

## CHAPTER - I

### **DISTRICT DISASTER MANAGEMENT PLAN OF LOWER DIBANG VALLEY DISTRICT**

#### INTRODUCTION

The District Disaster Management Plan of Lower Dibang Valley, hereinafter referred as the Plan, is a multi-hazard response plan that assists and equips the district administration to organize its emergency preparedness for the *pre*, *during* and *post disaster*, so that response and mitigation functions timely and in an efficient manner within the district and also to extend the necessary support to the state and central government. It is a plan that focuses on operations, and defines the Characterization of responder agencies of the district, from within and outside the government.

#### DISTRICT PROFILE

The Lower Dibang Valley is the 15th district of Arunachal Pradesh, which came into existence on 16<sup>th</sup> December, 2001 and Roing being its district headquarter. The district is situated in between 27 ° 30 " N to 28 ° 38 " N latitude and the longitude between 95 ° 15 " E to 96 ° 30 ". This district has an area of 3900 sq. km and shares its border with Dibang Valley District in the North, Assam in the South, Lohit, Anjaw and the Republic of China in the East and East Siang District in the west. It stretches from snowcapped mountain in the north and the plains of the Brahmaputra in the South. It has the green lush forest with deep rivers like Dibang, Deopani, Ithu, Eze, Iphi. Aba, Chifu, Sisiri, Dotung and their various tributaries. The major part of the district is covered by reserve forest which helps the Forest and Environment Departments in revenue earning.

The climate of district is sub-tropical with high humidity and May being the hottest month of the year. Monsoon generally starts with heavy rainfall from the month of April every year. The lower belt of the district experiences hot climate in summer but it becomes progressively cold as one move northward to the higher altitude. The upper belt of the district that is Desali and Hunli circles, enjoy very moderate climate during summer and extreme cold during the winter.

Administratively the Lower Dibang Valley District is divided into three sub-division and seven Circles and inhabited by Mishmi (Idu) and Adi (Padam and Mishing) Tribes of Arunachal Pradesh. Apart from these tribes some small pockets of the district are inhabited by Galo.



Basically the people of the district predominantly practices agriculture and horticulture, and few are engaged in government services. The upper belt of district is highly hostile terrain with rough mountains, where shifting cultivation is widely practiced by the people, while the lower part of belt is covered by fertile land, where both jhum and settled cultivation are practiced in the form of wet rice cultivation (WRC) and Terrace Rice Cultivation (TRC) and also has high fishery potentiality. It has total area of 25,280 Hectares of cultivable area.

The principal means of transportation is road and the NH 52 played an important role by connecting inter-state i.e. from Assam to Arunachal. It is the life line of the district. The district has well air connectivity with two days services being pressed in by the civil aviation department through pawans hans and jagson airlines. The PWD roads are spread across all the blocks but most of them get disconnected due to landslide and flood during the monsoon season.

### SOCIO-ECONOMIC PROFILES

Apart from Agriculture and horticulture, many people run small business for their livelihood. Some people are in the Contract works and others have sound business of hotels and restaurants. The district of Lower Dibang Valley has got many tourist spots and religious places such as: Mayudiya Pass, Bhismanagar, Mehao Lake, Sally Lake, Nehru Ban-Udyan etc. which attract tourist and picnickers round the year.

### GEOGRAPHICAL AND DEMOGRAPHIC NECESSITY OF THE PLAN:-

The Plan establishes an administrative structure for a systematic, coordinated and effective response at the district level. The purpose of the plan is to:-

- Define a system of coordination at the district level.
- Identify all the responder agencies at the district level, and assign functional responsibilities to each of them.
- Establish a central facility in the district, which enables all the responder agencies to interact and coordinate their efforts.
- Suggest hazard-specific preparedness, response and mitigation measures.
- Plan resource requirements, and coordinate with the state government for requisitioning more resources.
- Provide an inventory of resources, key facilities and addresses for deployment and assistance towards preparedness and mitigation.



Responding to an urgent call of society to change the paradigm from the traditional practice of giving relief towards reducing the risk of disaster, the Govt. is emphasizing that at all level, administration's primary role should be the preparedness, mitigation, reduction and response of a disaster based on community participation.

**TABLE NO. 1.1 PHYSICAL DATAS:-**

| SL.NO. | PARTICULARS               | FIGURES IN DETAILS    |
|--------|---------------------------|-----------------------|
| 1.     | Geographical area         | 3900.00 Sq. Km        |
| 2.     | Cultivable area           | 25,280 Hectares       |
| 3.     | Irrigated area            | 2791 Hectares         |
| 4.     | Population                | 54,080 ( 2011 census) |
|        | Male                      | 28,053                |
|        | Female                    | 26027                 |
| 5.     | Literacy rate             | 70.38%                |
|        | Male                      | 76.62%                |
|        | Female                    | 63.56%                |
| 6.     | Rural population          | 42,691                |
| 7.     | Urban population          | 11,389                |
| 8.     | Town                      | 01                    |
| 9.     | Villages                  | 314 (2011 Census)     |
| 10.    | No. of Sub-Division       | 05                    |
| 11.    | No. of Circle Head quater | 07                    |
| 12.    | No. of CD Block           | 03                    |
| 13.    | No. of Gram Panchayat     | 154                   |
| 14.    | Major river               | 09                    |
| 15.    | Annual rainfall           | 4025.56 mm(2019)      |
| 16.    | Temperature               | 15 – 41° C            |
| 17.    | District hospital         | 01                    |
| 18.    | CHC                       | 03                    |
| 19.    | PHC                       | 05                    |
| 20.    | Health sub-center         | 12                    |

Source: District Statistical Office, WRD, DMO (Office) Lower Dibang Valley, Government of A.P



## OBJECTIVE

### THE OBJECTIVE BEHIND THE PREPARATION OF THE DISTRICT DISASTER MANAGEMENT PLAN IS:-

1. *To mitigate impact of natural and man made disasters through preparedness at District, Blocks, Gram Panchayat and village level.*
2. *To provide effective support and resources to all the concerned individuals, groups and departments during disasters.*
3. *To assist the line depts., block administration, communities in developing compatible skills for disaster management.*
4. *To disseminate factual information in timely, accurate and tactful manner while maintaining necessary confidentiality.*
5. *To develop immediate and long term support plans for vulnerable people in/during disasters.*
6. *To create awareness among the people about hazard occurrences and increase their participation and preparedness, prevention, development, relief, rehabilitation and reconstruction process.*
7. *To have response system in place to face any eventuality.*

### DEVELOPMENT OF DDMP:-

The Deputy Commissioner is responsible for initiating the DDMP at the District level. After constitution of the DDMA with the involvement of PRI's and all the HODs, the DDMP is prepared. The DDMP is prepared keeping in view its need to monitor the frequent natural disasters occurred in the district. And also to strengthen the hands of the District administration by setting up a control room which will be jointly monitored by the Field Officer and District Disaster Management Officer. The DDMP was prepared in the month of September - October. The DDMP was prepared taking into consideration the practical problems faced by the inhabitants of the District. It was decided by the DDMA that the DDMP would be reviewed after every six months.



District Disaster Management Authority :- As per Govt. Notification regarding constitution of the District Disaster Management Authority in the District, the District Disaster Management Authority is constituted with the following members.

- |                                     |                           |
|-------------------------------------|---------------------------|
| (1) Deputy Commissioner             | - Chairperson ex-officio  |
| (2) Chairperson (ZPM)               | - CO-Chairperson          |
| (3) Add. Deputy Commissioner        | - Chief Executive Officer |
| (4) Suptt. of Police                | - Member                  |
| (5) District Medical Officer        | - Member                  |
| (6) D.D.M.O                         | - Convener                |
| (7) Executive Engineer (Electrical) | - Member                  |
| (8) Executive Engineer (PHED)       | - Member                  |



## CHAPTER – 2

### RISK ASSESSMENT & VULNERABILITY ANALYSIS

#### ECONOMIC, OCCUPATIONAL, SOCIAL AND EDUCATIONAL PROFILE OF THE POPULATION

##### Circle Wise Demographic Profile:

The following data are given as per the 2011 census, Government of India, which was collected from the District Statistical Office, Lower Dibang Valley, (A.P). The table shows the total number of circles, villages, total population (male/female), and main tribes inhabited in the district along with distance from district headquarters (Roing) to different Circles of Lower Dibang Valley District.

**Table No. 2.1:- Circle Wise Demographic Profile of District**

| <i>Name of Circle</i>          | <i>No. of Village</i> | <i>Total Population</i> |              |                | <i>Main Tribes</i>                         | <i>Distance from Roing (in Kms)</i> |
|--------------------------------|-----------------------|-------------------------|--------------|----------------|--|-------------------------------------|
|                                |                       | <i>Persons</i>          | <i>Males</i> | <i>Females</i> |  |                                     |
| ROING(including Parbuk Circle) | 45                    | 36382                   | 18837        | 17545          | Mishmi (Idu),Adi (Padam, Mishing) and Galo | 0                                   |
| KORUNU                         | 11                    | 5614                    | 3044         | 2570           | Idu - Mishmi                               | 21                                  |
| DAMBUK                         | 10                    | 4518                    | 2295         | 2223           | Adi - Padam<br>Idu - Misimi                | 45                                  |
| PAGLAM                         | 08                    | 5319                    | 2732         | 2587           | Adi (Padam and Mishing) & Galo             | 105                                 |
| HUNLI                          | 28                    | 1383                    | 727          | 656            | Idu-Mishmi                                 | 90                                  |
| DESALI                         | 25                    | 864                     | 418          | 446            | Idu-Mishmi                                 | 110                                 |
| <b>TOTAL :</b>                 | <b>127</b>            | <b>54080</b>            | <b>28053</b> | <b>26027</b>   |  |                                     |

Source: District Statistical Office, Lower Dibang Valley, Government of A.P



- Occupational Profile Of the District

The maximum population of the district is dependent on agriculture. They are also expert craftsmen and weavers, women in particular.

- Social Profile Of the District

The main inhabitant tribes are Adi and Idu-Mishmi. They have their own society and village councils. Traditionally Idus believes in Animism and worships several benevolent spirits. They worshipped Nani Intaya and Massello Zino as creators of mankind and universe as a whole. On the other hand, Adi's belief and faith allegiance to sun and moon god. Besides, Idu and Adi, a few numbers of Nyishi, Mishing and Galo families are settled here. The literacy rate of the district is about 76.62% males and 63.56% females as per 2011 censuses.

- Educational Profile Of the District

**Table No. 2.2 Educational Profile of the District**

| Sl. No. | Educational Institutions                    | Nos. |
|---------|---|------|
| 1       | Higher Secondary Schools                    | 03   |
| 2       | Secondary School                            | 09   |
| 3       | Middle School                               | 30   |
| 4       | Primary School                              | 68   |
| 5       | Residential School                          | 03   |
| 6       | Kendra Vidyalaya                            | 01   |
| 7       | Vivekananda Kendra Vidyalaya                | 01   |
| 8       | Jawahar Navodaya Vidyalaya                  | 01   |
| 9       | Kasturba Gandhi Balika Vidyalaya            | 01   |
| 10      | Industrial Training Institute               | 01   |
| 11      | A.P. Forest Training School                 | 01   |
| 12      | District Institute for Educational Training | 01   |
| 13      | Private Schools                             | 14   |
| 14      | Polytechnic college                         | 01   |
| 15      | College                                     | 01   |



|    |      |    |
|----|------|----|
| 16 | DIET | 01 |
|----|------|----|

Source: DDSE, Office, Lower Dibang Valley

**TABLE NO. 2.3 DISASTER SPECIFIC HISTORY OF THE DISTRICT.**

| SI No. | Disastrous Events | Year of Occurrence  |
|--------|-------------------|---|
| 1      | Flood             | 1999, 2003, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2014, 2015, 2016,2019 |
| 2      | Landslide         | 1999 – 2015,2019  |
| 3      | Drought           | 2005, 2009, 2011, 2014,2018   |
| 4      | Storms            | 2005, 2010, 2012,2019   |
| 5      | Fire Accidents    | 2005, 2007, 2008, 2009, 2010, 2011, 2012, 2014, 2015, 2016,2017, 2018, 2019       |

### SEASONAL HAZARD ANALYSIS

**Table No. 2.4 Seasonal Hazard Analysis**

| Type of Hazards      | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <b>FLOOD</b>         |     |     |     |     |     | ←   | →   |     |     |     |     |     |
| <b>LANDSLIDE</b>     |     |     |     |     |     | ←   | →   |     |     |     |     |     |
| <b>EARTHQUAKE</b>    | ←   | →   |     |     |     |     |     |     |     |     |     | →   |
| <b>STORM</b>         |     |     |     |     | ←   | →   |     |     |     |     |     |     |
| <b>DROUGHT</b>       |     |     |     |     |     |     | ←   | →   |     |     |     |     |
| <b>FIRE ACCIDENT</b> | ←   | →   |     |     |     |     |     |     |     |     |     | →   |



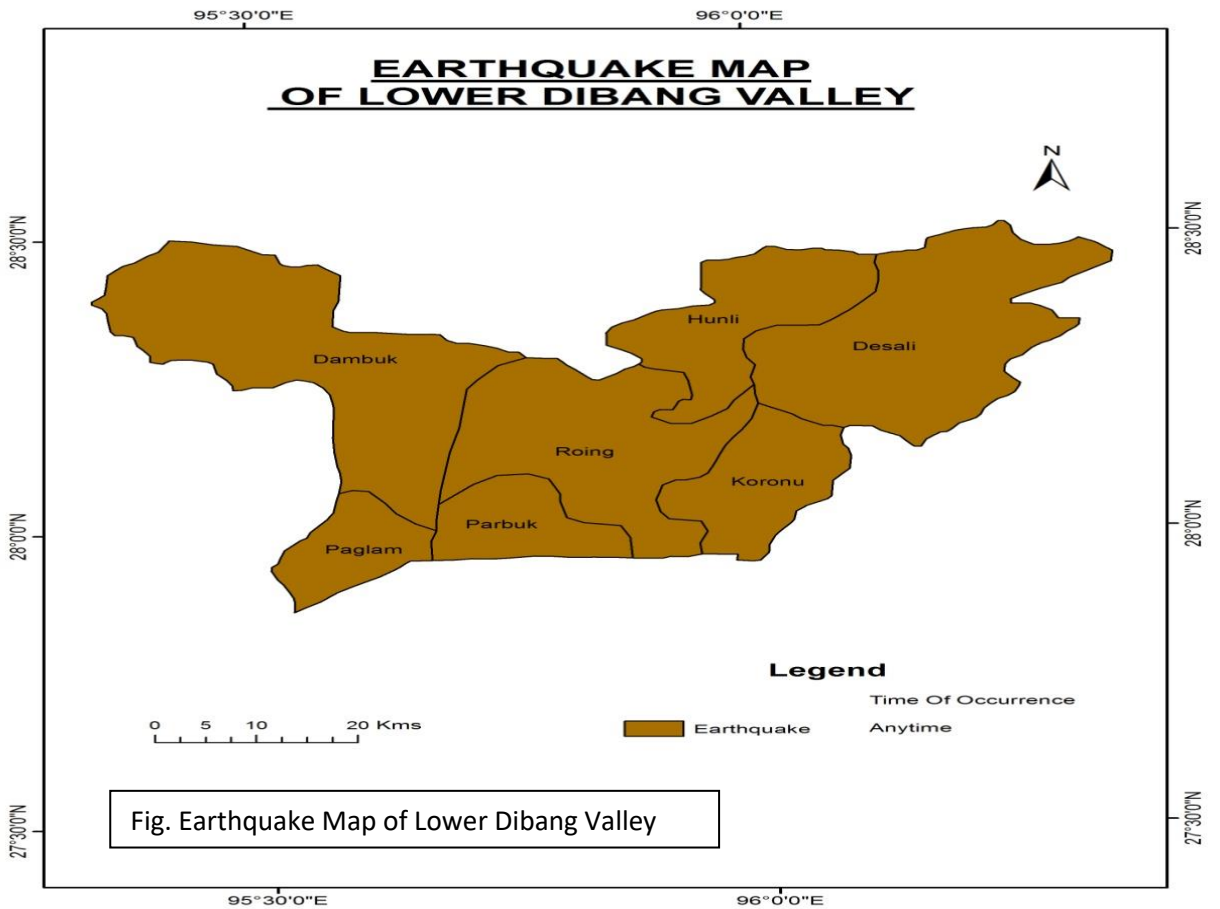
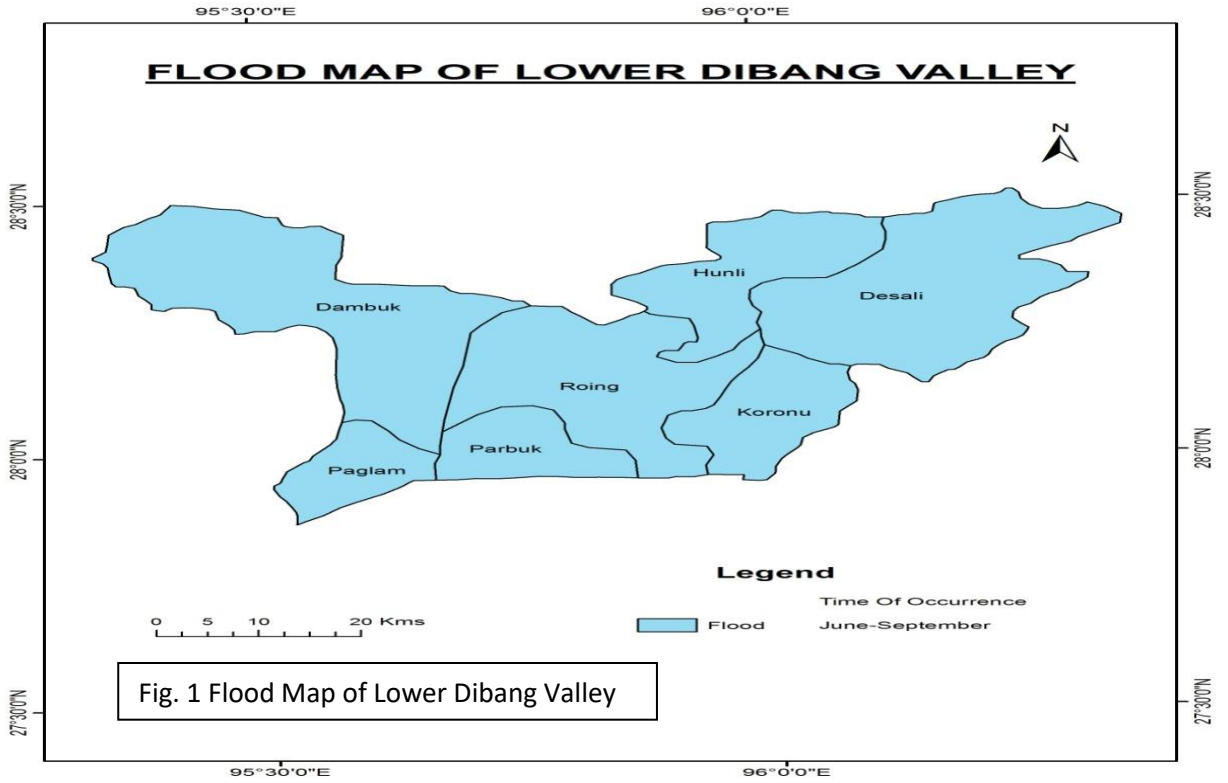


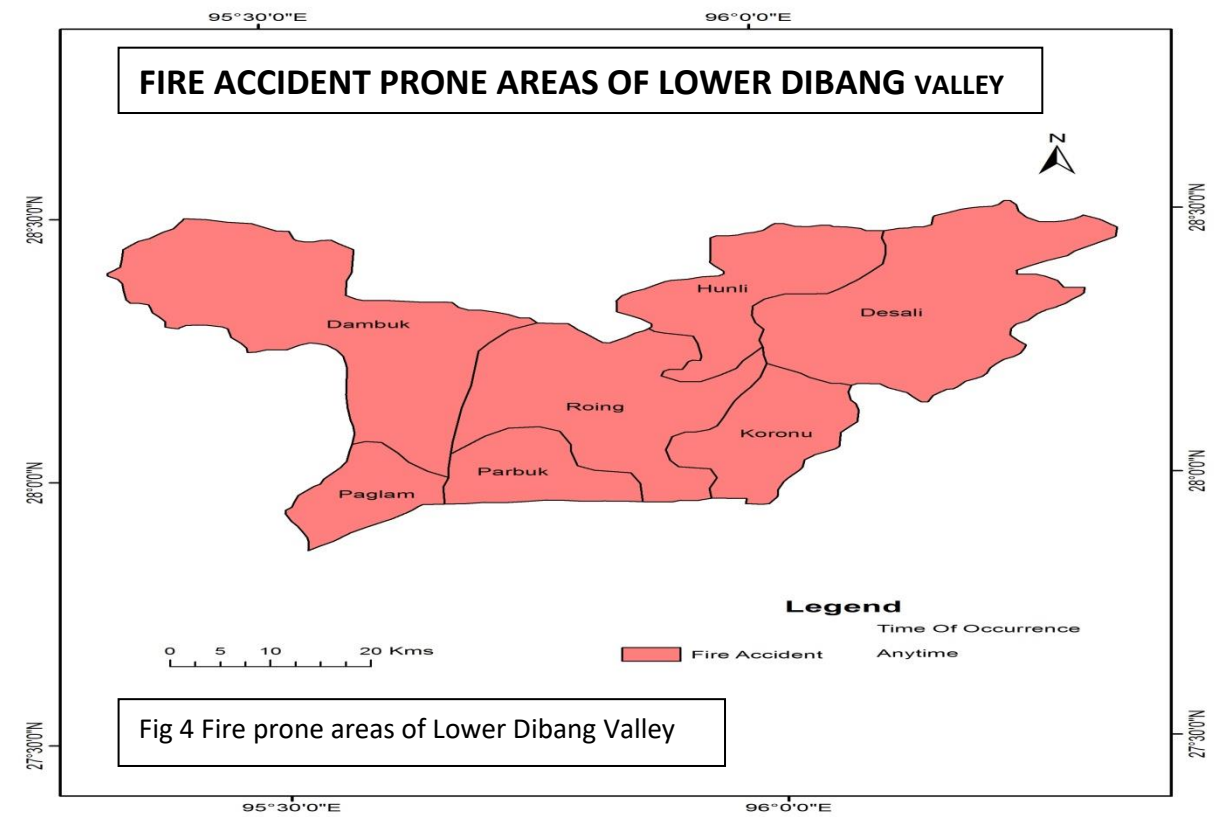
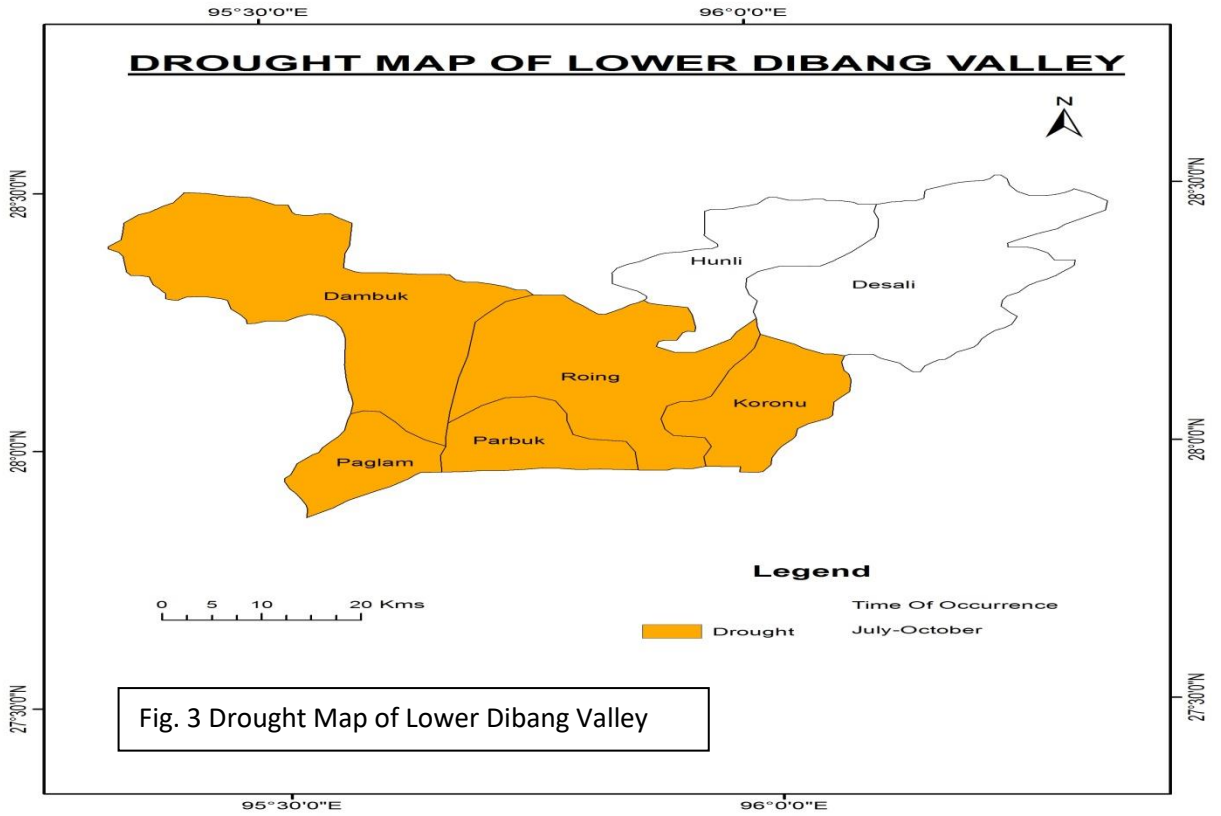
## DISASTER PROBABILITY

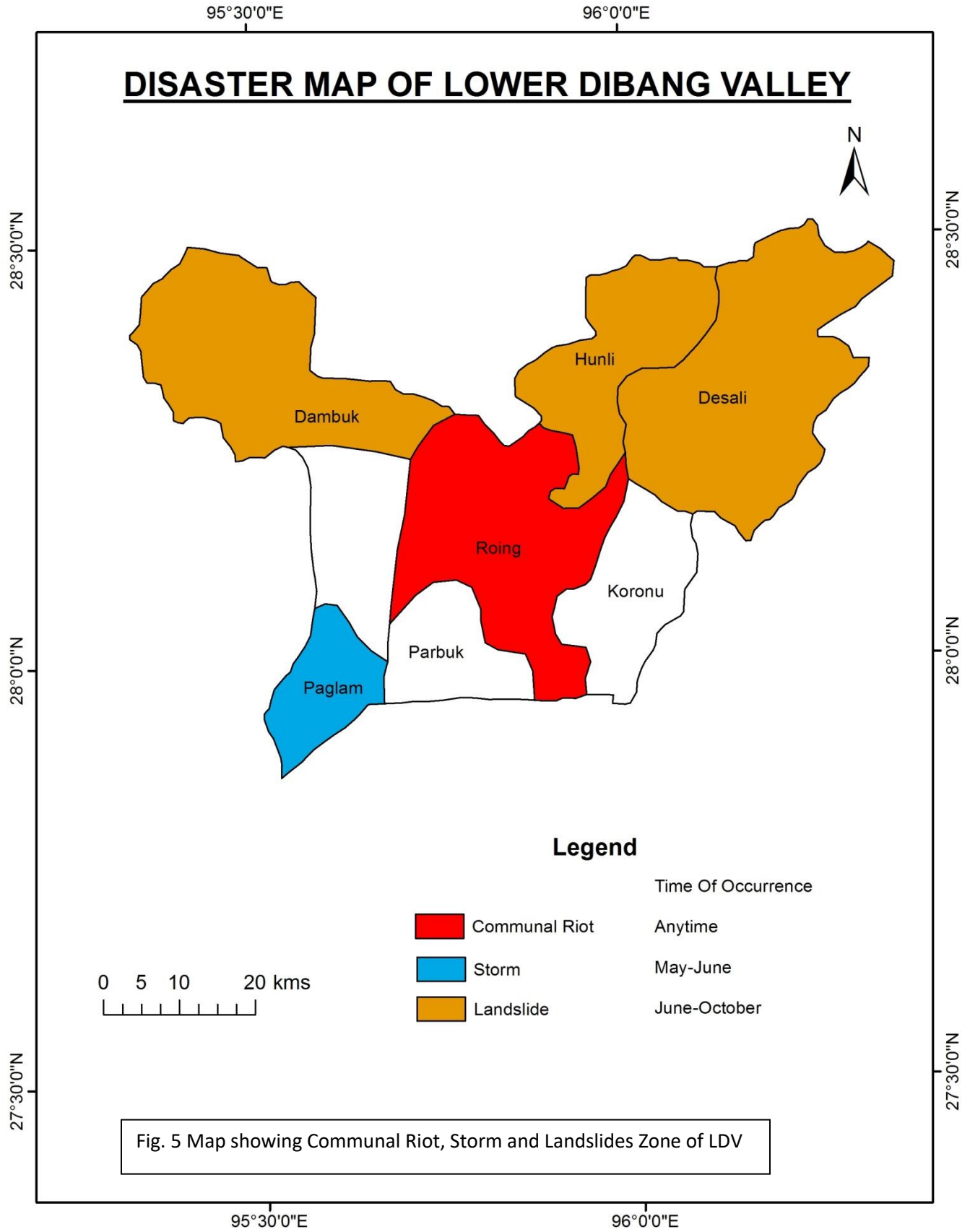
**Table No. 2.5 Disaster Probability**

| <b>Sl.No</b> | <b>Type of Disasters</b> | <b>Time of Occurrence</b> | <b>Potential Impact / Probable Damages</b>  | <b>Vulnerable Areas</b>                 |
|--------------|--------------------------|---------------------------|---|---|
| <b>1</b>     | <b>Flood</b>             | June – September          | Loss of life, livestock, crop and infrastructure.   | Entire District                         |
| <b>2</b>     | <b>Landslide</b>         | June- October             | Loss of human life, paddy, infrastructure, communication network, houses, etc.            | Hunli & Desali and upper part of Dambuk |
| <b>3</b>     | <b>Earthquake</b>        | Anytime                   | Loss of human life, livestock, paddy, infrastructure, communication network, houses, etc. | Entire District                         |
| <b>4</b>     | <b>Storm</b>             | May-June                  | Damages to houses, injuries, etc  | Paglam                                  |
| <b>5</b>     | <b>Drought</b>           | July-October              | Damage crops  | Roing, Korunu, Dambuk, Paglam           |
| <b>6</b>     | <b>Fire Accident</b>     | Anytime                   | Loss of life and properties.  | Entire District                         |









RISK ASSESSMENT VS. PROBABLE CIRCLE

**TABLE NO. 2.6 INVENTORIES AND EVALUATION OF RESOURCE ANALYSIS**

| TYPE OF HAZARD | POTENTIAL IMPACT                                  | VULNERABILITY  | VULNERABLE AREAS       |
|----------------|---|--|------------------------|
| <b>FLOOD</b>   | Loss of life, livestock, crop and infrastructure. | <ol style="list-style-type: none"> <li><b>1. <u>Communication network.</u></b><br/>Road network, Bridges, Ferry Services, Tele-communications.</li> <li><b>2. <u>Private Infrastructures.</u></b><br/>Kutcha Houses, Semi Kutcha Houses</li> <li><b>3. <u>Agriculture / Horticulture.</u></b><br/>All Agricultural &amp; Horticultural Crops.</li> <li><b>4. <u>Irrigation source.</u></b><br/>Minor Irrigation Projects, Siltation, Boulder Created Wall.</li> <li><b>5. <u>Drinking Water sources</u></b><br/>Pipelines, Water and Sedimentation Tanks, Hand-Pumps</li> <li><b>6. <u>Power Supplies</u></b><br/>Electric poles, transmission cables,</li> <li><b>7. <u>Health Services</u></b><br/>Medicines</li> <li><b>8. <u>Educational Institutes.</u></b><br/>Private &amp; Public schools and institutes.</li> <li><b>9. <u>Livestock.</u></b><br/>Mithuns, Pigs, Cows, Buffalos, Goats, Poultry Farms, Fish Farms, etc</li> <li><b>10. <u>Vulnerable People.</u></b><br/>Handicapped, Fishermen, Old/Aged, Pregnant, Sick and ailing/diseased, Children below 5 years.</li> <li><b>11. <u>Other vulnerable assets.</u></b><br/>Saw Mills, Small scale industries, orchards &amp; forest.</li> </ol> | <b>Entire District</b> |



|                  |   |   |  |
|------------------|---|---|--|
| <b>LANDSLIDE</b> | <p>Loss of crop, infrastructure, human life, livelihood system, disruption of communication, damages to Pvt. &amp; Public properties, flora and fauna etc</p> | <ol style="list-style-type: none"> <li><b>1. <u>Communication network.</u></b><br/>Road network, Tele-communications.</li> <li><b>2. <u>Private Infrastructures.</u></b><br/>Temporary and permanent buildings.</li> <li><b>3. <u>Agriculture/Horticulture.</u></b><br/>All Agricultural &amp; Horticultural Crops.</li> <li><b>4. <u>Irrigation Sources.</u></b><br/>Minor Irrigation Projects, Siltation, Boulder Created Wall.</li> <li><b>5. <u>Drinking Water sources</u></b><br/>Pipelines, Water and Sedimentation Tanks,</li> <li><b>6. <u>Power Supplies</u></b><br/>Electric poles, transmission cables,</li> <li><b>7. <u>Health Services</u></b><br/>Medicines</li> <li><b>8. <u>Educational Institutes.</u></b><br/>Private &amp; Public schools and institutes.</li> <li><b>9. <u>Live stock.</u></b><br/>Mithuns, Pigs, Cows, Buffalos, Goats, Poultry Farms, Fish Farms, etc</li> <li><b>10. <u>Vulnerable People.</u></b><br/>Handicapped, Fishermen, Old/Aged, Pregnant, Sick and ailing/diseased, Children below 5 years.</li> </ol> | <p><b>Hunli, Desali and Upper part of Dambuk</b></p> |
|------------------|---|---|--|



|                       |   |  |                               |
|-----------------------|---|--|-------------------------------|
| <b>EARTHQUAKE</b>     | <b>Loss of lives and properties.</b>                  | <b>Lives and properties.</b>   | <b>All over the District.</b> |
| <b>STORM</b>          | Damages to houses, injuries, etc                      | <p><b>1. <u>Communication network.</u></b><br/>Road network, Tele-communications.</p> <p><b>2. <u>Infrastructures.</u></b><br/>Temporary and permanent buildings,</p> <p><b>3. <u>Agriculture/Horticulture.</u></b><br/>All Agricultural &amp; Horticultural Crops.</p> <p><b>4. <u>Power Supplies</u></b><br/>Electric poles, transmission cables,</p> <p><b>5. <u>Livestock.</u></b><br/>Mithuns, Pigs, Cows, Buffalos, Goats, Poultry Farms, etc</p> <p><b>6. <u>Vulnerable People.</u></b><br/>Handicapped, Fishermen, Old/Aged, Pregnant, Sick and ailing/diseased, Children below 5 years.</p> | All over the District.        |
| <b>DROUGHT</b>        | Loss of crop, livelihood                              | Crop, Potable water,   | Roing, Konuru, Dambuk, Paglam |
| <b>FIRE ACCIDENTS</b> | Loss of Lives and Properties.                         | Human Lives, Livestock, Buildings & other infrastructures, Forest, Theft, Psychology, etc  | Entire District               |
| <b>COMMUNAL RIOT</b>  | Law & Order problems, disturbances of social harmony. | District Administrations hamper in maintaining peace and tranquility, inhabitant of the affected areas, valuable assets lost.  | Roing                         |



## **CAPABILITY ANALYSIS**

### **Inventories and Evaluation of Resources Analysis:-**

Analysis and assessment of the resources and opportunities form the stepping stone in the preparatory stage. Authentic assessments can make the planner aware of their firmness and wands, so that they can equip themselves with all the required items and materials well in advance. The resources necessary for disaster preparedness during and after disasters are listed below:-

**Table No. 2.7 Relief Shelters during emergency in the district**

| Sl No. | Name of the Circles | Location of the Relief Shelter   |
|--------|---------------------|--|
| 1      | Roing               | Higher Secondary School, Central School, JNV, VKV, ITI, DIET, FTI, DUDA, CPO, General Ground.,Multi –Purpose Hall  |
| 2      | Parbuk              | Govt,Sec.School,meka.Meka Musup,Jia Musup, Govt.Hi,Sec.School Bolung, Bolung musup,Govt.Sec.School Parbuk, Govt.Middle School Kangkong                         |
| 3      | Koronu              | CO Office, Govt. Sec School, Middle School, Tourist Lodge Bhisrnagnkar, Govt Residential School, Injonu, Reko Community Hall Denlo, Govt Pry. School Horupahar |
| 4      | Dambuk              | CO Office, Govt. Sec School, Middle School,Multi Putpose Hall, Middle School, Bomziir,   |
| 5      | Paglam              | CO Office, Govt. Sec School, Middle School, Pry.School,Koling,Multi purpose community hall   |
| 6      | Desali              | CO Office, Govt. Sec School, Middle School   |
| 7      | Hunli               | CO Office, Govt. Sec School, Middle School Circuit House.  |

**Table No. 2.8 Storage of Food in the district**

| Sl. No. | Name of Circle | Place  | Capacity (in Quintals) |
|---------|----------------|--------|------------------------|
| 1       | Roing          | Roing  | 600                    |
| 2       | Dambuk         | Dambuk | 200                    |
| 3       | Paglam         | Paglam | 200                    |
| 4       | Hunli          | Hunli  | 200                    |
| 5       | Desali         | Desali | 200                    |





**Table No. 2.9 List of police station & Outpost location**

| Sl No. | Police Setup      | Numbers | Location                               |
|--------|-------------------|---------|--|
| 1      | Police Station    | 03      | Roing, Dambuk, Hunli                   |
| 2      | Police Outpost    | 02      | Santipur, Paglam                       |
| 3      | Police Check Gate | 01      | Santipur                               |
| 4      | WT Net            | 05      | Roing, Dambuk, Hunli, Paglam, Santipur |
| 5      | Fire Station      | 01      | Roing                                  |
| 6      | CRPF              | 1 Coy   | Roing                                  |
| 7      | AAPBN             | 1 Coy   | Roing                                  |
| 8      | ITBP              | 1 Coy   | Roing                                  |

**COMMUNICATION AND MEDIA:-****TABLE NO. 2.10 COMMUNICATION AND MEDIA****1. Tele & Mass Communication:**

| Sl. No. | Name of Block | Place of Installation   |
|---------|---------------|---|
| 1       | Roing-Koronu  | <ul style="list-style-type: none"> <li>a) NIC at DC Office</li> <li>b) CIC, Roing</li> <li>c) WT Station at Police station and SP Office, Roing</li> <li>d) POL Net at SP Office, Roing</li> <li>e) Bsnl office, Roing</li> <li>f) Airtel</li> <li>g) Radio</li> <li>h) Roing Times (Newspaper) at Roing</li> </ul> |
| 2       | Hunli-Desali  | <ul style="list-style-type: none"> <li>a) Police Station, Hunli</li> <li>b) Bsnl Service</li> </ul>   |
| 3       | Dambuk-Paglam | <ul style="list-style-type: none"> <li>a) Police Station, Dambuk</li> <li>b) Bsnl Service</li> <li>c) V-Sat at SDO Office</li> </ul>  |

**2. Surface Communication:**

| Sl No. | From   | To        | Means  | Distance (in Km) |
|--------|--------|-----------|--|------------------|
| 1      | Roing  | Tezu      | APST Bus, Tata Sumos, Private Buses & Vehicles | 70               |
| 2      | Roing  | Sadiaghat | -do-   | 50               |
| 3      | Roing  | Hunli     | APST Bus, Tata Sumos                           | 90               |
| 4      | Roing  | Dello     | Private Vehicles                               | 10               |
| 5      | Roing  | Rukmo     | APST, Private Vehicles                         | 30               |
| 6      | Roing  | Koronu    | APST Buses                                     | 20               |
| 7      | Roing  | Chidu     | Private Vehicles                               | 15               |
| 8      | Roing  | Old Abali | APST Buses, Private Vehicles                   | 15               |
| 9      | Roing  | Balek     | APST Buses, Private Vehicles                   | 5                |
| 10     | Roing  | Tinsukia  | APST Buses, Private Buses                      | 120              |
| 11     | Roing  | Anini     | Tata Sumos                                     | 235              |
| 12     | Dambuk | Paglam    | Tata Sumo, Ferry Service                       | 30               |

### 3. IN-LAND COMMUNICATION:

| Sl No | From   | To     | Name of River |
|-------|--------|--------|---------------|
| 1     | Roing  | Dambuk | Dibang        |
| 2     | Paglam | Dambuk | Sisiri        |
| 3     | Dhola  | Roing  | Brahmaputra   |

### 4. AIR COMMUNICATION:

| Sl No. | Location of Helipad | From       | To              | Schedule         |
|--------|---------------------|------------|-----------------|------------------|
| 1      | Roing               | Naharlagun | Roing (via MBR) | Monday, Thursday |



|   |        |       |        |                     |
|---|--------|-------|--------|---------------------|
| 2 | Dambuk | Roing | Dambuk | Monday,<br>Thursday |
| 3 | Paglam | Roing | Paglam | Non-<br>Schedule    |
| 4 | Hunli  | Roing | Hunli  | Non-<br>Schedule    |
| 5 | Desali | Roing | Desali | Non-<br>Schedule    |

**TABLE NO. 2.11 LIST OF HEALTH SERVICES:**

| Sl No. | Medical Facility         | Number | Location   |
|--------|--------------------------|--------|--|
| 1      | District Hospital        | 01     | Roing  |
| 2      | CHC                      | 04     | Dambuk, Parbuk, Koronu, Hunli  |
| 3      | PHC                      | 05     | Iduli, Anpum, Hunli, Bolung, Jia, Desali   |
| 4      | HSC                      | 12     | Brinli, New Elope, Chidu, Abali, Rukmo, Asali, Meka, Bhismanagar, Bomjir, Bizari, Keba, Desali |
| 5      | Homeopathic Dispensaries | 02     | Roing, Koronu  |

Source: DMO, Office, Lower Dibang Valley, (A.P)



**TABLE NO. 2.12 ADMINISTRATIVE PREPAREDNESS FOR DIFFERENT DISASTER:**

| Sl No. | Actions               | Departments/Personals    | Remarks                                      |
|--------|-----------------------|--------------------------|--|
| 1      | DDMA                  | Administration           | DC heads the committee along with 8 members. |
| 2      | Rapid Response Team   | Health                   | DMO, DSO & Team of Doctors and Staffs        |
| 3      | Control Rooms         | Police, Administration   | DC & SP                                      |
| 4      | Surface Communication | PWD, RWD, BRTF, NHPC     | HODs   |
| 5      | Tele-Communication    | Bsnl                     | SDO(T)                                       |
| 6      | Rainfall Data         | WRD                      | EE, WRD                                      |
| 7      | WT Message            | Police                   | SP   |
| 8      | Food Supply           | Civil Supply             | DFCSO  |
| 9      | Fire Tender           | Police                   | SP   |
| 10     | Medical Aids          | Health                   | DMO  |
| 11     | Relief Camps          | Health, Administration   | DMO, DDMO                                    |
| 12     | Helicopter Service    | Civil Supply             | DFCSO  |
| 13     | Volunteers            | NGOs, ALC, NCC, NSS      | District Admin.                              |
| 14     | Transportation        | APST                     | SST  |
| 15     | Power Supply          | Power, Hydro Power, NHPC | HODs   |
| 16     | Water Supply          | PHED                     | EE, PHED                                     |
| 17     | Livestock             | Veterinary               | DVO  |
| 18     | Irrigation            | WRD                      | EE, WRD                                      |



## CHAPTER – 3

### MITIGATION AND PREPAREDNESS PLAN

Pre- disaster planning consists of activities such as disaster mitigation and disaster preparedness. Disaster mitigation focuses on the hazard that causes the disaster and tries to eliminate or drastically reduce its direct effects. The best example of mitigation is the construction of embankments and construction of proper drainage system in flood prone areas to avoid floods. The other example includes retrofitting of weak buildings to make them earthquake resistant.

And preparedness focuses on plans to respond to a disaster threat or occurrence. It takes into account an estimation of emergency needs and identifies the resources to meet the needs. The first objective of the preparedness is to reduce the disaster impact through appropriate actions and improve the capacity of those who are likely to be affected most. The second is to ensure that ongoing development continues to improve the capacities and capabilities of the system to strengthen preparedness efforts at community level. Finally it guides reconstruction so as to ensure reduction in vulnerability. The best example of preparedness activities are the development of community awareness and sensitization system through community education and administrative preparedness by way of stockpiling of supplies, developing emergency plans for rescue and relief.

#### SPECIFIC DISASTER MITIGATION MEASURES

##### 1. EARTHQUAKES

Lower Dibang Valley district falls under earthquake zone-V so following mitigation measures should be taken to reduced the impact of earthquake: -

- Adoption of building codes for new construction in various areas.
- Public utility buildings must be located in stable areas or in stiff soil.
- Retrofitting of weak structures.
- Relocation of people settling in the steep slope areas and near the river bank.

##### 2. FLOOD MITIGATION

Flood mitigation refers to the measures aimed at prevention and preparedness. It reduces the actual or probable impact of floods on the people and their environment. Floods in Lower Dibang Valley district are inevitable, considering the topography and the river system. What is required is a system of adjustment with floods, so that the people experience minimum of



disruption and damages. The objective of flood mitigation is to control changes in the volume of run-off, peak stage of the flood, time of rise and duration of floodwaters, and location of flooding.

**The main causes of floods in Lower Dibang Valley District are:**

- Obstruction in drainage system due to heavy rainfall.
- Increase in siltation in riverbeds due to erosion in the catchment areas.
- Change of river course because of poor natural drainage system.

The mitigation measures should be oriented to take proper care of these problems and thus will automatically reduce the impact of flood in the district. The various measures adopted for flood mitigation may be categorized in two groups structural and non-structural.

*Structural*

- Construction of embankments / floodwalls along the river bank and improvement of the channel (by WRD).
- Construction of drainage system in the Roing town and other parts of the district (by PWD/UD).
- Diversion of flood water (by WRD).
- Careful location of new facilities, particularly community facilities such as schools, hospitals and other important infrastructure away from flood prone areas.

*Non-structural*

- Collection of daily rainfall data (by WRD).
- Flood forecasting and warning (by WRD & General Administration).
- Prepare detailed floodplain map of the district, based on extent of land submerged, and assessment of damages. Analyze how the pattern of flooding has changed over a period of time (by WRD & GA).
- Plantation in the catchment areas to check soil erosion (by forest Dept)
- Preparation of DDMP and awareness programme through IEC (information, education & communication by GA).

**3. CYCLONIC STORM**

Lower Dibang Valley is frequently strike by cyclonic storm during pre-monsoon season causing widespread damage to the crop and other properties. The main mitigation strategies for storm hazards are to informed public and gave them an effective warning system. The following mitigation measures can be adopted to reduce the impact of cyclonic storm: -

- Location of key facilities in leeward sides of hill/ less vulnerable areas (by District Administration and Land Management).
- Planting windbreaks in the most vulnerable locations [by DFO (T)].



- Construction of strong, wind safe public buildings which can be used for community shelter in settlements (by UD & PWD).
- Crops can be protected by introducing agricultural practices and cultivation of those crops which are more resistant to high winds.
- Compilation of meteorological data for forecasting of storm (By Dept. concerned).
- Public dissemination of information through mass media, poster campaigns and village meetings (by District Administration).

#### 4. LANDSLIDE

The landslide is very common in the hilly terrain of Lower Dibang Valley District, which wipes outcrop, agriculture field, irrigation canal, roads and bridges and other infrastructures. Loss of Human lives and animals' lives are also observed during rainy season. Landslide can be caused by poor ground conditions, geomorphic phenomena, natural physical forces, improper land use pattern and quite often due to heavy spells of rainfall coupled with impeded drainage. The chief mitigatory measures to be adopted in the district are: -

- Correction of drainage systems in the landslide prone areas by maintenance of natural drainage channels, both micro and macro in vulnerable slopes (by BRO/PWD).
- Regulation of land use pattern (Land Management).
- Afforestation of areas occupied by degraded vegetation (by DFO (T)).
- Re - location of settlements that are in the landslide prone areas (by GA).
- Construction of gabion structure in important areas (by WRD)
- Creation of awareness among local people (by GA)
- Regular observation of rainfall pattern (by WRD)

#### 5. FIRE ACCIDENT

Fire accident is very common in Lower Dibang Valley District due to compact settlements and thatch roof houses which is very prone to fire. The following mitigation measures may be taken up to contain the fire accident: -

- Installation of fire extinguisher cylinders in all institutions (by concerned Institute).
- Construction of fire hydrant in fire prone areas (by PHED/Police/GA).
- Installation of fire warning systems in community facilities such as in school and hospitals (by concerned institute).
- No attachment of thatch houses in government buildings (by GA).



- Awareness about the causes of fire accident in rural areas and motivate the villagers to construct their houses at sufficient distance from one another (by GA).

#### 6. FOREST FIRE

Forest fire is also a major calamity in Lower Dibang Valley District causing widespread damage to flora and fauna in the area. Following measures should be adopted to deal with this disaster: -

- Deployment of forest watcher in strategic locations with wireless set (by Forest Dept.).
- Awareness to the local people about forest fire and importance of flora and fauna.

#### 7. EPIDEMICS

The Health Department & Veterinary Department are the nodal agency responsible for monitoring and control of epidemics. Mitigation measures for control of epidemics would include: -

- Identification of areas prone to certain epidemics must be updated to access field requirements (by DMO & DVO).
- Testing laboratories in district hospital must be well equipped and updated (by DMO).
- Regular flow of data from both govt. establishment and NGOs run hospitals (by DA).
- Analyzing and collecting the data at regular intervals to access epidemiological monitoring requirements (by DMO/DVO).
- Awareness campaign to the PRI members and the villagers about various kinds of disease and their causes that are prevalent in the area (by DMO/DVO/DA)

#### 8. ROAD ACCIDENTS

Many lives were lost and casualties are reported annually due to road accident, which is cause due to reckless driving and poor road conditions. The following measures may be adopted to mitigate road accidents: -

- Opening of traffic model school in every district.
- Installation of speed monitoring machine in busy areas (by police).
- Strict implementation of motor vehicle Act (by Police).
- Installation of traffic sign boards (by Police).
- Carry of First Aid Box in every vehicle must be made mandatory [(by Police/DTO (transport))].
- Insurance of all vehicles must be updated (by Police).
- Awareness about traffic rules should be imparted to all drivers and commuters through IEC (by police).





## 9.COMMUNAL RIOT

Due to frequent outbreak of communal riot in the District the peace and tranquility is hampered. The following measures may be adopted to mitigate the impact.

- District Administration should constitute a strong peace committee.
- Calling a regular interaction meeting among different tribes by peace committee, at the interval of every 3 (Three) months.
- Encouragement of inter-caste marriages

### *Preparedness Plan*

The District Disaster Management Authority will arrange to prepare the preparedness plan and will be headed by Chairperson ex-officio of the Authority along with seven members.

The District Disaster Management Authority will identify the high-risk areas and vulnerable groups of population in the district. It will bring together the collective strength and resources of the government and NGOs in addressing all the needs of disaster prevention, preparedness, response and mitigation. The authority will ensure the participation and accountability of all the departments in dealing with disaster.

### 1. STANDARD OPERATING PROCEDURES AND PREPAREDNESS CHECKLIST FOR ALL DEPARTMENTS / AGENCIES

All the actions mentioned above are to be carried out by different departments / agencies participating in the District Disaster Management Plan. It is necessary that all the departments have well-defined standard operating procedures and preparedness checklists.

The Chairperson ex-officio of the Authority must circulate the standard operating procedures among the departments / agencies, and ask for compliance of the preparedness measures in the District Disaster Preparedness meetings. It is absolutely important that all the departments / agencies are very familiar with the overall plan and the procedures specifically applicable to them and report diligently upon their implementation.

Standard Operating Procedures should be modified/updated and improved upon in light of changing circumstances. The District Magistrate should encourage all the departments to suggest changes in these procedures with a view to enhance the effectiveness of the District Disaster Management Plan. The Standard Operating Procedures (SOPs) of various departments at district level are given as under :



## 1.1 Standard Operating Procedures For District Administration

In-charge Officer: DC

### Preparedness

- Convene the meetings of District Disaster Preparedness Committee.
- Update the District Disaster Management Plan.
- Maintain and activate the District and Sub-divisional Control Rooms
- Check upon inventory of resources.
- Check the supplies of food grains through the Public Distribution System.
- Prepare a list of relief items to be distributed.
- Prepare a transportation plan for supply of relief items.
- Prepare an evacuation plan for the villages which are marooned / devastated.
- Prepare a list of transit / temporary shelters, and check upon their suitability for accommodating people.
- Convene meetings of NGOs in the district, and assign them specific responsibilities for relief, recovery and rehabilitation.
- Constitute / activate Village-level Preparedness Committees with the help of local NGOs and District Administration.
- Coordinate with Police, CRPF, BRO and NHPC for support towards rescue, evacuation and relief during disaster.

### Preparedness Checklist for District Administration

**Table No. 3.1 Preparedness Checklist for District Administration**

| Sr. No. | Preparedness Measures  | Action Taken / Remarks |
|---------|--|------------------------|
| 1.      | Update District Disaster Management Plan , Phone numbers, officials, details of offices and facilities |                        |
| 2.      | Check upon communication network: phones, wireless, fax, Internet                                      |                        |
| 3.      | Update flood and road maps of the district.  |                        |
| 4.      | Activate District and Sub-divisional Control Rooms. Assign employees to the Control Rooms.             |                        |
| 5.      | Check upon availability and deployment of  |                        |



|     |   |  |
|-----|---|--|
|     | boats; fix the rates for hiring of boats.   |  |
| 6.  | Convene meetings of District Disaster Preparedness Committee  |  |
| 7.  | Convene NGOs' meeting; prepare a list of NGOs with their Functional Specialization and Geographical Coverage.               |  |
| 8.  | Check the Availability of Food Grains in PDS shops.   |  |
| 9.  | Prepare a List of Relief Items for Distribution.  |  |
| 10. | Fix rates and supplies for relief items.  |  |
| 11. | Prepare a transport plan for evacuation and distribution of relief.   |  |
| 12. | Prepare a plan for VIPs' movement.  |  |
| 13. | Prepare a media plan for dissemination of information to the people of the district; local newspapers, radio, TV and cable. |  |

## 1.2 Standard Operating Procedures for the Police

In-charge Officer: Superintendent of Police, Roing.

### Preparedness

- Prepare a Deployment Plan for the Police force, based on the needs of the most vulnerable areas. Maintain a list of disaster prone areas in the district.
- Ensure that a sufficient number of police force is available for responding to the flood situation during monsoon.
- Constitute 'Search & Rescue' Teams from the Police force, and arrange training for these units.
- Establish coordination with the Fire Services, Roing.
- Check the wireless communication network, and secure additional wireless sets for deployment during a disaster.
- Check communication links with the District and Sub-divisional Control Rooms.
- Keep the police vehicles and boats in readiness for deployment of the police.



- Identify anti-social elements in the area and take appropriate preventive steps to ensure smooth response and relief operations.

### Preparedness Checklist for the Police

**Table No. 3.2 Preparedness Checklist for the Police**

| Sl. No. | Preparedness Measures   | Action Taken<br>Remarks |
|---------|---|-------------------------|
| 1       | Prepare a deployment plan for police forces   |                         |
| 2       | Check the availability and readiness of the search and rescue teams from within the District Police.  |                         |
| 3       | Check wireless communication network and set up links with the District Control Room and Sub-divisional Control Rooms; Make additional wireless sets available. |                         |
| 4       | Develop a traffic plan for contingencies arising out of disasters one way, blocked ways, alternate routes, and traffic diversion.                               |                         |
| 5.      | Develop a patrolling plan for critical Bundhs/embankments and marooned villages   |                         |
| 6.      | Keep the boats and vehicles available with the Police in readiness.   |                         |
| 7.      | Prepare a plan for VIP visits to disaster-affected areas  |                         |
| 8.      | Identify anti-social elements that could create nuisance and take suitable preventive action.   |                         |

### 1.3 Standard Operating Procedures for Water Resource Department

In-charge Officer: Executive Engineer, WRD Roing.

#### Preparedness

- Prepare and update the flood risk map. The map should show the river system, nalas, embankments and irrigation structures. Distribute the copy of maps to all the control rooms.
- Prepare a contingency plan for the maintenance and repairs of Bundhs and embankments.
- Assign 'Beat' to Junior Engineers and other functionaries of the Irrigation Department. Prepare a duty chart for In-charge Junior Engineer. Make available the list of In-charge Junior Engineers to District / Sub-divisional Magistrates, and all the control rooms.
- Make a physical inspection of all the embankments after the last floods for seepage, piping, rat holes and assess needs for repairs and reinforcement. Identify Bundhs, which are critical for flood protection and control.



- Prepare a list of critical Bundhs/embankments, which need repairs and reinforcement after the last floods. Submit a list of these Bundhs/embankments to the District Magistrate and the state government, and ask for necessary financial allocation.
- Commence repairs of Bundhs/embankments in the month of January every year after surveying the damages of floods last year, and ensure that all the repairs are completed in the month of March.
- Provide special attention to those places where the Bundhs/embankments were breached and repaired during the last floods. These are the Bundhs, which will be threatened first, when the floods approach.
- Undertake channel improvement for rivers and nalas. Undertake de-silting / cleaning of Nalas and canals to improve the flow of water.
- Check all the siphons and regulators on the Bundhs/embankments and canals. Clean siphons before the monsoon. Increase their capacity or replace them if the size of siphons and regulators is too small to prevent water from flowing in.
- Check all the rain-gauge stations and ensure that they are functioning properly. Check that the readings from these stations are available immediately to the Water Resource Department. Prescribe a register for recording of rainfall.
- Check the wireless network connecting flood stations and undertake necessary repairs.
- Set up the protocol for exchange of information with Flood Control Division of Dibang Valley District and NHPC.
- Set up the protocol for reporting of flood situation to the District Magistrate / District Control Room.
- Keep in readiness essential tool kits and protection material at critical places for emergency deployment. These may include:
  - *Empty cement bags*
  - *Boulders*
  - *Ropes*
  - *Sand*
  - *Wire mesh*
  - *Shovels*
  - *Baskets*
  - *Lights*
- Inform the district administration of the places where these materials have been stored.



## Preparedness Checklist for Water Resource Department

**Table No. 3.3 Preparedness Checklist for Water Resource Department**

| S. No. | Preparedness Measures   | Action Taken / Remarks |
|--------|---|------------------------|
| 1.     | Check the wireless network and ensure that all the flood stations are connected.  |                        |
| 2.     | Establish mechanisms for exchange of information with water divisions in Dibang Valley and NHPC.  |                        |
| 3.     | Inspect all the embankments, and check their height and slope.  |                        |
| 4.     | Check that all the embankments have been repaired/ reinforced, in particular those Bundhs which were damaged during the last floods.  |                        |
| 5.     | Check the drainage system of the embankments and ensure that the seepage and rat holes, etc. have been closed.  |                        |
| 6.     | Check that all the materials required for protecting Bundhs/embankments have been stored at different places, and a list of these places has been furnished to the district administration. |                        |
| 7.     | Check that the Junior engineers and other staff have been assigned their beats, and all the arrangement for continuous vigilance over these embankments has been made.                      |                        |
| 8.     | Check that all rain gauge stations are functional, and arrangements have been made to report the readings.  |                        |
| 9.     | Check the regulators and siphons. Check that they have been repaired and cleaned, for increasing the flow of water.   |                        |
| 10.    | Check all the anti-erosion works, necessary to maintain the Bundhs/embankments.   |                        |

### 1.4 Standard Operating Procedures For Health Department

In-charge Officer: District Medical Officer, Roing.

#### Preparedness

- Prepare a health contingency plan for the district. It should include a list of civil hospitals, primary health centers and sub-centers, and medical personnel. The contingency plan should also include the details of hospitals and medical practitioners in the private sector.



- Constitute mobile health units consisting of a doctor, health workers and ANMs, and prepare a deployment plan. Each mobile health unit may cover a number of villages.
- Determine types of injuries / illnesses expected. In case of floods, it should mostly be cases of drowning, snake bites, and water-borne diseases.
- Undertake vaccination in the villages most vulnerable to floods.
- Secure medical supplies in adequate quantity for dealing with these situations, which may include:
  - *Oral Rehydration Solutions*
  - *Chlorine Tablets*
  - *Bleaching Powder*
  - *Anti-snake Venom*
  - *Anti diarrheal and Anti emetic Medicines*
  - *Intravenous fluids*
  - *Suture Materials*
  - *Surgical Dressings*
  - *Splints*
  - *Plaster Rolls*
  - *Disposable Needles and Syringes*
  - *Local Antiseptics*
- Ensure adequate supplies of blood in the District.
- Keeps one operating facility in each block in readiness. Maintain all the equipment necessary for operations.
- Prepare a maternity facility for pregnant women in every block.
- Seek mutual aid arrangement with civil and military hospitals in the district.
- Arrange provision of clean water in hospitals and Primary Health Centers.



## Preparedness Checklist for Health Department

**Table No. 3.4 Preparedness Checklist for Health Department**

| S. No. | Preparedness Measures  | Action Taken / Remarks |
|--------|--|------------------------|
| 1      | Prepare a Health Contingency Plan for deployment of health and medical personnel |                        |
| 2      | Organize vaccination in Flood-prone villages                                     |                        |
| 3.     | Ensure necessary stock of medical supplies and blood                             |                        |
| 4.     | Organize maternity care centers in every block.                                  |                        |
| 5.     | Keep operative facilities in readiness.  |                        |
| 6.     | Seek mutual aid arrangement with hospitals in Roing.                             |                        |

### 1.5 Standard Operating Procedures for Agriculture Department

In-charge Officer: District Agriculture Officer, Lower Dibang Valleys.

#### Preparedness

- Ensure that certified seeds of required varieties are available in adequate quantities. The Agriculture Department should work with National Seeds Corporation and other suppliers and ensure availability at their depots or have agents appointed for the same.
- Print and widely distribute the list of points where certified seeds are available along with names of varieties and rates. Notices may be affixed at public places such as bus stands, on buses themselves, PHCs, Block headquarters, etc.
- Suggest variety of seeds and cropping pattern, which can cut losses and reduce the risks to farmers.
- Develop a pest and disease monitoring system so that timely steps can be taken to reduce damage to crops.
- To keep in readiness of their departmental boat/ferry.





## Preparedness Checklist for Agriculture

**Table No. 3.5 Preparedness Checklist for Agriculture**

| S. No. | Preparedness Measures   | Action Taken / Remarks |
|--------|---|------------------------|
| 1.     | Check the availability of seeds, and disseminate information about the outlets where seeds can be made available.       |                        |
| 2.     | Set up a public information system regarding sowing of crops, alternative crops, pests, and application of fertilizers. |                        |
| 3.     | Prepare a program for spray of pesticides and insecticides after the floods.  |                        |

### 1.6 Standard Operating Procedures For Animal Husbandry

In-charge Officer: District Veterinary Officer, Lower Dibang Valley District

#### Preparedness

- Prepare a list of flood-related diseases that are preventable by vaccination. Publicize the information about common diseases afflicting livestock and the precautions that need to be taken.
- Assist the District Administration in preparing plans for cattle camps and cattle feeding centers.
- Organize vaccination campaigns in flood-prone villages before, during and after the floods.
- Prepare kits for veterinary diseases, which could be provided to veterinary doctors at the block level and Extension Officers at the village level. Kits can also be provided to the private veterinary doctors.



## Preparedness Checklist for Animal Husbandry

**Table No. 3.6 Preparedness Checklist for Animal Husbandry**

| S. No. | Preparedness Measures   | Action Taken / Remarks |
|--------|---|------------------------|
| 1.     | Publicize the list of common ailments during floods and possible precautions.         |                        |
| 2.     | Organization of vaccination for cattle in flood-prone villages.                       |                        |
| 3.     | Prepare a plan for setting up cattle camps and cattle feeding centers.                |                        |
| 4.     | Prepare kits which could be given to Veterinary doctors and Animal Husbandry workers. |                        |

### 1.7 Standard Operating Principles for PHED

In-charge Officer: Executive Engineer, Roing.

#### Preparedness

- Check all the pumps available with PHED for draining floodwater. All the pumps should be in working condition.
- Survey all the flood-affected villages, and find out where the people had taken shelter. Install hand pumps at all such locations. Check these pumps before the monsoon.
- Increase the height of pipe by adding a pipe of 3 to 10 feet. It helps extract clean drinking water during the floods.
- Keep hand pumps, pipes and sockets in readiness and install them as soon as flood situation arises.
- Protect pump stations from water logging.
- Rain water may be harvested during rainy season for alternative drinking water during flood.



## Preparedness Checklist for PHED

**Table No. 3.7 Preparedness Checklist for PHED**

| Sr. No. | Preparedness Measures   | Action Taken / Remarks |
|---------|---|------------------------|
| 1.      | Check the condition of pumps for draining floodwater. Ensure pumps are in working condition.  |                        |
| 2.      | Protect water supply pumps from water logging.  |                        |
| 3.      | Keep hand pumps, pipes and sockets in readiness for installation / increasing the height of pipes.  |                        |
| 4.      | Obtain a list of temporary shelters where people took shelter during last floods. Prepare for installation of hand pumps at all such locations. |                        |
| 5.      | Maintain adequate stock of chlorine tablets and bleaching powder.   |                        |

### 1.8 Standard Operating Procedures for Forest Department

In-charge Officer: Divisional Forest Officer, Roing.

#### Preparedness

- Open the forest land for free grazing when flood waters enter villages, and there is not enough fodder available.
- Allow the transportation of fodder from forest areas, when the fodder is not freely available.
- Provide wooden poles and bamboo for relief and reconstruction at subsidized rate. Provide these materials to all the technical departments, which need them.
- To keep in readiness of Departmental boat/ferry.



### 1.9 Standard Operating Procedures for Public Works Department

In-charge Officer: Executive Engineer, PWD.

#### Preparedness

- Clean the area beneath bridges before the monsoon so that floodwaters can flow more freely.
- Maintain all the highways and access roads, which are critical from the point of view of supplying relief.
- Increase the size of bridges, if necessary, so as to prevent breach of roads and Bundhs. Smaller bridges prevent flow of water.
- Construct/reinforce the connecting roads from villages to roads, canals and Bundhs/embankments and raise their level so that people can access the high ground during the floods.
- All equipments i.e. Bulldozers, Crane, Truck etc. must be checked and keep in readiness for use during disaster.

### 1.9 Standard Operating Procedures for the Power Department

In-charge Officer: Executive Engineer, Power

#### Preparedness

- Protect Power Stations from water logging. Raise the height of compound walls. Arrange gunny bags. Install pump sets for draining water.
- Check the electrical lines on a continuous basis. Switch off the power supply, where the lines have tripped. There are many cases of electrocution.
- Provide information to the people about the state of electrical supply. It is one of the most important sources of information.
- Take special care to ensure that all the critical facilities like hospitals, Control Rooms, etc. continue to get power and they are functional.
- Alternative arrangements should be made for emergency services.

### 1.10 Standard Operating Procedure for Department Of Transportation

In-charge Officer: District Transport Officer.

#### Preparedness

- Prepare a list of vehicles—trucks, buses, and jeeps—in the district and provide the list to the District Control Room.



- Provide jeeps and other vehicles for mobile health and animal husbandry teams.
- Provide trucks, buses and jeeps for evacuation and relief supplies.
- Issue standing instructions to the Suptd. of APST for providing buses for evacuation and relief.

## 2. Training of Functionaries

The district administration should arrange periodical training programmes for all concerned departments. The programmes may be organized at district headquarters or at Block Headquarters and select officials may be sent training at state/ national training centres. These trained officials should be entrusted to train other lower level officials and Panchayat representatives. Training camps may be organized at the district level in which experts may be invited from reputed institutes.

## 3. Simulation exercises/ Mock Drill

Periodic simulation exercises may be carried out to test the preparedness of all concerned role players. The drills may be carried out at various sites. The shortcomings and weaknesses observed during this must be identified and eradicated with proper and timely action.



## **CHAPTER 4**

### **RESPONSE PLAN**

#### **ROLES AND RESPONSIBILITIES:-**

The Deputy Commissioner of Lower Dibang Valley District is the Chairman Of DDMA to Exercise emergency power in issuing directives to all the departments and to provide emergency response services.

#### **NODAL OFFICER:-**

The District Disaster Manage Officer of Lower Dibang Valley district is the nodal officer vis-à-vis incident command Officer. The success and failure of Disaster Management is purely depend upon the active role played by the Nodal Officer during the time of emergency. His / Her prompt understanding of the situation and initiation of immediate preventive measures will make big difference in prevention of loss of human lives, crops and property damages during the time of disaster. The role and responsibility of Nodal Officer is not only important during emergency but, also critical in before and after occurrence of disaster.

#### **SEARCH AND RESCUE / MAINTENANCE OF LAW & ORDER. :-**

Action by :- Superintendent of Police.

- To search and rescue the marooned victims the police personnel including CRPF and other paramilitary forces shall be deployed and to maintained law & order during and after the time of disaster.

#### **Road communications:-**

Action by:-EE, PWD, RWD, OC and BRTF.

- The BRTF, PWD and RWD will initiate early clearance of road blockage by mobilizing local resource and man power. Also removal of debris, demolition of unsafe structures, construction of temporary shelter, temporary bridge including temporary helipad for evacuation of injured.

#### **Drinking Water:-**

Action by:- EE PHED / DRILLING.

- They will initiate action for restoration of clean drinking water supply during and after occurrence of any disaster.
- They will also ensure deployment of departmental vehicles and labourers.



### Stock of essential commodities and Air evacuation.

Action by :- DF&CSO

- DF&CSO will ensure sufficient stock of essential commodities during and after occurrence of any kind of disaster. Further he will liaise with the DCA Naharlagun for air lifting of the marooned people.

### Mass Media.

Action by :-

DIPRO / DIO , Station Director, AIR(Roing) and local Cable TV Operator.

- Mass communication in time of disaster will be entrusted to DIPRO / DIO. Besides this, there are also TV Transmission Centre, Air Station, and Local Cable TV Operators which may be used during and after the time of occurrence of any disaster.

### Volunteers:-

Action by :-DDSE/DFO.

- To assist in rescue and rehabilitation in relief camp with the help of School children / NCC / NSS volunteers/ ALC during disaster.
- In total, all the Committee Members, Public leaders and Senior citizen of the area should give their cooperation to the local administration in mitigating all kind of disaster with man power, Materials and technical knowledge.
- Foresters with their equipments will ensure early warning system in the respective beats through walkie-talkies provided under schemes.
- During fire hazards forester can make use of fire fighting equipments to contain wild and man made fires.

### Medical Emergency:-

Action by :- DMO / DDHS(T&R).

- Their assigned duty is to care for the health aspect during and after the occurrence of disaster. It includes First Aid, treatment of Casualties, readiness of ambulance for transportation of serious patient and they should keep sufficient quantities of life saving drugs. They shall also inform all Doctors & Para Medical staff of all CHCs, PHCs,SCs of the district.

### Veterinary Care :-

**District Disaster Management Plan 2020-21**



Action by :- DVO

- DVO will ensure setting up of cattle camp providing medicine etc to the affected animals during occurrence of any kind of natural disaster.

#### Maintenance of cleanliness

Action by :-DD (UD &Housing).

- Cleanliness is one of the major requirements after occurrence of disaster to prevent spread of epidemic and other health hazards. The DD (UD& housing), should kept their manpower / inventory in readiness.

#### Pre-Disaster Response plan:

- Coordinated **IEC activities** should be initiated well in advance.
- **Mock drill** of preparedness should be carried out twice in a year. The mock rehearsal should start from the Control Room. This will help in finding out the preparedness level for the district level functionaries.
- Make separate **plan of operation** and list of required materials, tools machineries for each kind of disaster.
- Train the rescue forces with the equipments and specialize them for the different types of disaster by the experts.
- Train the Panchayat leaders / village volunteers/ Villagers for helping the affected people for the disaster of their concern.
- Half yearly review the stock of men, materials and machineries of all lined departments.
- Approach to SDMA for any kind of assistance to the line departments for up-keepment of their machineries and strengthening the resources.
- **Warning system** through Police Control Room (24x7) DIPRO/AIR/DIO.
- The Incident Command Officer shall organize regular coordination meeting with all DM Committee Members, Head of office, Public leaders, NGO and senior citizen in consultation with the Chairman.
- The Incident Command Officer will liaise with all Head of office, NGO, Public Leaders and other organizations to keep their machineries and manpower in readiness to face occurrence of any type of natural disaster.





- The Incident Command Officer shall keep record of all parameter which might indicate occurrence of any type of natural disaster and intimate the concerned higher authority in weekly / daily basis.
- The RRTs (Medical & Police) will be alerted by the Incident Command Officer.

**1) Emergency support function:**

A). Inventory of man power of all departments including NGOs/ SHGs (for officer/supervisors/ skilled workers/ workers separately).

The detail list of man power of all line Deptts. Shown in Annexure II

B). Inventory of machineries.

**Table No. 4.1 Inventory of machineries.**

| Sl.no | Name of machinery | Qnty | Utility          | Source Deptt. | Place of deployment | Contact no |
|-------|-------------------|------|------------------|---------------|---------------------|------------|
| 1     | Excavator         | 2    | Earth mover      | WRD           | Dambuk              | 9436059310 |
| 2     | Ferry             | 4    | Water transport  | RWD,          | ROING               | 943605017  |
| 3     | Buses             | 12   | Surface tranport | APST          | Roing               | 9436043538 |

C). Inventory of material, tools and equipments of all line Deptts :

**Table No. 4.2 Inventory of material, tools and equipments of all line Deptts :**

| Sl. No | Name of tools & equipments    | Quantity | Source/ department        | Contact no                          |
|--------|-------------------------------|----------|---------------------------|-------------------------------------|
| 1      | Life jacket                   | 8        | CO.Paglam                 |                                     |
| 2.     | Rope ladders                  | 4        | CRPF                      | 222081                              |
| 3      | Metal ladders                 | 12       | Power                     | 943058782                           |
| 4      | Fire extinguisher             | 16       | OC,Fire,service           | 101/9436046786                      |
| 5      | First aids                    | 12 kits  | DMO                       | 9436051366                          |
| 6      | Spades, shovels, pick axe etc | 200      | PWD , Agri, PHED, RWD etc | 9863554276,9402930890<br>9436056017 |
| 7      | Oxygen cylinders, musk        | 12       | DMO                       | 222444                              |

**Detail list of the Resource inventories of all line Deptt. Given in Annexure I**



## 2.Evacuation Plan:

### A) Identification of relief camps/ high lands.

Action by DDMO

### B) Inventory for infrastructure

**Table No. 4.3 Inventory for infrastructures**

| Sl.no | Name & Type               | Location           | Owner with contact no      | Capacity/nos |
|-------|---------------------------|--------------------|----------------------------|--------------|
| 1.    | Auditorium                | Govt. Hss<br>Roing | Principal 98698913         | 500          |
| 2.    | Sports club               | Near HS<br>school  | DSO ( sports)<br>365365366 | 600          |
| 3     | Open ground               | VKV school         | Principal VKV 222481       | 1000         |
| 4     | Multi purpose<br>building | Roing              | DC,Roing 222223            | 1000         |

### During Disaster.

- Disseminate the warning of disaster from Control Room to all concerned destination in single attempt by using mass SMS, announcement through radio, through mass voice mail and ask the people who are likely to be affected, to take shelter in safer places.
- Immediate deployment of the forces in disaster affected areas for clearing the route to rescue.
- Command to the forces, NGO, SHG & volunteers to rush immediately to the affected area for search and rescue with all pre-enlisted tools and equipments for particular disaster.
- During the time of occurrence of disaster, the Nodal Officer shall liaise with all Head of office, Public Leaders and others organizations and initiate prompt measures to prevent loss of human lives and property damage.
- The Nodal Officer shall initiate immediate necessary measure for evacuations, organize Search and Rescue teams with consultation with the concerned Member which have been entrusted to this work.
- If necessary, the Nodal Officer will initiate setting up of Relief Camp for the affected people in a safer place and ensure proper supply of safe drinking water, electricity, medical facilities, rations etc. with the help of concerned departments to the relief camp.

### Post Disaster.

A Post- disaster evaluation should be done after the withdrawal of relief and rehabilitation activities in order to assess



- The nature of state intervention and support.
- Suitability of the organizational structure.
- Institutional Arrangements.
- Adequacy of Operating Procedures.
- Monitoring mechanism.
- Information tools.
- Equipments.
- Communication System, etc.

The impact studies on the aforesaid operations for long term preventive and mitigation efforts are to be undertaken. following exercises may be undertaken to understand the perceptions about disaster response.

- Adequacy of training.
- Alert and warning system.
- Control Room functions.
- Communication plans.
- Security.
- Containment.
- Recovery procedures.
- Monitoring.



**CHAPTER-5****RECOVERY & RECONSTRUCTION PLAN**

## A). DESIGNATED OFFICES

**Table No. 5.1 designated offices**

| SI No | Different Levels     | Designated Offices                         |
|-------|----------------------|--|
| 1.    | Village Level        | School Building/Community Hall/Rehko/Musup |
| 2.    | Circle Level         | CO Office/ Police Station/School Building  |
| 3.    | Sub-Divisional Level | SDO Office/Police Station/School Building  |
| 4.    | District Level       | DC Office/SP Office/DOEC/ Police Station/  |

## B). 4-TIER TEAMS

**Table No. 5.2 4-Tier Teams**

## 1. VILLAGE LEVEL TEAM

| Sl. No. | Category of Hazard with the capacity to lead to Disaster    | Nodal Agencies           | Agencies to assist Nodal Agencies  |
|---------|---|--------------------------|--|
| 1       | Flood/Cloud Burst/Flash Flood/Land Slide/High Velocity Wind | HGB/GB/Panchayat leaders | All Village Level Committees, All Welfare Associations & Organizations, NGOs, SHGs, Volunteers |
| 2       | Fire Accidents including forest fire                        | HGB/GB/Panchayat leaders | All Village Level Committees, All Welfare Associations & Organizations, NGOs, SHGs, Volunteers |
| 3       | Road & Boat Accident  | HGB/GB/Panchayat leaders | All Village Level Committees, All Welfare Associations & Organizations, NGOs, SHGs, Volunteers |
| 4       | Earthquake  | HGB/GB/Panchayat leaders | All Village Level Committees, All Welfare Associations & Organizations, NGOs, SHGs, Volunteers |
| 5       | Drought   | HGB/GB/Panchayat leaders | All Village Level Committees, All Welfare Associations & Organizations, NGOs, SHGs, Volunteers |

NB: The nodal agencies will be responsible to inform about any eventuality to the nearest police stations, WT stations, administrative officers and nodal agencies at Circle, Sub-Divisional and Dist. HQ by quickest means (telephones, mobiles, WT sets, runners)



• CIRCLE LEVEL TEAM

| Sl. No. | Category of Hazard with the capacity to lead to Disaster    | Nodal Agencies                          | Agencies to assist Nodal Agencies  |
|---------|---|---|--|
| 1       | Flood/Cloud Burst/Flash Flood/Land Slide/High Velocity Wind | COs/OC police station                   | AE, JEs of all work departments, BRO, PSUs, MOs, Panchayat leaders, All Welfare Association & Organizations, NGOs, SHGs Volunteers |
| 2       | Fire Accidents including forest fire                        | COs/OC police station, OC, fire service | AE, JEs of all work departments, BRO, PSUs, MOs, Panchayat leaders, All Welfare Association & Organizations, NGOs, SHGs Volunteers |
| 3       | Road & Boat Accident  | COs/OC police station,                  | AE, JEs of all work departments, BRO, PSUs, MOs, Panchayat leaders, All Welfare Association & Organizations, NGOs, SHGs Volunteers |
| 4       | Earthquake  | COs/OC police station,                  | AE, JEs of all work departments, BRO, PSUs, MOs, Panchayat leaders, All Welfare Association & Organizations, NGOs, SHGs Volunteers |
| 5       | Drought   | Cos                                     | WRD, PHED, ADO, HDO, MO, VO, GBs, Panchayat leaders All Welfare Association & Organizations, NGOs, SHGs Volunteers,                |

NB: The nodal agencies will be responsible to inform about any eventuality to the nearest police stations, WT stations, administrative officers and nodal agencies at Sub-Divisional and Dist. HQ by quickest means (telephones, mobiles, WT sets, runners)



### 3. SUB-DIVISIONAL LEVEL TEAM

| Type | Category of Hazard with the capacity to lead to Disaster    | Nodal Agencies                      | Agencies to assist Nodal Agencies  |
|------|---|-------------------------------------|--|
| 1    | Flood/Cloud Burst/Flash Flood/Land Slide/High Velocity Wind | SDO/OC police station               | AE/JEs of all work departments, BRO,PSUs,MOs,Panchayat leaders, All Welfare Association & Organizations,NGOs,SHG Volunteers    |
| 2    | Fire Accidents including forest fire                        | SDO/OC police station, Fire Service | AE/JEs of all work departments, BRO, PSUs,MOs,Panchayat leaders, All Welfare Association & Organizations,NGOs,SHGs Volunteers, |
| 3    | Road & Boat Accident  | SDO /OC police station,             | AE/JEs of all work departments, BRO, PSUs,MOs,Panchayat leaders, All Welfare Association & Organizations,NGOs,SHGs, Volunteers |
| 4    | Earthquake  | SDO /OC police station,             | AE/JEs of all work departments, BRO,PSUs,MOs,Panchayat leaders, All Welfare Association & Organizations,NGOs,SHGs Volunteers,  |
| 5    | Drought   | SDO/DAO/DHO                         | WRD,PHED, MO, ADO,HDO, VO, GBs,Panchayat leaders All Welfare Association & Organizations,NGOs/SHGs Volunteers,                 |

NB: The nodal agencies will be responsible to inform about any eventuality to the nearest police stations, WT stations, administrative officers and nodal agencies at Dist. HQ by quickest means (telephones, mobiles, WT sets, and runners)



#### 4. DISTRICT LEVEL TEAM

| Type | Category of Hazard with the capacity to lead to Disaster    | Nodal Agencies | Agencies to assist Nodal Agencies  |
|------|---|----------------|--|
| 1    | Flood/Cloud Burst/Flash Flood/Land Slide/High Velocity Wind | EE PWD/WRD/    | HMP, HMLAs, All HODs, BRO, PSUs, Panchayat leaders, All Welfare Associations & Organizations,NGOs,SHGs Volunteers, |
| 2    | Fire Accidents including forest fire                        | SP/DFO(T/WL)   | HMP, HMLAs, All HODs, BRO, PSUs, Panchayat leaders, All Welfare Associations & Organizations,NGOs,SHGs, Volunteers |
| 3    | Road & Boat Accident  | SP, DMO        | HMP, HMLAs, All HODs, BRO, PSUs, Panchayat leaders, All Welfare Associations & Organizations,NGOs,SHGs Volunteers, |
| 4    | Earthquake  | EE PWD         | HMP, HMLAs, All HODs, BRO, PSUs, Panchayat leaders, All Welfare Associations Volunteers & Organizations,NGOs,SHGs, |
| 5    | Drought   | DAO/DHO        | HMP, HMLAs, All HODs, BRO,PSUs, Panchayat leaders, All Welfare Associations & Organizations,NGOs,SHGs, Volunteers  |

NB: The nodal agencies will be responsible to inform about any eventuality to the Deputy Commissioner/Supdt. of Police by quickest means (FAX, NICNET, telephones, mobiles, WT sets, runners, etc).



### C. GRIEVANCES REDRESSAL TIME FRAMEWORK PLAN

**Table No. 5.3 Grievances Redressal Time Framework Plan**

1. Short Term Management (<=90 days)

| Type | Category of Hazard with the capacity to lead to Disaster    | Activities   |
|------|---|--|
| 1    | Flood/Cloud Burst/Flash Flood/Land Slide/High Velocity Wind | Evacuation to safer places (which will include minimum basic amenities including medical facilities), common kitchen, common shelter, construction of temporary shelter and drainages, trauma counseling, Reopen/re-establish all schools, offices and business establishments.  |
| 2    | Fire Accidents including forest fire                        | Evacuation to safer places (which will include minimum basic amenities including medical facilities), common kitchen, common shelter, construction of temporary shelters, trauma counseling  |
| 3    | Road & Boat Accident  | Evacuation to nearest medical facility(including air evacuation), regulate traffic movement and mob control, trauma counseling   |
| 4    | Earthquake  | Evacuation to safer places (which will include minimum basic amenities including medical facilities), common kitchen, common shelter, construction of temporary shelters and drainages, trauma counseling, Reopen/re-establish all schools, offices and business establishments. |
| 5    | Drought   | Organize alternative cropping pattern, counseling  |





## 2. Long Term Management (> 90 days to 3 years)

| Type | Category of Hazard with the capacity to lead to Disaster    | Activities   |
|------|---|--|
| 1    | Flood/Cloud Burst/Flash Flood/Land Slide/High Velocity Wind | Construction, repair, maintenance of infrastructures (buildings, roads, bridges, drainages, sewages), retrofitting of old structures; provide awareness, training, capacity building including mock drills. Activate employment generation activities. Reopen/re-establish all schools, offices and business establishments. |
| 2    | Fire Accidents including forest fire                        | Construction, repair, maintenance, regeneration of affected properties. Provide awareness, training, capacity building including mock drills. Activate employment generation activities.   |
| 3    | Road & Boat Accident  | Provide awareness /training, capacity building, traffic regulation, regular mobile courts, Construction/repair/maintenance of affected properties.   |
| 4    | Earthquake  | Construction/repair/maintenance of infrastructures (buildings/roads/bridges/drainages/sewages), retrofitting of old structures, provide awareness /training, capacity building including mock drills. Activate employment generation activities. Reopen/re-establish all schools, offices and business establishments.       |
| 5    | Drought   | Educate people to go for alternative and mixed cropping pattern, provide awareness /training, capacity building, Activate employment generation activities. Counseling, construction of irrigation channels ,drip and sprinkler water irrigation , rain water harvesting, ground water irrigation                            |

### D. Charter of Roles & Responsibilities:- District Disaster Management Plan 2020-21



| Sl. No. | Nature of work  | Designated Officers   | Remarks  |
|---------|---|---|--|
| 1       | Supply & distribution of essential commodities and relief items (including requisitioning, rationing, air dropping of food items)     | ADC, SDO(Hq), DySP, DFCSO, DDMO   | SDO will head the team at Sub-Divisional level and CO will head the team at circle level |
| 2       | Health education, First Aid, Supply of Medicine   | ADC, SDO(Hq), DMO   |  |
| 3       | Water Supply & Sanitation and awareness generation  | EAC(Jud), EE, PHED  |  |
| 4       | Arrangement of Power Supply   | EAC(Jud), EE, Power   |  |
| 5       | Arrangement of Clothing   | EAC(GA), ADTH   |  |
| 6       | Arrangement of Shelter  | EAC Nazarath, DDSE/ HM/ PRI members, Designated emergency centres to be notified by Dist Administration                                 |  |
| 7       | Arrangement of Transport ,Ferry and air sorties/evacuations   | EAC MV, DMO SS-APST, DF&CSO   |  |
| 8       | Employment generation-urban area  | DD (UD), DL&EO  |  |
| 9       | Employment generation-rural area  | PD(DRDA), BDOs, DL&EO   |  |
| 10      | Repair/ reconstruction/ renovation of infrastructures (buildings, bridges, roads, drainages, sewages, power supply, water supply etc) | BRO, EE (PWD, RWD, WRD, Power, HPD, E&M, PHED, Drilling), PD, DD(UD), PSUs  |  |
| 11      | Maintenance of Law & Order  | DC, SP, EAC(J) OCs  |  |
| 12      | Trauma Counselling  | DMO, Administrative officers NGOs   |  |
| 13      | Resource/Fund Mobilization  | DC, All HODs  |  |
| 14      | Damage & Loss Assessment Team   | To be constituted by District Administration  |  |
| 15      | Collection and Dissemination of Information.  | SP, DIO, DIPRO, Local Media, Spoke Person will be designated by District Administration   |  |
| 16      | Re-opening and re-establishment of all offices, institutions and business establishment   | DA, All HODs, Public representatives Panchayat members, Public Leaders, All Welfare Association & Organizations, NGOs, SHGs Volunteers, |  |



## **CHAPTER 6**

### **INCIDENT RESPONSE SYSTEM (IRS)**

The incident Response System (IRS) is an effective mechanism to reduce scope for ad-hoc measures in response. It incorporates all the duties that may need to be performed in case a management of disaster or event of any kind or scale. It envisages a composite team with various sections to attend to all the possible requirements. The idea is to identify and designate officers to perform various duties and get them trained in their respective roles. It would be pertinent to point out here that the **IRS is a flexible system** and all the sections/branches/units can be activated only **on as required basis**.

#### IRS Organization in the District

The IRS organization will function through Incident Response Teams (IRTs) in the field. Keeping in mind our administrative structure, the Deputy Commissioner, Roing has been designated as the Responsible Officer (RO) at the District level who will be in overall charge of the incident response managements. However the RO may delegate the responsibilities to the Incident Commander (IC), who in turn shall manage the incident through Incident Response Team (IRT). The RO will designate, deploy and terminate various functionaries of the IRS organization.

The IRS has two main components; a) Command Staff, b) General Staff.

#### Components of Incident Response System:

##### 1. Command Staff:

- (i) Incident Commander.
- (ii) Information and media officer.
- (iii) Liaison officer.
- (iv) Safety officer.

##### 2. General staffs:

- (i) Operation section- Branch, division, single resource, strike team and task force.
- (ii) Planning section- Resources, situation, documentation and demobilization units.
- (iii) Logistic section – Service, support and finance branches.

**Command Staff:** The command staff will consist of information and media officer, safety officer and liaison officer. They will report directly to the incident commander and may have assistants. The command staff may or may not have supporting organization under them. The main function of the command staff is to assist the IC in his function.



### Incident Commander(IC):

For every incident, natural or man-made, there will be an incident response team headed by the **Incident Commander (IC)** to perform vital role of leading the response team. To assist the Incident Commander in discharge of the responsibilities, there is a set of officers collectively called as **Command Staff** which includes:

- (i) Incident Commander (In charge of command staff unit).
- (ii) Information and media officer.
- (iii) Liaison officer.
- (iv) Safety officer.

Incident Commander is the main functionary who takes directions from the Responsible Officer and will apprise him of the situation continuously to take necessary directions.

### **General Staff:**

The General Staff has three components which are as follows:

**Operation Section (OS):** The Operation Section (OS) will be responsible for directing the required tactical actions to meet incident objectives

**Planning Section (PS):** The Planning Section (PS) will be responsible for the collection, evaluation, and display of incident information, maintaining and tracking resources, **preparing the Incident Action Plan (IAP)** and incident-related **documentation**. They shall assess the requirement of additional resources and keep Incident Commander (IC) informed. This section also prepares **demobilization plan**.

**Logistic Section (LS):** The Logistic Section will be responsible for providing facilities, services and material in support of the incident response. The Section Chief will participate in development and implementation of the Incident Action Plan. He will activate and supervise assigned Branches/Units. In order to ensure prompt and smooth procurement keeping the financial rules in mind, and supply of resources, the finance section has been kept under it.

Each of the above sections has their own branches above, divisions and units to perform the required functions.

### FUNCTIONS OF COMMAND STAFF under IRS:

#### **1. RESPONSIBLE OFFICER ( Deputy Commissioner)**



The Incident Commander's responsibility is the overall management of the incident. On most incidents a single Incident Commander carries out the command activity. Incident Commander may have a deputy, who may be from the same agency, or from an assisting agency. Deputies may also be used at section and branch levels of the IRS organization. Deputies must have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time.

#### **A. Major Responsibilities and Duties:**

The Incident Commander has a wide variety of responsibilities:

- i. Assess the situation and/or obtain a briefing from the prior Incident Commander.
- ii. Determine incident objectives and strategy.
- iii. Establish the immediate priorities.
- iv. Establish an Incident Command Post.
- v. Establish an appropriate organization.
- vi. Ensure planning meetings are scheduled as required.
- vii. Approve and authorize the implementation of an Incident Action Plan.
- viii. Ensure that adequate safety measures are in place.
- ix. Coordinate activity for all Command and General Staff.
- x. Coordinate with key people and officials.
- xi. Approve requests for additional resources or for the release of resources.
- xii. Keep agency administrator informed of incident status.
- xiii. Approve the use of students, volunteers, and auxiliary personnel
- xiv. Authorize release of information to the news media.
- xv. Order the demobilization of the incident when appropriate.

#### **B. Review of Selected Incident Commander Functions**

1. Establish an Incident Command Post (ICP)
2. Establish the Immediate Priorities:
  - i. First Priority is always safety of:
    - People involved in the incident
    - Responders
    - Other emergency workers
    - Bystanders



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

When considering stabilizing the incident situation, the following “musts” are essential for the Incident Commander.

The IC must:

- Ensure life safety
- Ensure protection of life & property
- Stay in command
- Manage resources efficiently and cost effectively

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

- a. Know Agency/Department/Government Policy
- b. Establish Incident Objectives
- c. Develop Appropriate Strategy(s)
- d. Execute Tactical Direction

Tactical Direction consists of the following steps:

- 1) Establish Tactics
- 2) Assign Resources
- 3) Monitor performance
- 4) Monitor Scene Safety
- 5) Establish and Monitor Incident Organization
- 6) Manage Planning Meetings as Required
- 7) Approve and Authorize the Implementation of an Incident Action
- 8) Plan
- 9) Approve Requests for Additional Resources or for the Release of
- 10) Resources
- 11) Authorize Release of Information to the News Media

## 2. Information & Media Officer (DIPRO)

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. Reasons for the IC to designate an Information Officer:

- An obvious high visibility or sensitive incident.



- Reduces the risk of multiple sources releasing information.
- Need to alert, warn or instruct the public.
- Media demands for information may obstruct IC effectiveness.
- Media capabilities to acquire their own information are increasing.

The Information Officer should consider the following when determining a location to work from at the incident:

- Be separate from the Command Post, but close enough to have access to information.
- An area for media relations and press/media briefings must be established.
- Information displays and press handouts may be required.
- Tours and photo opportunities may have to be arranged.

### 3. Liaison Officer

Incidents that are multijurisdictional, or have several agencies involved, may require the establishment of the Liaison Officer position on the Command Staff. Liaison Officer is the contact for Agency Representatives assigned to the incident by assisting or cooperating agencies.

The following are some of the main reasons to establish the Liaison Officer position at an incident:

- When several agencies send, or plan to send, Agency Representatives to an Incident in support of their resources.
- When the IC can no longer provide the time for individual coordination with each Agency Representative.
- When it appears that two or more jurisdictions may become involved in the incident and the incident will require on-site liaison.

### 4. Safety Officer

The Safety Officer's function on the Command Staff is to develop and recommend measures for assuring personnel safety, and to assess and/or anticipate hazardous and unsafe situations. The Safety Officer will correct unsafe situations by working through the chain of command. However, the Safety Officer may exercise emergency authority to directly stop unsafe acts if personnel are in imminent life-threatening danger.

### FUNCTIONS OF GENERAL STAFF:

The General Staff consists of the following positions:

1. Operations Section Chief
2. Planning Section Chief
3. Logistics Section Chief (Including Finance Branch)

### A. Operations Section



The Operations Section is responsible for managing all tactical operations at an incident.

The **Operations Section** consists of the following **components**:

- Transportation Branch
- Response Branch
- Staging Areas
- Ground or surface-based tactical resources
- Aviation (Air) resources - helicopters and fixed-wing aircraft.

### 1. Transportation Branch:

This supports the response efforts by arranging through different mode the transportation of resources, persons and relief material .It is headed by a Transportation Branch Director and Group-in-charges for Road, Rail, Water and Air operations.

### 2. Response Branch:

This is the main responder in the field dealing with the situation and performing the various functions. It is headed by the Response Branch Director (RBD) and Groups in Charge or Division Supervisors as required. Depending on the scale of the disaster, the RBD may have to expand the number of Groups which require the creation of Divisions. This structure is meant for close supervision by the Operations Section Chief (OSC) in the management of a large incident.

### 3. Staging Areas

The third component of the Operations Section is the Staging Area. The three special meaning of staging area are:

- An IRS Staging Area is a temporary location for placing resources available for incident assignments. All resources within the Staging Area belong to the Incident. Staging areas should, if possible, be located so resources can be at the scene of their assignment within three to five minutes.
- Resources assigned to a Staging Area are available on a three-minute basis to take on active assignment.
- Staging Areas are temporary facilities. They can be set up at any appropriate location in the incident area and moved or deactivated as needed. Several Staging Areas may be used on a single incident.

Staging Area Managers report to the Operations Section Chief or to the Incident Commander if the Operations Section Chief position has not been filled.

### B. Planning Section:

In IRS, the Planning Section is responsible for managing all information relevant to an incident. When activated, the Planning Section Chief who is a member of the General Staff manages the Section. The Planning Section collects, evaluates, processes, and disseminates information for use at the incident.





Dissemination can be in the form of the Incident Action Plan, formal briefings, or through map and status board displays. There are four units within the Planning Section that can be activated as necessary:

- Resources Unit
- Situation Unit
- Documentation Unit
- Demobilization Unit

The Planning Section Chief will determine the need to activate or deactivate a unit. If a unit is not activated, then the responsibility for that unit's duties will remain with the Planning Section Chief.

### **1. Resources Unit:**

This unit is responsible for maintaining the status of all assigned resources (primary and support) at an incident. It achieves this through:

- Overseeing the check-in of all resources.
- Maintaining a status-keeping system indicating current location and status of all resources.
- Maintenance of a master list of all resources, e.g., key supervisory personnel, primary and support resources, etc.

### **2. Situation Unit:**

The collection, processing, and organizing of all incident information takes place within the Situation Unit. The Situation Unit may prepare future projections of incident growth, maps, and intelligence information. Three positions report directly to the Situation Unit Leader:

- **Display Processor (DP)** - Maintains incident status information obtained from Field Observers, resource status reports, etc. Information is posted on maps and status boards as appropriate.
- **Field Observer (FO)** - Collects and reports on situation information from the field.
- **Weather Observer** - Collects current weather information from the weather service or an assigned meteorologist.

### **3. Documentation Unit:**

The Documentation Unit is responsible for the maintenance of accurate, up-to-date incident files. Duplication services will also be provided by the Documentation Unit. Incident files will be stored for legal, analytical, and historical purposes.

### **4. Demobilization Unit:**

The Demobilization Unit is responsible for developing the Incident Demobilization Plan. On large incidents, demobilization can be quite complex, requiring a separate planning activity. Note that not all agencies require specific demobilization instructions. Planning for demobilization should begin at the



early stages of an incident, particularly in the development of rosters of personnel and resources, thus ensuring the efficient and safe demobilization of all resources.

After generating an approved plan, the Demobilization Unit is responsible for distributing the plan at the incident and off-incident, as necessary.

### C. Logistics Section:

The Logistics Section, with the exception of aviation support, provides all incident support needs. The Air Support Group in the Air Operations Branch handles aviation support.

The Logistics Section is responsible for the following:

- Facilities
- Transportation
- Communications
- Supplies
- Equipment maintenance and fueling
- Food services
- Medical services
- Ordering resources
- Finance & Administration

The Logistics Section Chief, who may assign a Deputy, manages the Logistics Section. A Deputy is most often assigned when all designated units (listed below) within the Logistics Section are activated. On very large incidents, or on incidents requiring a great deal of equipment or facilities, the Logistics Section may be divided into three Branches – Service Branch, Support Branch and Finance Branch. A Branch Director, who reports to the Logistics Section Chief, leads each Branch. This is most often done for span of control reasons, resulting in a more manageable organization.

Three Branches may be established within the Logistics Section and units shown below may be established within these branches:

**I. SUPPORT:** Resource Provisioning Unit, Facilities Unit, Ground Support Unit.

**II. SERVICES:** Communication Unit, Food Unit, Medical Unit.

**III. FINANCE:** Time Unit, Procurement Unit, Compensation/Claims Unit, Cost Unit.

Logistics Section Chief will determine the need to activate or deactivate a unit. If a unit is not activated, responsibility for that unit's duties will remain with the Logistics Section Chief.

**I. SUPPORT BRANCH:** This branch is headed by Support Branch Director (**Sup.BD**)

#### **1. Resource Provision Unit**



The Resource Provision Unit is responsible for ordering, receiving, processing and storing all incident-related resources.

All off-incident resources will be ordered through the Resource Provisioning Unit, including:

- Tactical and support resources (including personnel).
- All expendable and non-expendable support supplies.

As needed, the resource provisioning Unit will manage tool operations, including the storage, disbursement, and service of all tools and portable non-expendable equipment.

Two Managers report directly to the Resource Provisioning Unit Leader (**RPUL**):

- **Ordering Manager:** Places all orders for incident supplies and equipment.
- **Receiving and Distribution Manager:** Receives and distributes all supplies and equipment (other than primary tactical resources), and is responsible for the service and repair of tools and equipment.

## 2. Facilities Unit:

This unit is responsible for set-up, maintenance, and demobilization of all incident support facilities except Staging Areas. These facilities are:

- Incident Command Post
- Incident Base
- Camps
- Relief Camps and other facilities within the incident area to be used for feeding, sleeping, and sanitation services.

Note that existing structures in the vicinity of the incident may be used as incident facilities as appropriate.

Additional support items (e.g., portable toilets, shower facilities, food handling Units, etc.) will be ordered through the Supply Unit.

The Facilities Unit will also provide security services to the incident as needed.

Three managers report directly to the Facilities Unit Leader. When established at an incident, they have important responsibilities.

**Security Manager** - Provides safeguards necessary for protection of personnel and property from loss or damage.

**Base Manager** - Ensures that appropriate sanitation, security, and facility management services are in place at the Base.



**Camp Manager** - On large incidents, one or more camps may be established. Camps may be in place several days or they may be moved to various locations.

Activities at the camps may include many of those regularly performed at the Base (e.g., Supply, Food, Medical, Resources, etc.). Camp Managers are responsible for providing non-technical coordination for all Units operating within the camp.

### 3. Ground Support Unit

The Ground Support Unit is primarily responsible for the maintenance, service and fueling of all mobile equipment and vehicles, with the exception of aviation resources. The Unit also has responsibility for the ground transportation of personnel, supplies and equipment, and the development of the Incident Traffic Plan.

An Equipment Manager reports to the Ground Support Unit Leader (**GSUL**) and is responsible for the service, repair and fuel for all equipment; transportation and support vehicle services; and to maintain equipment use and service records.

**II. SERVICES BRANCH:** This branch is headed by Service Branch director (**SBD**).

### 1. Communications Unit

The Communications Unit headed by Communication Unit Leader (**Com.UL**) is responsible for developing plans for the use of incident communications equipment and facilities; installing and testing of communications equipment; supervision of the Incident Communications Center; and the distribution and maintenance of communications equipment.

Communications planning is particularly important in IRS, where an incident may grow to include numerous agencies. Determining required radio nets, establishing interagency frequency assignments, and ensuring maximum use of communications capability is essential.

If an Incident Communications Center is established, an Incident Dispatcher is responsible for receiving and transmitting radio, telephone, FAX, and computer messages, and for providing incident services.

### 2. Food Unit

The Food Unit headed by Food Unit Leader (**FUL**) is responsible for supplying the food needs for the entire incident, including all remote locations (e.g., Camps, Staging Areas, Relief Camps), as well as providing food for personnel unable to leave tactical field assignments.

Planning is essential to the efficient supply of food. Working with the Planning Section Resources Unit, the Food Unit must anticipate the numbers of personnel to be fed and develop plans for supplying food to all incident areas.

The Food Unit interacts with the Facilities Unit for location of fixed-feeding site; the Resource Provisioning Unit for food ordering; and the Ground and Air Support Units for transporting food.



### 3. Medical Unit

Most major incidents require the establishment of a Medical Unit that is responsible for all medical services for incident assigned personnel. The Unit headed by Medical Unit Leader (**MUL**) will develop an Incident Medical Plan (to be included in the Incident Action Plan); develop procedures for managing major medical emergencies; provide medical aid; and assist the Finance/ Administration Section with processing injury-related claims.

Note that the provision of medical assistance to the public or victims of the emergency is an operational function, and would be done by the Operations Section and not by the Logistics Section Medical Unit.

### III. Finance Branch (FB)

The Finance Branch headed by Finance Branch Director (**FBD**) is responsible for managing all financial aspects of an incident.

Not all incidents will require a Finance/ Administration Branch. Only when the involved agencies have a specific need for Finance services will the Section be activated.

On some incidents only one Finance function may be required (e.g., cost analysis). Often, it is more efficient to fill that function through a Technical Specialist assigned to the Planning Section.

There are four units, which may be established within the Finance Branch:

- Time Unit
- Procurement Unit
- Compensation/Claims Unit
- Cost Unit

#### 1. Time Unit

The Time Unit headed by Time Unit Leader (**TUL**) is responsible for ensuring the accurate recording of daily personnel time, compliance with specific agency time recording policies, and managing commissary operations if established at the incident.

As applicable, personnel time records will be collected and processed for each operational period. (The Time Unit Leader may find it helpful to select assistants familiar with the various agency time recording policies.)

The Personnel Time Recorder may report to the Time Unit Leader:

- Personnel Time Recorder - Oversees the recording of time for all personnel assigned to an incident. Also records all personnel-related items, e.g. transfers, promotions, etc.

#### 2. Procurement Unit

All financial matters pertaining to vendor contracts, leases, and fiscal agreements are managed by the Procurement Unit. The unit is headed by Procurement Unit Leader (**PUL**) also responsible for



maintaining equipment time records. He/ She is expected to be well versed with various laws, latest Rules and guidelines of the government and relevant codal provisions (e.g. Finance code) etc.

The Procurement Unit establishes local sources for equipment and supplies; manages all equipment rental agreements; and processes all rental and supply fiscal document billing invoices. The unit works closely with local fiscal authorities to ensure efficiency.

In some agencies, the Supply Unit in the Logistics Section will fill certain procurement activities. Therefore, it is necessary that these two units closely coordinate their activity.

### 3. Compensation/Claims Unit

In IRS, Compensation-for-Injury and Claims are contained within one Unit headed by Compensation/Claim Unit Leader (**Com./CUL**) Separate personnel may perform each function, however, given their differing activities. These functions are becoming increasingly important on many kinds of incidents.

Compensation-for-Injury oversees the completion of all forms required by workers' compensation and local agencies. A file of injuries and illnesses associated with the incident will also be maintained, and all witness statements will be obtained in writing. Close coordination with the Medical Unit is essential.

The Claims is responsible for investigating all claims involving property associated with or involved in the incident. This can be an extremely important function on some incidents.

Two Specialists report to the Compensation/Claims Unit Leader:

- **Compensation-for-Injury Specialist** -- Administers financial matters arising from serious injuries and deaths on an incident. Work is done in close cooperation with the Medical Unit.
- **Claims Specialist** -- Manages all claims-related activities (other than injury) for an incident.
- The relief to be paid to the affected population is the responsibility of the

Operation Section which takes up the enumeration of damaged houses, livestock lost etc and as per the norms & guidelines of the government distributes relief. In this process, sometimes they may consult the claims/ Compensation unit.

### 4. Cost Unit:

The Cost Unit headed by Cost Unit Leader (**CUL**) provides all incident cost analysis. It ensures the proper identification of all equipment and personnel requiring payment; records all cost data; analyzes and prepares estimates of incident costs; and maintains accurate records of incident costs.

The Cost Unit function is becoming increasingly important, with frequent requests by the Planning Section for cost estimates related to strategies for achieving Incident Objectives. Accurate information on the actual costs of all assigned resources is essential.

