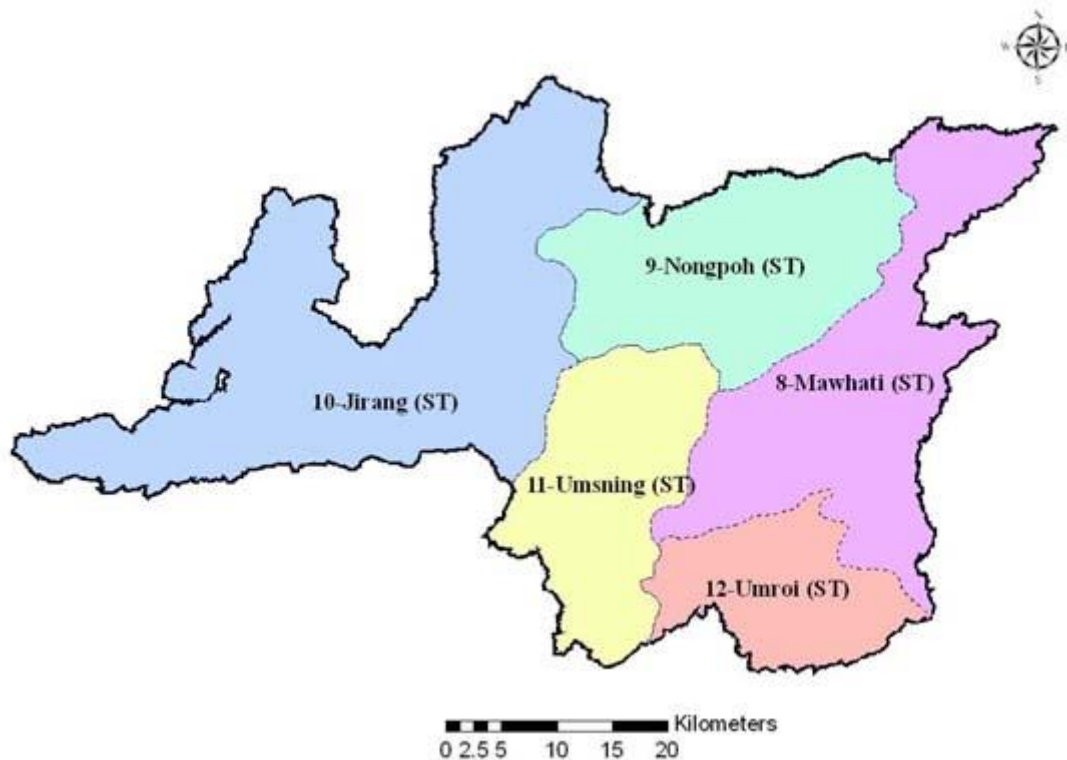


***DISASTER  
MANAGEMENT AND  
RESPONSE PLAN FOR RI BHOI DISTRICT.  
2016***

**Name of the District** : **Ri -Bhoi District**  
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**DISTRICT DISASTER MANAGEMENT AUTHORITY  
RI BHOI DISTRICT, NONGPOH**

**EXECUTIVE SUMMARY**

The District Disaster Management Plan of Ri Bhoi District is a an effort of District Disaster Mangement Authority , Ri Bhoi District . It also play as a key part for an emergency management. Section 31. (1) of the Disaster Management Act 2005 mandates the preparation of District Plan by the District Disaster Management Authority. This plan has been prepared which is based on the guidelines provided by the National Disaster Management Authority ( NDMA) .

The DDMP will play a significant role to address the unexpected disasters that occur in the district .It is a multi –hazard Disaster Management Plan .The information available therein is valuable in terms of its use during disaster. Based on the history of various disasters that occur in the district ,the plan has been so designed as an action plan rather than a resource book .Utmost attention has been paid to make it handy, precise rather than bulky one.

The DDMP involves certain important issues like Incident Response System (IRS), India Disaster Resource Network (IDRN) website, the service of National Disaster Response Force (NDRF) in disaster management. This plan also provides important list of websites related to available materials etc.

Any suggestions and comments will be included in the next updation of the DDMP. We are thankful to all the offices, institutions and persons who have provided us the vital information .

**Dr.Pooja Pandey, IAS**  
**Deputy Commissioner & Chairman DDMA**  
**Ri Bhoi District, Nongpoh**



**DISTRICT DISASTER MANAGEMENT AUTHORITY  
RI BHOI DISTRICT,NONGPOH**

**Acknowledgement**

My sincere thanks to the officials and staffs of the DDMA, Ri Bhoi District for preparation of the Disaster Mangement Plan of the District.

I express my heartfelt gratitude to all State Government Offices in the district for the inputs they have given while preparing the Disaster Management Plan.

I also express my gratitude to NESAC who have contributed towards preparation of the district map and work for Disaster Reduction in the District.

I appreciate the NIC, Nongpoh for uploading of the plan in the District website , thereby making it available to the public for information.

Thanks and appreciation to everyone who have contributed to the Disaster Management Plan

**Dr.Pooja Pandey, IAS**  
**Deputy Commissioner & Chairman DDMA**  
**Ri Bhoi District, Nongpoh**



**DISTRICT DISASTER MANAGEMENT AUTHORITY  
RI BHOI DISTRICT,NONGPOH**

**FOREWORD**

Disasters have occurred since time immemorial. Considering the important role that stakeholders play in reducing vulnerabilities and responding effectively to a disaster, the plan has been prepared to ensure prevention, mitigation and effective response at the time of disaster.

The plan is a step towards building a disaster –resilient community.

This plan will serve as a reference for various Government Departments on their role and responsibilities in disaster Management

**Dr.Pooja Pandey, IAS  
Deputy Commissioner & Chairman DDMA  
Ri Bhoi District, Nongpoh**

## **CHAPTER -I**

### **AN INTRODUCTION**

**BACKGROUND** The intensity and frequency of disasters in our country has compelled the need for a comprehensive approach to the prevention and mitigation of hazards in which developmental gains made over the years through painstaking efforts and the precious lives and livelihoods of the vulnerable sections of society need to be protected. As such, the GOI, Ministry of Home Affairs signed an agreement with the United Nations Development programme in 2003, to initiate and implement the Disaster Risk Management Programme. Meghalaya is one of the twelve states in which the DRM programme has been implemented under which Ri Bhoi District falls under the programme. The goal of the programme is Sustainable reduction in Disaster Risks & Recovery in all the Blocks of Ri Bhoi District through active participation of Community and the government administration. With the closure of the programme in 2008 disaster management continues to be an important subject in the State Government and the disaster management activities was taken over by the Disaster Management Authorities.

One of the chief components of the programme is the development of disaster management Planning at all levels involving resource inventorization, hazard risk mapping and the setting up of response mechanisms in case of emergencies awareness generation and capacity building for the same. The aim of the plan will be fail proof communication, authentic and accurate database, documented and rehearsed to be activated in the shortest possible time with minimum simple orders and procedures ensuring active participation by Government, Community and volunteers at all levels, making optimal utilization of men, material and resources with no gaps or no overlaps to prevent loss to lives and minimize loss to property ensuring fastest restoration of the situation. A comprehensive DDMP will strengthen the efforts of the District Administration.

#### **1.1 OBJECTIVES:**

The main objectives of the District Disaster Management Plan are as follows:

1. To prevent and minimise loss of human lives and property by gearing up preparedness, prevention & mitigation of disasters.
2. To develop convergence of action in addressing, preventing and mitigating disasters and to equip with maximum possible relief measures and to resort to pre-disaster, during and post-disaster steps.
3. To assist the line depts., Block Administration, community in developing coping skills for disaster management
4. To impart training and to create awareness, rehearsals, dissemination of knowledge, informations, rescue measures etc among all the citizens living in the district.
5. To identify the occurrence and nature of disasters by analyzing the periodicity, intensity and extent of damages.



6. To ensure fail proof communication and supply of manpower, materials, machinery, goods and other inputs and activate the same within the shortest possible time backed by minimum simple procedures, orders etc at different levels by making optimal utilization of the available resources without any gaps, duplications or overlapping.
7. To ensure fastest approach for rescue& evacuation, rehabilitation and recovery.
8. To avert further miseries of the calamity-stricken people.
9. To facilitate the mitigation process.
10. To facilitate convergence.

**1.2 Authority of DDMP:** The DDMP is prepared as per provision provided in Section 31(1) of the DM Act 2005.

**1.3. Evolution of DDMP:** In multi-hazard response plan, the disaster management cycle has a significant role to play. The four stages of disaster cycle have their own importance in terms of their implementation during, after and before the occurrence of any disaster.

**1.4: Approval mechanism of DDMP:** The DDMP was opened for views and suggestion of the public during its first edition. After it was prepared it was approved by the DDMA and make available to every one through the district website [www.ribhoi.gov.in](http://www.ribhoi.gov.in)

**1.5: Plan review and updation:** The plan is being updated on a yearly basis and practice twice a year through mock drill.

## Chapter 2. District profile

**2.1 Overview of the District:** Ri Bhoi District came into existence and assumed the hierarchical status of the district on the 4<sup>th</sup> June 1992 by upgrading the former Civil Sub-Division. The district was carved out from the erstwhile East Khasi Hills District and lies between North Latitudes 25 15' and 26 15' and between East Longitudes 91 45' and 92 15'. It geographically comprises parts of the Khasi kingdoms viz parts of Myllem Syiemship, Khyrim Syiemship, Nongspung Syiemship, Nongkhlaw Syiemship, whole of Nongpoh Sirdarship (erstwhile Nongpoh Syiemship), Myrdon Sirdarship and the erstwhile Nongwah Syiemship. Presently, Nongwah Syiemship is one of the missing Khasi States that calls for restoration both administratively and territorially. Presently, the District is bounded on the North by the Kamrup, Morigoan and Nagoan Districts of Assam, on the East by the Karbi Anglong District of Assam, on the South by East Khasi Hills & West Khasi Hills Districts and on the West by the West Khasi District. Nongpoh is the District headquarter and as well as that of Nongpoh Sirdarship.

Ri Bhoi District contains an area of 2448.00 Sq.KMS excluding the geographical areas under the erstwhile Nongwah Syiemship and other places which fall under the 'Areas of Differences' between Assam and Meghalaya. Information about Ri Bhoi District can be had from the District Profile 2011. Ri Bhoi being one of the components of the Meghalaya plateau, has its physiographical features almost similar to that of the Khasi Hills. The only difference is that Ri Bhoi District has a comparably more flat topography with a mild gradient especially if we take Ri War as benchmark. The Hills gently slope towards Brahmaputra valley of Assam in the north, overlook the gentle plains of this mighty river in the central portion and the basin of Kamrup District in the west. The geological structure of Ri Bhoi District is mainly composed of Archaean Gneissic Complex, except some strips at the fringe between Jirang Syiemship, Myllem Syiemship (Khanapara and Beltola areas) and Kamrup District which is covered with alluvial soil. The North-East portion which is contiguous to Block-II areas is composed of proterozoic i.e Granite. Thus Granite is one of the major minerals of this District which has economic value and is marketable when the same is properly processed.

### 2.2 District profile

Sl.No		
1	Total Area of the District	2448 sq.kms
2	Geographical Area:	2,37,800 Ha
3	Cultivable Area:	19,493 Ha
4	Total Crop Area:	25118 Ha
5	No of Administrative Units:	1
	No of Blocks	3
5	No. of Rivers :	2
6	Population	
	Male	132531
	Female	126309
	Rural	233587

	Urban	25253
	Total population	258840
7	Density of population	106
8	Sex Ratio	953
9	Block wise poluption	
10	Umling C&Rd Block	87021
11	Umsning C&Rd Block	68297
12	Jirang C&RD Block	14985
13	Cultivators	50955
14	Agriculture workers	14216
15	Household Industry	1277
16	Other workers	24427
18	Marginal workers	15598
19	Non – workers	152367
20	Literacy	74.49
21	No of hospitals: Nongpoh Civil Hospital Bethany Outreach Hospital	2
22	Dispensaries	2
23	No.of CHCs : (i) Umsning CHC (ii) Bhoilymbong CHC (iii) Patharkhmah CHC	3
24	No.of PHCs: (i) Warmawsaw PHC (ii) Umtraí PHC (iii) Mawhati PHC (iv) Mawlasnai PHC (v) Kyrдем PHC (vi) Umden PHC (vii) Byrnihat PHC (viii) Marngar PHC	8
25	sub-centre:	26
26	No of Leprosy Eradication Units: (i)Missionaries of Charity (ii)Leprosy Center, Umden, Nongtluh	2
27	No. of Fire Stations: (i) Nongpoh Fire station, Nongpoh (ii)Umiam Fire Station, Umiam (iii)Byrnihat Fire station, Byrnihat	3
	No. of Police Stations: (i)Umiam Police station (ii)Nongpoh Police station (iii)Khanapara Police station	3
	Public Investigation Center (1) Bhoilymbong	1
	No. of Out post : (i) Mawlasnai (ii) Kyrдемkulai (iii) Umsning (iv) Byrnihat (v) Pilangkata (vi) Patharkhmah	7

	(vii) Umsiang	
	No of veterinary dispensaries	13

#### **Educational:**

Sl.No	Name of the Block	No of Primary Schools	No of Upper Primary Schools	No of Secondary Schools	No of Higher Secondary Schools	No of Colleges
1	Umsning	310	125	28	2	6
2	Umling	226	109	8	2	4
3	Jirang	104	37	4	1	nil

Sl.No	No of Assembly Seats	Name of the MLA
1	8- Mawhati A/C	Shri..J.S. Dorphan, Mawhati Assembly Constituency
2	9- Nongpoh A/C	Shri. D.D Lapang, Nongpoh Assembly Constituency.
3	10- Jirang A/C	Shri. L. Myllem , Jirang Assembly Constituency.
4	11- Umsning A/C	Dr. C. Lyngdoh, Umsning Assembly Constituency
5	12- Umroi A/C	Shri. Ngaitlang Dhar, Umroi Assembly Constituency.

#### **2.3 Disabled Population sex wise & Type wise**

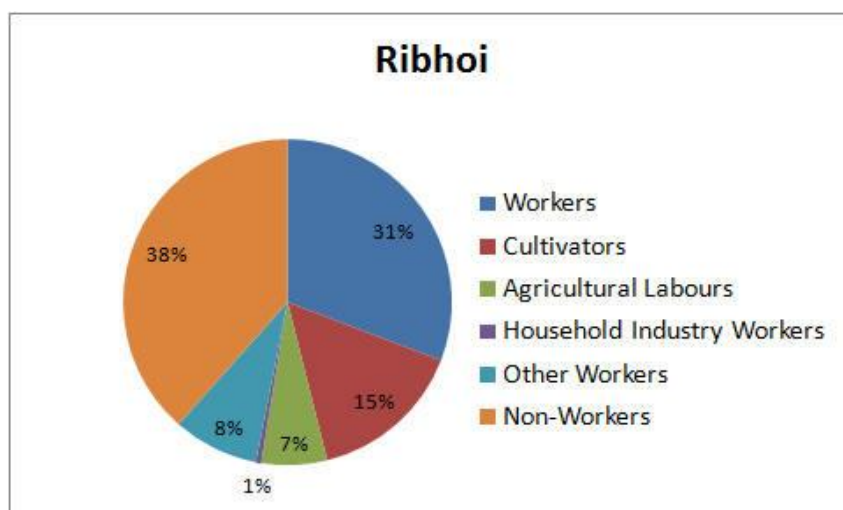
Block	Total	Male	Female
Umling	563	269	294
Umsning	3933	1980	1953
Jirang	595	332	263
<b>Total</b>	<b>5091</b>	<b>2581</b>	<b>2510</b>

Out of the total disabled persons in the District, 1047 ( 20.56%) are suffering from visul disasbiility, 1958 ( 38.46% ) from Hering. 672 ( 13.20%) from speech, 679 ( 13.34%) from locomotor and 735 (14.44%) from mentl disabilities. Details as under:-

Block	Visual	Hearing	Speech	Locomotor	Mental	Total
Umling	136	300	56	33	38	563
Umsning	754	1461	544	558	616	3933
Jirang	157	197	72	88	81	595
<b>Total</b>	<b>1047</b>	<b>1958</b>	<b>672</b>	<b>679</b>	<b>735</b>	<b>5091</b>

#### **2.4 SOCIO-ECONOMIC FEATURES:**

The economy of the Ri Bhoi District is basically agrarian as more than 80% of the population depends directly or indirectly on agriculture. The average cultivated area (22833 hectares) in the district, which is about 10% of total geographical area (237800 hectares). Paddy, maize, ginger, pineapple, banana, papaya are the main agro-horticultural crops playing a predominant role in the economy of the district. Among food crops, paddy & maize are the main crops.



## 2.5 Forests:

State forests can be classified into (i) Subtropical pine forest (ii) Moist mixed deciduous forest (iii) Very moist sal bearing forest and (iv) Reserved forest, out of which category (ii) and (iv) can be found in Ri Bhoi District. The environmental setting is characterized by the existence of Reserved Forests and Wildlife Sanctuary. **Nongkhyllem Wildlife Sanctuary** is one of the oldest and famous sanctuary which is situated in this District.

### **Area under reserved forest and protected forest (in hectares) : ( 2013-14)**

Reserved Forest	Protected forest	Total forest
13,274.448 Ha	1239.095 Ha	14,513.543 Ha

( An area of 154.25 ha is in the process of declaring as protected forest)

## 2.6 RIVER SYSTEM AND DAMS:

Umtrew , Umiam, Umsiang and a good numbers of other turbulent streams that drain out all over the District exhibits gentle gradients with sinuosity on the plain areas. The river drainage system generally exhibits eight patterns viz (i) Radial (ii) Centrifugal (iii) Parallel (iv) Dendritic (v) Deranged (vi) Trellised (vii) Annual and (viii) Rectangular. Of these two patterns i.e Parallel and Dendritic can be witnessed in the catchment areas of the rivers in this District.

## 2.7 Electricity: ( 2011 census)

Installed:187.2 M.W  
 Generation:491.079120 M.W  
 Per-capita Consumption: 1578.240 M.W  
 Total Village electrified: 495 as on 31.3.12  
 Sale of Electricity: N.A  
 Domestic: 19.865332 M.W  
 Commercial: 387.920267 M.W  
 Total No of consumers: 36399  
 No of 33KV sub-station:10  
 Length of 33KV line:281.57  
 Total No of Districbution transformer:946  
 Length of 11KV line:1339.498  
 Lrngth of LT line :1192.10  
 Leghth of LT line:946.305

## 2.8 Industries: ( 2013-14)

1. Factories registered under the factories Act 1948: 17

(a) Employees in large scale industries: 387

(b) Employees in medium scale industries: 172

(c) Employees in small scale industries: 205

Total No of employees: 764

## 2.9 Road and Transport: ( 2011 Census)

Particulars	As on 31 <sup>st</sup> December 2009-10	As on december 2010-11
National highway ( in Kms) 1. Black Topped Road 2. Metalled & Graveled Road	65	65
State Highways ( In kms) 1. Black Topped Road 2. Metalled & Graveled Road 3. Motorable Road ( All weather)	237.00 29.10 108.13	30

No. of Registered Vehicles: ( as on 31-3-2016)

(a) Government: 95

(b) Private: 5667

(c) Commercial ; 4002

## 2.10 Irrigation

Net irrigated area	2015-16
(a) Govt	3569.11
(b) Private	9291.89
(c) Total	12861
(d) Gross irrigated area	2010-11
(e) Govt	4265.11
(f) Private	9562.00
(g) Total	13827.11

## 2.11 Helipads

Sl.No	Name of Helipads	Location / Village	Block
1	Umroi airport	Umden Mission	Umsning C&RD Block
2	Mynri Umsning	Mynri Umsning	Umsning C&RD Block
3	Raitong Football Field	Raitong	Umsning C&RD Block
4	Mawhati playground	Mawhati	Umsning C&RD Block
5	Football Ground	Umlaper	Umsning C&RD Block
6	Kurkalang Stadium	Bhoirymbong	Umsning C&RD Block
7	Umsning Sports Club Playground	Umsning	Umsning C&RD Block
8	Umbuda Playground	Umbuda	Umling C&RD Block
9	New Jirang Playground	New Jirang, Umlakro	Jirang C&RD Block
10	Western Ri Bhoi Sports Association Playground	Umsaw, Barigoan	Jirang C&RD Block

## 2.12 Climate and Rainfall:

The Climate of Ri Bhoi District experiences different types of climate ranging from tropical climate in the areas bordering Assam to the temperate climate adjoining the East Khasi Hills District. The areas

bordering Assam experience hot - humid weather during summer seasons with an average temperature of 30 deg Centigrade, especially during the month of May to July of the year. In other areas like Lum Raitong and Lum Sohpetbneng Plateaus, the climate is severely cold during the winter months and is pleasant during the summer period. Total rainfall in nongpoh during 2010-11 is 1143.92.

## 2.13 ROAD NETWORK & COMMUNICATION CONNECTIVITY

The National Highway.40. linking Assam and Meghalaya at the inter – State Border of Jorabat right upto the International Border with Bangladesh at Tamabil has a total length of 163<sup>rd</sup> Km is the main link of communication which connects Ri- Bhoi District with areas outside the District.

### Alternative Communication Connectivity in Emergency Situation:

Name of the Block	Road Connectivity	Rail Connectivity	Air connectivity	Telephone connectivity
Umsning C&RD Block	Yes	No	Yes	Yes
Umling C&RD Block	Yes	No	No	Yes
Jirang C&RD Block	Yes	No	No	Yes

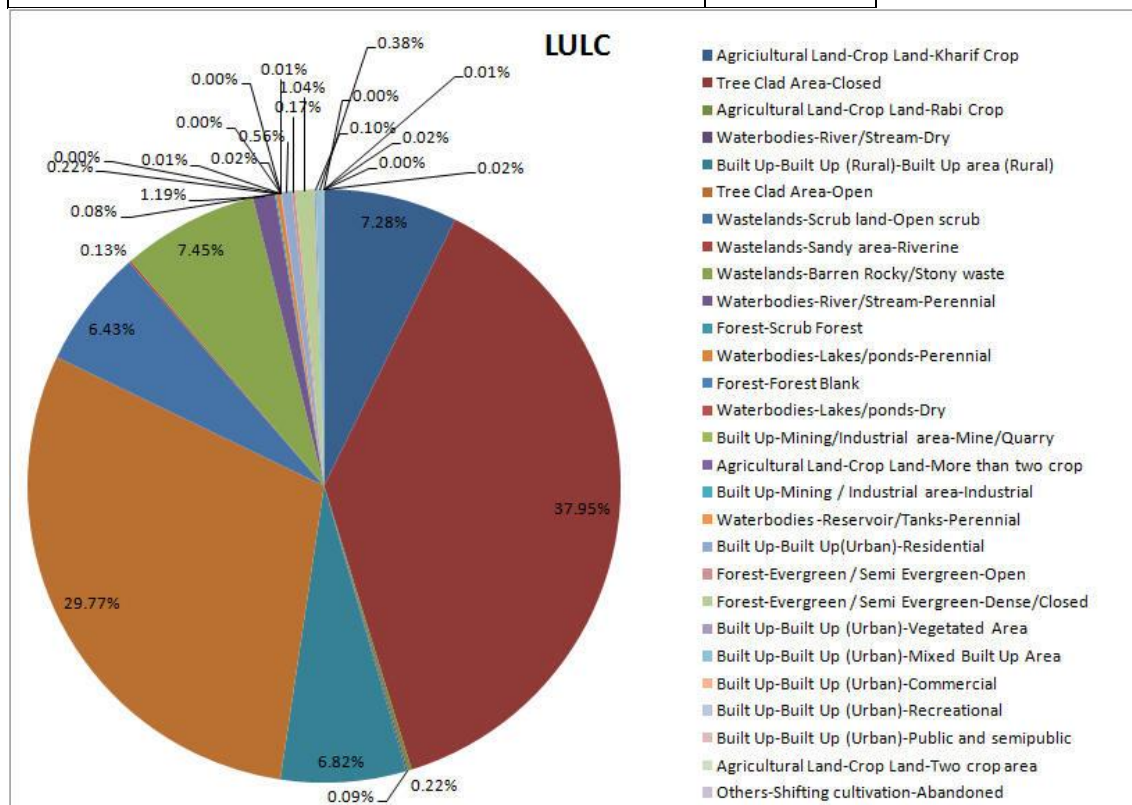
The alternative routes include:

- 1.Lad Umroi→ Bhoirymbong→Lumsophoh→ Mawsiat Khnam→East Khasi Hills
2. Nongpoh→Lailad →Mairang→ Shillong.
3. Lad Umroi→Mawlyndep →Mawmih→ Mawmaraw→ Sohiong → East Khasi Hills
4. Lad Umroi→ Bhoirymbong→Thadrang → Diengpasoh →East Khasi Hills

## 2.14 Land Use Land Cover

Class	Area[Ha]
Agricuiltural Land-Crop Land-Kharif Crop	20940.65
Tree Clad Area-Closed	109087.7
Agricultural Land-Crop Land-Rabi Crop	631.1949
Waterbodies-River/Stream-Dry	263.8578
Built Up-Built Up (Rural)-Built Up area (Rural)	19607.28
Tree Clad Area-Open	85593.93
Wastelands-Scrub land-Open scrub	18470.23
Wastelands-Sandy area-Riverine	363.3213
Wastelands-Barren Rocky/Stony waste	21416.9
Waterbodies-River/Stream-Perennial	3428.981
Forest-Scrub Forest	239.5567
Waterbodies-Lakes/ponds-Perennial	644.4424
Forest-Forest Blank	9.834752
Waterbodies-Lakes/ponds-Dry	28.71739
Built Up-Mining/Industrial area-Mine/Quarry	17.44556
Agricultural Land-Crop Land-More than two crop	12.70745
Built Up-Mining / Industrial area-Industrial	6.766883
Waterbodies -Reservoir/Tanks-Perennial	69.61937
Built Up-Built Up(Urban)-Residential	1618.053
Forest-Evergreen / Semi Evergreen-Open	494.6768

Forest-Evergreen / Semi Evergreen-Dense/Closed	2987.715
Built Up-Built Up (Urban)-Vegetated Area	286.9954
Built Up-Built Up (Urban)-Mixed Built Up Area	1098.834
Built Up-Built Up (Urban)-Commercial	43.0266
Built Up-Built Up (Urban)-Recreational	44.24413
Built Up-Built Up (Urban)-Public and semipublic	52.02151
Agricultural Land-Crop Land-Two crop area	9.577167
Others-Shifting cultivation-Abandoned	5.69833





### **Chapter 3. Hazard, Vulnerability, Capacity and Risk Assessment ( HVCRA) .**

The district is prone to natural disaster like earthquake, cyclone, flood, landslides etc and also to man-made disasters like fire i.e both domestic and forest fires , road accident etc . The district experiences cyclone mostly during the month of March- May . Floods are mostly cause due to release of water from the Barapani Dam during rainy seasons . The district experiences high rainfall which often trigger landslides in areas along the national highway often disrupting communication and causes severe traffic jam in the area.

Of all natural hazards, earthquakes seem the most terrifying. They can inflict tremendous damage within seconds and without warning at any time of day, on any day of the year. The entire area falls under Zone V. The coming up of high rise buildings and since the residential houses are located in the hill slopes makes the area vulnerable to infrastructural damage at the time of . Due to heavy rain some parts of the district experiences landslides along with tree collapse leading to human loss. The passengers have to stay where they are.

#### **3.1. What is a Disaster?**

“A **Disaster** is a sudden, calamitous event that causes serious disruption of the functioning of a community or a society involving widespread human material economic or environmental losses and impacts which exceeds the ability of the affected community or society to cope using its own resources.”

**Natural hazard:** Natural process or phenomenon that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

The **Natural disasters** were split into 3 specific groups:

1. **Hydro-meteorological disasters:** Floods and wave surges, storms, droughts and related disasters (extreme temperatures and forest/scrub fires), and landslides & avalanches;
2. **Geophysical disasters:** Earthquakes & tsunamis and volcanic eruptions;
3. **Biological disasters:** Epidemics and insect infestations.

#### **Man made disasters**

Disasters due to human activities could be unintentional, but lack of safety measures and abiding by certain safety rules and regulations, . Most of these (barring coordinated terrorist activities) are due to certain accidents.

Terrorism, Bomb blast, Wars, Riots, technology related, Accidents (Road, Ship, Air), Chemical and Nuclear, Industrial accidents etc

**3.2 Hazard:** is a natural physical event which has a potential to convert into a disaster, causing widespread injury or deaths and damage to public or private property or the environment.

**3.3 Vulnerability:** means inability to resist a hazard or respond when a disaster has occurred.

It depends on several factors such as people's age and state of health, local environmental and sanitary conditions, as well as on the quality and state of local buildings and their location with respect to any hazards.

### 3.4 *History of Disaster*

<b>Type of Hazard</b>	<b>Year of Occurrence</b>	<b>No of villages affected</b>	<b>Population affected</b>	<b>Impact on Life</b>	<b>Damage to houses (Part.&amp; Fully)</b>	<b>Damage to infrastructure (Part.&amp; Fully)</b>	<b>Damage to crops</b>	<b>Livestock</b>
<b>Cyclone</b>	1999-2000	53	433	Nil	53	1	Nil	Nil
	2000-2001	20	94	Nil	94	4	Nil	Nil
	2001-2002	52	319	1	272	2	Nil	Nil
	2002-2003	Nil	Nil	Nil	Nil	Nil	10 ha	Nil
	2003-2004	Villages in Umsning, Umling and Jirang affected	Nil	Nil	Nil	Nil	Damage to crops	Nil
	2005-2006	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2006-2007	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2007-2008	859	28	Nil	Nil	Nil	Damage to crops	Nil
	2008-2009	756	49	Nil	Nil	Nil	Damage to crops	Nil
	2009-2010	136	1884	Nil	Nil	Nil	Damage to crops	Nil
	2010-11	32	4009	Nil	2026	1	Nil	Nil
	2012-13	141	1429	Nil	747	Nil	Yes	Nil
	2013-14							
	2014-15	42	1235	nil	nil	Nil	yes	nil
	2015-16	48	390	nil	yes	Yes	yes	nil
<b>Hail storm</b>	1999-2000	53	433	Nil	Nil	Nil	N.A	Nil
	2000-2001	1	38	Nil	Nil	Nil	Nil	Nil
	2001-2002	8	154	Nil	156	2	N.A	Nil
	2002-2003	22	162	Nil	162	1	N.A	Nil

	2003-2004	Villages in Umsning &Umling C&RD Block affected	Nil	Nil	Nil	Nil	Dama ge to crops	Nil
	2005-2006	Jirang Block	12	469	Nil	Nil	Nil	Nil
	2006-2007	Jirang Block	6	128	Nil	Nil	Nil	Nil
	2007-2008	Villages in Umsning &Umling C&RD Block affected	60	1977	Nil	Nil	Yes	Nil
	2008-2009	Villages in Umsning &Umling C&RD Block affected	37	1590	Nil	Nil	Yes	Nil
	2009-2010				Nil	Nil	Yes	Nil
	2010-11	14	1187	Nil	240	Nil	Yes	Nil
	2012-13	71	2018	Nil	305	Nil	Yes	Nil
	2013-14							
	2014-15	42	1245	Nil	Nil	Nil	Yes	nil
	2015-16	92	675	Nil	Nil	Nil	Yes	Nil
<b>Fire Accidents</b>	1999-2000	53	433	Nil	45	Nil	Nil	Nil
	2000-2001	23	26	Nil	23	Nil	Nil	Nil
	2001-2002	22	25	Nil	25	Nil	Nil	Nil
	2002-2003	16	29	Nil	29	Nil	Nil	Nil
	2003-2004	22	38	Nil	38	Nil	Nil	Nil
	2004-2005	41	18	NIL	41	Nil	Nil	Nil
	2005-2006	182	68	Nil	182	Nil	Nil	Nil
	2007-2008	113	60	Nil	113	Nil	Nil	Nil
	2008-2009	63	53	Nil	63	Nil	Nil	Nil
	2009-2010	9	49	Nil	49	Nil	Yes	Nil
	2010-11	23	405	Nil	405	Nil	Yes	Nil
	2012-13	95	351	6 nos	69	Nil	Yes	Nil
	2013-14							

	2014-15	33	35	Nil	Nil	Nil	Nil	Nil
	2015-16	13	14	Nil	Nil	Nil	Nil	Nil
<b>Landslides</b>	1999-2000	1	1	Nil	Nil	Nil	Nil	Nil
	2000-2001	4	5	Nil	5	Nil	Nil	Nil
	2001-2002	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2002-2003	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2003-2004	2	8	Nil	8	Landslides on National Highway	Nil	Nil
	2004-2005	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2005-2006	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2007-2008	24	26	NA	NA	NA	NA	NA
	2008-2009	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2009-2010	9	14	Nil	14	Nil	Nil	Nil
	2010-11	8	35	Nil	15	Nil	Yes	Nil
	2012-13	6	18	3nos	18	Nil	Yes	Nil
	2013-14	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2014-15	1	Nil	1	Nil	Nil	Nil	Nil
	2015-16	13	38	Nil	21	Nil	Yes	Nil
<b>Floods</b>	1999-2000	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2000-2001	9	62	Nil	62	Nil	Nil	Nil
	2001-2002	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2002-2003	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2003-2004				Umsning, Umling, Jirang Block affected		Umsning, Umling, Jirang Blocks affected	
	2004-2005	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2005-2006	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2007-2008	148	6	Nil	Nil	Nil	Damage to crops	Nil
	2008-2009	855	32	Nil	Nil	Nil	Damage to crops	Nil
	2009-2010	10	263	Nil	263	Nil	Damage to crops	Nil

	2010-11	14	463	Nil	40	Nil	Yes	Nil
	2012-13	42	418	Nil 2	Nil	Yes	Nil	Nil
	2013-14	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2014-15	33	680	Nil	24	Nil	Yes	Nil
	2015-16	9	129	Nil	22	Yes	Yes	Nil
<b>Ligh teni ng</b>	1999-2000	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2000-2001	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2001-2002	2	3	3	Nil	Nil	Nil	Nil
	2002-2003	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2003-2004	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2004-2005	2	3	3	Nil	Nil	Nil	Nil
	2005-2006	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2007-2008	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2008-2009	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2009-2010	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2011-12	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2012-13	1	2	1no	Nil	Nil	Nil	Nil
	2013-14	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2014-15	2	7	Nil	2	Nil	Nil	5
	2015-16	Nil	Nil	Nil	Nil	Nil	Nil	Nil

***Seasonality of Hazard***

Type of Hazards	Jan-Mar				April-June				July-Sep				Oct-Dec			
	H	C	A	I	H	C	A	I	H	C	A	I	H	C	A	I
Cyclone					*	*	*	*	*				*	*	*	*
Flood						*			*	*	*	*				
Landslide					*	*	*		*	*	*		*	*	*	
Earthquake	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Hailstorm		*			*	*	*	*					*	*	*	*
Fire accidents					*	*	*	*								
Chemical Accidents	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Epidemic									*		*		*		*	
Road Accidents	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

H: Human, C: Crop, A: Animals, I: Infrastructure

### 3.5 Risk Assessment

Type of Hazards	Time of Occurrence	Potential Impact
Flood	Pre/Post monsoon	Impact on the population in terms of injuries or deaths or indirect impacts through disruption of services and damage to crops and infrastructure. Additionally there may be damage and contamination to water supply . Disruption of excreta and solid waste systems is also possible . Other potential impacts could include an increase in vectors and chemical contamination of flooded areas.

#### *Areas vulnerable to flood in the district as under:*

Sl. No	Name of villages	Block	Road connectivity
1.	Umlaiteng	Umsning C&RD Block	Yes
2.	Umshiauw	Umsning C&RD Block	Yes
3.	Umtngam	Umsning C&RD Block	Yes
4.	.Birsiej	Umsning C&RD Block	Yes
5.	Sohphoh	Umsning C&RD Block	Yes
6.	Umlatara	Umsning C&RD Block	Yes
7.	Mawrathud	Umsning C&RD Block	Yes
8.	Tyrso	Umsning C&RD Block	Yes
9.	Pynthor	Umsning C&RD Block	Yes
10.	Nongdiengngan.	Umsning C&RD Block	Yes
11.	Nongmahir	Umsning C&RD Block	Yes
12.	Umshorshor	Umsning C&RD Block	Yes
13.	Umdiker	Umsning C&RD Block	Yes
14.	Khulia	Umsning C&RD Block	Yes
15.	Pisamhuru	Umling C&RD Block	Yes
16.	Rongsahep	Umling C&RD Block	Yes
17.	Kuswai	Umling C&RD Block	Yes
18.	Markang	Umling C&RD Block	Yes
19.	Dendral	Umling C&RD Block	Yes
20.	Amphriling	Umling C&RD Block	Yes
21.	Khongwing	Umling C&RD Block	Yes
22.	Rongthelu.	Umling C&RD Block	Yes
23.	Upper Bagan	Umling C&RD Block	Yes
24.	Nongkylla Mikir	Umling C&RD Block	Yes
25.	Dehal	Umling C&RD Block	Yes
26.	Harlibagan A	Umling C&RD Block	Yes
27.	Harlibagan B	Umling C&RD Block	Yes
28.	Byrnihat	Umling C&RD Block	Yes
29.	Amjok	Umling C&RD Block	Yes
30.	Lumnongrim	Umling C&RD Block	Yes
31.	Ronghona	Umling C&RD Block	Yes
32.	Sarikushi	Umling C&RD Block	Yes
33.	Umtham	Umling C&RD Block	Yes
34.	Borkhatsari	Umling C&RD Block	Yes
35.	Himpala	Umling C&RD Block	Yes
36.	Umwangthem	Umling C&RD Block	Yes
37.	Umwangnongbah	Umling C&RD Block	Yes

38.	Nalapara	Umling C&RD Block	Yes
39.	Lalumpam	Umling C&RD Block	Yes
40.	Purduwa	Umling C&RD Block	Yes
41.	Tamenpanglong	Umling C&RD Block	Yes
42.	Mawryngkang	Umling C&RD Block	Yes
43.	Umshit	Umling C&RD Block	Yes
44.	Diwon	Umling C&RD Block	Yes
45.	Lumding	Umling C&RD Block	Yes
46.	Sohkhar	Umling C&RD Block	Yes
47.	Jermanai	Umling C&RD Block	Yes
48.	Umden Nongtluh	Umling C&RD Block	Yes
49.	Umden Khasi	Umling C&RD Block	Yes
50.	Marmain	Umling C&RD Block	Yes
51.	Khulia	Umling C&RD Block	Yes
52.	Pahamjri	Umling C&RD Block	Yes
53.	Belkuri	Umling C&RD Block	Yes
54.	Jowe	Umling C&RD Block	Yes

Type of Hazards	Time of Occurrence	Potential Impact
Cyclone	Pre/Post monsoon	Impact on the population in terms of injuries or deaths or indirect impacts through disruption of services and damage to crops and infrastructure.

***List of villages affected by Cyclonic storm in last 10 (ten ) years ( Population as per 2011 provisional census)***

Sl.No	Year	Name of the Block	Name of the Village	Total Population of the Village	Name/Type of School in the Village	Type of Road connectivity to the village
1	2014	Umsning C&RD Block	Thadrang	986	NA	Yes. Pucca road
2	-do-	-do-	Pynthor	844	NA	Yes. Pucca road
3	-do-	-do-	Nongkyndong	292	NA	Yes. Pucca road
4	-do-	-do-	Byrwa	853	NA	Yes. Pucca road
5	-do-	-do-	Mawlasnai	1229	NA	Yes. Pucca road
6	-do-	-do-	Sohpdok	374	NA	Yes. Pucca road
7	-do-	-do-	Umtangling	150 ( approx)	NA	Yes. Pucca road
8	-do-	-do-	Nonglum	870	NA	Yes. Pucca road
9	-do-	-do-	Umden Bathiang	200 ( approx)	NA	Yes. Pucca road
10	-do-	-do-	Mawshang Mawksiew	282	Nongthymmai Mawshang LP School( masonry building)	Yes. Pucca road
11	-do-	-do-	Kdonghulu	252	NA	Yes. Pucca road
12	-do-	-do-	Umranblei	88	NA	Yes. Pucca road
13	-do-	-do-	Wahlakhar	424	NA	Yes. Pucca road
14	-do-	-do-	Sohriewblei	431	NA	Yes. Pucca road

15	-do-	-do-	Mawnohsynrum	286	NA	Yes. Pucca road
16	-do-	-do-	Umket	941	NA	Yes. Pucca road
17	-do-	-do-	Khyndewso	1055	NA	Yes. Pucca road
18	-do-	-do-	LumBlei	258	NA	Yes. Pucca road
19	-do-	-do-	Paitklong	413	NA	Yes. Pucca road
20	-do-	-do-	Umden Arka	653	NA	Yes. Pucca road
21	-do-	-do-	Umden Umsaitprah	500 (approx)	NA	Yes. Pucca road
22	-do-	-do-	Umdiker	615	NA	Yes. Pucca road
23	-do-	-do-	Umraling	521	NA	Yes. Pucca road
24	-do-	-do-	Nongkya	714	NA	Yes. Pucca road
25	-do-	-do-	Umsawkhwan	800 (approx)	NA	Yes. Pucca road
26	-do-	-do-	Umbir	1028	St Francis Hr. Sec School, ( RCC building) James Memorial School ( Masonry ) , Ferrando Speech & Hearing Impaired Sec School ( RCC)	Yes. Pucca road
27	-do-	-do-	Umsaw madan	1261	NA	Yes. Pucca road
28	-do-	-do-	Umtring	193	NA	Yes. Pucca road
29	-do-	-do-	Umden mission	600	NA	Yes. Pucca road
30	-do-	-do-	Pyllun	891	NA	Yes. Pucca road
31	-do-	-do-	Nonglum	870	NA	Yes. Pucca road
32	-do-	-do-	Nongkyndong iapngar	200 (approx)	NA	Yes. Pucca road
33	-do-	-do-	Madan rtiang	138	NA	Yes. Pucca road
34	-do-	-do-	Mairungpdeng	145	Mairung heh Pres UP School( Masonry building )	Yes. Pucca road
35	-do-	-do-	Jukiang	200 (approx)	NA	Yes. Pucca road
36	-do-	-do-	Umroi nonglum	500 (approx)	NA	Yes. Pucca road
37	-do-	-do-	Umroi nongrah	500 (approx)	Nongrah Umroi UP School( Masonry ) , Umroi Pres Secondary School ( Masonry), Ferrando Sec School ( RCC)	Yes. Pucca road
38	2013	-do-	Lumsohpieng	1067	Mynken Hr. Secondary School ( RCC)	Yes. Pucca road
39	2013	-do-	Umsawkhwan	800 (approx)	Umsaw Pres UP School ( Masonry)	Yes. Pucca road
40	2013	-do-	Umroi nongrah	500 (approx)	Nongrah Umroi UP School(	Yes. Pucca road



					Masonry ), Umroi Pres Secondary School ( Masonry)	
41	2013	-do-	Nongkya	714	NA	Yes. Pucca road
42	2013	-do-	Syadrit	772	NA	Yes. Pucca road
43	2013	-do-	Mawlyndep	716	NA	Yes. Pucca road
44	2013	-do-	Sumer No IV	673	NA	Yes. Pucca road
45	2013	-do-	Nongmahir	485	Nongmahir UP School( Masonry)	Yes. Pucca road
46	2013	-do-	Lawpyllun	130	NA	Yes. Pucca road
47	2013	-do-	Umeit	757	NA	Yes. Pucca road
48	2013	-do-	Umsaitsning Mawpdeng	384	NA	Yes. Pucca road
49	2013	-do-	Umroi Jaiawpdeng	1000( app)	NA	Yes. Pucca road
50	2013	-do-	Nongthymmai	1301	NA	Yes. Pucca road
51	2013	-do-	Umsning Patarim	1231	Umsning Pres Sec School ( RCC )	Yes. Pucca road
52	2013	-do-	Umsning Proper B	1176	Eden Academy Sec School, Umsning Town Sec School ( RCC )	Yes. Pucca road
53	2013	-do-	Umsning Proper A	1352	NA	Yes. Pucca road
54	2013	-do-	Nongdewsaw	222	NA	Yes. Pucca road
55	2013	-do-	Umsaitsning Lad Mawrong	384	NA	Yes. Pucca road
56	2013	-do-	Pahamrinian	528	NA	Yes. Pucca road
57	2013	-do-	Umsning Patarim	1231	Umsning Pres Sec School ( RCC )	Yes. Pucca road
58	2013	-do-	Mawlaho	436	Mawlaho RCUP School ( Masonry)	Yes. Pucca road
59	2013	-do-	Pamlatar	520	NA	Yes. Pucca road
60	2013	-do-	Thad	660	NA	Yes. Pucca road
61	2013	-do-	Mynsain	599	NA	Yes. Pucca road
62	2013	-do-	Nonglum	870	NA	Yes. Pucca road
63	2013	-do-	Nongjri	897	NA	Yes. Pucca road
64	2013	-do-	Umdiker	615	NA	Yes. Pucca road
65	2013	-do-	Umraling	521	NA	Yes. Pucca road
66	2013	-do-	Khyndewso	1055	NA	Yes. Pucca road
67	2013	-do-	LumBlei	258	NA	Yes. Pucca road
68	2013	-do-	Umsaw madan	1261	NA	Yes. Pucca road
69	2013	-do-	Umbir	1028	St Francis Hr. Sec School, ( RCC building) James Memorial School ( Masonry), Ferrando Speech & Hearing Impaired Sec	Yes. Pucca road

					School ( RCC)	
70	2013	-do-	Umtring	193	NA	Yes. Pucca road
71	2013	-do-	Umden mission	600	NA	Yes. Pucca road
72	2013	-do-	Sohpdok	374	NA	Yes. Pucca road
73	2013	-do-	Sohriewblei	431	NA	Yes. Pucca road
74	2013	-do-	Mawnohsynrum	286	Mawnohsynrum UP School( Masonry)	Yes. Pucca road
75	2013	-do-	Umranglei	88	NA	Yes. Pucca road
76	2013	-do-	Umket	941	NA	Yes. Pucca road
77	2013	-do-	Paitklong	413	NA	Yes. Pucca road
78	2013	-do-	Umden Arka	653	NA	Yes. Pucca road
79	2013	-do-	Umden Umsaitprah	500 ( approx)	NA	Yes. Pucca road
80	2013	Umling Block	Umdu	425	NA	Yes. Pucca road
81	2013	Umling Block	Shangbala	1000 ( approx)	Shangbala UP School( Masonry building )	Yes. Pucca road
82	2013	Umling Block	Umling	1296	Umling UP School( Masonry building )	Yes. Pucca road
83	2013	Umling Block	Narang	530	NA	Yes. Pucca road
84	2013	Umling Block	Pahammawlein	Na	NA	Yes. Pucca road
85	2013	Umling Block	Dulongnar	179	Dulongnar UP School( Masonry building )	Yes. Pucca road
86	2013	Umling Block	Niangbari Them	555	NA	Yes. Pucca road
87	2013	Umling Block	Umlakhar	436	Umlakhar Pres UP School( Masonry building )	Yes. Pucca road
89	2013	Umling Block	Mawlyngkdeng	316	NA	Yes. Pucca road
90	2013	Umling Block	Nartap	399	NA	Yes. Pucca road
91	2013	Umling Block	Umsarang	131	NA	Yes. Pucca road
92	2013	Umling Block	Umpathaw	619	Umpathaw Pres Sec. School ( Masonry building )	Yes. Pucca road
93	2013	Umling Block	Umdapdumu	233	Umdap RC UP School( Masonry building )	Yes. Pucca road
94	2013	Umling Block	Sohkhwai	520	NA	Yes. Pucca road
95	2013	Umling Block	Amjong	210	NA	Yes. Pucca road
96	2013	Umling Block	Kongripara	272	Kongripara RCUP School(	Yes. Pucca road

					Masonry building )	
97	2013	Umling Block	Jowe	268	NA	Yes. Pucca road
98	2013	Umling Block	Pahamriniai	528	NA	Yes. Pucca road
99	2013	Umling Block	Mawlyngkdeng	316	NA	Yes. Pucca road
100	2013	Umling Block	Mawkhla	101	Mawkhla UP School( Masonry building )	Yes. Pucca road
101	2013	Umling Block	Pahamrioh them	350 ( approx)	NA	Yes. Pucca road
102	2013	Umling Block	Umshakait	406	NA	Yes. Pucca road
103	2013	Umling Block	Panitora	202	NA	Yes. Pucca road
104	2013	Umling Block	Lower Balian	242	NA	Yes. Pucca road
105	2013	Umling Block	Umlakhar	436	Umlakhar Pres UP School ( Masonry building )	Yes. Pucca road
106	2013	Umling Block	Mawlong Nongtluh	750	NA	Yes. Pucca road
106	2013	Umling Block	Mawlong Nongtluh	750	NA	Yes. Pucca road
107	2013	Umling Block	Umjarasi	587	NA	Yes. Pucca road
108	2013	Umling Block	Umdihar	763	Umdihar UP School ( Masonry building )& Umdihar Pres Sec School ( RCC)	Yes. Pucca road
109	2013	Umling Block	Umdaprani	200 ( approx)	NA	Yes. Pucca road
110	2013	Umling Block	Mawtnum	500 ( approx)	Mawtnum UP School( Masonry building )	Yes. Pucca road
111	2013	Jirang Block	Centre Village	236	Centre Village UP School ( Masonry building )	Yes. Pucca road
112	2013	Jirang Block	Umlakro	386	NA	Yes. Pucca road
113	2013	Jirang Block	Nongbirlum	500	NA	Yes. Pucca road
114	2013	Jirang Block	Umjyha	418	NA	Yes. Pucca road
115	2013	Jirang Block	Umkynsier	885	NA	Yes. Pucca road
116	2013	Jirang Block	Pathardharo	418	NA	Yes. Pucca road
117	2013	Jirang Block	Umtasen	135	NA	Yes. Pucca road
118	2013	Jirang Block	Umsohphria	481	NA	Yes. Pucca road
119	2013	Jirang Block	Pyngker	204	NA	Yes. Pucca road
120	2013	Jirang Block	Umrit	780	Umrit Pres UP School( Masonry building )	Yes. Pucca road

121	2013	Jirang Block	Mawskei lum	285	NA	Yes. Pucca road
122	2013	Jirang Block	Pathardharo	418	NA	Yes. Pucca road
123	2013	Jirang Block	Nonglum	186	NA	Yes. Pucca road
124	2013	Jirang Block	Nongdom Mawphliang	368	NA	Yes. Pucca road
125	2013	Jirang Block	Warmawsaw	1249	Warmawsaw Pres UP School ( Masonry building )	Yes. Pucca road
126	2013	Jirang Block	Wahsynon	709	NA	Yes. Pucca road
127	2013	Jirang Block	Umsaw	416	NA	Yes. Pucca road
128	2013	Jirang Block	Patharkhmah	226	Patharkhmah Govt Hr. Sec School ( Masonry building & RCC)	Yes. Pucca road
129	2013	Jirang Block	Umshru	696	Umshru UP School ( Masonry building )	Yes. Pucca road
130	2013	Jirang Block	Umsohpanan	471	NA	Yes. Pucca road
131	2013	Jirang Block	Umsohbar	732	NA	Yes. Pucca road
132	2013	Jirang Block	Umlakhro	386	NA	Yes. Pucca road
133	2013	Jirang Block	Isohksan	295	NA	Yes. Pucca road
134	2013	Jirang Block	Barigoan	560	NA	Yes. Pucca road
135	2013	Jirang Block	Umkhawai	64	NA	Yes. Pucca road
136	2013	Jirang Block	Nongkynrih	225	NA	Yes. Pucca road
137	2013	Jirang Block	Mawtamur	300 ( approx)	NA	Yes. Pucca road
138	2013	Jirang Block	Jyrmang	158	NA	Yes. Pucca road
139	2013	Jirang Block	Sohkyrbamrim	490	NA	Yes. Pucca road
140	2013	Jirang Block	Jalut Paham	119	NA	Yes. Pucca road
141	2013	Jirang Block	Umkadhor	749	St. Peter`s Secondary School ( RCC)	Yes. Pucca road
142	2013	Jirang Block	Garobanga	131	NA	Yes. Pucca road
143	2013	Jirang Block	Howla Village	162	NA	Yes. Pucca road
144	2013	Jirang Block	Bakhlapara	427	NA	Yes. Pucca road
145	2013	Jirang Block	Patgoan	505	NA	Yes. Pucca road
146	2013	Jirang Block	Pahamumshru	280	NA	Yes. Pucca road
147	2013	Jirang Block	Umshyrkow	92	NA	Yes. Pucca road
148	2012	Umsning	Lamalong	804	NA	Yes. Pucca road
149	2012	Umsning	Umden lang	304	NA	Yes. Pucca road
150	2012	Umsning	Umsaitsning	1000 ( approx)	Umsaitsning UP School( Masonry building )	Yes. Pucca road
151	2012	Umsning	Lawpyllun	130	NA	Yes. Pucca road
152	2012	Umsning	Umeit	757	NA	Yes. Pucca road
153	2012	Umsning	Lumsohpieng	98	Mynken Hr. Sec School ( RCC )	Yes. Pucca road
154	2012	Umsning	Mawlyndep	716	NA	Yes. Pucca road
155	2012	Umsning	Pahamrinian	528	NA	Yes. Pucca road
156	2012	Umsning	Nongdewsaw	222	NA	Yes. Pucca road
157	2012	Umsning	Nongkya	714	NA	Yes. Pucca road
158	2012	Umsning	Nongmahir	485	Nongmahir UP	Yes. Pucca road

					School( Masonry building )	
159	2012	Umsning	Nongthymmai	500 ( approx)	NA	Yes. Pucca road
160	2012	Umsning	Umroi Jaiaw	Na	NA	Yes. Pucca road
161	2012	Umsning	Tyrso Pdeng	575	NA	Yes. Pucca road
162	2012	Umsning	Nongjri	436	NA	Yes. Pucca road
163	2012	Umsning	Mawlaho	500	Mawlaho UP School( Masonry building )	Yes. Pucca road
164	2012	Umsning	Tihwiej	660	NA	Yes. Pucca road
165	2012	Umsning	Thad	660	NA	Yes. Pucca road
166	2012	Umsning	Banbudai	556	NA	Yes. Pucca road
167	2012	Umsning	Paitklong	413	NA	Yes. Pucca road
168	2012	Umling	Iewmawlong	1500 ( approx)	NA	Yes. Pucca road
169	2012	Umling	Saiden	1500 ( approx)	Saiden Govt LP & UP School. ( Masonry building & RCC)	Yes. Pucca road
170	2012	Umling	Pahammawlein	539	NA	Yes. Pucca road
171	2011	Umling	Nil		Nil	
172	2011	Umsning	Nil		Nil	
173	2011	Jirang	Nil		Nil	
174	2010	Umling	Borgang	297	NA	Yes. Pucca road
175	2010	Umling	Khmar	192	NA	Yes. Pucca road
176	2010	Umling	Killing	435	NA	Yes. Pucca road
177	2010	Umling	Lalumpang	283	NA	Yes. Pucca road
178	2010	Umling	Mawdiangum	1000 ( approx)	NA	Yes. Pucca road
179	2010	Umling	Mawphrew	391	NA	Yes. Pucca road
180	2010	Umling	Nongtyrlaw	204	NA	Yes. Pucca road
181	2010	Umling	Pahamlapong	500 ( approx)	NA	Yes. Pucca road
182	2010	Umling	Pahamsotri	500 ( appox)	NA	Yes. Pucca road
183	2010	Umling	Pahamsyiem	3000 ( approx)	Christian Sec School ( RCC)	Yes. Pucca road
184	2010	Umling	Sarikusi	639	NA	Yes. Pucca road
185	2010	Umling	Soththad	228	NA	Yes. Pucca road
186	2010	Umling	Umbuda	367	Rita Gatphoh Memo UPS School ( Masonry building )	Yes. Pucca road
187	2010	Umling	Umngei	59	NA	Yes. Pucca road
188	2010	Umling	Umtham	534	NA	Yes. Pucca road
189	2010	Umling	Umsawnongbah	286	NA	Yes. Pucca road
190	2010	Umling	Umwang them	425	NA	Yes. Pucca road
191	2010	Umling	Umdu	425	NA	Yes. Pucca road
192	2010	Umling	Shangbangla	1000 ( approx)	Shangbangla LP School ( Masonry building )	Yes. Pucca road

193	2010	Umling	18 <sup>th</sup> Mile umdoh	707	18 <sup>th</sup> Mile umdoh UP School( Masonry building )	Yes. Pucca road
194	2010	Umling	Nar-ang	530	NA	Yes. Pucca road
195	2010	Umsning	Rtiang	138	NA	Yes. Pucca road
196	2010	Umsning	Mawthei	625	NA	Yes. Pucca road
197	2010	Umling	Umdapurangi	151	NA	Yes. Pucca road
198	2010	Umling	Dulongnar	179	Dulongnar UP School( Masonry building )	Yes. Pucca road
199	2010	Umling	Umsarang	131	Umsarang UP School ( Masonry building )	Yes. Pucca road
200	2010	Umling	Umjong	210	NA	Yes. Pucca road
201	2010	Jirang	Patharkhmah	226	Patharkhmah Govt Hr. Sec School ( Masonry building & RCC) Ezra Academy Sec School ( RCC)	Yes. Pucca road
202	2010	Jirang	Mawtamur	200 ( appox)	NA	Yes. Pucca road
204	2010	Jirang	Nongkynrih	225	NA	Yes. Pucca road
205	2010	Jirang	Umsen	196	Umsen RCLP School ( Masonry building )	Yes. Pucca road
206	2010	Jirang	Umrit	780	Umrit Pres UP School( Masonry building )	Yes. Pucca road
207	2010	Jirang	Sohkyrbamrim	490	Sohkyrbamrim RCLP School( Masonry building )	Yes. Pucca road
208	2010	Jirang	Umtyrsen	135	Umtyrsen UP School( Masonry building )	Yes. Pucca road
209	2010	Jirang	Jalutpaham	119	NA	Yes. Pucca road
210	2010	Jirang	Umkadhor	749	St. Peter`s Sec School. ( RCC)	Yes. Pucca road
211	2010	Jirang	Barigoan	560	NA	Yes. Pucca road
212	2010	Jirang	Howla Village	162	NA	Yes. Pucca road
213	2010	Jirang	Umshru	696	NA	Yes. Pucca road
214	2010	Jirang	Wahsynon	709	NA	Yes. Pucca road
215	2010	Jirang	Mawskeilum	285	NA	Yes. Pucca road
216	2010	Jirang	Umlakro	386	NA	Yes. Pucca road
217	2010	Jirang	Pathardharo	418	NA	Yes. Pucca road
218	2010	Jirang	Umsohphria	127	NA	Yes. Pucca road
219	2010	Jirang	Pyngker	204	NA	Yes. Pucca road
220	2010	Jirang	Umlakro	386	NA	Yes. Pucca road
221	2010	Umsning	Amjong	456	NA	Yes. Pucca road
222	2010	Umsning	Bangla Wahpipa	113	NA	Yes. Pucca road

223	2010	Umsning	Jatalong	218	Maitshaphrang Primary School ( Masonry building )	Yes. Pucca road
224	2010	Umsning	Jukiang	230	NA	Yes. Pucca road
225	2010	Umsning	Kdohhati	530	NA	Yes. Pucca road
226	2010	Umsning	Khliehumstem	468	NA	Yes. Pucca road
227	2010	Umsning	Khweng	551	NA	Yes. Pucca road
228	2010	Umsning	Kriakojan	253	NA	Yes. Pucca road
229	2010	Umsning	Kdohumsi	220	NA	Yes. Pucca road
230	2010	Umsning	Kynjoi umran	640	Kynjoi umran LP School( Masonry building )	Yes. Pucca road
231	2010	Umsning	Lawbyrwa	662	NA	Yes. Pucca road
232	2010	Umsning	Pynthor	844	NA	Yes. Pucca road
233	2010	Umsning	Lawhulein	132	NA	Yes. Pucca road
234	2010	Umsning	Lumrit	368	NA	Yes. Pucca road
235	2010	Umsning	Umroi Nongrah	1000 ( approx )	Nongrah Umroi UP School , ( Masonry building ) Umroi Pres Secondary School ( Masonry),Ferrand o Sec School ( RCC)	Yes. Pucca road
236	2010	Umsning	Lumsopetbne ng	268	Lumsopetbne ng UP School( Masonry building )	Yes. Pucca road
237	2010	Umsning	Lumumpih	851	Persara LP School( Masonry building )	Yes. Pucca road
238	2010	Umsning	Madan Nonglakhar	851	NA	Yes. Pucca road
239	2010	Umsning	Markhanduba	121	NA	Yes. Pucca road
240	2010	Umsning	Mawkhan	1543	NA	Yes. Pucca road
241	2010	Umsning	Mawiapbang	495	Mawiapbang LP School ( Masonry building )	Yes. Pucca road
242	2010	Umsning	Mawker	486	NA	Yes. Pucca road
243	2010	Umsning	Malaho	436	Malaho RCUP School ( Masonry building )	Yes. Pucca road
244	2010	Umsning	Mawrong	1260	NA	Yes. Pucca road
245	2010	Umsning	Mawshang	282	NA	Yes. Pucca road
246	2010	Umsning	Mawtari	900	Mawtari Pres UP School ( Masonry building )	Yes. Pucca road
247	2010	Umsning	Mawtari Myrdon	650	Mawtari Myrdon LP School( Masonry building )	Yes. Pucca road
248	2010	Umsning	Mawtynrah	Na	Mawtynrah RCLP	Yes. Pucca road

					School ( Masonry building )	
249	2010	Umsning	Mynsain	599	Lum Syntung Pres LP School ( Masonry building )	Yes. Pucca road
250	2010	Umsning	Myrdon Nongbah	903	NA	Yes. Pucca road
251	2010	Umsning	Nongdewsaw	222	NA	Yes. Pucca road
252	2010	Umsning	Nongkdait	500 ( approx)	NA	Yes. Pucca road
253	2010	Umsning	Nongkyndong Iapngar	500 ( approx)	NA	Yes. Pucca road
254	2010	Umsning	Nong mawlong	324	NA	Yes. Pucca road
255	2010	Umsning	Nongrah	500 ( approx)	NA	Yes. Pucca road
256	2010	Umsning	Nongsangu	292	NA	Yes. Pucca road
257	2010	Umsning	Nongsder	2879	MeSEB Sec School, ( Masonry building ), Bethany Sec School ( Masonry building )	Yes. Pucca road
258	2010	Umsning	Paitklong	413	NA	Yes. Pucca road
259	2010	Umsning	Pdengnongrim	200 ( approx)	NA	Yes. Pucca road
260	2010	Umsning	Raitong	1085	Raitong LP School( Masonry building )	Yes. Pucca road
261	2010	Umsning	Sohriewblei	431	NA	Yes. Pucca road
263	2010	Umsning	Sumer latara	787	NA	Yes. Pucca road
264	2010	Umsning	Sumer Umbang	267	Pine Brook Sec School. (( Masonry building & RCC)	Yes. Pucca road
265	2010	Umsning	Syad Lyngdoh	637	NA	Yes. Pucca road
266	2010	Umsning	Syngku	1281	NA	Yes. Pucca road
267	2010	Umsning	Syntor	221	NA	Yes. Pucca road
268	2010	Umsning	Thadnongtaw	622	NA	Yes. Pucca road
269	2010	Umsning	Thad	660	NA	Yes. Pucca road
270	2010	Umsning	Tilamih lumphiut	272	NA	Yes. Pucca road
271	2010	Umsning	Umkei	886	NA	Yes. Pucca road
272	2010	Umsning	Umkra	604	NA	Yes. Pucca road
273	2010	Umsning	Umlaper	168	NA	Yes. Pucca road
274	2010	Umsning	Umpohwinpdeng	368	NA	Yes. Pucca road
275	2010	Umsning	Umroimadan	500 ( approx)	NA	Yes. Pucca road
276	2010	Umsning	Umroi Nongrah	500 ( approx)	Ferrando Sec School ( RCC), Nongrah Umroi UP School( Masonry building	Yes. Pucca road



					), Umroi Pres Sec. School ( Masonry building )	
277	2010	Umsning	Umsaitprah	529	NA	Yes. Pucca road
278	2010	Umsning	Umsawkhwan	706	Umsawkhwan Pres Sec School. ( Masonry building )	Yes. Pucca road
279	2010	Umsning	Umsohlait	1362	St. Vianne Hr. Sec School ( RCC)	Yes. Pucca road
280	2010	Umsning	Umtangi	304	NA	Yes. Pucca road
281	2010	Umsning	Umtasor	1384	St. Peter`s Hr. Sec School ( RCC)	Yes. Pucca road
282	2010	Umsning	Umtraí	693	NA	Yes. Pucca road
283	2010	Umsning	Mawshang	282	NA	Yes. Pucca road
284	2009	Umsning	Myrdon Nongbah	903	Myrdon Nongbah UP School ( Masonry building )	Yes. Pucca road
285	2009	Umsning	Mawiapbang	495	NA	Yes. Pucca road
286	2009	Umsning	Myrdon Mawtari	650	Myrdon Mawtari LP School( Masonry building )	Yes. Pucca road
287	2009	Umsning	Nongrim Umskhieh	436	NA	Yes. Pucca road
288	2009	Umsning	Umsning Patarim	1231	Umsning Pres Sec School ( RCC )	Yes. Pucca road
289	2009	Umsning	Laban Saro	400 ( Approx)	NA	Yes. Pucca road
290	2009	Umsning	Umkra	604	NA	Yes. Pucca road
291	2009	Umsning	Syngku	1281	NA	Yes. Pucca road
292	2009	Umsning	Mawtynrah	334	Mawtynrah UP School( Masonry building )	Yes. Pucca road
293	2009	Umsning	Tyrso Pdeng	575	NA	Yes. Pucca road
294	2009	Umsning	Ingsaw	890	NA	Yes. Pucca road
295	2009	Umsning	Mawrathud	325	NA	Yes. Pucca road
296	2009	Umsning	Byrsik	467	NA	Yes. Pucca road
297	2009	Umsning	Pahamrinian	528	NA	Yes. Pucca road
298	2009	Umsning	Umdohthli	400	NA	Yes. Pucca road
299	2009	Umsning	Kynjoin Umran	640	Kynjoin Umran LP School( Masonry building )	Yes. Pucca road
300	2009	Umsning	Lumsohpetbne ng	268	Lumsohpetbne ng LP School( Masonry building )	Yes. Pucca road
301	2009	Umsning	Umthlieh	735	NA	Yes. Pucca road
3012	2009	Umsning	Umsning Lumumpih	851	Persara LP School	Yes. Pucca road
203	2009	Umsning	Umlamphlang	223	NA	Yes. Pucca road

304	2009	Umsning	Mawtari Thaiang	900	NA	Yes. Pucca road
305	2009	Umsning	Umlaper	932	NA	Yes. Pucca road
306	2009	Umsning	Nongthymmai Makri	300 ( approx)	NA	Yes. Pucca road
307	2009	Umsning	Kraikajam	253	NA	Yes. Pucca road
308	2009	Umsning	Maiong	338	NA	Yes. Pucca road
309	2009	Umsning	Makdoh	233	NA	Yes. Pucca road
310	2009	Umsning	Umniuh Umsawkhwan	455	NA	Yes. Pucca road
311	2009	Umsning	Nongbah Myrdon	903	Nongbah Myrdon UP School( Masonry building )	Yes. Pucca road
312	2009	Umsning	Mairung heh	193	Mairung heh Pres UP School( Masonry building )	Yes. Pucca road
313	2009	Umsning	Umthring	193	NA	Yes. Pucca road
314	2009	Umling	Amjok	673	NA	
315	2009	Umling	Belkhuri	240	Belkhuri UP School ( Masonry building )	Yes. Pucca road
316	2009	Umling	Borbalu	184	NA	Yes. Pucca road
317	2009	Umling	Borbhuin	455	NA	Yes. Pucca road
318	2009	Umling	Jermanai	301	NA	Yes. Pucca road
319	2009	Umling	Iewmawlong	1500 ( approx)	NA	Yes. Pucca road
320	2009	Umling	Jowe	268	NA	Yes. Pucca road
321	2009	Umling	Kbetnongbri	622	Kbet UP School( Masonry building )	Yes. Pucca road
322	2009	Umling	Khongweng	114	NA	Yes. Pucca road
323	2009	Umling	Khuswai	193	NA	Yes. Pucca road
324	2009	Umling	Kynton Phanram	118	NA	Yes. Pucca road
325	2009	Umling	Lalmati	357	Lalmati UPS ( Masonry building )	Yes. Pucca road
326	2009	Umling	Langphadur	193	NA	Yes. Pucca road
327	2009	Umling	Lower Balain	200 ( approx)	Balain UPS ( Masonry building )	Yes. Pucca road
328	2009	Umling	Lumbyrhing	400 ( approx)	NA	Yes. Pucca road
329	2009	Umling	Lumdieng	288	NA	Yes. Pucca road
330	2009	Umling	Marmain	484	Karbi Sec School ( Masonry building )	Yes. Pucca road
331	2009	Umling	Mawkangi	564	NA	Yes. Pucca road
332	2009	Umling	Umkyrpiang	447	NA	Yes. Pucca road
333	2009	Umling	Mawlyngkdeng	316	NA	Yes. Pucca road
334	2009	Umling	Mawpdang	175	NA	Yes. Pucca road

335	2009	Umling	Mawphru	937	NA	Yes. Pucca road
336	2009	Umling	Mawsyntai	232	Mawsyntai UP School( Masonry building )	Yes. Pucca road
337	2009	Umling	Mawtnum	1000 ( approx)	Mawtnum UP School( Masonry building )	Yes. Pucca road
338	2009	Umling	Mukhla	145	NA	Yes. Pucca road
339	2009	Umling	Nongrabil	301	NA	Yes. Pucca road
340	2009	Umling	Nartap	399	NA	Yes. Pucca road
341	2009	Umling	Nerbong	199	Nerbong Pres UP School( Masonry building )	Yes. Pucca road
342	2009	Umling	Nongrim Jyrmi	147	Nongrim Jyrmi Pres UP School( Masonry building )	Yes. Pucca road
343	2009	Umling	Nongthymmai	102	Nongthymmai Garo UP School ( Masonry building )	Yes. Pucca road
344	2009	Umling	Pahamjri	272	NA	Yes. Pucca road
345	2009	Umling	Pahamrioh them	350 ( approx)	NA	Yes. Pucca road
346	2009	Umling	Panitola Damsite	202	NA	Yes. Pucca road
347	2009	Umling	Plasha Nongbha	299	Plasha RCUP School ( Masonry building )	Yes. Pucca road
348	2009	Umling	Quinine	408	Rev Meshak Memo School ( RCC)	Yes. Pucca road
349	2009	Umling	Ronghilik	117	Ronghilik Pres UPS ( Masonry building )	Yes. Pucca road
350	2009	Umling	Ronghona	180	NA	Yes. Pucca road
351	2009	Umling	Rongjari	501	NA	Yes. Pucca road
352	2009	Umling	Rangsakuna	716	NA	Yes. Pucca road
353	2009	Umling	Rongthalu	156	NA	Yes. Pucca road
354	2009	Umling	Rongskong	132	Rongskong Pres UPS ( Masonry building )	Yes. Pucca road
355	2009	Umling	Saiden	1500 ( approx)	Saiden Govt LP & UP School ( Masonry building & RCC)	Yes. Pucca road
356	2009	Umling	Santipur	319	Santipur RCUP School ( Masonry building )	Yes. Pucca road
357	2009	Umling	Shakoikunma	288	NA	Yes. Pucca road
358	2009	Umling	Sangbangla	300 ( approx)	Sangbangla UP School( Masonry building )	Yes. Pucca road
359	2009	Umling	Sohkhwai	520	Sohkhwai UP	Yes. Pucca road

					School ( Masonry building )	
360	2009	Umling	Sohlait thymmai	159	NA	Yes. Pucca road
361	2009	Umling	Sahlaitrim	421	Sahlaitrim Pres UP School ( Masonry building )	Yes. Pucca road
362	2009	Umling	Sohtad	228	NA	Yes. Pucca road
363	2009	Umling	Umbuda	367	Rita Gatphoh Memo UP School ( Masonry building )	Yes. Pucca road
364	2009	Umling	Umdaprani	200 ( approx )	NA	Yes. Pucca road
365	2009	Umling	Umden	342	Little Blossom Sec School ( Masonry building )	Yes. Pucca road
366	2009	Umling	Umden Khasi	342	NA	Yes. Pucca road
367	2009	Umling	Umden laang	304	NA	Yes. Pucca road
368	2009	Umling	Umden Nongtluh	548	NA	Yes. Pucca road
369	2009	Umling	Umdoh	707	Umdoh 18 <sup>th</sup> Mile UP School ( Masonry building )	Yes. Pucca road
370	2009	Umling	Umdohkha	678	Umdohkha COG ( ECCL ) UPS ( Masonry building )	Yes. Pucca road
371	2009	Umling	Umdu	425	NA	Yes. Pucca road
372	2009	Umling	Umngei	59	NA	Yes. Pucca road
373	2009	Umling	Umjari	587	Umjari Pres UP School ( Masonry building )	Yes. Pucca road
374	2009	Umling	Umnuwe	190	NA	Yes. Pucca road
375	2009	Umling	Umpathaw	619	Umpathaw Pres Sce School ( Masonry building )	Yes. Pucca road
376	2009	Umling	Umphing	334	Umphing Pres UP School ( Masonry building )	Yes. Pucca road
377	2009	Umling	Umpyrting	100	NA	Yes. Pucca road
378	2009	Umling	Umrang Nongbah	306	NA	Yes. Pucca road
379	2009	Umling	Umringskai	300 ( approx )	NA	Yes. Pucca road
380	2009	Umling	Umsarang	103	NA	Yes. Pucca road
381	2009	Umling	Umsaw Nongbri	1224	Raid Nongbri Pres Sec School ( Masonry building )	Yes. Pucca road
382	2009	Umling	Umshaken	969	NA	Yes. Pucca road

383	2009	Umling	Umtarim	291	NA	Yes. Pucca road
384	2009	Umling	Upper Balian	415	NA	Yes. Pucca road
385	2009	Jirang Block	Bernongsai	140	NA	No.
386	2009	Jirang Block	Mawdem	300 ( approx)	Mawdem Pres UP School ( Masonry building )	Yes. Pucca road
387	2009	Jirang Block	Nongdom Mawpliang	368	NA	Yes. Pucca road
388	2009	Jirang Block	Umlakhro	386	NA	Yes. Pucca road
389	2009	Jirang Block	Umshalani	126	NA	Yes. Pucca road
390	2009	Jirang Block	Umshru	696	NA	Yes. Pucca road
391	2009	Jirang Block	Umtyrlen	146	NA	No
392	2009	Jirang Block	Warmawsaw	1249	Warmawsaw Pres UP School ( Masonry building )	Yes. Pucca road
393	2009	Jirang Block	Balakhawa	313	Balakhawa UP School ( Masonry building )	Yes. Pucca road
394	2009	Jirang Block	Centre Village	236	Centre Village UP School ( Masonry building )	Yes. Pucca road
395	2009	Jirang Block	Isohksang	295	NA	Yes. Pucca road
396	2009	Jirang Block	Lyngkhung	257	NA	Yes. Pucca road
397	2009	Jirang Block	Bernongsai Nongspung	263	Nongspung UP School( Masonry building )	No
398	2009	Jirang Block	Nongthymmai Jirang	204	NA	Yes. Pucca road
399	2009	Jirang Block	Nongwah Paham	439	NA	Yes. Pucca road
400	2009	Jirang Block	Patharkhmah	1215	Patharkhmah Govt Hr. Secondary School , Ezra Academy UP School	Yes. Pucca road
401	2009	Jirang Block	Pyngker A	95	NA	Yes. Kutcha road .
402	2009	Jirang Block	Pyngker B	204	NA	Yes. Kutcha road .
403	2009	Jirang Block	Pyngker C	96	NA	Yes. Kutcha road .
404	2009	Jirang Block	Sohkyrbam Domphlang	427	NA	Yes. Pucca road
405	2009	Jirang Block	Sohkyrbamrim	490	Sohkyrbam RCLP School ( Masonry building )	Yes. Pucca road
406	2009	Jirang Block	Tasku rim	356	NA	Yes. Pucca road
407	2009	Jirang Block	Umiong	359	NA	No
408	2009	Jirang Block	Umlatho	142	NA	Yes. Pucca road
409	2009	Jirang Block	Umlanain	105	NA	Yes. Pucca road
410	2009	Jirang Block	Ummar	313	Ummar RCLP ( Masonry building )	Yes. Pucca road

411	2009	Jirang Block	Umsaliang	232	NA	Yes. Pucca road
412	2009	Jirang Block	Umsaw Patharkhamh	1215	NA	Yes. Pucca road
413	2009	Jirang Block	Umsen	196	Umsen RCLP ( Masonry building )	Yes. Pucca road
414	2009	Jirang Block	Umshohphria	481	NA	Yes. Pucca road
415	2009	Jirang Block	Umsohpanan	471	NA	Yes. Pucca road
416	2009	Jirang Block	Wahsyngon	709	NA	Yes. Pucca road
417	2008	Umsning Block	Banbudai	556	NA	Yes. Pucca road
418	2008	Umsning Block	Bir	174	NA	Yes. Pucca road
419	2008	Umsning Block	Birsiej	467	NA	Yes. Pucca road
420	2008	Umsning Block	Byrwa	853	NA	Yes. Pucca road
421	2008	Umsning Block	Jatalong	218	Maitshaphrang Primary School ( Masonry building )	Yes. Pucca road
422	2008	Umsning Block	Klew	1356	NA	Yes. Pucca road
423	2008	Umsning Block	Kyrdem	434	NA	Yes. Pucca road
424	2008	Umsning Block	Labyrwa	662	NA	Yes. Pucca road
425	2008	Umsning Block	Mawlang	387	NA	Yes. Pucca road
426	2008	Umsning Block	Mawdwar	157	NA	Yes. Pucca road
427	2008	Umsning Block	Mawaitnar	285	Mawaitnar RCLP School( Masonry building )	Yes. Pucca road
428	2008	Umsning Block	Mawkdup	208	NA	Yes. Pucca road
429	2008	Umsning Block	Mawkhap	216	Mawkhap RCLP School ( Masonry building )	Yes. Pucca road
430	2008	Umsning Block	Mawkyrdep	540	NA	Yes. Pucca road
431	2008	Umsning Block	Mawlasnai	1229	NA	Yes. Pucca road
432	2008	Umsning Block	Mawleinmawkhan	1543	NA	Yes. Pucca road
433	2008	Umsning Block	Mawpun	909	NA	Yes. Pucca road
434	2008	Umsning Block	Mawtari myrdon	650	NA	Yes. Pucca road
435	2008	Umsning Block	Mawthei	625	NA	Yes. Pucca road
436	2008	Umsning Block	Nongbah Myrdon	903	NA	Yes. Pucca road
437	2008	Umsning	Nongjri	897	Nongjri Umsning	Yes. Pucca road

		Block			District Pres School ( Masonry building )	
438	2008	Umsning Block	Nongkya	714	NA	Yes. Pucca road
439	2008	Umling Block	Niangbari lum	374	NA	Yes. Pucca road
440	2008	Umling Block	Khongweng	440	NA	Yes. Pucca road
441	2008	Umling Block	Korstep Nongtluh	470	NA	Yes. Pucca road
442	2008	Umling Block	Mawlyngkdeng	144	NA	Yes. Pucca road
443	2008	Umling Block	Mawphrew	391	NA	Yes. Pucca road
444	2008	Umling Block	Mawryngkang	247	NA	Yes. Pucca road
445	2008	Umling Block	Nongtyrlaw	304	NA	Yes. Pucca road
446	2008	Umling Block	Pahammawlein	539	NA	Yes. Pucca road
447	2008	Umling Block	Pahamrioh them	350 (approx)	NA	Yes. Pucca road
448	2008	Umling Block	Sohlait thymmai	159	NA	Yes. Pucca road
449	2008	Umling Block	Umdap dumu	151	NA	Yes. Pucca road
450	2008	Umling Block	Umdap rani	223	NA	Yes. Pucca road
451	2008	Umling Block	Umdenlaang	304	NA	Yes. Pucca road
452	2008	Umling Block	Umdu	425	NA	Yes. Pucca road
453	2008	Umling Block	Umjarasi	400 (approx)	NA	Yes. Pucca road
454	2008	Umling Block	Umladoh	115	NA	Yes. Pucca road
455	2008	Umling Block	Umlangkur Khasi	200( approx)	NA	Yes. Pucca road
456	2008	Umling Block	Umling	1296	Umling UPSchool ( Masonry building )	Yes. Pucca road
457	2008	Umling Block	Umling Lambrang	339	NA	Yes. Pucca road
458	2008	Umling Block	Umngei	59	NA	Yes. Pucca road
459	2008	Umling Block	Umsarang	131	NA	Yes. Pucca road
460	2008	Jirang Block	NIL		NIL	
461	2007	Umsning	Borbudai	556	NA	Yes. Pucca road
462	2007	Umsning	Nongjri	897	Nongjri Umsning Dist Pres School ( Masonry building )	Yes. Pucca road

463	2007	Umsning	Sohpdok	374	NA	Yes. Pucca road
464	2007	Umsning	Umtring	193	NA	Yes. Pucca road
465	2007	Umsning	Mawkynrong	224	NA	Yes. Pucca road
466	2007	Umsning	Mairungheh	145	Mairungheh Pres UP School ( Masonry building )	Yes. Pucca road
467	2007	Umsning	Lawpyllun	130	NA	Yes. Pucca road
468	2007	Umsning	Nongrumumksi h	150 ( approx )	NA	Yes. Pucca road
469	2007	Umsning	Umsawlem	400 (approx)	NA	Yes. Pucca road
470	2007	Umsning	Mawthei	625	NA	Yes. Pucca road
471	2007	Umsning	Syad Lyngdoh	637	NA	Yes. Pucca road
472	2007	Umsning	Saydrit	897	NA	Yes. Pucca road
473	2007	Umsning	Lumsophoh	155	NA	Yes. Pucca road
474	2007	Umsning	Khlieh Umtrew	809	NA	Yes. Pucca road
475	2007	Umsning	Tdohumshiaw	220	NA	Yes. Pucca road
476	2007	Umsning	Umshiaw	220	NA	Yes. Pucca road
477	2007	Umsning	Mawlyngkhung	717	NA	Yes. Pucca road
478	2007	Umsning	Mawser	486	NA	Yes. Pucca road
479	2007	Umsning	Thad	660	NA	Yes. Pucca road
480	2007	Umsning	Umsning Umsohlang	708	NA	Yes. Pucca road
481	2007	Umsning	Thadrang	986	NA	Yes. Pucca road
482	2007	Umsning	Rtiang	677	NA	Yes. Pucca road
483	2007	Umsning	Raitong	1095	NA	Yes. Pucca road
484	2007	Umsning	Umnget	229	NA	Yes. Pucca road
485	2007	Umsning	Mawlein Mawkhan	1543	NA	Yes. Pucca road
486	2007	Umsning	Umtrew	809	NA	Yes. Pucca road
487	2007	Umsning	Mawtynrah	334	Mawtynrah RCLP School ( Masonry building )	Yes. Pucca road
488	2007	Umsning	Nongbah Myrdon	903	Nongbah Myrdon Sec School( Masonry building )	Yes. Pucca road
489	2007	Umsning	Nongkya	714	NA	Yes. Pucca road
490	2007	Umsning	Umtring Dipu	193	NA	Yes. Pucca road
491	2007	Umsning	Syngku	1281	NA	Yes. Pucca road
491	2007	Umsning	Byrwa	853	NA	Yes. Pucca road
493	2007	Umsning	Raitong	1095	NA	Yes. Pucca road
494	2007	Umling	Umdap Dumu	151	NA	Yes. Pucca road
495	2007	Umling	Umdap Rani	223	NA	Yes. Pucca road
486	2007	Umling	Umladoh	115	NA	Yes. Pucca road
497	2007	Umling	Shangbangla	300 ( approx )	Shangbangla LP School ( Masonry building )	Yes. Pucca road
498	2007	Umling	Umtasen	135	NA	Yes. Pucca road
499	2007	Umling	Pahamrioh them	350 (approx)	NA	Yes. Pucca road
500	2007	Umling	Umsarang	103	NA	Yes. Pucca road



501	2007	Umling	Nongtyrlaw	304	NA	Yes. Pucca road
502	2007	Jirang	Nil		NA	Yes. Pucca road
503	2006	Jirang	Jeribasai	244	NA	Yes. Pucca road
504	2006	Jirang	Umkrem Diengkhang	244	NA	Yes. Pucca road
505	2006	Jirang	Nongrim Jirang	312	Nongrim Jirang UP School ( Masonry building )	Yes. Pucca road
506	2006	Jirang	New Amkrem	107	NA	Yes. Pucca road
507	2006	Jirang	Paham Umsaliang	232	NA	Yes. Pucca road
508	2006	Jirang	Umlathu	142	NA	Yes. Pucca road
509	2006	Umsning	Nil		Nil	Yes. Pucca road
510	2006	Umling	Nongbirthem	531	NA	Yes. Pucca road
511	2006	Umling	Umdap Rangi	564	NA	Yes. Pucca road
512	2005	Umling	Umladoh	115	NA	Yes. Pucca road
513	2005	Umling	Umshakait	406	NA	Yes. Pucca road
514	2005	Umling	Pahamsyiem	3000 ( approx )	Christian Secondary School( Masonry building )	Yes. Pucca road
515	2005	Jirang	Umkyrsier	885	NA	Yes. Pucca road
516	2005	Jirang	Umiapkhla	75	NA	Yes. Pucca road
517	2005	Jirang	Umjyrha	418	NA	Yes. Pucca road
518	2005	Jirang	Mawskeilum	285	NA	Yes. Pucca road
519	2005	Jirang	Umpyrtha	200 ( approx )	NA	Yes. Pucca road
520	2005	Jirang	Warmawsaw	1249	Warmawsaw UP School( Masonry building )	Yes. Pucca road
521	2005	Jirang	Umshakait	406	NA	Yes. Pucca road
522	2005	Jirang	Nongdom Mawphliang	368	NA	Yes. Pucca road
523	2005	Jirang	Umsohbar	732	NA	Yes. Pucca road
524	2005	Jirang	Umtang	19	NA	Yes. Pucca road
525	2005	Jirang	Balakhawa	313	Balakhawa UP School ( Masonry building )	Yes. Pucca road
526	2005	Jirang	Jerebasai	244	NA	Yes. Pucca road
527	2005	Umsning	Pynthor Bhoi lasa	844	NA	Yes. Pucca road
528	2005	Umsning	Umlaiteng	601	NA	Yes. Pucca road
529	2005	Umsning	Kynjoi Umran	640	Kynjoi Umran LP School ( Masonry building )	Yes. Pucca road
530	2005	Umsning	Tyrso Pdeng	575	NA	Yes. Pucca road
531	2005	Umsning	Umsha prah	269	NA	Yes. Pucca road
532	2005	Umsning	Mawiapbang	495	Mawiapbang LP School ( Masonry building )	Yes. Pucca road
533	2004	Jirang	Nil			
534	2004	Umsning	Nil			

535	2004	Jirang	Nil			
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Type of Hazards	Time of Occurrence	Potential Impact	Vulnerable areas
Fire	Anytime of the year	Impact on infrastructure including houses and can lead to deaths. Loss of vegetation in forest areas.	Forest area in the district. Block and villages in the district. Several market places have thatched houses which make them vulnerable to fire.

**Local markets vulnerable to fire as under**

1	Iewmawlong market	Umling Block
2	Patharkhmah market	Jirang Block
3	Umsning market,	Umsning Block
4	Byrni market	Umling Block
5	Tasku market	Jirang Block
6	Umden market	Umling Block
7	Umtraï market	Umsning Block
8	Mawhati market	Umsning Block
9	Umrit market	Jirang Block
10	Umroi market	Umsning Block
11	Paham market	Jirang Block
12	15 <sup>th</sup> Mile market , Byrnihat	Umling Block
13	Nongpoh market	Umling Block
14	Mawlasnai market	Umsning Block

Type of Hazards	Time of Occurrence	Potential Impact	Vulnerable areas
Epidemics	Anytime of the year	The district is prone to various epidemics including Avian Flu since the national highway linking Assam and other district pass through the district.	All Blocks / Villages

Type of Hazards	Time of Occurrence	Potential Impact	Vulnerable areas
Road Accidents	Anytime of the year	Leads to losses of lives and infrastructure.	Road Accidents in Ri Bhoi district take place on an everyday basis considering that National Highway 40 and Shillong by-pass is the main link with areas outside the district.

Type of Hazards	Time of Occurrence	Potential Impact	Vulnerable areas
Industrial Accidents	Anytime of the year	There are two industrial estates in the	Umsning/Umling Block

		district at Byrnihat and at Umiam. Industrial accidents can lead to fire and as a consequence can lead to death and loss of infrastructure	
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**List of industries in Ri Bhoi District**

Sl.No	Name of the industries	Location	Whether large /small scale	No of employees	Factory License No
1	M/s CMJ Breweries Pvt Ltd	EPIP Byrnihat	Large	92	SH/168
2	M/s RNB Cements ( P) ltd	Industrial Area	Large	36	SH/178
3	M/s Nezone Pipe & Structures	EPIP Byrnihat	Large	18	SH/183
4	M/s NTL Steels	EPIP Byrnihat	Large	70	SH/182
5	M/s Shyam Century Ferrous	EPIP Byrnihat	Large	153	SH/95
6	M/s Shillong Ispat & Rolling Mills	13 <sup>th</sup> Mile, Tamulkuchi	Medium	55	SH/126
7	M/s Meghalaya Steels Ltd	EPIP Nerbong.	Medium	44	SH/89
8	M/s Umadutt Industries	Amjok Byrnihat	Small	53	SH/143
9	M/s Shivani Ispat & Rolling Mills Pvt Ltd	13 <sup>th</sup> Mile, Tamulkuchi	Small	29	SH/93
10	M/s Sriram Wire Products	13 <sup>th</sup> Mile, Tamulkuchi	Small	20	SH/175
11	M/s Meghalaya Mineral Products	EPIP Byrnihat	Small	22	SH/117
12	M/s Pawan Castings Pvt Ltd	Harlibagan Byrnihat	Medium	39	SH/179
13	M/s Meghalaya Cast & Alloys Pvt Ltd	Harlibagan Byrnihat	Small		SH/125
14	M/s Pioneer Carbide Pvt Ltd	Upper Balian, Byrnihat	Small	31	SH/118
15	M/s Dyna Roof Pvt Ltd	10 <sup>th</sup> Mile Mawsmi, G.S. Road	Medium	34	SH/142
16	M/s Satyam Alloys	13 <sup>th</sup> Mile, Tamulkuchi	Large	18	SH/174
17	M/s K.K. Beverages Pvt Ltd	10 <sup>th</sup> Mile, Baridua	Small	20	SH/83

Type of Hazards	Time of Occurrence	Potential Impact
Landslides	Pre/Post monsoon	Have major impacts on humans: death, damage to environment, destruction to structures, forceful changes in lifestyles.

**List of area in Ri Bhoi district along the NH-40 affected by landslides in previous years**

Sl.No	Name of the area	Lat	Long	Time and date of previous landslides	No of casualties
1	Umling	25°	91° 51' E	5 <sup>th</sup> -10- 2014	1 death

		58°N''		between 5:15-5:30	
2	19 <sup>th</sup> Mile Byrnihat	26° 00,N	91° 51' E	26 <sup>th</sup> – 7- 2012 around 5 a.m	3 death

**List of area in Ri Bhoi district along the NH-40 which are vulnerable to landslides**

Sl.No	Name of the area	Lat	Long	Time and date of previous landslides
1	Lad umroi	25° 40'N''	91° 53' E	No death reported , but area is vulnerable to landslides
2	Sumer	25° 41'N''	91° 54' E	No death reported , but area is vulnerable to landslides
3	Shangbangla	25° 57'N''	91° 51' E	No death reported , but area is vulnerable to landslides
4	Arphewmer	25° 59'N''	91° 51' E	No death reported , but area is vulnerable to landslides

Type of Hazards	Time of Occurrence	Potential Impact	Vulnerable areas
Hailstorm	Pre/Post monsoon	Damage to crops and infrastructure.	Blocks / Villages

Type of Hazards	Time of Occurrence	Potential Impact	Vulnerable areas
Earthquake	All year round	Utility services could be interrupted, transportation routes cut off in places.Power lines could break and cause injuries. Economic impact could be severe due to closed businesses. Psychological effects will be significant especially if after shocks occur.Personal injuries caused by falling debris.	The entire district falls under Zone V. The Barapani Dam is located in Bhoi District, Meghalaya . Since Meghalaya is located in Zone V which is a highly seismic zone , there is possibility of the Dam likely to be affected in case of earthquake. A number of villages with a population of 12,988 are allocated in the areas downstream of the Dam

**Brief detail of Umiam Dam:** Umiam Dam is located at a latitude of 23° 39' 34.35'' and Longitude 91° 54' 09.63''

**Salient Features:**

<b>1. Location:-</b>	
<b>State /District</b>	<b>Sumer Village, Ri Bhoi District, Meghalaya State</b>
River	Umiam River
Type of Development	Storage
Hydrology	
At 90% dependable year	
Annual Inflow Mm	201.06

Catchment Area Km	221.50
Firm Power MW	8.40
Design Energy MU	60.70

## 1.2 Dam

<b>Type</b>	<b>Concrete Gravity</b>
Maximum Dam Height	73 m
Length of the Dam	1295m
Gross Storage Mm	181.32
Gate Size 2 Nos	12.2 mx12.2m

## 1.3 Spillway

<b>Type</b>	<b>Ogee-gated control</b>
Crest level of Spillway	969.26m

## 1.4 Reservoir

Full Reservoir Level ( FRL)	981.46m
Minimum Draw Down Level ( MDDL)	960.12m
Live Storage (MCM)	142.35 Mm <sup>3</sup>

## 1.5. Head Race Tunnel

<b>Size and Type</b>	<b>3.05 m Dia, Horse Shoe</b>
Length	2058m
Design Discharge ( Cumecs)	28.12 Cumecs

## 1.6 Surge shaft

Type	Circular
Diameter	4.90 m
Height	48.3m

## 1.7 Pressure Shaft

Type	Steel Liner
Diameter & length	2 Nos of 1.98 m & 88.7m ( Combine length) each

## 1.8 Penstock

Diameter & length	2 Nos of 1.98 m & 530m
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## 1.9 Power House

Type	Surface
Size of Power House ( LxBxH)	42.6mx21.55mx33.49 m
Installed Capacity ( No of Units x MW)	4x 9 MW

## 1.10 Turbine

No, Type of Turbine	4, Vertical Francis
Rated output MW	10.5
Net max/min outlet	169/130
Rated Head (M)	145m
Rated Discharge ( Cumecs)	8.27 Cumecs

## 1.11 Unit Wise commissioning Details

<b>Unit</b>	<b>Date of Commissioning</b>
I	21.02.1965
II	16.03.1965
III	06.09.1965
IV	11.09.1965

(ii) Stages:-

- (a) Main Dam
- (b) Dyke No 1
- (c) Dyke No2

**(iii) Purpose:-** The purpose of a Dam is to impound water for energy generation

**(iv) Life Span:** Technically there is no such life span for the Dam

2. Probable damage area of the Dam in case of any major earthquake.

(i) **Structural Failures-** Foundation defects including settlement and slope instability or dam caused by earthquake

3. **Capacity of water in Reservoir:-** 181.32 Mcm

4. **Volume of water to be released on outburst of the Dam :-** 181.32 Mcm

5. There are 22 villages which are likely to be affected on outburst of the Dam. The following are the villages along with population details and road connectivity

Sl.No	Name of Villages	No of household		Population	Road connectivity
		APL	BPL		
1	Birsiej	27	49	467	Pucca road
2	Marathud	11	41	325	Pucca road
3	Sohphoh	19	61	496	Pucca road
4	Umlatara	18	7	142	Pathway
5	Umtngam	52	37	596	Pucca road
6	Ingsaw	46	87	888	Pucca road
7	Tyrso Pdeng	25	73	571	Pucca road
8	Tyrso Nongkhyllep	12	73	463	Pathway
9	Umden Arka	55	62	655	Pucca road
10	Umden Umsaitprah	54	41	529	Pucca road
11	Pynthor	62	78	779	Pucca road
12	Mynsian	66	51	603	Pucca road
13	Nongrah	224	35	1509	Pucca road
14	Nonglum	75	75	868	Pucca road
15	Umshiaiw	110	75	1058	Pucca road
16	Umlaiteng	91	11	603	Pucca road
17	Lamalong	66	70	803	Pucca road
18	Umsiang Maiong	26	33	337	Pucca road
19	Umsiang Mawpdeng	66	2	403	Pucca road
20	Ambudighat	23	17	215	Pucca road
21	Amphreng	29	10	222	Pathway
22	Amjong	58	19	456	Pucca road

6. **Alternative Route to Other Districts:** The road that passes through the main dam is the main road that connects the district with other districts of the state. The following is the alternate route to other district in case this road is disrupted.

Sl.No	Name of Roads	Length	District
1	Damsite-UCC-Mawlyndep Road Connecting with	11 .00Km	East Khasi Hills District
		33.00Km	

	Mawlyngdep-Mawmih-Mawmaram		
2	Khyndawso-Thadrang Road	6.00Km 24.00 Km	West Khasi Hills District
3	Alternate Road to Umroi Airport	23.00Km	East Khasi Hills District
4	Umsning Jagi Road	80.00Km	Assam State

Type of Hazards	Time of Occurrence	Potential Impact	Vulnerable areas
Release of Dam	Pre/Post monsoon	Utility services could be interrupted, transportation routes cut off in places. Power lines could break and cause injuries. Economic impact could be severe due to closed businesses. Psychological effects will be significant especially if after shocks occur. Personal injuries caused by falling debris.	1. Umlaiteng 2. Umshiaiw 3. Umtngam 4. Birsiej 5. Sohphoh 6. Umlatara 7. Mawrathud 8. Tyrso 9. Pynthor 10. Nongdiengngan 11. Nongmahir 12. Umshorshor 13. Umdiker

Type of Hazards	Time of Occurrence	Potential Impact
Fire accidents in petrol pumps	All year round	Have major impacts on humans: death, damage to environment, destruction to structures

#### NAME OF PETROL PUMP IN RI BHOI DISTRICT

SL. NO.	NAME OF PETROL PUMP
1	Umiam Main Depot, Lad Umiam.
2	Dunn Auto S/Station, Umbang.
3	Nayabunglow S/Station, Umsning
4	Raj Filling Centre, Umran
5	Nongpoh S/Station, Mawdiangum.
6	Nongpoh Filling Centre, Nongpoh
7	NRL S/Station, Shangbangla.
8	Kargil Martyrs S/Station, Umling.
9	Wahlang H/way S/Station, 20 <sup>th</sup> mile
1	Meera S/Station, B/hat.
11	Ri Bhoi Filling Station, B/hat
12	B/hat S/Station, B/hat.
13	River Umtrew, B/hat
14	NRL Energy Station 12 <sup>th</sup> mile, B/hat
15	D.H. Petrol, 12 <sup>th</sup> mile, B/hat
16	Highland S/Station 17 <sup>th</sup> mile, B/hat
17	Megh. S/Station, Jorabad.
18	Alta Service Centre, 11 <sup>th</sup> mile, Jorabad.
19	Energy Station, 10 <sup>th</sup> mile Jorabad.
20	Highway Refill Centre, 9 <sup>th</sup> mile Jorabad.

21	Ashok Auto Service, Baradua.
22	Black Diamond Refill, 8 <sup>th</sup> mile, Baridua.
23	Khongwir S/Station, Baridua.
24	Perfect S/Station, 8 <sup>th</sup> mile, Baridua.
25	J.Marbaniang S/Station.K/para.
26	Marwet Petroleum Agency, K/para.
29	Harlie S/Station, Umling.
30	LMPL Enterprise, Baridua.
31	Megha S/Station 10 <sup>th</sup> mile.
32	Mid way Energy Point, Umling
33	A.Warjri Filling Service Centre
34	Star Energy Service , 19 <sup>th</sup> Mile
35	Highway Carrier Rifilling Centre, 14 <sup>th</sup> Mile Byrnihat
36	NRL NES Jorabad
37	V.W. Highway Furl Centre, 8 <sup>th</sup> Mile
38	Marwet Petroleum Agency, khanapara
39	Um kru kru Service Station

### 3.6 Vulnerability Analysis

Infrastructures				
	<b>Landslide</b>	<b>Flood</b>	<b>Earthquake</b>	<b>Cyclone</b>
		<b>Area Name</b>	<b>Area Name</b>	<b>Area Name</b>
Road network	National highway 40		The entire district falls under zone V of earthquake prone areas in the country.	
Water ways		Places near Umtrew ,Umiam river		
Water supply				
Sewage				
Hospital				
Food stocks & supplies				
Communication				
Embankments		Embankments near Umtrew ,Umiam river		
Bridges				

Building located on the hilly areas are likely to be affected by landslides . Residential houses are also likely to be affected by earthquake . In nongpoh town most of the building are located near the roads that is NH 40. There are also some settlements in the hill area also. Most of the buildings are of pucca and RCC type. i.e varies from single story to double and few are of three stories. Almost all the houses have cemented floors. Some buildings are of concrete structure . Nongpoh town is prone to water logging .



### **3.7 Resource analysis**

While assessing the capacity and potentialities of the district in order to respond effectively to the various types of disaster and especially the recurring disasters and their vulnerability a list of resources e.g manpower, machinery, materials, buildings, infrastructures etc available with the Government and other agencies including private NGOs is being uploaded in the India Disaster Resources network (IDRN) . The district has constituted a Search and Rescue team comprises of District fire and Emergency service . The District has also tied up with the Assam Regimental Kendra Shillong, for immediate rescue. The nearest location of National Disaster Response Force is located in Beltola , Assam on an approx distance of 58km from the district headquarter

#### **Chapter 4: Institutional arrangements**

The following institutional arrangements have been made to enhance the capacity of the district administration in implementation of disaster preparedness & response to the various types of disaster especially recurring disasters and their vulnerability. The hierarchy of various Committees set up to activate the Implementation Mechanism are given hereunder:

**4.1.District Disaster Management Authority:-** The government vide notification No RDG.32/2005128 shall comprise of the following members :-

<b>Sl. No.</b>	<b>Functionaries and Addresses</b>	<b>Designation</b>
1	Deputy Commissioner, Nongpoh	Chairman
2	CEM. KHADC	Ex-officio.
3	Additional Deputy Commissioner I/C DM ,	Chief Executive Officer.
4	Nongpoh	Member
5	Superintendent of Police, Nongpoh	Member
6	District Medical & Health Officer, Nongpoh	Member
7	Executive Engineer PWD (Roads), Nongpoh	Member
	District Agriculture Officer, Nongpoh	

**Power and Functions of the District Disaster Management Authority( DDMA) :** - The powers and function of the DDMA has been identified vide Section 30 (1 ) are as under:

**Powers and functions of District Authority.-**

- (1) The District Authority shall act as the District planning, coordinating and implementing body for disaster management and take all measures for the purposes of disaster management in the district in accordance with the guidelines laid down by the National Authority and the State Authority.
- (2) Without prejudice to the generality of the provisions of sub- section (1), the District Authority may-
  - (i) prepare a disaster management plan including District response plan for the district;
  - (ii) Coordinate and monitor the implementation of the National Policy, State Policy, National Plan, State Plan and District Plan;
  - (iii) Ensure that the areas in the District vulnerable to disasters are identified and measures for the prevention of disasters and the mitigation of its effects are undertaken by the departments of the Government at the District level as well as by the local authorities;
  - (iv) Ensure that the guidelines for prevention of disasters, mitigation of its effects, preparedness and response measures as laid down by the National Authority and the State Authority are followed by all departments of the Government at the district level and the local authorities in the district;
  - (v) Give directions to different authorities at the District level and local authorities to take such other measures for the prevention or mitigation of disasters as may be necessary;
  - (vi) Lay down guidelines for prevention of disaster management plans by the Department of the Government at the Districts level and local authorities in the District;

- (vii) Monitor the implementation of disaster management plans prepared by the Departments of the Government at the district level;
- (viii) Lay down guidelines to be followed by the Departments of the Government at the district level for purposes of integration of measures for prevention of disasters and mitigation in their development plans and projects and provide necessary technical assistance therefor;
- (ix) Monitor the implementation of measures referred to in clause (viii);
- (x) Review the state of capabilities for responding to any disaster or threatening disaster situation in the district and give directions to the relevant Departments or authorities at the District level for their upgradation as may be necessary;
- (xi) Review the preparedness measures and give directions to the concerned Departments at the District level or other concerned authorities where necessary for bringing the preparedness measures to the levels required for responding effectively to any disaster or threatening disaster situation;
- (xii) Organise and coordinate specialised training programmes for different levels of Officers, Employees and Voluntary rescue workers in the District;
- (xiii) Facilitate community training and awareness programmes for prevention of disaster or mitigation with the support of local authorities, Governmental and Non- Governmental Organisations;
- (xiv) Set up, maintain, review and upgrade the mechanism for early warnings and dissemination of proper information to public;
- (xv) Prepare, review and update district level response plan and guidelines;
- (xvi) Coordinate response to any threatening disaster situation or disaster;
- (xvii) Ensure that the Departments of the Government at the District level and the local authorities prepare their response plans in accordance with the District response plan;
- (xviii) Lay down guidelines for, or give direction to, the concerned Department of the Government at the District level or any other authorities within the local limits of the District to take measures to respond effectively to any threatening disaster situation or disaster;
- (xix) Advise, assist and coordinate the activities of the Departments of the Government at the District level, statutory bodies and other governmental and non- governmental organisations in the District engaged in the Disaster Management;
- (xx) Coordinate with, and give guidelines to, local authorities in the District to ensure that measures for the prevention or mitigation of threatening disaster situation or disaster in the District are carried out promptly and effectively;
- (xxi) Provide necessary technical assistance or give advice to the local authorities in the District for carrying out their functions;
- (xxii) Review development plans prepared by the Departments of the Government at the District level, statutory authorities or local authorities with a view to make necessary provisions therein for prevention of disaster or mitigation;

- (xxiii) Examine the construction in any area in the District and, if it is of the opinion that the standards for the prevention of disaster or mitigation laid down for such construction is not being or has not been followed, may direct the concerned authority to take such action as may be necessary to secure compliance of such standards;
- (xxiv) Identify buildings and places which could, in the event of any threatening disaster situation or disaster, be used as relief centers or camps and make arrangements for water supply and sanitation in such buildings or places;
- (xxv) Establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at a short notice;
- (xxvi) Provide information to the State Authority relating to different aspects of Disaster Management;
- (xxvii) Encourage the involvement of Non- Governmental Organisations and Voluntary Social-Welfare institutions working at the grassroots level in the District for Disaster Management;
- (xxviii) Ensure communication systems are in order, and Disaster Management drills are carried out periodically;
- (xxix) Perform such other functions as the State Government or State Authority may assign to it or as it deems necessary for Disaster Management in the District.

**4.2. District Disaster Advisory Committee:-** The District Disaster Advisory Committee (DDAC) is hereby constituted vide Notification NO.DPRB/15/2003/162 in order to assist the DDM Committee and to make it more efficacious in its functionality. The DDAC is comprised of the following members and is vested with the functions indicated herein below:-

SL NO.	Functionaries and Addresses	Designation
1	The Deputy Commissioner, Nongpoh	Chairman
2	District Planning Officer, Nongpoh	Member-Secretary
3	Superintendent of Police, Nongpoh	Member
4	Project Director, DRDA, Nongpoh	Member
5	Director NESAC, Umiam	Member
6	Executive Engineer, Urban Affairs Department, Shillong	Member
7	Disaster Management Expert from NEC or any other Organisation to be identified by the DDM Committee	Member
8	Executive Engineer, P.W.D (Buildings) Shillong	Member
9	B.D.Os	Member
10	Station Staff Officer, Umroi Military Station, Rangmern	Member
11	Geophysicist/Geologist G.S.I, Shillong	Member
12	Extra Assistant Commissioner (Relief), Nongpoh	Member
13	Chief Geologist DMR, Shillong	Member
14	Chief Architect P.W.D Shillong	Member
15	District Veterinary Officer, Nongpoh	Member

The functions of the Committee shall be :-

- (i). To advise on all matters relating to the disaster management i.e pre-disaster, during disaster and post-disaster operations.

- (ii). To seek further advice and interactions at the national and international level in all matters relating to disaster management.
- (iii). To advise on all matters relating to the implementation of schemes, maintenance of expenditures and operation of accounts relating to disaster management
- (iv). To advise adoption of safe Building Codes in the matter of building/house construction in all the villages of the District.

**4.3. The District Building Plan Implementation Committee:-** The District Building Plan Advisory Committee (DBPIC) is hereby constituted vide Notification NO.DPRB/.15/2003/162 in order to assist the DDM Committee and to make it more efficacious in its functionality. The DDAC is comprised of the following members and is vested with the functions indicated herein below:-

SL No.	Functionaries and Addresses	Designation
1	The Deputy Commissioner, Nongpoh	Chairman
2	District Planning Officer, Nongpoh	Member-Secretary
3	Superintendent of Police, Nongpoh	Member
4	Additional Deputy Commissioner (Relief), Nongpoh	Member
5	Executive Engineer PHE, Nongpoh	Member
6	Executive Engineer, P.W.D (Buildings) Shillong	Member
7	Geophysicist/Geologist G.S.I, Shillong	Member
8	Project Director, DRDA, Nongpoh	Member
9	Chief Geologist DMR, Shillong	Member
10	Chief Architect P.W.D Shillong	Member
11	Executive Engineer, Urban Affairs Department, Shillong	Member
12	Design Engineer P.W.D (Buildings), Shillong.	Member
13	Member-Secretary SCST&E or any official to be nominated by her.	Member
14	Secretary Town Committee, Nongpoh.	Member
15	Inspector of Housing, Nongpoh	Member
16	Extra Assistant Commissioner (Relief), Nongpoh	Member

The functions of the Committee shall be:-

- (i). To prepare and enforce building safety codes for the construction earthquake resistance buildings/houses as per the specification being laid down from time to time by the Bureau of Indian Standards.
- (ii). To impart periodic training and orientation programmes to masons and other labourers involved in the construction of buildings/houses.
- (iii). To suggest/find out ways and means and suggest simple methods for seismic strengthening of the existing structures and traditional non-engineered structures.
- (iv). To enforce applications of Laws and Bye-Laws for providing earth-quake resistance in all new construction for both Governmental as well as Non-Governmental structures.
- (v). To have close interaction with the engineers/scientists from the Central Building Research institute (CBRI) Roorkie, IIT Guwahati, National Geophysical Research Institute (NGRI), Hyderabad.

(vi). To identify and measure the intensity of earthquake from the nearest epicenter.

**4.4 District Medical Aid :-**The District medical Aid Committee (DMAC) is hereby constituted vide notification No.DPRB.15/2003/162 in order to assist the DDM Committee in respect of providing medical aid to the victims which is comprised of the following members and functions:

Sl No	Functionaries and addresses	Designation
1.	Deputy Commissioner	Chairman
2.	District Planning officer	Member- Secretary
3.	Superintendent of police, Nongpoh	Member
4.	DM & HO, Nongpoh	Member
5.	DSWO, Nongpoh	Member
6.	District Transport officer, Nongpoh	Member
7.	Director / President of RAWA	Member
8.	District Veterinary Officer, Nongpoh	Member
9.	Extra Assistant Commissioner (Relief) Nongpoh	Member

The functions of the committee are:

- (i) To render medical aid to the victim by providing free medicines, First Aid, ambulance etc.
- (ii) To carry out post-mortem, disposal of the carcasses by tying up with the Police Department.
- (iii) To identify medical stores/ drug stores etc in the pre- disaster, during disaster and post-disaster operations for ensuring regular supply of medicines, medical materials etc. to the victims.
- (iv) To expedite communication on the availability of the nearest Doctor, Sub-centers, PHCs from the vulnerable areas.
- (v) To devise further ways and means in providing medical aid to the victim.

**4.4 Block- Level Disaster Management Committee :-** The Block disaster Management committee is to be constituted at each block comprising of the following members :-

**1.Jirang C&RD Block:**

The Block Disaster Management Committee of Jirang C&RD Block is hereby constituted vide notification No.JCDB/BLRC/DDMP/1/2004/5/329 and comprises of the following members:-

Sl.No	Functionaries	Designation
1.	Block Development Officer	Chairman
2.	Sub- Divisional Officer (PWD)	Member
3.	Syiem of Hima Jirang/President/Secretary (WRBDWO)	Member
4.	Agriculture Extension Officer	Member
5.	Dr. I/C C.H.C Patharkhmah/ PHC Warmawsaw/Mynnar Jirang	Member
6.	CDPO (ICDS) Jirang Block	Member
7.	Dr.I.C Veterinary Patharkhmah/Jirang	Member
8.	Headmaster of Government Secondary School Patharkhmah/Jirang/St. Peters Secondary School, Umkadhor.	Member

## **II. Umsning C&RD Block:**

The Block Disaster Management Committee of Umsning C&RD Block is hereby constituted vide Notification No.UCDB/ESU/BDM/2002-03/564 and comprises of the following members:-

Sl.No	Functionaries	Designation
1.	Block Development Officer,Umsning	Chairman
2.	Extension Officer(Agriculture),Umsning	Convener
3.	Syiem Hima Myllem	Member
4.	Syiem Raid Mawbuh,Hima Myllem	Member
5.	Medical Officer incharge,Umsning	Member
6.	CDPO (ICDS),Umsning	Member
7.	Extension Officer (Horticulture),Umsning	Member
8.	Extension Officer (AH&Vetinary),Umsning	Member
9.	Assistant Engineer,Umsning	Member
10.	Sub-Inspector of Statistics ,Umsning	Member
11.	Sub Divisional Officer P.W.D (Roads)	Member
12.	Sub Divisional Officer M.E.S.E.B	Member
13.	Principal of St. Micheals Higher Secondary School, Umsning.	Member
14.	Sub-Inspector of Police,Umsning	Member

## **III. Umling C& RD Block:**

The Block Disaster Management Committee of Umling C&RD Block is hereby constituted vide notification No.NCDB/ST.22/2003/1 and comprises of the following members:

Sl.No	Functionaries	Designation
1.	Block Development Officer,Umling	Chairman
2.	Sub-Inspector of Statistics,Umling	Convener
3.	Sub Divisional Officer M.E.S.E.B,Nongpoh	Member
4.	CDPO (ICDS)	Member
5.	Range Officer, Wild Life Forestry,Umling	Member
6.	I/C Police outpost, Byrnihat	Member
7.	Extension Officer (Agriculture),Umling	Member
8.	Extension Officer (Horticulture),Umling	Member
9.	Extension Officer (Vetinary), Umling	Member
10.	Shri R.B Shadap, Umdihar Village	Member
11.	Shri P.Khongmalai, Nongthymmai 15 <sup>th</sup> Mile Village	Member
12.	Shri P. Suchiang, Khasi Killing Village	Member

**Role and functions of the BDMC:** The role and functions of the BDMC are as follows:-

### **(A). Pre-Disaster i.e in preparedness in “No- Disaster Situation”**

- To formulate the BDM Plan to deal with any kind of disaster that the district may encounter at any point of time. Women and disabled persons, socially marginalized sections etc. would be an integral part of the plan programme activity.
- Setting up of a Control Room at each C&RD Block.
- To nominate one Nodal Officer for each Block.
- To ensure formation and training of DMTs at the Block and village level.

- (v) To nominate NGOs/CBOs to help implement the plan.
- (vi) To sponsor trainers at each Block.
- (vii) To organize training for enhancement of capacity building of all persons that will be involved and orchestrating in the episode and to identify resource persons thereof.
- (viii) Organising awareness campaigns at each Block through rallies mass meetings, competitions like essay, debate, and painting competitions among Schools and Colleges, wall paintings and posters, distribution of check memos i.e Do's and Don'ts to the public.
- (ix) To organize disaster response mock drills before the hazard season.
- (x) To prepare fortnightly work plans and progress reports.
- (xi) To make arrangements cyclone/food shelters (immediate and permanent) food items like rice, atta, maida, drinking water medical facilities, other essential commodities, communication network like wireless system/VHF, ham radio,V-sat, Vehicles, fire brigade etc.
- (xii) Vulnerability mapping and risk assessment in all the multi- hazard prone areas with special emphasis on vulnerability and risk of women and disabled persons and children to help in formulating gender equitable and sustainable community plans for disaster preparedness.

#### **B. During Disaster:**

- (i) To ensure round the clock functioning of the Block Control Room.
- (ii) To disseminate warnings and information to the general masses.
- (iii) To convene and coordinate meetings with Officials at the Block Control Room every Twelve (12) hours to take stock of the situation and apprise the same to the District Control Room.
- (iv) To generate and maintain the tempo of alertness among the Block Officers including the subordinates and other functionaries and keep them in readiness by gearing up action immediately after the abatement of crisis.
- (v) To render rescue operation/evacuations through the identified teams by providing infrastructure facility and movement to all Rescue Centres.
- (vi) To ensure prompt management and maintenance of Rescue Centers.
- (vii) To take stock of the everyday situation and to prepare the daily situation report.
- (viii) To run the administration of relief.
- (ix) To carry out any other duty and responsibility as the situation may demand.

#### **C. Post Disaster Management.**

- (i) To undertake assessment and evaluation of the damage.
- (ii) To continue distribution of the relief funds and the materials in accordance with the provision and guidelines for the administration .
- (iii) To restore communication and other rural connectivity eg, roads, suspension bridges, foot bridges, rope ways etc.
- (iv) To restore electronics communication system whenever neccessary.



- (v) To provide immediate arrangement of free kitchens in the cutoff-shelter camps and other in accessible areas.
- (vi) To ensure supply and transportation of relief materials to the victims and the affected areas.
- (vii) To ensure safe-guarding of the belongings of the evacuees.
- (viii) To ensure Law and Order situation in every aspect of life and dwellings.
- (ix) To ensure availability of safe drinking water, medical facilities and minimum sanitation.
- (x) To ensure removal of debris, waste materials, garbage etc to avoid public nuisance and other environmental hazards and to carry out disposal of carcasses.
- (xi) To render assistance to the evacuees for safe return to their homes.
- (xii) To undertake special care of children, lactating mothers, disabled and aged persons.
- (xiii) To hold meetings with officers and functionaries every twenty four (24) hours to take stock of the situation and apprise the same the District Control Room.
- (xiv) To collect information by core group which comprises members of the BDM Committee to be headed by the BDO for submission of the daily situation reports to the Chairman of DDMC.
- (xv) To liaise with the field level functionaries and the Chairman of DDMC for further instruction.
- (xvi) To undertake complete documentation of the entire episode – black and white/audio and video.
- (xvii) To carry out any other duty and responsibility as the situation may demand.

#### **4.6 Village Disaster Management Committee:**

The Village Disaster Management Committee is to be constituted at each village comprising each of the following members.

Sl.No	Functionaries and Addresses	Designation
1.	Headman	Chairman
2.	Village Secretary	Member Secretary
3.	Senior Citizen	Member
4.	NGOs	Member
5.	CBOs/SHGs	Member
6.	AWW	Member
7.	Village Volunteers	Member
8.	School Teachers	Member
9.	Any other member that the committee would like to co-opt	Members

The Committee should have equal representation of women and at the community level should include schools teachers, disabled persons, village volunteers and members of isolated hamlets.

#### **Role and Function of VDMC:**

##### **(A) Pre- Disaster:**

- (i). To formulate a Community Contingency Plan.
- (ii). To organise formation of DMTs.

- (iii) To form a Community Contingency Fund
- (iv) To finalise the modalities for generation and use of the contingency fund.

- (v) To undertake PRA exercise by the villagers themselves like preparation of social map indicating therein the intensity/vulnerability of the affected areas.
- (vi) To organise awareness campaigns/programmes at the village level through rallies, mass meetings, competitions like essay, debate, paintings among schools and colleges.
- (vii) To organize disaster response mock drills before the hazard season.

**(B) During Disaster:**

- (i) To disseminate warnings and information to the masses.
- (ii) To maintain alertness and remain in readiness to gear up in action immediately after the disaster is over.
- (iii) To render rescue operations/evacuations through the identified teams.
- (iv) To monitor and to take stock of the overall situation.

**(C) Post Disaster:-**

- (i) To ensure supply and transport of relief materials to the victims and affected areas.
- (ii) To ensure availability of First Aid, safe drinking water, medical facilities and sanitation.
- (iii) To ensure removal of debris, waste materials, garbage etc to avoid public nuisance of carcasses
- (iv) To render assistance to the evacuees for safe return to their homes.
- (v) To undertake special care of children, lactating mothers, disabled persons and aged persons.
- (vi) To carry out any other duty and responsibility as the situation may demand.

## **Chapter 5: Prevention and Mitigation Plan**

### **5.1 Mitigation**

Mitigation embraces all measures taken to reduce both the effect of the hazard itself and the vulnerable conditions to it in order to reduce the scale of a future disaster. Mitigation aims at reducing the physical, economic and social vulnerability to threats and the underlying causes for this vulnerability.

**Structural Mitigation Measures:** Buildings should strictly conform to the building bye laws. For an existing building, retrofitting or seismic strengthening is the only solution to make it disaster resistant. All lifeline buildings in the District 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. Illegal construction, encroachments, unapproved additions, alternations etc of residential buildings and conversion of residential building in to commercial purpose etc shall be checked by the concerned authorities with strict measures. These unauthorized activities may lead to disasters in that particular Urban area.

Mitigation measures in the district

- Implementation of DM Policy by the DDMA
- Safety audit of lifeline buildings in the District which includes Hospitals, Government buildings, important infrastructure like water reservoir.
- Strengthening of lifeline Buildings
- Retrofitting of Schools and lifeline buildings
- Stabilization of slopes in landslides prone areas
- Preparation of DM Plan at the District, Block and village level, all Schools in the District to prepare a DM Plan

## 5.2 Sector wise Mitigation Measures

Type of Sector	Sub-Sector	Mitigation Measures	Responsible Department.	Time Frame
<b>Infrastructure Development</b>	IEC activities	i) Distribution of leaflets , posters & wall painting . 2) Awareness generation programme in Schools and Colleges, conducting various competitions and rallies. 3)Organising staff development and refresher training to concerned dept., task force team ,NGO and CBOs . 4)Conduct regular Mock Drill . 5)Plantation Programme	District Administration	All year round. (With regular intervals)
	Road	1)Identification/ repair of main and alternative routes 2)Repair of identified vulnerable points . 3)Conversion to pucca roads of village roads .	Public Works Department (Roads)	During normal Time
	Embankment	1)Strengthening and raising the height of weak embankments, points 2)Storage of flood fighting materials like sandbags,bamboos, mats etc	Water Resources	During pre-flood season
	Bridges	Regular maintenance of Bridges.	Water Resources	During normal period
	Safe Shelters	1)Ensure Maintenance of the Flood shelters 2)Identification of places for preparation of mounds and cattle shelters. 3)Ensure multipurpose use of shelters by community, Schools, NGOs, CBOs.	Department of Supply,Relief Department& NGOs	During normal period

	Communica tion	1)Ensure proper maintenance of Telephone, FAX, WLL Phones ,Wireless & VHS sets . 2)Ensure timely setting of Wireless Stations in all Block Office . 3)Installation of VHS / HAM Radio in all the Headquarters	BSNL,DIPR,MPRO , Block Office, Dist. Administration	All year vround
	Drinking water and sanitation	1)Assessment of running /defunct Tube wells & make necessary arrangements. 2)Identification of scarce water pockets installation of water supply system. 3)Identification of sub-mergible TWs and raising of its platform height. 4)Arrangement of Tankers / Syntax Tank. 5)Assessment of requirement of disinfectants and ensure its regular use.	Water Resources, PHE Deparments	Through out the year
	Power	1)Ensure proper maintenance of Electric Sub Stations , Power grids . 2)Complete electrification through out the Block . 3)Install Solar Lamps nears flood & Cyclone shelters & ensure its maintenance. 4)Ensure proper & safe electric connections to the consumers & from electric stand posts/ Transformers	MeCEL	Through out the year
	Technology dissemination			
<b>Health/ Animal Husbandry</b>	IEC activities	1)Distribution of leaflets , posters & wall painting , 2)Conducting meeting / workshops, staff development training , orientation to village level volunteers , taskforce members . 3)Awareness generation programme such as conducting rallies, street plays etc.	District Animal Husbandry & Veterinary Department &NGOs	During normal period

	Vaccination	1)Procurement & stock piling of vaccines. 2)Regular vaccination of domestic animals . 3)Regular dis-infection of TWs , Wells & Ponds . 4)Regular cleanliness of medical Campus . 5)Procurement of a Refrigerator for Veterinary Hospital	District Animal Husbandry & Veterinary Department &NGOs	All year round
	Training	1)Impart trainings on Health care , Sanitation , Insurance, First Aid to Medical staff as well as volunteers. 2)Liaison with District Administration for allotment of transfer vehicle.	District Administration / District Animal Husbandry & Veterinary Department &NGOs	During normal period
<b>Livelihood Sector</b>	IEC activities	1)Distribution of leaflets , posters & wall painting , 2)Conducting meetings, workshops, staff development training , orientation to village level volunteers & to beneficiaries on EDP (Entrepreneurship Development Programme). 3)Awareness generation programme such as conducting rallies, street plays etc.	Department of Agriculture , Horticulture , Banks , Block , NGOs	During normal period
	Agriculture & Livestock farming	1)Alternative cropping , Installation of L .I. Points . 2)Crop Insurance , Provision of Credit Facilities & 3)Cold Storage Alternative cropping , Installation of L .I. Points .	Department of Agriculture , Horticulture , Banks, Insurance Companies , & Block.	During normal period
	Fishery			
	Allied activities			
	Horticulture	Providing nursing raising training & Insurance facilities	Horticulture Department , Insurance Companies , NGOs	During normal period

<b>Insurance</b>	IEC activities	1)Distribution of leaflets , postering , wall painting , 2)Conducting meeting workshops staff development training , orientation to line department , NGOs , village level volunteers & to beneficiaries on Insurance Schemes. Awareness generation programmes such as conducting rallies street plays etc	Block , Insurance Companies , Agriculture Department , Bank ,NGOs	During normal period.
	Infrastructure	Maintenance of Roads / Buildings Maintenance of Block Level godowns		
	Life & Livelihood	Insure Insurance of life, livestock ,Crop & small business units etc.	Block , Insurance Companies , Agriculture Department , Bank , NGOs	During normal

<b>Planning &amp; Response</b>	IEC activities & Relief & Rehabilitation	1)Renewal of District Contingency Plan at regular intervals . 2)Aware programmes of the Community through distribution of leaflets, posters & wall painting . 3)Awareness generation programme such as conducting reliefs street plays etc. 4)Conducting meeting workshops staff development training , orientation to line Department , NGOs , village level volunteers & to beneficiaries on Contingency Plans. 5)Regular mock drill at block and village level . 6)Timely preparedness & dissemination of warnings, carrying out search & rescue , evacuation operations . 7)Shelters to victims . 8)Protection to livestock. 9)Carry out emergency relief operation . 10)Clearance of debris & disposal of dead bodies & maintenance of sanitation. 11)Damage assessment . 12)Taking care of Starvation Cases. 13)Maintenance of law and order. 14)Co-ordination & Sharing of information .	DDMC and all line Departments	
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**5.3 Earthquake:** -The total mitigation programme, which will reduce the impact of a severe earthquake on the community, can be divided into three phases as follows:

**Preventive Phase Before Disaster**

- (i) Preparation of earthquake catalogues and epicentral and geological-tectonic maps;
- (ii) Analysis of seismic risk and seismic zoning for general purposes;
- (iii) Development of antiseismic codes of design and construction of various structures;
- (iv) Education and training of engineers and architects in earthquake engineering principles and use of codes;



- (v) Promulgation of laws and bye-laws for providing earthquake resistance features in all new construction according to the codes;
- (vi) Development of methods for seismic strengthening of existing structures, particularly in the structures considered critical for the community;
- (vii) Development of simple methods for upgrading the seismic resistance of traditional non-engineered construction and their dissemination to the common builders and owners by mass communication techniques, demonstrations, extension work, etc;
- (viii) Earthquake insurance for the buildings and structures to reduce the economic impact on individuals; and
- (ix) Installation of seismological observatories for monitoring seismic activity with a density of instruments capable of recording and locating all earthquakes bigger than a selected magnitude.

**Emergency Phase just after occurrence of Disaster.**

<b>Action points</b>	<b>Officers responsible</b>
(i) Maintenance of law and order	District Magistrate, Superintendent of Police
(ii) Evacuation of people	Army, Police, Civil Defence, Fire and Emergency Service and Linkage Team
(iii) Recovery of dead bodies and their disposal	Police, Civil Defence and Linkage Team
(iv) Medical care for the injured	District Medical and Health Officer
(v) Supply of food and water and restoration of water supply lines	Executive Engineer PHE, Deputy Director of Supply and Relief Team
(vi) Temporary shelters like tents, metal sheds	PWD and Shelter Management Team
(vii) Restoring transport routes	PWD, Police and BDO concerned
(viii) Restoring lines of communication and information	Communication, District Information Officer.
(ix) Quick assessment of damage and demarcation of damaged areas according to grade of damage	EAC(R), PWD and BDO concerned
(x) Cordoning off severely damaged structures liable to collapse during aftershocks	Police, Fire and Emergency Service , Home guards
(xi) Temporary shoring of certain precariously standing buildings to avoid collapse and damage to other adjoining buildings	PWD, Police and BDO concerned
(xii) Immediate actions to prevent certain chain – reactions from developing, such as release of water from the reservoir behind a damaged dam to avoid flooding of areas if the dam fail, emptying of containers of toxic or inflammable liquids and gases, treatment of environment for preventing spread of diseases, etc	Executive Engineer (Water Resources), MeSEB, DM&HO, District Agriculture Officer.
(xiii) Collection of scientific data from field observations as well as from instrumentation specially deployed in the affected area to monitor the aftershocks	District Information Officer, and Headmen.
(xiv) Preparation of proposals about reconstruction requirements and strategy to be adopted and whether reconstruction opportunity could also be utilized for affecting socio-economic development of the damaged area.	PWD, Water Resources, District Agriculture Officer, District Horticulture Officer.

### **Consolidation and Reconstruction Phase**

- (i) Detailed survey of buildings for assessment of damage and decision regarding repair, restoration and strengthening or demolition
- (ii) Repair, restoration and seismic strengthening or demolition;
- (iii) Selection of sites for new settlements;
- (iv) Adoption of strategy for new construction, such as, through contractors, through self-help, construction of core houses only, or supply of construction materials only, etc
- (v) Execution of the reconstruction programme;
- (vi) Preview of existing seismic Zoning maps and risks maps;
- (vii) Review of the seismic codes and norms of construction;
- (viii) Training of personnel, Engineers, Architects, builders and artisans ; and
- (ix) Statistical studies regarding the earthquake.

**5.4 Cyclone:-** The total mitigation programme which will reduce the impact of a cyclone on the community includes the following:-

#### **Preventive phase before the disaster**

- (i) Control room to be made functional on a 24 hours basis.
- (ii) Storage of food grains and dry food at the relief godowns to be distributed to victims during disaster.
- (iii) Storage of medicine and vaccines by the medical and veterinary department to take preventive measure for the spread of epidemics.
- (iv) Listing and updating of the existing equipments that will be needed during disaster
- (v) Analyses of cyclone prone areas
- (vi) Analyses of shelter place for cyclone
- (vii) Creating an awareness to the people regarding the do's and don'ts at the time of cyclone
- (viii) Proper warning and information dissemination for immediate relief, first aid and mutual cooperation

#### ***Emergency Phase just after occurrence of Disaster.***

<b>Action points</b>	<b>Officers responsible</b>
(i) Maintenance of law and order	District Magistrate, Superintendent of Police
(ii) Evacuation of people	Army, Police, Civil Defence, Fire and Emergency Service, and Linkage Team
(iii) Recovery of dead bodies and their disposal	Police, Civil Defence and Linkage Team
(iv) Medical care for the injured	District Medical and Health Officer
(v) Supply of food and water for victims	Executive Engineer PHE, Deputy Director of Supply and Relief Team
(vi) Temporary shelters like well constructed buildings	PWD and Shelter Management Team

(vii) Restoring transport routes	PWD, Police and BDO concerned
(viii) Restoring lines of communication and information	Communication, District Information Officer.
(ix) Supply of veterinary medicines to affected cattle	District A.H and Veterinary Officer
(x) Supply of water supply, medicines ,electricity ,medical aid and veterinary aid at the shelter place	By the concerned Department
(ix) Quick assessment of damage and demarcation of damaged areas.	EAC(R), PWD and BDO concerned
(xii) Immediate actions to prevent to prevent spread of epidemics, etc	District Medical & Health Officer.

### **Consolidation and Reconstruction Phase**

- (i) Restore supply of water in the area as quickly as possible
- (ii) Restore supply of electricity by repairing dismantled wires and clearance of fallen electric poles
- (iii) Ensure supply of food and other essential commodities to victims freely or at concessional rates.
- (iv) Detail reports of the damage to be prepared.
- (v) Statistical study of cyclone risk area.
- (vi) Survey of the affected area to assess the damage caused to the dwelling place ,crops and losses of human lives, livestock etc
- (vii) Review of the situation by the District Administration to ensure proper functioning of relief operation

5.5 **Floods**:-the total mitigation programmes which will reduce the impact of a flood on the community can be divided as follows:-

### **Preventive Phase Before Disaster**

- (i) Identification of flood prone areas
- (ii) Identification of concentration of human population in vulnerable flood prone areas
- (iii) Collecting of daily information on the flood scenario of the district
- (iv) Proper storage of food and dry food to ensure immediate relief to the people at the time of a disaster
- (v) Assessment of the availability of equipments that will be needed at the time of floods
- (vi) Collection of data like amount of rainfall and water level on an every day basis
- (vii) Creating an awareness to the public the relation between deforestation and man- made disaster
- (viii) Creating of water shed to prevent floods and ensure supply of water during dry season
- (ix) Preparing of alternate route maps
- (x) Discourage settlements near river banks as they are more susceptible to floods

- (xi) Insurance of dwelling houses to reduce economic impact on the people
- (xii) Checking encroachment of human settlement near river banks .

**Emergency Phase just after occurrence of Disaster.**

<b>Action points</b>	<b>Officers responsible</b>
(i) Maintenance of law and order	District Magistrate, Superintendent of Police
(ii) Evacuation of people	Army, Police, Civil Defence, Fire and Emergency Service, and Linkage Team
(iii) Recovery of dead bodies and their disposal	Police, Civil Defence and Linkage Team
(iv) Medical care for the injured	District Medical and Health Officer
(v) Supply of food and water and restoration of water supply lines	Executive Engineer PHE, Deputy Director of Supply and Relief Team
(vi) Temporary shelters like highland and ground shelter to affected victims	PWD and Shelter Management Team
(vii) Restoring transport routes	PWD, Police and BDO concerned
(viii) Restoring lines of communication and information	Communication, District Information Officer.
(ix) Supply of veterinary medicines to affected cattle	District A.H and Veterinary officer
(x) Supply of water, medicines ,electricity and veterinary aid at the shelter place	By the concerned department
(ix) Quick assessment of damage and demarcation of damaged areas.	EAC(R), PWD and BDO concerned
(xii) Immediate actions to prevent to prevent spread of epidemics, etc	District Medical & Health Officer.

**Consolidation and Reconstruction Phase**

- (i) Survey of the affected area and makes detail report about the extend of damage cause by the flood
- (ii) Medical team to make regular visit to the affected areas to prevent the spread of epidemics
- (iii) Restore roads and power supply to the affected areas
- (iv) Restore supply of safe drinking water to the affected areas
- (v) Adequate and speedy credit to the farmers for purchasing agricultural inputs and cattles
- (vi) Mobile health teams to be mobilized in the affected areas
- (vii) Cleaning of drainage channels
- (viii) Ensure supply of food to the victims at concessional or free of cost.

5.6 **Landslides**: The total mitigation programmes that will reduce the impact of landslides on the community can be divided as follows:

**Preventive phase before the disaster**

- (i) Identification of landslides prone areas.
- (ii) Enforce land-use and building ordinances in areas susceptible to landslides and debris flows.
- (iii) Discourage construction of buildings on steep slopes or near streams and rivers.
- (iv) Encourage afforestation to prevent erosion of soil and minimize landslides.

- (v) Construction of retaining walls and other structures to bring greater stability to dangerous slopes.
- (vi) Construction walls of piles in slope areas to prevent landslides.
- (vii) Assessment of the availability of equipments that would be needed at the time of landslides and regular updating of them
- (viii) Preparing of an alternative route map

*Emergency Phase just after occurrence of Disaster.*

<b>Action points</b>	<b>Officers responsible</b>
(i) Maintenance of law and order	District Magistrate, Superintendent of Police
(ii) Evacuation of people	Army, Police, Civil Defence, Fire Brigade, and Linkage Team
(iii) Recovery of dead bodies and their disposal	Police, Civil Defence and Linkage Team
(iv) Medical care for the injured	District Medical and Health Officer
(v) Supply of food and water and restoration of water supply lines	Executive Engineer PHE, Deputy Director of Supply and Relief Team
(vi) Temporary shelters for affected victims	PWD and Shelter Management Team
(vii) Restoring transport routes	PWD, Police and BDO concerned
(viii) Restoring lines of communication and information	Communication, District Information Officer.
(ix) Supply of veterinary medicines to affected cattle	District veterinary officer
(x) Supply of water supply, medicines ,electricity ,medical aid and veterinary aid at the shelter place	By the concerned department
(ix) Quick assessment of damage and demarcation of damaged areas.	EAC(R), PWD and BDO concerned
(xii) Immediate actions to prevent to prevent spread of epidemics, etc	District Medical & Health Officer.

### **Consolidation and Reconstruction Phase**

- (i) Clearance of roads in the landslides affected areas
- (ii) Survey of the affected area and makes a detail report of the damage cause by a landslide
- (iii) Selection of sites for new settlements;
- (iv) Restore supply of safe drinking water and electricity to the affected areas as early as possible
- (v) Detail study of the area and adoption of new strategy for construction
- (vi) Review of the relief operation undertaken during disaster by the District Administration

**5.7 Fire accidents;** The total mitigation programmes that will reduce the impact of fire accident on the community are as follows:

### **Preventive phase before the disaster**

- (i) Listing and updating of resources both man-power and machinery that would be needed at the time of a disaster

- (ii) Creating an awareness through public campaign, workshops and seminars for prevention of fire hazards
- (iii) Insurance of life , building and structures to reduce the economic impact on the people
- (iv) Training of Volunteers at the village level on preventive measures and extinguishing skills on fire
- (v) Proper communication system for early warning and mutual aid and cooperation should be ensured
- (vi) Location wise infrastructures availability both physical and human resources will be listed in case of emergency.

**Emergency Phase just after occurrence of Disaster.**

<b>Action points</b>	<b>Officers responsible</b>
(i) Maintenance of law and order	District Magistrate, Superintendent of Police
(ii) Immediate actions to prevent the spread of fire to neighbouring places	Police, Fire and Emergency Service Department
(ii) Evacuation of people	Army, Police, Civil Defence, Fire and Emergency Service Department and Linkage Team
(iii) Recovery of dead bodies and their disposal	Police, Civil Defence and Linkage Team
(iv) Medical care for the injured	District Medical and Health Officer
(v) Supply of food and water and restoration of water supply lines	Executive Engineer PHE, Deputy Director of Supply and Relief Team
(vi) Temporary shelters for affected victims.	PWD and Shelter Management Team
(ix) Supply of veterinary medicines to affected cattle	District A.H. & Veterinary officer
(x) Supply of water , medicines ,electricity and veterinary aid at the shelter place	By the concerned department
(ix) Quick assessment of damage and demarcation of damaged areas.	EAC(R), PWD and BDO concerned
(xii) Immediate actions to prevent to prevent spread of epidemics, etc	District Medical & Health Officer.

**Consolidation and Reconstruction Phase**

- (i) Assessment of the causes and impact of fire
- (ii) Detail report on the impact of fire
- (iii) Compensation and relief to the victims

5.8 . **Chemical disaster**:- the total mitigation plan that will reduce the impact of a chemical disaster on the community are as follows:-

**Preventive phase before the disaster**

- (i) Insurance of life , buildings and structures to reduce the economic impact on the people

- (ii) Ensure proper ventilation in the industrial buildings
- (iii) Promulgation of building ordinance that construction of industries should be located in an area away from human settlements
- (iv) Analysis of gases, leakage of which could be fatal for the people
- (v) Analysis of resources and equipments that would be helpful at the time of a disaster and regular updating of it
- (vi) Review of the safety status of the industry by the District Administration
- (vii) Analysis of industries which are highly prone to chemical disaster and leakage of poisonous gases
- (viii) Proper communication system for early warning and mutual aid and cooperation should be ensured

**Emergency Phase just after occurrence of Disaster.**

Action points	Officers responsible
(i) Maintenance of law and order	District Magistrate, Superintendent of Police
(ii) Evacuation of people	Army, Police, Civil Defence, Fire and Emergency Service, and Linkage Team
(iv) Medical care for the injured	District Medical and Health Officer
(v) Supply of food and water to the affected victims	Executive Engineer PHE, Deputy Director of Supply and Relief Team
(vi) Temporary shelters to affected victims	PWD and Shelter Management Team
(x) Supply of water, medicines, electricity at the shelter place	By the concerned department
(ix) Quick assessment of damage and demarcation of damaged areas.	EAC(R), PWD and BDO concerned
xii) Immediate actions to prevent to prevent spread of epidemics, etc	District Medical & Health Officer

**Consolidation and Reconstruction Phase**

- (i) Survey of the affected area and assessment of damage.
- (ii) Details report of the damage
- (iii) Detail study of the area and adoption of new strategy for construction
- (iv) Restore services by repairing defective connections that leads to the leakage of gas
- (v) Cleaning up of the surrounding to make sure that the air is clean and the condition is fit for resuming work.

**5.9 . Avian Influenza.**

*Preventive phase before the disaster*

- (i) Awareness programme

**Emergency Phase just after occurrence of Disaster**

Action points	Officers responsible
(i) To chair and oversee the activities of district level committee on HPAI during day-to – day surveillance for AI/ immediate reporting / identification of area visited by wild and migratory	Deputy Commissioner/ AH&Vety/ Forest Deptts

bird	
(ii).To play the central and coordinating role as Chief Executive Officer in different aspects of control and containment operation of AI in the district.	Deputy Commissioner
(iii) augmentation of information between deptt/ Imposition and execution of legislative power	Deputy Commissioner
(iv)Ban on movement of vehicles from epicenter of infection/ Restriction of persons and vehicles	Deputy Commissioner/ AH&Vety/ DM&HO/ BDOs/ DTOs
(v).imposition of movement control of poultry birds, feed, farm supplies, farm personnels	Deputy Commissioner/ AH&Vety/ DM&HO/ BDOs
(vi)Cordoning off the culling and surveillance zone/ disinfection	Deputy Commissioner/ AH&Vety/ DM&HO/ BDOs
(vii)Manpower, financial, logistical support	Deputy Commissioner/ AH&Vety/ DM&HO/ BDOs/ PWD/ Various Deptts
(viii)Compensation	Deputy Commissioner
(ix)Ban on sale of poultry products	Deputy Commissioner/ AH&Vety
(x)Closure of poultry markets/ shops	Deputy Commissioner/ AH&Vety
(xi)Monitoring of cleaning and disinfection procedures	Deputy Commissioner/ AH&Vety/ DM&HO
(xii)Sample collection, block wise location and number of live bird markets and keeping record/ recording of notified water bodies/ determination of fly way of migratory bird	AH&Vety/ Forest deptt

### **Consolidation and Reconstruction Phase**

- (i) Survey of the affected area and assessment of damage.
- (ii) Details report of the damage
- (iii) Detail study of the area and adoption of new strategy for construction
- (iv) Cleaning up of the surrounding to make sure that the air is clean and the condition is fit for resuming work.

**5.10 Drought** ; The total mitigation programmes that will reduce the impact of drought on the community are as follows.

### **Preventive phase before the disaster**

- (i) Preparation of contingency plan in case of late onset of monsoon/dry spells during the season with appropriate cropping pattern
- (ii) Creating awareness among the farmers on management practices like intercropping, weed control.
- (iii) Avoid Shifting cultivation
- (iv) Encourage afforestation
- (v) Stocking of quality seed, well in advance for immediate distribution
- (vi) Encourage rain water harvesting
- (vii) Regular monitoring of rain in prone areas
- (viii) Crop insurance



**Emergency Phase just after occurrence of Disaster.**

Action points	Officers responsible
(i) Maintenance of law and order	District Magistrate, Superintendent of Police
(ii) Distribution of subsidies seeds to farmers	Agriculture / Horticulture Department
(iii) Recovery of dead bodies and their disposal	Police, Civil Defence and Linkage Team
(iv) Medical care for the affected	District Medical and Health Officer
(v) Supply of food and water in drought affected area	Executive Engineer PHE, Deputy Director of Supply and Relief Team, ICDS
(vi) Supply of veterinary medicines to affected cattle	District A.H & Veterinary officer
(vii) Supply of water , medicines ,electricity and veterinary aid at the shelter place	By the concerned department
(viii) Quick assessment of damage	EAC(R), PWD and BDO concerned
(ix) Immediate actions to prevent to prevent spread of diseases, epidemics, etc	District Medical & Health Officer.

**Consolidation and Reconstruction Phase**

- (iv) Assessment of the causes and impact of drought
- (v) Detail report
- (vi) Relief to the victims
- (vii) Deepening of wells
- (ix) Alternate employment to the affected people. Number of days under MGNERA to be increased
- (x) Wages to be paid in terms of food basket instead of cash alone

5.11 . **Hailstorm** :- the total mitigation plan that will reduce the impact of a hailstorm on the community are as follows:-

**Preventive phase before the disaster**

- (i) Insurance of life , buildings and structures to reduce the economic impact on the people
- (ii) Crop insurance

**Emergency Phase just after occurrence of Disaster.**

Action points	Officers responsible
(i) Maintenance of law and order, traffic management	District Magistrate, Superintendent of Police
(ii) Medical care for the injured	District Medical and Health Officer
(iii) Temporary shelters to affected victims	PWD and Shelter Management Team
(iv) Supply of water , medicines ,electricity at the shelter place	By the concerned department
(v) Quick assessment of damage and demarcation of damaged areas.	EAC(R), PWD , Agriculture and BDO concerned

**Consolidation and Reconstruction Phase**

- (x) Survey of the affected area and assessment of damage.

- (xi) Details report of the damage

**5.12 Cold wave** :- the total mitigation plan that will reduce the impact of cold wave on the community are as follows:-

**Preventive phase before the disaster**

- (i) Avoid severe cold.
- (ii) Find alternate shelter if the home or residence has lost its heat.
- (iii) Use safe indoor heating sources. Ensure that all stoves and fireplaces are adequately vented, do not use charcoal indoors, and do not use gasoline or diesel generators indoors or outside near an open window or vent that could bring in fumes-

**Emergency Phase just after occurrence of Disaster.**

Action points	Officers responsible
(iv) Medical care for the injured	District Medical and Health Officer
(v) Supply of food and water to the affected victims	Executive Engineer PHE, Deputy Director of Supply and Relief Team
(vi) Temporary shelters to people without dwelling houses	PWD and Shelter Management Team
(x) Supply of water , medicines , warm clothes ,electricity at the shelter place	By the concerned department
(ix) Immediate relief to affected people	EAC(R) and BDO concerned

**Consolidation and Reconstruction Phase**

- (i) Details report of the damage

**5.13. Special measures for Physically Challenged People**

**During normal times**

1. Training of Aganwadi workers/ Aganwadi helpers/ Asha`s/ Multipurpose Rehabilitation Workers and community Based Rehabilitation Workers for timely support at the time of emergencies/ disaster at the village level.
2. All institutions/ Schools run by NGO`s/ Government / Private to have ramps
3. All Institutions/ Schools to have separate entry/exit Point and emergency exit connecting all floors for persons for disabilities
4. Installations of Signals in all institutions/ Schools
5. All staff of Institutions./ Schools having persons with disabilities should be trained so that they in turn can train person with disabilities to assist each other in time of crisis.

**During emergencies**

1. Immediate evacuation/ rescue and Relief
2. Emergency workers should carry notepads and pencils; many deaf persons will not believe that a hearing person knows sign language, and may perceive signs only as wild gestures.

3. Arrangement of shelter places with special provision to accommodate animals if they are used by blind people to help/ guide them

**Post disaster**

1. When the danger has passed, additional care must be taken in returning the disabled and elderly to their home environments.

## **Chapter 6: Preparedness Measures**

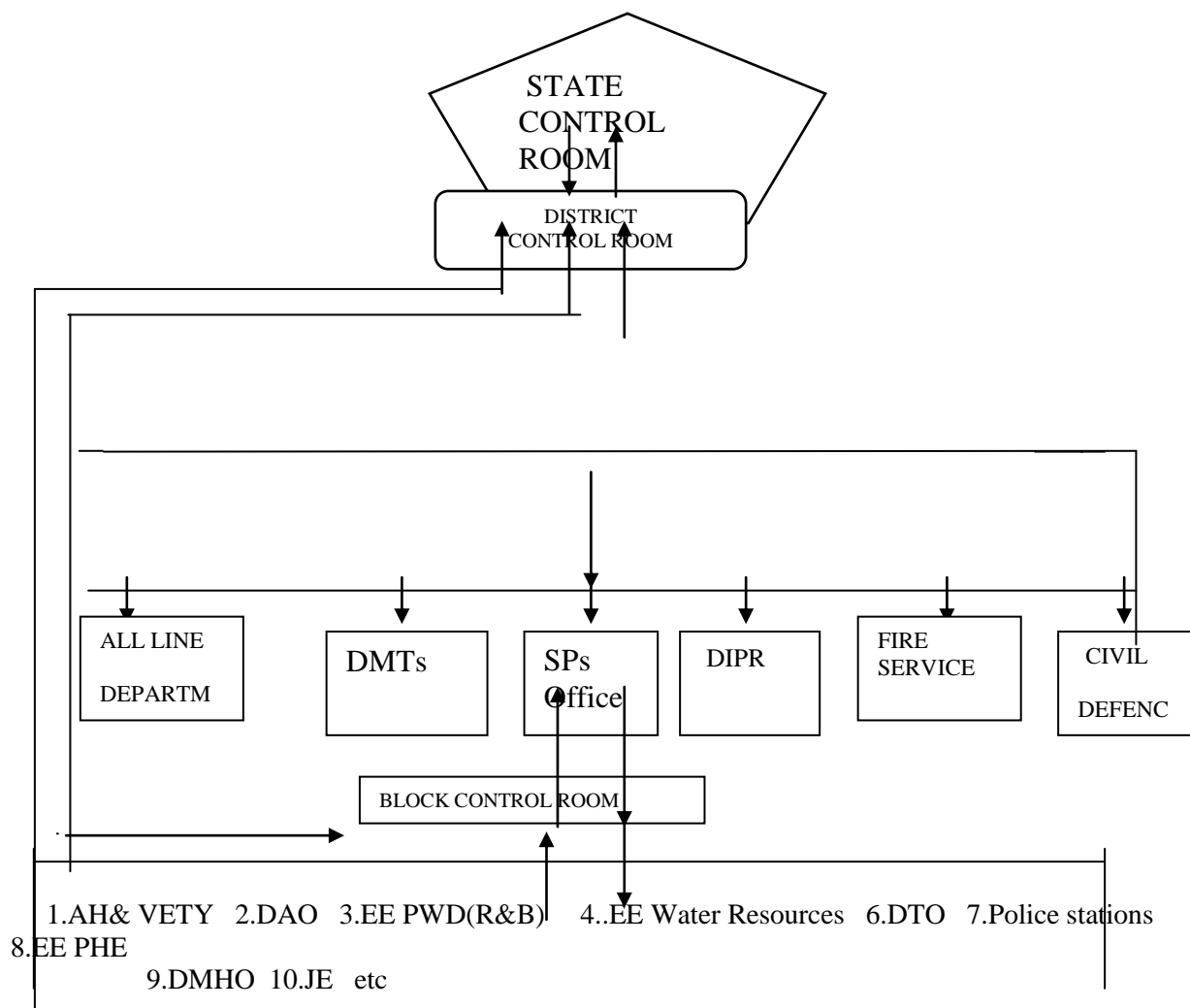
This protective process embraces measures which enable governments, communities and individuals to respond rapidly to disaster situations to cope with them effectively. Preparedness includes the formulation of viable emergency plans, the development of warning systems, the maintenance of inventories and the training of personnel. It may also embrace search and rescue measures as well as evacuation plans for areas that may be at risk from a recurring disaster. Preparedness therefore encompasses those measures taken before a disaster event which are aimed at minimizing the loss of life, disruption of critical services, and damage when the disaster occurs. All preparedness planning needs to be supported by appropriate legislation with clear allocation of responsibilities and budgetary provisions. Following are the steps to ensure preparedness

### **General Preparedness Measures**

#### **6.1. Establishment of the Control Rooms**

The District Administration should ensure the operation of control rooms. The EOC/District Control Room is located in the premises of the Office of the Deputy Commissioner, Ri Bhoi District. The control room plays a vital role in the disaster management activation. It coordinates the flow of information with respect to activities associated with relief operations. During normal times it maintains a systematic data-based information of the resources available, important Government and non-Government Officials, local bodies and NGOs. During a crisis it is expected to function as a center for decision making and to keep constant touch with the affected areas to provide organized relief and rescue operations immediately after occurrence or receipt of warning of disaster. The DPO/ADM will be in charge of the control room. There will be separate control rooms at the block level.

## DISTRICT CONTROL ROOM AND LINKAGES WITH CONTROL ROOM AT THE STATE AND WITHIN THE DISTRICT



### **6.2 Role and Functions of Control Room:-**

- (i) The control room is the nodal center in terms of disaster management.
- (ii) To monitor, coordinate and implement the actions for disaster management.
- (iii) Periodic check to ensure that all warnings, communication systems and instruments are in working condition.
- (iv) To ensure an information system on a routine basis from the District Heads of Departments on the vulnerability of various blocks and villages.
- (v) To receive reports on the preparedness of the District level Departments and the resources at their disposal to arrange and meet their requirements.
- (vi) To upgrade the Disaster Management Action Plan according to the changing scenario.
- (vii) To maintain an inventory of all resources.
- (viii) To give warning signals as per the need of the hour.
- (ix) To monitor preparedness measures and conduct training programmes.

- (x) To collect and transmit information concerning natural calamities and relief at all levels.
- (xi) To keep regular contact with the Centre for Seismology and Meteorology Shillong.
- (xii) To make arrangements for dissemination of information to all vulnerable places.
- (xiii) To brief the media of the situations and furnish the day-to-day reports to the State Disaster Management Committee during disasters.
- (xiv) To report the ground situation and the action taken by the District Administration.
- (xv) The control room can have many service divisions with assigned duties, example infrastructure / health / Drinking water / logistics / agriculture / communication etc. and according to the need it could be expanded.
- (xvi) The District Control Room should have all the facilities for effective communication and also to anticipate in case of system failure to have alternative communication systems, ordinary and mobile phones, e-mail facility etc.
- (xvii) To have a list of all personnel and trained persons who could be contacted at any time.
- (xviii) To organize post disaster evaluation.
- (xix) To liase with the operation center. Site operation center is the center in the disaster site to be set up and an officer earmarked to be in charged.
- (xx) To collect information and activate the District / State level for handling / getting assistance on need basis.

### **6.3 Arrangements in the District Control Room :**

- (i) DDM plan
- (ii) District maps showing identified MCS, School buildings & cyclone shelters/OBB
- (iii) Vulnerability map
- (iv) List of resource persons with contact addresses
- (v) Data base on resource and inventory
- (vi) First aid and other basic medical assistance
- (vii) One retiring room with adequate facilities
- (viii) Generator sets/emergency lights, candles etc.
- (ix) Telephone (with STD facility), fax
- (x) VHF/Wireless.
- (xi) Computer with GIS Software and internet facility
- (xii) Ham Radio
- (xiii) Stock of kerosene or petrol for running the generator set
- (xiv) Notice board
- (xv) Maximum/ Minimum Thermometer
- (xvi) Rain Gauge
- (xvii) Demographic details
- (xviii) List of telephone nos. of various Departments.

- (xix) Mobile Phone.
- (xx) Satellite Phone.
- (xxi) Telephone (Hotline Communication Line with State HQ)
- (xxii) Marine Warning Radio.
- (xxiii) Television Set.
- (xxiv) Video Conference Unit (NIC Video Conferencing Network Compatible)
- (xxv) Maps of State (Administrative/Road Map).
- (xxvi) Desktop Computer.
- (xxvii) Printer, Scanner, Fax (Multi Utility Machine)
- (xxviii) Xerox Machine.
- (xxix) CO2 Fire Extinguisher.
- (xxx) White Board.
- (xxxi) Soft Board for Display of Maps and Charts.
- (xxxii) Wooden Cabinet/Steel Almira.
- (xxxiii) Emergency Lighting Facilities.
- (xxxiv) Basic Hand and Machine Tools.
- (xxxv) P.A.System.
- (xxxvi) Camera Digital/Ordinary and GPS (Hand Held)
- (xxxvii). Over Head Projector/LCD Panel
- (xxxvii) Support to Man Power/Equipment needed for Staff Break Room.
- (xxxviii) Emergency Survival Kits.
- (xxxix) Basic Medical Supplies (First Aid etc)
- (xl) Sleeping Bag and Blanket and Umbrella/Rain Coat.
- (xli) Water Cooler with Purifier.
- (xlii) Refrigerator and the emergency kits (Water Bottle, non-perishable food etc)
- (xliii) Room Heater
- (xliv) Electric Stove and electric Kettle

#### **6.4 STANDARD OPERATIONS PROCEDURE (SOP) FOR EOC/DISTRICT CONTROL**

**ROOM.** The operational procedures of the control room can be divided into two parts:

***i) Normal Time activities of a control room:***

- To identify vulnerable places through mapping procedure
- To encourage the district officers to prepare the disaster management plans
- To operationalise the communication equipments
- To constitute research groups and the task force to look into the details of Disaster Management.
- To give warning signals as per the need of the hour

***ii) Control room at the time of disaster:***

- To receive and record messages authentic information round the clock. It should be manned for 24 hours
- Collect and transmit information concerning natural calamities and relief.
- Keep close contact with the local government and also at the state level which is affected by the calamity
- Keeps regular contact with the metrological department
- To make arrangements to disseminate information to all concerned agencies and vulnerable places

1. **Getting the Control Room ready:** Following preparatory steps will be taken up for keeping the Control Room functional during emergency.:-

- i) Keep District Emergency Response Plan, Lists, Maps , Registers, Computer Data ready
- ii) Ensure proper installation and functioning of Fax and Telephone lines in Control Room.
- iii) Keep a Transistor Radio with new Batteries ready.
- iv) Keep Block Generator ready and hire another Generator Set.
- v) Stock two barrels of Petrol, Kerosene and Diesel for running the Generator Sets.
- vi) Charge the battery of VHF set of Control Room (if installed).
- vii) In case of cyclone warning or any other warning, arrange four extra batteries.
- viii) Keep Emergency Light charged and arrange 2 Torch (4 Cell) Light
- ix) Keep Block Computer and its accessories ready.
- x) Ensure availability of transportation.
- xi) Ensure availability of list of identified shelters ,route charts, list of NGOs, volunteers etc.

2. **Alert all Field Officers:** All line departments, SDOs, BDOs, Block Staff, DM&HO, ,PWD,, Police, Fire And Emergency Service, Telecom, Agriculture, PHE, Water Resources, NGOs , MLAs, MDCs, District Disaster Management Teams. Warning shall be issued in the following format:

Emergency Warning Message No.	Dt.
To : SP, DM&HO, all OCs of Police Station, Fire and Emergency Service Officer, DAO Agriculture, EE PWD Rds, EE PWD (bldgs), CDPO ICDS, EE Water Resources, EE PHE, DPRO, NGO Coordination Cell .	
(Space for message)	
(priority)	
Eg: FLOOD	
DC, RI Bhoi District	



3. Call up the officers and ensure that they remain in headquarters.
4. Prepare a logbook for recording chronological sequence of events.
5. **Food and Kerosene:**
  - i) Check up availability of food (*rice, dal and atta*) and kerosene at Block Headquarters, with Storage Agents and other inaccessible pockets. The Deputy Director of Supply shall contact all Storage Agents. They shall personally visit the godowns and verify the stocks. The Agents shall remain present at the store round the clock.
  - ii) Start movement of food stock and Kerosene Oil to areas that are likely to be cut-off.
6. Check availability of sand bags from PWD.
7. Health sector: Make a rapid assessment of the following.:
  - i) Check up the stock of medicines, bleaching powder and halogen tablets. If necessary, send immediate requisition.
  - ii) Ensure movement of medicines, bleaching powder, etc. to PHCs/CHCs.
  - iii) Ensure that medical officers are in place at the PHC/CHCs through DM&HO, Police Stations, BDOs, SDOs.
  - iv) DM&HO shall decide the locations of camps.
  - v) CDPO shall be teamed up with the MO of PHC/ CHC with their ICDS Supervisors.
8. Vehicles: DTO to be made overall incharge of transportation facilities.
9. Requisition be made as per need.
10. Empower field officers to requisition vehicles.
11. Monitor Gauge Reading Status..
12. Instruct the Dy. Director of Supply to remain in readiness for supply of stocks of rice ,dal,sugar etc and other essential commodities.
13. Close educational institutions after making an assessment of the seriousness of the emergency.
14. Veterinary measures: Immediately contact District A.H. and Veterinary Officer and tie up the supply of cattle feed. DVO shall make assessment of vaccines and fodder availability.
15. Air dropping zones: . Make an advance list of villages where air dropping may be needed.
16. Each JE&EE of PWD (Rds) & (Bldgs) and Water Resources shall keep ready a team of 10 persons (severe cyclone- 20-person gang) with axes and saws. They will also have one chain-pulley system ready.
17. Requisition the services of officers who have been effective in the past. Allot areas to them with full powers of decision making on the spot.
18. Make a thorough assessment of relief items available, through Dy. Director of Supply, in stock at different places.
19. Functional distribution of work: Following functional distribution of works shall be done. Each team will have staff and resources. The team leader will have full powers to take decisions:
  1. Early Warning Dissemination Team

2. Search and rescue team
3. First Aid & Water and Sanitation Team
4. Relief Team
5. Shelter Management Team
6. Coordination & Linkages Team
7. Damage Assessment Team
8. Trauma Counselling Team

20. **Civil Society Organisations:** Get in touch with Civil Society Organisations. Allot them areas or functions. Get them introduced to the field functionaries and ask them to prepare a list of their volunteers also provide them lists of Trained/Dedicated volunteers available in the block. Make a quick inventory of their resources. . Make a quick assessment of block needs and expectations from different agencies.

21. **Press briefings:** Press briefings play a very important role in disaster management. Daily press briefs will be issued at 11.00 hours. Written information will be issued. Following format will be used.

..... District Press Note No.		Dated:		
		Total	Affected	Remarks
1	Block			
2	Village			
3	Population			
4	Severely affected areas			
5	Rescue measures			
	Boats deployed			
	Army/ Navy/ Coast Guard			
	Police/ Fire and Emergency Service			
	Other agencies			
	Exemplary events			
6	Relief measures	Qty	Villages covered	Days covered
	Rice			
	Dal			
	Salt			
	Other dry food			
	Kerosene Oil			
	Polythene sheets			
	Tents			
	Cattle feed			
	Halogen tablets			
	Medicines			
	Air dropping sorties			
7	Casualties			
8	Missing reports			
9	Cattle death			
10	Civil Society Organisations			

11	Damage to property	Number/Qty	Approx Value	
	Roads			
	Embankment breaches			
	Schools			
	Other public buildings			
	House damage			
	Electrical installations			
	Agriculture			
	Others			
12	Prospects in next 24 hours			
13	Message for people			
14	Other details			

22. Message to the public over All India Radio should be specific. Apart from the warning, it should include the following five points.

- i) Take shelter in nearest pucca building.
- ii) Keep cattle tied in open and higher spaces or let them loose.
- iii) Keep sufficient dry food.
- iv) Take care of drinking water or keep purifier tabs
- v) Ignore rumors

23. Regularly contact **District Control room,&District Administration**, .Written orders to be issued for identifying places for starting free kitchens. Issue clearance for 3 days.

24. Keep spare copies of District maps. Jurisdiction maps of all irrigation divisions shall be kept ready in good numbers..

25. Requisition to the SP for supply of temporary VHF sets (if not installed in control room yet)

26. Requisition all IB/ Rest houses.

27. Requisition of School, College for Army/ Police forces.

28. Direct all field officers to hire generators and keep sufficient oil for running them.

29. Direct all Police Station to keep spare batteries for VHF.

30. Looking at the onset of emergency and after making quick preparations, convene Emergency Meeting of District Disaster Management Committee/Line Departments and Non-Official Agencies. Give them clear instructions.

31. Make a Duty Roster for effective functioning of the District control room.

**PROFORMA OF 'IN MESSAGE REGISTER:-**

Sl.No	Date	Time of Receipt	In message Sl.No.	Received from	Addressed To	Message Transferred To	Copies To	Mode (Wll/Tel) of receipt	Instruction /follow up to be done
1.									
2.									
3.									

### **PROFORMA OF 'OUT' MESSAGE REGISTER:-**

Sl.No	Date	Time of Despatch	Out message Sl.No.	Related in message no. if any	Addressed From	Addres s to	Copi es To	Mode (Wh/T el) of receipt	Instructio n/ follow up to be done
1.									
2.									
3.									

**6.5 Joint Control Room:** A joint control room will be set up , if necessary, alongwith the army liaison officer from the Assam Regimental Kendra/ MPRO .

#### **6.6 . Plan Updation**

Disaster Management Plan needs updation at every interval.The plan will be updated annually.

#### **6.7. Training for Disaster Management Team Members**

Each of the DMTs comprise groups of women and men volunteers and are assigned with a specials task. The Search and Rescue Teams, First Aid Teams formed at the three levels should be provided training from time to time so that their timely help can be used during disaster. Training is given for search and rescue teams, first aid teams disaster management teams at village, Block and district level. These teams will provide timely help during any type of disaster.

Sl.No	Name of the training	Name of the Agency for imparting training
1	Training in Search and Rescue and First Aid	Central Training Institute, Mawdiangdiang
2	Training of Engineers	Polytechnic, Shillong
3	Traning of Officials in Disaster Mangement Courses	Meghalaya Administrative Training Institute/DDMA.

#### **6.8 . Organization of Mock Drills**

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

**6.9. Incident Response Team :** The occurrence of a disaster would bring into force the Incident Response system .The district has set up the Incident Response Team as per the Incident Response System ( IRS) to deal with disaster situation. The IRS organisation functions through Incident Response Teams (IRTs) in the field. In line with our administrative structure and DM Act 2005, Responsible Officers (ROs) have been designated at the District level as overall in charge of the incident response management. The RO may however delegate responsibilities to the Incident Commander (IC), who in turn will manage the incident through IRTs. The IRTs has been pre-designated at the District level. On receipt of Early Warning, the RO will activate them. In case a

disaster occurs without any warning, the local IRT will respond and contact RO for further support, if required.

Apart from the RO and Nodal Officer (NO), the IRS has two main components; a) Command Staff and b) General Staff. The IRS of the District as under:-

### **Command Staff**

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

### **Role and Responsibilities of IRS Staff**

**6.10 Incident Commander:** The following represents the major responsibilities and duties of the Incident Commander. The incident commander's responsibility is the overall management of the incident. The Incident Commander may have a deputy who may be from the same agency, or from an assisting agency.

#### **Major responsibilities and duties of Incident Commander**

- Assesses the situation and/or obtain a briefing from the prior Incident Commander.
- Determine incident objectives and strategy.
- Establish the immediate priorities.
- Establish an incident command post.
- Establish an appropriate organization.
- Ensure planning meetings are scheduled as required.
- Approve and authorize the implementation of an Incident Action Plan.
- Ensure that adequate safety measures are in place.
- Co-ordinate activity for all Command and General Staff.
- Coordinate with key people and officials.
- Approve requests for additional resources or for the release of resources.
- keep agency administrator informed of incident status.
- Approve the use of students, volunteers, and auxiliary personnel.
- Authorize release of information to the news media.
- Order the demobilization of the incident when appropriate.

#### **6.11 Incident Command Post : (ICP)**

The ICP will be wherever the Incident Commander is located. As the incident grows, it is important for the Commander to establish a fixed location for the ICP and to work from that location. The ICP provides a central coordination point from which the Incident Commander, Command Staff and Planning functions will normally operate. The ICP can be any type of facility that is available and appropriate, e.g., vehicle, trailer, tent, an open area or a room in a building. The ICP may be located at

the Incident Base if that facility has been established. Once established, the ICP should not be moved unless absolutely necessary

### **Establish the Immediate Priorities**

First Priority is always safety of:

People involved in the incident

Responders

Other emergency workers

Bystanders

Second Priority: Incident Stabilization. Stabilization is normally tied directly to incident complexity.

When considering stabilizing the Incident Commander must:

Ensure life safety

Ensure Protection of life and property

Stay in Command

Manage resources efficiently and cost effectively

### **3. Determine Incident Objectives, Strategy, and Tactical Direction**

It is safe to say that all agencies employ some sequence of steps to meet incident-related goals and objectives. Several different approaches have been suggested. Some of these have more steps and are more detailed than others. A suggested four-phased approach is offered below:

#### **A. Know Agency Policy**

The Incident Commander may not always be an employee of the agency or jurisdiction experiencing an incident. Therefore he must be fully aware of agency policy. This includes any operating or environmental restrictions, and any limits of authority. Agencies will vary on how this policy is made known to the Incident Commander. Agency policy can affect the establishment of incident objectives.

#### **B. Establish Incident Objectives**

Incident Objectives are statements of intent related to the overall incident. For some kinds of incidents the time to achieve the objectives is critical. The following are some single examples of Incident Objectives for several different kinds of incidents. Release all hostages safely with no further casualties. Stop any further flow of toxic material to riverbed. Contain fire within existing structures. Search all structures for casualties.

#### **C. Develop Appropriate Strategy**

Strategy describes the general method that should be used either singly or in combination that will result in achieving the incident objective.

#### **Execute Tactical Direction**

Tactical Direction describes what must be accomplished within the selected strategies in order to achieve the incident objectives.

Tactical Direction consists of the following steps:

##### **1. Establish Tactics**

Determine the tactics that are to be used appropriate to the strategy. The tactics are normally established to be conducted within an operational period.

## **2. Assign Resources**

Determine and assign the kind and type of resources appropriate for the selected tactics.

## **3. Monitor Performance**

Performance monitoring will determine if the tactics and resources selected for the various strategies are both valid and adequate.

**Monitor Scene Safety** Public safety at the scene of an incident is always the top priority. If the incident is complex, or the Incident Commander is not tactical expert in all the hazards present, a Safety Officer should be assigned. Hazardous materials incident requires the assignment of a Safety Officer

## **5. Establish and Monitor Incident Organization**

One of the primary duty of the Incident Commander is overseeing the Management organization. The organization needs to be large enough to do the job at hand, yet resource used must be cost effective.

## **6. Manage Planning Meetings as Required**

Planning meetings and the overall planning process are essential to achieving the incident objectives. On many incidents, the time factor does not allow prolonged planning. On the other hand, lack of planning can be more disastrous. Proactive planning is essential to consider future needs.

## **7. Approve and Authorize the Implementation of an Incident Action Plan**

Plans can be oral or written. Written plans should be provided for multi-jurisdiction or multi-agency incidents, or when the incident will continue for more than one Operational Period.

## **8. Approve Requests for Additional Resources or for the Release of Resources**

On small incidents, the IC will personally determine additional resources needed and order them. As the incident grows in size and complexity, the ordering responsibility for required resources will shift to the Logistics Section Chief and to the Supply Unit if those elements of the organization have been established.

**1. Authorize Release of Information to the News Media:** The sophistication of modern news gathering methods and equipment make it very important that all incidents have procedures in place for managing the release of information to the media, as well as responding appropriately to media inquiries. There are three important staff functions that are the responsibility of the Incident Commander unless Command Staff positions are established.

- Public Information and media relations
- Maintaining liaison with assisting and co-operating agencies
- Ensuring safety

**6.12 Information Officer.** The District Public Relation Officer officer is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations.

**6.13 Liaison Officer:** Incidents that are multi-jurisdictional, or have several Agencies involved, may require the establishment of the Liaison Officer position on the Command Staff.

The Liaison Officer is the contact for Agency Representatives assigned to the incident by assisting or co-operating agencies. These are personnel other than those on direct tactical assignments or those involved in an Unified Command.

**6.14 Safety Officer** The Safety Officer's function on the Command Staff is to develop and recommend measures for assuring personnel safety, and to assess and/or anticipate hazardous and unsafe situations. Only one Safety Officer will be assigned for each incident. The Safety Officer may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions. Safety assistants may have specific responsibilities such as air operations, hazardous materials, etc. The Safety Officer will correct unsafe situations by working through the chain of command. However, the Safety Officer may exercise emergency authority to directly stop unsafe acts if personnel are in imminent life-threatening danger.

#### **6.15 Role and Responsibilities of IRS General Staff**

##### **General Staff**

The General Staff has three components which are as follows;

##### **1 Operations Section (OS)**

The OS is responsible for directing the required tactical actions to meet incident objectives.

Management of disaster may not immediately require activation of Branch, Division and Group. Expansion of the OS depends on the enormity of the situation and number of different types and kinds of functional Groups required in the response management.

##### **2. Planning Section (PS)**

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

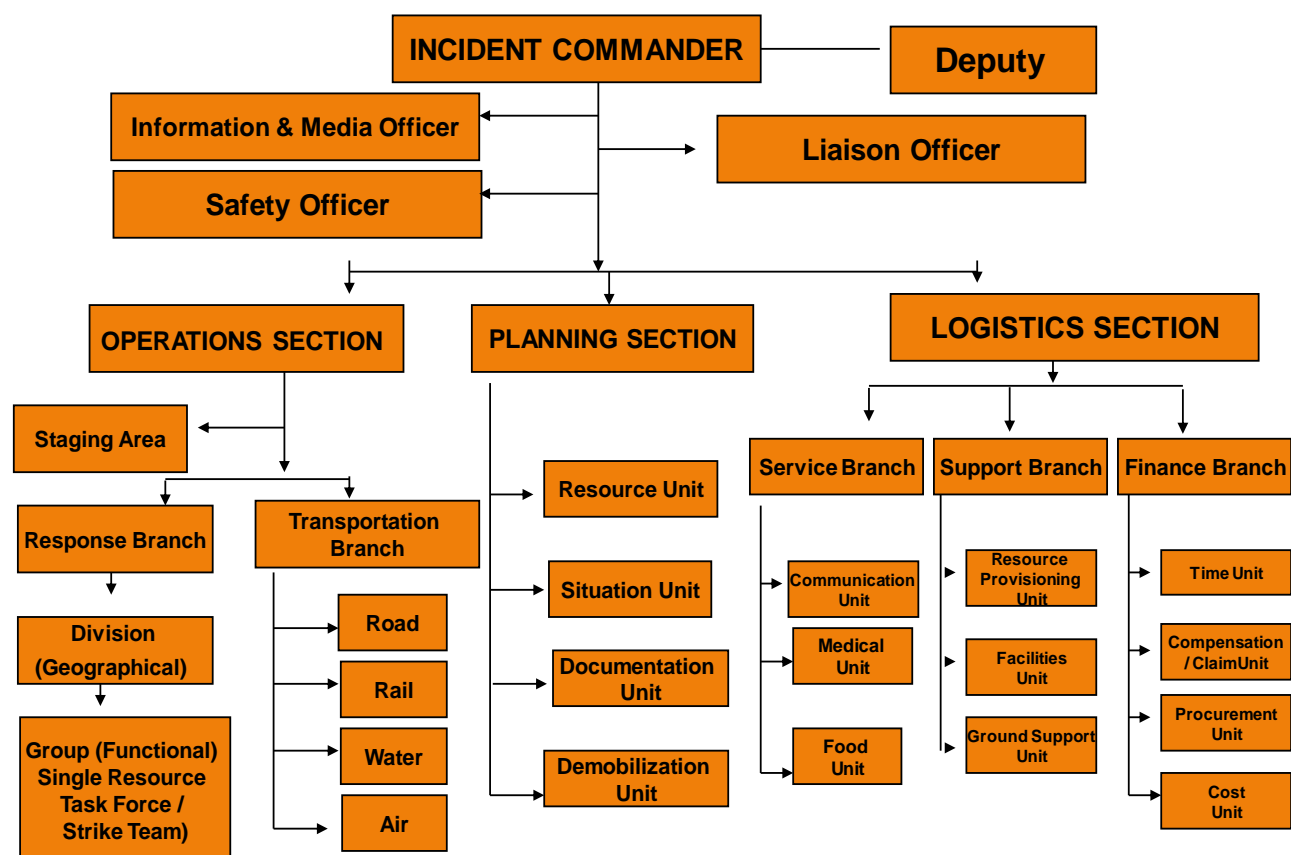
##### **3. Logistics Section (LS)**

The LS is responsible for providing facilities, services, materials, equipment and other resources in support of the incident response. The Section Chief participates in development and implementation of the IAP, activates and supervises Branches and Units of his section. In order to ensure prompt and smooth procurement and supply of resources as per financial rules, the Finance Branch has been included in the LS



## Incident Response Chart

### Incident Response System Organisation Chart



## Incident Response Teams of Ri Bhoi District.

### At the District Emergency Operation Centre

Sl.No	Designation	Role
1	Deputy Commissioner Ri Bhoi District	Responsible Officer
2	Additional Deputy Commissioner Ri Bhoi District	Overall In charge Officer
3	Dy, Superintendent of Police, Ri Bhoi District	Overall In charge Officer ( Communication)
4	ADPO, Ri Bhoi District	Assisting the Officer in charge.

#### 1. At the Incident Command Post

Sl.No	Designation	Role
1	Additional Deputy Commissioner Ri Bhoi District ( I/C Disaster Management)	Incident Commander
2	EE, PHE	Dy, Incident Commander I
3	District Forest Officer	Dy, Incident Commander II
4	District Public Relation Officer	Media & Information Officer
5	Extra Assistant Commissioner, Ri Bhoi District	Liaison Officer
6	Dy, Superintendent of Police, Ri Bhoi District	Safety Officer

## 2. Operation Chief

Sl.No	Designation	Role
1	Superintendent of Police, Ri Bhoi District	Operation Chief
2	Commandant, Assam Regimental Kendra	Response Branch Director
3	BDO Umling C&RD Block	Staging Area Manager
4	District A. H. and Veterinary Officer	Veterinary Unit Leader
5	District Transport Officer	Transportation Branch
6	Project Director, ILFS	Resource Unit Field Observer
7	SDO, PHE	PHE Deptt
8	Divisional Officer, Soil & Water Conservation Officer	Base Manager
9	District Horticulture Officer	Horticulture Deptt
10	District Medical & Health Officer	Medical Team leader
11	BDO, Jirang C&RD Block	Staging Area Manager
12	BDO, Umsning C&RD Block	Staging Area Manager

## 3. Planning Section

Sl.No	Designation	Role
1	Lt. Colonel, Assam Regimental Kendra	Planning Chief
2	Extra Assistant Commissioner, Ri Bhoi District	Resource Unit Leader
3	District Agriculture Officer	Situation Unit Leader
4	District Informatics Officer	Documentation Unit Leader
5	EE, Water Resources	Demobilization Unit Leader
6	Scientist	Technical Specialist
7	Project Director ATMA	Weather Observer leader
8	Supt of Fisheries	Weather Observer
9	RO, Planning	Check in/ Status Recorder

## Logistic Section

Sl.No	Designation	Role
1	Executive Engineer, PWD ( RDs) Nongpoh Division	Logistic Section Chief
2	Executive Engineer, PWD ( RDs) Umsning Division	Service Branch Manager
3	M&HO	Medical Unit Leader
4	Superintendent of Supply	Food Unit Leader
5	MVI	Ground Support Unit
6	Inspector of Housing	Resource Provisioning Unit Leader
7	SDO, PWD ( Rds) Nongpoh	Facilities Unit leader
8	Treasury Officer	Finance Branch Director
9	EAC I/C. Relief	Compensation/ Claim Unit Leader
10	District Statistical Officer	Cost Unit Leader
11	Supt of Excise	Time Unit
12	District Social Welfare Officer	Relief Camp Manager
13	MPRO	Communication Unit Leader

## 6.16 Site Operation System During Disaster

Following the IRS, the site operations would be taken into action. Depending on the nature of disaster and the type of damage, it may be necessary to set up a number of relief camps and/or cattle camps. In such a situation, the DDMA may decide to set-up a Site Operations Center (SOCs) to

reduce the pressure on District Control Room for field coordination. Depending upon the disaster locations and the number of campsites, the DDMA may decide to set-up more than one Site Operations Center. The Site Operations Center and the camps would be wound up after the relief and rehabilitation work is called off or after the relief camps and cattle camps are dismantled, whichever is later.

**6.17 Forecasting and weather warning:** On the basis of reports from the possible disaster site, or on the warning from the agencies competent to issue such a warning, or on the receipt of warning or alert from Emergency Operations Center, the DC will exercise the powers and responsibilities as provided in the DM Act .

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

Disaster	
Earthquakes	IMD
Floods	Meteorology Department, Water Resources Department, MeCEL
Cyclones	IMD
Epidemics	Public Health Department, Health & Family Welfare
Road accidents	Police
Fires	Fire and Emergency Service, Police

The warning or occurrence of disaster will be communicated to the Deputy Commissioner, Emergency Operation Center, Office of Block Development Officer and all District level Officials

**The occurrence of the disaster would essentially bring into force the following :**

- The District Collector will activate the District Control Room as the Responsible Officer
- All District level staff from various Departments will be under the direction and control of the Responsible Officer
- First Information Report will be sent to Government
- Immediate Relief will be given to the people as per norms of assistance under SDRF .
- Immediate evacuation of the people, setting up of relief camp if necessary
- Regular reporting will be sent to Government
- Situation report will be given to the SEOC as per format below:-

**Situation report on ( ) in the state of Meghalaya at Ri Bhoi District, Nongpoh**

**( At (time) as on (date)**

Sl.No		
1.	No of blocks affected	
2.	Casualties ( Block wise details)	
3.	Population affected	
4.	No of people rescued	
5.	Property/Infrastructure damaged	
6.	No of NDRF team deployed	
7.	No of NDRF team standby	
8.	Causes of death	

**6.18 India Disaster Resource Network:** The resources available in the District are uploaded in the IDRN website.

**6.19 Awareness generation Strategy:** A series of awareness programmes to be organized to reach out to the local residents and general public of the urban areas. Disaster can strikes everywhere everyone irrespective of land, caste, people and gender. The basic information shall be given in forms of IEC materials. Other different methods shall be adopted to spread awareness i.e.

- Wall painting
- • Audio/video shows
- • Involvement of Electronic media
- • Street plays
- • Distribution of reading materials/ pasting of posters
- Public meetings
- Painting/ quiz competition, rallies by involving students

The objectives of the programmes shall be –

- To bring awareness about disasters among the inmates of all institutions and residents of all communities in the district.
- To pave way for strict enforcement of building rules in construction Department and contractors
- Preparation of Building evacuation plans and training the general public to save their lives at the time of Cyclone, landslides , earthquake, fire accidents or any other major disaster.

## Chapter 7: Capacity Building and Training Measures

**7.1 Capacity Training:** A number of training programmes to be organized for specialized groups at community level office bearers, School teachers and Principals, Architects, Engineers, Doctors, Masons, etc. The professionals from all section shall be trained. They shall be sensitized and given training on disaster management. They shall also be encouraged to organize awareness campaigns in their areas. The following training are regularly conducted to ensure better preparedness

- Training of Officials on roles and responsibilities and EOC
- Training on preparation of Office Disaster Management Plan
- Training of DMTs at District, Block and Village level
- Training of School teachers
- Training on conduct of Mock drills
- Training of Engineers
- Training of mason
- Training of Community members

Name of training	Institute for training
Training of Officials on DM	National Institute of Disaster Management , New Delhi/MATL.
Search and Rescue	Central Training institute , Mawdiangdiang
Training of Engineers	Polytechnic, Shillong

## Chapter 8: Response and relief measures

### RESPONSE PLAN

Disaster plans are useful in pre-disaster situations, when warnings have to be issued. The plan again serves as a guidance to officials and precious time is saved which might otherwise be lost in consultations with Senior Officers and getting formal approval from authorities. The response plan contains two approaches : 1- Short-term Plan and 2-Long-term Plan.

**8.1 (1) . Short term Plan** Short-term plan comprising relief to be provided immediately following a disaster based on Norms of relief if applicable. Setting up of shelter places and immediate restoration of power supply, water supply, clearance of roads etc. Coordination with various agencies, NGOs , National and International.

**8.2 (2) Long term Plan:** Long Term plan comprises of reconstruction of earthquake proof buildings, rehabilitation of people in safe areas. Enforcement of DM Act 2005 , involvement of community participation

**8.3 Quick assessment of Damages;** The BDOs will conduct and immediate assessment and submit their first information report within 24 hrs of any calamities to the DC in case of Disaster.

**8.3 First Information Report** to be submitted in the following format

**FORMAT FOR FIRST INFORMATION REPORT ON OCCURRENCE OF  
NATURAL CALAMITY**

(To be sent to Government within maximum 24hours of occurrence of calamity)

From:.....

Date of Report...../...../.....

.....

To,

1. Joint Secretary/Deputy Secretary,  
Department of Revenue and Disaster management  
Government of Meghalaya
2. Executive Officer  
State Disaster management Authority  
Government of Meghalaya
- a. Type and nature of calamity
- b. Date and time of occurrence
- c. Affected area ( number and names of affected blocks)
- d. Total population affected ( approx)
- e. No of persons
  - Dead
  - Missing
  - Injured
- f. Animals
  - Affected
  - Lost
  - Dead

- g. Crops affected in area( approx)
- h. No of houses damaged
- i. Damage to public property
- j. Relief measures undertaken in brief
- k. Immediate relief and response assistance required and the best logistical means of delivering relief from the state .
- l. Forecast of possible future developments including new risks
- m. Any other relevant information.

### **8.5 Response Structure during Warning Stage**

At District level, before the occurrence of disaster and immediately after the disaster, the district administration will activate the District Control Room so that proper information will be provided to the concerned authorities.

Warning dissemination: When a warning is received, it will be first verify and transmitted to the next person through telephones, fax, messenger, public announcement, AIR Radio, Doordarshan, Television and newspaper.

**8.6 Relief:** Immediate relief to be given to the affected victims as per norms provided by the State Disaster Response Fund.

## **Chapter 9: Financial Resources**

Fund Resources : The District will make use of the following fund for preparation and implementation of District Disaster Management Plan

1. Fund available under State Budget
2. Fund released under Grant –in-Aid under 13<sup>th</sup> Finance Commission
3. Fund from NDMA project as available

Capacity training programmes, awareness and conduct of mock drills will be carried out from the above fund. Immediate relief to the disaster affected people will be given as per provision given in the State Disaster Response Fund.



## **Chapter 10:**

### **Procedure and methodology for monitoring, evaluation, updating and maintenance of DDMP**

#### **Authority for maintaining and reviewing DDMP:**

10.1 The task for updating of DDMP lies with the District Disaster Management Authority. The plan will be updated annually and tested through mock drills. A copy of the updated plan will be uploaded in the district website [www.ribhoi.gov.in](http://www.ribhoi.gov.in) for easy accessibility of the public. Regular updation in terms of resources available in the district, contact numbers viz is required. The plan is open for views and suggestions and any such suggestions will be incorporated in the updated Disaster Management Plan.

## **Chapter 11**

### **Standard Operating Procedures ( SOPs) and checklist**

#### **11.1 Deputy Commissioner**

The Deputy Commissioner will be the Response Coordinator at the District level. He will be responsible to the State Response Coordinator (SRC)/ State Disaster Management Authority for the effective coordination of resources or services within the District. The Deputy Commissioner will be the Incident Commander at the District.

The response roles, responsibilities and duties of the District Response Coordinator are:

##### **Pre Disaster:-**

1. The Deputy Commissioner is the Chairperson of the District Disaster Management Authority. Activities as per the DM Act 2005 will be carried out as per his supervision.
2. Operationalization the Emergency Operation Centre.

##### **During Disaster;-**

1. Overall control & supervision
2. Finalization of reports and declaration of Emergency
3. Enforcement of the DM Act 2005.
4. Mobilization of finance
5. Coordinate with State Response Coordinator (SRC)/SDMA/NDMA as per the need of the hour and regularly apprised the State government of the situation.
6. Co-ordinate with Emergency Support Function Deptts./Agencies for provision of emergency response, relief and supply
7. Ensure that consideration has been given to:
  - Alerting the public to existing and potential dangers arising from serious emergency
  - The need for evacuation
  - Other Public information.
8. Review and dispatch situation reports to the State Response Coordinator/SDMA
9. In an emergency, arrange to provide requested resources to the BDOs from:
  - a. Within the District
  - b. Outside the District through the SRC
10. Undertake assessment of the situation.
11. In the event of uncertainty, determine, which agency is to perform its statutory response role within the District or within a specified area of the District, where more than one agency/department is empowered to perform that role.
12. In the event of imminent disaster or the event occurring he will take following action:
  - ◆ Set up information desks at critical locations

- ◆ Concerned officers in Revenue, Public Health, Agriculture, Veterinary, Police, Power, Telecom, Public Health Engineering , Community & Rural Development , Water Resources, Public Works Departments , Civil Supply, to be called to fulfill their respective Emergency Support Function.
- ◆ Concerned departments will be directed to get ready with emergency tool kits and necessary personnel
- ◆ It will be ensured that all officers remain in headquarters until the situation gets back to normal.
- ◆ Arrangements for generators, radios, batteries, extra vehicles, Satellite telephones;
- ◆ Assessment of relief materials required will be made
- ◆ Adequate fuel for generators and vehicles;
- ◆ Availability of food and kerosene at Block head quarters, storage agents and other inaccessible pockets;
- ◆ Stock piling of relief materials/ ORS packets at strategic points;
- ◆ Private stockists/ wholesalers and godowns will be directed to remain open till the situation gets back to normal
- ◆ Adequate number of small and big vehicles will be immediately requisitioned and kept in readiness
- ◆ If necessary, requisitioned of boats.
- ◆ Vaccines and fodder stock available with the A.H. and Veterinary department.
- ◆ A rapid assessment of the medicines, bleaching powders and halogen tables will be made and if necessary, more will be requisitioned immediately
- ◆ Start movement of medicines to hospitals, other points lacking adequate stock
- ◆ If needed, all the Educational Institutions will be closed
- ◆ Lat-long book will be kept handy for identifying the probable air dropping zones and preparation of a list of villages where air droppings may be needed.
- ◆ Spare copies of block maps will be kept ready
- ◆ Civil society organisations will be alerted and a plan of action for working in coordination with Govt. functionaries will be drawn up.
- ◆ After quick review of the preparations taken, emergency meeting of DDMA/important Officials and non-Govt. agencies will be convened and clear instructions will be given about their expected role
- ◆ Arrangements for evacuation;
- ◆ Registration of persons evacuated or otherwise affected.
- ◆ Provision of relief needs of evacuees where necessary.
- ◆ All search and rescue agencies and volunteers pressed into service.

- ◆ Provision of medical treatment / first aid.
- ◆ Fact gathering for inquests or judicial inquiries.
- ◆ Maintenance of law & order
- ◆ Briefing the press at regular intervals.
- ◆ Maintenance of proper records.

**Post Disaster:**

1. Damage assessment
2. Supervision in recovery and reconstruction
3. In post operation phase, sit with the teams, discuss problems, suggest remedies, collect feedback etc., to upgrade mitigation as well as action plans.

**11.2 Block Development Officer.**

1. Preparation of DM plan
2. Organized capacity training, mock drills, formation of DM teams ,listing down of resources available in the Block.

**During Disaster:** The roles and responsibilities of the Block Development Officer at the time of the disaster will be to:

1. Ensure that immediate relief provisions are available and their movement activated in the event of an emergency
2. Regularly apprise the D.C. if the emergency, cannot be controlled within his/her resources.
3. Arrangements for generators, radios, batteries, extra vehicles, Satellite telephones to meet emergency situation will be made
4. Arrangement for adequate fuel for generators and vehicles will be made.
5. Godowns for storage of relief materials and parking places for trucks carrying relief materials will be inspected
6. Availability of food and kerosene at Block head quarters, storage agents and other inaccessible pockets will be checked
7. Private stockists/ wholesalers and godowns will be directed to remain open, if necessary , till the situation gets back to normal
9. Ensure Stock piling of relief materials/ **ORS** packets at strategic points.
10. A rapid assessment of the medicines, bleaching powders and halogen tables and if necessary, more to be requisitioned immediately
11. Start movement of medicines to Hospitals, other points lacking adequate stock
12. Location of sites for operation of camps will be identified
13. Adequate number of small and big vehicles will be immediately requisitioned and kept in readiness
14. Position of boats already deployed will be assessed and if necessary additional

boats will be requisitioned

15. Assessment of vaccines and fodder stock available with the veterinary department will be made
16. Lat-long book will be kept handy for identifying the probable air dropping zones and preparation of an advanced list of villages where air droppings may be needed will be made available
17. Necessary arrangements for evacuation will be made
18. All search and rescue agencies and volunteers will be alerted/pressed into service
19. Provision of medical treatment / first aid.
20. Registration of persons evacuated or otherwise affected.
19. Provision of relief needs of evacuees, where necessary.
21. Maintenance of law & order
22. Fact gathering for inquests or judicial inquiries.
23. Maintenance of proper records.

**Post Disaster:** In post operation phase, sit with the teams, discuss problems, suggest remedies, collect feedback etc., to upgrade mitigation as well as action plans.

**11.3 Superintendent of Police:** The Superintendent of Police will also be the team leader of District Search and Rescue Team. Officer subordinate to the SP will be the Alternate Nodal officer in case the SP is not available.

**Pre- Disaster:** The operational procedures of the Superintendent of Police before a disaster includes;

- a. Preparation of Contingency plan for the department
- b. Assignment of roles and responsibilities to all the staff so that they can act accordingly at the time of a disaster.
- c. Listing down of available resources within the department that can be utilized at the time of a disaster.

**During disaster:** The operational procedures of the Superintendent of Police at the time of a disaster includes

1. Establish linkages with District Control Rooms
2. Provide necessary assistance to the Emergency Control Rooms if need arises.
3. Identification of unsocial elements/groups and maintenance of law and order.
4. Identification of sensitive areas and patrolling. Patrolling on important buildings/ highways
5. Close contact with Armed Forces for specialized assistance/equipments for search and rescue
6. Establish Radio Communication to assist evacuation, information dissemination and checking rumours
7. Evacuation of People & immediate reporting to higher authority
8. Assist seriously injured persons to go to treatment centers
9. Assist and encourage the community in road-clearing operation

10. Traffic management and patrolling as required
11. Provide security in transit and relief camps, affected areas, lifeline infrastructures & services, ensure identified areas are cordoned off
12. Provide security arrangement for visiting VVIPs and VIPs
13. Assist District Administration to take necessary actions against hoarders, black marketers and those manipulating relief materials
14. Identify and register the names of the dead and disposed persons
15. Support administration, Medical, Community members in disposing dead bodies
16. Assist administration in supply and distribution of relief materials
17. Deploy police personnel near relief godowns
18. Escort relief carrier vehicle and personnel
19. Regular reporting to higher authorities about the situation including expenditure statement etc.

**Post disaster:**

20. In post operation phase, sit with the teams, discuss problems, suggest remedies, collect feedback etc., to upgrade mitigation as well as action plans.

**11.4 Public Works Department:** The EE, PWD ( Rds) Umsning Division, EE PWD ( Rds) Nongpoh will be the Nodal officers in charged for areas under their jurisdiction and all officers and staffs are to work under their supervision

**Pre- disaster:** The operational procedures of the Public Works Departments before a disaster includes;

1. Preparation of Contingency plan for the Department
2. Assignment of roles and responsibilities to all the staff so that they can act accordingly at the time of a disaster.
3. Listing down of available resources within the Department that can be utilized at the time of a disaster.

**During disaster:** The operational procedures of Public Works Departments at the time of a disaster includes

1. Establish linkages with District Control Rooms
2. To clear roads, replace collapsed bridges by temporary bridging equipment or making temporary arrangements. Requisition of vehicle, debris cleaning equipments etc as per the pre-contract with the suppliers
3. Assist concerned authorities to repair damaged air-strips, helipads
4. Providing engineering support to S&RT
5. Providing support of heavy equipments i.e., Earth Movers, Bulldozers, etc

- 6.. Assist Revenue and Disaster Management Department to provide temporary shelters/tents, procurement of tentage equipments
7. Formation of teams & delegation of areas
8. Identify weak structures/weak points vulnerable to Earthquake/Landslide
- 9 Inspect all roads, bridges, including under water inspection of foundation and piers. A full check should be made on all concrete and steel work
- 10 . Preparation of possible helipads; inform its longitude/latitude to District Control rooms
11. Non-destructive test & retrofitting of lifeline buildings & important structure to ensure seismic proof ( along with the Urban Affairs Department).
12. Retrofitting of roads
13. List of safe alternative routes
14. Training of masons on retrofitting and building bye-laws (along with the Urban Affairs Department).
15. Keeping close contact with administration
16. Pre-contract arrangement with suppliers for requisite equipment/stores
17. Deployment of teams with necessary equipments, such as towing vehicles, earth moving equipment, cranes etc., as planned and establish communication links
18. Adequate road signs should be installed to guide and assist the drivers
19. Recruiting casual labourers to work with experienced staff and divide into work gangs
20. Assist fire brigade/police personnel in rescue & evacuation by clearing debris
21. Undertake cleaning of ditches, grass cutting, the burning or removal of debris and the cutting of dangerous trees along the road side in the affected area
- 22 . Restoration of roads to their normal conditions by establishing a priority listing of which roads will be opened first. Among the most important are the roads to hospitals and main trunk routes, routes to relief godowns , camps etc.
22. Undertake cleaning of all paved and unpaved road surfaces including edge metalling, pothole patching and any failure of surface foundation the affected areas and keep monitoring their conditions.
23. Mobilize community/headmen/volunteers in road-cleaning operation
24. Repair/reconstruction of public utilities and buildings
25. Assist administration for setting up transit and relief camps, feeding centers, hospitals
26. Work under construction should be secured with ropes, sandbags and covered with tarpaulins, if necessary.
27. Regular reporting to higher authorities about the situation including expenditure statement etc.

#### **Post Disaster:**

28. In post operation phase, sit with the teams, review situation, discuss problems and suggest remedies, collect feedback etc., to upgrade mitigation as well as action plans.

**11.5 Department of Food & Civil Supplies:** The Deputy Director Supply will be the Nodal officer in charge and all subordinate officers and staffs of Supply branch will work under him. He is also the leader of the District Relief Team.

The operational procedures of Food & Civil Supplies Departments before a disaster includes;

1. Preparation of Contingency plan for the department
2. Assignment of roles and responsibilities to all the staff so that they can act accordingly at the time of a disaster.
3. Listing down of available resources within the department that can be utilized at the time of a disaster.

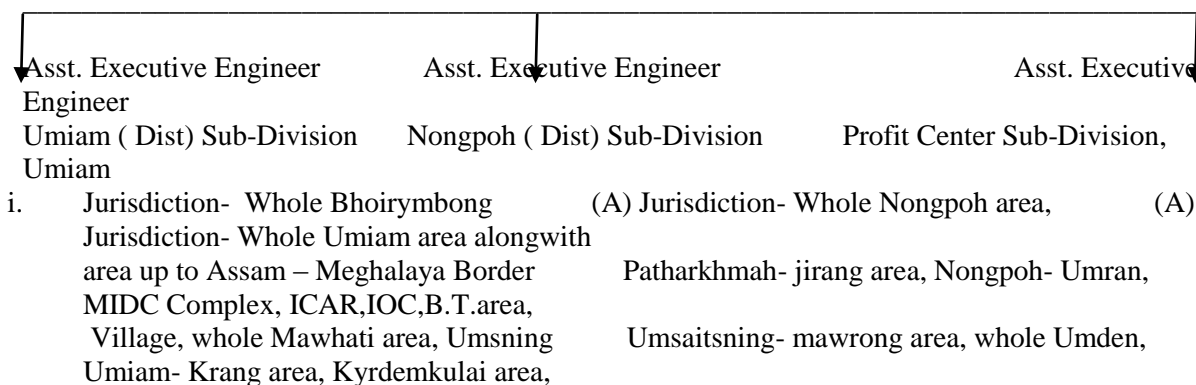
**During disaster:** The operational procedures of Food & Civil Supplies Departments at the time of a disaster includes

1. Establish linkages with District Control Room
2. Arrange and dispatch supplies to affected areas as per the requisition needed to meet the shortage of supply of food, baby food, P.O.L., S.K.O., LPG.
3. Determine the quantity & type of supplies required in a disaster (e.g. dry food, ready to eat food, essential commodities, SKO, LPG. P.O.L., toiletries, blankets etc) & tie up with suppliers.
4. Maintain a list of suppliers of different commodities in the District & outside the district.
5. Identify storage facilities, location & capacity wise
6. Pre-contract with suppliers
7. Action against black marketers, hoarders, etc.
8. Regular reporting to higher authorities about the situation including expenditure statement etc.

**Post Disaster** .In post operation phase, sit with the teams, review situation, discuss problems, suggest remedies, collect feedback etc., to upgrade mitigation as well as action plans

#### **11.6 Meghalaya Electricity Cooperation Limited:**

EXECUTIVE ENGINEER, MeCEL, NONGPOH  
RI-BHOI ( DIST) DIVISION, MeCEL, NONGPOH





area up to Umran.  
Lalsharai area.

Umsawnongbri area, Nongpoh to 20<sup>th</sup> mile area.

NEPA,

1. Restoration of power supply , shut down of power supply etc at the time of disaster .
2. Four wheel vehicles, Jugalis, can be engaged during disasters. Poles, conductors and other electrical items are always available under different heads of A/C and can be diverted at the time of disaster .

**During Disaster.**

1. MeCEL is ready to restore power supply to all vital installations.
2. Hacksaw frame with blade for cable cutting, pulley, jungle knives, axes, crowbars, ropes, spanners etc are available.
3. By phone.
4. Teams under the AEE's with necessary tools will be sent.
5. For switching off the power supply from control room of MeCEL, it can be isolated all the feeders.
6. Will be attended by EE, AEE's and all lines staffs.
7. Can be engaged as and when required.
8. Can be procured on emergency basis.
9. As there is no D.G set if circumstances arises it will be taken up with higher authority for hiring the same.
10. As and when required it will be intimated accordingly

**11.7 Soil and water Conservation Department:** The Divisional Officer will be the Nodal officer of Soil and Water Conservation Department.

The operational procedures of Soil and water Conservation Department before a disaster includes;

1. Preparation of Contingency plan for the department
2. Assignment of roles and responsibilities to all the staff so that they can act accordingly at the time of a disaster.
3. Listing down of available resources within the Department that can be utilized at the time of a disaster.
4. Promotion of shelter belt plantation and published of information for public knowledge on details of forest cover, use of land under the Forest Department, the rate of depletion and its causes
5. Keep saws and other tree cutting equipments in working conditions.
6. IEC activities for greater awareness regarding the role of trees and forests for protection during emergencies and also to minimise environmental impact which result as a result of deforestation like climate change, soil erosion, etc. Take up plantation to make good the damage caused to tree cover after disaster.

**During disaster:** The operational procedures of Soil and water Conservation Department at the time of a disaster includes

1. Establish linkages with District Control Rooms
2. Assist in road clearance
3. Units for tree cutting and disposal to be put under the control of DC during emergency
4. Plan for reducing the incidence, and minimise the impact of forest fire
5. Provide of building materials such as bamboos etc for construction of shelters.

**Post Disaster:**

1. Increasing involvement of the community, NGOs and CBOs in plantation, protection and other forest protection, rejuvenation and restoration activities
2. Provision of seedling to the community and encouraging plantation activities, promoting nurseries for providing seedlings in case of destruction of trees during natural disasters
3. In post operation phase, sit with the teams, review situation, discuss problems, suggest remedies, collect feedback etc., to upgrade mitigation as well as action plan.

**11.8 Department of Transport:** The District Transport Officer will be the Nodal Officer in charged.

The operational procedures of District Transport Officer before a disaster includes;

1. Preparation of Contingency plan for the department
2. Assignment of roles and responsibilities to all the staff so that they can act accordingly at the time of a disaster.
3. Listing down of available resources within the Department that can be utilized at the time of a disaster.
4. Keep the list of vehicles available in the district.

**During disaster:** The operational procedures of DTO at the time of a disaster includes

1. Establish linkages with District Control Rooms
2. Arrangement of transport for reaching supplies to affected areas. Transport for evacuation of people and transport for medical teams. Arrange vehicle for evacuation , maintenance of supplies and medical aid etc.,
3. Assessment of the likely requirement in the event of a disaster
4. Information about various classes/types of vehicles available, location-wise
5. Keep vehicle requisition forms ready in sufficient numbers
6. Ascertain the actual requirement from Control Room, Supplies Deptt., Housing Deptt, HealthDepartment
7. Regular reporting to higher authorities about the situation including expenditure statement etc.

**Post- Disaster.** In post operation phase, sit with the teams, review situation, discuss problems, suggest remedies, collect feedback etc., to upgrade mitigation as well as action pla

**11.9. Department of Information and Public Relations:** The District Public relation officer will be the Nodal officer in charged of the department.

**Pre- disaster:** Following are the roles and responsibility of the Department of Information and Public Relations before a disaster.

1. Preparation of Contingency plan for the department
2. Assignment of roles and responsibilities to all the staff so that they can act accordingly at the time of a disaster.
3. Listing down of available resources within the Department that can be utilized at the time of a disaster.
4. Public awareness on various aspects of disaster management through media.
5. Dissemination of information to public and others concerned regarding do's and don'ts of various disasters

**During Disaster:** The roles and responsibilities of the DPRO at the time of the disaster will be to:

1. Establish linkages with District Control Rooms
2. Regular liasioning with the media Response Activities
3. Provide authentic information to public regarding impending emergencies
4. Daily press briefings at fixed times at District levels to provide official version
5. Keep the public informed about the latest of the emergency situation (area affected, lives lost, etc)
6. Keep the public informed about various post disaster assistances and recovery programmes.

**Post Disaster:**

1. In post operation phase, sit with the teams, review situation, discuss problems, suggest remedies, collect feedback etc., to upgrade mitigation as well as action plans.

**11.10 . Department of Animal Husbandry and Veterinary .** The District A.H. and Veterinary Officer will be the Nodal officer incharge of the department.

**Pre- disaster:** Following are the roles and responsibility of the Department of Animal Husbandry and Veterinary before a disaster.

1. Preparation of Contingency plan for the department
2. Assignment of roles and responsibilities to all the staff so that they can act accordingly at the time of a disaster.
3. Listing down of available resources within the department that can be utilized at the time of a disaster.
4. Public Awareness on safety of animals at the time of disaster

**During Disaster:** The roles and responsibilities of the DVO at the time of the disaster will be to:

1. Establish linkages with District Control Rooms
2. Disposal of dead cattle and others animals to prevent outbreak of health and sanitation problems

- 3 Management of livestock in emergency,
- 4 .Assist Police and Civil Defence & police in disposal of dead bodies, claimed/unclaimed, after observing all formalities
5. Requisition of fodders/medicines/equipments etc as per the pre-contact with the suppliers
6. Deployment of teams with necessary equipments, medicines etc and logistic support and authority as planned and establish communication links
7. Treatment of injured cattle/ livestock
8. Protection and care of abandoned/lost livestock
9. Assist volunteers/village headman/police personnel in rescue & evacuation and/or disposal of carcass as well as get insurance benefit.
10. Organized transfer of seriously injured livestock from villages to veterinary aid centers wherever possible
11. Establish cattle camps and additional veterinary aid centers at disaster sites and designate an Officer-in-Charge for the Camp.
12. Estimate the requirement of water, fodder, medicines and animal feed and organize the same.

**Post Disaster:**

1. Damage assessment
2. In post operation phase, sit with the teams, review situation, discuss problems, suggest remedies, collect feedback etc., to upgrade mitigation as well as action plan

**11.11 Department of Agriculture: District Agriculture Officer** will be the Nodal Officer in charged of the department.

**BEFORE DISASTER:-**

1. Preparation of Contingency plan for the department
2. Assignment of roles and responsibilities to all the staff so that they can act accordingly at the time of a disaster.
3. Listing down of available resources within the department that can be utilized at the time of a disaster.
4. Proper Training/Awareness programmes of different type of disasters must be conducted in every village, Blocks and District Head Quarter.
5. If you were unable to disable electric power before the disaster, look carefully for signs of damage to electrical components. Contact your electric utility company if you suspect damage, and ask for advice on how to determine if your electric system is safe to turn back on.
6. While construction a house passage should not be narrow because if there is emergency then each and every one can move freely.
7. Back door exits should be there.

8. At home if there is patients suffering from prolong illness, he/she should admit immediately in Hospital and not to keep at home.
9. Hospital/Police station/Fire brigade telephone Nos must be in our diary
10. If there is any domestic animal at home we should not tied them with rope so that they can move freely when disaster arises.
11. Those who have vehicle fuel tanker should be full in the car but in safe side.
12. At least three/four torch light we have to keep ready for emergency nearby our hand.
13. Farmers must realize the effect disasters will have on family members and co-workers, as well as the impact on livestock, crops, farm structures, machinery, water and food supplies should be storage sufficient quantity and other bulk materials stored on the farm. They must also be prepared for the economic issues related to loss of life, property, or income that may occur.
14. Farmers who are prepared for disasters are more likely to preserve life and property. They will also minimize recovery time and resume productivity much faster.
15. Farmers must protect crops, equipment and machinery, agricultural chemicals, water supplies and stores of food for animals.
16. Farmers must updated list of pesticides, fertilizers, fuels, medicines and other chemicals. During a disaster, these chemicals can wash into streams or contaminate food supplies, placing people and animals at risk.
17. In addition to family disaster kits, agriculture producers should also keep on hand additional supplies to protect the farm. These include:
  - Sandbags and plastic sheeting, in case of flood
  - Wire and rope to secure objects
  - Lumber and plywood to protect windows
  - Extra fuel for tractors and vehicles in a safe location
  - Hand tools to assist in preparation and recovery
  - Fire extinguishers at all barns and in all vehicles
  - A safe supply of food to feed livestock
  - A gas-powered generator in case of power failure.

#### **DURING DISASTER:**

1. Establish linkages with State/District Control Rooms
2. The Department of Agriculture will assist in assessment of damage to agriculture & farming community and help them to restart their agriculture/farming operations.

3. Ensure availability of staff and teams ( extension officers and others) visiting/stationed at respective disasters sites with necessary equipments, medicines, logistic support and authority as planned and establish communication links.
4. Assess the extent of damage to soil, crop, plantation, micro-irrigation systems, storage facilities and the required intervention (estimate the requirement of seeds, fertilizers, pesticides , labour, tools and equipments etc).
5. Ensure stock of seeds/plants/medicines/manure/tools/ equipment, which are needed and to supply immediately.
6. Requisition of seeds/plants/medicines/manure/tools/equipments etc as per the pre-contract with the suppliers
7. Clearance of debris, if any, due to land slide and flash flood and assist community in developing agricultural land.
8. Organise transport, storage and distribution of the relief aid with adequate record keeping procedure
9. Establish contact with water testing laboratories/office
10. Restore the agricultural operations (including soil conditions)
11. Restore agriculture produce market.
12. Arrangement of alternative power/ energy sources, as planned, to operate agriculture deptt./ field offices.
13. Establish public information center to let the people know about the type of job done and the necessary relief aid/new schemes etc
14. Monitor pest and disease control
15. Assist community/farmers getting insurance benefit.
16. Regular reporting to higher authorities about the situation including expenditure statement etc.
17. Search and Rescue, Public hazard reduction, emergency communication, transportation and shelter, food , medical assistance and temporary housing , emergency repairs to water, sewer, electric, gas and debris collection.
18. Awareness for the public like switching off of electricity, switching off L.P.G cylinder regulator should be off and taken out from the cylinder. Switching on of Mobile phones, special care for children must be taken and guide them carefully during disaster, maximum numbers of filled cylinder to be taken out of home. All important office documents should be kept in a VIP or suitcase so that we can take out easily. Car keys, door keys, gate keys we have to keep in pocket so during that time we are no need to search here and there. If there is any electrical equipments i.e Refrigerator, Washing machine, Music system iron/heater should be in a position i.e should be taken out from plug point. Every house should have one radio operated by battery. Kerosene or petrol -base light should not be used and people should not be exaggerated.

## **POST DISASTER :**

1. Crises incited by conflict and natural phenomena can have profound affects on the agricultural systems of rural people. Unfortunately these systems are often unprepared to withstand the impacts of these stresses. When the integrated socioeconomic, environmental and cultural elements of the farming system are damaged, the ability of farmers to maintain seed security may be compromised. Seed security is the access by farmers to adequate good quality seed of locally adapted varieties. It is of paramount importance in achieving long-term food security and maintaining sustainable livelihoods.
2. In response to these problems, national and local organizations often intervene in order to help affected communities recover and restore their agricultural systems.
3. A post-disaster needs assessment involves diagnosing the nature and magnitude of a disaster once it occurs. Relief and rehabilitation initiatives are, in essence, the management of information and resources, based on assessments and reports; if officials are to make effective decisions about the deployment of resources it is essential that they are properly informed.
4. Never try to turn the electricity back on in areas that have been flooded before having the system checked. Depending on the extent of damage, gas lines could also sustain significant damage. Have the gas utility check the system for leaks before continuing service.
5. General trends of information needs for appropriate project planning are outlined as follows:
  - Existing and pre-disaster physical structure of farmer systems
  - Local knowledge and its role in maintaining agricultural sustainability
  - Feasibility of facilitating access to seeds
  - Targeting and stakeholder identification
  - Normally existing informal and formal seed channels
  - Social, gender, cultural and class relations in the farming system
  - The natural environment (land mines, soil fertility etc.)
  - The situation of displaced individuals.
  - Coordination with other areas of disaster recovery and relief
  - Livelihood recovery
  - Selection and multiplication for seed distribution (if required)
  - The impact of the disaster upon all of the factors aforementioned
  - The integration of short and long term plans should be at the initial planning stages
  - A shared vision of end goals between the Government, donor community and key local actors
  - A joint needs assessment that prioritizes the essential elements of basic needs and reconstruction and peace-building efforts
  - A clear schedules and assigned responsibilities for hand-over from emergency agencies to their successors undertaking rehabilitation and development programs

- the ongoing participation of community based organizations from the needs assessment through to long-term planning
  - performance and utilization-focused monitoring integrated into planning
6. In post operation phase, sit with the teams, review situation, discuss problems, suggest remedies, collect feedback etc., to upgrade mitigation as well as action plans

**11.12 : District Medical and Health Officer.:** The District Medical and Health Officer will be the Officer In charged of the Department

**Pre- disaster:** Following are the roles and responsibility of the Department of Health before a disaster.

1. Preparation of Contingency plan for the department
2. Assignment of roles and responsibilities to all the staff so that they can act accordingly at the time of a disaster.
3. Listing down of available resources within the Department that can be utilized at the time of a disaster.

**During Disaster:** The roles and responsibilities of the DM&HO at the time of the disaster will be to:

1. Establish linkages with District Control Rooms
2. Provide immediate medical, health and public hygiene services, check outbreak of epidemics and provide on site OT and Trauma Services and create awareness on public health
3. Large stock of surgical packs be sterilized to last for one week, at least & kept in a safer place.
4. Arrange for emergency supplies of anesthetic drugs
5. Requisition of medicines/equipments etc as per the pre-contract with the suppliers
6. Ensure stock of equipment and drugs, which are needed and/or request HQ , on priority basis, to supply to the hospital immediately
7. Arrangement of alternative power/ energy sources, as planned, to operate hospital centers.
8. Deployment of teams with necessary equipments, medicines etc and logistic support and authority as planned and establish communication links
9. Ensure storage of safe drinking water and encourage water savings in the hospital.
10. Ensure emergency admission procedures with adequate record keeping & establish public information center to let the people know about the type of job done and the necessary relief aid/new schemes, etc
11. Ensure availability of staff and teams of doctors and assistants visiting disasters sites
12. Assist volunteers/village headman/police personnel in rescue & evacuation and/or disposal of carcass as well as get insurance benefit.



13. Assist the District Administration for setting up transit and relief camps, feeding centers and ensure adequate sanitary conditions.
14. Regular reporting to higher authorities about the situation including expenditure statement etc.

**Post Disaster:**

15. In post operation phase, sit with the teams, review situation, discuss problems, suggest remedies, collect feedback etc., to upgrade mitigation as well as action plans

**11.13 : Public Health Engineering Department :** The Executive Engineer, PHE will be the Officer In charged of the Department.

**Pre- disaster:** Following are the roles and responsibility of the Department of Public Health Engineering before a disaster.

1. Preparation of Contingency plan for the Department
2. Assignment of roles and responsibilities to all the staff so that they can act accordingly at the time of a disaster.
3. Listing down of available resources within the department that can be utilized at the time of a disaster.

**During Disaster:** The roles and responsibilities of the EE, PHE at the time of the disaster will be to:

1. Establish linkages with District Control Rooms
2. Provide immediate supply of clean drinking water in the disaster affected areas and in the relief camps and hospitals etc.
3. Deployment of teams with necessary equipments/tools, logistic support & authority, as planned and establish communication links
4. Immediately undertake inspection of intake structures, pumping stations, water sources, treatment plants, storage tanks (hospital etc), sewerage lines and of other equipments and review extent of damage.
5. Undertake chlorination, bacteriological analysis, determination of chlorine residue & restoration of water works. Daily determination of the chlorine residual in public water to avoid the presence of Escherichia coli & other contamination in public water supply.
6. Recruit casual labours on an emergency basis for clearing damaged pipes, blocked sewerage and salvage of important equipment and accessories
7. Check the condition & contamination level of private water sources including water from streams, wells, tube wells etc , if any, and use scientific methods of de-contamination to make it edible/use worthy
8. Restore and ensure uninterrupted water supply to all vital installation, facilities and sites (life-line buildings, relief camps, feeding centers, Hospitals, godowns etc).
9. Assist Health Authorities to identify appropriate sources of potable water
10. Encourage public for economic use of water

11. Make provisions to acquire tankers and establish other temporary means of distributing water on an emergency basis.
12. Requisition of equipments etc as per the pre-contract with the suppliers
13. A minimum level of stock should be maintained for emergencies and should include extra length of pipes, connections, joints, hydrants and disinfectant/bleaching powder. Adequate tools should be on hand to carry out emergency repairs.
14. Arrangement of alternative power/ energy sources, as planned, to operate PHE centers
15. Cover and guard the pumps/ motors with adequate protection so that it is not damaged or stolen
16. Regular reporting to higher authorities about the situation including expenditure statement etc.
- 17.

**Post Disaster:**

1. Damage Assessment .
2. In post operation phase, sit with the teams, review situation, discuss problems, suggest remedies, collect feedback etc., to upgrade mitigation as well as action plans.

**11.13 : Social Forestry Department:** The Divisional Forest Officer will be the Nodal officer in charged of Social Forestry Department.

The operational procedures of Soil and Water Conservation Department includes;

**Pre- disaster**

- 1.Preparation of Contingency plan for the department
- 2.Assignment of roles and responsibilities to all the staff so that they can act accordingly at the time of a disaster.
- 3.Listing down of available resources within the Department that can be utilized at the time of a disaster.
- 4.Promotion of shelter belt plantation and published of information for public knowledge on details of forest cover, use of land under the Forest Department, the rate of depletion and its causes
- 5.Keep saws and other tree cutting equipments in working conditions.
6. IEC activities for greater awareness regarding the role of trees and forests for protection during emergencies and also to minimise environmental impact which result as a result of deforestation like climate change, soil erosion, etc. Take up plantation to make good the damage caused to tree cover after disaster.

**During disaster:** The operational procedures of Soil and Water Conservation Department at the time of a disaster includes

1. Establish linkages with District Control Rooms
2. Assist in road clearance
3. Units for tree cutting and disposal to be put under the control of DC during emergency

4. Plan for reducing the incidence, and minimise the impact of forest fire
5. Provide of building materials such as bamboos etc for construction of shelters

**Post Disaster:**

1. Increasing involvement of the community, NGOs and CBOs in plantation, protection and other forest protection, rejuvenation and restoration activities
2. Provision of seedling to the community and encouraging plantation activities, promoting nurseries for providing seedlings in case of destruction of trees during natural disasters
3. In post operation phase, sit with the teams, review situation, discuss problems, suggest remedies, collect feedback etc., to upgrade mitigation as well as action plans.

11.14 **Army** : The Army will assist the District Administration in search and rescue during disaster.

Pre- Disaster: The operational procedures of the Army before a disaster includes;

1. Preparation of Contingency plan for the Department
2. Assignment of roles and responsibilities to all the staff so that they can act accordingly at the time of a disaster.
3. Listing down of available resources within the department that can be utilized at the time of a disaster.

**During disaster:** The operational procedures of the Superintendent of Police at the time of a disaster includes

5. Establish linkages with District Control Rooms
6. Provide necessary assistance to the Emergency Control Rooms if need arises and help in setting up of onsite EOC at the place of incident.
7. Cordoning of affected area and maintenance of law and order.
8. Identification of sensitive areas and patrolling. Patrolling on important buildings/ highways
5. Close contact with other rescue team for search and rescue
6. Establish Radio Communication to assist evacuation, information dissemination and checking rumours
7. Evacuation of People & immediate reporting to higher authority
8. Assist seriously injured persons to go to treatment centers
9. Assist and encourage the community in road-clearing operation
10. Traffic management as required
11. Provide security in transit and relief camps, affected areas, lifeline infrastructures & services
12. Assist district administration.
13. Air dropping of relief materials
14. Assist administration in supply and distribution of relief materials
15. Medical assistance

18. Air lifting of affected people.

**Post disaster:**

19. In post operation phase, sit with the teams, discuss problems, suggest remedies, collect feedback etc., to upgrade mitigation as well as action plans.

**11.15 Check list for Deputy Commissioner & Additional Deputy Commissioner**

PREPARED ACTION TAKEN	Y/N	REMARKS
To ensure communication of the District Control Room with the Block Control Room ,Police Control Room as well as the State Control Room.		
Test checking of receipt & transmission of messages.		
Ensuring Proper functioning of communication equipment.		
Alternate communication arrangements in case of failure of one system.		
Training & Mock drill of officials designated for disseminating a Cyclone/Flood warning.		
Flow of information Up & Down as follows 1) District Control Room --- Block Control Room .--- Villages 2) Deputy Commissioner----Revenue Department ---- Line Depatments--- Police Control.Room --- DIPRO.		
Public address system to be kept ready along with vehicles.		
Highlighting Control Room Phone No's.		
Preparing a database for Important Tel Nos. & Alternate Tel Nos.		
District Control Room to operate with shift (24 hours & 365 days).		
Detail report of the situation to be displayed for every ones information at District Control Room.		
Adequate warning mechanism to be ensured for evacuation.		
Officers at different control rooms to be designated as Nodal officer for evacuation.		
Co-ordination between Dist. Administration with NGO's etc.		
Mapping of cyclone shelters serving Vulnerable villages.		
Army assistance / Special task group to be pre prepared.		
Rescue groups to under go mock drills		
Co-ordination with Police force / Police arrangements / Fire and Emergency Service staff.		
Contact Person / Address / Telephone No. of different Private / Govt. Vehicle to be kept in advance.		
Organizing vehicles / ambulance for immediate assistance to the affected mass.		
Community assistance in road clearance.		

Passenger carrying buses / transportation etc. to be diverted away from Disaster sites.		
Areas to be identified to be cordoned off.		
DPRO to disseminate information to public		
Ensuring advance stocking of resource for evacuation equipments like ladders, rope, petrolmax lights etc.		
Safe route / alternate route charts from / to weak & Vulnerable points.		
Evacuation routes not to be blocked for long time.		
Order of evacuation should be (a) Seriously injured & sick (b) Children, women, Handicapped, old age (c) Able bodied.		
Petrol / K.Oil / Diesel to be kept reserved in advance		
Ensuring supply of Food & Water		
Provision for security in a) Relief receiving centers b) Transportation of relief c) Relief stored godowns d) Distribution of relief e) Relief camps f) Free kitchen centers / Feeding centers g) Relief officials h) VIP's / VVIP's dealing with relief distribution i) Air dropping zones		
Order in advance for the requirements.		
Storage of materials in advance at the inaccessible pockets.		
Ensuring pre position of medical aids.		
Evaluating the depth of impact of disaster at different locations.		
Prioritizing the disaster sites depending upon the magnitude.		
Uninterrupted supply of relief materials to Relief camps / Multipurpose shelters.		
Provision for free kitchen / distribution of cooked food.		
Provision for transportation.		
Alternate route chart to reach the disaster sites / weak & vulnerable points.		
Arrangements for Trauma counseling facilities		
Initiating help from local NGOs / CSOs / Anganwadi members		
Keeping an account of the list of private stockiest / Millers etc.		
Family pack should be made in advance.		
Type of relief materials to be finalized for different types of disasters,		
Ensuring MSL (minimum standard limit) at all the fair price shop / Wholesalers etc.		
Packed water to be pre stocked / Drinking water supply		
Public address system / Public information center activated		
Precautionary measures through Leaflets / Pamphlets.		
Coordination with revenue and all other line departments		

Coordination with S.P and DMHO		
Coordination with S.P and DMHO		
With Irrigation / Line Departments.		
With Army Personnel's NCC / NSS etc.		
With Fire and Emergency Service officer		
With Private Resource persons like Doctors / Engineers etc.		
With NGOs / CBOs / CSOs		
With neighboring District HQ.		
With Student mass		
Road clearance.		
Eviction of Encroachments.		
Arrangements for alternate routes		
Identification of Causalities.		
Preparing reports on UD cases.		
Electricity restoration.		
Transportation / communication restoration.		
Water supply restoration.		
Normalcy restoration.		
Restoration of Educational Institutions.		
Weak & Vulnerable areas.		

#### 11.16 Check list for SP

<b>PREPARED ACTION TAKEN</b>	<b>Y/N</b>	<b>REMARKS</b>
Ensuring communication establishment of Dist. Police H.Q. with P.S./ O.P.s / DCR/Divisional Commissioner/Neighboring Police H.Q's .		
Test checking of receipt of transmission of messages		
Ensuring Proper functioning of communication equipments or systems.		
Alternate communication arrangements in case of failure of one system.		
Training & Mock drill of warning dissemination teams for disseminating a Cyclone/Flood warning.		
Flow of information Up & Down as follows D.C.R.---S.P.----P.S. / O.P's.		
Public address system to be kept ready along with vehicles.		
Highlighting Control Room Phone No's. & other important PH no's.		

Preparing a database for Important Telephone Numbers.		
Adequate warning mechanism to be ensured for evacuation.		
An officer to be designated as Nodal officer for evacuation.		
Community assistance in organizing emergency transport of seriously injured to the Medical center.		
Antisocial elements identified and taken care of.		
Community assistance in road clearance.		
Traffic management, Patrolling on State/National High ways and roads leading to disaster sites.		
Roads to be identified to be made (a) one way (b) to be blocked		
Passenger carrying buses etc. to be diverted away from Disaster sites.		
Security provisions in a) Shelters b) Transit camps c) Hospitals & Medical center.		
Areas to be identified to be cordoned off.		
Public information centers activated.		
Co-ordination with Army personnel in rescue and evacuation.		
Ensuring advance stocking of resource for evacuation equipments like ladders, rope, petromax lights etc.		
Alternate route charts for weak & Vulnerable points.		
Provision for security in a) Relief receiving centers b) Transportation of relief c) Relief stored godowns d) Distribution of relief e) Relief camps f) Free kitchen centers / Feeding centers g) Relief officials h) VIP's / VVIP's dealing with relief distribution i) Air dropping zones		
Assisting Dist. Authorities for action against Hoarders, Black Marketers etc.		
Safe guarding the weak & Vulnerable points on river embankment.		
Taking the relief poaching to task.		
Safe guarding the public / Govt. properties.		
With DCR / DC / Divisional Commissioner.		
With DMHO / DVO / DC Supply / DTO		
With Water Resources / Line Departments.		
With Army Personnel's.		
With Fire and Emergency Service / NCC / etc.		
Road clearance.		
Eviction of Encroachments.		
Arrangements for alternate routes		

Identification of Causalities.		
Preparing reports on UD cases.		

### 11.17 CHECK LIST FOR DM & HO

PREPARED ACTION TAKEN	Y/N	REMARKS
Ensuring communication establishment with DCR, P.H.C.s, CHCs, Medical Aid Centres & Sub Centres.		
Test checking of receipt & transmission of messages.		
Ensuring Proper functioning of communication equipments or systems.		
Alternate communication arrangements in case of failure of one system.		
Training & Mock drill of officials designated for disseminating a Cyclone/Flood warning.		
Flow of information To & From as follows Collector / D.C.R -----D.M.H.O. ----- M.O., P.H.Cs, C.H.Cs etc. ----- M.O, Sub Centres ----- Medical Aid Centres .		
Public address system to be kept ready along with vehicles.		
Highlighting Medical Control Room Phone No's. .		
Preparing a database for Important Tel Nos. & Alternate Tel Nos.		
Control room to operate with shift Medical officers (24 hours & 365 days).		
Battery/Charging sets to be kept charged with arrangements for stand by Battery sets.		
Detail Precautionary report of the situation to be displayed for every ones information.		
Ensuring prevention of water born diseases .		
Placement of requirements of medicines etc.		
Adequate warning mechanism to be ensured for evacuation.		
Officers at different control rooms to be designated as Nodal officer for evacuation.		
Functioning of Medical Aid Centres in the shelters / weak & Vulnerable areas.		
Adequate supply of Medicines etc required for treatment of people rescued.		
Ambulance to be kept in readiness.		
Formation of Mobile units & Deputing these mobile units with Medicines to accompany the rescue team.		
Preventive measures to stop spread of epidemics in the shelters / relief camps.		



Distribution of Leaf-lets / Pamphlets for Dos & Do Not's.		
Special Attention for water sanitation.		
Ensuring functioning of DDCs		
Uninterrupted supply of Medicines to the DDCs / Relief camps / Sub Centres / Multipurpose shelters.		
An officer to be designated as relief medical officer.		
<p>The following emergency medical equipment are stocked</p> <ul style="list-style-type: none"> <li>• Drugs used in treatment of cut and fractures, such as tetanus toxoid, analgesics and antibiotics.</li> <li>• Drugs used for the treatment of diarrhea, water-borne diseases and flu (including oral dehydrating supplies).</li> <li>• Drugs required treating burns and fighting infections.</li> <li>• Drugs needed for detoxification including breathing equipments.</li> </ul>		
Discharge of all ambulatory patients whose release does not pose a health risk to them.		
Non-ambulatory patients relocated within the hospital to safest areas.		
Equipment supplies such as candles, matches, lanterns and extra clothing provided for the comfort of the patients.		
Emergency Generator available.		
Adequate supplies of anesthetic gases for surgery cases available.		
The hospital water storage tanks were filled.		
An area of the hospital designated for receiving large number of casualties.		
<p>Emergency admissions</p> <ul style="list-style-type: none"> <li>• Procedures developed.</li> <li>• Records maintained.</li> <li>• Work schedules to ensure availability of adequate staff.</li> </ul>		
In house emergency medical teams to ensure that adequate staff available at all times to handle emergency casualties.		
Emergency accommodations provided for, for medical personnel from outside the area.		
Security arrangements made at hospitals.		
Public address system / Public information center activated at the hospital.		
Trauma counseling facilities.		
With Collector / DCR, S.P. GRIDCO, PHD, RWSS & Line Dept.		
With NGOs / CBOs / CSOs.		

With Health Dept. /Red Cross		
With Private Ambulance / Nursing Homes / Doctors / Specialist.		
Water Sanitation while the normalcy restores.		
Safe Disposal of carcasses.		
Ensuring proper functioning of DDCs.		
More Medical Aid Camps at disaster sites / Rehabilitation sites.		
Protection against epidemics water born diseases & air born diseases.		
Supply of disaster specific medicines.		
Record mentioning the details of casualties.		
Trauma counseling system developed.		

#### 11.18 Check list for BDOs

PREPARED ACTION TAKEN	Y/N	REMARKS
Ensuring communication establishment of BCR with District control rooms / Line Dept. control rooms / Sub-Zones / Neighboring Block control room / Police control rooms / IMD / State flood control room.		
Test checking of receipt & transmission of messages.		
Ensuring Proper functioning of communication equipments or systems.		
Alternate communication arrangements in case of failure of one system.		
Training & Mock drill of officials designated for disseminating a Cyclone/Flood warning.		
Flow of information Up & Down as follows 1) DCR / Collector --- BCR (Zones) / Tahasils --- Sub-Zones --- G.P CR.--- Villages.		
Public address system to be kept ready along with vehicles.		
Highlighting Control Room Phone No's. .		
Preparing a database for Important Tel Nos. & Alternate Tel Nos.		
BCR to operate with shift (24 hours & 365 days).		
Battery/Charging sets to be kept charged with arrangements for stand by Battery sets.		
Detail report of the situation to be displayed for every ones information at BCR.		
Adequate warning mechanism to be ensured for evacuation.		
Officers at different control rooms to be designated as Nodal officer for evacuation.		
Co-ordination between Block Administrations with NGO's, CBO's .		

Pre placements of Power & country boats at weak & Vulnerable points		
Mapping of cyclone shelters to the Vulnerable villages.		
Identification of Mounds & Cattle sheds.		
Army assistance to be pre prepared.		
Rescue groups to be Mock drilled.		
Co-ordination with Police force / Police arrangements / Fire and Emergency Service		
Contact Person / Address / Telephone No. of different Private / Govt. Vehicle to kept in advance.		
Organizing vehicles / ambulance for immediate assistance to the affected mass.		
Community assistance in road clearance.		
Passenger carrying buses / transportation etc. to be diverted away from Disaster sites.		
Areas to be identified to be cordoned off.		
Public information centers activated.		
Gender / Old age issue must be taken care of.		
Ensuring advance stocking of resource for evacuation equipments like ladders, rope, petromax lights etc.		
Safe route / alternate route charts from / to weak & Vulnerable points.		
Evacuation routes not to be blocked for long time.		
Order of evacuation should be a) Seriously injured & sick b) Children, women, Handicapped , old age c) Able bodied.		
Petrol / K.Oil / Diesel to be kept reserved in advance		
Ensuring supply of Food & Water		
An officer to be appointed as the relief officer.		
Provision for security in a) Relief receiving centers b) Transportation of relief c) Relief stored gowdons d) Distribution of relief e) Relief camps f) Free kitchen centers / Feeding centers g) Relief officials h) VIP's / VVIP's dealing with relief distribution i) Air dropping zones		
Placement of order in advance for the requirements.		
Storage of materials in advance at the inaccessible pockets.		
Ensuring pre position of medical aids.		
Evaluating the depth of impact of disaster at different locations.		

Prioritizing the disaster sites depending upon the magnitude.		
Uninterrupted supply of relief materials to Relief camps / Multipurpose shelters.		
Provision for free kitchen / distribution of cooked food.		
Provision for transportation.		
Alternate rout chart to reach the disaster sites / weak & vulnerable points.		
Arrangements for Trauma counseling facilities		
Initiating helps from local NGOs /CBO's / Anganwadi members		
Keeping an account of the list of private stockiest / Millers etc.		
Family pack should be made in advance.		
Type of relief materials to be finalized for different types of disasters,		
Ensuring MSL (minimum standard limit) at all the fair price shop / Wholesalers etc.		
Packed water to be pre stocked / Drinking water supply		
Public address system / Public information center activated		
Precautionary measures through Leaf lets / Pamphlets.		
With DCR / Collector.		
With Police / M.O. / Fire officer		
With Line Departments.		
With Army Personnel's / NCC / NSS etc.		
With Student mass		
With Private Resource persons like Doctors / Engineers etc.		
With NGOs / CBOs		
With neighboring Block HQ.		
Road clearance.		
Eviction of Encroachments.		
Arrangements for alternate routes		
Identification of Causalities.		
Preparing reports on UD cases.		
Electricity restoration.		
Transportation / communication restoration.		
Water supply restoration.		
Normalcy restoration.		
Estimation of Losses		

#### 11.19 Check list MESEB

<b>PREPARED ACTION TAKEN</b>	<b>Y/N</b>	<b>REMARKS</b>
Radio communications established with Emergency Operations Center, Divisional Commissioner, District Control Room and Departmental offices within the division		
An officer appointed as “Officer-in-Charge-power Supply”		
Standby arrangements for temporary electric supply or generators made for Hospitals, PHE Department, Collectorate, Police stations, Telecommunications buildings, Meteorological stations, Transit camps, SOC Feeding Centers, Relief camps, Cattle camps, Godowns for storing relief materials, Access roads.		
Each depot provided with disaster management tool kit		
Inspection, and repairs if needed, carried out for High tension lines, Towers, Substations, Transformers, Insulators, Poles		
Clearing of damaged poles carried out.		
Salvage of conductors and insulators done.		
Emergency accommodations undertaken for staff from outside the area.		
An itemized damage assessment carried out		

#### **11.20 Checklist for Water resources Department**

<b>PREPARED ACTION TAKEN</b>	<b>Y/N</b>	<b>REMARKS</b>
Radio communications established with Emergency Operations Center, Divisional Commissioner, District Control Room and Departmental offices within the division		
An officer appointed as “Officer-in-Charge-Water Resources”		
Emergency tool kits for all technical assistants prepared.		
Water level gauges on minor tank structures not having level gauges marked.		
Repairs/under construction activities are well secured.		
Round the clock inspection and repair being carried out of Bunds of dams, Irrigation channels, Bridges, Culverts, Overflow channels as may be necessary.		
Round the clock inspection and repair being carried out of Pumps, Generators, Motor equipment and Station buildings.		

Level of impounding in the tanks reduced.		
Coordination of this action with other districts is done.		
Inlet and outlet to tanks are cleared.		

#### 11.21 Check list for Fire service

PREPARED ACTION TAKEN	Y/N	REMARKS
Communication established with Police, Dist. Control Room, CDMO office, Emergency operation center		
Essential fire fighting equipments are stocked Vehicle in good condition, Fuel, Masks, ladders etc.		
Personnel are trained to fight out different fire disaster situation		
Personnel are trained in the evacuation work		
Phone lines are always in order and Community may be informed about the contact points.		
Regular staff assessment for 24 hours to meet emergency		
Fire prone zones identified		
Steps have taken to educate people		
Minimum emergency response time (in minutes)		
Operating procedure –preparedness, during fire and rehabilitation		
Local authority should be kept informed for assistance		
Rescue of life and property		
Aid for Medical services.		
Local bodies should see the fire hazards for water supply points		
Rush to the spot to combat the situation		
Police to control the crowd and to help in giving assistance for relief distribution		
Communication equipments-VHF		
Informed the local bodies for water supply –available sources		
First aid training to all		
Revenue Department coordinate for relief rehabilitation		
Village volunteers should seek the help of GP for water supply		
Wells /ponds may be constructed where there is lack of water.		

### 11.22 Check list for Agriculture Department

PREPARED ACTION TAKEN	Y/N	REMARKS
Communication link within the division established with Divisional Commissioner, District Control Room, Agricultural colleges, Seed banks, Nurseries (private and public).		
The Superintending Agriculture Officer designated as “Officer-in-Charge-Agriculture		
Agricultural equipments, which may be required, stocked.		
Contact established with soil and water testing laboratories.		
Extent of damage assessed for Soil, Crop, Plantation, Micro-irrigation systems and Storage facilities Requirements for salvage or replantation assessed		
Information provided to all concerned about the disasters, likely damages to crops and plantations, and information about ways to protect the same.		
Actions coordinated with Water Resources Department, DRDA		
Organized transport, storage and distribution of Seeds, Fertilizers, Pesticides and Labour		
Cleaning operations carried out to avoid water logging and salinity.		
Surveillance for pests and diseases being carried out.		
Public information center established.		
NGOs and other relief organizations informed of the resources of the department.		
Farmers assisted to reestablish their contacts with agriculture produce market.		
Adequate facilities provided to field teams.		

### 11.23 Check list for Animal Husbandry and Vet Deptt

PREPARED ACTION TAKEN	Y/N	REMARKS
Radio Communication link established with Divisional Commissioner, District Control Room, Emergency Operations Centre, Veterinary aid centers and Hospitals (including private practitioners) within the division.		
The District Animal Husbandry & Vety Officer designated as “Officer-in-Charge-Veterinary Services”		
Emergency medical equipments required are stocked.		

All veterinary hospitals and centers staff informed about the disasters, likely damages and effects, and ways to protect life, equipment and property.		
Emergency electrical generator arranged.		
Emergency supplies of anesthetic drugs arranged.		
Hospital water storage tanks filled		
An area of the Hospital prepared for receiving large number of livestock		
Emergency admission procedures developed (with adequate record keeping).		
Transfer of seriously injured livestock from villages to veterinary aid centers and hospitals organized.		
Established at disaster sites Cattle camps, Additional veterinary aid centers.		
Adequate sanitary conditions maintained Cleaning operations being carried out Epidemiological surveillance is being undertaken		
Emergency accommodations available for veterinary staff from outside the area.		
Organized for cattle camps Water, Fodder and Animal feed.		
Public information center established.		
The local police, and rescue groups informed of the resources of each veterinary aid centers and hospital.		

#### 11.24 Check list for PWD(R & B)

PREPARED ACTION TAKEN	Y/N	REMARKS
Radio Communication link established with Divisional Commissioner, District Control Room, Emergency Operations Centre, Departmental offices within the division.		
An officer appointed as “Officer-in-Charge-PWD”		
Extra transport vehicles dispatched from headquarters		
Work under construction secured		
Heavy equipment, such as front-end loaders, have been secured.		
All work teams issued two-way communication link.		
Inspection and emergency repairs, if necessary, carried out for all Roads, Roads bridges, Underwater inspection of foundations and piers,		



Concrete and steelworks.		
Inspection and emergency repairs, if necessary, carried out for all buildings and structures of the state government (including hospital buildings)		
Emergency inspection by mechanical engineer of all plant and equipment in the District workshops carried out.		
Emergency tool kits assembled for each division		
Routes strategic to evacuation and relief marked		
Adequate road signs installed to guide and assist the drivers.		
Priority listing made for which roads to be opened first.		
Essential equipments such as Towing vehicles, Earth moving equipments, Cranes etc. made available		
Begin clearing roads		
Community assistance mobilized for road clearing		
The following activities were undertaken Cleaning of ditches, Grass cutting, Burning or removal of debris and Cutting of dangerous trees along the roadside in the affected area.		
The following repair works were undertaken for All paved and unpaved road surfaces, Pothole patching and Any failure of surface foundations in the affected areas.		
Construction work undertaken for temporary roads to serve as access to Temporary transit camps, Relief camps and Medical centers.		
Construction work undertaken for temporary structures required for organizing relief work such as Relief camps, Feeding centers, Medical facilities, Cattle camps and SOC/s		
An up-to-date report of all damage and repairs kept in the District Office report book.		

#### 11.25 Check list PHE

PREPARED ACTION TAKEN	Y/N	REMARKS
Radio Communication link established with Divisional Commissioner, District Control Room, Emergency Operations Centre, Departmental offices within the division.		

One officer appointed as “Officer-in-Charge-Water Supply”		
Ensured that the hospital storage tank is full and the hospital is conserving water.		
Informed people to store emergency supply of drinking water.		
Continuous monitoring carried out for Wells, Intake structures, Pumping stations, Buildings above ground, Pumping mains and The treatment plant		
Standby diesel pumps or generators installed in damage proof buildings.		
Provision for standby water supply made.		
Procedures were established for the emergency distribution of water if existing supply was disrupted.		
Provisions to acquire tankers and establishing other temporary means of distributing water on an emergency basis carried out.		
Provisions to acquire containers and storage tanks required for storing water on an emergency basis carried out.		
Water distributed to All transit camps, Relief camps, Affected villages & Cattle camps		
Buffer stock of fuel for the motors acquired		
Emergency repairs of damages to water supply systems carried out		
Appropriate sources of potable water identified.		
Unacceptable water sources identified Necessary precautions taken to see that no water is accessed from such sources.		
Alternate water supply arranged in Feeding centers, All transit camps, Relief camps, Cattle camps and The affected areas.		
Drinking water supply is disinfected as per the standards and procedures laid down.		
Emergency accommodations for staff from outside the area provided.		

**Annexure A: OFFICES IN THE DISTRICT**

Sl. No.	Name of Office
1.	Superintendent of Police, Nongpoh
2.	EAC, Western Ri Bhoi Administrative Unit, Patharkhmah
3.	Executive Engineer, PWD (Rds.), Nongpoh.
4.	Executive Engineer, PHE, Nongpoh.
5.	Executive Engineer (Water Resources), Nongpoh
6.	BDO, Umsning
7.	BDO, Jirang
8.	BDO, Umling
9.	Divisional Forest Officer, Social Forestry, Nongpoh.
10.	Divisional Officer, Soil and Water Conservation, Nongpoh.
11.	District Sports Officer, Nongpoh.
12.	District Statistical Officer, Nongpoh.
13.	General Manager, District Industries and Commerce Centre, Nongpoh.
14.	Superintendent of Industries, Nongpoh.
15.	Superintendent of Fisheries, Nongpoh.
16.	District Animal Husbandry & Veterinary Officer, Nongpoh.
17.	District Agriculture Officer, Nongpoh.
18.	District Sericulture Officer, Nongpoh.
19.	District Handloom Officer, Nongpoh.
20.	District Social Welfare Officer, Nongpoh.
21.	District Public Relation Officer, Nongpoh.
22.	Treasury Officer, Nongpoh.
23.	District Transport Officer, Nongpoh.
24.	District School Education Officer, Nongpoh.
25.	Superintendent of Taxes, Byrnihat.
26.	Superintendent of Taxes, Taxation - Check Gate, Byrnihat.
27.	Joint Director, Conservation Training Institute, Byrnihat.
28.	Project Officer, Non Conventional Energy & Rural Development Agency, Nongpoh.
29.	Assistant Registrar of Co-op Societies, Nongpoh.
30.	SDO (PHE), Nongpoh.
31.	SDO (PWD) (Roads), Nongpoh.
32.	Range Officer, Wild Life, Nongpoh.
33.	Range Officer, Soil Conservation, Nongpoh.
34.	Assistant Employment Officer, Nongpoh.
35.	Deputy Labour Commissioner, Nongpoh.
36.	Assistant Engineer, Urban Affairs, Nongpoh.
37.	Inspector of Legal Metrology, Nongpoh.
38.	SDO (PHE), Umsning.
39.	Range Officer, Social Forestry, Umsning.
40.	SDO PWD (Rds.), Umsning-Jagi Road Sub-Division.
41.	SDO PWD (Rds.), NEC Umsning.
42.	Manager, Farm, Umsning.
43.	Manager, Feed Mill, Umsning.
44.	Assistant Industries Officer, Carpentry cum Mach Shop, Umsning.

45.	Ginger Development Assistant, Umsning.
46.	Senior Scientific Officer, Tea Plantation, Umsning.
47.	Manager, Regional Poultry Breeding Farm, Kyrdemkulai.
48.	Manager, Piggery Farm, Kyrdemkulai.
49.	Manager, Dairy Farm, Kyrdemkulai.
50.	Research Officer, Feed Analytical Laboratory, Kyrdemkulai.
51.	Vocational Training Institute, Kyrdemkulai.
52.	Manager, Cattle Breeding Farm, Kyrdemkulai.
53.	SDO, PWD (Rds.), Patharkhmah, BPO Patharkhmah, PO. Rani-781131.
54.	Range Officer, Social Forestry, Byrnihat.
55.	SDO, PHE, Patharkhmah.
56.	Meghalaya Khadi & Village Industries, I/C Extension Officer, Nongpoh.
57.	District & Session Judge
58.	Joint Director of Education
59.	Sub- Divisional School Education Officer, Nongpoh
60.	District Librarian, Nongpoh

**Directory of DC/SP/ADC/EAC**

Sl.No	Designation	Name	Office Contact Number	Fax	Mobile	Email
1	Deputy Commissioner, Ri Bhoi District, Nongpoh	Dr. Pooja Pandey, IAS	03638-290913 03638-29104	03638-232503	9089561151	<a href="mailto:Nongpoh@nic.in">Nongpoh@nic.in</a>
2	Superintendent of Police , Ri Bhoi District	Shri. G. D. Kharwanlang. MPS	NA	03638-232230	9856526363 9436337946	<a href="mailto:Sp.rb_meg@nic.in">Sp.rb_meg@nic.in</a>
3	Additional Deputy Commissioner, Ri Bhoi District, Nongpoh	Kum. D. Phawa. MCS	NA	03638-232503	9436107729	<a href="mailto:Nongpoh@nic.in">Nongpoh@nic.in</a>
4	Additional Deputy Commissioner & PD DRDA, Ri Bhoi District, Nongpoh	Shri. D. Hynniewta. MCS	NA	03638-232503	9856041954	<a href="mailto:Nongpoh@nic.in">Nongpoh@nic.in</a>
5	Additional Deputy Commissioner & DPO , Ri Bhoi District, Nongpoh	Shri. P.S. Kharkongor, MCS	NA	03638-232503	8729852447	<a href="mailto:Nongpoh@nic.in">Nongpoh@nic.in</a>
6	Extra Assistant Commissioner, Ri Bhoi District, Nongpoh	Smti. D.D. Syngai, MCS	NA	03638-232503	9774012835	<a href="mailto:Nongpoh@nic.in">Nongpoh@nic.in</a>
8	Extra Assistant Commissioner	Shri. J. Shylla. MCS	NA	03638-232503	8575016455	<a href="mailto:Nongpoh@nic.in">Nongpoh@nic.in</a>
9	Extra Assistant Commissioner, Ri Bhoi District, Nongpoh	Smti. Y.R. Mawlong, MCS	NA	03638-232503	9863060539	<a href="mailto:Nongpoh@nic.in">Nongpoh@nic.in</a>
10	Extra Assistant Commissioner	Smti. P.K. Sangma, MCS	NA	03638-232503	8014240038	<a href="mailto:Nongpoh@nic.in">Nongpoh@nic.in</a>
11	Extra Assistant	Shri. R.			8794738118	<a href="mailto:meg-umling@nic.in">meg-umling@nic.in</a>

	Commissioner and BDO Umling C&RD Block	Kharbikhiew , MCS				
12	Extra Assistant Commissioner and BDO Jirang C&RD Block	Shri. H. K. Thabah, MCS			8794741784	<a href="mailto:meg-jirang@nic.in">meg-jirang@nic.in</a>

### Directory of Officers in the District

Sl.No	Names	Designation	Office	Mobile No	emailid
1.	Smti. W. Nongrum	District Social Welfare Officer	District Social Welfare Office, Ri Bhoi District	9436100877	dsworbd@gmail.com
2.	Shri. W. lyngdoh	Research officer, Planning Branch	D.C Office Nongpoh	9856819163	districtplanningofficenongpoh@yahoo.co.in
3.	Shri. B. Tiewla	Asst Research officer, Planning Branch	D.C Office Nongpoh	9436114183	districtplanningofficenongpoh@yahoo.co.in
4.	Shri. A. T. Marwein	District Informatics Officer	D.C Office Nongpoh	9856035071	
5.	Shri. S.H. Nadon	Water Resources	Executive Engineer	9436101573	
6.	Shri. W. Makdoh	District Transport Office	District Transport Officer		
7.	Shri. M. Thabah	Housing	Inspector of Housing	9862859902	
8.	Shri. H. S. Kharpran	Divisional Soil & Water Conservation Office	Divisional Soil & Water Conservation Officer	986306254	
9.	Shri. F. Syiemiong	Asst Soil & Water Conservation Officer	Asst Soil & Water Conservation Officer	9863183553	
10.	Shri. L. Sohlang	Range Officer	Range Officer	8974007189	
11.	Shri. Y.H. Lyngdoh	Range Officer		9863277429	
12.	Shri. B.S. Khongtip	Range Officer	Patharkmah	9615837261	
13.	Shri. A.S. Kharbuli	Range Officer	Umroi	8794959499	
14.	Shri B. Jarain	District Public Relation Office	District Public Relation Officer	8575693371	bonafacejarain@gmail.com
15.	Smti. N. Moksha	Journalist	District Public Relation Officer	8014157663	
16.	Shri. D.D. Umdor	Executive Engineer	PHED	9436117124	eephenongpoh@gmail.com
17.	Shri.S.Najiar	Sub-Divisional Engineer	PHED	9436106476	
18.	Shri.U. Kurbah	Sub-Divisional Engineer	PHED	9856042182	
19.	Shri.B.Marngar	Sub-Divisional Engineer- (TC)	PHED	9436332808	
20.	Shri. G.Khongdier	District School Education Officer,	District School Education Office	9436707541	
21.	Shri.T.Shangrang	Statistical Asst	District School Education Office	9863023253	
22.	Shri.D.F.Warjri,	Treasury Officer		8575016419	dfwarjri@yahoo

	MFS				o.com
23.	Shri. W.Mukhim	S.A.S.A		9615202279	
24.	Shri.R.M. Syiem	S.A.A		7308212431	
25.	Shri. A. Jyrwa	Superintendent of Fisheries	Superintendent of Fisheries	9089062610	
26.	Shri. P. S. suting	Fishery Officer	Superintendent of Fisheries	9862206453	
27.	Shri. W. Marbaniang	Deputy Director of Supply	Supply	9436100038	
28.	Shri. W. Kharshiing	Superintendent of Supply	Supply	9856652928	
29.	Shri. K. S. Kurbah	Inspector of Supply	Supply	9436102978	
30.	Shri G.H. Kharsamai	Sub- Inspector of Supply	Supply	9615462431	
31.	Smti. V.M. Khongwir	Sub- Inspector of Supply	Supply	9856434412	
32.	Shri. I. Marbaniang	Inspector of Statistics	District Statistical Office	9863139847	dsoribhoimeg@gov.in
33.	Shri. J. Mujai	Sub- Inspector of statistics	District Statistical Office	9615884546	
34.	Shri. P.C Das	SDSEO	SDSEO	9435048807	
35.	Smti. V. Lyngdoh	S.I of schools	SDSEO	9863103341	
36.	Shri. R. Rizal	S.I of schools	SDSEO	9862230542 8974004946	
37.	Shri. S.Langstieh	Asst Engineer	District Urban Affairs	9436175000	
38.	Shri. K.K. Sreenivasan	Junior Engineer	District Urban Affairs	9436309447	
39.	Shri. J. Dkhar	General Manager	DCIC	9436100119	
40.	Shri. H.N. Kharpuri	Functional Manager	DCIC	9856554398	
41.	Shri. C. Lyngdoh	Functional Manager	DCIC	9863496277	
42.	Shri. F.G. Syngkon	Functional Manager	DCIC	9485102688	
43.	Smti. M. Mawa	Functional Manager	DCIC	9863029054	
44.	Smti. W. Bamon	Project manager	DCIC	9436994605	
45.	Smti. L. D. synrem	Project Manager	DCIC	9436333001	
46.	Shri. H. Thangkhiew	I.P.O	DCIC	9856863068	
47.	Shri. B. Thangkhiew	S.I	DCIC	8014147302	
48.	Smti. B.D. Muktieh	A.I.O	DCIC	9863546166	
49.	Shri W. Pakyntein	I.P.O	DCIC	9856122728	
50.	Shri. N.F. War	I.P.O	DCIC	8014054572	
51.	Shri. R. Kharbikhiew. MCS	BDO	Umling C&RD Block	8794741784	meg-umling@nic.in
52.	Dr ( Mrs ) I. Tariang	A.H & Vety Officer	Umling C&RD Block	9436107107	
53.	Smti. L. diengdoh	HEO	Umling C&RD Block	9436102069	
54.	Smti . D.	ADO	Umling C&RD Block	9436118320	

	Nongpyuir				
55.	Shri. K. Tangsang	JE	Umling C&RD Block	9612769033	
56.	Shri. L. Shangrang	Sr. GS	Umling C&RD Block	9862612420	
57.	Shri. M. Thabah	Inspector of Housing	Housing	9863075192	
58.	Shri. K. Kharlyngdoh	JE	Housing	8575472024	
59.	Shri V. Kharbuki	ADO	BDO Umling C&RD Block	9436332779	
60.	Shri K.S. Shabong	AE	BDO Umling C&RD Block	9862575009	
61.	Shri L. Syiemlieh	JE	BDO Umling C&RD Block	9436310991	
62.	Shri E. Bamon`	JE	BDO Umling C&RD Block	9856959924	
63.	Shri S. Khongstia	AH Veterinary Officer	BDO Umling C&RD Block	9402183019	
64.	Smti D.S. Pariat	SIS	BDO Umling C&RD Block	9856707058	
65.	Shri. H. K. Thabah . MCS	BDO	BDO Jirang C&RD Block	8794741784	meg-jirang@nic.in
66.	Shri. P. Khonglah	BDO	BDO Umsning C&RD Block	9436165455	meg-umsning@nic.in
67.	Shri. Sainkumar Riahtam	District Agriculture Officer	District Agriculture Officer	8974011642	daoribhoi@gmail.com
68.	Shri. Gasper Shylla	Sub- Divisional Agriculture Officer	- Do_	9862446707	
69.	Shri Banshanlang Shylla	Asst Director of Agriculture ( Plant Protection)	Do_	9436114184	
70.	Smti Diwly Mukhim	Asst Director of Agriculture ( Agromy)	Do_	9436118248	
71.	Shri Harvester Dohling	Agriculture Development Officer ( Hqr)	Do_	9856843783	
72.	Shri Victor Kharbuki	Agriculture Development Officer ( Umsning Block)	Do_	9436332779	
73.	Smti Darisha L. Nongpiur	Agriculture Development Officer ( Umling Block)	Do_	9436118320	
74.	Smti. Bitbhalin Lyngdoh	Agriculture Development Officer ( Patharkhmah Circle)	Do_	9402132759	
75.	Smti Badahun Wahlang	Agriculture Development Officer ( Jirang Block)	Do_	9863768444	
76.	Dr ( Mrs) D. Papang	Sr. A. H. & Vety Officer ( Poultry dev)	District A. H. & Vety Officer	9863081762	
77.	Dr ( Mrs) M. Passah	Sr. A. H. & Vety Officer ( Piggery dev)	do	9863091048	
78.	Dr ( Ms) M. G. Pyngrope	A. H. & Vety Officer	do	9856111362	
79.	Dr. S. Khongsti	A. H. & Vety Officer	do	9402183019	

80.	Dr ( Mrs) i. N. Tariang	A. H. & Vety Officer	do	9436107107	
81.	Dr. R. Nongrum	A. H. & Vety Officer	do	8794257874	
82.	Dr. w. Lyting	A. H. & Vety Officer	do	9863892773	
83.	Dr. W. Khongjoh	A. H. & Vety Officer	do	9856007613	
84.	Dr. D. S. Sangma	A. H. & Vety Officer	do	9863173946	
85.	Dr ( Mrs) M . Thabah	A. H. & Vety Officer	do	8974302627	
86.	Dr. C. J. K. Warjri	A. H. & Vety Officer	do	9436101646	
87.	Dr. I. T. Challam	A. H. & Vety Officer	do	9863065789	
88.	Dr. D. Mawthoh	A. H. & Vety Officer	do	9774763551	
89.	Dr. M. M. Sangma	A. H. & Vety Officer	do	9862290252	
90.	Dr. F. Nongdhar	A. H. & Vety Officer	do	9612342978	
91.	Dr. B. Challam	DM & HO, RBD	DM & HO	9863273181	
92.	Dr S Lyngdoh	Addl DM &HO	do	8974647787	
93.	Dr N. M. Sangma	DTO & DMO	do	9862641483	
94.	Dr. A. R. Marak	DLO & DMCHO	do	9774006170	
95.	Dr. D. M. Momin	DSO	do	8011436090	
96.	Dr. E. Lyngdoh	Medical Superintendent	do	9863022952	
97.	Smti. B. Kharshiing	Asst Metron	do	9774294509	
98.	Dr. M. Lyngdoh	M&HO, Umsning CHC	do	8014710745	
99.	Dr. B. Laitphlang	M&HO, Bhoilymbong CHC	do	8014381024	
100	Dr. E. Kalwing	SM&HO, Patharkhmah CHC	do	9863560364/ 8014157992	
101	Dr. J. Syiem	M&HO , Marngar CHC	do	8729930020	
102	Dr. F. Majaw	M&HO , Barapani St. Dispy	do	9863067389	
103	Dr. J. Sohtun	M&HO , umden CHC	do	9612546746/ 8415928830	
104	Dr. C. Dhar ( Ayush)	M&HO , Mawhati PHC	do	8794237558	
105	Dr. R. L. Sohkhlet	M&HO , Kyrдем PHC	do	9436118759	
106	Dr. A. H. Chaudry	M&HO , Umtra PHC	do	9577670257	
107	Dr. Sabir	M&HO , Byrnihat	do	8974237559	
108	Dr. Ashnaful Haque	M&HO , Warmawsaw	do	9401915695	
109	Dr Sanghamitra Chakraborty	MHO Jirang St. Dispy		8139088943	
110	Dr. W. L. Nonglait	M&HO ( Ayush)	do	8575845133	
111	Shri. Yoowan Laloo	Executive Engineer	PWD ( RDs)	9615388846	
112	Shri. Slanstar Warbah	AEE ( Patharkhmah)	PWD ( RDs)	9774028713	



113	Shri. Jimmy Aren Nongsiej	AEE ( Nongpoh)	PWD ( RDs)	9436302113	
114	Shri. H. D. Pariat	AEE ( Byrnihat)	PWD ( RDs)	9856028760	
115	Shri Jefferson Makdoh	AE ( Nongpoh)	PWD ( RDs)	9856391701	
116	Shri T. A. Sangma	J.D.A	PWD ( RDs)	9089258416	
117	Shri. Elius Warjri	J. E	PWD ( RDs)	9774564309	
118	Shri Arnest Kharpran	J. E	PWD ( RDs)	9436107570	
119	Shri Femio Gashnga	J. E	PWD ( RDs)	9615316272	
120	Shri William. H. Kharlor	J. E	PWD ( RDs)	9856818831	
121	Shri. Ricky N. Syiem	J. E ( M/C)	PWD ( RDs)	9863035518	
122	Shri Rixon Warjri	J. E	PWD ( RDs)	9862720260	
123	Smti. Marina Marbaniang	J. E	PWD ( RDs)	9863060071	
124	Shri. I. Dkhar	Inspector Legal Metrology	Inspector Legal Metrology	9774025252	

**Annexure C : FINANCIAL INSTITUTIONS:**

Sl. No	Name of the Institution	Address
1.	SBI	Nongpoh
2.	Meghalaya Rural Bank	Nongpoh
3.	Apex Bank	Nongpoh
4.	Indian Bank	Nongpoh
5.	SBI	Umsning
6.	Apex Bank	Umsning
7.	Axis Bank	Mawhati-Branch,Umsning
8.	S.B.I	Kyrdemkulai
9.	S.B.I	Umiam
10.	S.B.I	Byrnihat
11.	Apex Bank	Byrnihat
12.	Ka Bank Nongkyndong	Bhoirymbong
13.	Apex bank	Bhoirymbong
14.	Punjab Bank	Byrnihat
15.	SBI	Patharkhmah
16.	S.B.I	Khanapara
17.	S.B.I	Jorabad
18.	Axis Bank	Byrnihat
19.	HDFC Bank	Nongpoh
20.	HDFC Bank	Byrnihat
21.	United Bank of India	Byrnihat
22.	Central Bank of India	Nongpoh
23.	Canara Bank	Nongpoh
24.	Punjab National Bank	Nongpoh

**ANNEXURE D: NAME OF WHOLESALER :: M/S V. SYNGKLI ::UMDEN ::**

SL. NO.	NAME OF FPS DEALERS & CENTRE
1.	P.Tron, Umphieng
2.	M.Shadap, Jowe
3.	H.Rynghang,Khmar kharpati
4.	P.Syiem, Umden Khasi
5.	S. Mangu, Mawphru Mathan
6.	H. Matong, Mawlong Nongtluh
7.	M.Trang, Umden R. C.
8.	S. Myrsing, Umlakhar
9.	T.Timung, Umrang
10.	P.Shylla, Lumdieng
11.	O. Khymdeit, Umjari
12.	K. Ronghang, Mawlong
14.	M.Rahang, Marmain
15.	A.Rynshon, Kuswai
16.	M.S. Bey, Plasha
17.	I. Syngkli, Korstep
18.	H. Timung, Belkuri
19.	P. Syngkli, Umkon
20.	I. Khymdeit, Umdohkha
21.	P.Shylla, Umshaken
22.	E. Khymdeit, Diwon
23	F.Lyngdoh, Umtham Marngar

**NAME OF WHOLESALER :: M/S L. SYIEMLIEH :: NONGPOH ::**

SL.NO.	NAME OF FPS DEALERS & CENTRE
1.	E.Maring, Rongmesek
3.	B. Markhap, Umsawnongbri'A'
4.	R. Mawlong, Saricushi
5.	M. Syngkli, Umjarasi
6.	S. Sylliang, Umkaduh
7.	J. Lyngdoh, Nongsangu
9.	A. Lyngdoh, Umlyngkdait
10.	S. Majhong, Umkyrpiang
11.	K. Lapang, Mawkangi
12.	M. Mawlong, Lailad
13.	A. Syngkli, New Jyntru
14.	L. Kharshandi, Saiden
	<b>TOTAL</b>

**NAME OF WHOLESALER :: M/S M. KHARPHULI :: NONGPOH ::**

SL.NO.	NAME OF FPS DEALERS & CENTRE
1.	Y. Kshiar, Pahamri-oh Them
2.	M.Rani, Sohloit

3.	B.Sohkun, Lumkya
4.	H. Syngkli, Iewmawlong
5.	R. Makri, Mawryngkang
6.	M.Makri, Pahamshken
7.	P. Maring, Mawphrew
8.	B. Makri, Nongkhrah
9.	J.Makri, Umklai Umthangiong
10.	J.Timung, Umwang
11.	E. Lyngdoh, Mawsyntai
12.	B. Markhap, Umsawnongbri 'B'
13.	B.Maring, Nartap
14.	L. Marwein, Nongpoh Proper
<b>TOTAL</b>	

NAME OF WHOLESALER :: **M/S M. MARING :: NONGPOH** ::

SL.NO.	NAME OF FPS DEALERS & CENTRE
1.	T. Sumer, Umsawnongkharai
2.	P.L.Mawnai, Shangbangla
3.	J. Lyngdoh, Purang-gang
4.	L.Bongrung, Pahampdem
5.	M. Kharsohnoh, Mawdiangum
6.	R. Lyngdoh, Pahamsyiem
7.	H. Kharshandi, Mawtnum
8.	R.Tangsang, Pahamri-oh Lum
9.	M. Wahlang, Mawroh
10.	N.Synthem, Kbet Nongbri
11.	A. Makri, Pahambir
12.	I. Syngkli, Umdihar
13.	W. Syngkli, Pahamsohthri

NAME OF WHOLESALER :: **M/S I. KHARLYNGDOH :: BYRNIHAT** ::

SL.N O.	NAME OF FPS DEALERS & CENTRE
1.	B.L. Kurbah 17 <sup>th</sup> mile, Pahamlang
2.	N.Rani, Amjok
3.	M.Dorphang, Umlaper
4.	O.Lyngdoh, Umling
5.	K.Kshiar, Umdoh 18 <sup>th</sup> Mile
6.	E. Suting, 15 <sup>th</sup> Mile Nongthymmai
7.	E. Shadap, Niangbari Lum
8.	S.Rabha, Balakhawa
9.	P. Makri, Umling Lambrang
10.	N. Sangma, Ampher
11.	P. Rabha, Bakhlapara
12.	L. Syngkli, Niangbari Them

NAME OF WHOLESALER :: **M/S W. LAPANG :: BYRNIHAT** ::

SL.N O.	NAME OF FPS DEALERS & CENTRE
1.	S. Rajee, Byrnihat
2.	M. Namsaw, Sohkhwai

3.	R.Marak, Dehalbagan
4.	D.Manar, Upper Nerbong
5.	M. Rynghang, Nerbong
6.	M. Mawlong, Tamulkuchi
7.	B.R. Nongrum, Rongsakuna
8.	V.J. Makri, Shakoikuna
9.	B. Mawa, Paham mawlein
10.	R. Kharkongor, Borbhuin
11.	R.Lapang, Lum Nongrim
12.	B.Lyngdoh, Umdu

NAME OF WHOLESALER :: **M/S S.JYRWA PATHARKHMAH ::**

SL. NO.	NAME OF FPS DEALERS & CENTRE
1.	O. Thangkhiew, Mynnar Jirang
2.	M. Wahlang, Warmawsaw
3.	W.Lyngdoh, Umsong
4.	C.Sohkhwai, Umkadhor
5.	B.Megho, Barigoan
6.	S.Lakhmie, Nongrim Jirang
7.	B. Sohlawa, Nongwah Mawlein
8.	L. Dolhi, Umsohbar
9.	J.Diengdoh, Umsohphria
10.	A.Pator, Belahari
11.	P. Sungsang, Pahamumshru

NAME OF WHOLESALER :: **M/S A.SYIEM :: PATHARKHMAH ::**

SL. NO.	NAME OF FPS DEALERS & CENTRE
1.	S. Syngkli, Mawskei
2.	D. Mawiong, Umrit
3.	J. Syngkli, Umkynsier
4.	B.Lakhmie, Nongwah Mawtamur
5.	R. Ranee, Mawdem
6.	L.Nongtri, Patharkhmah
7.	A.Thangkhiew Wahsynon
8.	A.Jamu, New Jirang
9.	A.Killing, Rani Jirang
10.	W.Jamu, Umsohpanan

NAME OF WHOLESALER :: **E.C.L. NONGRUM ::KHANAPARA ::**

SL. NO.	NAME OF FPS DEALERS & CENTRE
1.	R. Sangma, Amjong
2.	G.. Sangma, Maikhuli

3.	M. Nongrum,Umduba
4.	V.D. sangma,Iongkhuli
5.	S.Jyrwa, Lower Balian
6.	R. Jyrwa, Mawsmi
7.	A. Kshiar, Umtyrnga
8.	B. Lyngdoh, Baridua
9.	S. Syiemlieh, Umsen
10.	B.Nongrum, Khanapara
11.	W.Sangma Santipur
12.	S. Sangma, Pyngker
13.	D.R. Marak, Chibra
14.	K. Kharjhrin, Jorbil Killing
15.	H. Kharjhrin, Bara Killing
16.	M. Muktieh, Umsiang
17.	P. Chullet, Pillingkata-B
18.	E.Marak, Pilangkata-A

**NAME OF WHOLESALER :: M/S J. NONGRANG :: UMSNING ::**

SL. NO.	NAME OF FPS DEALERS & CENTRE
1.	P. Lyngdoh, 6 <sup>th</sup> Mile Kyrdekulai
2.	S.Sawkmie, Umsawtyra
3.	T.Lapang, Raitong
4.	V.Kylla, Kyrdekulai (Wahlakhar)
5.	M.Sawkmie, Umiarong
6.	S.Kurbah, Lumnongrim Dewlieh
7.	D.Lyngkhoh, Sohliya Mawthoh
8.	M.Mukhim, Umran Diary
9.	R.Shadap, Mawlyngkhung
10.	K.Diengdoh, Umkei
11.	P.Lyngdoh, Umshor-shor
12.	R.M. Pamshong, Mawrong
13.	R.Laloo, Syadrit
14.	M.Rynghang, Karbalu

**NAME OF THE WHOLESALER :: M/S G. NONGRUM :: UMSNING ::**

SL.NO.	NAME OF FPDS DEALER & CENTRE
1.	P.Nongrang,Nongrim Umksih
2.	Smti P. Shadap, Rtiang
3.	Smti M. Syiem Syadheh/lyngdoh
4.	Shri S. Sohktung Mawtari Myrdon
5.	A. Suting umtasor M/dkhar
6.	J. Nongtri, Syngku
7.	R. Nongbri 5 <sup>th</sup> mile Kyrdekulai
8.	S. Nongsiej, Quinine Nongladew
9.	P. Nongsiej, Nongmawlong umpih
10.	G. Shangdiar Mawkhap

11.	E. Sohktung, Umdiker
12.	E. Nongkhlaw, Sohpdok
13.	R. Nongphlang, M/don Nongbah
14.	N. Nongkse, Banbudai
15.	B.Lyngdoh, Umsamlem
16.	K.Shadap, Ingsaw
17.	R. Kharpan, Umranong
18.	W. Malieh, Nongjri
19.	A.Kharbani, Umran Niangbyrnai
20.	L.Myrsing, Umkra

NAME OF THE WHOLESALER :: **M/S C. KHARKONGOR:: UMSNING ::**

SL.NO.	NAME OF FPDS DEALER & CENTRE
1.	A.Mynsong, Kynjoin Umran
2.	K. Makdoh, Thad
3.	RM. Makdoh, Nongkya
4.	E. Kharbyngar, Umtrew GS Road
5.	P.Mawnai, Umsning Town Committee
6.	R. Pyngrope, Rilong
7.	L. Kharshandi, Umsaitsning
8.	B. Kharpuri, Paitklong
9.	P.Kharngi, 9 mile Umtrew
10.	S. Nongbri, Nongmahir
11.	P.Nongrum, Maweinan
12.	R. Nongrum, Mawiapbang
13.	R. Nongshli, Nongthymmai Umsning

NAME OF WHOLESALER :: **S. TANGSANG ::MAWHATI ::**

SL. NO.	NAME OF FPS DEALERS & CENTRE
1.	U.Umbah, Pamphlang
2.	J. Kurbah, 30 diengngan
3.	K. Mynsong, Lumniwar
4.	B. Laloo, Umkra
5.	R.Myrsing, Mawtari Thaiang
6.	S. Mukhim, Kdohhati
7.	L. Mashli, Mawlaho SHG I
8.	K. Umbah, Korhadem
9.	T.Myrsing, Ja-ir
10.	D. Warjri, Pahamrinai
11.	L.Mukhim, Umsohlait SHG
12.	L.Pyngrope, Jatah
13.	K.Lyngdoh, Lumlaitysiar
14.	D. Umbah, Iamkhon
15.	O. Mynsong, Mawhati
16.	L.Sakra, Pamlaban
17.	D. Dkhar, Mawkynrong
18.	M.Muktieh, Umlaiteng

19.	J. Mynsong, Umtyrkhang
20.	L. Muktieh, Pdengnongrim
21.	B. Nongrum, Umwiehsnieh
22.	G.Syiem, Pamlatar
23.	B.Dorphang, Sonidan
24.	I.Ronghang, Umshiauw
25.	M.Dorphang, Lamalong
26.	K.Lyngkring, Umtraï
27.	A. Lyngdoh Lyngkhai, Shilliang Umdoh

NAME OF WHOLESALER :: **M/S BHALANG CO – OPERATIVE SOCIETY :: UMROI**

SL.NO.	NAME OF FPS DEALERS & CENTRE
1.	P. Lyngdoh, Lumsohpieng
2.	N. Lyngdoh, Mawpun Kyrdem
3.	P.Sohatun, Lumdiengngan
4.	J.Bey, Sohphoh
5.	T.Shadap, Syllei-U-Lar
6.	N.Lynshing, Kyrdeng
7.	P. Nongrum, Mawbsein
8.	C.Ramshon, Mawkyrdep
9.	M. Biam, Lumdaitkhla 'A'
10.	B.Lapang, Jaiawpdeng Umroi
11.	R.Lyngdoh, Mawbri
12.	M. Kharmujat, Nongtraw
13.	R. Mawlong, Umtangling
14.	P. Sylliang, Nonglum
15.	H. Marboh, Umtung
16.	R.Nongrum, Itsopha-ir
17.	D.Lamare, Mawtneng
18.	M.Masharing, Nongthymmai Kyrdem
19.	R.Syiem, Khweng
20.	K.Marngar, Moiambei
21.	P. Khongthohrem, Mawpun Umroi
22.	S.Shadap, Umpowin
23.	S. Marbaniang, Umden Arka
24.	S. War, Nongsder

NAME OF WHOLESALER :: **M/S P. KHARNARI :: UMROI ::**

SL.NO.	NAME OF FPS DEALERS & CENTRE
1.	G. Matlang, Nongrimnongladew
2.	A.Mujai, Umjyngktad
3.	E. Lyngdoh, Umden Umsaitprah
4.	P.Laloo, Umroi Nongrah
5.	B. Timung, Kyrdem
6.	B. Matlang, Pynthor
7.	S.Rynjah, Lumshyap
8.	D.Nongrum, Thadrang
9.	K.Nengnong, Umroi Madan

10.	J. Rymbai, Umket
11.	P.Rynghang, Liarbang
12.	S.Kharngi, Umeit
13.	E. Mawlong, Umsawriang
14.	J.Marwein, Mawlasnai
15.	S.Shadap, Umtngam
16.	A.Kharkongngor, Lumsohpetbneng
17.	B.Wahlang, Umden Mission
18.	B. Sun, Umdohbyrthih
19.	T. Lynshing, Madan Umwang
20.	P. Nongrum, Mawthei

NAME OF WHOLESALER :: M/S **A. RYNGHANG** :: **UMROI** ::

SL.NO.	NAME OF FPS DEALERS & CENTRE
1.	O.Lating, Lumrit
2.	D. Lynshing, Mawkduk
3.	S. Rynghang, Khlieh umstem
4.	L.Masharing, Sabuda
5.	R.Lamare, Tyrso
6.	R.Mawlong, Klew
7.	K.Mukhim, Khyndewso
8.	A.Makhroh, Mynsain
9.	J. Marpan, Thadnongiaaw
10.	T.Pangcho, Mynri Umsning
11.	A.Maring, Sohriewblei
12.	S.Rymbai, Lumdaitkhla 'B'
13.	M.Nongrum, Nongpyrdet
14.	I.Passah, Pyllun
15.	P. Nongrum, Lum Mission
16.	K. Lyngdoh, Umktieh
17.	R.R. Syiem, Umroi Labansaro
18.	J.Eleng, Sohliya
19.	K. Nongrum, Mawshut
20.	M.Sakra, Liarkhla
21.	R.Mukhim, Mawdwar

NAME OF WHOLESALER:: M/S M.NONGKHLAW:: UMIAM

SL.NO	NAME OF FPS DEALER&CENTRE
1	B.KHARNAIOR, UMSAWLUM
2	A.KHARJANA, MAIRUNG
3	B.THANGKHIEW, UMNIUH KHWAN
4	B.MAWNAI, LAWBYRWA
5	J.BASAIAMOIT, UMRALENG II
6	B.KHARKRANG, MAWLANG
7	P.KHYLLAIT, NONGKYNDONG IAPWAR
8	A.NONGRANG, MAWLYNDEP
9	E.LYNGDOH, SUMER UMBANG
10	T.WARDKHAR, UMBIR
11	T.LORNING, BYRWA
12	D.NONGBRI,UMTRING



13	P.KHARPAN, MAWLEIN MAWKHAN
14	H.PATHAW, UMRALENG I

**Annexure E :List of wholesalers in Ri Bhoi District, 2016**

SL. NO.	NAME OF W/SALERS	CENTERS	CONTACT NUMBERS
1	R.Lapang	Nongpoh	8575037684
2	M.Kharphuli	Nongpoh	8794461576
3	L. Syiemlieh	Nongpoh	8119865025
4	V. Syngkli	Umden	9436107556
5	R.Sun	Umiam	90893175508
6	A. Rynghang	Umroi	8974584216
7	P. Kharnari	Umroi	9615087510
8	Bhalang Coop Society	Umroi	8575006126
9	C.Kharkongor	Umsning	9862984496
10	F.Nongbet	Umsning	9612040899
11	G. Nongrum	Umsning	940213509
12	S.Tangsang	Mawhati	9436102061
13	K.Syiem	Byrnihat	9436305802
14	I.Kharlyngdoh	Byrnihat	9774410295
15	ECL Nongrum	Khanapara	9863016262
16	S.Jyrwa	Patharkhmah	9436108888
17	A. Syiem	Patharkhmah	9436305802

**Annexure F: LIST OF NGOS**

Name of NGOs and CBOs	Area of Operation
Nongpoh Area Women Welfare Association	All three Blocks
Ri-Bhoi Area Welfare Association	All three Blocks
Ri-Bhoi Youth Federation	All three Blocks
TBUK	All three Blocks
Confideration of Ri-Bhoi People.	All three Blocks

**Annexure G: LIST OF RELIEF GODOWNS**

Name of the Godown	Type	Capacity
State Ware Housing, Jorabat	Hired by FCI	2500 MT
Khanapara	Private	2000 MT
Byrnihat	Private	1500 MT
Nongpoh	Private	2000 MT
Umroi	Private	2000 MT

**AnnexureH : FIRE STATION INFORMATION:**

Sl. No.	Name of the fire station	No of Fire tenders	Contact persons with designation	Phone No
1.	Nongpoh Fire Station	2 fire tender & 1 foam	Station Officer	232216

		tender		
2.	Umiam Sub Fire Station	2 fire tender	Station Officer	0364-2257079
3.	Byrnihat Sub Fire Station	2 fire tender	Station Officer	263222

**Annexure I : MACHINERIES IN THE DISTRICT**

<b>SL.No</b>	<b>Name</b>	<b>Machineries</b>	<b>Contact No.</b>
1.	Shri. L.B. Chetri, Patharkmah	J.C.B., Dumper	8014187468
2.	Shri. Bris Shadap, Umdihar	Dumper	9856008419
3.	Smti. Kristina Lamare, Mawroh, Nongpoh`	J.C.B., Dumper	8575854383
4	Shri. Tlaswel Dorphang, Iewmawlong, Nongpoh	J.C.B., Dumper	9862092056
5	Smti. Jessylyne Thangkhiew, patharkmah	Dumper, Road Roller, Truck	7308314998

## District map

