.
- Assessing the number of animals injured.
- Transport of injured animals for operation.
- Check the spread of animal diseases.
- Proper disposal of carcasses.
- Storage and distribution center for animal feed and medicine.
- Ensure good communication network at all levels.
- Coordination with other line departments.

9.6.14 Roles and responsibilities of Telecom (Nodal Officer BSNL):

- Ensure uninterrupted communication system.
- Arrange alternate system of communication, If needed.
- Provision alternate power back up for communication system.
- Linking of all site operation centers and control room.
- Regular checking of lines and cables.
- Staff briefing on the disaster management and importance of communication.
- Emergency contact directory supplied to all control rooms and site operation centers.
- Coordination with private communication agencies.
- Relay transmission of information update and sent to authorities.

9.6.15 Roles and responsibilities of PD, DRDA:

- Assist other line departments in the response mechanisms. Qualitative implementation of employment generation schemes like NREGS should be ensured.
- Disperse awareness about disasters to the community.
- Retrofitting of rural infrastructure, like road, bridges etc. should be undertaken with nodal departments.
- Keep vigil on the development works.

9.6.16 Roles and responsibilities of D.A.O:

- Assess vulnerability of agriculture crops and plantation.
- Provision of irrigation to the deficient regions.
- Transportation of seeds, fertilizers and implements to different areas.
- Control of pest and spread of diseases.
- Maintain weather report and inform to all site operation centers.
- Desalination of soil and water logging problems to be solved.
- Rainfall and temperature recorded.
- Linking with nodal departments.

9.6.17 Roles and responsibilities of DLAO:

- Take active part in debris clearance in disaster.
- Provision of community health and sanitary measures.
- Provide assistance to the authority by contributing earth movers, concrete cutters and other equipments.
- Help to prevent outbreak of diseases.
- Coordination with other line departments.
- Repair damaged roads and pavements.
- Disseminate information to the site operation centers and vice versa.

9.6.18 Roles of village council, YMA, MHIP, etc in disaster management:

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

- Maintaining of security and creating help-Centre at suitable place in the locality.
- Maintenance of law and order during evacuation and helping in emergency evacuations.
- Containing panic behavior, maintaining orderly movements towards community shelter and taking preventive steps to avoid injuries and accidents.
- Organizing recreational activities.
- Contributing labourer (loading and unloading) of distribution temporary construction, materials, salvage and restoration of water supplies, feeding centers, relief camps.
- Ensuing standards in sanitation and disposal of waste and counseling injured panic stricken people.

9.6.19 Roles and responsibilities of public & private industries and corporations:

- Public and Private Industries and Corporation has their key role in rehabilitation programme apart from undertaking other relief operation in calamity stricken pockets. In the past events most of the PSUs have rendered their best efforts in restoring normalcy of the livelihood of the people with warm response.
- The services of PSUs/Industrial Units shall be sought for especially immediate post calamity relief operation and providing shelter for the distress both temporary and permanently by the

District Administration and shall be implemented under the direct supervision of Project Director, DRDA.

9.6.20 Roles and responsibilities of arms & paramilitary forces:

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

- Immediate restoration of roads, communications and clearing obstacle.
- To assists in rescue and evacuation of people and settlement in safer sites.
- To make best utilization of human resources relief & rescue operation.
- To assess and identify alternative route for transportation of relief articles.

CHAPTER – X

FINANCIAL RESOURCES FOR IMPLEMENTATION OF DDMP

District Disaster Response Funds and District Disaster Mitigation Funds are proposed to be created at the District Level as mandated by **Section 48 of the DM Act, 2005**. The disaster response funds at the district level would be used by the District Disaster Management Authority (DDMA) towards meeting expenses for emergency response, relief, rehabilitation in accordance with the guidelines and norms laid down by the Government of India and the State Government.

10.1 State Allocation

Every year the Disaster Management & Rehabilitation Department, Government of Mizoram prepares the Budgets for Disaster Management in the State.

10.1.1 State Disaster Response Fund

The State Disaster Response Fund (SDRF) is to be created with 90% Central Share and 10% State Share. This fund is to be made available to the SEC for post –disaster activities.

10.1.2 State Disaster Mitigation Fund (SDMF)

As per **Section 48(1c) of the DM Act, 2005**, State Disaster Mitigation Fund (SDMF) is created for pre-disaster activities and is made available to the State Disaster Management Authority (SDMA) and District Disaster Management Authority (DDMA).

10.2 District Disaster Response Fund (DDRF)

As per **Section 48 (1b) of the DM Act, 2005**, District Disaster Response Fund (DDRF) is to be created for post-disaster activities and to be made available to the State Disaster Management Authority (SDMA)..

10.2.1 District Disaster Mitigation Fund (DDMF)

As per **Section 48 (D) of the DM Act, 2005**, District Disaster Response Fund (DDRF) is to be created for post-disaster activities and to be made available to the District Disaster Management Authority (DDMA).

10.2.2. Departmental Fund

Section 39 (e) of the DM Act, 2005 each department of the State Government shall allocate funds for measures for prevention of disaster, mitigation, capacity building and preparedness.

10.3 Recommendation of the 15th Finance Commission

The Thirteenth Finance Commission (TFC) has made provisions of funds for the State Disaster Response Fund which has been accepted by the Government of India. All State Government Departments, Boards, Corporations, PRI's and ULBs would prepare their DM plans, including the financial projections to support these plans. The necessary financial requirements would be made a part of their annual budgetary allocations and ongoing programmes and used for mitigation and preparedness measures. They will also identify mitigation projects and project them for funding in consultation with the SDMA/DDMAs to the appropriate funding agency. The guidelines issued by the NDMA vis-a-vis various disasters should be considered while preparing mitigation projects.

10.4 Flexi Funds in Centrally Sponsored Schemes

Guidelines have been issued for 10 % of Flexi-fund within the Centrally Sponsored Schemes (CSS) is to be utilized inter alia for mitigation, restoration activities in the event of natural calamities in the sectors covered by the CSS. Request have been made to take necessary steps toward inter-departmental co-ordination so that the resources of flexi-funds can be put to use effectively in due course for disaster mitigation and for medium/ long term restoration in different sectors.

District Disaster Management Authority (DDMA) should also look at other options of new financial tools like catastrophic risk financing, risk insurance, micro-insurance etc. to compensate for massive losses on account of disasters. Opportunity of CSR investments should also be explored and elaborated under this section by the District Disaster Management Authority (DDMA) for increasing district resilience.

10.5 Assistance that can be provided from SDRF

10.5.1 Revised List of Items and Norms of assistance from SDRF and NDRF 11.07.2023

Sl No	ITEM	Norms of Assistance
A	Response & Relief (40%) of State Disaster Risk Management Fund (SDRMF) i.e. equal to 50 % of SDRF allocation for the year	
	Gratuitous Relief	
1	(a) Ex-Gratia payment to families of deceased person	<ul style="list-style-type: none"> Rs.4.00 lakh per deceased person including those involved in relief operations or associated in preparedness activities subject to certification regarding cause of death from appropriate authority.
	(b) Ex-Gratia payment for loss of a limb or eye(s).	<ul style="list-style-type: none"> Rs. 74,000/- per person, when the disability is between 40% and 60%. Rs.2.50 lakh/-per person when the disability is more than 60% Subject to certification by a doctor from a hospital or dispensary of Government, regarding extent and cause of disability.
	(c) Grievous injury requiring hospitalization	<ul style="list-style-type: none"> Rs 16,000/- per person requiring hospitalization for more than a week. Rs.5,400/- per person requiring hospitalization for less than a week. <p>Note- Injured persons getting treatment under the ‘Ayushman Bharat Yojna”, will not be eligible for relief under this item.</p>

	<p>(d) Clothing and utensils/ house-hold goods for families whose houses have been washed away/fullydamaged/severely inundated for more than a week due to a natural calamity.</p>	<ul style="list-style-type: none"> • Rs.2,500/- per family for loss of clothing • Rs.2,500/-for loss of utensils/household goods per family.
	<p>(e) Gratuitous relief for families whose livelihood is seriously affected.</p>	<ul style="list-style-type: none"> • Gratuitous Relief (GR) for families, whose livelihood is seriously affected will be provided to two adults members of the affected family as per actual rate of MNEGRA per day or average rate of all States/YTs per day, whichever is lower. For this purpose, notification issued by Ministry of Rural Development from time to time, is to be referred for calculating average rate. The relief amount should be disbursed through DBT/cash (In case of exigency of the situation only) or the State Government may provide this relief in kind.
		<ul style="list-style-type: none"> • State Govt. will certify that identified beneficiaries are not housed in relief camps, during the period of GR is provided. Further, the State Government will provide the basis and process for arriving at such beneficiaries, district-wise. • Period for providing gratuitous relief will be as per assessment of the State Executive Committee (SEC) and the central Team (in case of NDRF). The default period of assistance will be upto to 30 days, which may be extended upto 60 days in the first instance, if required and subsequently upto 90 days in case of drought/pest attack. Depending on the ground situation, the SEC can extend the time period beyond the prescribed limit. Provided that expenditure on this account, in no case, should exceed 30% of SDRF allocation under this window (Response & Relief) for the year. However, in case of drought, expenditure on this account, in no case, should exceed 50 % of SDRF allocation under this window (Response & Relief) for the year. • Further, to ensure transparency, the list of persons to whom Gratuitous Relief is provided, should be uploaded on the website of the State Government. The State Government shall notify the basis and proof for the identification of beneficiaries in a transparent manner.

2	SEARCH & RESCUE OPERATIONS	
	(a) Cost of search and rescue measures / evacuation of people affected/likely to be affected.	As per actual cost incurred, assessed by SEC and recommended by the Central Team (in case of NDRF). <ul style="list-style-type: none"> By the time the Central Team visits the affected area, these activities are already over. Therefore, the State Level Committee and the Central Team can recommend actual/near-actual costs.
	(b) Hiring of boats and other essential equipments for carrying immediate relief and saving lives.	As per actual cost incurred, assessed by SEC and recommended by the Central Team (in case of NDRF). The quantum of assistance will be limited to the actual expenditure incurred on hiring boats and essential equipment required for rescuing stranded people and thereby saving human lives during a notified natural calamity.
3	RELIEF MEASURES	
	(a) Provision for temporary accommodation, food, clothing, medical care, etc for people affected/evacuated and sheltered in relief camps.	As per assessment of need by SEC and recommendation of the Central Team (in case of NDRF), for a period up to 30 days. The SEC would need to specify the numbers of camps, their duration and the number of persons in camps. In case of continuation of a calamity like drought or widespread devastation caused by earthquake or flood etc, this period may be extended to 60 days and up to 90 days in case of severe drought. Depending on the ground situation, the State Executive Committee (SEC) can extend the time period beyond the prescribed limit subject to that expenditure on this account should not exceed 30% of SDRF allocation under this window (Response & Relief) for the year. Medical care may be provided from National Rural Health Mission (NRHM).
	(b) Air dropping of essential supplies and rescue by Air Force	As per actual cost incurred, assessed by SEC and recommended by the Central Team (in case of NDRF). <ul style="list-style-type: none"> The quantum of assistance will be limited to the actual amount raised in the bills by the Ministry of Defense for airdropping of essential supplies and rescue operation only.
	(c) Provision of emergency supply of drinking water.	As per actual cost, based on the assessment of need by SEC and recommended by the Central Team (in case of NDRF), up to 30 days and may be extended up to 90 days in case of drought. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit.

		Provided that expenditure on this account, in no case, should exceed 30% of SDRF allocation under this window (Response & Relief) for the year.
4	CLEARANCE OF AFFECTED AREAS	
	(a) Clearance of debris in public areas.	As per actual cost, for a period upto 30 days from the date of start of the work based on assessment of need by SEC for the assistance to be provided under SDRF and as per assessment of the Central Team for assistance to be provided under NDRF.
	(b) Draining of flood water in affected areas	As per actual cost within 30 days from the date of start of the work based on assessment of need by SEC for the assistance to be provided under SDRF and as per assessment of the Central team (in case of NDRF).
	(c) Disposal of dead bodies/Carcasses	As per actual cost, based on assessment of need by SEC and recommendation of the Central Team (in case of NDRF).
5	AGRICULTURE	
(i)	<i>Assistance to small & marginal farmers having landholding upto 2 ha.</i>	
A	Assistance for land and other loss	
	(a) De-silting of agricultural land (where thickness of sand/silt deposit is more than 3" to be certified by the competent authority of the State Government)	<ul style="list-style-type: none"> • Rs. 18,000/- per hectare for each item Above is subject to a minimum assistance of not less than Rds. 2,200/- per farmer. (Subject to the condition that no other assistance/subsidy has been availed of by/is eligible to the beneficiaries under any other Government Scheme)
	(b) Removal of debris on agricultural land in hilly areas	
	(c) De-silting/ Restoration/Repair of fish farms	
	(d) Loss of substantial portion of land caused by landslide, avalanche, change of course of rivers.	<ul style="list-style-type: none"> • Rs. 47,000/- per hectare to only those small and marginal farmers whose ownership of the land lost, is legitimate as per the revenue records. Above is subject to a minimum assistance of not less than Rs. 5,000/- per farmer.
B	Input subsidy (where crop loss was 33% and above.)	
	(a) For agriculture crops, horticulture crops and annual plantation crops	<ul style="list-style-type: none"> • Rs. 8,500/- per hectare in rain-fed areas. Above is subject to a minimum assistance of not less than Rs.1,000/- per farmer and restricted to sown areas. • Rs.17,000/- per hectare in assured irrigated areas. Above is subject to a minimum of not less than Rs. 2,000/- per farmer and restricted to

		sown areas.
	(b) Perennial crops/Agro forestry (Plantation in own farmland)	<ul style="list-style-type: none"> • Rs.22,500 per hectare for all types of perennial crops/agro forestry (Plantation in own farmland) subject to a minimum assistance of not less than Rs. 2,500/- per farmer and restricted to sown areas.
	(c) Sericulture	<ul style="list-style-type: none"> • Rs. 6,000/- per ha for Eri, Mulberry, Tussar • Rs. 7,500/- per ha for Muga. <p>Above is subject to a minimum assistance of not less than Rs. 1000/- per farmer and restricted to sown areas.</p>
(ii)	Input subsidy to farmers having more than 2 ha of landholding.	<ul style="list-style-type: none"> • Rs. 8,500/- per hectare in rain-fed areas and restricted to sown areas • Rs.17,000/- per hectare for areas under assured irrigation and restricted to sown areas. • Rs.22,500/- per hectare for all types of perennial crops/trees including agro forestry (Plantation in own farmland) and restricted to sown areas. <p>Assistance may be provided where crop loss is 33% and above, subject to a ceiling of 2 ha per farmer</p>
6	ANIMALHUSBANDRY-ASSISTANCE TO SMALL AND MARGINAL FARMERS AND LANDLESS LIVESTOCK OWNERS	
	(i) Assistance for the loss of milch animals, draught animals or animals used for haulage	<p><u>Milch animal</u> Rs.37,500/- Buffalo/Cow/Camel/Yak etc. Rs.4,000/- Sheep/Goat</p> <p><u>Draught Animals</u> Rs.32,000/- Camel/horse/bullock, etc. Rs.20,000/- Calf/Donkey/pony/mule/heifers</p> <p>The assistance may be restricted for the actual loss of economically productive animals and will be subjected to a ceiling of 3 large milch animal and/ or 30 small milch animals or 3 large draught animal or 6 small draught animals per household irrespective of whether a household has lost a larger number of animals.</p> <p>(Claim for the loss of animals will be considered only if number and type of animals owned by Small and Marginal Farmers/Landless Livestock Owners are registered with local/designated authorities).</p> <p><u>Poultry</u></p> <ul style="list-style-type: none"> • Poultry @ Rs.100/- per bird subject to a ceiling of assistance of Rs.10,000/- per beneficiary household. The death of the poultry birds should be on account of the notified natural calamity. <p>Note: - Relief under the norms is not eligible if the assistance is available from any other Government Scheme, e.g. loss of birds due to Avian Influenza or</p>

		any other diseases for which the Department of Animal Husbandry has a separate scheme for compensating the poultry owners.
	<p>(ii) Provision of fodder / feed concentrate including water supply and medicine in cattle camps.</p> <p>Explanation: It will also include existing Gaushalas, if authorized by the State Government by Notification or Government Order, to act as a cattle camp subject to the following conditions:-</p> <p>(i) During the period of calamity, District Administration will assess the requirement of cattle shelter and number of gaushalas required to be notified as cattle shelter in the District/Tehsil. After obtaining the base-line information on the cattle already sheltered and the number of more cattle it can accommodate, gaushalas may be notified as cattle shelter.</p> <p>(ii) The notified gaushalas shall maintain a separate account of the additional cattle belonging to SMF and landless labourers for the notified drought period. The consolidated list of SMF and landless beneficiaries with number and types of animals will be displayed on the notice board of Gram Panchayat, Block, Tehsil and in the office of Sub-Divisional Magistrate and District Magistrate as well as State/District web-site for the purpose of verification and social audit.</p> <p>(iii) SDRF funds will only be released to such notified gaushalas on reimbursement basis and will be limited to list of individual beneficiaries</p>	<p>Large animals- Rs. 80/- per day Small animals-Rs. 45/- per day</p> <p>Period for providing relief will be as per assessment of the State Executive Committee (SEC) and the Central Team (in case of NDRF). The default period for assistance will be up to 30 days which may be extended up to 60 days in the first instance and in case of severe drought up to 90 days. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit. Provided that expenditure on this account, in no case, should exceed 30% of SDRF allocation under this window (Response & Relief) for the year.</p> <p>Based on assessment of need by SEC and recommendation of the Central Team (in case of NDRF) consistent with estimate of cattle as per Livestock Census and subject to the certificate by the competent authority on requirement of medicine and vaccine being calamity related.</p>

	notified as in Sl.No (ii) above.	
	(iii) Transport of fodder to cattle outside cattle camps	As per actual cost of transport based on assessment of need by SEC and recommendation of the Central Team (in case of NDRF) consistent with estimates of cattle as per Livestock Census.
7	FISHERY	
	(i) Assistance to Fisherman for repair/replacement of non-mechanized boats and damaged, lost nets. (This assistance will not be provided if the beneficiary is eligible or has availed of any subsidy/assistance, for the instant calamity, under any other Government Scheme.)	<ul style="list-style-type: none"> • Rs. 6,000/- for repair of partially damaged boats only • Rs. 3,000/- for repair of partially damaged net • Rs.15, 000/- for replacement of fully damaged boats. • Rs. 4,000/- for replacement of fully damaged net. <p>(Assistance under this item will be adjusted to the extent of insurance claim, if any, received by the fisherman, under any insurance scheme, for the instant calamity)</p>
	(ii) Input subsidy for fish seed farm to Small and Marginal Farmers	<ul style="list-style-type: none"> • Rs. 10,000/- per hectare <p>(This assistance will not be provided if the beneficiary is eligible for or has availed of any subsidy/assistance, for the instant calamity, under any other Government Scheme except the one time subsidy provided under the Scheme of Ministry of Fisheries, Animal Husbandry & Diaring.)</p>
8	HANDICRAFTS/HANDLOOM-ASSISTANCE TO ARTISANS	
	(i) For replacement of damaged main functional tools/ equipment	Rs. 5,000/- per artisan for equipments -Subject to certification by the competent authority designated by the State Government about damage and its replacement.
	(ii) For loss of raw material/goods in process/finished goods	Rs. 5,000/- per artisan for raw material -Subject to certification by Competent Authority designated by the State Government about loss and its

		replacement.
9	Locust Control	
	Hiring of vehicles, tractors, with spray equipments for spraying of plant protection chemicals for pest control, hiring of water tankers and purchase of plant protection chemicals for locust control	As per the actual cost, based on the assessment of need by the SEC and recommended by the Central Team (in case of NDRF) The quantum of assistance will be limited to the actual expenditure incurred on hiring vehicles, tractors with spray equipments for spraying of plant protection chemicals for locust control during locust attack. However, expenditure on this account, in no case, should exceed 30% of SDRF allocation under this window (Response & Relief) for the year.
B.	Recovery & Reconstruction: (30% of SDRMF i.e. equal to 37.50% of SDRF allocation for the year)	
10	Housing	
	(a) Fully damaged/ destroyed houses and severely damaged houses	
	(i) Pucca house	Rs. 1,20,000/- per house , in plain areas.
	(ii) Kutcha House	Rs. 1,30,000/- per house , in hilly areas.
	(b) Partially Damaged Houses (Other than huts) where the damage is at least 15%	
	(i) Pucca House	Rs. 65,00/- per house.
	(ii) Kutcha House	Rs. 4,000/- per house.
	(c) Damaged / destroyed huts:	Rs. 8,000/- per Hut <i>(Hut means- Temporary, make shift unit, inferior to Kutcha house, made of thatch, mud, plastic sheets, etc. traditionally seen & recognized and known as Hut by the State/ District Authorities.)</i> <i>Note:- The damaged house should be authorized construction duly certified by Competent Authority of the State Government.</i>
	e) Cattle shed attached with house	Rs. 3,000/- per shed
11	INFRASTRUCTURE	
	<i>Repair/restoration (of immediate nature) the damaged infrastructure</i> 1. Roads & Bridges, which may include the following activities: <i>i) Filling up of breaches and potholes, use of pipe for creating waterways, repair and stone pitching of</i>	<i>Assessment of requirements:</i> Based on assessment of need, as per States notified schedule of rates for repair, by SEC and recommendation of the Central Team (in case of NDRF) - In case of repair of roads, assistance will be given based on the notified Ordinary Repair (OR) and the Periodical Renewal (PR) of the State. In case OR &

	<p><i>embankments.</i></p> <p><i>ii) Repair of breached culverts.</i></p> <p><i>iii) Providing diversions to damaged/washed out portions of bridges to restore immediate connectivity.</i></p> <p><i>iv) Temporary repair of approaches to bridges/embankments of bridges, repair of causeways to restore immediate connectivity, granular sub base, over damaged stretch of roads to restore traffic.</i></p>	<p>PR is not available, then assistance will be provided as per rate prescribed in this item. However, in any case, the assistance will be provided at the rate whichever is lower.</p> <p>Prescribed rate are as under:-</p> <ul style="list-style-type: none"> • Repairs of State Highways/ Major District Roads (MDR). <ul style="list-style-type: none"> -in normal areas @Rs.1.00 lakh/km -in hilly areas @ Rs.1.25 lakh/km • Repairs of Rural/Village Roads with culverts <ul style="list-style-type: none"> -in normal areas @ Rs. 60,000/-km -in hilly areas @ Rs. 75,000/-km • Repairs of RCC Culvert/Bridge <ul style="list-style-type: none"> -in normal areas @ Rs. 60,000 per culvert. -in hilly areas @ Rs. 75,000/- per culvert.
	<p>2. Drinking Water Supply Schemes, which may include the following activities;-</p> <p>i) Repair of damaged platforms of hand pumps/ring wells/spring-tapped chambers/public stand post,cisterns.</p> <p>ii) Restoration of damaged stand posts including replacement of damaged pipe lengths with new pipe lengths, cleaning of clear water reservoir (to make it leak proof)</p> <p>iii)Repair of damaged pumping machines, leaking overhead reservoirs and water pumps including damaged intake-outtake structure,approach gantries/jetties.</p>	<p>Damaged drinking water supply schemes will be eligible for assistance as per actual, subject to a ceiling of Rs.2.00 lakh per damaged scheme.</p> <p>Cleaning of Community drinking water wells as per actual, subject to a ceiling of Rs. 10,000/ per well.</p>
	<p>3. Minor Irrigation Schemes, which may include the following activities:</p>	<p>In case of repairs of minor Irrigation works, assistance will be given as per the schedule of rate (SOR) for repairs notified by the concerned State.</p>

	<p>i) Immediate repair of damaged canal structures and earthen/masonry works of tanks and small reservoirs with the use of cement, sand bags and stones.</p> <p>ii) Repair of weak areas such as piping or rat holes in dam walls/embankments.</p> <p>iii) Removal of vegetative materials/building materials/debris from canal and drainage system.</p> <p>iv) Repair of embankments of minor irrigations projects</p>	<p>In case SOR is not available, assistance for irrigation scheme/canal will be provided as per actuals, subject to the ceiling of Rs.2.00 lakh per damaged minor scheme.</p> <p>Note: However, in any case, the assistance will be provided at the rate whichever is lower.</p> <p>Assistance for restoration of damaged embankments of minor irrigation project will be at par with the case of similar rural roads, subject to the stipulation that no duplication would be done with any ongoing schemes.</p>
	<p>4. Power (only limited to immediate restoration of electricity in the affected areas)</p> <p>Damaged Poles/conductors and transformers upto 11kv.</p>	<p>Regarding repair of damaged power sector, assistance will be given for the damaged conductors, poles and transformers upto the level of 11 KV and LT lines with bare conductors, as per details hereunder:</p> <ul style="list-style-type: none"> • The rate of assistance will be: <ul style="list-style-type: none"> - Rs. 5000 pole - Rs. 0.50 lakh per km for repairing of damaged LT lines. - Rs. 1.00 lakh for replacement of one damaged distribution transformer <p>(Note: The above assistance will not be applicable for those items which can be re-used)</p>
	<p>5. Schools Repair of damaged schools building</p>	<p>As per actual, subject to a ceiling of Rs.2.00 lakh per school</p>
	<p>6. Primary/Community Health Centers Repair of Primary/Community Health Centers</p>	<p>As per actual, subject to a ceiling of Rs.2.00 lakh per unit</p>
	<p>7. Community Assets Owned by Panchayat Temporary repair of Mahila Mandal, Yuva Kendra, Panchayat Ghar, Community Hall, Anganwadi, etc</p>	<p>As per actual subject to a ceiling of Rs. 2.50 lakh per unit.</p>
C.	Preparedness & Capacity Building (10% of SDRMF i.e. equal to 12.50% of SDRF allocation for the year)	
12	Procurement of essential	Expenditure from the preparedness and capacity

	search, rescue and evacuation equipments including communication equipments, etc for response to disaster.	building window will be governed by the Guidelines issued separately by the Ministry of Home Affairs for the Preparedness & Capacity Building window of SDRF/NDRF.
13	Capacity Building	
D.	<p>State Specific Disasters State specific disasters within the local context in the State, which are not included in the notified list of disasters eligible for assistance from SDRF/NDRF, can be met from SDRF within the limit of 10% of the annual funds allocation of the respective window of SDRF.</p>	<p>Expenditure is to be incurred from SDRF only (and not from SDRF), as assessed by the SEC.</p> <p>The norm for various items will be the same as applicable to other notified natural disasters, as listed above; Or In these cases, the scale of relief assistance against each item for “local disaster’ shall not exceed the norms of SDRF.</p> <p>The flexibility is to be applicable only after the State has formally listed the disasters for inclusion and has notified transparent norms and guidelines, with a clear procedure for identification of the beneficiaries for disaster relief for such local disasters, with the approval of SEC.</p>
E.	Items Not Covered under SDRF/NDRF	
	<p>a) Colleges and other educational institutions buildings.</p> <p>b) Major/Medium Irrigation Schemes.</p> <p>c) Flood control and anti Erosion Protection work.</p> <p>d) Hydro Power Project/HT Distribution systems/Transformers and sub stations.</p> <p>e) High Tension Lines (above 11 kv)</p> <p>f) State Government Buildings viz- departmental/office building,departmental/residential quarters, religions structure, patwarkhana, Court premises, play ground, forest bungalow property and animal/bird sanctuary etc.</p> <p>g) Long term/permanent restoration work.</p> <p>h) Procurement of equipments/machineries under NDRF.</p> <p>i) National Highways.</p> <p>j) Sectors such as Telecommunication and Power (except immediate restoration of power supply), which generate their own revenues, and also undertake immediate repair/restoration works from their own funds/resources, are excluded.</p>	

Note:

- i) For assistance under NDRF for items at S. Nos (a), (b), 3 (a),(b),(c), 4 (a),(b), (c), 6 (ii),(iii) and 9, while actual expenditure is allowed, the State Government will provide the item-wise details of expenditure to the Inter-Ministerial Central Team (IMCT)/Central Government.
- ii) Ex-Gratia payment of Rs.50,000/- per deceased person, to next of kin of the deceased person, including those involved in the relief operations or associated in the preparedness activities, subject to the cause of death being certified as COVID-19, as per the guidelines jointly issued by the Ministry of Health and Family Welfare and the Indian Council of Medical Research on 3rd September, 2021, will be given as per guidelines on minimum relief issued by the National Disaster Management Authority (NDMA) dated 11.09.2021.

This ex-gratia assistance will be applicable from the date of first COVID-19 case reported in the country and will continue till de-notification of COVID-19 as a disaster or till further orders, whichever is earlier, to next of kin of the deceased due to COVID-19.
- iii) There will be a Mid-Term review of the norms after 2 years, based on price level index.
- iv) The State Government are to take utmost care and ensure that all individual beneficiary-oriented assistance is necessarily/mandatorily disbursed through Direct Benefit Transfer in the bank account of the beneficiary.
- v) The scale of relief assistance against each item for all notified disasters including 'local disaster' should not exceed the norms of SDRF/NDRF. Any amount spent by the State for such disasters over and above the ceiling, would be borne out of the resource of the State Government and not from SDRF.

CHAPTER – XI

PROCEDURE AND METHODOLOGY FOR MONITORING, EVALUATION, UPDATION AND MAINTENANCE OF DDMP

Evaluating the effectiveness of plans involves a combination of training events, exercise etc. to determine whether the goals, objectives, decisions, actions and timing outlined in the plan will result in an effective response. Indicative guidelines for monitoring and evaluating of the plan are as follows.

- Regularly review the implementation of the plan.
- Check the efficacy of the plan after any major disaster/emergency in the district and see what did work and what did not work and make amendments to the plan accordingly.
- Keep India Disaster Resource Network Inventory (IDRN) updated and connected with the plan.
- Update coordinates of responsible personnel and their roles/responsibility every six months or whenever a change happens. Names and contact details of the officers/officials who are the nodal officers or the in-charge of resources to be updated on regular basis.
- Plan should be web enabled with access on intra and internet.
- Plan should be circulated to all stakeholders departments, agencies and organizations so that they know their role and responsibilities and also prepare their own plan.
- Regular drills/exercise should be conducted to test the efficacy of the plan and check the level of preparedness of various departments and other stakeholders. It would ensure that all parties understand their roles and responsibilities clearly and understand the population size and need of vulnerable groups.
- Regular training and orientation of the officers/officials responsible to implement the plan should be done so that it becomes useful documentation to the district administration.
- Army, NDRF, SDRF and other agencies should be integrated into the plan exercise regularly.
- DDMA should hold regular interaction and meetings with the Army or any other central government agencies for strengthening coordination during disasters.
- The DEOC should be made responsible for keeping the plan in updated form and collecting, collating and processing the information.

11.1 Authority for maintaining and reviewing the DDMP

As per **Section 31 Sub Section (4)** of Disaster Management Act, 2005, the plan would be reviewed and updated annually and the year in which the plan has been reviewed would be clearly mentioned in the shape of header in each page of the plan.

And as per **Section 31 Sub Section (5)** of Disaster Management Act, 2005 the copies of the District Plan referred to in Sub Section (2) and (4) shall be made available to the Departments of the Government in the District.

11.2 Proper Monitoring and evaluation of the DDMP

Sub Section (6) of Section 31 of the Disaster Management Act, 2005, the District Authority shall send a copy of the District Plan to the State which shall forward it to the State Government.

Sub Section (7) of Section 31 of the Disaster Management Act, 2005, the District Authority shall, review from time to time, the implementation of District Plan and issue such instructions to different departments of the Government in the district as it may deem necessary for the implementation thereof.

11.3 Post –disaster evaluation mechanism of DDMP

Section 31 Sub-Section (2) of the Disaster Management Act, 2005, 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 approved by the State Authority.

Section 31 Sub Section (3) of DM Act, 2005, The District Plan shall include-

- (a) the area in the district vulnerable to different forms of disasters.
- (b) the measures to be taken for prevention and mitigation of disaster by different Departments of the Government at the district level and the local authorities in the district.
- (c) the capacity-building and preparedness measures required to be taken by different 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
 - (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.
 - (iv) establishment of communication links and
 - (v) the dissemination of information to the public.

11.4 Schedule for updation of DDMP

Regular updation of DDMP shall be done annually. During the updation process various sections shall be kept in mind and updation of these sections shall be done at regular intervals (three months).

11.5 Uploading of updated plans at DM&R Department websites.

The District Plan will be uploaded at the Disaster Management and Rehabilitation website after it is approval from District Authority and State Authority.

11.6 Conducting Mock Drills

Mock drills should be conducted at district and sub district levels like sub division, blocks and village etc after approval of DDMP to test its efficacy at least annually. It is important to for the district to have Mock Drill calendar duly approved by DDMA. It would ensure that all parties understand their roles and responsibilities clearly and understand the population size and needs of vulnerable groups involving them in the actual exercise. It would also help to test the efficacy of the plans prepared and updated for that year. Based on the feedback from such simulation exercises, the plans will then be revised again and capacity would be enhanced to fill the gaps.

Table top exercise, meetings is to be held before mock drill. And during the mock drill plan of action, the following essentials will be listed down.

- 1) The Responsible parties for organizing the drills.
- 2) Schedule for organizing drills.
- 3) Resources for organizing drills.

11.7 Monitoring and Gap Evaluation

After mock exercises, debriefing and interaction with all the stakeholders involved will be

conducted by DDMA to evaluate gaps, lesson learnt, and good practices and will be documented for further references to deal with future disasters.

11.8 COORDINATION MECHANISM FOR IMPLEMENTATION OF DDMP

Dealing with a major disaster requires resources from outside the district. When the capacities of a district administration are overwhelmed, higher levels are called upon to assist. Likewise, assets and capabilities in the corporate and non-governmental sectors available around the district may be brought to bear. Nearby District DDMA may be requested to be on alert render help during crisis management when it is impossible for the District alone to manage the disaster within its jurisdiction. It will seek the help of nearby DDMA through written application or through emergency calls or whichever is applicable along with seeking the help of the State Authority.

DDMA will assess the Disaster to be of the level **L0, L1, L2, L3**. When disaster occurs beyond the coping capacity of the district L1 and above, LDDMA will inform and send alert to other DDMA's.

11.8.1 Intra and Inter-Department coordination and linkage

DDMA has to issue directions time to time in accordance with all stakeholders regarding inclusion of Disaster Risk Reduction (DRR) in developmental Planning. Disaster Risk Reduction (DRR) issues in Development Plans etc. is to be interlinked vertically and horizontally for fail-safe infrastructures in Lunglei district. Mainstreaming disaster management into the development planning process essentially means looking critically at each activity that is being planned, not only from the perspective of reducing the disaster vulnerability of that activity, but also from the perspective of minimizing that activity's potential contribution to the hazard. Every development plan of a department should incorporate elements of impact assessment, risk reduction, and the 'do not harm' approach. Examples of this approach are urban planning and zoning, upgradation of building codes and their effective enforcement, adoption of disaster resilient housing designs and construction of school and hospitals, flood proofing, response preparedness planning, insurance, establishment of early warning systems for various types of disasters, generating community awareness, creating technical competence and promoting research among engineers, architects, health experts, and scientists. In this district, DDMA has to sensitize officials of PWD, PHE, LAD/UD, RD/DRDA and also masons and community towards DRR issues.

11.8.2 Inter Linkage with other National, State Level, DDMA's

For the purpose of specialized response to a threatening disaster situation or disasters/emergencies both natural and man-made such as those of CBRN origin, the DM Act 2005 has mandated the constitution of National Disaster Response Force (NDRF). The general superintendence, direction and control of this force is vested in and exercised by the National Disaster Management Authority (NDMA) and the command and supervision of the Force will vest in an officer to be appointed by the Central Government as the Director General of National Disaster Response Force (NDRF).

11.8.3 Linkage with National Disaster Response Force (NDRF)

The Deputy Commissioner, Chairman, District Disaster Management Authority (DDMA) shall make a request to Commissioner Disaster Management & Rehabilitation Department or Principal Secretary to Government of Mizoram, Disaster Management & Rehabilitation Department

to deploy National Disaster Response Force (NDRF) when the District is strike by disaster beyond the coping capacity of the resources of the District.

Presently the location and area of responsibility of the various NDRF battalions in the country are as follows:

Location	Area of responsibility for	Area of responsibility for
Guwahati	N.E States	Kolkatta Battalion
Kolkatta	West Bengal, Bihar, Sikkim, Jharkhand	
Mundali	Orrisa, Chhatisgarh, North Andhra Pradesh	Arakkonam battalion
Arakkonam	Tamil Nadu, Kerala, South Andhra Pradesh, Punducherry, A&N Islands	
Pune	Maharastra, Karnataka, Goa	Pune Battallion
Gandhi Nagar	Rajasthan, Gurajat, Madhya Pradesh, Dadra & Nagar Haveli, Daman & DIu	
Bhatinda	Chandigarh, Punjab, J&K, Himachal	Gaziabad battalion
Ghaziabad	UP, Uttar Khand, Haryana, Delhi	
Patna* Vijayawada	*Patna(Bihar) and Vijayada(AP) have also been approved in principle to locate NDRF battalions for natural disaster, and therefore, the area of responsibility will be readjusted once these two NDRF battalions are made functional	

11.8.4 Linkage with State Disaster Response Force (SDRF)

The Deputy Commissioner, Chairman, DDMA shall make a request to Commissioner, Disaster Management & Rehabilitation or Principal Secretary to Government of Mizoram, Disaster Management & Rehabilitation Department to deploy State Disaster Response Force (SDRF) when the District is strike by disaster beyond the coping capacity of the resources of the District.

Presently the location and area of responsibility of the various SDRF battalions in the country are as follows:

Name of Battalions	Headquarters/ Locations	No. of trained personnel	Area of Operation	Remarks
1 st MAP	Armed Veng	88	Aizawl District	DC. Aizawl will have the commanding authority to its deployment
3 rd MAP	Mualpui, Aizawl District	104	Aizawl District & Serchhip District	DC. Aizawl will have the commanding authority to its deployment
5 th IR	Sakawrtuichhun, Aizawl District	116	Aizawl District & Serchhip District	DC. Aizawl will have the commanding authority to its deployment
2 nd MAP	Luangmual, Lunglei District	130	Lunglei District &	DC. Lunglei will have the commanding

			Lawngtlai & Siaha District	authority to its deployment
1 st IR	Mualvum, Kolasib District	31	Kolasib District	DC. Kolasib will have the commanding authority to its deployment
2 nd IR	Khawzawl, Champhai District	30	Champhai District	DC. Champhai will have the commanding authority to its deployment
4 th	Luangpawl, Mamit District	30	Mamit District	DC. Mamit will have the commanding authority to its deployment

11.9 Linkage with DDMA/DDMPs.

Lunglei District Disaster Management Authority (LDDMA) needs to be linked with other District Disaster Management Authority's (DDMA's) as its shared common boundaries with other Districts. At times the help of District Disaster Management Authority's (DDMA's) of other district needs to be sought.

11.9.1 District Boundaries Shared

Lunglei District shared boundaries with

- Saiha District in the south-east.
- Lawngtlai District in the south-west.
- Serchhip District in the north-east and north-west.
- Mamit District in the north-east.

11.9.2 Communication with other DDMA's

Lunglei district shares boundaries with Mamit District. There are villages which are hard core are much easier to be accessed by roads from other District during monsoon seasons. If such a situation arises when communication route from Lunglei to these villages get blocked, Lunglei District Disaster Management Authority (LDDMA) will communicate with State Disaster Management Authority (SDMA) and thereby send request to State Disaster Management Authority (SDMA) to send damage report and take any necessary actions on their behalf.

Under Bughmun RD Block, road connecting villages like Mapara S, Phainuam, Mauzam, Terabonia, Laisoral, Sesawm was completely blocked due to collapsed of Tleu quarry in the year 2017. It was not possible to go from Lunglei side via Bughmun road to intervene and manage the disaster as early as require and report received. The nearest possible routes during that time were from Lunglei – Aizawl, Aizawl-Mamit. LDDMA faced a great distressed as disasters experienced were above L1. If such situation arises again LDDMA will communicate to State Disaster Management Authority (SDMA) and thereby send request in written or through telephone or whichever way is fastest to act on behalf of LDDMA to report situation and take any necessary actions on their behalf.

11.10 From Lesson Learnt

In the year 2017 and 2018 Lunglei District experienced death due to landslides and heavy monsoon at its highest compared to any other year. Nine (9) persons lost lives due to heavy monsoon in 2017 and 10 persons lost lives in 2018 and many houses were evacuated due to flood in many areas.

Lungsen RD Block and Bungmun RD Block were one of the worst hit block areas during the monsoon period. Tlabung Sub-Division also suffered damages due flood. Four people died in Phairuang village due to landslide and house collapsed, two people died due to flash flood at Changpui village and three people died due to landslide at Marpara S. Prompt actions could not be taken at these areas due to blockage of roads etc.

So, from lesson learnt it is felt that there is a need to communicate with other DDMA's to be kept in written. Also, a written request maybe sends to other DDMA's beforehand of disaster season so that when the time comes (disaster season or situation) a request maybe placed to them to act on behalf of LDDMA.

11.11 Linkage with Other District Emergency Operation Center

Communication is the most important tool for effective coordination. Generally, Emergency Operation Center (EOC) is the enabler of communication and coordination. EOC communication and coordination plan (EoC-SoP) should specify procedures for interfacing with different stakeholders during all phases of emergency, as stated in the DDMP framework. LDDMA will communicate to nearby EOC during the time of disaster.

CHAPTER XII

STANDARD OPERATING PROCEDURES (SOPs) AND CHECKLIST

12.1 Standard Operating Procedure (SOPs)

Standard Operating Procedure (SOPs) is common method of implementing instructions. SOPs provide response protocols for carrying out specific responsibilities. They describe who, what, when and how SOPs are appropriate for complex tasks requiring step-by-step instructions for performing a task. It is necessary to prepare and annex- SOPs for all relevant hazards to one's district- like- Earthquake, Flood, Cyclone, Landslide, Tsunami, Manmade disasters (CBRN, Stampede etc).

SOPs and checklist could be prepared for various stakeholders' effective response. These can be made based on the functioning of Emergency Support Function (ESF) groups or IRS. Depending on the hazard profile and level of exposure the district should decide in a participatory way the number of ESF covering all the above.

Hazard or incident specific annexes usually identify hazard specific risk and evacuation routes , specify provisions and protocols for warning the public and disseminating emergency public information and also specify the types of protective equipments and detection devices required by responders.

12.2 Definition of disaster situation

According to **Section 2(d)** of the Disaster management Act, 2005 “**Disaster means a catastrophe, mishap, calamity or a grave occurrence in any area, arising from natural or man-made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.**”

12.3 Incident Action plan on receipt of warning and warning dissemination

Sl. No	Types of Disaster	Date/ Time of warning received	Responsible nodal department/ agencies	Line department/ agency	Action to be taken
1	Forest Fire		EF/CC	F&ES,I&PR,RD, VDMC	
2	House Fire		F&ES	I&PR,RD,VDMC	
3	Biological disaster and epidemics		H&FW/ AH&Vety	I&PR, AH&Vety, H&FW, PHE, VDMC, RD	
4	Drought/Cyclone		DDMA	I&PR, Agriculture, Horticulture, PHE, Fisheries, RD, VDMC	
5	Floods		DDMA	I&PR, Home Deptt, SYS, PHE, PWD, P&E	
6	Landslide		DDMA	I&PR, PWD, P&E, PHE, LR&S,	

				VDMC	
7	Cyclone		DDMA	Science & Technology, I&PR, PHE, Fisheries, Agriculture, Horticulture	RD,

12.4 Roles and responsibilities of the department or stakeholders in emergency response

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 (SOPS) for ESFs explains about the operations and responsibilities of the leading and supporting agencies that are to be involved in the ESF system. The document also outlines the purpose and scope for each function of operation that is to be followed by the respective ESF agencies when the Incident Commander activates the response plan during the emergency period.

12.4.1 SOP for Communication

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

Situation Assumption:

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

Nodal Agency: Bharat Sanchar Nigam Limited (BSNL)

Supporting Agencies: NIC, MPRO and I&PR

SOP for Nodal Agency:

- ❖ Team Leader (TL) of communication EFS will activate the ESF on receiving the intimation of occurrence of disaster from the District EOC.
- ❖ TL would inform Nodal Officers (NOs) of support agencies about the event and ESF activation.
- ❖ TL would establish contact with the district EOC for First Information Report.
- ❖ TL request for reports from local ESF contact persons (this would be the local office of ESF Nodal Agency) to understand the current situation and action taken.
- ❖ 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 request 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 order to establish systems and reports to District EOCs 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.

SOP 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 the 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 the following :
 - a) An assessment of over-all damage, listing specifically.
 - b) Overhead road damage (in miles/kilometers)
 - c) Cable damage (in yards/meters)
 - d) Specific equipment damaged
 - e) Established a temporary communication facility for use by the public
 - f) Identify requirements of man power, 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 labourers.
- Carryout 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 labourers.
- Establish a secure storage area for incoming equipments and salvaged Materials.

12.4.2 SOP for Evacuation

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

Situation Assumptions:

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

Nodal Agency: DDMA

Supporting Agencies: Home Deptt. SYS, LDMC/VDMC

SOP for Nodal Agency:

- Team leader (TL) of evacuation ESF would activate the ESF on receiving the warning of the disaster from the 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.

SOP 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 team receives 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 team 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 activities to head office.

12.4.3 SOP for Search & Rescue

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

Situation Assumptions:

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

Nodal Agency: DDMA

Support agency: Home Deptt., SYS, VDMC, Sainik Welfare & Resettlement Dept, Adventure Club and YMA

SOP for Nodal Agency:

- IC will call the TL of the 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
- Assessment of the specific skill sets and the other equipment required
 - Using IDRN network to check and map the availability of resources in and round the disaster site

SOP for Quick Response Team on Search and Rescue:

- 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 required for conducting the S&R
- QRTs will report the situation and the progress in response activities to the respective EOCs

12.4.4 SOP for Law and Order:

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

Situation Assumption:

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

Nodal Agency: Home Deptt.

Support Agency: VDMC/LDMC

SOP 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 the law and order situation every 4-6 hours and brief the authorities
- Controlling situations like rioting and looting, and cordon of 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

12.4.5 SOP for Medical Response and Trauma Counseling

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:

1. Emergency Medical services will be required by affected the disaster

2. Like outbreaks of epidemic diseases after the disaster
3. Hospital services would be affected

Nodal Agency: H&FW Department

Support Agency: SWD,NGO,VDMC/LDMC

SOP for Nodal Agency:

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

- 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 the disaster victims.
- In case of orthopedic care required in disaster like earthquakes the immediate response would have to be complimented by a follow up treatment schedule for a majority of the patient in/near their place of residence.
- Trained professional should be mobilized by psychosocial support.
- Ensuring setting up of temporary information centers at hospital 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, plaster, syringes, etc.
 - Arrange for additional blood supply, send additional medical personnel equipped with food, bedding and tents etc.
 - Send vehicles and any additional 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 the 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 establish at transit camps, relief camps and affected villages
- QRTs should maintain check posts and surveillance at all entry and exit points from the affected area, especially during the threat or existence of an epidemic.

12.4.6 SOP for Water Supply

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

Situation assumptions:

- Existing water storage bodies will be damaged and unuseable.
- There should 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: H&FW, RS, FC&CA, UD&PA, LAD, VDMC

SOP for Nodal Agency:

- Team Leader (TL) of ESF on Water Supply 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 will ensure special care for women with infants and pregnant women.
- Provide for sending additional support along with food, bedding, and 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 camps.
- 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 water 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.

12.4.7 SOP for Relief (Food and Shelter)

In the event of a disaster there would be a need of disbursing relief materials due to massive

destruction of life and property taken place. The ESF on relief should ensure coordination of activities involving 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 assumption:

1. Probably of shortage of a critical resources
2. Immediate assistance to the community at the time of resource shortage particularly when affected area is larger

Nodal Agency: DDMA

Support Agency: UD&PA, LAD P&E, PHE, H&FW, SYS, School Education, H&TE, PWD,VDMC/LDMC

SOP for Nodal Agency:

- TL will activate the ESF on receiving the information of the disaster from District EOC.
- TL would inform the Nodal Officers (N.Os) of support agencies about the event and the 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 road clearance to ensure quality supply chain management of relief materials.
- Ensuring composite relief with availability of complimentary relief material.

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 supporting 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 innovate 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 for 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 with infants, pregnant women, children, aged people and handicapped
- Ensuring support to Local Administration
- Local adequate relief camps based on damage survey
- Develop alternate arrangement for population living in structures that might be affected even after the disaster

12.4.8 SOP for Equipment Support, Debris and Road Clearance

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:

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

Nodal Agency : PWD**Support Agency:** UD&PA, PHE, P&E, Home Deptt.**SOP 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 (NOs) of supporting agencies about the event and ESF activation.
- TL will coordinate with the supporting agency to mobilize equipments from the warehouses 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 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 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 constructions 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 surfaces including edge metalling, pathole patching and any failure of surface, foundations in the affected areas by maintenance engineer's staff and keep monitoring their conditions.

12.4.9 SOP for Helpline, Warning Dissemination

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

Situation Assumptions:

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

Nodal Agency: DDMA

Support Agency: I&PR, Home Deptt. P&E, ICT, SC&Tech, H&FW, SWD

SOP 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 agency.
- 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 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.

12.4.10 SOP for Electricity

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

Situation Assumptions:

1. Prolonged electricity failure.
2. The affected victims may be panicked.

3. Halt of all activities specially jamming communication-networking systems in the affected site.

Nodal Agency: P&E

Support Agency: UD&PA,LAD,PHE,SYS,PWD,VDMC/LDMC

SOP 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 repair teams equipped with tools, tents and food

SOP for Quick Response Team on Electricity:

- The QRT members will reach the nodal office as soon as they receive instructions to do so from the TL.
- QRT members 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.
- Begin repairing and re-construction 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 other key public and private water system.
- 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.

12.4.11 SOP for Transportation

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:

1. The State Civil Transportation infrastructure will sustain damage, limiting access to the disaster area.
2. Access will improve as routes are cleared and repaired.
3. The movement of relief supplies will create congestion in the transportation services.

Nodal Agency: Transport Department

Support Agency: PWD, P&E,UD&PA

SOP 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 request for detailed information on the status of transportation infrastructure in the affected area(s).

SOP for Quick Response Team 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.
- QRT 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 office.

12.5 Information Management and dissemination strategy**Authorities responsible for sending information**

SL.NO	TYPE OF DISASTERS	NODAL DEPARTMENT
1	Natural Disasters	Deputy Commissioner/ District EOC
2	Chemical/ Biological	Deputy Commissioner/ District EOC/ H&FW
3	Forest fires	DFO/DCF and D.C
4	Terrorist Outrages	Deputy Commissioner/ SP
5	Epidemic	Deputy Commissioner/ District CMO/ H&FW
6	Law & Order	Deputy Commissioner/SP
7	Hijacking	GAD/Officer i/c Aviation and DC

12.6 Norms of Relief & Rehabilitation, Emergency Response/ Support

Sl. No	Type of function	Nodal Agency	Line Department
1	Evacuation	DDMA	Home Deptt., SYS, VDMC
2	Search and Rescue	DDMA	Home Deptt., SYS, VDMC, Sainik Welfare & Resettlement
3	Cordoning/ Traffic/ Law & Order	Home deptt.	VDMC/LDMC
4	Dead body/body disposal	Home deptt.	H&FW, UD &PA, RD, VDMC/LDMC
5	Carcass disposal	AH&Vety.	PWD, UD&PA, VDMC/LDMC

12.7 Humanitarian Relief and Assistance

Sl. No	Type of Relief	Nodal Agency	Line Department/Agency
1	Food	FCS&CA	DDMA, Transport, VDMC/LDMC
2	Drinking water	PHE	H&FW,RD,FC&CA,UD&PA,LAD,VDMC
3	Medicine and nutrition	H&FW	SWD
4	Psychosocial and trauma care	H&FW	SWD,NGO,VDMC/LDMC
5	Clothing	DDMA	Industry, SWD, VDMC/LCMD
6	Public Health & Sanitation	H&FW	PHE, AH&Vety, Transport, UD&PA, LAD,VDMC/LDMC
7	Helplines	DDMA	I&PR, Home Deptt. P&E, ICT, SC&Tech, H&FW,SWD
8	Shelter Management & Repairs & Restoration of basic amenities	DDMA	UD&PA,LAD, P&E, PHE, H&FW, H&FW, SYS, School Education, H&TE, PWD,VDMC/LDMC
9	Management of VIP visits	DDMA	

12.8 Incident Action Plan Format for Earthquake

It is important that activities indicated in the IAP are connected with the functional responsibility matrix given under the plan activation section in basic plan.

Sl. No.	Task/Function/Activity	Department/ Officer Responsible	Time
1	2	3	4
1	Raise alarm	DDMA/DC/SP,SDDM C,BDMC,VDMC	
2	The staff to follow 'drop-cover-hold' procedures and assemble at pre-designated safe muster points	DDMA/DC/SP,SDDM C,BDMC,VDMC	
3	Emergency Alarm/Notification/Notify Authorities & external agencies (Refer Emergency Contact in Appendix)	DDMA/DC/SP,SDDM C,BDMC,VDMC	
4	Issue instructions to shut down all operations immediately on CIKR	DDMA/DC/SP,SDDM C,BDMC,VDMC	
5	Assess situation, make evacuation plan and evacuation	DDMA/DC/SP,SDDM C,BDMC,VDMC	
6	Activate special resources for SAR including JCBs, Earthmovers, Steel cutters	DDMA/DC/SP,SDDM C,BDMC,VDMC	
7	Establish Unified Command (for liaison with responding agencies)	DDMA/DC/SP,SDDM C,BDMC,VDMC	
8	Coordinate and mobilize specialized medical teams with mobile operation theatres	DDMA/DC/SP,SDDM C,BDMC,VDMC	
9	Coordinate and mobilize transport and logistics	DDMA/DC/SP,SDDM	

		C,BDMC,VDMC	
10	Assess Hazards – Potential for leakage and consequent explosion	DDMA/DC/SP,SDDM C,BDMC,VDMC	
11	Cordon off the area- Establish “hazard zone” and secure area from unauthorized entry	DDMA/DC/SP,SDDM C,BDMC,VDMC	
	Community Evacuation		
12	Trigger alarm/early warning siren and evacuate community to pre-designated open ground	DDMA/DC/SP,SDDM C,BDMC,VDMC	
13	Ensure speedy coordination for evacuation	DDMA/DC/SP,SDDM C,BDMC,VDMC	
14	Attend the injured with first aid and transport them to hospital	DDMA,Medical Team	
15	Assure the people by sharing the real impact of incident and seek their cooperation	DDMA/DC/SP,SDDM C,BDMC,VDMC	
16	Provide temporary shelter with water, food and sanitation facilities	DDMA/DC/SP,SDDM C,BDMC,VDMC	
	Conduct damage assessment		
17	Only after thorough check-up and formal clearance, community can be permitted to return to their habitation	DDMA/DC/SP,SDDM C,BDMC,VDMC	

12.9 Incident Action Plan Format for Flood (IAP)

It is important that activities indicated in the IAP are connected with the functional responsibility matrix given under the plan activation section in basic plan.

Task/Function/Activity 1	Department/Officer Responsible 2	Time 3
Raise alarm/ Mass messaging/Community siren system	DDMA/DC/SP/SDO(C)/BDO	
Look out for regular updates from Indian Meteorological Department (IMD) and Central Water Commission (CWC) for forecast and follow up action	DDMA/DC/SP/ SDO(C)/BDO	
Alert all ESF to start working on their role	DDMA/DC/SP/ SDO(C)/BDO	
Raise alarm if water level is reaching critical level of jeopardizing safety of infrastructure	DDMA/DC/SP/ SDO(C)/BDO	
Assess situation, make evacuation plan and move community to safer zones	DDMA/DC/SP/ SDO(C)/BDO	
Activate special resources <ul style="list-style-type: none"> • Search and rescue (divers/swimmers, boats, life jackets, searchlights, nylon ropes) • Specialized equipment (helicopters, sandbags, crowbars, spades, portable motor pumps) 	DDMA/DC/SP/ SDO(C)/BDO	
Establish Unified Command (for liaison with responding agencies)	DDMA/DC/SP/ SDO(C)/BDO	

Close/cordon flooded roads and areas from entry		
Assess situation hour in close contact with IMD/CWC and other agencies	DDMA/DC/SP/ SDO(C)/BDO	
Conduct damage assessment	DDMA/DC/SP/ SDO(C)/BDO	
Only after thorough check-up and formal clearance, community can be permitted to return to their habitation	DDMA/DC/SP/ SDO(C)/BDO	

**ANNEXURE- I
IMPORTANT CONTACT NUMBERS**

Important District Administration Number (DC's Office)

Sl. No	Name	Designation	Contact Number
1	Ramdinliani , IAS	DC & Chairman, DDMA	9436141342
2	Donny Lalruatsanga	Addl. DC & CEO,DDMA	9612638126
3	Liansangzuala Chhakchhuak	Addl. DC Member, DDMC	9774008277
4	T.T. Beikhaizi	Election Officer, Member, DDMC	8415853376
5	Lahlimpuia Ralte	SDO(S), Member, DDMC	9863225008
6	K. Lahlimpuia	SDC & Nodal Officer, DM&R	9612123192
7	Malsawmhriatzuali	SDC Member, DDMC	9436768944
8	Lalsiamthari Bawitlung	Superintendent	9436747887
9	District Emergency Operation Center		1077(2325949)/O37 2-2323635

LUNGLEI POLICE STATION AND HOSPITALS

Sl. No.	Functionaries	Contact Number
1.	Lunglei Police Station	100/0372 2324390
2.	Fire and Emergency Services	101/0372-2324101/2325366
3.	Civil Hospital	102/0372-2324060
4.	Serkawn Hospital	0372-23242345
5	Hope Hospital	0372-2322383
6	Faith Hospital	0372-2324899
7	John Williams Hospital	0372-2323312/23232409

EOC'S Telephone Number

SI No	Name of District	Numbers
1		SEOC Hotline-1070 Telephone Number-0389-2342520 DEOC Hotline-1077
2	Aizawl District	0389-2324119
3	Champhai District	0381-234402
4	Kolasib District	0387-221999
5	Lunglei District	0372-2323635
6	Lawngtlai District	03835-232252
7	Mamit District	0389-2565223
8	Serchhip District	03838-222432
9	Siaha District	03835-222055

LUNGLEI DISTRICT ADVENTURE ASSOCIATION

S.No	Name of OB	Address	Name of post	Contact No
1	James Biakthansanga	Electric Veng	President	986315494
2	Laltanpuia Tlau	Serkawn	Vice President	7629814888
3	Caleb Ialzuiluanga	Zotlang	Secretary	9612347616
4	Allan	Chanmari	Asst. Secretary	9612235164
5	Lalrindiki Ralte	Electric veng	Treasurer	9863143230
6	Lalbiakzuali Fanai	Zotlang	Finance Secy.	9089539927

**Annexure-II
EQUIPMENTS INVENTORY**

Facilities and Equipments Available at EOC

Sl. no	Name of equipments	Quantities	Status
1	Figure of 8	2	Serviceable
2	Rappelling Mitten	4	Serviceable
3	Ascender Jumper	4	Serviceable
4	Photo copier	1	Serviceable
5	Jumper	7	Serviceable
6	Aluminium ladder	2	Serviceable
7	Climbing rope 10 mm	2 bundles	Serviceable
8	Climbing rope 8 mm	1 bundle	Serviceable
9	Tape Atrier	2	Serviceable
10	Body Harness	4	Serviceable
11	Heavy Duty Work Glove	2	Serviceable
12	Climbing Helmet	90 nos	Serviceable
13	Carabiner screw	12	Serviceable
14	Carabiner Plain	10	Serviceable
15	Sit Harness	4	Serviceable
16	Pulley	2	Serviceable
17	Rain Coat	5	Serviceable
18	Stretcher	3	Serviceable
19	Sledge hammer	2	Serviceable
20	LCD Screen	1	Serviceable
21	Petromax	3	Serviceable
22	Head Lamp	1	Serviceable
23	Megaphone	4	Serviceable
24	LED Pelican Emergency Light	2	Serviceable
25	Portable-Inflatable Lightning System	1	Not Serviceable
26	Printer	2	Serviceable
27	Phone	2	Serviceable
28	Laptop	1	Serviceable
29	Projector	1	serviceable
30	Drilling Machine	1	Serviceable
31	Stranger Combo	1	Serviceable
32	Life Jacket	8	Serviceable

33	Tent	1	Serviceable
34	Fire extinguisher	6	Serviceable
35	Spade with Handle	2	Serviceable
36	Iron Cutter	1	Serviceable
37	Plastic water pipe-10metres	1	Serviceable
38	Multipurpose Diamond Saw for concrete Metal with Diamond Saw	1	Serviceable
39	Diamond Blade for Multipurpose Diamond Saw	2	Serviceable
40	Angle Cutter 14” Dia and replacement blade for Angle Cutter	1	Serviceable
41	Rubber Boat with Engine	1	Serviceable
42	Hydraulic Cutter	1	Serviceable
43	Winch	1	Serviceable
44	Traffic Cone	5	Serviceable
45	Cordoning Tape	2 Coil	Serviceable
46	Plier	2	Serviceable
47	Rope Ladder	2	Serviceable
48	Four Fold Stretcher	1	Serviceable
49	Walkie Talkie	3	Serviceable
50	Generator 2.5KV	1	Serviceable
51	Chainsaw	3	Serviceable
52	Life Detector	1	Serviceable
53	Drone	1	Serviceable
54	Remote Area Lightning System	1	Serviceable
55	Extension Cord (Heavy Duty)	1	Serviceable
56	Nylon	1	Serviceable
57	First Aid Box	2	Serviceable

LIST OF EQUIPMENT AVAILABLE IN 2nd MAP, SDRF, LUNGLEI

Sl.No	Name of equipment	Nos	Remarks
1	Rope 10mm	2 coils	Serviceable
2	Rope 8mm	1 coils	Serviceable
3	Rope ladder	2 coils	Serviceable
4	Stretcher local made	2 Nos	Serviceable
5	Bolt cutter	2 Nos	Serviceable

6	Helmet	70 Nos	Serviceable
7	Angle cutter	2 Nos	Serviceable
8	Rotary rescue saw	1 No	Serviceable
9	Reciprocating saw	1 No	Serviceable
10	Generator 2.5 kv	1 No	Serviceable
11	Hydraulic jack	1 No	Serviceable
12	Drill Machine	1 No	Serviceable
13	Chain saw	2 Nos	Serviceable
14	Tower Lightening system	1 No	Serviceable
15	Four-fold stretcher	2 Nos	Serviceable
16	Florescent Jacket	17 Nos	Serviceable
17	Search Light Medium	1 No	Serviceable
18	Safety Goggle	10 Nos	Serviceable
19	Headlight	10 Nos	Serviceable
20	Body Harness	10 Nos	Serviceable
21	Disposable Gloves	200 pairs	Serviceable
22	Megaphone	2 Nos	Serviceable
23	Nylon rope 20mm	1 coil	Serviceable
24	Heavy Duty work Gloves	5 pairs	Serviceable
25	Life Jacket	4 Nos	Serviceable
26	Ascender jummer	2 Nos	Serviceable
27	Figure of 8	3 Nos	Serviceable
28	Carabinner	2 Nos	Serviceable
29	Pulley	2 Nos	Serviceable
30	Aluminium ladder 18 feet	1 No	Serviceable
31	Demolition Hammer	1 Nos	Serviceable
32	Circular saw	1.nos	Serviceable

ANNEXURE-III

LUNGLEI DISTRICT EXECUTIVE FORCE INVENTORY ON AUGUST, 2022
LUNGLEI POLICE STATION

Sl. No	Names of posts	No of posts filled in
1	Inspector	2
2	Sub-Inspector	5
3	Asst- Sub Inspector	6
4	Head Constable	5
5	Constable	26
6	Driver	2
	TOTAL NO	46

Phone Number of Police Station- 100/0372 2324390

TLABUNG POLICE STATION DEPLOYMENT STATUS

Sl. No	Names of posts	No of posts filled in
1	Inspector	-
2	Sub-Inspector	1
3	Asst- Sub Inspector	1
4	Head Constable	1
5	Constable	6
6	Driver	1
	Total	10

Phone Number of Police Station- 03834 -222020

THINGSAI POLICE STATION DEPLOYMENT STATUS

Sl. No	Names of posts	No of post filled in
1	Sub-Inspector	1
2	Asst- Sub Inspector	1
3	Constable	8
	Total	10

BUNGHMUN POLICE STATION DEPLOYMENT STATUS

Sl. No	Names of posts	No of post filled in
1	Sub-Inspector	1
2	Head Constable	1
3	Constable	4
4	Driver	1
Total		7

LUNGSEN POLICE STATION DEPLOYMENT STATUS

Sl. No	Names of posts	No of post filled in
1	Sub-Inspector	1
2	ASI	1
3	Head Constable	1
4	Constable	4
Total		7

HRANGCHALKAWN POLICE OUTPOST DEPLOYMENT STATUS

Sl. No	Names of posts	No of posts filled in
1	ASI	1
2	Head Constable	3
3	Constable	5
Total		9

STAFF DEPLOYMENT IN LUNGLEI FIRE STATION

Sl. No	Station Officer	Sub Station Officer	Leading Firemen	Firemen	Drivers	MAP	Total
1.	1	Nil	4	6	2	5	18

Phone Number of Fire & Emergency Service- 0372 -2324101 / 0372-101

Allotment of Fire Tender:

Regn. No	Type Of Vehicle	On/Off Road	Condition of Vehicle
MZ-01 F-9758	Ashok Leyland	On road	Good
MZ-01- 5740	407 TATA	On road	Good

TRAFFIC, LUNGLEI

Sl. No	Names of posts	No of posts filled in
1	Sub-Inspector	1
2	Asst- Sub Inspector	1
3	Head Constable	Nil
4	Constable	21
	Total	23

MPRO

Station	Inspector	SI	ASI	HC	C/GD	4th Grade
Lunglei	1	1	3	15	3	3
Tlabung			1	2		

Annexure- IV
SAFE SHELTER AND OTHER RESOURCE INVENTORY
IDENTIFICATION OF CYCLONE/EARTHQUAKE SHELTER

Sl. NO	Name of School	Address
1	Zobawk Higher Secondary School	Zobawk
2	Govt. H/S, Theiriat	Theiriat
3	DM High School, Theiriat	Theiriat
4	Mellinium English Academy, Luangmual	Luangmual
5	Brilliant Boarding School	Lunglawn
6	D&D English School	Salem
7	Sliver Mount School	Ramthar
8	Southern Flower School	Chanmari
9	Christian Education Center	Chanmari
10	Govt. High School, Electric Veng	Electric Veng
11	Sacred Heart School	Venglai
12	Leitlangpui HSS	Venglai
13	Solomon's HSS	Bazarveng
14	Govt. H/S, Zohnuai	Zohnuai
15	Baptist Higher Secondary School, Serkawn	Serkawn
16	Govt. H/S, Pukpui	Pukpui
17	Eklavya HSS	Pukpui
18	Haulawng H/S	Haulawng
19	Govt. H/S Zotlang	Zotlang
20	FLKM School	Farmveng
21	Venghlun H/S	Venghlun
22	Vahne H/S	Vanhne
23	Hrangchal Academy	Hrangchalkawn
24	Cherhlun HSS	Cherhlun
25	Thingsai HSS	Thingsai
26	Rahsiveng H/S	Rahsiveng
28	Govt. H/S Lungsen	Lungsen

29	Govt. H/S, Tlabung	Tlabung
30	Chawngte H/S	Chawngte
31	Tawipui N, H/ S	Tawipui N
32	Tawipui S, H/S	Tawipui S
33	Nazareth Academy	Luangmual
34	Govt. H/S, Thingfal	Thingfal
35	Govt. H/S Thiltlang	Thiltlang
36	Govt. H/S Pangzawl	Pangzawl
37	Govt. H/S Bunglemun	Bunglemun
38	Govt H/S Chhipphir	Chhipphir

Sl no	Veng	Building Hming	Building Awma	Mihring Leng zat
1	Serkawn	BNRGSK Hall	Near Indoor Stadium	20
		Serkawn Sikulp[ui	Near Govt. Middle School	50
		Serkawn Community Hall	Near BCO(BCM)	30
		Govt. Primary School	Near Indoor Stadium	30
		Lemonvale Primary School	Near BCO	30
		DIET Hostel	DIET Campus	50
2	Dawn	Community Hall	Dawn	15
		RMSA School	Dawn	20
		Adhoc Aided Middle School	Dawn	15
		Govt. PS Dawn	Dawn	15
		Anganwadi Center	Dawn	7
3	Bualte	Community Hall	Near Bazar Shed	200
		AMFU Godown	Near Bazar Shed	50
		Health Sub-Center Building	Near Govt. Middle School	10
4	Ralvawng	BNREGSK	Near Field	30
5	Thaizawl	Community Hall	Thaizawl	100
		Govt. MS Thaizawl	Thaizawl	60
6	Zobawk South	Higher Secondary school Zobawk S	Vengthar	100
		Discipleship English School	Vengthar	150
		Govt. Zobawk High School	Vengthar	200
		Govt. Primary School III	Vengthar	80
		P Hrangkhuma Hall	Vengthar	100
		Community Hall	Venglai	100
		Public English School	Venglai	150
		Govt. Middle School I	Venglai	100
Govt. Primary School I	Venglai	80		

7	Thengang	Primary School	Forest Tlang	70
8	Sethlun	BNRGSK Building	Sethlun Field	25
		YMA Hall	Sethlun	250
		Pavilion	Sethlun Kawn	30
9	Khawlek S	UPS	New Khawlek	30
		Primary School	New Khawlek	30
		Community Hall	New Khawlek	45
		BCM Biakin	New Khawlek	60
10	Luangmual	Community Hall	Moria Veng	40
		Govt. primary School	Play Ground chak	20
		Govt, Middle School	Play Ground chak	20
		2 nd BN MAP EMS	2 nd BN MAP Main gate bul	40
11	Bazaar Veng	Govt. Bazaar High School	Bazar Veng V-Sec	60
		Govt. MS Bazar Veng	Bazar Veng V-sec	40
		Govt PS Bazar veng	Bazar Veng V-sec	15
		Govt. PS ,Kikawn	Bazar Veng S-sec	20
		Govt. Nightingale PS	Bazar Veng S-sec	12
		Govt. Standard MS	Bazar Veng Z-sec	25
		Anganwadi No.1	Bazar Veng Z-sec	8
		Anganwadi No.2	Bazar Veng T-sec	8
		Anganwadi No.3	Bazar Veng S-sec	5
		Anganwadi No.4	Bazar Veng K-sec	5
		Govt. J Buana College	Bazar Veng Ch-sec	135
		Community Hall	Bazar Veng Ch-sec	75
		YMA Recreation Center	Bazar Veng Ch-sec	15
		BNRGSK Building	Bazar Veng Z-sec	7
VC House 2 nd Floor	Bazar Veng Ch-sec	5		
12	Zotlang	Govt. HS Zotlang	Zampuimanga Section	70
		Govt. MS Zotlang	Taitesena Section	50
		Govt. PS-I Zotlang	Taitesena Section	40
		Carey English School	Taitesena Section	100
		Govt. PS-II Zotlang	Vanapa Section	40
		Zotlang Indoor Stadium	Taitesena Section	50
13	Hmuntlang	Community Hall	Hmuntlang	40
		Upper Primary School	Hmuntlang	40
		Govt Primary School	Hmuntlang	20
14	Pukpui	Chawngbawla Hall	Pukpui Venglai	70
		Govt. MS-I	Pukpui Phekphe Veng	30
		PS-I, Pukpui	Pukpui Venglai	20
		PS-II, Pukpui	Pukpui Zadenghmun	20
		Govt. HS	Pukpui Venglai	30
15	Buarpui	Community Hall	Electric veng Buarpui	50
		CRV Govt Standard MS	Electrci veng Buarpui	30
		BNRGSK Building	Buarpui Ramhlun Veng	20
16	Sertlangpui	Community Hall	Sertlangpui	80
		Govt, Middle School	Sertlangpui	50
		Govt. Primary School	Sertlangpui	50

17	Mausen	Hrangkuala Hall	Mausen	250
		Primary School	Mausen	60
		BCM Church	Mausen	200

Annexure –V
HEALTH INFRASTRUCTURE INVENTORY

SL. No	Name Of Hospital	No of beds	No of doctors	No. of H/W	No of nurses	Contact No
1	Civil Hospital, Lunglei	150	29	2	59	2324060(CS) 2324060(MS)
2	Christian Hospital Serkawn	100	13	Nil	62	2342345/8787439056
3	Hope Hospital, Lunglei	35	5	Nil	13	2322383
4	Faith Hospital, Lunglei	30	7	Nil	14	2324899/2324927
5	John Williams Hospital	26	3	Nil	13	23233129(CS) 2323409(O)

Name of PHC/ CHC	No. of bed	No. of Dr	No. of HW	No. of Nurse	No. of Vehicle available	Availability of X ray Machine & condition	Distance from District Hqr	No. of Sub-Center under PHC	Contact person
Tawipui PHC	10	1	7	3	2	Nil	50 kms	6	8118933917
Haulawng PHC	10	1	10	4	1	2 (one is out of service)	40 Kms	4	8794939024
Buarpui PHC	10	1	8	3	1	1	75 Kms	7	8257842299
Chhiphir PHC	10	13	3	3	1	Non-functional	72 Kms	3	9366684460
Lungsen PHC	10	1	8	3	1	Nil	54 Kms	9	8390940286
Pangzawl PHC	10	1	5	3	2	1	85 Kms	2	9612110650
Bunghmun PHC	10	1	3	2	1	1	140 Kms	6	8729853944
Cherhlun PHC	10	1	4	4	1	1	110 Kms	2	9436156813
Thingsai PHC	10	1	5	3	1	1	55 Kms	2	8974320190
S. Vanlaiphai PHC	10	2	9	4	2	1	47 Kms	3	9436463455
UPHC Sazaikawn	5	1	2	3	Nil	Nil	3 Kms	5	873183936
UPHC Hrangchalkawn	5	1	2	3	Nil	Nil	9 Kms	Nil	9862265338

Name of PHC/ CHC	No. of bed	No. of Dr	No. of HW	No. of Nurse	No. of Vehicle available	Availability of X ray Machine & condition	Distance from District Hqr	Contact person
Tlabung SDH	30	2	8 for 14	4	1	1 (Not functioning)	98 Kms	7085931290
Leprosy Hospital	20							7085931290
District Hospital Hnathial	30	6	16	12	1	1(Good functioning)	64 Kms	8787688821

**ANNEXURE –VI
GODOWN INVENTORY**

FCS & CA STORAGE CAPACITY

Sl. No	Name of Godown	Approximate capacity	Distance form District Hqr	Contact Person
1	PDC Lunglei Luangmual	1000 MT	5 Kms	9612007661
2	Tlabung SDC Tlabung Zodin	350 MT	90 Kms	8413944891
3	Tuichawng SC Tuichawng	200 MT	78 Kms	8974243852
4	Borapansury SC	300 MT	125 Kms	9436733118
5	S. Tawipui SC	200 MT	42 Kms	9862751618
6	Hnathial SDC	350 MT	57 KmS	8794588690
7	N Mualthuam SC	350 MT	48 Kms	9862370080
8	Putlungasih SC	350 MT	56 Kms	8415050859
9	S. Vanlaiphai SC	500 MT	97 Kms	9383006045
10	Tarpho SC	200 MT	81 Kms	9862846477
11	Haulawng SC	500 MT	40 Kms	8974320384
12	Chawngte SC	1000 MT	96 Kms	8415066597
13	Lungsen SC	350 MT	55 Kms	8415853869

Details of Filling Stations within jurisdiction of DCSO, Lunglei

Sl. No	Name of Filling Station	Approximate capacity	Distance form District Hqr	Contact Person	Remarks
1	Ms Mizofed F/S Ramthar Veng	20	0 Kms	8257939248	
2	Ms Jedaz F/S Zotlang	20	2.5 Kms	7005394580	
3	Ms Siangliana F/S Serkawn	20	1.5 Kms	8837252583	
4	Ms Siamliana F/S Haulawng	20	40 Kms	9387753882	
5	Ms Manguri F/S Pukpui	20	6 Kms	9862765446	
6	Ms T-way F/S Theiriats	20	7.5 KmS	9176386469	Awaiting calibration to be operational
7	Ms Zodinliana F/S Khamhar, Theiriats	20	11 Kms	9366154650	Awaiting calibration to be operational
8	Ms Poonte F/S Tlabung	20	90 Kms	8413944891	
9	Ms Johannapa F/S Hnathial	20	57 Kms	8794588690	

10	Ms Mizofed F/S Hnathial	20	57 Kms	9176386469	
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Annexure -VII

STORAGE & SUPPLY

A

SI No	No of Reservoirs in the District	No. of Zonal tanks	No. of Supply Tanks (LMC Area)	No. of Fire Hydrants
1	Main Reservoir			
2	1	31	Nil	4

B

SI No	No of Reservoirs in the District	Location of Reservoir	Storage Capacity	Distance from DC
1	Main Reservoir	Ramzotlang	1009923 lits	3.5 Km

C

SI No	Name of Zonal Tanks	Location of Zonal tanks	Storage Capacity	Distance from DC
1	Upper Pukpui RCC Circular I	Pukpui	290560 lits	10 Km
2	Upper Pukpui RCC Circular II	Pukpui	136200 lits	10 Km
3	RCC circular Kawmzawl Pukpui	Pukpui	112024 lits	10.5 Km
4	RCC Circular Ramzotlang I	Ramzotlang	523008 lits	3.5 Km
5	RCC Circular Ramzotlang II	Ramzotlang	224043 lits	3.5 Km
6	Zohnuai	Zohnuai	2146692 lits	2 Km
7	Kikawn Tlang I	Bazar	300000 lits	1 Km
8	Kikawn Tlang II	Bazar	188000 lits	1 Km
9	Kikawn Tlang III	Bazar	173000 lits	1 Km
10	CS Tlang I	Venglai	491200 lits	0 Km
11	CS Tlang II	Venglai	486000 lits	0 Km
12	CS Tlang III	Venglai	159430 lits	0 Km
13	Hauruang	Hauruang	172500 lits	10 Km
14	AP Tlang I	Chanmari	471510 lits	0.5 Km
15	AP Tlang II	Chanmari	186828 lits	0.5 Km
16	RCC Rectangular	Chanmari II	250000 lits	0.6 Km
17	RCC Underground	Chanmari II	250000 lits	0.6 Km
18	RCC Circular I	Lunglawn	188646 lits	2 Km
19	RCC Circular II	Lunglawn	110135 lits	2 Km
20	AR RCC Circular	Lunglawn	425625 lits	2.5 Km
21	AR RCC Rectangular	Lunglawn	127000 lits	2.5 Km
22	Sethlun RCC Circular	Sethlun	448613 lits	4 Km
23	RCC Circular Theiriati Tlang I	Theiriati	250000 lits	5 Km
24	RCC Circular Theiriati Tlang II	Theiriati	160000 lits	5 Km
25	RCC Circular Theiriati Tlang III	Theiriati	160000 lits	5 Km
26	Middle School Tlang	Theiriati	72640 lits	5 Km
27	RCC Circular Poly Tlang	Hrangchalkawn	115500 lits	7 Km
28	RCC Circular Police Outpost	Hrangchalkawn	25685 lits	7 Km
29	RCC Circular (PS Bul)	Hrangchalkawn	31165 lits	7.5 Km
30	Lungpuizawl I (Thlanmual bul)	Lungpuizawl	26870 lits	8 Km
31	Lungpuizawl II (Hnenzovi in bul)	Lungpuizawl	44000 lits	8 Km
32	Lungpuizawl III (Upper	Lungpuizawl	11063 lits	8 Km

	Lungpuizawl)			
33	Lungpuizawl IV (Stone Masonry)	Lungpuizawl	37347 lits	8 Km
34	RCC Circular Vengthar	Zobawk	500000 lits	10 Km
35	Stone masonry Vengthar	Zobawk	100000 lits	10 Km

D

SI No	No of Village	No. of Supply Tank Available	Storage Capacity	Distance from DC
1	Thuampui	2	325000 lits	0.5 Km
2	Vanhne	2	150000 lits	0.5 Km

Annexure –VIII

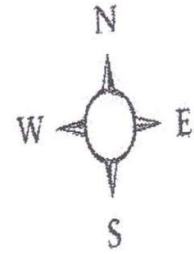
QUALIFIED Ex-MILITARY PERSONNEL

Sl No	Rank	Name	Unit	Address
1	Rect	Lalthanzuala	A/Regt	College Veng, Lawntlai
2	Sep	LT.Varropuia	A/Regt	Sethlun, Lunglei
3	Sep	K.Lalsiammawia	A/Regt	Theiriat, Lunglei
4	Hav	K.Lalvensanga	A/Regt	Tawipui S, Lunglei Dist.
5	Nk	R.lalrinawma	A/Regt	Zotlang, Lunglei
6	Sep	ZD.Lalramsanga	A/Regt	Hauruang, Lunglei
7	Nk	NG.Sottua	A/Regt	Tuipang, Siaha Dist.
8	Nk	Lalnuntluanga	A/Regt	Farm Veng
9	Nk	R.Lalthangsanga	A/Regt	Haulawng, Lunglei Dist
10	Hav	Vanlalpeka	Mech.Inf	Pukpui, Lunglei
11	Nk	K.Khaitha	Mech.Info	Chapui, Saiha Dist
12	Hav	Lalrintluanga	A/Regt	Lunglawn, Lunglei
13	Hav	HS.Laldinmawia	A/Regt	Lunglawn, Lunglei
14	Nk	Lalroenga	A/Regt	Theiriat, Lunglei
15	Sep	T.Lalsawmliana	A/Regt	Ramthar, Lunglei
16	Sep	R.Lalhmumawia	A/Regt	Haulawng, Lunglei Dist
17	Sep	H.Lalnumawia	A/Regt	Lunglawn, Lunglei
18	Hav	Lalrinzuala	A/Regt	Mualthuam N, Lunglei Dist
19	Nk	C.Lalbiakzuala	A/Regt	Thiltlang, Lunglei Dist
20	Hav	Kaphluna	Mech.Info	Lunglawng, Lunglei
21	Nk	R.Lalhmunsanga	A/Regt	Haulawng, Lunglei Dist
22	Hav	F.Vanlalpeka	A/Regt	Rahsiveng, Lunglei
23	Nk	C.Lalengzama	A/Regt	Pangzawl, Lunglei Dist
24	Hav	PC.Lachhanhima	B.Guard	Electric veng, Lunglei
25	Hav	Lallianzuala	A/Regt	Thingsai, Lunglei Dist
26	Nk	C.Lalengmawia	A/Regt	Lunglawn, Lunglei
27	Nk	Ananta Lal Chakma	A/Regt	Ramthar, Lunglei
28	L/Hav	Zoramnghaka	A/Regt	Tlabung, Lunglei Dist
29	Nk	Lalngurliana	A/Regt	Hrangchalkawn, Lunglei
30	Nk	Eric Zothanpuia	A/Regt	Ramthar, Lunglei
31	Nk	Lalmawisanga	A/Regt	College veng, Lawngtlai
32	Hav	Lalthuamliana	A/Regt	Theiriat, Lunglei
33	Nk	Beichhysa	A/Regt	Riasikah, Siaha
34	Hav	C.Jerusalemtharngbaka	A/Regt	Ramthar, Lunglei
35	Nk	F.Lalnienga	A/Regt	Rahsiveng, Lunglei
36	Hav	Lalremruata	A/Regt	Lunglawn, Lunglei
37	Hav	Pawkhai	A/Regt	Lunglawn, Lunglei
38	L/Nk	R.Lalvensanga	A/Regt	Zotlang, Lunglei
39	Nk	C.Lalsangnawla	A/Regt	Chanmari, Lunglei
40	Sep	Vanlalmuanzova	A/Regt	Lunglawn, Lunglei
41	Hav	S.Lalnunmawia	A/Regt	Lurang, Lunglei Dist
42	L/Hav	Pautinchuana	A/Regt	Lunglawn, Lunglei
43	Nk	F.Lalneihkima	A/Regt	Pukpui, Lunglei
44	Nk	Balaram Gurung	A/Regt	Lunglawn, Lunglei

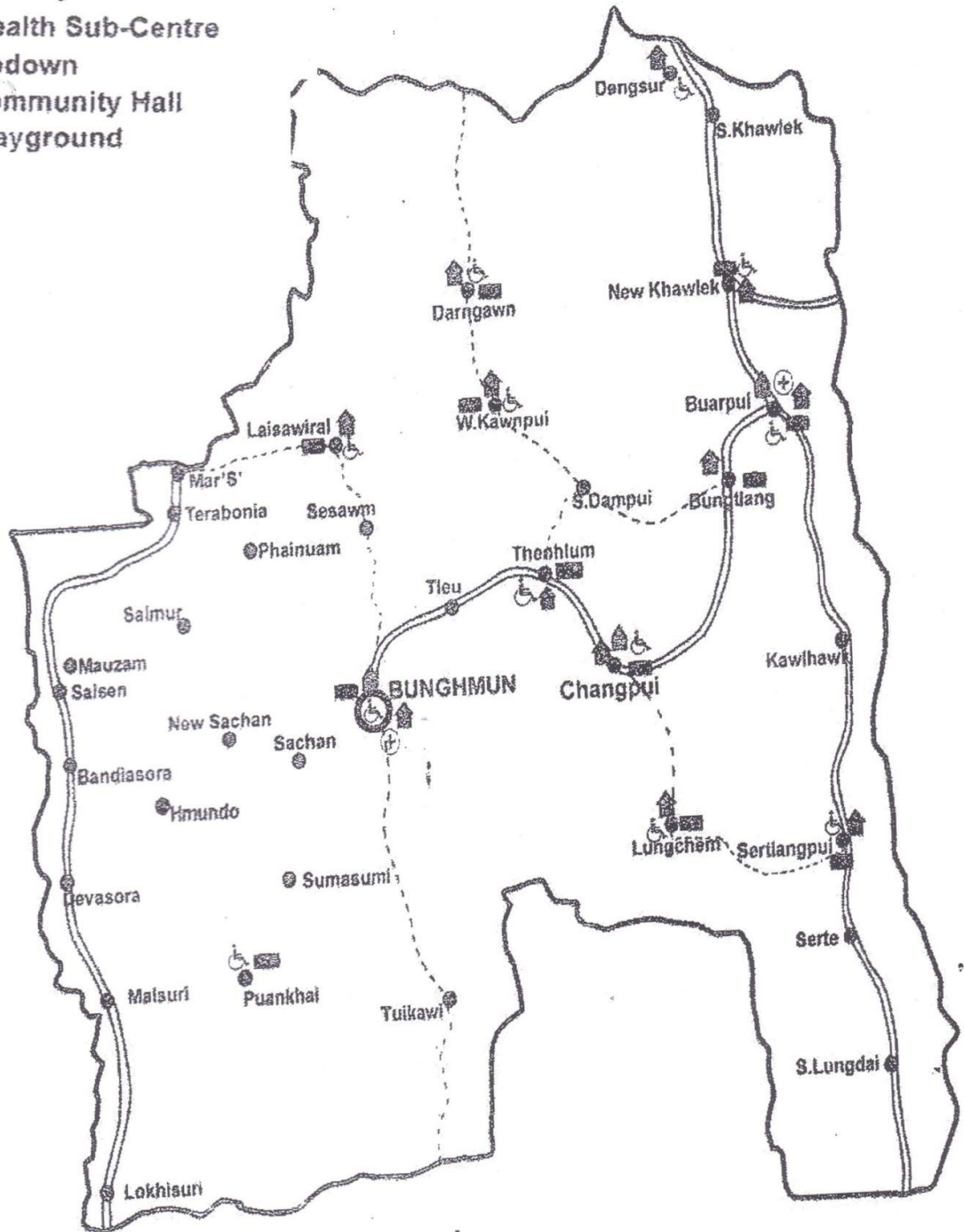


MAP of Lunglei District

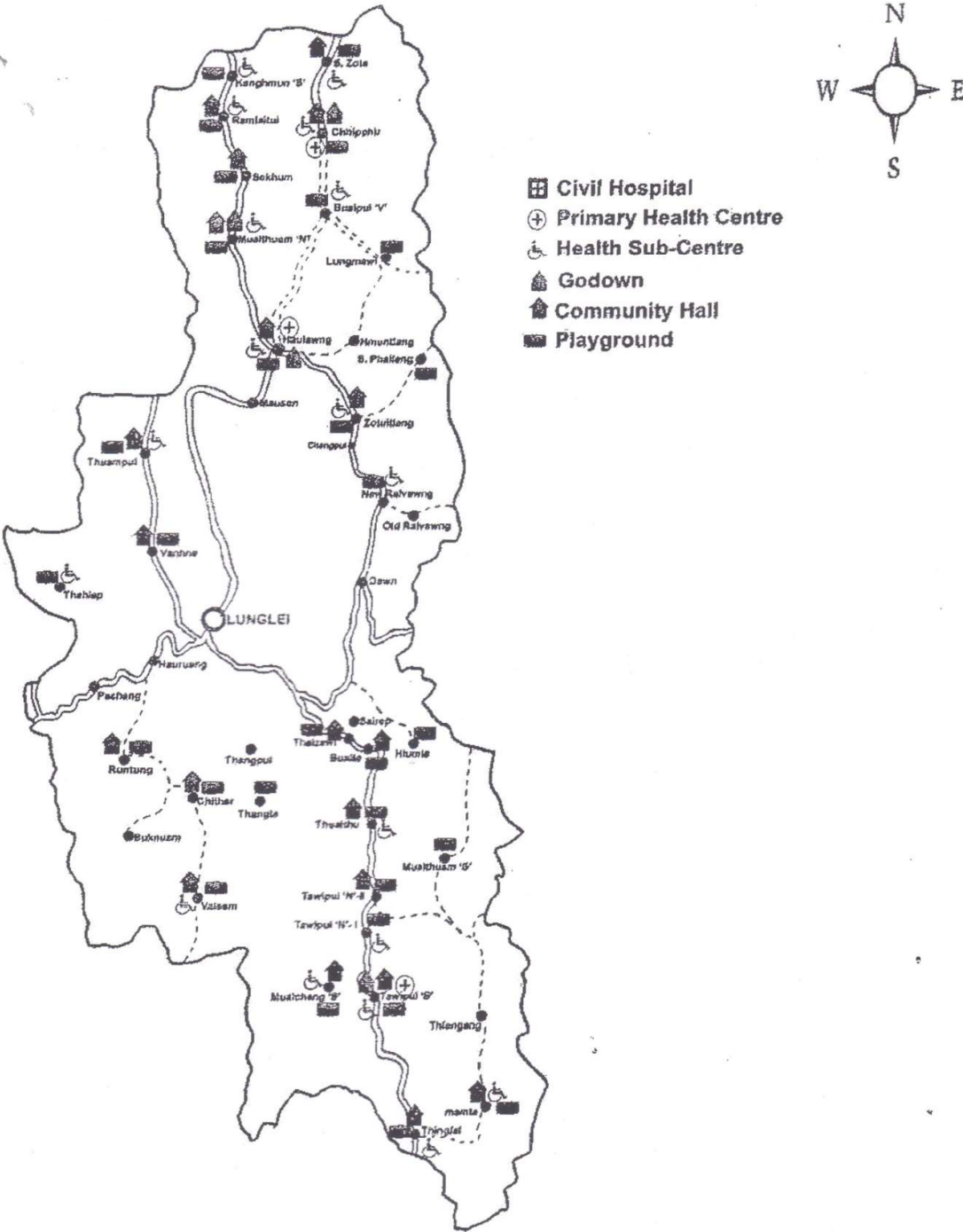
MAP OF BUNGHMUN RD BLOCK



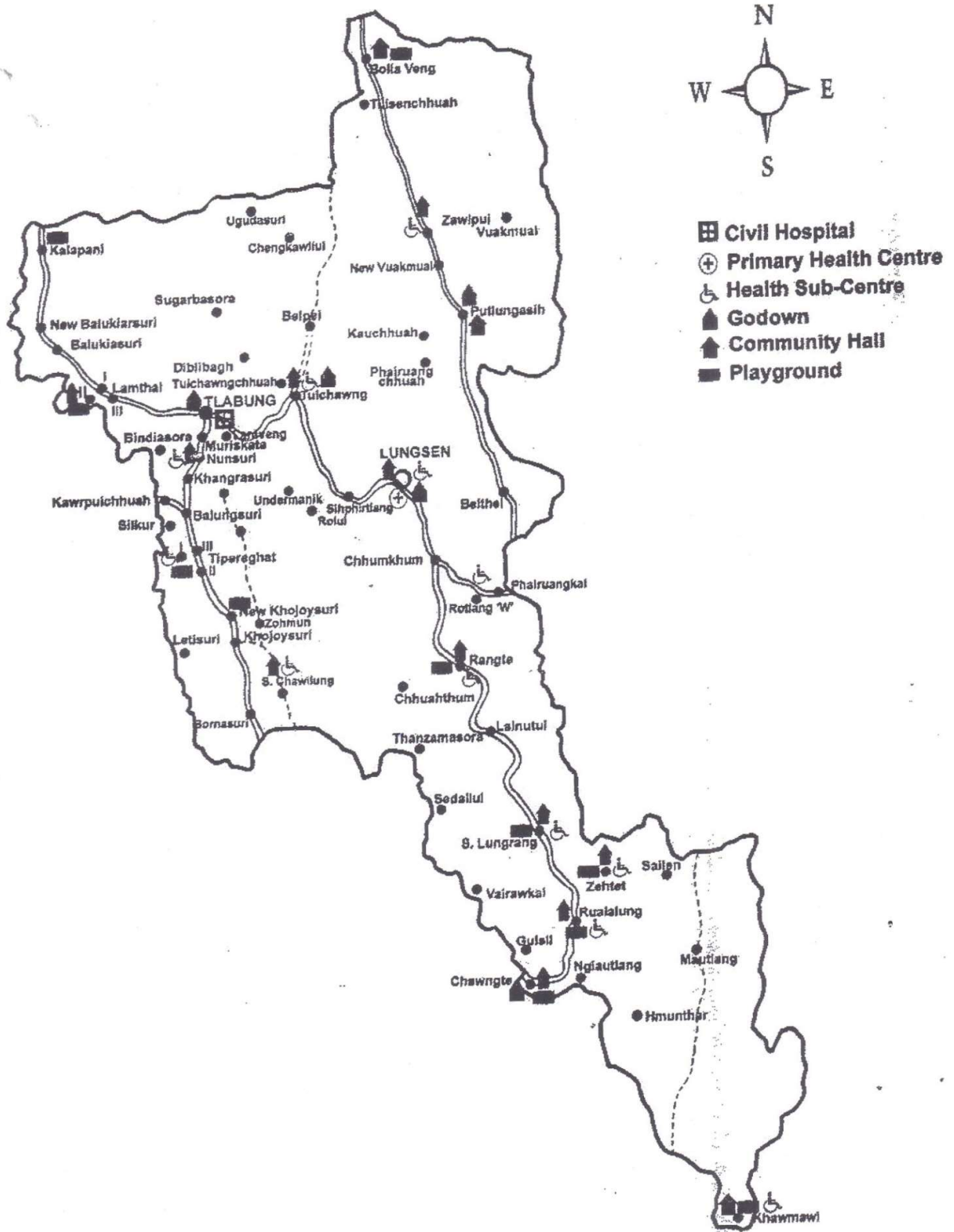
- Civil Hospital
- Primary Health Centre
- Health Sub-Centre
- Godown
- Community Hall
- Playground



MAP OF LUNGLEI RD BLOCK



MAP OF LUNGSEN RD BLOCK



SOME IMPORTANT ABBREVIATION

<i>ADC</i>	: <i>Additional Deputy Commissioner</i>
<i>AAR</i>	: <i>After Action Report</i>
<i>AMC</i>	: <i>Aizawl Municipal Council</i>
<i>AR</i>	: <i>Assam Rifle</i>
<i>BDO</i>	: <i>Block Development Officer</i>
<i>BSNL</i>	: <i>Bharat Sanchar Nigam Limited</i>
<i>BDMC</i>	: <i>Block Disaster Management Committee</i>
<i>CBDM</i>	: <i>Community Based Disaster Management</i>
<i>CBO</i>	: <i>Community Based Organization</i>
<i>CBDP</i>	: <i>Community Based Disaster Preparedness</i>
<i>CMO</i>	: <i>Chief Medical Officer</i>
<i>CEM</i>	: <i>Chief Executive Member</i>
<i>CRF</i>	: <i>Calamity Relief Fund</i>
<i>CTF</i>	: <i>Community Task Force</i>
<i>Com. /CUL</i>	: <i>Compensation/Claims Unit Leader</i>
<i>Com. UL</i>	: <i>Communication Unit Leader</i>
<i>CUL</i>	: <i>Cost Unit Leader</i>
<i>CHC</i>	: <i>Community Health Center</i>
<i>DC</i>	: <i>Deputy Commissioner</i>
<i>DDMA</i>	: <i>District Disaster Management Authority</i>
<i>DDMC</i>	: <i>District Disaster management Committee</i>
<i>DEOC</i>	: <i>District Emergency Operation Centre</i>
<i>DIO</i>	: <i>District Informatics Officer</i>
<i>DM</i>	: <i>Disaster Management</i>
<i>DO</i>	: <i>District Organiser</i>
<i>DM&R</i>	: <i>Disaster Management & Rehabilitation</i>
<i>DMP</i>	: <i>Disaster Management Plan</i>
<i>DMT</i>	: <i>Disaster Management Team</i>
<i>DRDA</i>	: <i>District Rural Development Agency</i>
<i>DRM</i>	: <i>District Risk Management</i>
<i>DTO</i>	: <i>District Transport Officer</i>
<i>DRR</i>	: <i>Disaster Risk Reduction</i>
<i>DMC</i>	: <i>Disaster Management Committee</i>
<i>DMIS</i>	: <i>Disaster Management Information System</i>
<i>DUL</i>	: <i>Documentation Unit Leader</i>
<i>IMT</i>	: <i>Incident Management Team</i>
<i>EOC</i>	: <i>Emergency Operation Centre</i>
<i>ESF</i>	: <i>Emergency support Function</i>
<i>FCS&CA</i>	: <i>Food, Civil Supply & Consumer Affairs</i>
<i>Fac.UL</i>	: <i>Facilities Unit Leader</i>
<i>FAB</i>	: <i>Finance Branch Director</i>
<i>FC</i>	: <i>Finance Commission</i>
<i>FUL</i>	: <i>Food Unit Leader</i>

<i>GAD</i>	: <i>General Administration Department</i>
<i>GIS</i>	: <i>Geographical Information System</i>
<i>GPS</i>	: <i>Global Positioning System</i>
<i>GSU</i>	: <i>Ground Support Unit</i>
<i>GoI</i>	: <i>Government of India</i>
<i>HVRCA</i>	: <i>Hazard, Vulnerability, Risk & Capacity Analysis</i>
<i>IAP</i>	: <i>Immediate Action Plan</i>
<i>IC</i>	: <i>Incident Commander</i>
<i>ICP</i>	: <i>Incident Command Post</i>
<i>I&PR</i>	: <i>Information & Public Relation.</i>
<i>ICS</i>	: <i>Incident Command System</i>
<i>IDKN</i>	: <i>India Disaster Knowledge Network</i>
<i>IDRN</i>	: <i>Indian Disaster Resource Network</i>
<i>IEC</i>	: <i>Information, Education and Communication</i>
<i>IRS</i>	: <i>Incident Response System</i>
<i>IIT</i>	: <i>Indian Institute of Technology</i>
<i>IMD</i>	: <i>Indian Meteorological Department</i>
<i>IMO</i>	: <i>Information & Media Officer</i>
<i>IRS</i>	: <i>Incident Response System</i>
<i>IRT</i>	: <i>Incident Response Team</i>
<i>LC/VC</i>	: <i>Local Council/Village Council</i>
<i>LHZ</i>	: <i>Landslide Hazard Zonation</i>
<i>LO</i>	: <i>Liaison Officer</i>
<i>LS</i>	: <i>Logistic Section</i>
<i>LSC</i>	: <i>Logistic Section Chief</i>
<i>MAP</i>	: <i>Mizoram Armed Police</i>
<i>MHA</i>	: <i>Minsitry of Home Affairs</i>
<i>MIRSAC</i>	: <i>Mizoram Remote Sensing Application Center</i>
<i>MRHG</i>	: <i>Mizoram Home Guard</i>
<i>MRP</i>	: <i>Mizoram Police</i>
<i>MSDMA</i>	: <i>Mizoram State Disaster Management Authority</i>
<i>MUL</i>	: <i>Medical Unit Leader</i>
<i>MHIP</i>	: <i>Mizo Hmeichhe Insuihkhawm Pawl</i>
<i>MPRO</i>	: <i>Mizoram Police Radio Operators</i>
<i>MUP</i>	: <i>Mizo Upa Pawl</i>
<i>NEC</i>	: <i>National Executive Committee</i>
<i>NCC</i>	: <i>National Cadet Corps</i>
<i>NGO</i>	: <i>Non-Governmental Organization</i>
<i>NDMA</i>	: <i>National Disaster Management Authority</i>
<i>NIDM</i>	: <i>National Institute of Disaster Management</i>
<i>NRHM</i>	: <i>National Rural Health Mission</i>
<i>NIC</i>	: <i>National Informatics Centre</i>
<i>NSS</i>	: <i>National Service Scheme</i>
<i>OS</i>	: <i>Operation Section</i>
<i>OSC</i>	: <i>Operation Section Chief</i>
<i>PAG</i>	: <i>Peak Ground Acceleration</i>

<i>POL</i>	: <i>Petrol, Oil & Lubricant</i>
<i>PS</i>	: <i>Planning Section</i>
<i>PSC</i>	: <i>Planning Section Chief</i>
<i>PUL</i>	: <i>Procurement Unit Leader</i>
<i>P&E</i>	: <i>Power & Electricity</i>
<i>PHC</i>	: <i>Primary Health Centre</i>
<i>PHE</i>	: <i>Public Health Engineering</i>
<i>PSA</i>	: <i>Project Support Associate</i>
<i>PWD</i>	: <i>Public Works Department</i>
<i>RBD</i>	: <i>Response Branch Director</i>
<i>RO</i>	: <i>Responsible Officer</i>
<i>RPUL</i>	: <i>Resource Provisioning Unit Leader</i>
<i>RUL</i>	: <i>Resource Unit Leader</i>
<i>S&T</i>	: <i>Search & Rescue</i>
<i>SAM</i>	: <i>Staging Area Manager</i>
<i>QRT</i>	: <i>Quick Response Team</i>
<i>RCC</i>	: <i>Reinforce Concrete Cement</i>
<i>SDC</i>	: <i>Sub-Deputy Commissioner</i>
<i>SDMA</i>	: <i>State Disaster Management Authority</i>
<i>SDMP</i>	: <i>School Disaster Management Plan</i>
<i>SDRF</i>	: <i>State Disaster Response Force/Fund</i>
<i>S&R</i>	: <i>Search & Rescue</i>
<i>SEOC</i>	: <i>State Emergency Operation Centre</i>
<i>SOP</i>	: <i>Standard Operation Procedure</i>
<i>UNDP</i>	: <i>United Nations Development Programme</i>
<i>VDMC</i>	: <i>Village Disaster Management Committee</i>
<i>VDMC</i>	: <i>Village Disaster Management Team</i>
<i>VDMP</i>	: <i>Village Disaster Management Plan</i>