DISTRICT DISASTER MANAGEMENT PLAN 2019-20

OFFICE OF THE
DEPUTY COMMISSIONER/DISTRICT MAGISTRATE
THOUBAL DISTRICT, MANIPUR

ABBREVIATION

PREFACE To be prepared by the District Magistrate

FORWARD To be prepared by the Addl. District Magistrate

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ANNEXURES:

* To be prepared by the District administration

ABBREVIATIONS

AAI	Airport Authority of India
ATIs	Administrative Training Institutes
BIS	Bureau of Indian Standard
BPL	Below Property Line
CBDM	Community Based Disaster Management
CBOs	Community Based Organisations
CDVO	Chief *District* Veterinary Officer
CSCs	Community Service Centres
DDMA	District Disaster Management Authority
DDMP	District Disaster Management Plan
DM	Disaster Management
DM ACT, 2005	Disaster Management Act, 2005
EOC	Emergency Operations Centre
GIS	Geographic Information System
GOI	Government of India
HPC	High Powered Committee
HRD	Human Resource Development
HR	Human Resources
IT	Information Technology
MIS	Management Information System
NCC	National Cadet Corps
NCDM	National Committee on Disaster Management
NDMA	National Disaster Management Authority
NDMRCs	National Disaster Mitigation Resource Centers
NDRF	National Disaster Response Force
NSS	National Service Scheme
NYK	Nehru Yuva Kendra
NGOs	Non-Governmental Organisations
NBC	Nuclear, Biological and Chemical
PRIs	Panchayati Raj Institutions
SDMA	State Disaster Management Authority

SEC	State Executive Committee
SOPs	Standard Operating Procedures
PWD	Public Works Department
PHED	Public Health Engineering Department
IFCD	Irrigation & Flood Control
IRS	Incident Response system
IRT	Incident Response Team
QRT	Quick Response Team
MARG	Mutual Aid & Response Group
NYK	Nehru Yuva Kendra
SOC	Site Operation Centre
DCR	District Control Room
DEOC	District Emergency Operation centre
EO	Emergency Officer
DIO	District Information Officer
IEC	Information, Education & Communication

Chapter 1: Introduction

1.1. District Profile

The district of Thoubal, which occupies the bigger portion of the eastern half of Manipur Valley, takes the shape of an irregular and elongated triangle with its base facing north. It is bounded on the north by Imphal East district, on the east by Senapati and Chandel districts, on the south by Chandel district and on the west by the districts of Imphal West and Thoubal. The district has an area of 514 sq.kms. as supplied by the Surveyor General of India. Its average elevation is not very much different from the rest of the Manipur Valley, which is about 790 metres on an average above the mean sea level. Although the district is a part of the valley, the area of the district is not entirely plain. Many rivers flow through the district and many lakes dot its surface, some of which are closely inter-twined with many folk tales and stories, of which mention may be made of the fishing and other episodes of the love story of the legendary Khamba-Thoibi. In fact, all-important lakes of Manipur, with the exception of Loktak, are in this district. The State of Manipur used to supplement its meagre resources from the annual lease of the lakes in the past.

Although little is known about its ancient history, the district has, in recentpast, seen many bloody and disgraceful battles. Through the district runs on an international road that leads to Myanmar (Burma) via Moreh and Tamu and this road is, in the days before the independence of India, the route of many military, expeditions and counter-expeditions by the forces of Manipur and Burma and, later on, by that of the British government. It is in this district, on the bank of Khongjom river, that the last battle of the independence of Manipur was fought on 23rd April 1891 by a few and ill-equipped soldiers of Manipur against the might of the British empire . It is not just an irony of fate that Major Paona Brajabashi and others meet their last days in this battle. The battle symbolizes the honourable deed of an extreme sacrifice for hismotherland, knowing fully well that the fight would mean sure defeat.

Among the natural calamities that had occurred in the past, mention may be made of the serious cholera epidemics of 1931, which took a heavy toll of the district

population. Although the epidemic was widely spread throughout the Manipur valley it was felt heavier in the district. The district came into existence in May, 1983 through a notification of the Government of Manipur, (Secretariate:Revenue Department Order No. 6/1/73-R(Pt.VII) dated May24,1983), (Manipur Extraordinary Gazette No. 76 of the same date) under the Manipur Land Revenue and Land Reforms Act, 1960. By the said notification, Thoubal sub-division of the erstwhile Manipur Central district(now Imphal district) with all it s administrative units was transferred to form a new district under the name of Thoubal with its headquarters at Thoubal. Later, in November 1983 Thoubal was bifurcated into Thoubal and Kakching sub-divisions. Kakching sub-division again comprises Kakching and Waikhong Circles with their all existing villages (Manipur Gazette Extraordinary No.343 dated November, 25,1983), the headquarters of Kakching sub-division being at Kakching. Yet a new sub-division namely, Lilong sub-division came into existence vide Govt. Gazette No. 104 dated 17.6.1997 this bringing tota lnumber of sub-divisions to three. The district has two community development blocks one each at Thoubal and Kakching sub-division. It has 9 main towns namely, Lilong Pt. in Thoubal, Yairipok, Sikhong Sekmai, Wangjing, Heirok, Kakching, Kakching Khunou and Sugnu and a part of Samurou whose major portion is in the Imphal West District. Thoubal and Kakching are Municipal Councils.

1.2. Administrative Setup

The District Magistrate-cum-Deputy Commissioner (Collector) is the head of the district. He is assisted in this work by other officers and staff as are appointed from time to time. Maintenance of law and order, revenue administration, economic development of the region are the basic duties of the District administration. The district is divided into a 3 major units (Sub-divisions). Each unit is in the charge of a Sub-Divisional Officer (SDO) who is concurrently a Sub-Divisional Magistrate. Till 1991 Census, The district had two Sub-Divisions namely Kakching Sub-Division and Thoubal sub-divisions.By Manipur Gazettee No. 104 dated June 17,1997 another sub-division namely Lilong sub-division was created out of Thoubal Sub-Division making thus the total of Sub-Division to three.The district has smaller administrative circles under charge of by Sub-Deputy collectors. The District has seven such circles. Two Community Development Blocks function in the district having their

headquarters respectively at Thoubal and Kakching. Other district heads such as Superintendent of Police. District Officer (Horticulture & Soil Conservation), Chief Medical Officer, Zonal Education Officer, etc. alsohave their Offices located at District Headquarters Thoubal.

The district is one of the four Valley Districts of Manipur and is situated in the Central region of the State. Consequent upon enactment of the 73rd Constitution Act, 1992 the Manipur Panchayat Raj Act, 1994 was enacted which became effective from 24th April, 1994. This act was subsequently amended in 1996. The act extends to Thoubal district as well. Under the act two tier Panchayat system has been established namely, Gram Panchayat and Zilla Parishad.Poverty alleviation and rural development programmes come under Panchayat.

1.3. Administrative Division

(in no.)

Sl. No.	Item	2010	2011	2012	2013	2014	2015	2016
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Sub-Division	3	3	3	3	3	3	4
2.	Community Development Blocks	2	2	2	2	2	2	2
3.	Municipal Councils	2	2	2	2	2	8	8
4.	Nagar Panchayats	7	7	7	7	1	1	1
5.	Urban Wards	93	93	93	93	93	93	93
6.	S.D.C. Circles	8	8	8	8	8	8	8
7.	Zilla Parishad	1	1	1	1	1	1	1
8.	Zilla Parishad Constituencies	16	16	16	16	16	16	16
9.	Gram Panchayats	42	42	42	42	42	42	42
10.	Gram Panchayat Wards	477	477	477	477	477	477	477
11.	Assembly Constituencies Comprising Parliamentary Constituency :							
	(i) Inner Manipur	3	3	3	3	3	3	3
	(ii) Outer Manipur	7	7	7	7	7	7	7

1.4. Location & Geography

The district occupies the bigger portion of the eastern half of Manipur valley. It lies between 23.45'N and 24.45' N latitude and 93.45'E and 94.15'E longitude. The district is bounded by Imphal west and Imphal east districts on the North, by Ukhrul and Chandel districts on the East, Chandel and Churachandpur districts on the south and by Inphal west and Thoubal districts on the west. Although it is a part of Manipur

valley, the area of the district is not entirely plain as many rivers flow through the district and many lakes and small hills dot its surface.

1.5. Climate

On the whole, the district has an equitable and pleasant climate. Rainfall is relatively abundant and widespread. The rainy season starts in June with the onset of the south-west monsoon and last upto September. Intermittent rains continue even upto October along with the retreat of the monsoon. As in the rest of the State, the district is also under the effect of the so-called ' Vagaries of the monsoon' with the alternating droughts and floods. During the rainy season the rain water in the hills quickly flow down to the valley and all the rivers and small streams rises to the full brim, frequently flooding its embankments. As the lakes became full, the low lying areas around them are easily amenable to flood. Drainage is slow and takes a long time. The cold season last from December to February. During the winter months light rainfall occurs under the influence of the north-east monsoon, March and October are by far the most pleasant months in the year. April and May are not hot season followed by occasional thunder storms. Of Late, some changes in the climate calendar in the state are observed which some expert meteorologists attribute the cause as mainly due to deforestation in the hills surrounding the valley.

The only centre which records authentic meteorological records in the district is the Rice Research Centre, Wangbal. Rainfall recorded there in 1989 is 1306.80mm as against a mean annual rainfall of 1318.39mm during 1983-89. For the sake of comparison with its neighboring Imphal district, the corresponding figures recorded at the State Mechanized Farm at Lamphelpat (Imphal) are 1391.20mm and 1243.50mm respectively. The summer months are never oppressive with the average maximum temperature fluctuating between 32°C to 35°C during April-June, the mercury seldom going beyond 37°C. In December-February with the start of the cold winter months the average minimum temperature fall to 6°C to 4°C, the temperature going below 0°C.

1.6. Roads

A very important road i.e. National Highway No. 39 runs through this district and the same leads to Myanmar (Burma) via Moreh and Tammu. In the days before the independence of India this road having a historical significance was used as the main route of many military expeditions and counter expedition by the forces of Manipur and Burma (Myanmar) j and later on by the British Government. This road i.e. NH-39 is the main life line of the people in this district.

1.7. Rivers& lakes

Important rivers that flow through the district are the Imphal and the Thoubal. The Thoubal river originates in the hill ranges of Ukhrul and is an important tributory of the Imphal river. On its course, it passes through Yairipok and Thoubal before joining the Imphal at Irong near Mayang Imphal. The Imphal river rises in the hills of Senapati district and flows south. It forms the boundary demarcating line of Thoubal district on its north and the west. During the dry seasons these rivers are lean and thin but, during the rainy monsoon periods these rivers are very wild and frequent floods occur causing widespread damage to the paddy fields, property and life. These rivers were once good means of transport for valuable merchandise. Other rivers in the district are the Wangjing, the Arong and the Sekmai. These rivers originate in the hills of Ukhrul district. The Arong river flows through Khangabok and falls into Kharung Pat. The Wangjing river flows west via Heirok and Wangjing before joining the Loushi Pat. With the advent of cheap and faster means of road transport these rivers no longer serve as routes of transportation of goods. Still they provide good building materials in the shape of sand, pebbles and boulders and a means of livelihood for a large number of people inhabiting along their courses.

The south-western portion of the district is a low-land forming a part of the Loktak Lake region and this area has a number of shallow and rain fed lakes, the important ones being Kharung, Ikop, Pumlen, Lousi and Ngangou. On the northern portion there is Waithou lake form by the drainage waters sandwiched between Waithou hill on the west and the villages and paddy fields on the east. Due to constant siltation and reclamation of vast areas for agricultural purposes the lakes

are gradually shrinking in size and at present some of them are only in name. These lakes drain into the Imphal river. They provided very good fishing ground for a variety of fishes in the recent past.

1.8. Hills

The district is dotted by a few hillocks and hills of low heights. Some of them are without, part of Khekman range, Mantak, Kwarok and Thongam Mondum-Punam. Of these, Punam hill has an elevation of 3310 ft. above sea level. Geologically, Khekman range belongs to the Brail Series and Simsang formation. Good vegetation once covered these hills. But constant deforestation have made them barren and unattractive. As the pressure on land increases with a rapid increases in population, there has been a tendency in recent years to use the hills sites for better productive plantation, specially pineapples.

1.9. Agriculture

Agriculture Is the most important source of livelihood for the people of the district. More than 70 per cent of the total population of the district are directly or indirectly depended on agricultural activities. The valley is fertile and the topography of the district provides good opportunity for irrigation, natural as well as artificial. Rice accounts for above 90% of the total land area under cultivation. Although the average land holding is one of the lowest in India, yield per acre is comparatively high. With the increasing use of fertilizers and the modern methods of cultivation, there is a great scope of increasing the overall production.

In food grains, Thoubal is a surplus district producing above 75,000 tones of rice in 1987-88 accounting for above 25% of the total rice production in Manipur. The Kakching belt which provides more than 50%of the total rice exports of the district may be rightly termed as the 'rice basket of Manipur'. The soil of the district is fertile and with the help of irrigation facilities from the Imphal barrage, the Thoubal Multipurpose Project, Sekmai barrage and other minor irrigation works, double cropping is widely practiced in the district.

In some areas, even triple cropping is practiced - the first paddy crop starting late February or early March, second paddy crop in July and early August and the third crop of mustard seeds, pulses etc in November.

Other crops grown in the district are sugarcane, oilseeds, maize, potatoes, pulses, chilies, vegetable etc. The district is the largest producer of sugarcane in Manipur. Its cultivation is mainly confined to Thoubal, Wangjing, Kakching, Kakching Khunou and Wabagai. Although maize is grown throughout the district, it is cultivated as major cash crop around Serou, Pallel and Kakching belt. Oilseeds, mainly mustard seeds, are found all over the district. Recently cultivation of sunflower has also started. Vegetables such as cabbages, cauliflower, brinjal, different kinds of peas, gourds, pumpkins etc are found in abundance.

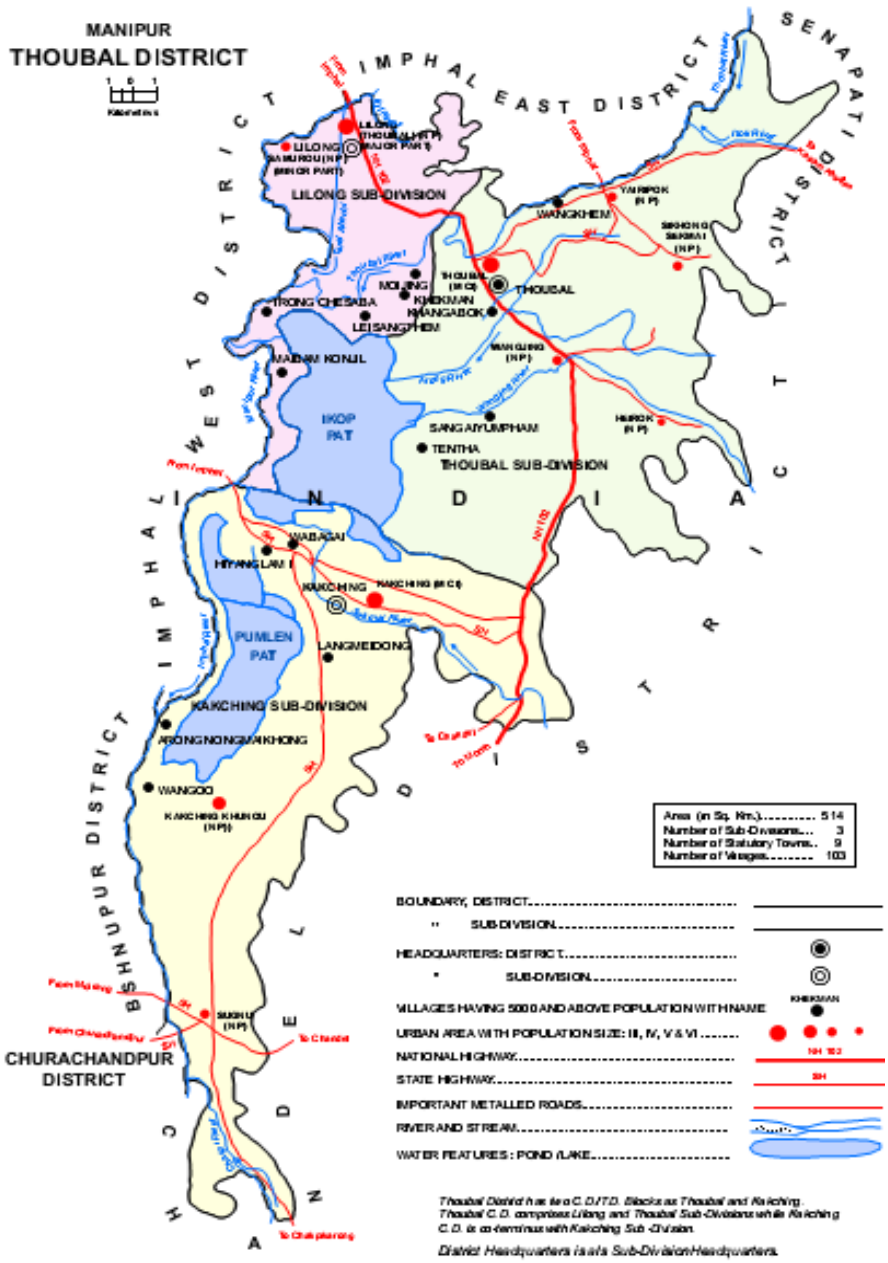
Among the plantation crops, pineapples are the most important and are cultivated in the slopes of low hills and hillocks. Langdum, Waithou and Poirou Tangkhul are mainly important for these crops. Although tea plantation is yet to take its shape in the district a blend of local variety of very good taste is grown in Pallel and Waikhong area. Tobacco was once cultivated in the district widely. Another important plantation crop is chilies.

1.10. Flora and Fauna

Various types of trees are found all over the district. But the more commonly found varieties include Pipal trees. Kabulliua, (Oravila robusta), Khok (Albizzia Spp), Tera (Salimalia Malabarica), Sileima (Eugenia pracox), Tairen (Cedrela loona) etc. Bamboos and plantain trees are common everywhere. Various types of fruit-bearing plants also thrive in the districts. Important varieties are pineapple, pear, peach, Jack fruit, banana, mango, lemon, plum, guava, amla etc. The habit of the local people to plant banyan trees along the road side and bamboos and fruit bearing trees within their compounds give the rural areas a permanent green scenery. Recently, the Government as also introduced plantation of quick growing trees under the social forestry programme along the road side.

In spite of its rich vegetation, due to the absence of any forest worth the name within the district wild animals are not found abundantly, Deer and Jungle fowl are

some of the varieties found at present occasionally along the slope of eastern hills adjoining the district. But the lakes support a variety of wild birds such as partridge, snipe, duck, geese, etc. particularly in winter months. These birds are mostly migratory in character. Some of them are seen coming from far off Siberia. With the gradual conversation of the lakes into agricultural lands these migratory birds are seen in increasingly fewer members in recent times.



1.11. Fishing

Fishing provides an important occupation for a large number of people in the district. The activity Is mainly conducted in the lakes and the enclosed low lands besides small ponds within the precincts of the household. Waithou, Kharung and Ikop are specially important for 'Ngaton', a variety of small fish noted for its taste. This fish as also Ngaaroi, Pengba, Tharak, Ngahou, etc. (all local names) was once caught in the lakes Of the district in good measures. But the large scale use of pesticides for agricultural purposes and the reclamation of the habitat and the special breeding grounds of these fishes are largely responsible for their gradual disappearance from the lakes and their catch now-a-days is almost negligible. There are 2 fish farms in public sector and 44 farms in private sector during 1987-88. Production table fishes in that year amounted to 3.5 tones and fish fingerlings to 11.9 lakhs numbers.

1.12. Demographic Profile of Thoubal District (2011 census)

Actual Population	422,168
Male	210,845
Female	211,323
Rural Population	270,835
Urban Population	151,333
Population Growth	15.90%
No. of Villages	103
Area Sq. Km	514 sq.km.
Density/km2	821 persons
Sex Ratio (Per 1000)	1002
Average Literacy	74.5
Male Literacy	85.00
Female Literacy	64.1
Total Child Population (0-6 Age)	60,556
Male Population (0-6 Age)	31294
Female Population (0-6 Age)	29,262
Literates	269,304

Male Literates	152,617
Female Literates	116,687
Illiterates	152,864
Male Illiterates	58,228
Female Illiterates	94,636
SC Population	40,593
ST Population	1808
Total Workers	195,319
% Main Workers	31.6
% Marginal Workers	14.7
Child Proportion (0-6 Age)	13.19%
Boys Proportion (0-6 Age)	13.63%
Girls Proportion (0-6 Age)	12.74%

1.13. Topography

The soil of the district are clay soil, Loamy soil, Red soil, Peaty soil and sandy soil thatmakes the district very fertilefor agricultural crops. The important Lakes in the district arethe Ikkopat ,thepumlenpat,thelousipat, the kharungpat and the Waithou pat. These lakesprovises a good fishing facility to the people and provide a means of livelihood. The mainrivers that flow through the district are the Thoubalriver, The Iril River, The Imphal Riverand the Sekmai River. The Thoubalriver originates from the hill range of adjoiningUkhrul district over which the Thoubal Dam is constructed.The district is dotted by a few hillocks and hills of low heights. Some of them arewithout, part of Khekman range, Mantak, Kwarok and ThongamMondum-Punam.

1.14. Mineral Resources

The district is generally poor in mineral resources. Among the minerals found in the district, brine spring are of some significance. This springs are found along the foothills on the eastern part of the valley. Water from this springs are boiled and salt is extracted by the method of evaporation.

Salt is manufacture in the form of beautiful cakes and they are consider to have a good medicinal property. These salt cakes are used in ceremonial purposes also.

Important places where brine springs are found are Waikhong, Sikhong, Chandrakhong, Ningel etc. The district has a number of places where red clay suitable for pottery is found. These are mainly available on the eastern side of the valley around Waikhong, Nongpok Sekmai, Thongjao, Chairel etc. Naturally these areas are associated with pottery of very good types. Some qualities of low grade iron ore is found at Kakching.

1.15. Tourism

Khongjom

It is situated above 10 kms. to the south of Thoubal, the district headquarters (32 kms from Imphal). It is the place where last war of Manipur's independence was fought between the Manipuri and the British soldiers. It has got a memorial erected on a small hillock, Khongjom is well served by the National highway. An eight-bedded Tourist home has been functioning there since 1988.

Sugnu

Situated 74 kms. from Imphal, the place is an important trading centre on the south of the district. From it a Beautiful view of the Imphal river can be seen. It is on the Imphal - Sugnu State highway.

Waithou

The place is important for its scenic beauty. There is an inspection bunglow on the hill-side over looking the Waithou Lake. The place is noted for its tasteful pineapples. An exotic and delicious variety of local fish known as 'Ngaton' used to be available at this place abundantly till a few years back from now. It is on the National highway about 3 kms. from the district headquarters.

Kakching

It is the sub-divisional headquarters of Kakching sub-division and is a famous trading centre of a variety of vegetables, fishes and rice next to Thoubal, the biggest town in the district. The place is easily approachable from the National highway and is connected to the other State highways.

Thoubal

It is the district headquarter of Thoubal district and also the sub-divisional headquarters of Thoubal sub-division. Situated at a distance of 22 kms. from Imphal, the National highway No. 39 divides the town almost into halves from north to south length-wise. The Thoubal river flows through the centre of the town from east to west. It is the biggest town in the district and is one of the most important trading centre of the district. The town has all the infrastructures of a fast developing urban area.

Pallel

It is a place situated at the border of Thoubal and Chandel districts and is the meeting place of plain areas of Thoubal and the hill areas of Chandel. Indo-Myanmar road from Imphal to Moreh passes through it. With its hills and rivers the place has a beautiful landscape. Typical agricultural Products and nice handicrafts of the hilly people are regularly found in its daily market.

1.16. Land Holding Pattern

Sl. No	Name of the GIP	Big farmer	Marginal farmer	Small farmer	Agricultural labors	Landless	Total
1	Atoukhong		214	63	1219	311	1807
2	Leishangthem		68	38	380	270	756
3	Khekman	20	600	400	1125	75	2220
4	Moijing		200		680	300	1180
5	Irong cheraba	20	300	200	347	714	1581
6	Maibam Uchiwa	50	300	200	800	98	1448
7	Wangkhem		285	500	1700	105	2590
8	Wangkhem	11	436	269	1600	260	2570
9	Leirongthel Ningthel		855	429	3233	1293	5810
10	Charangpat		1050	2100	1218		4368
11	Kangyambem		500	70	350	1000	1920
12	Khangabok Part I	35	260	125	1265	110	1795
13	Khangabok Part II	20	115	97	1120	105	1350
14	Khangabok Part III		550	210	1040	10	1905
15	Heirok Part I	5	361	30	830	113	1236
16	Heirok Part II	4	600	150	1500	150	2367
17	Heirok Part III	3	700	200	1400	401	2453
18	Sangaiyumpham	160	200	150	6200	150	711

	Part I						
19	Sangaiyumpham Part II	250	450	500	1800	12	3150
20	Wangbal Kiram	4	650	12	1000	50	1678
21	Wangjing	7	300	40	870	370	1267
22	Samaram	57	93	290	370	1200	1180
23	Langathel	9	165	17	1200	55	2591
24	Sapam			410	811	330	1276
25	Takcham		128	203	335	200	996
26	Lourambam	6	375	950	1020	189	2548
27	Tentha		450	590	860		2089
28	Chairel	20	120	350	350	70	910
29	Wangoo		150	400	670	80	1300
30	Arong Nongmaikhong	30	1000	500	530	40	2100
31	Waikhong	10	720	600	300	100	1730
32	Hiyanglam	5	800	500	395		1700
33	Hayen Hangoon	5	800	400	945	50	2200
34	Wabagai	2	98	250	863	376	1599
35	Serou		1000	100	300	100	1500
36	Mayeng Lamjao	11	962	200	350	20	1589
37	Pangantabi	1	14	7	916		938
38	Keirak	2	30	350	760	40	1182
39	Sekmaijin	20	790	550	789	20	2169
40	Pallel	15	580	510	630	30	1765
41	Irengband	3	620	480	710	50	1863
42	Langmeidong	1	170	120	834	198	1321

1.17. Livelihood Details

Sl. No	Name of the GP	Total (HH)	Agri-culture	Agricul-tural labor	Other labor	Fishing	Petty business	Service holder	Other specify
1	Atoukhong	1807		1219			107	251	
2	Leishangthem	750		380			35	163	
3	Khekman	2220		1125		60	10	35	

4	Moijing	1180		680				117	
5	Irong cheraba	1581		347			57	321	
6	Maibam Uchiwa	1448		800				118	
7	Wangkhem	2590		1700		130	130	200	
8	Wangkhem	2576		1600			60	595	
9	Leirongthel Ningthel	5810		3233				206	
10	Charangpat	4368		1218			2100	2100	
11	Kangyambem	1920		350		20	7	150	
12	Khangabok Part I	1795		1265			130	425	
13	Khangabok Part II	1352		1120			55	150	
14	Khangabok Part III	1905		1040			50	80	
15	Heirok Part I	1236		830			10	180	
16	Heirok Part II	2367		1500			8	90	
17	Heirok Part III	2453		1400			2	100	
18	Sangaiyumpham Part I	7111		6200			10	650	
19	Sangaiyumpham Part II	3150		1800			150	180	
20	Wangbal Kiram	1675		1000		15	105	265	
21	Wangjing	1267		870		30	200	150	
22	Samaram	1180		370		17	100	260	
23	Langathel	2591		1200		200	50	65	
24	Sapam	1276		811		10	14	58	
25	Takcham	996		335			95	16	
26	Lourambam	2548		1020		50	105	38	
27	Tentha	2089		860		100	132	60	
28	Chairel	910		350			95	65	
29	Wangoo	1300		670		5	60	80	
30	Arong Nongmaikhong	2100		530			55	100	
31	Waikhong	1730		300		50	42	130	
32	Hiyanglam	1700		395			30	90	

33	Hayen Hangoon	2200		945			10	100	
34	Wabagai	1599		863			20	95	
35	Serou	1500		300		6	100	110	
36	Mayeng Lamjao	1589		350			120	80	
37	Pangantabi	938		916			130	130	
38	Keirak	1182		760			40	70	
39	Sekmaijin	2169		789		20	2	170	
40	Pallel	1765		630			10	60	
41	Irengband	1863		710			8	30	
42	Langmeidong	1321		834		10	2	60	

1.18. Infrastructures

Name of the District	**Police station / out post**	**Post offices/ out post**	**Pucca buildings**	**CHC**	**PHC**	**Dispensary**	**Cyclone shelters**	**Educational institutions**				**Live stock center**	**Cottage industries**	**Industries**	**Godown**
		Sub post office						UP	ME	Hi Gh	college				
Thoubal	6	7	872	x	16	58	x	326	88	105	11	147940	x	DIC	1

Chapter-2: Multi Hazard Disaster Management Plan

2.1.WHY IS IT ?

The purpose of preparing District Disaster Management Plan (DDMP) is –

a) To ascertain the status of existing resources and facilities available with the various agencies involved in the management of disaster in the District.

b) Assess their adequacies and short falls if any in providing a multi- disaster response.

c) Suggest institutional strengthening, technology support, up gradation of information system and data management for improving the quality of administrative responses to disaster at the district level and finally,

d) To evolve DDMP as an effective managerial tool.

2.2. OBJECTIVES

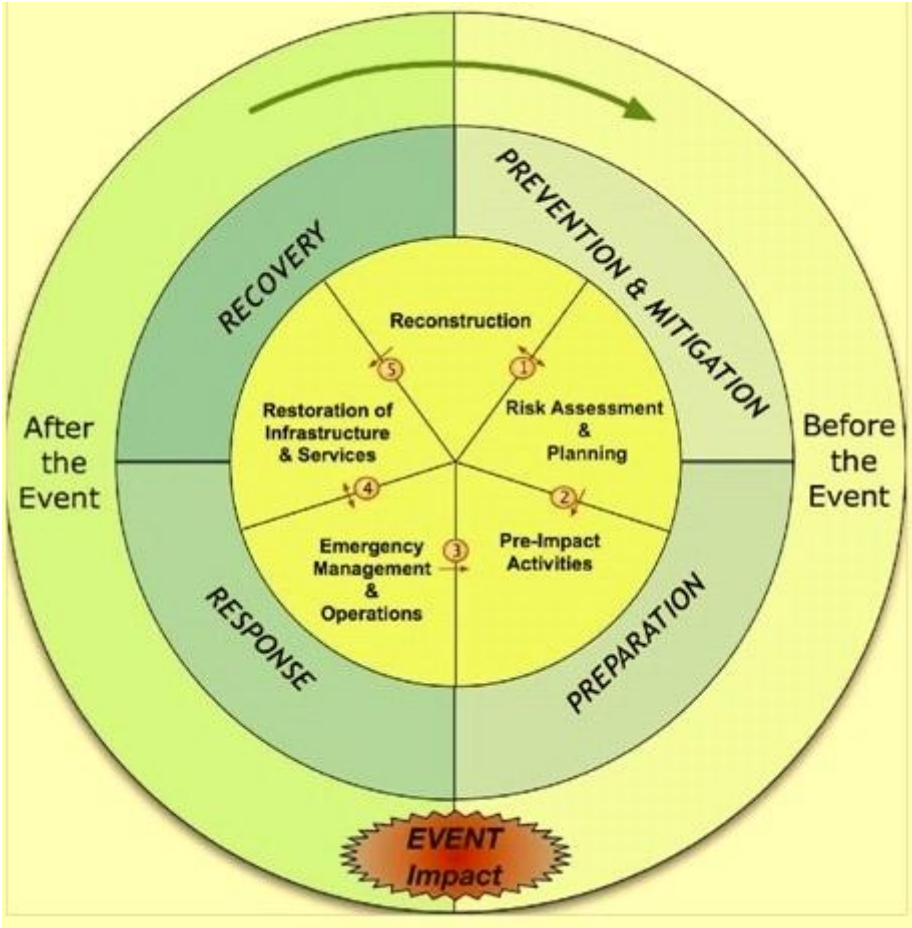
The objectives behind the preparation of the District Disaster Management Plan are:

- To have effective disaster preparedness and effective emergency response plan.
- To provide relief and humanitarian assistance.
- To enable faster recovery through comprehensive reconstruction and rehabilitation.
- To take up measures for effective prevention, mitigation and response for disasters.
- To assist the line departments, block administrator, communities in developing compatible skills for disaster preparedness and management.
- To create awareness among the people about hazard occurrence and increasing their participation in preparedness, prevention, development, relief, rehabilitation and reconstruction process.

2.3. Types of Disasters: Experienced in the District.

Natural	Man made Disasters
* Flood	* Fire
* Cyclone	* Communal riot
* Drought	* Road accident
* Hailstorm	* Insurgency
* Earthquake	* Chemical hazards

2.4. Disaster Management Cycle



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Chapter- 3: Hazard, Vulnerability, Capacity and Risk Assessment

District is prone to severe Earthquake and other Natural Hazards like Floods, Cyclones, Hailstorm, Lightening, Fire and Manmade Disaster like Road Accident, Ethnic Violence etc.

3.1. Vulnerability to Earthquake

Thoubal is one of the Districts of Manipur and is located in one of the most hazardous regions of the world i.e, Zone-V. Historically, the district experienced the effects of some of the major earthquakes occurred at some of the adjoining areas of the state.Presently, records of the frequent smaller shocks are being monitored by instruments installed at some centres, outside and within the state. The Recent earthquake that hit the state on 4th January 2016 has caused extensive damages to life and properties in the district.Hazards of earthquake cannot be taken easily.

3.2. Vulnerability to Floods

Major flood is not frequent in the district. However, flash floods are frequent during the rainy season. Major floods may strike the state for every 6-10 years according to the recorded figures found during the last 50 years and the district will not be spared.The average annual rainfall of Manipur state is 1400mm, so the hazard of flood cannot be taken easily.Preparedness, precaution and prevention plans may be taken up quite in advance flood areas.

3.3. Thunderstorm & Hailstorm

Cases of thunderstorm with heavy hailstorms associated with high velocity winds are occasionally found in some parts of the district causing widespread damage of crops and other properties. Last year, crops worth lacs of rupees were damaged due to heavy hailstorms in some parts of the district. Frequent lightning

and thunder not only causes the damage of property but also stems the life of some individuals.

3.4. Seasonal Hazard

Type of Hazards	JAN-MAR				APR-JUNE				JULY-SEPT				OCT-DEC			
	H	C	A	I	H	C	A	I	H	C	A	I	H	C	A	I
FLOOD					←	—	—	—	—	—	—	→				
CYCLONE					←	—	—	—	—	—	—	—	—	—	→	
DROUGHT			←	—	—	—	—	→								
EARTHQUAKE	←	—	—	—	—	—	—	—	—	—	—	—	—	—	→	
EPIDEMIC	←	—	—	—	—	—	—	—	—	—	—	→				

H – Human, C - Crop, A - Animal, I - Infrastructure

3.5. Disaster Probability

Sl.No	Type of Disasters	Time of Occurrence	Potential Impact /Probable Damages	Vulnerable Areas
1	Flood	April- August	Crop, Human, Animal, Infrastructure loss	
2	Cyclone	April-September	Crop, Human, Animal, Infrastructure loss	
3	Drought	Nov- January	Crop loss	
4	Fire	February-May	Human, Animal, Infrastructure loss	
5	Earthquake	Any time	Crop, Human, Animal, Infrastructure loss	
6	Epidemics	Anytime	Human & Animal	

			loss	
7	Lightening	April -October	Human, Animal, Infrastructure loss	
8	Other (Please Specify)			

3.6. Risk assessment (Identify the vulnerable areas/blocks)

TYPE OF HAZARD	POTENTIAL IMPACT	VULNERABILITY	VULNERABLE AREAS (BLOCK)
C Y C L O N E	Infrastructure,	Communication network. Road network ,Telephone connections,Irrigation System, Drinking Water Systems, Electrical Installations etc.	
	Crop	Agriculture/Horticulture crops	
	House	Private dwelling Houses both kutchha and pucca houses	
	Public property	Community Halls, Market sheds etc.	
	Livestock	Cows, buffalos, Goats, Sheep, poultry	
	Social and economic	Livelihood	
	Health & Education	PHC,PHSC and Schools	
	Vulnerable People	Handicapped, Pregnant Women, Old aged, Children under the age of 5, Sick & ailing etc.	

TYPE OF HAZARD	POTENTIAL IMPACT	VULNERABILITY	VULNERABLE AREAS (BLOCK)

F L O O D	Infrastructure	Communication network. Road network ,Telephone connections, Irrigation System, Drinking Water Systems, Electrical Installations etc.	
	Crop	Agriculture/Horticulture crops	
	House	Private dwelling Houses both kutchha and pucca houses	
	Public Property	Community Halls, Market sheds etc.	
	Livestock	Cows, buffalos, Goats, Sheep, poultry	
	Social & Economic	Livelihood	
	Health & Education	PHC,PHSC and Schools	
	Vulnerable person	Handicapped, Pregnant Women, Old aged, Children under the age of 5, Sick & ailing etc.	
EARTHQUAKE	Infrastructure	Communication network. Road network ,Telephone connections,Irrigation System, Drinking Water Systems, Electrical Installations etc.	
	Public Infrastructure	Police Station, Multipurpose Halls, Governmemnt Buildings, Government Qtrs. Etc.	
	Community Assets	Market Shed, Community Hall, Panchayat Ghar, Mahila Mandals, Waiting Sheds	
	Dwelling Houses	Private Dwelling Houses	
	Vulnerable Persons	Handicapped, Pregnant Women, Old aged, Children under the age of 5, Sick & ailing etc.	

	Health	PHC, PHSC, CHC	
VILLAGE FIRE	Loss of property	Loss of property & Life.	
DROUGHT	Loss of crop, livelihood	Crop Loss, Drinking water scarcity	

3.8. Capability Analysis

1. Warning system:- signal of earthquake and cyclones must be detected timely and seismological observatories must be installed at convenient and safe place.

2. Transport:- It is required to evacuate affected/ injured persons.

3. Machines:- Cranes, excavators, tractors etc. are required for recovery of injured/ trapped persons and address and contract numbers of owners of the machines must be kept ready.

4. Polices and paramilitary forces:- they are required for recovery of injured persons. They must be trained and briefed properly.

5. Hospital:- The required doctors, nurses and ambulance must be kept ready for first aids and treatment of injured persons'

6. Curriculum in text books:- A curriculum of disaster management must be included in the syllabus of text books to make the students aware of disaster management.

7. Role of media:-The district has police communication networks and AIR service must be utilized to forecast warning and other necessary instructions frequently to make the public aware of the calamity and pre-caution. However, announcement through AIR as news items only must be avoided and warning must be broadcasted frequently.

8. NGOs:- They must be involved for distribution of relief materials. Nehru Yuva Kendra (NYK) may be tied up to organize training of youths.

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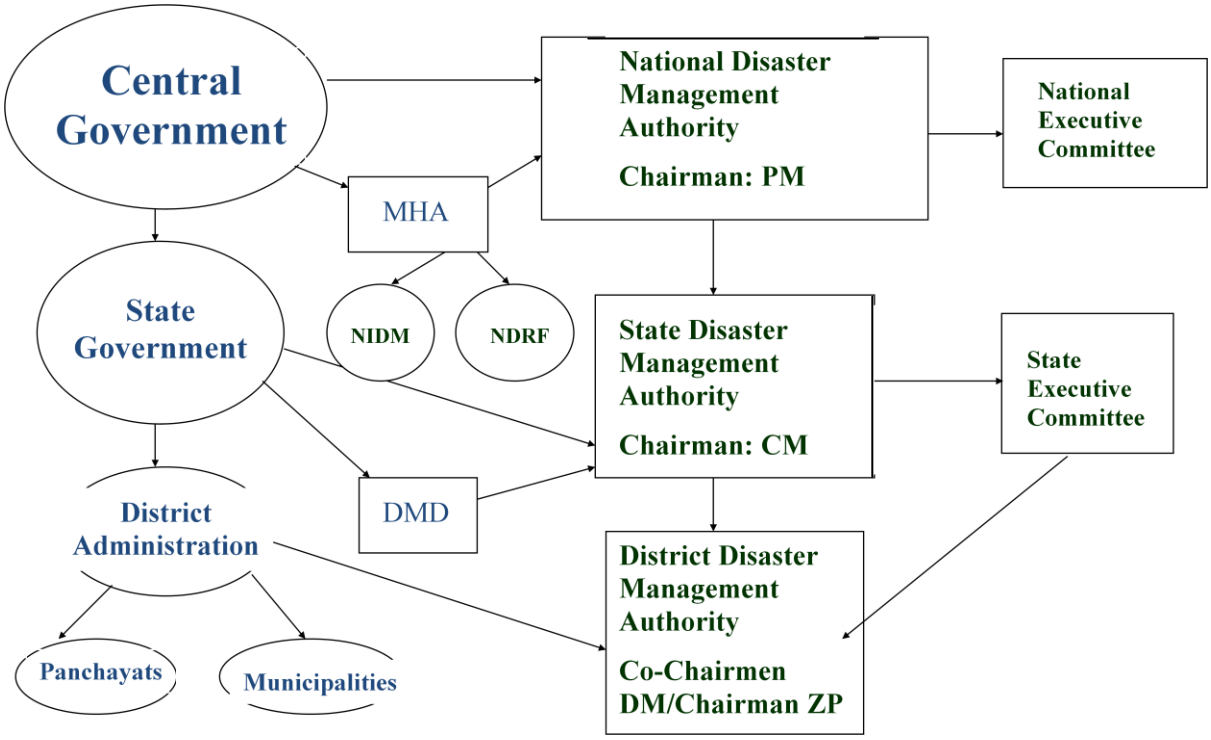
Chapter 4: Institutional Arrangement for Disaster Management

4.1. Institutional Setup under DM Act, 2005



4.2. District Disaster Management Committee (DDMC/DDMA)

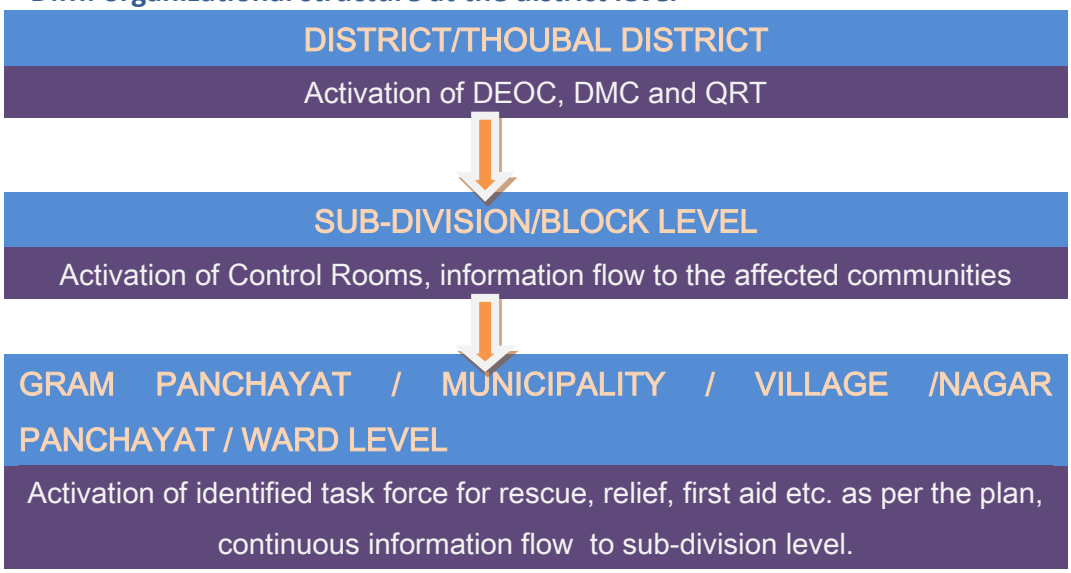
In the pursuance of Government of Manipur regarding formation of District Disaster Management Committee the said Committee for Thoubal District is hereby formed/ constituted with the composition of the District level Officers. The members of the Committee can be changed/ modified and new/ additional members co-opied as per requirement of the committee.

Sl.No	Member of General Body	Designation	Phone No.
1	Deputy Commissioner, Thoubal	Chairperson	
2	The Superintendent of Police, Thoubal	Member Secretary	

3	The Chief Medical Officer, Thoubal	Member	
4	The Jt. Director (Vety), Thoubal	Member	
5	The E.E. (PHED), Thoubal	Member	
6	The E.E. (Irrigation and Flood Control), Thoubal	Member	
7	The E.E. (PWD), Thoubal	Member	
8	The E.E. (Electricity), Thoubal	Member	
9	The District Agriculture Officer, Thoubal	Member	
10	The District Officer (Horti. & SC.), Thoubal	Member	
11	The District Fishery Officer, Thoubal	Member	
12	2(two) NGOs of the District (to be identified by the Committee)	Member	

Further, Block Disaster Management Authority,Gram Panchyat DM Authority, the Village DM Authority, Municipality DMA, Nagar Panchyat /Small Town Committee DMA, Ward/Village DMA Vide Government of Manipur,Secreteriat : Relief and Disaster Management Department orders No. 12/2/99-RLF/II dated 29th Nov.2006.

4.1. D.M. organizational structure at the district level



4.2. District Disaster Management Committee (Natural Calamity Committee)

The District Disaster Management and Natural Calamity Committee is the apex planning body at the district level and will play a major role in preparedness and mitigation.

A District Disaster Management/Natural Calamity Committee has to be formed in the district to assist the Collector in

- Reviewing the threat of disasters
- Vulnerability of the district to different disasters
- Evacuation process to reduce risk and emergency response
- Considering suggestions for improvement of the response document i.e. District Disaster Management Plan

Responsibility of the Committee

- To educate the public on different flood and cyclone hazards and what Protective steps should be taken
- To make arrangements for emergency action
- To effect evacuation from the Coastal Villages when necessary
- Rescue and Rehabilitation
- Post Flood and Cyclone action and review

The District Disaster Management Committee will meet at least once in six months i.e. in the month of May and November before the Disaster season (Cyclone) of Manipur coast under the chairmanship of the Deputy Commissioner to update the plan. For this one month's prior notice should be given to all concerned departments before convening the meeting. Collector should review the work of DDMA/NCC regularly.

The Deputy Commissioner should include in the agenda of the District Coordination Meeting, the subject of up-dating of the district disaster management plan by incorporating the changes in names of officers, of telephone numbers and addresses of the officers concerned. The Deputy Commissioner should also take review of changes in other indicators pertaining to the district like creation of additional infrastructure, development shelf of projects, changes in inventories, etc.

and incorporate these changes while updating the Plan. The members should substantiate/assist the Committee with all the updated information about their concerned areas of operation from time to time.

4.3. ROLES & RESPONSIBILITIES

Roles & Responsibilities of the Deputy Commissioner

Roles:

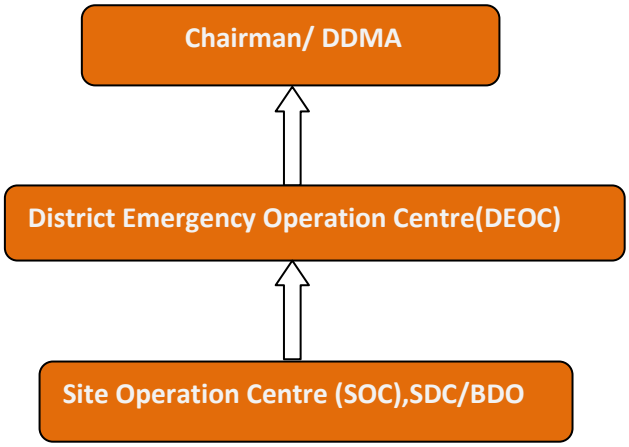
- The Deputy Commissioner will co-ordinate all disaster management efforts of the district as the Chairman of Disaster Management Authority/Committee.
- The Deputy Commissioner will coordinate the district level response with the concerned line departments assisting him and a core group of officers constituting the District Disaster Management Committee. The Disaster Management/Natural Calamity Committee will consist of the Superintendent of Police, Chief Medical Officer, Executive Engineer PWD, Executive Engineer IFCD, District Supply Officer, ADC/SDO at District HQ.
- The Deputy Commissioner may co-opt any other officers or specialists to assist him/her in carrying out the activities of the Disaster Management/Natural Calamity Committee.

Responsibilities of Deputy Commissioner

- Preparation of the District Disaster Management Plan with the assistance of ADM/SDO.
- Setting up the District Control Room at District Police Head QuartersEncouraging the formation of Mutual Aid and Response Groups (MARGs) consisting of Sub-divisional Officer other local Authorities, Civil Defence volunteers,Home Guards,NGOs.
- Under the District Disaster Management Committee at the district level and other agencies would be responsible for directing field agencies right from the stage of warning to relief and rehabilitation.
- At the disaster site, specific tasks will be given to the designated officers to manage the disaster.

- The Site Operations Centre (SOC), which will be supervised by the concerned Sub-Deputy Collector to assist the DC.
- A Site Operation Manager (SDC/BDO) who would be deployed by the Collector will be the head of Site Operation Centre.
- The Site Manager will coordinate the activities at various campsites and affected areas.
- The Site Operations Centre will report to the District Control Room directly and from there the information will pass to the Collector.
- The Deputy Commissioner will coordinate all the field responses. Field Responses include setting up Transit Camps, Relief Camps and Cattle Camps and will respond to the State Relief Commissioner and SDMA accordingly.

4.3.1. Reporting Chart:



4.3.2. Roles & Responsibilities of ADM

- Liaison with all the line depts. /officials of the dist. in conducting Disaster Management/Natural Calamity Committee meeting to be conducted twice in a year, tentatively in May and November.
- Supervise the activity of Dist. Control Room and communicate the information to the Deputy Commissioner,
- 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.

4.3.3. Roles & Responsibilities of Emergency Officer (EO):

The Emergency officer/DSP(HQ)will be the in charge of the Dist. Control Room. His roles and responsibilities will be to monitor, Co-ordinate and implement the actions for disaster management. He should look after the safety and well keeping of the infrastructure available at Dist. Control Room. He should look at the facilities provided in D.C.R., which should always be in good working condition, and the Control Room should be manned round the clock with its contact numbers widely alerted/made known to everybody.

The responsibilities of the Emergency Officer is to:

- Ensure that all warning and communication systems, instruments are in working condition.
- Receive information on disaster on a routine basis from the district departments on the vulnerability of the various GPs and villages through proper channel (Tehsil and Block).
- He will receive reports on preparedness from the relevant district lever departments and other departments, as per information details. These will be forwarded to the Emergency Operations Centre, Special Relief Commissioner and SDMA through Collector on fixed regular basis.
- Update data bank and maintain an inventory of resources half yearly as per the table given below heading Inventory of resources, materials and equipment accessible to DCR.
- Inform Dist. Collector, Special Relief Commissioner, Manipur and SDMA of any changes including updating of data bank and Annexure/Formats.
- Monitor preparedness measures, training activities including simulation exercise undertaken by various departments.
- Ensure proper dissemination of Dist. Disaster Management Plan at the district level, local level and disaster prone areas.

- Organise post-disaster evaluation and update Dist.Disaster Management Plan accordingly.
- Prepare reports and documents on district level disaster events and submit the same to Dist. Collector, Special Relief Commissioner, Manipur and SDMA. The document should include:
    - Source and cause of the disaster
    - Description of the response efforts
    - Recommendations for preventive and mitigation measures
    - Plans for upgrading emergency preparedness and response plans.

4.3.4. Roles and Responsibilities of Police/Armed Force:

- The Superintendent of Police in the district will get in touch with the Deputy Commissioner for assistance in rescue, evacuation and emergency relief measures under intimation to the State Relief Commissioner. As disaster and natural calamities can occur at any point of time hence Army may be called up on to assist the civil authorities in rendering rescue and relief operation.
- The Superintendent of Police must work in close co-ordination with the Deputy Commissioner on receipt of a warning or alert on an emergency situation.
- The Superintendent of Police must designate three senior officers of the Deputy Commissioner for co-coordinating the activities of the police Department in the District Control Room/District Emergency Operation Centre.
- The 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 to the District Control Room every six months.
- They should have continued contact with the District Control Room over VHF other available mode of communication such as cell phones 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

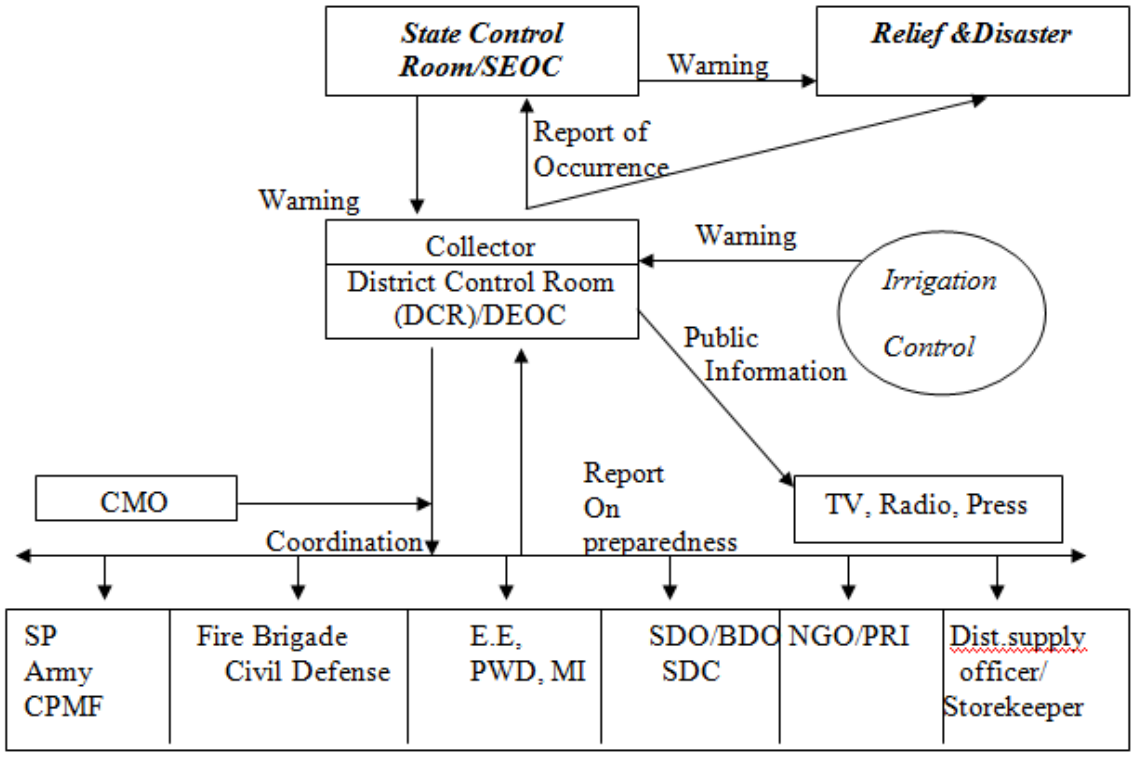
police Stations and their contact phone numbers. In this regard, assistance from Revenue, line departments and village level officers may be sought for.

- 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 centre for disseminating information to the public.
    - Scope of Work Police/ Armed Force
        1. To regulate vehicular traffics
        2. Road cut off, repairing and Building of approach road.
        3. Rescue operation / evacuation
        4. Escort/convoy the relief material
        5. Referring the dropping zone (Breach sites, Cut off and marooned areas) do the air dropping
        6. Relief and Rehabilitation operation

4.3.5. Roles and Responsibilities of Home Guards/NSS/NCC & Voluntary Organisations:

- They will circulate weather warnings among the people after getting such messages from the SEOC.
- Inform local medical staff about out break of epidemic.
- Assist the Officials of different Departments for clearance of fallen trees and debris etc. from the roads.
- Inform the concerned department for damage of electric installations.
- Help Veterinary staff for disposal of carcasses.
- Act as guide to the rescue party/Army rescue party if deployed for rescue and relief operations.
- Assist the Relief Officers in distribution of relief materials.
- Regularly listen to weather bulletin from All India Radio and disseminate the same to the local people.
- Assist the Sub-zone Officer in evacuating the people from low-lying areas.

4.4. District Control Room and Linkages with Other Control Room at State and District Levels



4.4.1. DISTRICT CONTROL ROOM/DISTRICT EMERGENCY OPERATION CENTRE (DCR/DEOC):

The District Control Room aims for an effective and holistic District Disaster Management Plan with fail proof communication, accurate databases in order to make optimal utilization of Men, Material and Resources to prevent the loss to lives as well as minimize the loss of property ensuring fastest restoration of the situations.

4.4.2. PURPOSE OF DISTRICT CONTROL ROOM

The District Control Room is under control of the Deputy Commissioner, which will be operational round the clock and is the nerve centre for the following activities.

- To monitor Co-ordinate and Implement the actions/activities for effective disaster responses as well as management of available resources.
- In a disaster time the District Control Room will operate under the central authority of the Deputy Commissioner, exercising emergency power to issue directives to all departments to provide emergency response service.
- DCR will co-ordinate with the State disaster response machinery like State Relief & Disaster Management Commissioner, of Manipur State Disaster Management Authority (SDMA) for appropriate support and smooth flow of information.
- The Control Room will be manned round the clock for emergency responses.
- The District Control Room will be placed in the Emergency Section of the District Collector.

The Control Room shall be in overall charge of the Collector. In the absence of Collector, ADM (Emergency) , PD,DRDA, District Development Officer, Emergency Officer or any other Officer on duty at that point of time shall remain in charge of Control Room. The person in charge of the Control Room shall be personally responsible for implementation of the Standard Operating Procedure (SOP). She or he shall be responsible to take all decisions as outlined below and signed on behalf of the Collector on all reports mentioned below.

4.4.3. Preparatory Actions for DCR:

Following preparatory steps will be taken up for keeping the Control Room functional during emergency:

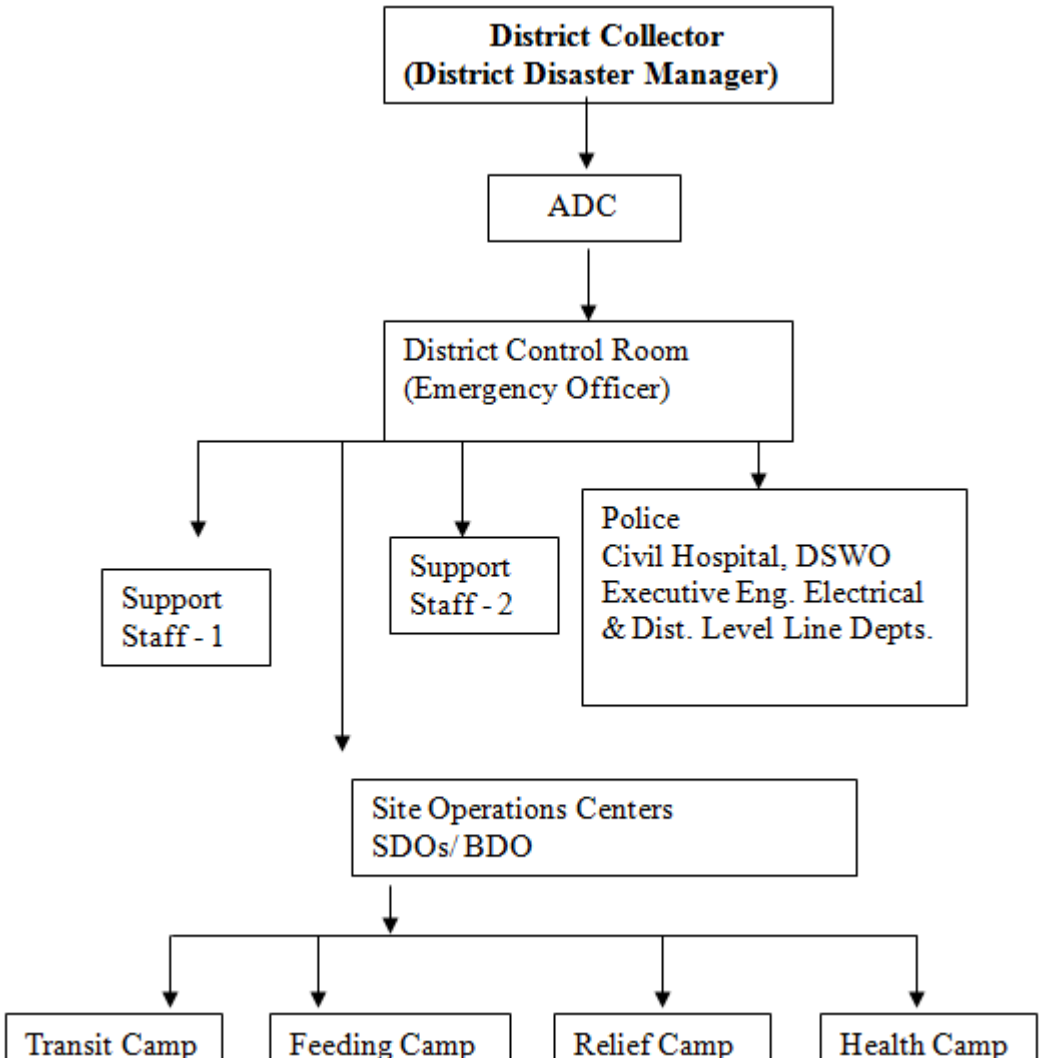
- Shift one more phone line to Control Room.
- Keep the Radio with new batteries ready, Generators sets to be kept ready as standby.
- Kerosene as well as petrol to be stocked for running the generators.
- Charge the VHF sets and testing to be done.
- Keep two four wheelers ready for emergency operations.
- Alert all field officers like SDOs,SDCs, BDOs ,MOs/ Telephone Operators/Agriculture/ICDS/Irrigation/PHD/PWD/ Nagar

Panchyats & Imphal Municipality /GramPanchayats/MLAs/ MPs/Station Director, AIR/DIPR who will inform the Media.

4.4.4. Staffing for District Control Room:

The Control Room will act as the nerve centre office for the district to tackle the emergency situations and the staffs will coordinate with the line departments for timely response in Disaster Preparedness and Management at the District level. For Normal time and Emergency situations an Emergency Officer and two Support staff will be placed in the District Control Room. Apart from these permanent staff other staff will be support at the time of need on a temporary basis.

4.5. CO-ORDINATION STRUCTURE AT DISTRICT LEVEL



4.6. ACTIVITY WISE FLOW OF INFORMATION

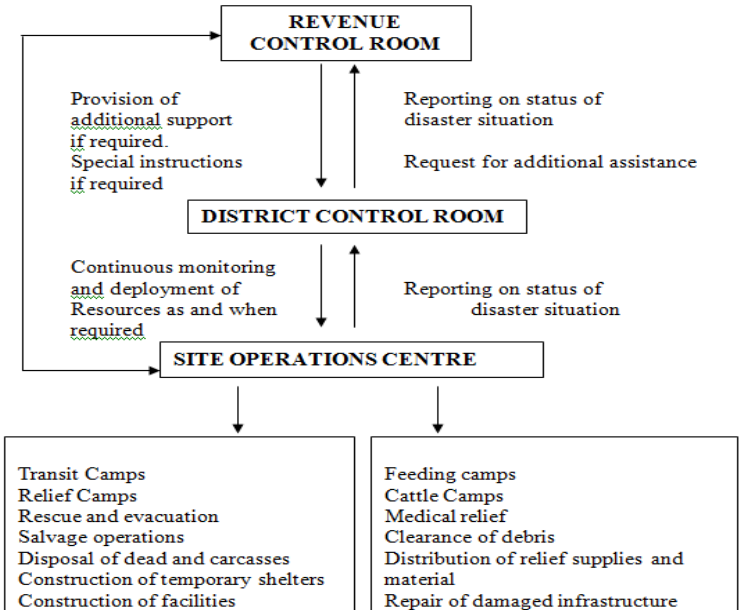
Scope of work for the District Control Room

Normal Time Activity

The normal time activities of the DCR under the guidance of the Deputy Commissioner are to:

- Ensure that all warning and communication systems, instructions are in working condition.

- Receive information on a routine and regular basis from the departments on the vulnerability of the various Gram panchayats and Villages to disaster. Woman, Children (Age group 0-15),Old Aged, Physically and Mentally challenged people are the most vulnerable groups in a disaster. Hence, specific and special arrangement for these people would be made.
- Receive reports on preparedness from the relevant district level departments and other departments. Based on these reports, the DCR will forward the Preparedness Measures details on behalf of the Collector to the Revenue Control Room, Relief & Disaster Management Commissioner, Revenue Commissioner and SDMA.
- Upgrade and update District level disaster mitigation action plan according to changing scenarios in the district
- Data bank updating and maintain an inventory of resources.
- Update all information in the GIS/MIS.
- Inform Emergency Operations Centre (EOC) under Relief Commissioner of any changes including updating of data bank and annexure if any.
- Monitor preparedness measures including simulation exercises undertaken by various departments
- Ensure proper dissemination of DDMP at the district level, local level and disaster prone areas.
- Identify appropriate NGOs/Civil society Organization, with their capacities who can be mobilised during the time of disaster and can be helpful in community level disaster preparedness.
- Organise post-disaster evaluation and update DDMP accordingly
- Prepare reports and documents on district level disaster events and submit the same to EOC.



- During Emergency

- Weather tracking and early warning dissemination
- To collect and transmit information regarding matter relating to natural calamity.
- Mapping of vulnerable areas
- Database on civil society organizations and their activities
- Database on volunteers
- Facilitate regular meetings of civil society organizations and issue updates
- Flow of information to central control room in Relief Commissioner's office and SDMA.
- District level extensive training of officials and NGOs in emergency response
- Men and material management in emergencies with proper inventorisation

Flood and whether warning system notices received from central flood forecasting control room stations, or any such weather warning notices received from Govt/ Board of Rev /IMD will immediately be transmitted to the control room of the Sub-Deputy collectors by the control room stationed at district headquarters for keeping the people of the areas alert.

The Sub-Deputy Collectors will transmit the weather warning and other warning to the Village level officers and other officers who will take steps to alert the

people of their respective areas. Dist.Information Officer of this district will also alert people of their respective jurisdiction through PA System, if situation so warrants.

WARNING DISSEMINATION PHASE:				
COLLECTOR:				
To collect information on:	Activity	Person Responsible	Resources required- to be sourced from	Time frame and remarks.
Weather warning	Regular monitoring of the activities of The District Control Room.	DCR, DIO	Communication equipment to be procured much before disaster season.	48 hours prior to any warning.
Rain forecast	Monitoring of rain recording at block HQ.	BDOs/Dist. Agri Officer/IFCD	Proper functioning of rain gauge.	Within 24 hours.
	Monitoring of weather sites by staff	Person Responsible for District Control Room	Internet connectivity at District Control Room	On daily basis from the occurrence of event.
Water level in the Dam & Release of water from Dam.	Standing orders to EE, Irrigation to provide details of water level	EE, IFCD THOUBAL .	Close communication with the EE, Irrigation	On daily basis from the occurrence of event.
Warning to district authorities in the	Inform officials positioned at	DIO, Volunteers & Rain	VHF, Internet, VSAT Phone,Cellphone	12 hours before release of water from the dam.

downstream side of Dams	the downstream through DIO &IFCD Officials.	watcher of IFCD	sJeeps with Loud Speakers	
CDMO:				
Keep close contact with the Collector and the Emergency Officer.	Give latest report on any health hazard, Epidemic or death due to natural causes like heat wave, lightening etc.	Doctors and other Paramedical staff of the district.	Telephone, Fax, Computer, Internet.	Immedia tely.
Ensure Information reached to the health workers at field level.	Keep a database of all the contact Telephone numbers/other means of communication,	Doctors and paramedical staff of the district.	Vehicles of health department and a few can also be outsourced from private. Operators.	Immedia tely upon receipt of messag e.
Collect information on health status on a daily basis.	Activate and constantly monitor the disease surveillance system.	Members of the disease Surveillance Team,	Telephone, Fax, Computer, Internet ,Cells	Daily.
Feed back to the Collector.	Give a daily feedback on the action taken and anticipated Problems.	Doctors, MOs, Media		Daily.

S.P.:				
To collect information on:	Activity	Person Responsible	Resources required- to be sourced from	Time frame and remarks.
Alert the Police force to be vigilant and take hold of the Law and order situations.	Messages to all P.S through VHF and Telephones	OICs, VHF Control, Telephone Operators	Proper functioning of the equipments.	Immediately upon receipt of warning
To arrest and take into custody the Rumors mongrels.	Similar instruction to all PS and outposts	Staff of the police department		Immediately upon receipt of warning
Deployment of force in the calamity Area	Delegate forces to the areas likely to Face any disaster.	Staff of the police department		-do-
Alert fire brigade for action.	Contact the Fire officer.	Staff of adjoining Fire Stations.		-do-
Calm down general public through Welfare Service & Counseling.	Give proper warning with careful use of Word to prevent chaos among public.	Women Officers & Lady Staff. Appropriate instruction to people about facts & reality. Disseminating warning of any sort.		-do-
Emergency Officer:				
Publicity of warning received.	Through public address system. News bulletins through DIO.	RTO, DIO, Station Director AIR	Jeeps with loudspeakers	

Inform Relief Commissioner and other district authorities	Prior collection of telephone& contact numbers of all persons with disaster MgMaster Traineer Experience	Staff of emergency cell.	Computer, Stationery etc.	Normal times and updated at regular intervals
Alert all other depts. like PHD, PWD etc,	Inform them about the gravity of the situation	Officials of all deptts.		

4.7. CONTROL ROOM AT SUB-DIVISION, TEHSIL AND BLOCK LEVEL

Similar to the District Control room, at lower level control room are also formed at Sub-division, Tehsil and Block levels which will be supervised by the Zone Officer during emergency periods. The procedures lay down for these control rooms are as follows:

I. Control Rooms are to be managed by a clerk/Revenue Supervisor Kanungo/Extension officer and a peon.

II. Immediately after getting warning about flood/cyclone, one Gazette Officer along with the above staff should be deployed in the control room.

III. The Head of office will ensure proper working of the control room telephones.

IV. A register will be maintained in the control room to record the messages and warning received over telephones and action taken thereon.

V. The Sub-ordinate Control Rooms will keep constant touch with the District Control Room during and after occurrence of any calamity.

VI. In case any message of devastating nature is received, this should immediately be passed on to Collector/Addl. Dist. Magistrate/concerned Sub-Collector and necessary action to be taken according to their instructions.

Chapter -5: Prevention & Mitigation Measures

Over the years and especially after experiencing severe disasters in the recent past, today there is a paradigm shift in the approach to disaster management; from a culture of relief and rehabilitation to that of preparedness and mitigation. Disaster management in the contemporary times focuses a lot on preparedness and mitigating measures the idea being to reduce or lessen the vulnerabilities and therefore the impact of any calamity. The more the disaster preparedness, the lesser the vulnerabilities.In the district there shall be two types of approaches in Disaster mitigation viz. structural mitigation and non-structural mitigation.

5.1. Structural Mitigation Measures

It is immensely important for the planning community to respond towards disaster management positively. The Plan should clearly come out with provisions prescribed in the amended legislations related to disaster management. Urban disaster management is intimately connected to the wholesome process of urban development and therefore needs a sincere incorporation in the development planning itself.

The industrial relocation/location, unauthorized-regularization issue, slumming, over densification and continuous influx of population are some of the open concerns and these besides being a planning challenge are a concern for disaster management.

The district shall take steps for structural mitigation for disaster management. The departments that are associated with development of residential and commercial plots shall stick to the NOC norms. The Building Codes shall be strictly enforced in the district. Only seismically oriented engineers, contractors and masons shall be given certificates for multi storied constructions. Simultaneously retrofitting will also be promoted with expert advice.

The two possible structural measures for disaster protection are

- Retrofitting of the existing buildings and
- Construction with Earthquake Resistant technology.

Retrofitting

For an existing building, retrofitting or seismic strengthening is the only solution to make it disaster resistant. In the district, all lifeline buildings such as major hospitals, Schools, Colleges, District Administration offices and other vital installations shall be retrofitted. For retrofitting, a panel of experts shall be approached for assessing the structure and to suggest the type of retrofitting required.

Earthquake Resistant Construction

Promotion of Earthquake resistant construction mainly includes construction safety, quality control and proper inspection. Previously there were no specific guidelines on earthquake resistant constructions and seismic strengthening. Due to this very fact, most of the buildings till 1990s were built without any safety measures. But in the present scenario, there are building byelaws and guidelines to construct earthquake resistant structures. Civil bodies like Municipal Corporation, MUDA and PWD in the district shall try to enforce these laws.

In addition to these the following points have been found in the context:

- Pockets with high rise buildings or ill-designed high-risk areas exist without specific consideration of earthquake resistance.
- Similarly, unplanned settlements with sub standard structures are also prone to heavy damage even in moderate shaking.
- So far as housing is concerned, vulnerability analysis has never been carried out and preliminary estimate of damages is not available for strengthening of structures under normal development improvement schemes.

All construction except load bearing buildings up to 3 storeys shall be carried out under the supervision of the Construction engineer on Record or Construction Management Agency on Record for various seismic zones. They shall be given a certificate based on the norms on completion of the construction.

Illegal construction, encroachments, unapproved additions, alternations etc of residential buildings and conversion of residential building to commercial purpose etc shall be checked by the District Administration with strict measures. These unauthorized activities may lead to disasters in that particular area.

5.2. Non-Structural Mitigation Measures

The entire Meerut falls in earthquake Zone-IV, which indicates it is at high risk to earthquake. In addition to this fire is also a major concern for the district. The non structural mitigation is basically framed in such a way that the whole population of the district will be sensitized on disaster management and their capacity shall be developed to cope up with hazardous situations.

Preparedness Methodology

In the disaster management cycle, preparedness shall be the first step, instead of waiting for a disaster to occur and then manage it. This plan contains a series of measures for preparedness in schools, colleges, hospitals and communities. People of every part of the district will be guided to prepare themselves or to prepare their own coping mechanism. In this regard, the DDMA shall suggest the proper methodology for preparedness on regular basis and the district shall plan various activities.

Awareness generation program

Disaster strikes everywhere and everyone irrespective of caste, creed or gender. It doesn't differentiate the rich from the poor. The district administration has been trying to generate awareness at all levels in the district. A series of awareness programmes has been organized to reach out to the local residents and general public of the district and the programmes are continuing throughout the district. Awareness /sensitization programmes have been conducted at schools, colleges, communities etc. Basic information related to different kind of disasters is given in the form of Information, Education and Communication (IEC) materials. Different kinds of strategies are being evolved to address different audiences.

Special efforts are being made to address the most vulnerable groups during disasters e.g.women, children, the disabled and the old. The district administration intends to reach asmany people as possible and different methods are being adopted to spread awareness i.e.

- Public meetings
- Distribution of reading materials/ pasting of posters
- Street plays
- Involvement of Electronic media
- Audio/video shows
- Banners and Public Hoardings
- Painting/ quiz competition especially in schools, rallies involving students
- Observing Disaster Management Week, Fortnight, Month etc. etc.

Training and Capacity Building

A number of training program shall be and are already being organized for specialized groups like, district DMTs, sub division and community level office bearers, school teachers and principals, architects, engineers, doctors, masons, etc. The professionals from all departments and sections shall be trained.

All the volunteer based organizations (VBOs) like Civil Defence, NYKS, NSS, NCC etc in the district, which have thousands of volunteers working with them will also be sensitized and given training on disaster management. Besides, RWAs and NGOs in the district will also be given training on disaster management. All the VBOs, RWAs and NGOs shall also be encouraged and supported to organize awareness campaigns in their areas. These haven been identified as organizations which can help percolate the idea deeper into the society.

5.3. Sector wise Vulnerability Reduction Measures in Thoubal District:

Type of Sector	Sub sector	Mitigation measures	Responsible Dept.	Time Frame

Infrastructure Development	IEC activities	Distribution of leaflets, manuals, meetings, trainings	DIO PWD, RD, Block, District	Regular Interval
	Road	Construction and repairing	PWD, RD, Block, District	
	Embankment	Construction and repairing	IFCD, PWD, RD, Block, District	
	Bridges	Construction and repairing	IFCD, PWD, RD, Block, District	
	Safe Shelters	Construction	Block, RD, District	
	Communication	Installation of VHF, WLL	Police, BSNL,NIC	During Normal Time
	Drinking water and sanitation	Installation and repairing of tube wells and pipelines, supply of bleaching powder	PHED, Health	
	Power	Installation of electric lines and back up	Electricity, PWD	
	Technology dissemination	Demonstration of EQ resistant houses	PWD, Block, RD, District	
Health/ Animal Husbandry	IEC activities	Distribution of leaflets, manuals, meetings, trainings	Health, AH, RD, Block, DIO, District	During Normal Period
	Vaccination	Vaccines to Children, Pregnant women, other needy persons, cattle	Health, AH	During Normal Period
	Training	First aid	Health	During Normal Period

Livelihood Sector	Awareness	Distribution of leaflets, manuals, meetings, trainings	RD, Block, DIO, District	During Normal Period
	Agriculture	Promotion of water resistant variety paddy, multi cropping in hilly areas, cropping of small duration paddy and vegetables	Agriculture, RD, Block, District	During Normal Period
	Fishery	Rising of pond embankments, Pisciculture	Block, District	During Normal Period
	Allied activities			
	Horticulture	Promotion of high yield variety of oranges, betel leaves, pine apples	Horticulture, Block, District	During Normal Period
Insurance	IEC activities	Distribution of leaflets, manuals, meetings, trainings	RD, Block, DIO, District	During Normal Period
	Infrastructure	Encourage people	RD, Block, DIO, District	During Normal Period
	Livelihood	Encourage people	RD, Block, DIO, District	During Normal Period
	Life	Encourage people	RD, Block, DIO, District	During Normal Period

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Chapter -6. Preparedness Measures

6.1. Identification of Stakeholder involve in Disaster Management

6.1.1. Early warning

The early warning systems for different disasters should be in place so that the concerned administrative machinery and the communities can initiate appropriate actions to minimize loss of life and property. These should give an indication of the level of magnitude of the mobilization required by the responders. The goal of any warning system is to maximize the number of people who take appropriate and timely action for the safety of life and property. All warning systems start with the detection of the event and with their timely evacuation. Warning systems should encompass three equally important elements viz. detection and warning, dissemination of warning down to the community level and the subsequent quick response. The State acknowledges the crucial importance of quick dissemination of early warning of impending disasters and every possible measure will be taken to utilize the lead-time provided for preparedness measures. As soon as the warning of an impending calamity is received, the EOCs at the State, District and Block levels will be on a state of alert. The Incident Commander will take charge of the EOC and oversee the dissemination of warning to the community. The District Collector will inform the District Disaster Management Committees who will alert the lock and Village level DMCs and DMTs to disseminate the warning to the community. On the basis of assessment of the severity of the disaster, the State Relief Commissioner (Incident Commander) shall issue appropriate instructions on actions to be taken including evacuation to the District Collector, who will then supervise evacuation. In situations of emergency, the District Collector will use his own discretion on the preparedness measures for facing the impending disaster. At the village level, members of the VDMCs and DMTs or village level will coordinate the evacuation procedures to the pre-designated relief centers, taking special care of the vulnerable groups of women, children, old people etc. according to the plans laid down earlier.

The list of agencies competent for issuing warning or alert is given below:

Sl.No.	Type of Disaster	Agencies
1	Earthquakes	IMD, MERI,
2	Floods	Meteorology Department, Irrigation Department
3	Cyclones	IMD
4	Epidemics	Health/PHED
5	Road Accidents	Police
6	Fire	Fire & Emergency Services, Police
	Any other information may please be added.	

6.1.2. Search & Rescue

It is the duty of the DDMA to provide specialized life saving assistance to district and local authorities. In the event of a major disaster or emergency its operational activities include locating, extricating and providing on site medical treatment to victims trapped in collapsed structures. In the event of any disaster the Home Guards along with the support of the Police dept. form teams to locate injured and dead and try to rescue the ones in need. There are other bodies too that help these departments in this work, like the PWD, Health dept, Fire dept and also the people that voluntarily form teams to help the ones in need. Proper training for search and rescue process needs to be undertaken so as to minimize the time taken in rescuing someone. Also proper methodology and resources are needed to carry out a search & rescue mission. The tactics used in the search & rescue process vary accordingly with the type of disaster that we are dealing with. In case of flood, a boat and trained swimmers are a must while in case of an earthquake sniffer dogs and cutting tools with trained manpower is a binding requirement. The household register that is maintained by the warden should be maintained for every village as it proves to be of great help in case of a disaster like an earthquake. Because in case of the aforementioned disaster people get trapped in the debris of buildings and houses and it becomes difficult to estimate how many people are present in the debris. But if a household register is maintained then the task becomes quite easy and effective to find out almost correctly that how many people would be present in any

building/house at any given time. Thus the resources can be justifiably distributed and more lives can be saved. This kind of process is highly recommended in this particular district which lies in high earthquake prone region.

For flood it is recommended that the boats that are used should be light weight and the motor should be of 'luma' type, so that it becomes easy for the rescue team to lift the boat and carry it to the spot

6.1.3. Evacuation:

Evacuation is a risk management strategy, which may be used as a means of mitigating the effects of an emergency or disaster on a community. It involves the movement of people to a safer location. However, to be effective, it must be correctly planned and executed. The process of evacuation is usually considered to include the return of the affected community. Shelter provides for the temporary respite to evacuees. It may be limited in facilities, but must provide protection from the elements as well as accommodate the basic personal needs, which arise at an individual level in an emergency. The plan must allocate responsibility for management of each of the elements of shelter. Considering the wide range of services, agencies and issues to be managed, it becomes essential for 'shelter' to be managed within a structure, which facilitates the coordination of agencies and services and support of emergency workers. The following factors may need consideration:

i. Identification of appropriate shelter areas based on safety, availability of facilities, capacity and number of victims.
ii. Approaches to the shelter location in light of disruption due to hazard impact and traffic blockades.
iii. Temporary accommodation
iv. Provision of essential facilities like drinking water, food, clothing, communication, medical, electrical and feeding arrangements, etc.
v. Security
vi. Financial and immediate assistance
vii. First-aid and counselling

Types of evacuation

For the purpose of planning, all evacuations may be considered to be one of two generic types:

(a) Immediate evacuation, which allows little or no warning and limited preparation time as in the case of earthquakes and air accident.

(b) Pre-warned evacuation resulting from an event that provides adequate warning and does not unduly limit preparation time as in the case of flood and cyclones.

Principles of Evacuation Planning

a. Establishment of a management structure for organization, implementation, coordination and monitoring of the plan.
b. Determination of legal or other authority to evacuate.
c. Clear definition of rules and responsibilities.
d. Development of appropriate and flexible plans.
e. Effective warning and information system.
f. Promoting awareness and encouraging self-evacuation.
g. Assurance of movement capability.
h. Building confidence measures and seeking cooperation of the affected community.
i. Availability of space for establishment of relief camps having requisite capacity and facilities.
j. Priority in evacuation to be accorded to special need groups like women, old and sick, handicapped and children.
k. For effective evacuation, organization and running of relief centers, cooperation and involvement of all agencies viz. Community, volunteers, NGOs, NCC / NSS, Home guards and civil defense, district and village bodies be ensured.
l. Security arrangement and protection of lives and property.
m. Preparation and updating of resource inventories.

n. Appropriate welfare measures throughout all stages
o. Test exercise of prepared plans and recording of lessons learnt
p. Documentation.

Stages of Evacuation

There are five stages of evacuation as under:

i. Decision of authorities to evacuate victims
ii. Issue of warning and awareness
iii. Ensuring smooth movement of victims to designated relief camps
iv. Ensuring provision of all requisite facilities like security, safe-housing, feeding, drinking-water, sanitation, medical and allied facilities
v. Safe return of personnel on return of normalcy.

Decision to Evacuate

Vulnerability analysis may indicate that for certain hazards and under certain conditions, sheltering in place could well be the best protection. Available lead-time may influence the decision to evacuate the public before the impact of emergency (e.g. floods) and reducing the risk to lives and property. Decision would also be dependent on factors like ready availability of suitable accommodation, climatic condition, and severity of likely hazard and time of the day.

The Collector would be the authoritative body to issue directions for evacuation. The OIC of DEOC would convey directions to Desk Officers of concerned agencies, which are responsible to execute evacuation.

Basic consideration for Evacuation

The DCMG will define area to be evacuated as also the probable duration of evacuation on the basis of meteorological observations and intimations by the concerned forecasting agencies. It should also identify number of people for evacuation, destination of evacuees, lead-time available, welfare requirements of evacuees as also identify resources to meet the needs of victims, viz. manpower, transport, supplies equipments, communications and security of the evacuated area.

The evacuating agency should set priorities for evacuation in terms of areas likely to be affected and methodology to execute evacuation:

- Delivery of warning
- Transport arrangement
- Control and timing of movement
- Fulfill welfare needs including medical treatment
- Registration of evacuees

All agencies involved in evacuation operation like Home guards, Police, PWD, PHED, etc. will coordinate in field. They will remain in touch with the Desk officials in the DEOC for issuing warning, information and advise the public.

Evacuation Warning

An evacuation warning must be structured to provide timely and effective information. Factors, which may influence the quality and effectiveness of warning, include time, distance, visual evidence, threat characteristic and sense of urgency e.g. the more immediate the threat,the greater the resilience of people to accept and appropriately react to the warning. The warning should be clear and target specific. The warning statement issued to the community should be conveyed in a simple language. The statement should mentioned:

- The issuing authority, date and time of issue
- An accurate description of likely hazard and what is expected
- Possible impact on population, area to be in undated or affected due to earthquake
- Need to activate evacuation plan
- Do's and Don'ts to ensure appropriate response
- Advise to the people about further warnings to be issued, if any

5.1.4. Damage & Loss Assessment

Immediately after the disaster there is an urgent need of damage assessment in terms of loss of life, injury and loss of property. The objectives of damage assessment are to mobilize resources for better rescue and relief, to have detailed

information of damage extent and severity of disaster and to develop strategies for reconstruction and restoration facilities.

Damage is assessed with regard to building stock, standing crops, agricultural area, livestock lost, forest cover decimated, vital installations etc. In damage assessment of building stock, generally three types of flags are used; green, yellow and red. The green colour is given to the buildings that are safe and require 2-3 days to return to their originalfunction. Yellow flags depict the considerable damage to the buildings and considered to be unsafe for living, as they require proper structural repairs and careful investigation. The red flag is assigned to buildings that are partially or completely collapsed. Immediately after a disaster event, damage assessment will be conducted in 2 phases viz. Rapid Damage Assessment and Detailed Damage Assessment.

6.2. Training, Capacity Building & Other Proactive Measures

Task	Activity	Responsibilities
Training	1. Training to civil defence personal in various aspect of disaster management 2. Training to home Guards personal in various aspect of disaster management including search and rescue	Home Department, Civil Defense, District Home Guards
	Training to NCC,NSS& NYK personal in various aspect of disaster management	DDMA
	Training to educational and training institutions personal in various aspect of disaster management	DDMA
	Training to civil society, CBOs and corporate entities in various aspect of disaster management	DDMA
	Training to fire and emergency service personal in various aspect of disaster management	DDMA, Fire Department
	Training to police and traffic personal in	DDMA, Home Department

	various aspect of disaster management	
	Training to media in various aspect of disaster management	DDMA,IT
	Training to govt. officials in various aspect of disaster management	DDMA
	Training to engineers, architects, structural engineers, builders and masons in various aspect of disaster management	DDMA
Awareness		
IEC	Advertisement, hording, booklets, leaflets, banners, shake-table, demonstration, folk dancing and music, jokes, street play, exhibition, TV Spot, radio spot, audio-visual and documentary, school campaign, -Planning and Design -Execution and Dissemination	All Line Departments, Education Departments, DDMA, Other District Authorities

NGO and Other stake Holder coordination

For arrangement of water supply, temporary sanitation facilities, search and Rescue activity, Relief distribution can be sought with help of special agencies, NGOs and CBOs.

Seasonal preparedness

Natural disasters make all of us acutely aware of our vulnerabilities to disaster. Fortunately, catastrophes of a large magnitude are rare, but disaster can strike in many ways. Large or small, natural or man-made, emergencies put collections in danger. Hazards can often be mitigated or avoided altogether by a comprehensive, emergency-preparedness plan. Such plans provide a means for recognizing and responding effectively to emergencies. The goal is to hopefully prevent damage or, at least, to limit the extent of the damage.

Identifying Risks

A prudent first step is to list geographic and climatic hazards and other risks that could jeopardize the building and collections. These might include geographical susceptibility to hurricanes, Hailstorm/thunderstorm, flash flooding, earthquakes, or forest fires, and even the possibility of unusual hazards such as volcanic eruptions. Consider man-made disasters such as power outages, sprinkler discharges, fuel or water supply failures, chemical spills, arson, bomb threats, or other such problems. Take note of the environmental risks that surround you. Chemical industries, shipping routes for hazardous materials, and adjacent construction projects all expose you to damage. Any event that is a real possibility should be covered under your Emergency Preparedness Plan. Although there maybe a wide range of disaster scenarios, the most common are water, fire, physical or chemical damage, or some combination of these. The specific procedures of a disaster plan focus on the prevention and mitigation of these types of damage.

Decreasing Risks

Once your hazards are specified, the disaster planner should devise a program with concrete goals, identifiable resources, and a schedule of activities for eliminating asmany risks as possible.An inventory will provide a basic list of resources both man and machines, and this database will enable to assess the level of preparedness for specific vulnerabilities.

Identifying Resources

An important step in writing your plan is to identify sources of assistance in a disaster. Research these services thoroughly--it is an essential part of the planning process. These can range from police, fire, and ambulance services to maintenance workers, insurance adjustors, and utility companies. If possible, invite local service

providers to visit in order to become familiar with your site plan and collections in advance of an emergency.

6.3. India Disaster Resource Network (IDRN)

IDRN, a web based information system, is a platform for managing the inventory ofequipments, skilled human resources and critical supplies for emergency response. The primary focus is to enable the decision makers to find answers on availability of equipments and human resources required to combat any emergency situation. This database will also enable them to assess the level of preparedness for specific vulnerabilities. Total 226 technical items listed in the resource inventory. It is a nationwide district level resource database. Each user of all districts of the state has been given unique username and password through which they can perform data entry, data updation on IDRN for resources available in their district. The IDRN network has functionality of generating multiple query options based on the specific equipment, skilled human resources and critical supplies with their location and contact details.

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Chapter 7: Response Measures

Response measures are those which are taken instantly prior to, and following, a disaster aimed at limiting injuries, loss of life and damage to property and the environment and rescuing those who are affected or likely to be affected by disaster. Response process begins as soon as it becomes apparent that a disastrous event is imminent and lasts until the disaster is declared to be over. Since response is conducted during periods of high stress in a highly time-constrained environment and with limited information and recourses (in majority of the cases), it is by far, the most complex of four functions of disaster management. Response includes not only those activities that directly address the immediate needs, such as search and rescue, first aid and shelters, but also includes systems developed to coordinate and support such efforts. For effective response, all the stakeholders need to have a clear perception/vision about hazards, its consequences and actions that need to be taken in the event of it. The Revenue Department of the State is the Nodal Department for controlling, monitoring and directing measures for organizing rescue, relief and rehabilitation. All other concerned line departments should extend full cooperation in all matters pertaining to theresponse management of the disaster whenever it occurs. The District EOC, ERCs and other control rooms at the District level should be activated with full strength.

Disasters cause sudden disruption to the normal life of a society and cause damages to property and lives to such an extent that normal social and economic mechanisms available to the society all get disturbed. People and officials are both caught unaware and in the circumstances lose their sense of initiative and direction. Consequently, relief work is hampered and unnecessarily delayed.

In such cases, the existence of a disaster preparedness plan can be extremely useful. The distraught officials then have at their hand, a complete set of instructions which they can follow and also issue directions to their subordinates and the affected people. This has theeffect of not only speeding up the rescue and relief operations, but also boosting the morale of victims.

The response plan is of two kinds:

1-Short-term Plan and

2-Long-term Plan.

7.1. Short-term Plan

Short-term plans are action based and aimed at restoring normalcy in the shortest possible time. One of the foremost requirements of any plan would be to define the area where it would beapplicable and the agencies that would be responsible for its implementation and coordination. Once the boundaries are defined, the following inputs would be required;

I. The amount of resource material required to be mobilized as relief may be based on the statistics of the intensity and spread of various disasters in the area in the past disaster records.
II. Certain areas are prone to disaster and each time relief is provided, a number of short-comings come to light; these become lessons to serve as inputs for future planning of relief and rescue exercises.
III. Short-term plans should be based on the declared vulnerability of the area to particular types of disasters. Forecasts on future disasters should be usefully interpreted in action plans on exercises which would be most required.
IV. Short-term plans should incorporate suggestions and capabilities of all departments concerned of the district/state, non-government organizations and community based organizations. Therefore plans may be prepared by setting up committees at appropriate level to incorporate their inputs.

After Disaster:

Rescue Operations

After disaster immediately, the District Magistrate would act as the focal point for control and co-ordination of all activities. His/her responsibilities have been identified as follow:

- Get in touch with the local Army/ Navy/ Air Force units for assistance in rescue, evacuation and relief;
- He/she will have the authority to requisition resources, materials and equipment from all the Departments/Organizations of the government and also from the private sector;
- He/she will have the power to direct the industry to activate their onsite and offsite disaster management plans;
- He/she will set up 'Site Operations Centre'(SOC) in the affected area with desk arrangements;
- He/she will authorize the establishment of transit and/or relief camps, feeding centers and cattle camps;
- He/she will send 'Preliminary Information Report'and 'Action Taken Report'to the State Relief Commissioner and Divisional Commissioner;
- He/she will authorize immediate evacuation, whenever necessary.

Traditionally, the concerned SDM office and local police station, both are the main government agencies below the district level, which initiate trigger mechanism for emergency operations in the event of major accidents / disasterthreats. In view of limited availability of resources for disaster management, below the district level, the DDMP has not proposed any administrative structure for co-ordinated operation during emergency. In the event of less serious disaster threat/accident, the SDM officeor police station would continue to initiate trigger mechanism and provide an emergency response with the help of locally available resources. The DDMA on receipt of information, from any of the two agencies, would take appropriate decision

to augment local resources and give appropriate instructions to the concerned response agencies.

Relief Operations

After 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 office of District Magistrate is responsible for providing relief tothe victims of either natural or human-made disasters like earthquake, fire, flood, riots, terrorist attack etc in the district.

Rehabilitation

In short term response rehabilitation is the final step. The incident command system shall be deactivated as the rehabilitation phase is over. Thereafter, the normal administration shall take up the remaining reconstruction works in the disaster affected areas. These activitiesshall be performed by the working group for relief and rehabilitation under the direction of the DDMA.

7.2. Long-term Plan

The situation may not always warrant long-term plans, but such plans should have the abilityto build a culture of disaster mitigation and be aimed at reducing vulnerability of the area. As such any long-term plan should incorporate policy directives on preparedness as well as post disaster reconstruction and rehabilitation phases (the later as a follow up of the short-termcontingency plans).

I. The foremost requirement for the preparation of a long-term plan is establishing its need in an area. Need may be established on the basis of the vulnerability of the area and the resource tradeoff between the cost of its implementation and other competing needs for overall development. In this context the long-term disaster mitigation plan or rehabilitation plan as part of overall development plan becomes significant.
II. In case of rehabilitation plan, the level of damage that has taken place in the community decides whether long-term intervention is required or not. The

strategies of the rehabilitation would depend considerably on the damage assessment report.

III. A detailed survey of the community, which studies its needs and expectations in detail and seeks out their traditions and customs which they would like to preserve, has to be carried out. This would serve as an input in deciding an intervention strategy that is acceptable to the community.

IV. The long-term plan should seek an objective of achieving overall development and satisfying basic needs-shelter, economic and social of the community. Reducing disaster vulnerability should be a means to achieve the objective and not an end in itself.

V. Long-term plans are resource intensive; many of the interventions decided therein should be based on resources available. In many cases, where the need for rehabilitation through relocation is established the same may not be implemented due to non-availability of land.

VI. Long-term plans may be implemented successfully only through partnerships with NGOs and community participation. The involvement of these bodies should be solicited at the outset itself while deciding the interventions required.

7.3. Role of District Administration/ District Magistrate

The District Magistrate will be the focal point at the district level for directing, supervising and monitoring relief measures for disasters and for the preparation of district level plans. The District Magistrate will exercise coordinating and supervisory powers over functionaries of all the departments at the district level. Duringactual operations for disaster mitigation or relief, the powers of all Collectors/ DCs are considerably enhanced, generally, by standing instructions or orders on the subject, or by specific Governments order, if so required. Sometimes, the administrative culture of the concerned state permits, although informally, the Collector/DC to exercise higher powers in emergency situations and the decisions are later ratified by the competent authority. The District Magistrate will maintain close liaison with the state, central government authorities in the district, namely army, air force and ministry of water resources etc, who supplement the effort of the district administration in the rescue and the relief operations. The District Magistrate will also

coordinate all voluntary efforts by mobilizing the non-government organizations capable of working in such situations.

Duties at the time of disaster

- Maintenance of law and order; prevention of trespassing, looting, keeping roads clear from sightseeing persons so that free movement of rescue vehicles is assured, etc.
- Evacuation of people
- Recovery of dead bodies and their disposal
- Medical care for the injured
- Supply of food and water and restoration of water supply lines
- Temporary shelters like tents, metal sheds
- Restoring lines of communications and information
- Restoring transport routes
- Quick assessment of damage and demarcation of damaged areas according to grade of damage
- Cordoning off of severely damaged structures that are liable to collapse during aftershocks
- Temporary shoring of certain precariously standing buildings to avoid collapse and damage to other adjoining buildings

Duties post-disaster

i. Particular attention is paid to women views in the assessment stage.
ii. Women's actual responsibility in domestic (in terms of household subsistence, health, and child care) and production and economic activity beyond the subsistence level are taken into account in determining the consultation process.
iii. Women representatives are included at all level of planning, decision-making,implementation, and evaluation.
iv. The particular constraints faced by households maintained by women are taken explicitly into account in designing and implementing relief programs.
v. Special attention is provided to unaccompanied women, lone parents and widows.

vi. Issue of legal, sexual and physical protection are properly identified and addressed.

7.4. Action Plan for ESF in the District

Name of the Department	Response Activation	Action to be taken
Police Department	The Nodal Officer from Police will activate the Quick Response Teams. The Quick Response Teams will be deployed at the onsite EOCs As per the information from IMTs, adequate officers will be sent to site.	1. The saving of life in conjunction with other emergency services 2. Co-ordination of the emergency services and other organizations 3. Traffic and crowd control 4. The investigation of the incident in conjunction with other investigating bodies whereapplicable. 5. The collation and dissemination of causality information 6. Identification of victims 7. The restoration of normalcy at the earliest opportunity
District Fire Service, Imphal est	The Nodal Officer of District Fire Service, Thoubal District will activate the Quick Response Teams The Quick Response Teams will be deployed at the onsite EOCs	1. At the site, QRTs should contact the local volunteers and local people to gather information about vulnerable areas so that search and rescue operation can take place through a proper channel in heavily dense areas, large buildings, community centers, hotels, hospitals, public buildings

	As per the information from IMTs, adequate officers may be sent to site.	and any other area having large gathering. 2. Locate the damaged and collapsed structures and rescue the population buried and trapped in rubble. 3. The injured people should be taken out of damaged buildings etc with utmost care. 4. Special care should be given to women and children groups as they are expected to be more affected and helpless incase of any emergency situation 5. 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.
Civil Defence	The Nodal Officer will reach the EOC and activate the Quick Response Teams The Quick Response Teams will be deployed at the onsite EOCs As per the information from	1. Support and coordinate with the Incident Command System for Law & order, Search and rescue and Medial response and Trauma Counseling 2. Locate the damaged and collapsed structures and rescue the affected people,Special care to

	IMTs, adequate officers may be sent to site	women and children groups as they are expected to be more affected andhelpless incase of any emergency situation. 3. Helping in First aid to the affected people alongwith the Medical team
Municipal Council (MC)	The Nodal Officer of MC will activate the Quick Response Teams The Quick Response Teams will be deployed at the onsite EOCs As per the information from IMTs, adequate officers may be sent to site.	1. MC will bring debris of heavy RCC structures and put dummies beneath the debris. Thiswill facilitate demonstration of search and rescue operations. Soon after search andrescue team leave the site, MC will mobilize equipments for debris clearance. 2. MC will assume main role in equipment support for debris and road clearance. 3. MC will transport the equipments like JCB, concrete cutters required as per the need 4. The Supporting Agencies Nodal Officers will call for personnel to immediately start debris clearance operation to enable movement to the affected site. 5. All supporting agencies will inspect the road/rail network and structures within the disaster site

		and surrounding. 6. MC will also ensure proper corpse disposal and post mortem by coordinating with ESFon medical response 7. The QRTs will report the situation and the progress in response activities to the respective EOCs 8. Undertake construction of temporary roads to serve as access to temporary transit and relief camps and medical facilities for disaster victims 9. MC should ensure the provision of medicine and other medical facilities required at the disaster site and the hospital heal centers catering to disaster victims 10. MC will coordinate, direct and integrate state level response to provide equipment support, relief camps establishment, sanitation and health assistances
PWD	The Nodal Officer of PWD will activate the Quick Response Teams The Quick Response Teams will be deployed at	1. PWD will bring debris of heavy RCC structures and put dummies beneath the debris. This will facilitate demonstration of search and rescue operations. Soon after

	the onsite EOCs As per the information from IMTs, adequate officers may be sent to site.	search and rescue team leave the site, MC will mobilize equipments for debris clearance. 2. PWD will assume main role in equipment support for debris and road clearance. 3. PWD will transport the equipments like JCB, concrete cutters required as per the need 4. The Supporting Agencies Nodal Officers will call for personnel to immediately start debris clearance operation to enable movement to the affected site. 5. All supporting agencies will inspect the road/rail network and structures within the disaster site and surrounding. 6. PWD will also ensure proper corpse disposal and post mortem by coordinating with ESF on medical response. 7. The QRTs will report the situation and the progress in response activities to the respective EOCs. 8.Undertake construction of temporary roads to serve as access

		to temporary transit and relief camps and medical facilities for disaster victims. 9. PWD should ensure the provision of medicineand other medical facilities required at the disaster site and the hospital heal centers catering to disaster victims. 10. PWD will coordinate, direct and integrate state level response to provide equipment support, relief camps establishment, and sanitation and health assistances. 11. Undertake repair of all paved and unpaved road surfaces including edge metaling, patching and nay failure of surface and keep monitoring the condition.
PHED	The Nodal Officer of PHED will activate the Quick Response Teams The Quick Response Teams will be deployed at the onsite EOCs As per the information from IMTs, adequate officers may be sent to site.	1. Quick assessment of water line damage and contamination 2. Supply of water tankers to disaster affected communities 3. Deploy response teams to repair and restore water supply lines. 4. Quick assessment of water contamination levels and taking steps to restore clean drinking water.
IFCD	The Nodal Officer of	1. QRTs will coordinate with team

	Irrigation and Flood Control Department will activate the Quick Response Teams The Quick Response Teams will be deployed at the onsite EOCs As per the information from IMTs, adequate officers may be sent to site.	leader for water supply 2. QRTs will coordinate for providing Temporary Shelters 3. QRTs will coordinate in restoration of infrastructure 4. QRTs to report of situation and progress of action to the EOC
FCS	The Nodal Officer will activate the Quick Response Teams The Quick Response Teams will be deployed at the onsite EOCs As per the information from IMTs, adequate officers may be sent to site.	1. Coordinating with ESFs related to transportation to ensure quality supply of relief materials. 2. Continuing free kitchens for the affected people 3. QRTs to report to site relief camps 4. QRTs to manage the distribution of food items to affected victims. 5. QRTs to report on progress of action taken to EOC
Transport	The Nodal Officer will activate the Quick Response Teams The Quick Response Teams will be deployed at the onsite EOCs	1. QRTs will help in Evacuation 2. QRTs will assist the nodal office in providing Temporary Shelters 3. Team leader communicates situation to support agencies and requests for detailed information on

	As per the information from IMTs, adequate officers may be sent to site.	the status of transportation infrastructure in the affected area.
Health	Nodal officer will call nodal officers of supporting agencies In coordination with the transportation ESF, it will ensure adequate number of medical professionals and assistants to reach the sites with sufficient medicines and required materials. Ensure setting up of temporary information centers at hospitals with the help of ESF on help lines and warning dissemination.	1. To make ready all hospitals for managing large number of causalities and severely injured victims. 2. Sufficient stock of required medicines, vaccines, plasters, drugs etc 3. Provide systemic approach to patient care. 4. Maintain patient tracking system to keep record of all patients treated 5. Deploy mobile hospitals as required 6. QRTs will report the situation and the progress on action taken by the team to the respective EOCs 7. QRTs will ensure timely response to the needs of the affected victims 8. To provide ambulance service 9. To help in ready all hospitals for managing large number of causalities and severely injured

		victims. 10.To help in arranging sufficient stock of required medicines, vaccines, plasters, drugs etc 11. Deploy mobile hospitals as required 12. QRTs will report the situation and the progress on action taken by the team to the respective EOCs 13. QRTs will ensure timely response to the needs of the affected victims 14. Helping in arranging additional beds and additional bloods and medicines for the casualties.
Telecom service providers	The Nodal Officer will reach at the EOC and activate the Quick Response Teams The Quick Response Teams will be deployed at the site As per the information from IMTs, adequate officers may be sent to site. BSNL is primarily responsible for restoration	1. Team Leader will dispatch emergency repair teams equipped with required tools, tents and food. 2. Communicate situation to other support agencies i.e. private telephone operators 3. Work out a plan of action for private telecom companies and convene a meeting to discuss and finalize the modalities 4. Establish telephone facilities for the public and information on this

	of communication facilities BSNL should ensure the smooth flow of information that can cater to the outreach in a time-sensitive manner at state level in response efforts.	should be announced through media. 5. Make available various types of equipment/material and services if required. 6. Inform district as well as state authorities on action taken.
DIPR	Setting up of a control room to provide authentic information to public regarding impending emergencies. Daily press briefings at fixed times at district level to provide official version. Media report & feedback to field officials on a daily basis from L1 onwards. Keep the public informed about the latest emergency situation (area affected, lives lost, etc). Keep the public informed about various post-disaster assistances and recovery programmes.	1. Creation of public awareness regarding various types of disasters through media campaigns. 2. Dissemination of information to public and others concerned regarding do's and don'ts of various disasters 3. Regular liaisoning with the media.
RD&PR	Train up the G.P. Members and Support for timely and	1. Develop prevention/mitigation strategies for risk reduction at

	appropriate delivery of warning to the community. Clearance of blocked drains and roads, including tree removal in the villages. Construct alternative temporary roads to restore communication to the villages. PRIs to be a part of the damage survey and relief distribution teams to ensure popularparticipation. Operationalise emergency relief centres and emergency shelter. Sanitation, drinking water and medical aid arrangements. IEC activities for greater awareness regarding the role of trees and forests for protection during emergencies and also to minimise environmental impact which results owing	community level. 2.Training of elected representatives on various aspects of disaster management. 3. Public awareness on various aspects of disaster management. 4. Organise mock drills. 5. Promote and support community-based disaster management plans. 6. Support strengthening response mechanisms at the G.P. level (e.g., better communication, local storage, search & rescue equipments, etc.). 7. Clean drainage channels, trimming of branches before cyclone season. 8. Ensure alternative routes/means of communication for movement of relief materials and personnel to marooned areas or areas likely to be marooned. 9. Assist all the government departments to plan and prioritise prevention and preparedness activities while ensuring active

	to deforestation like climate change, soil erosion, etc. Increasing involvement of the community, NGOs and CBOs in plantation, protection and other forest protection, rejuvenation and restoration activities. Plan for reducing the incidence, and minimise the impact of forest fire.	community participation.
FISHERY	Ensure warning dissemination to fishing communities living in vulnerable pockets. Responsible for mobilising boats during emergencies and for payment of wages to boatmen hired during emergencies. Support in mobilisation and additional deployment of boats during emergencies. Assess the losses of fisheries and aquaculture assets and the needs of	1. Registration of boats and fishermen. 2. Building community awareness on weather phenomena and warning system especially on Do's and Don'ts on receipt of weather related warnings. 3. Assist in providing life saving items like life jackets, hand radios, etc. 4. Certifying the usability of all boats and notifying their carrying capacities. 5. Capacity building of traditional fishermen and improvisation of traditional boats which can be used during emergencies.

	persons andcommunities affected by emergency.	6. Train up young fishermen in search & rescue operation and hire their services during emergency.

7..5. Action plan for NGOs, NSS & NYK:

Emerging trends in managing natural disasters have highlighted the role of non-governmental organizations (NGOs) as one of the most effective alternative means of achieving an efficient communications link between the disaster management agencies and the effected community. In typical disaster situation, theycan be of help in preparedness, relief and rescue, rehabilitation and reconstruction and also in monitoring and feedback.

The role of NGOs is a potential key element in disaster management. The NGOs operating at grassroots level can provide a suitable alternative as they have an edge over governmental agencies for invoking community involvement. This is chiefly because, the NGO sector has strong linkages with the community base and can exhibit great flexibility in procedural matters vis-à-vis the government.

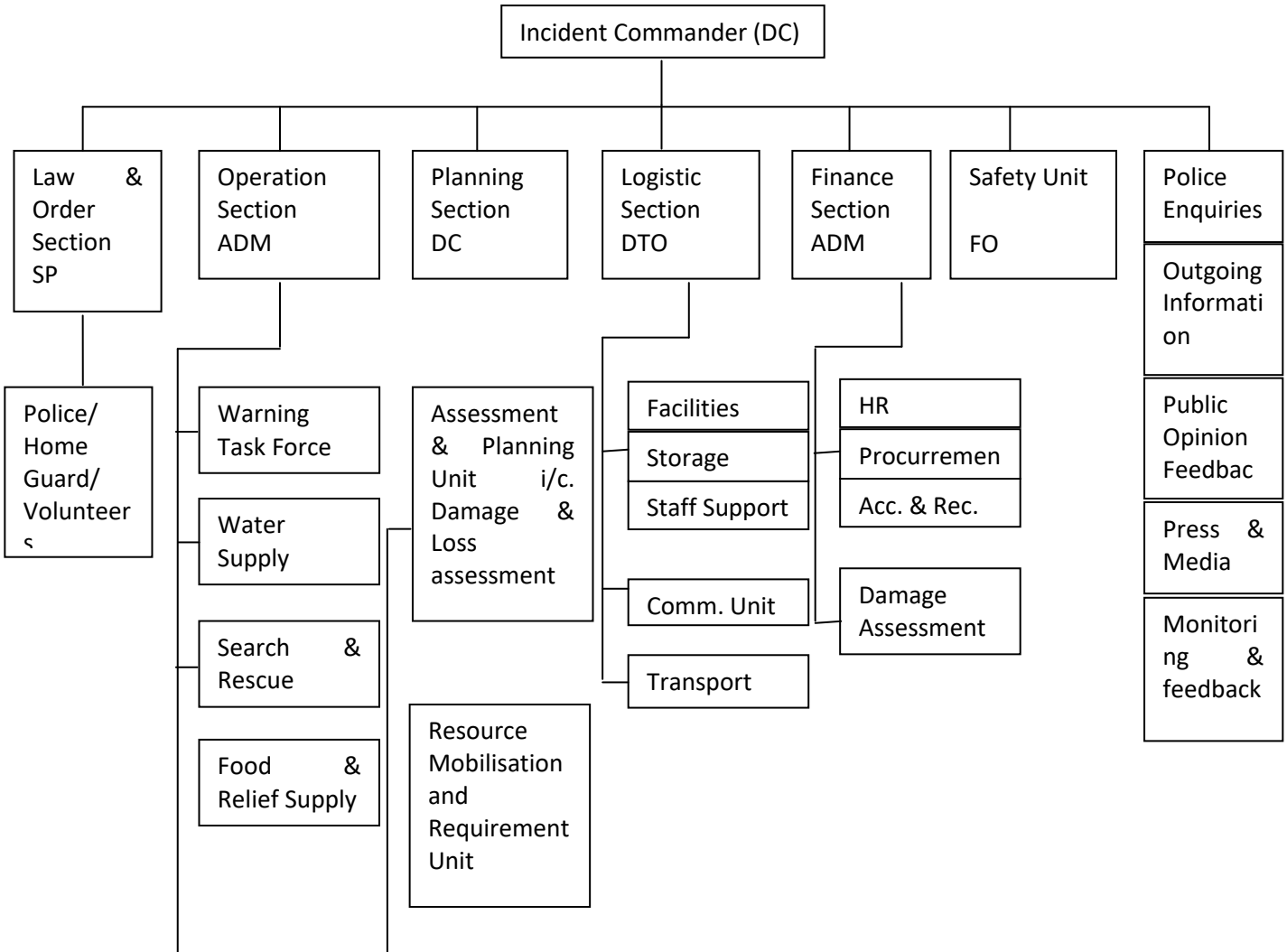
Based on the identified types of NGOs and their capabilities, organised action of NGOs can be very useful in following activities in different stages of disaster management.

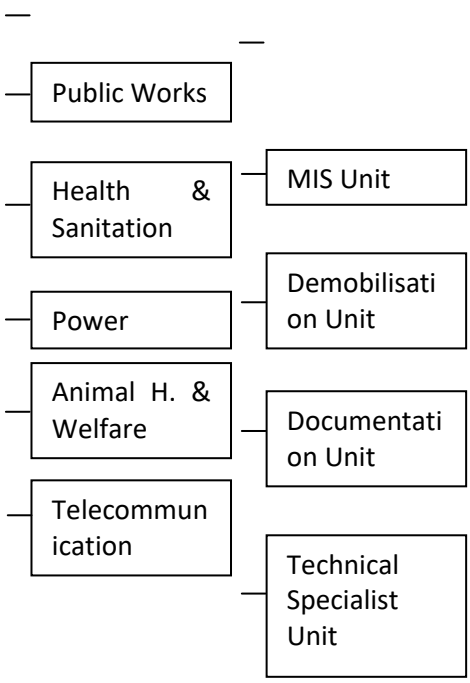
7.5.1. Organized activities of NGOs/NSS/NYKS at different stages of Disaster Management:

Stage	**Activity**
Pre-Disaster	Awareness and information campaigns, Training of local volunteers, Advocacy and planning
During Disaster	Immediate rescue and first-aid, including psychological aid, supply of food, water, medicines and other immediate need materials ensuring sanitation and hygiene damage assessment
Post-Disaster	Technical and material aid in reconstruction assistance in seeking financial aid monitoring

7.6. Disaster Response and District Incident Command System

The response to disasters in the district will be organized according to the Incident command System as adapted to conditions in Manipur State. The argument for the ICS is that its fundamental elements –unity of command, clarity of objectives and efficient resource use are common to the effective response to any disaster.In THOUBAL district, the multi-hazard response plan focused on sector specific action plans unlike the department specific planning approach . The disaster response is led by the District Emergency Operation Center (DEOC) under the command and control of the District Collector/District Magistrate.





7.7. Incident Command System

The basic functional descriptions for key elements in the district Incident command System are described below. Not all these functions need to be filled (activated) in every disaster. But the ensemble of these functions represents all the key tasks which need to be accomplished in a well planned manner and executed in effective and cost efficient disaster response effort.

I. Incident Command:

Responsible for overall management of an incident based on clearly stated mandate from higher authority and based on focused objectives responding to the immediate impact of the incident.

The Incident command is led by an Incident Commander, who can be assisted by a Dy. Incident Commander. In each incident will have as many as many commanders and other staff as there are shifts in the incident operation. Shifts will normally notexceed 12 hours at a time and should be standardized to 8 hours each as soon aspossible after the start of the incident.

II. Command Staff Units

Safety unit:

Responsible for ensuring the safe accomplishment of all activities undertaken in response to the incident. This task is accomplished through developing incident specific safety guidance documents, reviewing and advising on the safety of plans and monitoring actual operations to ensure safety of personnel and survivors

Protocol and Liaison unit:

Responsible for all official visits as well as liaison between the incident command and organizations providing personnel or material support being used to manage the incident. The first point of contact for NGOs and others coming to the disaster as wellas responsible for managing coordination meetings (some of which may actually be held by taskforces or sections).

Public Information Unit:

Responsible for all media and public information tasks related to the incident. To accomplish its task, the unit can have the following sub units:

I. Public inquiries: to handle non media requests for information
II. Outgoing public information: to handle public information dissemination
III. Public opinion feedback: to collect information from the public (incident survivors and the non-affected)
IV. Media center: to provide a single point of contact for all media involved in the incident.
V. Press release and media access: produce all releases and provide a single point of contact to arrange media access to the incident.
VI. Monitoring and Feedback: to monitor media reports and provide feedback to the incident management on coverage of the incident and to also take corrective measures and issue contradictions if required.

III. Law and Order Section

Responsible for assuring the execution of all laws and maintenance of order in the area affected by the incident. The law and order section incorporates law and order taskforce which may be created to deal with a disaster.

Police functions: as determined by the normal mandate for and special duties assigned to the police service

Home guard: as determined by the normal mandate for and special duties assigned to the home guard

Volunteers: supporting police and home guards in non-enforcement tasks, such as

patrolling, monitoring and evacuations

IV. Operation Section

Responsible for assuring specific operations according to objectives and plans to address the immediate impacts of the incident. Taskforces under the operation section will deal with specific functional tasks, such as search and rescue, the provision of water or shelter. The composition and size of these taskforces depends on the nature of the incident.

The District administration of THOUBAL has identified 16 expected task forces for key response operation functions that are described below. Additional taskforces can be added under the operations section as needed by the circumstances of a disaster. Each Taskforce is led by one organization and supported by other organizations.

Emergency Operation Task Force	Functions
Coordination & Planning	Coordinate early warning, Response & Recovery Operations
Administration & protocol	Support Disaster Operations by efficiently completing the paper work and other Administrative tasks needed to ensure effective and timely relief assistance
Warning	Collection and dissemination of warnings of potential

	disasters
Law & Order	Assure the execution of all laws and maintenance of orderin the area affected by the incident.
Search & Rescue	Provide human and material resources needed to support local evacuation, search and rescue efforts.
Public Works	Provide the personnel and resources needed to support local efforts to reestablish normally operating infrastructure.
Water	Assure the provision of sufficient potable water for human and animal consumption (priority), and water for industrial and agricultural uses as appropriate.
Food & Relief Supplies	Assure the provision of basic food and other relief needs in the affected communities.
Power	Provide the resources to re-establish normal power supplies and systems in affected communities.
Public Health & Sanitation	Provide personnel and resources to address pressing public health problems and re-establish normal health caresystems.
Animal Health & Welfare	Provision of health and other care to animals affected by a disaster.
Shelter	Provide materials and supplies to ensure temporary shelterfor disaster-affected populations
Logistics	Provide Air, water and Land transport for evacuation and the storage and delivery of relief supplies in coordination with other task forces and competent authorities.
Damage Assessment Survey	Collect and analyse data on the impact of disaster, developestimates of resource needs and relief plans, and compilereports on the disaster as required for District and State authorities and other parties as appropriate.
Telecommunications	Coordinate and assure operation of all communication systems (e.g.; Radio, TV, Telephones, and Wireless) required to support early warning or post disaster operations.
Media & Public	Provide liaison with and assistance to print and

Information	electronicmedia on early warning and post-disaster reporting concerning the disaster.

V. Planning Section

Responsible for collecting and analyzing information and developing plans to address the objectives set to address the incident. The overall work of the planning section will include efforts undertaken by any planning and coordination taskforce which is established as part of the response to a disaster. Units under the section include:

1. Assessment and planning
2. Resources and Requirements
3. Management information system
4. Documentation
5. Demobilization and
6. Technical specialists

VI. Logistic section

Responsible for all task and functions related to provision of material and other resources needed for operations and the physical and material support and operation of the incident management team. This section includes transportation taskforce established to support disaster operations. Logistics tasks are through the following units:

1. Storage and supply
2. Facilities
3. Staff support
4. Communications
5. Transportation (include ground, air water):

VII. Finance and Administration

Responsible for managing all financial and administrative tasks related to incident field operations. These tasks may, but would not usually include disbursement of financial aid to those affected by an incident. The task of this section

are accomplished through following units: 1. Human resources; 2. procurement; and 3. accounting and records

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Chapter 8: Recovery & Reconstruction Measures

Recovery is defined as decisions and actions taken after a disaster with a view to restoring or improving life and assets of the stricken community, while encouraging and facilitating necessary adjustments to reduce disaster risk. Recovery and reconstruction (R&R) or comprehensive rehabilitation is the last step in cycle of disaster management. In addition, this is the phase of new cycle, where the opportunity to reconstruction and rehabilitation should be utilised for building a better and more safe and resilient society.

8.1. Strategies for restoring physical infrastructure and lifeline services

Build Back Better:

This ensures greater resilience, preparedness; and minimum loss in an event of future disaster.

Participatory Planning:

Infrastructure improvement measures need to be balanced with, or at least be in line with, thesocial and cultural needs and preferences of beneficiaries

Coordination:

A plan of recovery will help better coordination between various development agencies. Damage Assessment and Needs Assessment shall be the basis of recovery planning. Various Sectors for recovery process may be:

- Essential Services- Power, Water, Communication, Transport, Sanitation, Health
- Infrastructural: Housing, Public Building and Roads
- Livelihood: Employment , Agriculture, Cottage Industry, Shops and Establishments

Basic services such as power, water supply, sanitation, wastewater disposal etc. should be restored in shortest possible time. Alternate arrangement of water supply, temporary sanitation facilities can be sought with help of special agencies.Special arrangements for provision of essential services should be ensured. It can include creating temporary infrastructure for storage and distribution of water supply, running tankers, power supply and sanitation facilities.

8.2. Sector Wise Damage and Loss assessment format

Following tables are to be filled after an event of disaster:

8.2.1. Power

Item/Services	No. of Unit Damaged	No. of affected Village	Population affected	Recovery Measures	Implementing Agency	Tentative Duration	Budget

Feeder							
Transformer							
HT Lines							
LT Lines							
Poles							
Conductors							

*To be planned after initial damage assessment by department.

8.2.2. Health

	PHC	CHC	Sub Centre	Drug Store	Recovery Measures	Implementing Agency	Duration	Budget
No. of Building Damage								
No. of Health Centre inaccessible								
Drugs and Medicine for Relief Camps								
No. of Ambulance								
Equipment for Storage								

*To be planned after initial damage assessment by department.

8.2.3. Social Sector

People in need of immediate rehabilitation including psychosocial support (due to disaster)

Village	Men	Women	Children	Total	Recovery Measures	Implementing Agency	Duration	Budget

8.2.4. Water

Type	Village	No. of Unit affected	Population affected	Recovery Measures	Implementing Agency	Duration	Budget
Well							
Borewells							
Community Pond							
Water Supply Disrupted							
Pipeline Damage							
Stand Post Damaged							
Contamination							
Handpump							

8.2.5. Road & Transport

Road Damage	Location	Severity	KMs	Recovery Measures	Implementing Agency	Duration	Budget
Inter Village Road							
State Roads							
National Highway							

8.2.6. Communication

Type	Office / Tower Damaged	Village affected	Recovery Measures	Implementing Agency	Duration	Budget
Landline Connectivity						
Mobile Connectivity						
Wireless Tower						
Radio Station						

8.2.7. Food and Civil Supplies

Type	No. of Godown damage	Type of Grain perished	Qnty. Of Grain perished	Qnty. Of grain at Risk	Recovery Measures	Implementing Agency	Duration	Budget
Civil Supply								
Others								

8.2.8. Housing

Partial damage		Fully Damage		Programme/ Scheme	Recovery Measures	Implementing Agency	Duration	Budget
Pucca	Kutcha	Pucca	Kutcha					

8.2.9. Public Infrastructure

Public Buildings	No. of Partial damage	No. of Fully Damage	Programme/ Schemes	Recovery Measures	Implementing Agency	Duration	Budget
Panchayat							
Educational Buildings							
Anganwadi							
Hospitals							
Market Shed							
Office Buildings							
Police Station							
Community Halls							

Restoration of Livelihood

Provisioning of Employment

Occupational category	No. of workers	Implementing Agency	Tentative Duration (Months)	Budget
Skilled labourers				

Unskilled and , Agricultural labourers				
Small and marginal farmers				
Construction workers				
Salt pan workers				
Fisher folk				
Weavers				
Other artisans				

Land Improvement

Land erosion / siltation (Hectare)	**HHs affected**	**Recovery Measures**	**Implementing Agency**	**Tentative Duration (Months)**	**Budget**

Agricultural

Crop failure (Hectare)	**HHs affected**	**Recovery Measures**	**Implementing Agency**	**Tentative Duration (Months)**	**Budget**

Non farm livelihood

Cottage Industry	**Extent of damage/disruption**		**Recovery Measures**	**Implementing Agency**	**Tentative Duration (Months)**	**Budget**
	Tools and equipment (Specify no. and type)	**Goods and material** (Specify type and qty)				
Handloom						
Pottery						
Food Processing						
Diamond sorting etc						
Printing/ Dying						
Other						

Shops and establishment

Extent of damage/disruption			Recovery Measures	Implementing Agency	Tentative Duration (Months)	Budget
Building (No. and location)	**Tools and equipments** (Specify no. and type)	**Goods and materials** (Specify type and qty)				

8.3. Long Term Recovery Programme

Disaster recovery typically occurs in phases, with initial efforts dedicated to helping those affected meet immediate needs for housing, food and water. As homes and businesses are repaired, people return to work and communities continue with cleanup and rebuilding efforts. Many government agencies, voluntary organizations, and the private sector cooperate to provide assistance and support.

Some individuals, families and communities that are especially hard hit by a disaster may need more time and specialized assistance to recover, and a more formalized structure to support them. Specialized assistance may be needed to address unique needs that are not satisfied by routine disaster assistance programs. It may also be required for very complex restoration or rebuilding challenges. Community recovery addresses these ongoing needs by taking a holistic, long-term view of critical recovery needs, and coordinating the mobilization of resources at the, and community levels.Oftentimes, committees, task forces or other means of collaboration are formed with the goals of developing specific plans for Community recovery, identifying and addressing unmet or specialized needs of individuals and families, locating funding sources, and providing coordination of the many sources of help that may be available to assist. Some collaborations focus on the community level and rely on the expertise of community planning and economic development professionals. Other collaborations focus on individual and family recovery and are

coordinated by social service and volunteer groups. All such efforts hope to lay the groundwork for wise decisions about the appropriate use of resources and rebuilding efforts.

8.4. Grievances Redressal System

Grievance redressal is important aspect in the context of providing need based assistance to affected communities with transparency and accountability. It is also ensures the protection of their rights and entitlements for disaster response services.

No.	Key person/ Establishment	Contact No.	Address

- To Be filled by the District authority.

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Chapter 9:Financial Arrangement for Implementation of DDMP

There is a paradigm shift in DM from the relief-centric approach to proactive approach of prevention, mitigation, capacity building, preparedness, response, evacuation, rescue, relief, rehabilitation and reconstruction. Efforts are made to mainstream and integrate disaster risk reduction and emergency response in development process, plans and programmes of the Government at all levels. This would be done by involving all the stakeholders – Government organisations, research and academic institutions, private sector, industries, civil society organization and community. DDMA will ensure mainstreaming of disaster risk reduction in the developmental agenda of all existing and new developmental programmes and projects which shall incorporate disaster resilient specifications in design and construction. Due weightage will be given to these factors while allocating resources. Project which help in reducing the existing vulnerability of the area would be given preference over projects which are likely to enhance it.

9.1 Source of Funds at national and State level

The Central Government by notification in Official Gazette constituted National Disaster Response Fund to meet the expenses for emergency response, relief & rehabilitation in accordance with the guidelines laid down by the Central Government in consultation with the National Authority. (Section 46(I) of the DM Act, 2005.)

State Disaster Response fund is constituted under section 48(I)(a) of the Disaster Management Act,2005 for meeting the expenditure for providing immediate relief to the victims of cyclone, droughts, earthquakes, hailstorm, landslide, avalanche, cloud burst, pest attack, cold wave etc.

9.2 - Disaster Response and Mitigation funds

District Disaster Response Funds and District Disaster Mitigation funds would be created at the District Level as mandated under section 48 of the Act . The

disaster response funds at the district level would be used by the 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.

9.3 - Responsibilities of the State Departments and Agencies

All State Government Departments, Boards, Corporations, PRIs and ULBS will prepare their DM plans including the financial projections to support these plans. The necessary financial allocations will be made as part of their annual budgetary allocations, and ongoing programmes. They will also identify mitigation projects and project them for funding in consultation with the SDMA/DDMA to the appropriate funding agency. The guidelines issued by the NDMA vis a vis various disasters may be consulted while preparing mitigation projects.

Chapter 10:Monitoring, Evaluation, Updation & Maintenance of DDMP

10.1. Preparation and updation of DDMP

The organizational structure suggested in DDMP will be based on following three concepts:

1. Plans will work only in the case when present organizational structure is responsible to its non-emergency duties i.e. if a job is done well everyday; it is best done by that organization during emergency.
2. Crisis should be met at the lowest and most immediate level of government. Plans call for local response supplemented if necessary, by the next higher jurisdiction.
3. Voluntary response and involvement of the private sector should be sought and emphasized. The emergency management partnership is important to all phases of natural and man-made disasters.

District Disaster Management Plan of the district shall be a public document. The DDMP is the sum and substance of all the Horizontal and Vertical disaster management plans in the district. Horizontal plans include plans prepared by line departments such as Police, Fire Service, MAHUD, I & FC deptt, civil Defence and other line departments and the Vertical plans include Sub divisional plans, Community plans, School plans, Hospital plans etc at the lower level and state disaster management plan and National disaster management plan at the higher level.

- Preparation of the District Disaster Management Plan is the responsibility of the District Disaster Management Committee of the district. The first draft plan is to be discussed in the DDMA and later the Chairperson of the DDMA shall rectify it.
- The same procedure is to be followed in the updation of the plan document. The District Disaster Management Plan is to be updated yearly

by the District Disaster Management Authority. In order to update the document, all vertical and horizontal plans shall be collected and incorporated to the District Disaster Management Plan (DDMP).

- After each updation of the District Disaster Management Plan (DDMP), a version number shall be given serially. Copy of the updated document shall be circulated to each stakeholder of disaster management in the district.

Regular Updation of District Disaster Management Plan (DDMP)

Every year as a part of pre monsoon DDMA will update plan in the month ofMay-June and also revise in the month of October-November every year.Besides the above procedure of updation of the DDMP, a regular data collection system shall be set up at the district Emergency Operations Centre (EOC) and the data will be verified and uploaded by the EOC in-charge under the supervision of Chairperson, DDMA.

Post Disaster Evaluation Mechanism

Disasters are always unexpected. Each disaster causes huge loss of human lives and property. And every disaster repeats after a particular interval. Also lessons learnt from a particular disaster will help to plan for another potential hazard. The DDMA Chairman shall make special arrangements to collect data on a particular disaster irrespective of size and vulnerability. This post disaster evaluation mechanism shall be set up with qualified professions, experts and researchers and the collected data shall be thoroughly crosschecked and documented in the EOC for further reference. This document shall be made with proper attention keeping in view the relief and rehabilitation measures.

10.2. Co-ordination with other agencies for implementation of DDMP

The initial response to a disaster is usually provided by the emergency services supported by local authority, but many agencies can become involved. The emergency services have to maintain a state of readiness so that they can provide a

rapid response and alert local authorities and other services as soon as possible. All organizations that need to respond quickly to a disaster should have arrangements which can be activated at short notice. These arrangements should be clearly established and promulgated.

Although involvement of different emergency services like Police, Fire Brigade and Hospital services is inevitable, some other Public Utility Services, such as local bodies, Railways, Air lines, etc., have to be involved also in most cases for dealing with the situation effectively. All such agencies are very different organizations, with different hierarchies and chains of command and responsibility, all taking different languages with different areas of expertise and priorities. If rescue and recovery work is to be effective, all these different agencies have to work together in a co-ordinated way. All these agencies, therefore, have to be aware of each other's areas of responsibility and systems of working. Comprehensive discussion and agreement among these agencies in the planning stage and communication of the decisions down the chain of command to the lowest functionary of each agency and their training is, therefore, of utmost importance so that they know as to who is responsible for that and are aware of their roles and responsibility and can appreciate the need for Multi-Service Involvement in such a situation.

Chapter 11:Operational Guidelines for Different Disaster

11.1. Earthquake:

"Earthquakes usually give no warning at all."

i) Before the earthquake:

1. Now is the time to formulate a safety plan for you and your family. If you wait until the earth starts to shake, it may be too late. Consider the following safety measures:
2. Always keep the following in a designated place: bottled drinking water, non-perishable food, first-aid kit, torch-light and battery-operated radio with extra batteries. Teach family members how to turn off electricity, gas, etc.
3. Identify places in the house that can provide cover during an earthquake.
4. It may be easier to make long distance calls during an earthquake. Identify an out-of-town relative or friend as your family's emergency contact. If the family members get separated after the earthquake and are not able to contact each other, they should contact the designated relative/friend. The address and phone number of the contact person/relative should be with all the family members.
5. Safeguard your house
6. Consider retrofitting your house with earthquake-safety measures \Reinforcing the foundation and frame could make your house quake resistant. You may consult a reputable contractor and follow building codes.
7. Kutchha buildings can also be retrofitted and strengthened.

During Earthquake:

1. Earthquakes give no warning at all. Sometimes, a loud rumbling sound might signal its arrival a few seconds ahead of time. Those few seconds could give you a chance to move to a safer location. Here are some tips for keeping safe during a quake.
2. Take cover. Go under a table or other sturdy furniture; kneel, sit, or stay close to the floor. Hold on to furniture legs for balance. Be prepared to move if your cover moves.
3. If no sturdy cover is nearby, kneel or sit close to the floor next to a structurally sound interior wall. Place your hands on the floor for balance.
4. Do not stand in doorways. Violent motion could cause doors to slam and cause serious injuries. You may also be hit be flying objects.
5. Move away from windows, mirrors, bookcases and other unsecured heavy objects.
6. If you are in bed, stay there and cover yourself with pillows and blankets
7. Do not run outside if you are inside. Never use the lift.
8. If you are living in a kutcha house, the best thing to do is to move to an open areawhere there are no trees, electric or telephone wires.

If outdoors:

1. Move into the open, away from buildings, streetlights, and utility wires. Once in the open, stay there until the shaking stops.
2. If your home is badly damaged, you will haveto leave. Collect water, food, medicine, other essential items and important documents before leaving.
3. Avoid places where there are loose electrical wires and do not touch metal objects that are in touch with the loose wires.
4. Do not re-enter damaged buildings and stay away from badly damaged structures.

If in a moving vehicle:

1. Move to a clear area away from buildings, trees, overpasses, or utility wires, stop, and stay in the vehicle. Once the shaking has stopped, proceed with caution. Avoid bridges or ramps that might have been damaged by the quake.

After the Earthquake:

2. Here are a few things to keep in mind after an earthquake. The caution you display in the aftermath can be essential for your personal safety.
3. Wear shoes/chappals to protect your feet from debris
4. After the first tremor, be prepared for aftershocks. Though less intense, aftershocks cause additional damages and may bring down weakened structures. Aftershocks can occur in the first hours, days, weeks, or even months after the quake.
5. Check for fire hazards and use torchlight's instead of candles or lanterns.
6. If the building you live in is in a good shape after the earthquake, stay inside and listen for radio advises. If you are not certain about the damage to your building, evacuate carefully. Do not touch downed power line.
7. Help injured or trapped persons. Give first aid where appropriate. Do not move seriously injured persons unless they are in immediate danger of further injury. In such cases, call for help.
8. Remember to help your neighbours who may require special assistance-infants, the elderly, and people with disabilities.
9. Listen to a battery-operated radio for the latest emergency information.
10. Stay out of damaged buildings.
11. Return home only when authorities say itis safe. Clean up spilled medicines, bleaches or gasoline or other flammable liquids immediately. Leave the area if you smell gas or fumes from other chemicals. Open closet and cupboard doors cautiously.
12. If you smell gas or hear hissing noise, open windows and quickly leave the building. Turn off the switch on the top of the gas cylinder.

13. Look for electrical system damages - if you see sparks, broken wires, or if you smell burning of amber, turn off electricity at the main fuse box. If you have to step in water to get to the fuse box, call an electrician first for advice.
14. Check for sewage and water lines damage. If you suspect sewage lines are damaged, avoid using the toilets. If water pipes are damaged, avoid using water from the tap.
15. Use the telephone only for emergency calls.
16. In case family members are separated from one another during an earthquake (a real possibility during the day when adults are at work and children are at school), develop a plan for reuniting after the disaster. Ask an out of state / district relative or friend to serve as the “family contact”. Make sure everyone in the family knows the name address, and phone number(s) of the contact person (s).

11.2. Flood

Basic Safety Precaution to be taken:

1. Listen to radio/ TV for the latest weather bulletins and flood warnings. Pass on the information to the others.
2. Make a family emergency kit which should include; a portable radio/ transistor, torch, spare batteries, a first aid box along with essential medicines, ORS, dry food items, drinking water, matchboxes, candles and other essential items.
3. Keep hurricane lamp, ropes, rubber tubes, umbrella and bamboo stick in your house. These could be useful.
4. Keep your cash, jewellary, valuables, important documents etc. in a safe place. If there is a flood, move along with family members and cattle to safe areas like relief camps, evacuation centres, elevated grounds where you can take shelter.
5. Turn off power and gas connections before leaving your house.

During floods:

1. Don’t enter into flood waters; it could be dangerous.
2. Don’t allow children to play in or near flood waters.
3. Stay away from sewerage line, gutters, drains, culverts etc.
4. Be careful of snakes; snakebites are common during floods.
5. Stay away from electric poles and fallen power-lines to avoid electrocution.
6. Don’t use wet electrical appliances – get them checked before use.
7. Eat freshly cooked and dry food. Always keep your food covered.
8. Use boiled and filtered drinking water.
9. Keep all drains, gutters near your house clean.
10. Stagnation of water can breed vector/ water-borne diseases. In case of sickness seek medical assistance.
11. Use bleaching powder and lime to disinfect the surroundings.

11.3. Fire Hazard

A) High-Rise Fires:

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

If the exit is blocked by smoke or fire:

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

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

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

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

If smoke is in your apartment:

1. Stay low to the floor under the smoke.
2. Call the Fire Emergency Number which should be pasted near your telephone along with police and other emergency services and let them know that you are trapped by smoke.
3. If you have a balcony and there is no fire below it, go out.
4. If there is fire below, go out to the window. DO NOT OPEN THE WINDOW but staynear the window.
5. If there is no fire below, go to the window and open it. Stay near the open window.
6. Hang a bed sheet, towel or blanket out of the window to let people know that you are there and need help.
7. Be calm and wait for someone to rescue you.

11.4. Landslides

Do's

1. Prepare tour to hilly region according to information given by weather department or news channel.
2. Move away from landslide path or downstream valleys quickly without wasting time.
3. Keep drains clean,
4. Inspect drains for - litter, leaves, plastic bags, rubble etc.
5. Keep the weep holes open.
6. Grow more trees that can hold the soil through roots,
7. Identify areas of rock fall and subsidence of buildings, cracks that indicate landslides and move to safer areas. Even muddy river waters indicate landslides upstream.
8. Notice such signals and contact the nearest Tehsil or District Head Quarters.
9. Ensure that toe of slope is not cut, remains protected, don't uproot trees unless re-vegetation is planned.
10. Listen for unusual sounds such as trees cracking or boulders knocking together.
11. Stay alert, awake and active (3A's) during the impact or probability of impact.
12. Locate and go to shelters,
13. Try to stay with your family and companions.
14. Check for injured and trapped persons.
15. Mark path of tracking so that you can't be lost in middle of the forest.
16. Know how to give signs or how to communicate during emergency time to flying helicopters and rescue team.

Don'ts

1. Try to avoid construction and staying in vulnerable areas.
2. Do not panic and loose energy by crying.
3. Do not touch or walk over loose material and electrical wiring or pole.
4. Do not built houses near steep slopes and near drainage path.

5. Do not drink contaminated water directly from rivers, springs, wells but rain water if collected directly without is fine.
6. Do not move an injured person without rendering first aid unless the casualty is in immediate danger.

11.5. Lightning and Thunderstorm:

Danger during thunderstorms

Lightning claims quite a few lives and injures many every year. Quite a large number of injuries from the electric shock received while using fixed telephones during thunderstorms.

Take these precautions during thunderstorms:

Take action now

1. Consult an electrician for advice on lightning conductors required for your house.

If caught outdoors

If you hear thunder 10 seconds after a lightning flash, it is only about three kilometres away. The shorter the time, the closer the lightning, so find shelter urgently:

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

4. If your hair stands on end or you hear `buzzing' from nearby rocks, fences, etc, move immediately. At night, a blue glow may show if an object is about to be struck.
5. Do not fly kites during thunderstorms.
6. Do not handle fishing rods, umbrellas or metal rods, etc.
7. Stay away from metal poles, fences, clotheslines etc.
8. Do not ride bicycles or travel on open vehicles.
9. If driving, slow down or park away from trees, power lines, stay inside metal-bodied (hard top) vehicles or in a pucca building but do not touch any metal sections.
10. If in water, leave the water immediately.
11. If on a boat, go ashore to a shelter as soon as possible.
12. Be sure the mast and stays of the boat are adequately secured.

If you are indoors

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

First Aid

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

Lightning facts and myths

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