

**ZUNHEBOTO DISTRICT DISASTER MANAGEMENT PLAN**  
**ZUNHEBOTO DISTRICT DISASTER MANAGEMENT AUTHORITY**



**ZUNHEBOTO NAGALAND**

## **Executive Summary**

I am pleased to present the District Disaster Management Plan (DDMP) of Zunheboto District. The Zunheboto district is situated in the heart of Nagaland and is prone to natural calamities like heavy rainfall, landslide, strong wind, fire accident and is especially vulnerable to earthquakes as it is located in Seismic Zone V. Landslide or landslip and fire accident caused by high winds are the major hazard of the District which inflicts huge loss of life and property causing untold hardships and trauma in the lives of the people. These natural disasters strike at the very root of the economic growth of the District. The District Administration recognizes the need for a proactive, comprehensive and sustained approach to disaster management to reduce the detrimental effects of disasters on the overall socio-economic development of the District. While disasters cannot be completely avoided, the vulnerability to various hazards can be sustainably and substantially reduced by planning, prevention, mitigation and preparedness measures. The aim of the District Disaster Management Plan is to provide guiding principles for reducing vulnerability to various hazards and preparing for; and responding to disasters and threat of disasters in the District in order to save lives and property, avoid disruption of economic activity and damage to environment in order to ensure the continuity and sustainable development of the District.

This plan shall be reviewed periodically by the DDMA to update all activities and information. I hope the plan serves the purpose.

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Zunheboto, Nagaland.

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# **CHAPTER ONE**

## **INTRODUCTION**

Disaster threatens sustainable economic development worldwide. In the past twenty years, earthquakes, floods, tropical storms, droughts and other calamities have killed millions of people, inflicted injury, disease and caused homelessness and misery across the world. Disaster destroys decades of human effort and investments, thereby, placing new demands on society for reconstruction and rehabilitation. Disaster management thus, requires multi-disciplinary and proactive approach. The community, civil society organizations, media and the proverbial man on the street, everyone has to play a role in case such exigency occurs. Natural disasters like earthquake, land slide, flash-flood, flood drought and cloud burst affects life, property and environment and hampers the normal developmental processes.

The main objective of Disaster management plan is to localize a Disaster and contain its effect to the greatest extent so as to minimize its impact on life, environment and property. Response to Disaster, in the absence of a well-defined plan, would be arbitrary, leading to overemphasis of some actions and absence of other critical actions. A formal plan for managing Disaster is, therefore, necessary. Keeping in view, the possible aspects of calamities in mind and to keep the District Administration, and all the stake holders prepared in all possible ways to respond properly to various Disaster situations within shortest possible time this plan was prepared. Our main aim is to reduce vulnerability and also to minimize the destruction caused by all of these types of Disaster, be it natural or manmade.

There are a lot of stakeholders involved in Disaster Management Plan of any district. One of the main objectives is to form a synergy between all the stakeholders, so that during a calamity everyone has a defined role and knows what is expected of them. The district administration has realized the necessity to compile a plan to prevent and minimize the loss and also to facilitate quicker recovery during the emergency for any kind of natural calamity. This plan will act as a guidebook which can help district administration, local administration and all the stake holders to prepare for any kind of emergency in order to safeguard lives and property.

### 1.1. Objectives of District Disaster Management Plan:

1. To prevent loss of human life and property damage
2. To study, analyze and evaluate the disasters
3. To identify the vulnerable locations and do the vulnerability and risk analysis
4. To improve preparedness, prevention and mitigation at district level
5. To ascertain the status of existing resources and facilities available
6. To recommend appropriate strategies and responses to deal with future disasters

This Plan is designed to mitigate the effects of disaster and emergency situations and to provide a framework for helping people at risk to avoid a recover from the impact of the disaster. Managing disasters includes steps to be taken prior to, during and after the disaster and involve preparedness, mitigation, response and recovery.

# CHAPTER TWO

## DISTRICT PROFILE

### (1) Zunheboto District Map



**(2) LOCATION: Zunheboto** District is situated in the heart of **Nagaland**. Situated on the geographical coordinates of 94.52° East Longitude and 25.97° North Latitude, **Zunheboto** district covers a total area of 1255 square kilometers. Zunheboto is inhabited by the martial Sumi tribe of Nagaland. The district derives its name from the Sumi dialect in which the first part of the name, "Zunhebo" refers to a flowering shrub which bears white leaves and "to" in the local dialect of the Sumi means hill top.

The district of Zunheboto is bound on the east by the Tuensang district, west by Wokha district, North by Mokokchung District and south by Phek District. High hills dominate the topographical features of the district. The administrative headquarters of the district is situated at Zunheboto town. According to the 2011 census Zunheboto district has a population of 141,014 , with a sex ratio of 981 females for every 1000 males, and a literacy rate of 86.26 %.The district records an annual average rainfall of 2000 mm. The temperatures vary from 22° Celsius to 10° Celsius. The district celebrates the two chief festivals of the Sumis, Tulunih and Ahunah. The festival of Tulunih is celebrated in the second week of the month of July. The district comes alive, during the festive celebrations.

Today it is home to the Nagaland University whose campus is situated in the village of Lumami in the sub division of Akuluto. This has become the cultural and educational center for the people of Nagaland.

**(3) SOCIO-ECONOMIC STATUS:** The inhabitants of Zunheboto District live together in harmony without any discriminations or distinction, speaking one language i.e. Sumi dialect. The people are hard workers, the main stay of people's livelihood is shifting cultivation except the people living on the bank of Tizu river, where 70% practice terrace cultivation. With the advent of Christianity, people have adjured animistic practice 99% of the population are Christians

**(4) TOPOGRAPHY:** There are high hills spread over many areas of the district. The hills vary from 450 to 2500 metres and most people live between 1500 - 2000 metres altitude. The altitude of the district HQ. (ZBTO) is 1874.22 mtrs. above sea level. (Most of the population reside in rural areas. Zunheboto Town is the only designated urban area of the district.)



**(5) CLIMATE & RAINFALL.:** Owing to the high altitude, this district enjoys a monsoon climate almost throughout the year. Winters are very cold but summers moderately warm. December and January are the coldest part of the season at about 10°C. The highest temperature is about 30°C. The average rainfall is about 200 cm. It falls for nine months in a year, heaviest contribution being in July and August.

**(6) SOIL:** Almost all the soils of the Zunheboto district belong to the following classes/orders. There are alluvial soil, Forest soil(organic) pertaining to moolisol, non-laterised soil and soils of high altitudes belonging to order spodosols.

**(7) RIVERS:** There are three important rivers in the district, viz, Tizu river originating in Tuensang district flows down towards south crossing at the centre of Zunheboto district and join Chindwin. Doyang river originating in Japfu passes through west part of the district and joins Dhansiri in Assam. Tsutha river, originating in North East of Zunheboto drains eastern part of the district and joins Tizu below Nihoshe village, where a Mini Hydel Power project is located. Most of the area under terrace cultivation on Tizu, Tsutha and Mela a tributary of Tizu river.

**(8) AGRICULTURE:** Agriculture is the main occupation of the people. The main form of cultivation is Jhum which means, Shifting cultivation. In Jhum field, Paddy, Millet, Maize, Taro or Kuchhu, (colocasea) French bean, potato, pumpkin, cucumber, chilly and several varieties of gourd are grown. Terrace cultivation is practiced along the banks of Tizu, Tsutha and Mela, a tributary of Tizu river. However, terrace cultivation, hardly occupies about 20% of the cultivable land. The yield of paddy per hectre under Jhum cultivation is much lower than the production per hectre under Terrace cultivation.

**(9) ADMINISTRATIVE CENTERS :-**

1. Zunheboto District (Hq)
2. Pughoboto (ADC)
3. Aghunato (ADC)
4. Satakha (ADC)
5. Atoizu (ADC)
6. Akuluto (SDO(Civil))

7. Suruhuto (SDO ( Civil) )
8. Ghathashi (EAC)
9. V.K.(EAC)
10. Satoi (EAC)
11. Asuto (EAC)
- 12.Akuhaito (EAC)
13. Saptiqa (EAC)

## CHAPTER THREE

### HAZARD, RISK, VULNERABILITY & CAPACITY ANALYSIS

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

#### 3.1 HISTORY OF DISASTERS IN ZUNHEBOTO DISTRICT

Zunheboto district is situated in the high altitude and is prone to strong wind, hailstorm, land slide/land slip forest fire and fire accident

**(1) Landslide:** Zunheboto District, being a hilly terrain, is prone to landslides. Every year a number of landslides have been usually reported from various localities. They cause a lot of misery to the public, resulting in loss of life and property, disruption of communication network, and also economic burden on the society. This is primarily attributed to the high slope, heavy rainfall and unplanned and improper land use practice in the district.

**(2) Drought:** There was a long spell of drought during period between March to September 2009 causing huge loss of agriculture crops during Kharif season in the district. Many streams dried up and paddy as well as other cereal seeds of jhumming could not germinate. Based on these past experiences it is clear we need a proper emergency management plan to lessen the damage done by it.

**(3) Cyclone:** The impact of cyclone is not felt severely in the district of Zunheboto so far.

**(4) Storm/ High winds:** Zunheboto District is situated in the high altitude, and is prone to summer storm which brings with it hail stones, high winds heavy rains and bring down trees , loose structures and lead to power outages( due to felling /breakage of electrical poles/wires) such storm with strong winds cause damages to houses where the roof tops are blown away by the storms in most of the cases it cause damages to the structures which in turn leads to lost of life. In 2011 more than 50 houses are blown away by the summer storm under Aghunato sub division and 30 houses under Zunheboto sadar.

**(5) Fire accidents:** The most common hazard in forests is forests fire. During dry season, when there is no rain for months, the forests become littered with dry leaves and twinges, which could burst into flames ignited by the slightest spark. Approximately 90 percent of the fire accidents are human-induced, intentional or unintentional due to the negligence and poor knowledge of the people. Collection of forest produce, shifting cultivation, throwing smoldering bidis, cooking food in the forest etc. are the basic anthropogenic causes that ignite forest fires.

Fire accidents are quite common in the district. The District head quarter suffer in the outbreak of fire as there is close proximity of houses in many areas leading to spread of fire and wider destruction. The rural areas also are not free from the risk of fire because of the following factors:

- a) The houses generally have thatched roofs and walls made out of timber and bamboo, which are built in clusters.
- b) Lack of adequate water and nil or poor equipments for fire fighting.
- c) Lack of awareness on basic do's and don'ts where people live in houses that uses inflammable materials.
- e) Human error or carelessness.

The district is also becoming increasingly vulnerable to electric accidents which are a part and parcel of fire accidents. The main causes of such accidents are:-

- a) Use of substandard electrical fittings.
- b) Lack of check up of overused electrical items.
- c) Lack of trained electricians.
- d) A combination of the above factors.

The following recent statistics clearly show the risk of occurrence of fire in the district. From January to March 2012 5(five) houses are completely razed down in Zunheboto Town 2 (two) houses at Akuluto sub division and 8 (eight) houses under Aghunato sub division and forest fire under Aghunato sub division.

**(6) Earthquake:** Though the Zunheboto district has experienced mild earth quakes, the possibility of a major earth quake occurring anytime is extremely high. The District lies in the Seismic Zone V, which is most vulnerable to earthquakes. And due to absence of Building bye laws, the present mode of construction of houses it is highly vulnerable to earthquake.

### 3.2. RISK ASSESSMENT

#### Disaster Specific Proneness to Various Types of Disasters

Types of Hazards	Time of Occurrence	Potential Impact	Vulnerable Areas
Storm/High Winds	March-october	Destruction of crops, houses & power supply	Whole district
Landslides	June –October	Road, communication infrastructures, crops & houses & even loss of life	Whole district
Fire Accidents	January-March	Loss of life, crops, houses& infrastructure	Whole district
Epidemics	Anytime	Loss of human lives &/ livestock	Whole district
Earthquakes	Anytime	Loss of life, crops, houses& infrastructure	Whole district
Motor accidents	Anytime	Loss of life and property	Roads and weak bridges.

### 3.3. VULNERABILITY ANALYSIS

#### Infrastructure Vulnerability against Hazards

Vulnerable Infrastructures	Storm/High Wind/Heavy Rainfall		
	Population	Area	Season/Period
Roads, buildings, water supply,sewage/drainage, food stocks & supplies and Communication Systems	The whole population of the district	Whole district	March – October
	Fire Incidents		
Buildings, granaries,	Denizens of the	Areas where vulnerable	January —

wooden structures etc	district having such properties/structures vulnerable to fires	structures exists	March. Occurs more during dry windy season
	Landslides		
Roads, buildings, water supply,sewage/drainage, electrical poles/wires,	Denizens of the district living in hazardous localities	Hazardous/earthquake-prone areas in almost whole district especially urban area.	June — October
	Earthquakes		
Buildings, roads, water supply, sewage/drainage, electrical poles/wires,	Inhabitants of the district living in or near hazardous buildings/structures	In and around hazardous buildings/structures in the district especially urban area.	Anytime

## CHAPTER FOUR

### DISTRICT LEVEL INSTITUTIONAL MECHANISM FOR DISASTER MANAGEMENT

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

Accordingly, at district level a District Disaster Management Authority is formed and activated to mitigate any unexpected situation in the district. The following are the composition of DDMA and its powers and functions

#### 4.1. MEMBERS OF THE DISTRICT DISASTER MANAGEMENT AUTHORITY

- |  |                            |
|--|----------------------------|
| 1. Deputy Commissioner                 | : Chairperson (Ex-Officio) |
| 2. Chairman Zunheboto Town Council     | : Co-Chairperson           |
| 3. Additional Deputy Commissioner (Hq) | : Member.                  |
| 4. Superintendent of Police.           | : Member.                  |
| 5. Chief Medical Officer.              | : Member.                  |
| 6. S.E. PWD (R & B)                    | : Member.                  |
| 7. Executive Engineer, (PHE)           | : Member.                  |
| 8. District Commandant Home Guard      | : Member.                  |

#### (1) Powers & Functions:

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

- (i) Prepare a District Management Plan, including District Response Plan for the District.

- (ii) Coordinate and monitor the implementation of National Policy, State Policy, National Plan, State plan and District Plan.
- (iii) Ensure that the areas in the District vulnerable to disaster are identified and measures for the preventions of disasters and mitigation of its effects are undertaken by all the District Level Government Departments and the local authorities.
- (iv) Ensure that the 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 the District level State Government Departments and the local authorities.
- (v) Give directions to different District level authorities and local authorities to take such other measures for the prevention or mitigation of disaster as may be necessary.
- (vi). Monitor the implementation of Disaster Management plan prepared by the District Level Govt. Departments and local authorities.
- (vii) Lay down guidelines to be followed by the District Level State Government departments for the purpose of integration of measures for prevention of disaster and mitigation in their development plans and projects and provide necessary technical assistance therefore, and monitoring the implementation of such measures.
- (viii) Review the capabilities for responding to any disaster or threatening disaster situation in the District and give directions to the relevant Departments or authorities at the District level for their up gradation as may be necessary.
- (ix) Review the preparedness measures and give directions to the District level or other concerned authorities, where necessary, for bringing the preparedness measures to the levels required for responding effectively to any disaster or threatening disaster situation.
- (x) Organise and coordinate specialized training programme for different levels of officers, employees and voluntary rescue workers in the District.
- (xi) Facilitate Community training and awareness programmes for prevention of disaster or mitigation with the support of local authorities, Governmental and non-governmental organizations.
- (xii) Set up, maintain, review and upgrade the mechanism for early warning and dissemination of proper information to the public.
- (xiii) Prepare, review and upgrade the District level Response Plan and Guidelines.
- (xiv) Coordinate response to any threatening disaster situation of disaster.



- (xv) Ensure that the District Level Government Departments and local authorities prepare their response plans in accordance with the District Response Plan.
- (xvi) Lay down guideline, or give directions to the concerned District Level State Government Departments or any other authorities within the local limits of the District, to take measures to respond effectively to any threatening disaster or disaster.
- (xvii) Advise, assist and coordinate the activities of the District Level State Government Departments, statutory bodies and other governmental or non-governmental organizations engaged in disaster management in the District.
- (xviii) Coordinate with, and give guidance to, local authorities in the District to ensure that measures for the prevention or mitigation or threatening disaster situation or disaster in the District are carried out promptly and effectively.
- (xix) Provide necessary technical assistance or give advice to the local authorities in the District for carrying out their functions effectively.
- (xx) Review the developmental plans prepared by the District level State Government Departments, statutory authorities or local authorities with a view to make necessary provisions therein for prevention of disaster or mitigation.
- (xxi) Examine the construction in any area in the District and, if it is of the opinion that the standards for the prevention of disaster or mitigation laid down for such construction is not being, or has not been followed, may direct the concerned authority to take such actions as may be necessary to secure compliance of such standards.
- (xxii) Identify buildings and places which could, in the event of any threatening disaster or disaster, be used as relief centres and make arrangements for water supply and sanitation in such buildings and places.
- (xxiii) Establish stock piles of relief and rescue materials or ensure preparedness to make such materials available at a short notice.
- (xxiv) Provide information to the State Authority relating to different aspects of disaster management.
- (xxv) Encourage the involvement of NGOs and voluntary social welfare institutions working at the grass root level in the District for disaster management.
- (xxvi) Ensure that communication systems are in order, and disaster management drills are carried out periodically.

(xxvii) Perform such other functions as the State Government or State Authority may assign to it or as deems necessary for disaster management in the District.

#### **4.2. DISTRICT DISASTER MANAGEMENT COMMITTEE (DDMC)**

With a view to supplementing the DDMA, there shall be a District Disaster Management Committee (DDMC) to monitor and gear up the preparedness of the district administration as well as different district level functionaries in regard to disaster management in an effective manner. It would be a larger group than that of the DDMA so that necessary follow-up actions of the decisions of DDMA can be taken as deemed appropriate. This Committee may function as a District Working Group.

The members of the Committee will be:

Chairperson : Deputy Commissioner, Zunheboto

Co-Chairperson : Addl. DC Hq

Member Secretary : SDO( C) Sadar

Members :

1. Superintendent of Police,
4. Chief Medical Officer,
6. Executive Engineer PWD
8. Executive Engineer PHE
9. Medical Superintendent
10. ADS ( Supply)
12. District Transport Officer,
13. District Commandant, Home Guard & Civil Defence.
14. District Education Officer,
15. District Agriculture Officer
16. DVO, Zunheboto
17. DPRO Zunheboto
18. Project Director DRDA
19. Chairman ZTC
20. E.E.Irrigation and Flood Control.
21. District Horticulture Officer.
22. E.E (Power)

Besides, the chairperson can invite other officer/member to attend the meeting/committee of the DDMC as per the need of time, as special invitee.

The major functions of this Committee would relate to:

1. Ensure follow-up actions by concerned stakeholders of the decisions taken by the DDMA
2. Facilitate preparation of Disaster Management Plan and necessary updating in different departments/schools/hospitals
3. Lobbying for policy formulation for disaster management
4. The group will work for a link between the DDMA and its agencies involved in the Disaster Management activities
5. Initiate and monitor mock drills at various levels as per the direction of DDMA.

#### **4.3. DISASTER MANAGEMENT AT SUB-DIVISION /VILLAGE LEVEL:**

Every Sub-Division, in the Zunheboto district is expected to form Sub Division Level Disaster Management Committee (SDDMC) within their respective areas. It will be headed by the concerned ADC and SDO(C). Other members will also be appointed keeping in view the deployment of officers from line departments within the area, and the organizational structure of NGOs.

The Sub-Division DMC is to have its Sub-Division Disaster Management Plan which is likely to be approved by the DDMA/DDMC. The Sub-Divisional Officer(C) must ensure that his/her Sub-Div. DM plan is prepared, updated as per the need of time, and activated in the hours of need. All the ADCs and SDOs(C) are required to set up institutional mechanism for management of disasters within their specific areas.

At village level, every Village will have a village disaster management plan as well as Village disaster management committee. The VDMC chaired by Village Headman / Village council Chairman, with GBs, VDB Secy, Village council members, teacher, and health workers, etc. as members. Also a search and rescue team as well as first aid team to be set up and trained at every village.

#### **4.4. NGO's ROLE IN DISASTER MANAGEMENT**

NGOs are organizations that are nonprofit making, voluntary and independent of government, engaged in activities concerning various societal and developmental issues. The strong linkages

which NGOs have with grass root communities can be effectively harnessed for creating greater public awareness on disaster risk and vulnerability, initiating appropriate strategies for strengthening the capacity of stakeholder groups to improve disaster preparedness, mitigation and improving the emergency response capacities of the stakeholders.

#### **4.5. DISTRICT EMERGENCY OPERATION CENTRE (DEOC)**

The Zunheboto District Emergency Operation Centre, under the control of the Deputy Commissioner, will be the nerve center. It has been set up

- ◆ To monitor
- ◆ Co-ordinate
- ◆ Implement the actions for disaster management

. This shall be round the clock set up with sufficient man-power and most modern equipments. Considering the unique responsibility of the district EOC, the Equipments provided to it shall not be taken out for any purpose other than disaster management. This Centre is intended to coordinate all disasters related activities in the district starting from preparedness to rehabilitation and reconstruction. There shall be permanent sitting place for each emergency support functionary in the EOC and they shall be provided with sufficient telephone connections. There shall be dedicated telephone lines and other communication facilities.

##### **(i) ROLE OF EOC IN NORMAL TIME:**

The Deputy Commissioner of Zunheboto District may be empowered to appoint one officer as Officer in-Charge of EOC. The appointee will be responsible for effective functioning of the EOC. Responsibilities of EOC in-charge in normal time include:

1. Ensure that all the equipments in the EOC are in working conditions.
2. Collect data on routine basis from line departments for disaster management.
3. Develop status reports of preparedness and mitigation activities in the district.
4. Ensure appropriate implementation of DDMP
5. Maintenance of data bank with regular updating through IDRN.gov.in.
6. Activate the trigger mechanism on receipt of disaster warning/ occurrence of disaster.

##### **(ii) ROLE OF EOC DURING DISASTER:**

The District EOC shall be a meeting place for different stakeholders. On the basis of message received from the forecasting agencies, warning has to be issued for the general public and the

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

1. All Emergency Support Functions.
2. Members of DDMA/DDMC, Zunheboto
3. Hospitals in the disaster area.
4. State Relief Commissioner/Secretary, DM&R.
5. EOC in the neighboring districts.
6. State EOCs
7. NGO representatives from the district.

**(ii) SOP FOR DISTRICT EMERGENCY OPERATION CENTRE**

1. Officer in charge of EOC:

The control room shall be in overall charge of the DC. In the absence of DC, Addl DC , SDO(C) or any other officer on duty at that point of time shall remain in charge of Control Room. The person in charge of control room shall personally be responsible for implementing the SOP. He/she shall take all decisions without any delay.

2. Assembly in Control Room: Following officers and staff shall assemble in the EOC on getting any information from any source about any emergency. Apart from these, any other officer or staff who get the information from any source will reach the Control room.

(1) DC, Addl. DC, Nodal Officer (DM), SDO(C)Sadar , Members of DDMA, DPRO and other related officers.

(2) All staffs of DC office or other dept assigned by DDMA for the same, PA to DC, PA to Addl.DC.

3. Getting the Control Room ready: Following preparatory steps will be taken up for keeping the EOC functional during emergency.

(1). Shift two or more phone lines to control room.

(2). Keep a radio with new batteries ready.

(3). Get the Generator ready.

(4). Stock at least 2 barrels of Kerosene and Diesel for running the Generator sets.

(5). Charge the battery of inverter.

(6). In case of warning, arrange extra batteries.

(7). Inform NIC & BSNL for internet accessibility.

4. Alert all field officers: ADCs/SDOs(C)/EACs/BDOs/ VCs, Police, Telephone, Agriculture, Social Welfare etc.DPRO shall inform the media. Apart from this the district EOC must arrange desks for the ESF in its complex for better co-ordination and help. Simultaneously the Onsite EOCs are to be set up with the help of the district EOC. Constant communication between the State EOC, District EOC and Onsite EOC is mandatory for updates on the disaster, which happened.

#### **4.5. ONSITE EMERGENCY OPERATION CENTRES (OEOC):**

Onsite Emergency Operation Centres (OEOC) are complementary units to District Emergency Operation Centre in the district (EOC), which will operate close to the disaster sites and will be linked directly with the District Emergency Operation Centre. The district administration shall designate the OEOCs, which are located in the Sub-Divisional Office RD Blocks. These strategic locations will help covering operations in a calamity in the district instantly. The concerned ADCs /SDO(C)/EACs/BDOs will be the Incident Commander at this level. The OEOCs will be physically activated only in time of a disaster to execute activity at the disaster site. However, tasks would be controlled and coordinate from District.

## **CHAPTER FIVE**

### **TRIGGER MECHANISM FOR DIFFERENT FUNCTIONARIES**

Trigger Mechanism is a Quick Response Mechanism that has been developed in order to ensure the smooth flow of response activities immediately after a disaster. It is to set spontaneously the vehicle of management into motion on the road to disaster mitigation process. The trigger mechanism has been envisaged as a preparedness plan whereby the receipt of a single or an impending disaster would simultaneously energize and activate the mechanism for response and mitigation without loss of crucial time. These are to provide rescue and relief and save the precious human life. Thus, the emergency response of the disaster managers is a factor independent of the types of intensity of the disasters. In fact, the trigger mechanism is an essence of the Standard Operating Procedure (SOP) in which the implementation of the efforts on ground is well laid down. Generally, the activities which include evacuation, search and rescue, law and order, temporary shelter, food, drinking water, clothing, health and sanitation, communications, accessibility, and public information which are very important components of disaster management, would follow on the activation of the Trigger Mechanism. Once information about occurrence of any disaster within the district has been received by the district EOC or the office of the Deputy Commissioner.

#### **5.1. ACTIONS TO BE TAKEN BY THE INCIDENT COMMANDER:**

1. Convene meeting of District Disaster Management Committee.
3. Disseminate warning/alert to the potential victims.
4. Disseminate information to all concerned from EOCs.
5. Declare state of disaster based on the severity/vulnerability.
6. If necessary, the state government may be requested to help out to manage the disaster.
7. Nodal Officer (DDMA) of the district administration or ADCs/SDO(C)/ EACs of the concerned area may be detailed to go to the spot and function as an On-Site Incident Commander at the disaster site.
8. The Chairperson of the DDMC may, by general or special order in writing, delegate such of his powers and functions to the Chief Executive Officer, subject to such conditions and limitations, if any, as he deems fit.

9. Vigil strictly as to whether the action plan/responsibilities assigned to various departments, as mentioned in the following, are carried out properly or not.

## **5.2. DESIGNATED MEETING VENUE:**

In the event of major disasters like earthquake with catastrophic consequences affecting Zunheboto or other parts of the district, when there is total disruption of communication system, all members of the District Disaster Management Authority/Committee will have to assemble immediately within 1 (one) hour after the occurrence of such disaster at a pre-destined venue without waiting for any formal correspondence or circular from the chairman/DC or other officers authorised in that behalf. The designated venue for holding emergency meeting on Disaster Management shall be the office of the Deputy Commissioner/ Emergency Operations Centre. If holding of such a meeting in the designated venue is not possible due to the damage caused to the area or building, or blockade caused by debris, alternative venues, in order of priority will be:

1. Office of the Superintendent of Police.
2. Town Hall.
4. Circuit House.

If possible, a spare/duplicate key for each of the above alternative venues shall be with the Addl. DC (Hq) so that emergency access as and when required is ensured. The DDMA/DDMC shall take immediate action for the fullest utilisation of all the resources available within the management of disasters in the district, the following trigger mechanism has to be applied and followed in the district.

## **5.3. ROLE OF DIFFERENT DEPARTMENTS IN DISASTER MANAGEMENT:**

**(1) Police:** The Police is the leading agency which works under the operational control of the District Superintendent of Police. The role of Police department will include:

- I. Evacuation of the affected people
- II. Security of the property of affected people and maintenance of law and order in the affected area.
- III. Traffic management leading to the affected area.
- V. Activate SDRF

**(2) Fire and Emergency Service:** In case of fire related disaster, the nearest Fire Station/ Sub station from the disaster site will take the responsibility of managing the incident. It will be



headed by Officer In-charge of that Station. As soon as Fire and Emergency services gets the information about the disaster, the nodal officer/ duty officer arrange trips of water or provide water from the nearest source available as early as possible.

**(3) Home Guards:** The Home Guards is the leading combat agency, which works under the operational control of the police and overall administrative control of the Deputy Commissioner. The role of the Home Guards will include: I. Search & rescue of people II. Evacuation of people from affected areas. The Home Guards will work in close co-ordination with the Police under the supervision of S.P Zunheboto.

**(4)Power & Electricity:** In the event of natural calamities, the State Load Dispatching Centre (SLDC) will be used as a Nodal Cell within the Department. This Cell is responsible for carrying out all necessary actions in connection with restoration of power supply after the occurrence of disaster anywhere in district.

**(5)Wireless:** Wireless communication could be our last resort of communication during and after disaster as all the terrestrial infrastructures would be destroyed. A control room has already been set up in the office of S.P, (Wireless) Zunheboto which has a link to all the existing PR stations including Repeater stations in different places all over the District. This control room can have a direct or indirect link to all these PR Stations at the time of disaster. The control room can be accessed by telephone lines and whatever information is fed to this Control Room, it will be conveyed to the concerned District Authorities. The numbers by which the Control Room can be accessed are given below:-

1. Phone No. : 03867-220256

By dialing anyone of the above telephone numbers, the DDMA can have direct contact with the Control Room and convey information. This Control Room also has a direct link with Fire Service and Traffic Police in case their services are required. The Control Room will have a wireless communication link with the Emergency Operation Centre at the district level under the chairman of the Deputy Commissioner.

**(6)BSNL & Private Mobile Operators:** BSNL is primarily responsible for restoration of communication facilities. It should ensure the smooth flow of information that can cater to those needed in a time sensitive manner at the state level in any disaster response efforts. Though BSNL is primarily responsible for restoration of communication facilities, private operators

should also ensure the smooth flow of information within the area in a time-sensitive manner at the state level in disaster response efforts.

**(7) I & PR Department:** The following tasks will be taken up by the department of I&PR in liaison with the District Disaster Management Authority/Committee.

Press briefing: Press briefings play a very important role in disaster management. Daily press briefs will be issued at 11:00 AM at the D.C's Chamber or DCs Conference Hall.

**(8) Public Works Department:** The duty of PWD in disaster situations shall be –

1. Equipment support
2. Debris and road clearance
3. Ensure proper corpse disposal and post-mortem by coordinating with medical team
4. Assess the possibility of further disaster in the affected area.

**(9) PHED:** PHE will ensure provision of basic quantity of clean drinking water and water for other purposes in a manner that does not allow the spread of diseases through the contamination of water. It will also take initiatives on-

1. Quick assessment of water line damage and contamination levels and taking steps to restore clean drinking water.
2. Supply of water tankers to disaster affected communities.
3. Deploy response teams to repair and restore water supply lines that may be damaged after disaster.

**(10) Department of Transport:** The responsibility of DTO in any crisis situation is arrangement of vehicle for- Emergency Support Functionaries engaged in the disaster response activities and transportation of victims and needy people from the affected site to safe areas

**(11) Army/Para Military Forces:** The Army/Para Military forces here denote the Paramilitary Forces operating in the district, like – the Assam Rifles, CRPF, and BSF etc. Though they are under the direct supervision of the Central Government, their services are very useful especially in the Search & Rescue works and First Aid management. They are to participate actively to complement civil and police administration in times of disaster if requested to do so. It is therefore recommended that these forces may be informed and requested by the District Disaster Management Authority to extend their help especially in the Search & Rescue and First Aid response.

**(12) Medical department:** On receipt of a warning of an impending Disaster from the District EOC, CMO will immediately put their doctors and the paramedical staff on alert for preventing outbreak of epidemic. All the staff of the CMOs will immediately report for duty to their concerned controlling authorities/ District Hospital/CHC/ PHC or the health sub centre, as the case may be. The CMO will try to mobilize additional manpower from the area not affected by calamity to supplement the local resources of the affected area. The CMOs will identify the external sources in the community and the market for procuring equipment and medicine with the assistance of the DDMA/DDMC. CMO can request the services of the medical officers working in Private Hospitals, Private Doctors and Nurses, and during the periods of such requisition such medical officers can work under the administrative control of CMO.

**(13) School Education Department:** On receipt of information about occurrence of disaster from the District EOC or any other source, the District Education Officer will come up to help the district authorities especially in relief and shelter management activities. It may be mentioned here that schools are one of the most convenient places for temporary lodging of the disaster-hit families. The DEO is, therefore, expected to do all related activities in this connection.

**(14) Social Welfare Department:** On receipt of information, the District Social Welfare Officer will take actions relating to Trauma Counseling. He/she shall depute reliable officer and staff to go to the spot and do the counseling work. In disaster situation, the affected people will panic and may need immediate counseling. It is an important task to keep the victim's hope alive in such situation.

The above teams will function under the guidance of Deputy Commissioner.

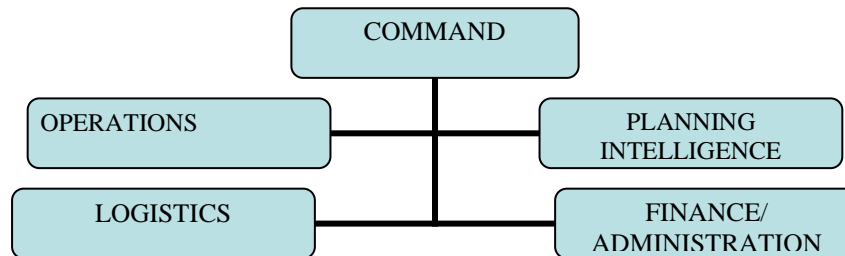
## CHAPTER SIX

### CRISIS RESPONSE STRUCTURE: INCIDENT RESPONSE SYSTEM

#### 6.1. INCIDENT COMMAND SYSTEM (ICS)

The Incident Command System (ICS) is a management system and an on-scene, all risk, flexible modular system adaptable for natural as well as man-made disasters. The ICS has a number of attributes or system features. Because of these features, ICS has the flexibility and adaptability to be applied to a wide variety of incidents and events, both large and small. The primary ICS management functions include:

- ◆ Command
- ◆ Operations
- ◆ Logistics
- ◆ Planning
- ◆ Finance / Administration



The ICS seeks to strengthen the existing disaster response management system by ensuring that the designated controlling/responsible authorities at different levels are backed by trained Incident Command Teams (ICTs) whose members have been trained in the different facets of disaster response management.

The five command functions in the Incident Command System are as follows:

- (i) **Incident Commander:** The Incident Commander is responsible for all incident activity. Although other functions may be left unfilled, there will always be an Incident Commander.
- (ii) **Operations Function:** Since the nature of works of Command and Operations systems are complementary to each other and cannot be separated fully, operation function system will work

to supplement the command function and is required to report its day to day functioning to the commander of ICT for effective and meaningful response to any crisis. Develops tactical organization and directs all the resources to carry out the Incident Action Plan.

**(iii) Planning Section:** In Incident Response System (IRS), the planning section is responsible for managing all information relevant to an incident. When activated, the planning section collects, evaluates, processes and disseminates information for use at the incident.

**(iv) Logistic Function:** The logistic function of the IRS is to hold responsible for facilities, transportation, communication, supplies, equipment maintenance, food services, Medical Services as well as ordering services. To provide resources and all other services needed to support the organization.

**(v) Finance / Administration Section:** Monitors costs related to the incident, provides accounting, procurement, time recording, cost analysis, and overall fiscal guidance. The finance and Administrative function is responsible for managing all financial aspects of an incident.

At the district level, there will be one District Headquarter Team with the primary function of assisting the District Collector in handling tasks like general co-ordination, distribution of relief materials, media management and the overall logistic arrangements. Suitable officers from the district administration will be carefully selected and professionally trained for the different ICS positions in order to constitute the District Level Incident Command Teams. (DICTs). The teams will focus on the operational aspects of response management, duly supported by other functions in ICS, e.g. Planning, Logistics, Finance/Administration, etc. Major responsibilities and duties of Incident Commander are;

- ◆ Assess the situation and/or obtain a briefing from the prior Incident Commander.
- ◆ Determine the incident objectives and strategy.
- ◆ Establish the immediate priorities.
- ◆ Establish an incident command post.
- ◆ Establish an appropriate organization.
- ◆ ensure that 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 media officials.

◆ Order the demobilization of the incident when appropriate.

## **6.2. ESTABLISH AN 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 where the Incident Commander, Command Staff and Planning functions will normally operate.

**(i) Incident Commander:** The Deputy Commissioner Zunheboto District is the Incident Commander in the district and ADCs/SDO(Civil)s/ and EACs are the Incident Commander in their sub divisional level. The Incident Commanders command the incident and is responsible for all incident activities. The Incident Commander must emphasize safety of the people involved in the incident responders' need, other emergency workers and bystanders, to ensure life safety, ensure protection of life and property, stay in command, manage resources efficiently and cost effectively, co-ordinate activity for all command and general staff and approve for the release of resources and authorize release of information to the media. Apart from the Incident Commander there are three other commanders who work closely with the Incident Commander.

**A. Information officer:** The information 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.

. The information officer should be separated from the command post, but close enough to have access to information. The information officer should sit in such a place where there is space for organizing media briefings. Information display and press handouts may be required. Tour and photo opportunities have to be arranged.

**B. Liaison officer:** Incidents, which are multi-jurisdictional or have several agencies involved, which may require the establishment of the liaison officer to be positioned on the command post. The liaison officer is the contact for agency representatives assigned to the incident by assisting or cooperating agencies.

**C. Safety Officer:** The Safety Officer's function on the command staff is to recommend measures for assuring personnel safety and to assess and/ or anticipate hazardous and unsafe situations.

## **CHAPTER SEVEN**

### **PREPAREDNESS AND MITIGATION**

In disaster management cycle, preparedness and mitigation are the two important stages before the occurrence of disaster. It has a great importance in reduction of loss of life and property if proper preparedness and mitigation strategies are followed.

#### **7.1 PREPAREDNESS**

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

#### **7.2. MITIGATION**

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

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

structural and non-structural issues. It is also very strategic rather than the description of various methods of resistant construction technologies.

### **7.3. GENERAL PREPAREDNESS MEASURES:**

#### **(i) Establishment of the Control Rooms**

The district administration should ensure the operation of control rooms. The control rooms presently run by major line departments at District Head quarter and at sub divisional level should be functional.

#### **(ii) Plan Updating**

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

#### **(iii) Communication System**

Training is given for search and rescue teams, first aid teams disaster management teams at village, Sub division Level and district level. These teams will provide timely help during any type of disaster. Provision of wireless sets at all Sub-division and Block level Officers for effective communication .

#### **(iv) Training for Disaster Management Team Members**

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

#### **(v) Organization of Mock Drills/ Simulation Exercises:**

Since emergency management involves participation of so many agencies, it is important to have combined mock-drills and simulation exercises to test the reliability of the plan and train all the agencies which are to participate in emergency management. Therefore, there will be at least one mock-drill or stimulation exercise involving all the agencies every year. An emergency management plan is not a static document but it needs to be updated in the light of new experiences, changes and developments. It will be the responsibility of the District Disaster Management Authority (DDMA) to update the District Disaster Management plan every year after the stimulation exercise.

#### **(vi) Community Awareness**



The hazard analysis of Zunheboto district indicates that the district needs to organize public awareness on the following themes in the pre-disaster phase:

- (i) Construction of Earthquake Resistant Structures
- (ii) Retrofitting the weak structures
- (iii) Construction of embankments for flood control
- (iv) Development of plans for shifting people from vulnerable areas such as Earthquake/Landslide/ Cyclone/high wind/Forest fire prone zone to safer area

#### **7.4. MITIGATION PLAN**

##### **(i) MEASURE**

**Short Term Measure:** When the disasters are inevitable, the only way to deal with them is to mitigate its impact, which could fall under the short term measures like immediate relief, reducing the response time to avert any losses, the basic needs of the vulnerable and affected people are to be given. Those who have lost their properties, are to be supplied with those minimum essential items including smaller loans at a concession rate for long/short term loan etc. are to be given.

**Long Term Measure:** The Long Term Measures would be according to the disasters and their need is to be planned. In frequent fire accidents, Fire Service Stations to be set up, periodic checking and training of the people to be conducted. In case of flood, construction dams, water storage structures, de-silting, bank protection and watershed management are to be followed. Environmental degradation could be addressed by Watershed Management principles. Biomass production will be another Long Term Strategy. Planting trees, shrubs and promoting pastures are to be taken up.

##### **(ii) PLAN**

**Structural Plan:** The disasters could be mitigated by putting structural solutions like dams, embankments, stone walls (sea erosion) dykes, water storage pumps etc.

**Non Structural Plan:** The non-structural methods in handling disasters have been gradually evolved by the community with their traditional knowledge and strength, which have been time tested, economic, cost effective and user-friendly technology and the local people can themselves do it. The non-structural mitigation plans are to be made popular and encouraged as people themselves could do it. Financial incentives will encourage people to adopt it.

#### **7.5. HAZARD SPECIFIC PLAN**

### **(i) EARTHQUAKE: Response, Recovery and Mitigation**

Earthquakes are hazards that strike without warning and cause widespread damage to various man-made structures and systems. Various measures can be classified in terms of preparedness, mitigation and prevention in the pre-earthquake phase.

#### **Pre-Disaster Earthquake Mitigation Measures**

##### **Long Term Measures:**

- Re-framing the building codes, guidelines, manuals and by-laws and their proper implementation. Stricter legislation for highly seismic areas.
- Community buildings and buildings used for gathering of large number of persons, like school, Churches, hospitals, prayer halls, etc must be made earthquake resistant in seismic zones of moderate to high intensities.
- Supporting R&D in various aspects of disaster mitigation, Preparedness and prevention and post disaster management.
- Improving educational curricula in institutions and technical training in polytechnics and schools to include disaster related topics.

##### **Medium Term Measures:**

- Retrofitting of the weak structures in the highly seismic zones.
- Preparation of literature in local languages with do's and don'ts for the building constructions.
- Getting the community involved in the process of disaster mitigation by providing them with proper education and awareness.
- Supporting local technical institutions/colleges/schools to conduct research and to organize exhibitions for public awareness.

#### **Post-Disaster Earthquake Mitigation Measures**

**Short Term Measures:** The urgent measures to be undertaken in the aftermath of a damaging earthquake will include the following:

- Maintenance of law and order, prevention of trespassing, looting etc.
- Evacuation of the people.
- Recovery of dead bodies and their disposal.
- Medical care for the injured.
- Supply of food and drinking water.
- Temporary shelters like tents, metal sheds etc.

- Restoring lines of communication and information.
- Restoring transport routes.
- Quick assessment of damage and demarcation of damaged areas according to the grade of damage.
- Cordoning off severely damaged structures that are liable to collapse during aftershocks.
- Co-ordination between various agencies involved in rescue and relief work is extremely important for success in avoiding gaps and duplication.

### **Pre-Disaster Earthquake Preparedness**

Pre-disaster preparedness needs to be based on preparing likely damage scenario in probable earthquake occurrences and the estimate of extent of efforts required. The following preparedness actions will be useful:

- Community should be trained in search, rescue and relief at the time of disaster in high-risk areas.
- An extensive programme of mass drills may be very helpful in high-risk areas for earthquake damage reduction.
- Local NGOs should be trained and their capacity and capabilities should be strengthened.
- Introducing earthquake disaster safety dos and don'ts and drills in schools.

### **Earthquake Recovery and Reconstruction:**

- Detailed survey of building for assessment of damage and decision regarding repair, reconstruction and strengthening or demolition.
- Repair, reconstruction and seismic strengthening or demolition.
- Review of the existing seismic zoning maps and risk maps.
- Review of seismic codes and norms of construction.
- Training of personnel, engineers, architects, builders and masons.

### **(ii) LANDSLIDE: Response, Recovery and Mitigation**

Landslides can be caused by poor ground conditions, geomorphic phenomena, and natural physical forces and quite often due to heavy spells of rainfall coupled with impeded drainage.

#### **Landslide Mitigation**

In general the chief mitigation measures to be adopted for such areas are:

- Drainage correction.
- Proper land use measures and forest management.

- Reforestation of the areas occupied by degraded vegetation.
- Creation of awareness among local population.
- Preservation of ground cover and stabilizing slopes, construct drainage and terracing.

### **Landslide Preparedness**

The main measures of landslide preparedness are listed below:

- Reinforce threatened structures.
- Install land shift monitors

### **Landslide Response**

- Reinforce against secondary slippage.

### **Landslide Recovery**

- Re-seed denuded areas.
- Begin new land-use planning.
- Relocate people.
- Begin agricultural recovery.

### **(iii) FOREST FIRE: Response, Recovery and Mitigation**

#### **Forest Fire Preparedness and Mitigation Measures**

- Fire codes and zoning and conducting inspections.
- Pass No Smoking laws and provide fire safety information.
- Fire fighter training and automatic sprinklers.
- Fire prevention education can be given by training, signs and poster display, exhibition, circulation of literature and visual ads etc.
- Slash and burnt, Jhum cultivation should be discourage.

#### **Forest Fire Response and Recovery**

- Fight fire and contain fire.
- Rebuild and reforest.

#### **Forest Fire Precautions**

- To keep the source of fire or source of ignition separated from combustible and inflammable material.
- To keep the source of fire under watch and control.
- To adopt safe practices in areas near forest.

- To incorporate fire reducing and fire fighting techniques and equipment while fields are burnt for jhum cultivation
- In case of forest fires, the volunteer teams are essential not only for fire fighting but also to keep watch on the start of forest fires and sound an alert.
- To arrange fire fighting drills frequently.

## **CHAPTER EIGHT**

### **RESPONSE PLAN**

The onset of an emergency creates the need for actions to save lives and property, reduce hardships and sufferings, to -restore essential life support and community systems, to mitigate further damage or loss and provide the foundation for subsequent recovery. Such response actions include notifying emergency management personnel of the crisis, warning and evacuating or sheltering the population if possible, keeping the population informed, rescuing individuals and providing medical treatment, maintaining rule, assessing damage and even requesting help from outside the district.

Effective response planning requires realistic identification of likely response functions, assignment of specific tasks to individual response agencies, identification of equipment, supplies and personnel required by the response agencies for performing the assigned tasks and making an arrangement in advance for procuring the equipment, supplies, personnel in an emergency situation.

#### **8.1. RESPONSE FUNCTIONS**

The district administration is entrusted to perform the following response functions in the event of a disaster:

- Operational Direction & Coordination
- Emergency Warning
- Damage Assessment
- Search and rescue
- Medical relief
- Logistics arrangements
- Communications
- Temporary-shelters
- Law & order
- Animal Care
- Management of the deceased.
- Coordination with NGOs

The contribution of NGOs and voluntary agencies during the response phase is generally invaluable. It has been the experience that many NGOs and voluntary agencies tend to provide relief on their own, without having any coordination or contact with the Deputy Commissioner who coordinates the response of Government agencies. It has also been observed that the relief provided by so many agencies tends to get targeted on the habitations on the main highways and roads or the main administrative towns. Consequently the victims living in interior villages and localities have to wait to get relief, while victims of habitations located on the main roads get far in excess of what they actually need.

Therefore, there is a need of coordinating, the relief efforts of NGOs and voluntary agencies also so that the relief reaches all the victims as per their needs. This coordination will be achieved through a working group, having representatives of important NGOs and some representatives from the local administration. This working group will try to coordinate the relief efforts of NGOs and voluntary agencies so that the NGOs and the voluntary agencies know the locations where their services are most required. Since most of relief through NGOs comes from outside the districts, it will be desirable to have a similar arrangement at the State level to advise the NGOs and voluntary agencies about the type of relief and the place where the relief is urgently required.

## **8.2. EMERGENCY WARNING**

It will be the responsibility of the District Administration to communicate the emergency warning in the rural areas and police department will be responsible for communicating warning in urban areas. Warning messages should use plain language and avoid technical terms and jargon. It should be direct and personalized as much as possible by focusing on what it means to YOU and what YOU can do about it. Along with the general dissemination modes of warning viz. Radio, Television, Scheduled News bulletins, Local Regional newspapers, public address system should be thoroughly adapted for better results. Once a warning is issued, it should be followed up by subsequent warnings in order to keep the people informed of the latest situations.

## **8.3. SURVEY, ASSESSMENT AND REPORTING**

The DDMA should know the disaster scenario for organizing proper response and targeting it to the people, who need it most. It requires a quick information collection regarding damage caused to property and human lives in its jurisdiction and the nature of response required. It will be the responsibility of the Police Department to do a quick reconnaissance of the disaster site and

inform the ECR about the disaster scenario in terms of human lives lost, injured and trapped, requiring immediate relief. It should also inform Emergency Control Room (ECR) about the eminent threat to property and steps required to deal with this threat. This information must be provided to ECR by the local police within 30 minutes of receiving the first information about the disaster. ECR must communicate damage assessment to Commissioner and State Relief Commissioner within an hour of disaster event.

#### **8.4. LOGISTICS**

For an effective response from the relief team proper arrangements of the logistics are must. During the response phase, lots, of resources are mobilized in terms of manpower, equipments and material. The relief workers and officials from outside the disaster area require transport, accommodation, food, etc. so that they can effectively perform the relief operations. Lots of equipment and materials has to be transported to the disaster site. This requires logistic arrangements and coordination with different agencies. In such a situation, the local administration will try to mobilize the transport from outside. The drivers, cleaners and loaders etc. are required to work overtime and need proper care from the administration in terms of food, a place to park the vehicle and take rest. The team responsible for transport arrangement will try to take care of these basic requirements of the transport fleet. For running the transport fleet, petrol and diesel will be required and for this, appropriate arrangements will have to be made with the assistance of local oil companies, and dealers.

#### **8.5. HANDLING OF RELIEF MATERIAL**

It has been the experience that in a serious disaster situation, lot of relief comes from outside the affected district for distribution. The relief materials need to be unloaded and reloaded for distribution to different relief centers. This unloading and reloading requires skilled manpower and there is a shortage of such skilled manpower in a disaster situation. The local administration can mobilize the skilled manpower for unloading and reloading the relief materials from the local warehouse, godowns. The administration will have to hire the services of people and in case of shortage of manpower, get additional manpower from the neighboring districts.

The transport Department will make the arrangements for transport of manpower, material and equipment with the assistance of the local Police. The Department maintains a list of Government transport vehicles and private transport vehicles for this purpose. This list can be



used for mobilizing the transport. It would be advisable to constitute a team for arranging the transport for this purpose.

#### **8.6. SEARCH & RESCUE**

Prompt assistance at the disaster site often requires arrangement of power supply at the disaster site for lighting arrangements to facilitate search and rescue often in the night. It will be the responsibility of Search & Rescue Committee to make this arrangement at the disaster site. Search and rescue is the key response function required for limiting casualties in most disasters. Civil Defence/Homeguards will provide the trained organized force for search and rescue functions which will be augmented by utilizing the services of local volunteers trained by the district administration in search & rescue operations. PWD(R&B) will facilitate the search operations of S&R team by performing debris removal operations.

#### **8.7. MEDICAL RELIEF**

Victims of many disasters require medical care on priority. Similarly, special efforts are i to prevent outbreak of epidemics in many emergency situations. The health and medical services include emergency medical service, hospital services, public health, environmental health, and mortuary services. The activities associated with these services include treatment, transport, and evacuation of the injured, disposition of the dead, and disease control activities related to sanitation, preventing contamination of water and food supplies, etc. During response operations and in the aftermath of a disaster, PHE & Medical Department will be the responsible agency for providing public health and medical service.

#### **8.8. TEMPORARY SHELTER MANAGEMENT**

A serious earthquake results in substantial damage to buildings and other structures. Thus, there can be sudden shrinkage of housing stock after the earthquake. Therefore, large number of people may require temporary shelters for a few weeks before they can reconstruct their houses. Accordingly, this plan has identified requirement of temporary shelter facility for large number of people for a few weeks.

#### **8.9. LAW & ORDER**

Recent experiences of disaster management in India show that law and order in the affected area is a must to be maintained properly and should be given priority in the scheme of things. It shall be the responsibility of the police to maintain the same. In case of the disaster being one of a

high magnitude, the district administration shall seek the help of the army for maintaining the law and order.

### 8.10. MANAGEMENT OF THE DECEASED

Management of the deceased is important for deciding claims for compensation and preventing outbreak of epidemics besides showing due respect to the deceased. The administration and police department will be jointly responsible for necessary documentation of the deceased. It will include the name of the resident, his/her photograph and the place where the body was found. Once the documentation of the deceased has been done, it will be handed over to the family members for the last rites. In case of unclaimed bodies, it will be handed over to local NGOs including religious bodies for last rites. However, it shall be the responsibility of the local police to dispose off the dead bodies after proper recording.

### 8.11. CRISIS RESPONSE PLAN

#### A. Early Warning Dissemination and Response Plan

Departments	Response Systems		
	Preparedness	During Disaster	Post Disaster
BSNL, MC, BSNL, MC, DPRO, Postal Department & District Administration	<ul style="list-style-type: none"> <li>• Set up Control Room with all necessary equipments and materials in place.</li> <li>•Oversee the arrangement for local information dissemination,</li> <li>• Arrange training for volunteers.</li> <li>• List all the important contact numbers and address.</li> </ul>	<ul style="list-style-type: none"> <li>• Regularly providing information about the condition.</li> <li>• Dissemination of information as and when it is received</li> <li>• Collating all the information coming from all sources.</li> </ul>	<ul style="list-style-type: none"> <li>• Providing information for Relief and Rehabilitation.</li> <li>• Ensuring co operation of the public! task force during damage assessment.</li> <li>• Inform the public to return to their home after the danger recedes.</li> </ul>
Police (Wireless)	<ul style="list-style-type: none"> <li>• Ensuring that the communication network is in working condition.</li> <li>• Ensure the proper functioning of the warning system.</li> <li>• Keeping close contact with Administration,</li> <li>• List of important Telephone Nos</li> </ul>	<ul style="list-style-type: none"> <li>• To inform immediately the Administration regarding the message coming from different source.</li> <li>• To closely monitor the situation.</li> <li>• Ensure that correct information is transmitted to the</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that no fake rumors are spread.</li> <li>• Collect all the relevant information different sources.</li> </ul>

		Control Room.	
NGOs, Churches, Dobashis, Gaonburas, Village Councils,	<ul style="list-style-type: none"> <li>Facilitate Mock drills time to time.</li> <li>Generate awareness with the target groups</li> </ul>	<ul style="list-style-type: none"> <li>Assess the situation from time to time,</li> </ul>	<ul style="list-style-type: none"> <li>Coordinate with other Departments to give relevant information to the public.</li> </ul>

### B. Evacuation, Search & Rescue Response

Evacuation, Search & Rescue Response System			
Departments	Pre-Disaster	During Disaster	Post- Disaster
Administration S&R Team	<ul style="list-style-type: none"> <li>Coordination and meeting with other Deptt. for rescue operation.</li> <li>Distribution of work between the officer and NGOs for rescue operation.</li> </ul>	<ul style="list-style-type: none"> <li>Search group go and rescue the left outs.</li> <li>Reaching out the people with the relief materials and other essential commodities.</li> <li>Search and rescue teams visit area of disaster.</li> </ul>	<ul style="list-style-type: none"> <li>Provide immediate shelters to the homeless.</li> <li>Find out the missing persons.</li> <li>Inform the family members about the missing areas.</li> <li>Maintain proper record of the deceased and injuries.</li> </ul>
transport	<ul style="list-style-type: none"> <li>Arrangement of vehicles and other means of transport for evacuation as per risk assessment,</li> <li>Meeting with the owner of transportation vehicles,</li> </ul>	<ul style="list-style-type: none"> <li>Sufficient number of buses and other vehicles should be ready to send to the sub-divisional administration.</li> <li>Help the injuries for transport to hospital.</li> </ul>	<ul style="list-style-type: none"> <li>Provide vehicle if required for transportation of the people to return to their homes.</li> </ul>
NAP	<ul style="list-style-type: none"> <li>Keep updated list of all shelter places with a map Indicating all possible route.</li> <li>Prepare a list of volunteers and arrange training for Them.</li> <li>Prepare a list of contact persons for vehicles and other means of transportation.</li> </ul>	<ul style="list-style-type: none"> <li>Arrange for a guide from the local area if the rescue teams are from outside the area.</li> <li>Deployment of police for peace keeping during evacuation.</li> <li>Help the injured for transport to hospital.</li> </ul>	<ul style="list-style-type: none"> <li>Find out the missing persons.</li> <li>Inform the family members about the missing areas.</li> </ul>

	<ul style="list-style-type: none"> <li>• Arrangement of safety and property of people.</li> <li>• Arrange for food and basic rescue materials for the rescue teams.</li> <li>• Assign different areas to different officers and NGOs.</li> </ul>	<ul style="list-style-type: none"> <li>• Guard properties and materials.</li> </ul>	
Volunteers	<ul style="list-style-type: none"> <li>• Facilitate the training of task force members and generate awareness between the people.</li> <li>• Mobilize volunteers</li> <li>• Help the evacuees</li> <li>• Proposition of food stuff and adequate drinking water at the shelter place.</li> </ul>	<ul style="list-style-type: none"> <li>• Keep close contact with the public as well as the administration.</li> </ul>	<ul style="list-style-type: none"> <li>• Helping the government functionaries in all sort of activities.</li> <li>• Helping in evacuation and Rescue operation.</li> </ul>
PWD(R&B)	<ul style="list-style-type: none"> <li>• Be prepared with all sort of machines and vehicles</li> <li>• Identify alternative routes for accessibility to the site.</li> </ul>	<ul style="list-style-type: none"> <li>• Clear and restore the damaged roads to help in fast rescue.</li> <li>• Take alternative routes or make new routes, if the old ones are blocked or damaged.</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain and restore the damaged roads.</li> </ul>
Medical	<ul style="list-style-type: none"> <li>• Keep record of all the medicines and facilities availability,</li> <li>• Train the volunteers and workers for search and rescue operation.</li> <li>• Generate health awareness and vital things to be done during disaster.</li> <li>• Arrange emergency room ready with equipment and staff.</li> <li>• Stock position of the live saving drugs, ORS IV fluids and other equipments.</li> <li>• Train the village taskforce on use of medicines and first aid.</li> </ul>	<ul style="list-style-type: none"> <li>• Deployment of staff with the medicines,</li> <li>• Surveillance of diseases and epidemic.</li> <li>• Awareness through propagation of healthy practices during the disaster time.</li> </ul>	<ul style="list-style-type: none"> <li>• Treatment of the wounded and transport to hospital if serious.</li> <li>• Distribution of medicines</li> <li>• Daily disease report collection and analysis</li> </ul>

### **C. FIRST AID & HEALTH SERVICES**

Emergency Health Services:- First Aid Team
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Departments	Pre Disaster	During Disaster	Post Disaster
Medical, Social Welfare and V&AH	<ul style="list-style-type: none"> <li>•List out staff with contacts and address</li> <li>• Stock position of the sub-centre's, PHC's and dispensaries.</li> <li>• Prepare the plan, indent for stock. Volunteers, Task force, Anganwadi workers for use and providing minimum health services to the needy Community.</li> <li>• Arrange for mobile health unit for inaccessible areas..</li> <li>• Stock need &amp; medicines for human and animals.</li> <li>• Train volunteers for identification and use of medicines.</li> <li>• Deployment of staffs and collect the required stock from offices within the sub-division.</li> <li>• Arrange emergency room ready with equipments and staff.</li> <li>•Alert the trained volunteers for distribution of work as per need.</li> </ul>	<ul style="list-style-type: none"> <li>• Deployment of staffs with the medicines and Halogen tablets at shelter centre.</li> </ul>	<ul style="list-style-type: none"> <li>• Treatment of the wounded and transport to hospital if serious.</li> <li>• Disease surveillance and transmission of report to the higher authorities on a daily basis.</li> <li>• Vaccination of children and other injured persons.</li> <li>• Providing safe drinking water sources.</li> <li>• Arrangement of fodder! medicines for the animals.</li> </ul>
Administration	<ul style="list-style-type: none"> <li>• Maintain co-ordination between the health departments (MO,CDPO)</li> <li>•Ascertain the medicine stocks position in the PHC, sub-centre and dispensary.</li> </ul>	<ul style="list-style-type: none"> <li>• Supervision of the medical operation with the MO.</li> </ul>	<ul style="list-style-type: none"> <li>• Supervision of the medical operation with the MO.</li> </ul>

#### D. SHELTER MANAGEMENT

Departments	Shelter Management		
	Pre Disaster	During Disaster	Post Disaster
Administration, PWD.	<ul style="list-style-type: none"> <li>•Identification of safe houses.</li> <li>•Identification of safest routes to reach the identified safe place.</li> <li>•Arrangement of basic needs like food, water and</li> </ul>	<ul style="list-style-type: none"> <li>•Keep the record of all evacuees in the shelter.</li> <li>•Supply the food and water in the shelter.</li> <li>•Keep the shelter</li> </ul>	<ul style="list-style-type: none"> <li>• Distribution of relief materials to all.</li> <li>• Check the stock and collect the required</li> </ul>

	<p>medicines in the shelter.</p> <ul style="list-style-type: none"> <li>•Provide identity card for the evacuees.</li> <li>•Keep a record of the shelters.</li> <li>•Provide safe places for animals.</li> <li>• Repair the shelters.</li> <li>•Inform the evacuees about the safe route to the shelter.</li> <li>• Store fodder for animals.</li> <li>•Alert the volunteers for distribution of work as per the need and maintain discipline in the shelters.</li> </ul>	<p>surroundings clean</p> <ul style="list-style-type: none"> <li>•Provide fodder to the animals.</li> </ul>	<p>stock from sub division office.</p>
A Coy, 8 NAP, Police,	<ul style="list-style-type: none"> <li>•Stockpiling of available materials like tarpaulin, plastic sheets, polythene sheets,C.G.I. sheet.</li> <li>•Prepare inventory of place/shop where materials could be procured at short notice.</li> <li>•Identification of safe house/shelter and the safest route to reach them.</li> </ul>	<ul style="list-style-type: none"> <li>• Arrangement of police protection for the shifted family and relief materials,</li> </ul>	<ul style="list-style-type: none"> <li>•Dismantling of the temporarily built shelters.</li> <li>•Listing of reusable and damaged materials.</li> <li>• Stock or return all the usable materials to the concern agency or department.</li> </ul>
Power		<ul style="list-style-type: none"> <li>• Arrangement of temporary electrification at shelter points.</li> </ul>	
PHED	<ul style="list-style-type: none"> <li>•Arrange water at shelter points</li> </ul>	<ul style="list-style-type: none"> <li>• Arrange water at shelter points.</li> </ul>	<ul style="list-style-type: none"> <li>•Provide safe drinking water. Repair the drinking water resources.</li> </ul>
NGOs	<ul style="list-style-type: none"> <li>•Provide helping hands to the govt. functionaries in all respect.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide helping hands to the govt. functionaries in all respect.</li> </ul>	<ul style="list-style-type: none"> <li>•Provide assistance to the Govt. officials in distribution of relief materials among the needy</li> </ul>

			persons.
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### E. Water and Sanitation Response

Departments	Water and Sanitation Response		
	Pre-Disaster	During disaster	Post Disaster
EE (PHED), SDO (Soil & WC).	<ul style="list-style-type: none"> <li>•Identification of safe water sources.</li> <li>•Arrangement of tankers for storage of drinking water.</li> <li>•Identification of group! task forces for distribution of water.</li> <li>•Intensive training of the volunteers to clean the infected water.</li> <li>•Meeting with all the groups! task forces.</li> <li>•Arrange halogen tablets and bleaching powder to avoid infection.</li> <li>•Storing of water tanker in a safe places.</li> <li>•Awareness creation among the people for the use of safe water during the period of crisis.</li> </ul>	<ul style="list-style-type: none"> <li>•Arrangement of water and shelter points.</li> </ul>	<ul style="list-style-type: none"> <li>•Provide safe drinking water.</li> <li>• Repair damages at the drinking water source</li> <li>• Cleaning of ponds and other water resources.</li> <li>• Motivate people to keep their surrounding clean and clear.</li> </ul>
Medical, DWO (ICDS)	<ul style="list-style-type: none"> <li>•Keep record of all the medicines and facilities available,</li> <li>•Train the volunteers and workers for Maximum use of medicines and health services to the community,</li> <li>•Generate health awareness programmes amongst the village community.</li> <li>•Check the stock and collect the required stock from Medical Store.</li> <li>•Arrange emergency room ready with equipment and staff.</li> </ul>	<ul style="list-style-type: none"> <li>•Deployment of staffs with the medicines and halogen tablets at shelter centers.</li> <li>•Surveillance of diseases and epidemics.</li> </ul>	<ul style="list-style-type: none"> <li>• Treatment of the wounded and transport to hospital if serious.</li> <li>• Disease surveillance and transmission of report to the higher authorities on a daily basis. <ul style="list-style-type: none"> <li>• Vaccination of children and other injured persons.</li> <li>• Distribution of medicines.</li> </ul> </li> </ul>

### F. Relief Operation Response

Departments	Relief Operation		
	Pre Disaster	During Disaster	Post Disaster

Administration and Food & Civil Supplies	<ul style="list-style-type: none"> <li>• Identification of the places for opening of site operation station.</li> <li>• Identify volunteers for running the site.</li> <li>• Keep means of transportation in readiness for relief operation.</li> <li>• Develop a card for indenting the relief material distribution to the beneficiary.</li> <li>• Shift man and materials to the shelter.</li> <li>• Make arrangements for shifting villagers to the shelter.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide dry food cooked food packets.</li> <li>• Distribute relief materials,</li> <li>• Keep records of relief materials being distributed,</li> </ul>	<ul style="list-style-type: none"> <li>• Start free kitchen.</li> <li>• Distribution of uncooked food to the people returning to their home.</li> <li>• Maintain beneficiary list along with the quantity given.</li> </ul>
BDO, Medical & PHED.	<ul style="list-style-type: none"> <li>• Identify go-downs to keep feed.</li> <li>• Moveable feed to shelter places.</li> <li>• Submit cattle feed indent to concern department.</li> <li>• Arrange containers for water storage near the relief distribution site.</li> </ul>	<ul style="list-style-type: none"> <li>• Arrange feed and water for the cattle.</li> <li>• Arrange water at the distribution centre.</li> </ul>	<ul style="list-style-type: none"> <li>• Distribute cattle feed.</li> <li>• Arrange for mass vaccination if required.</li> <li>• Provide packet water if required.</li> </ul>
DWO, CDPO (Social Welfare)	<ul style="list-style-type: none"> <li>• Regularly update the list of children, pregnant women and lactating women.</li> <li>• Prepare an indent and submit to the BDO for baby food and double ration to the women.</li> </ul>	<ul style="list-style-type: none"> <li>• Distribute baby food and double ration to the mother.</li> </ul>	<ul style="list-style-type: none"> <li>• Distribute baby food and double ration to the mother.</li> </ul>

### G. Infrastructure Restoration Response

Departments	Infrastructure Restoration Response		
	Pre Disaster	During Disaster	Post Disaster
Administration, PWD, PHED, Power & Soil,	<ul style="list-style-type: none"> <li>• Identification and retrofitting of important buildings like Hospitals, telecommunication buildings, Offices as well as Community</li> </ul>	<ul style="list-style-type: none"> <li>• Construction and reconstruction telecommunication infrastructures, power lines, water supply pipelines, buildings which can be utilized for</li> </ul>	<ul style="list-style-type: none"> <li>• Overall assessment of damages due to disaster. Further removal of debris in the affected areas. Accelerated reconstruction of</li> </ul>



	buildings which can be used as shelters during disasters. Maintenance of roads and power lines as well construction of retaining walls/drainages along arterial roads which are susceptible to landslides,	emergencies like shelters, storage of relief aids. Removing buildings which may be hazardous if left standing. Immediate Removal of debris for easy accessibility for relief teams in affected areas as wells roads to maintain communication.	affected infrastructures, buildings so as to bring back normalcy at the earliest.
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### H. Carcass Disposal Response

Departments	Carcass//Dead Bodies Disposal		
	Pre Disaster	During Disaster	Post Disaster
Administration, PTC, V&AH, Police, Transport.	<ul style="list-style-type: none"> <li>Identify possible places that can be used for burying or burning dead bodies.</li> <li>Maintain contact and database of fuels' dealers and stock position.</li> <li>Inform the volunteers to be ready.</li> <li>Arrange truck or other carriers for transportation of carcass to the disposal point.</li> </ul>		<ul style="list-style-type: none"> <li>Mobilize the volunteers to complete the job at the earliest.</li> <li>Prepare the list of dead persons.</li> <li>Transport the entire carcass to the disposal point to dispose.</li> <li>Provide fuels for proper disposal of the body.</li> </ul>
Medical	<ul style="list-style-type: none"> <li>Stockpiling of sufficient bleaching powder.</li> </ul>		<ul style="list-style-type: none"> <li>Conduct Autopsy.</li> <li>Identify or record the dead person's appearance for future reference.</li> <li>Issue death certificate.</li> </ul>

### I. Psychological and Trauma Counselling

Departments	Psychological and Trauma Counselling		
	Pre Disaster	During Disaster	Post Disaster

Administration, STU, Dobashis, Gaonburas.	<ul style="list-style-type: none"> <li>• Identification of vulnerable sections of societies like women, children, destitute, etc.</li> <li>• Identify volunteers for counseling</li> <li>• Make arrangements for suitable location for Disaster Trauma.</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of people who suffered various forms of mental &amp; psychological trauma due to loss of loved ones or loss of property or means of livelihood or mental shock.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify victims who need psychological care and attention.</li> <li>• Send victims to counseling centre!, institutions and mental hospitals for proper treatment.</li> </ul>
Churches, NGOs & Voluntary Organization	<ul style="list-style-type: none"> <li>• Identify various categories of adult, youth &amp; children.</li> <li>• Provide spiritual and emotional strength.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify different categories of victims,</li> <li>• Identify different forms of trauma</li> <li>• Arrange for appropriate counseling by the appropriate person.</li> <li>• Provide solace and mental peace to restore mental balance.</li> </ul>	<ul style="list-style-type: none"> <li>• Send victims to prayer centre for mental peace and speedy recovery.</li> </ul>

## **CHAPTER NINE**

### **RECOVERY & RECONSTRUCTION PLAN**

#### **9.1 INTRODUCTION**

Recovery is the final phase of the emergency management cycle. Recovery continues until all systems return to normal, or near normal. Short-term recovery returns vital life support systems to minimum operating standards. Long-term recovery from a disaster may go on for years until the entire disaster area is completely redeveloped; either as it was in the past or for entirely new purposes that are less disaster-prone.

Recovery Phase may involve one or more of the following components:

- Restoration of the basic infrastructure
- Reconstruction/repairs of community facilities/social infrastructure
- Reconstruction/repairs of the private residential buildings
- Restoration of private business enterprises including farming activities
- Medical rehabilitation of the people physically affected by the disaster
- Psychological rehabilitation of the families who have lost near and dear ones

The operational direction and coordination of recovery efforts is much simpler in comparison with the problem of operational direction and coordination of response functions. Therefore, it is presumed that the normal arrangements for coordination in the district will take care of requirements of operational direction and coordination of recovery efforts. However, it is proposed that a Committee chaired by the Deputy Commissioner be set up for the coordination of all the restoration and rehabilitation related activities. The Committee will have members like the District Welfare Officer, Lead Bank Officer, Manager Industries, Agriculture & Allied Department Heads, and one or more than one identified NGOs, Chairman Town Council, the Public Works Department, and Power & PHE Departments, industry and business organization's representatives and other interested eminent persons in the area. The basic infrastructure departments will do a quick damage assessment exercise in respect of the infrastructure facilities under their charge immediately after the disaster and submit a report to the Government and the Deputy Commissioner. These departments will initiate action for restoration of the damaged infrastructure facilities using departmental funds. They can submit demands to Government for additional funds or relaxation of departmental regulations for speeding up restoration efforts.

Funds are generally available from the Rural Development Department for the construction and maintenance of community facilities in the rural areas. These funds will be utilized by the Village Council for reconstruction or repairs of the damaged community facilities. They can also submit demands to the Government for additional funds or relaxation of departmental regulations for speeding up reconstruction and repair efforts. They will also try to mobilize additional funds for this purpose through donations from the local community or donor agencies. The Deputy Commissioner will coordinate the mobilization of funds from the agencies.

Insurance schemes are an important source of funds for reconstruction and repairs of private residential buildings damaged from the disaster. The community needs to be motivated through community awareness programmes to insure their properties. HUDCO and commercial banks also provide financial assistance for reconstruction and major repairs of private residential buildings damaged from disasters. The house owners will be motivated to obtain financial assistance from HUDCO and commercial banks for this purpose.

NGOs and donor agencies also provide financial assistance for reconstruction / repair of private houses, particularly to the poor families, who can not afford to avail financial assistance from HUDCO or commercial banks at normal terms. The Deputy Commissioner will coordinate with NGOs and donor agencies to ensure that the concessional assistance gets targeted to the really poor and needy families.

PWD(Housing), will organize technology demonstration camps in the affected areas to inform the people about seismically appropriate building techniques so that new constructions are not vulnerable to the identified hazards. Insurance schemes are important source of funds for restoration of private business enterprises. The Deputy Commissioner will coordinate with Insurance Companies to speed up settlement of insurance claims. It will help in restoration of private business enterprises. He will also coordinate with commercial banks for ensuring smooth flow of financial assistance from commercial banks for restoration of private business enterprises.

There is Government instruction for distribution of ex-gratia payments to poor families, who suffer from disasters to initiate their recovery process. This assistance will be provided very promptly to the poor families by the District Administration.

## **9. 2. MEDICAL REHABILITATION:**

In case of earthquake, the injury may be reported in terms of amputation of organs and bone fractures, which requires months to be normal. In that case, it is the responsibility of Health Department to take care of injured. For the handicapped, the State Government's Social Welfare provides funds for getting them functional.

### **9.3. PSYCHOLOGICAL REHABILITATION:**

The need of psychological Rehabilitation is important aspect of recovery management. The women who are widowed and children, who get orphaned, require psychological treatment to restart their normal life. This process is very gradual and requires patience. The local volunteers NGO's & Religious Organisation will organize camps on regular basis for such rehabilitation. Apart from this, Social Welfare Department will conduct psychotherapy sessions on regular basis. The Social Welfare department with the help of the NGOs and other professional shall establish counseling centres for the psychological rehabilitation of the persons affected by the disasters.

The district and local administration shall accord priority for the recovery and rehabilitation of the weaker sections of the society as they normally take more time and efforts to recover from the disasters because of the economic and sociological reasons.

## ANNEXURE

### GENERAL INFORMATION OF ZUNHEBOTO DISTRICT.

#### 1. Zunheboto District Census 2011

District :	Zunheboto
State :	Nagaland
Population	141014
Population Density	112 Persons/sq.Km.
Male Population	113409
Female Population	27605
Sex-Ratio	916
Total Literacy rate	86.26 %
Male Literacy Rate	%
Female Literacy Rate	%
Area (square Kilometer)	1259.053571

#### **2.List of Police Stations**

1. Zunheboto
2. Aghunato
3. Akuluto
4. VK
5. Pughoboto
6. Ghathashi
7. Satakha

#### **3.List of Out-Post Police Stations**

1. Asuto under Aghuanto Police Station
2. Satoi under Satakha Police Station
3. Suruhuto under Zunheboto Police Station
4. Atoizu under Zunheboto Police Station

#### **4.Batallions**

1. 8<sup>th</sup> NAP at Naltoqa
2. 21 AR at Zunheboto
3. 111 BSF at Satakha

4. 164 INF BN(TA) H&H NAGA( G COY)

#### **5. Health Care Institutions**

1. District Hospital -1
2. Community Hospital-2
3. Primary Health Center-13
4. Sub Center- 47

#### **6. Private Hospital**

1. Y.R Rochill Hospital at Zunheboto
2. Aizuto Mission Hospital
3. 21 AR Hospital at Zunheboto
4. Police Hospital at Naltoqa

#### **7. Colleges ,Schools and Training Institute**

2. Government College-1
3. Government Higher Secondary School-2
4. Government High School-20
5. Government Middle School-19
6. Government Primary School-106
7. Private College- Nil
8. Private Higher Secondary School-3
9. Private High School-28
10. Theological College-2
11. Training Institute -Kelhose Polytechnic, Atoizu

#### **8. Transport and Communication:**

1. NST Service at Zunheboto Plying from:  
Zunheboto to Dimapur  
Zunheboto to Aghunato  
Zunheboto to Suruhuto  
Zunheboto to Satakha  
Total Bus running-7  
Station based at Zunheboto

#### **9. RD Blocks**

1. Zunheboto
2. Satakha
3. Satoi
4. Tokiye
5. Ghathashi
6. Akuluto
7. Akuhaito
8. Suruhuto

## 10. Govt. Rest House in Zunheboto District

1. Zunheboto
2. Suruhuto
3. Atoizu
4. Pughoboto
5. Akuluto
6. Satakha
7. Aghunato
8. Asuto
9. Circuit House Zunheboto

## 11. Banking facilities:

### A. State Bank of India:

- (1) Zunheboto
- (2) Aghunato
- (3) Satakha
- (4) Akuluto
- (5) Nagaland University Lumami.

### B. Rural Bank :

1. Pughoboto
2. V.K.station

### C. Nagaland State Co-operative bank. :

1. Zunheboto

## 12. HELIPAD

1. Assam Rifle Helipad Zunheboto.
2. Nagaland University Helipad Lumami
3. BSF Helipad Satakha
4. Assam Rifle Helipad Atoizu

## 13. RESOURCES INVENTORY IN ZUNHEBOTO DISTRICT.

### Resource Inventory in Zunheboto District

Resource Type	Item Details	Quantity	Govt/ Private	Address/Contact No
Transportation and Communication	Zonal Taxis (Tata Sumo)	32 Nos	All Private	
	Super Travels		Private	
	NST Bus		,Govt.	AGM (NST) Office, Zunheboto Tel. No. 03867-220348 / 220360



•Lifting Equipments	Jack with 5-Ton lift	01 Nos.	Govt	E.E. (Power)/SDO (Power) Office, Zunheboto Tel.No.03867-220356/220343
		02 Nos	Govt	AGM (NST) Office, Zunheboto Tel. No. 03867-220348 / 220360
	Chains —6 Feet (3 Ton lift)	03 Nos	Govt	Asst. CO. 92 Bn CRPF, Zunheboto Tel. No. 03867- 220226
	Crow-Bars	12 Nos	Govt.	DM Cell, DC's Office, Tele. No. 03867-220335/220338
Search & Rescue Equipments	Search Light	03 Nos	Govt	Asst. CO, 92 Bn CRPF, Zunheboto Tel. No. 03867-220226
	Diver's Gear	25 Nos	Govt	- do -
	Search Light	02 Nos	Govt	SP Office, Zunheboto Tel. No. 03867- 220368 / 220369
	Electric Drill	01 Nos.	Govt	E.E. (Power)! SDO (Power) Office, Zunheboto Tel. No. 03867-220356 / 220343
	Fire Axe	10 Nos.	Govt.	DM Cell, DC's Office, Zunheboto Tele. No. 03867-220335/220338
Cutting and Cleaning Equipments	Sledge Hammer	02 Nos	Govt	AGM (NST) Office, Zunheboto Tel. No. 03867-220348 / 220360
		12 Nos.	Govt.	DM Cell, DC's Office, Zunheboto Tele. No. 03 867-

				220335/220338
	Heavy Axe	02 Nos	Govt	SP Office, Zunheboto Tel. No. 03867- 220368 /22036
		03 Nos	Govt	Asst. CO. 92 Bn CRPF, Zunheboto Tel. No. 03867- 220226
	Crescent Adjustable Wrenches	03 Nos	Govt	AGM (NST) Office, Zunheboto.Tel.No.03867-220348 /220360
	Slotted Screwdrivers	02Nos	Govt	-do
		01 Nos	Govt	Asst. CO, 92 Bn CRPF, Zunheboto Tel. No. 03867- 220226
	Pliers	25 Nos	Govt.	DM Cell, DC's Office, Zunheboto Tele. No. 03867-220335/220338
Earth moving and Road cleaning equipments	Bulldozers Wheeled/Chain	3nos	govt	Mechanical (R & B) / SDO (Mechanical), R & B, Zunheboto Tel No. 03867- 221136
	Tipper (Heavy Duty) Truck	01 Nos	Govt	Zunheboto Town Council Chairperson, Z.T.C. Tel No. 03867- 221247 / 221242
		01 Nos	Govt	AGM (NST) Office, Zunheboto Tel. No. 03 867-220348 / 220360
	Dumper Truck	01.Nos	Govt	-do-
		03 Nos	Govt	BRTF (GREF), Zunheboto.
	Shovels	60 Nos	Govt	DM Cell, DC's Office, Zunheboto Tele. No. 03867-220335/220338
Crane (JCB)	02 Nos	Govt	BRTF (GREF), Zunheboto.	
Other Equipments, Resources	Rubber Gloves	2500	Govt	E.E. (Power) / SDO (Power) Office, Zunheboto Tel. No. 03867-220356 / 220343
	Traps 4x4	1 Nos	Govt	AGM (NST) Office, Tel. No.

	Meters			03867-220348 / 220360
	Electric Generator	I Nos	Govt	SP Office, Zunheboto Tel. No. 03867- 220368 / 220369
	Blankets	10 Nos	Govt	Hon. Secretary, IRCS, Zunheboto Tel No. 03867- 220868
		254 Nos	Govt	Asst. CO. 92 Bn CRPF, Zunheboto Tel. No. 03867- 220226
	Hand-held PA System	02 Nos	Govt.	DM Cell, DC's Office, Zunheboto Tele. No. 03 867- 220335/220338
	Tarpaulin	20 Nos	Govt	- do-

14. List of NGOs:

Name of NGOs	Area of operation	Sector	No. of population	Contact Nos
Sumi Hoho	Whole District	Community Service/Welfare		
Sumi Totimi Hoho (STH-N)	Whole District/All Nagaland	Community service/welfare		
Sumi Totimi Hoho (STH-Z)	Zunheboto Town	Women's welfare		
Sumi Kukami Hoho (GBs' Association)	Whole District/All Nagaland	- do -		
Sumi Kiphimi Kuqhakulu (SKK)	Whole District/All Nagaland	Student Community Service/welfare		
Concerned Citizens' Forum (CCF)	Zunheboto Town	Community service Welfare		

**15. TELEPHONE DIRECTORY OF GOVT. OFFICE AT ZUNHEBOTO TOWN.**

Sl. No	Particulars	Office	Residence
1	Deputy Commissioner	220325	220335

2	Additional Deputy Commissioner	220329	220364
3	Sub-Divisional Officer ( C )	220346	-
4	Extra Assistant Commissioner	220250	-
5	PA to Deputy Commissioner	220325	220351
6	Superintendent of Police	220368	220369
7	A.E.O ( Election)	220201	-
8	C.O. 3 <sup>rd</sup> Assam Rifles	220342	220434
9	Telephone Exchange	220298	-
10	Telephone enquiry	220398	-
11	S.D.P.O.	220450	-
12	Rest House	220385	-
13	A.P.P.	220409	220408
14	Booking counter(NST)	220348	-
15	Civil surgeon	220354	-
16	Executive Engineer (PHE)	220242	-
17	Executive Engineer (PWD) (R&B)	220328	-
18	Executive Engineer (Elect)	220356	-
19	Electrical SDO (Power House)	220343	-
20	DEO ( Employment)	220446	-
21	DWO (Welfare)	220239	-
22	Dist. Transport Office	220318	-
23	D.I.S	220265	-
24	Sr. Treasury officer	220236	-
25	Zunheboto Govt. College	220219	-
26	Fire Service	220444	-
27	Jail	220321	-
28	O.C. PR	220256	-
29	Post Office	220290	-
30	Dist. Veterinary Office	220350	-
31	Project Director (DRDA)	220380	-
32	D.I.O (NIC)	220384	09402814750
33	Dist. Agriculture Office	220461	-
34	Dist. Youth Resources	220722	-
35	Dist. Cultural Office	220777	-
36	Civil Surgeon Office	220351	-
37	Circuit House	220338	-
38	Head Master (Govt. Hr. secondary)	220228	-
39	Youth Co-ordinator Nehru	220552	-
40	Child Dev. Project Office	220307	-
41	State Bank of India	220331	-
42	Co-operative Bank	220475	-

43	Comdt. Home Guard	220490	-
44	OC Police Station	220333	-
45	Weight & Measure	220474	-
46	Sumi kiphimikuqhakulu	220746	-
47	Zunheboto Town committee	220385	-
48	Police Station	220333	
49	Fire Service	220444	
50	Post Office	220290	
51	Civil Hospital	220344	
52	Gas Agency	220858	
53	Telephone Enquiry	220298	
54	Power House	220343	
55	Nagaland State Transport	220348	
56	J.T.O	220301	
57	A/R Commandant	220323	
58	Town Committee	220385	
59	Cable Operator		