

District Disaster

Management Plan 2021

Lohardaga



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Chapter 1: Introduction

District Disaster Management Plan (DDMP) is an operational module for the District Administration on effective mitigation of different types of disasters with locally available resources and personnel and to provide distressed people with immediate relief. It should also ensure immediate response from the existing administrative structure.

> Necessity of the Plan

There is a paradigm shift in Disaster Management approach from the earlier focus of response and relief to prevention and preparedness. It is certainly possible to reduce the impact of Disasters by evolving appropriate preparedness, mitigation and response plans. Earlier, any disaster management was considered as a crisis management function that began with a disaster and closed soon after the relief and rehabilitation.

It is now realized that process of mitigation should incorporate long term preventive and protective measures by adopting appropriate strategies for disaster prone areas. The mainstreaming of Disaster Risk Reduction (DRR) features into development planning of sectoral departments is one of the key areas identified and incorporated in the plan. The GOI-UNDP DRR Programme envisages a holistic and integrated approach.

- 1. To integrate disaster risk reduction into sustainable development policies and planning.
- 2. To develop and strengthen institutional mechanisms and capacities to build resilience to Hazards.
- 3. To systematically incorporate all international, regional, national and local disaster risk Reduction strategies and approaches into the implementation of emergency preparedness, Response and recovery.
- 4. To achieve a comprehensive, all hazard, all agencies approach by achieving the right balance of prevention, preparedness, mitigation, response and recovery.
- 5. Prepare communities to ensure that they are fully equipped to anticipate and respond to Disaster events.

Objective of the plan

The objective of the Plan is to minimize the loss of lives and social, private and community assets because of natural and manmade disasters –

- 1. To assess the risks and vulnerabilities associated with various disasters.
- 2. To develop appropriate disaster prevention and mitigation strategies.
- 3. To provide clarity on roles and responsibilities for all stakeholders concerned with disaster management so that disasters can be managed more effectively.
- 4. To develop and maintain arrangements for accessing resources, equipment, supplies and funding in preparation for disasters that might occur.
- 5. To ensure that arrangements are in place to mobilize the resources and capability for relief, rehabilitation, reconstruction and recovery from disasters.

Scope of the plan

- 1. The District Disaster Management Plan will include all functions pertaining to disaster prevention, mitigation, preparedness, response, relief, recovery and rehabilitation.
- 2. This Plan will apply to disaster management administration for all possible hazards that the District is prone to.
- 3. It shall not be applicable to nuclear, biological and chemical disasters.

Mandatory provision of the DM plan

- Every 6 months there should be counting of resources and man power availability.
- Every year the plan should be updated based on recent events and event of last year.

DISTRICT PROFILE

History of District

Lohardaga district came into existence after Ranchi was split into three districts namely Ranchi, Lohardaga and Gumla way back in 1983. The district is named after the town of Lohardaga, the administrative headquarters of the district. In Jain texts there is reference to Lord Mahavir's visit to Lore-a-Yadaga, which means 'river of tears' in Mundari. The word Lohardaga may be made of two hindi words, Lohar meaning 'ironmonger', and Daga meaning center', which makes the literal meaning of Lohardaga as 'center of iron mining'.

> Administrative Features

The district is situated in the south western part of Jharkhand State. It is surrounded by Latehar district in north, Gumla in south and west and Ranchi in the east.

▶ Map of the District Describing direction

Lohardaga District covers the area of 1491 sq. km. It lies between 23°30' and 23°40' north latitudes and 84°40' and 84°50' east longitudes. This District has 7 Block and 66 Gram Panchayats.



Demographic Trend

The District has population of 461738 persons (as per 2011 census). The density of population here is noted to be 310 people/ sq.km. Its population growth rate over the decade 2001-2011 was 26.67%.

Block	Rural/ Urban	Total Population	Male	Female	No. of Households
Lohardaga	Urban	57411	29374	28037	11102
Lohardaga	Rural	68598	34484	34114	13139
Kisko	Rural	54959	27692	27267	10680
Peshrar	Rural	31057	15764	15293	5848
Kuru	Rural	84827	42480	42347	16198
Kairo	Rural	37867	18773	19094	7190
Senha	Rural	69768	35308	34460	13278
Bhandra	Rural	57303	28754	28549	11203
Total		461790	232629	229161	88638

Block Rural/ SC Urban			ST				
	Orban	Total	Male	Female	Total	Male	Female
Lohardaga	Urban	2295	1182	1113	14262	6888	7324
Lohardaga	Rural	1764	911	853	45277	22646	22631
Kisko	Rural	1663	836	827	33559	16851	16708
Peshrar	Rural	1173	601	572	25641	12995	12646
Kuru	Rural	4343	2238	2105	40286	19966	20320
Kairo	Rural	726	366	360	23585	11552	12033
Senha	Rural	2387	1236	1151	43491	21718	21773
Bhandra	Rural	979	192	487	36633	18198	18435
	Total	15330	7562	7468	262734	130814	131870

➤ Male Literacy Rate
 ➤ Female Literacy Rate
 ➤ Total Literacy Rate
 78.62
 57.86
 68.29

Occupational Structure

The inhabitants of this district mainly depend on agriculture, forest produce and seasonal migration to different parts of the country. 80% of the population depends upon agriculture.

Farmers Data:

S. N.	Name of Blocks	No. of Big	No. of Marginal	No. of small	Others
		Farmers	farmers	Farmers	
1	Lohardaga	77	5753	1302	1639
2	Senha	175	5555	1292	2215
3	Kuru	76	4379	1189	1832
4	Bhandra	100	3014	853	1618
5	Kisko	95	3710	1205	1740
6	Kairo	32	1349	685	1123
	Total	555	23760	6526	10167

Geography

Rivers- South Koel, Sankh, Nandini, Chaupat and Fulijhar

Ponds - Government ponds 176 and Private ponds 1600.

Three soil orders namely Entisols, Inceptisols and Alfisols were observed in Lohardaga district. Alfisols were the dominant soils covering 52.6 percent of total geographical area followed by Inceptisols (25.1 %) and Entisols (21.1 %).

Jurassic Belt

The general slope of the district is from west to east. Geologically the area is comprised with Archean granites and gneisses. In the uplands considerable thickness of laterite of Pleistocene age is found in the Granite and Gneisses tracts. Alluvium of recent to sub-recent age is found in the river valley. The most important mineral of the district is bauxite. Other minerals found in the district are feldspar, fire clay and china clay and have less economic importance.

Climate

The district has healthy, pleasant climate throughout the year. The annual average temperature is 23°C, the highest temperature goes to 36°C in summer and lowest of 10°C in winter. The district receives annual rainfall of 1000 to 1600 mm and it increases from west to east.

> Drainage system

The district is divided into two major physical divisions viz. the hilly tract and the plateau region. The hilly tract is extended in the west and north western part of the district, which includes part of Kisko, Senha and Kuru development blocks. The high hill tops of the region is known as pat. The plateau region is the part of the Gumla plateau comprised with entire part of Lohardaga and Bhandra and some part of Senha, Kisko and Kuru development blocks. This region has a number of small hillocks. The general slope of the district is from west to east. Geologically the area is comprised with Archean granites and gneisses. In the uplands considerable thickness of laterite of Pleistocene age is found in the Granite and Gneisses tracts. Alluvium of recent to sub-recent age is found in the river valley. The most important mineral of the district is bauxite. Other minerals found in the district are feldspar, fire clay and china clay and have less economic importance. The main rivers of the districts are South Koel, Sankh, Nandini, Chaupat and Fulijhar etc.

Agriculture and Animal husbandry:

The main crop grown in the district are paddy, ragi (madua) and maize. Recently, cultivation of gram, peas, soya bean, groundnut and pulses have been taken up in a big way by the farmers in Bhadara, Senha and Kuru blocks. The district has also been identified as Agri-export Zone by Government of India, keeping in view the production of large quantities of green vegetables in the district.

S.N.	Name of Block	Geographic al Area (in ha)	Cultivable Area (in ha)	Waste Land (in ha)	Irrigated Land Area (in ha)	Water Resources
1	Lohardaga	15270.83	12466.60	2803.87	2881.41	कुऑं, तालाब, नदी,, चेकडैम, आदि
2	Senha	21528.68	11237.96	326.86	240.49	कुऑ, तालाब, नदी,, चेकडैम, आदि
3	Bhandra	15894.98	10170.01	5666.61	1451.85	कुऑ, तालाब, नदी,, चेकडैम, एवं नहर आदि
4	Kuru	21743.85	14516.74	6036.58	1478.7	कुऑं, तालाब, नदी,, चेकडैम, आदि
5	Kisko	24791.27	6675.51	8158.00	788.08	कुऑ, तालाब, नदी,, चेकडैम, आदि
6	Kairo	14383.83	8104.24	4844.39	4891.99	कुऑ, तालाब, नदी,, चेकडैम, एवं नहर आदि
7	Pesrar	37469.66	3340.13	26796.80	358.59	कुऑ, तालाब, नदी,, चेकडैम, आदि
	Total:-	151083.10	66511.19	54633.11	12091.11	

CM	N	Cultivated Land Area (in ha)			
S.N.	Name of Block	Kharif	Rabi	Garma	Total
1	Lohardaga	8721.04	2260.00	786.37	11767.41
2	Senha	1080.17	144.99	22.28	1247.44
3	Bhandra	7484.97	0.00	0.00	7484.97
4	Kuru	13335.00	4277.00	239.50	17851.50
5	Kisko	5556.18	0.00	0.00	5556.18
6	Kairo	6957.56	2153.83	1971.00	11082.39
7	Pesrar	2748.73	252.21	60.18	3061.12
	Total:-	45883.65	9088.03	3079.33	58051.01

Crops Pattern Data:

S. N.	Types Of Crops Produced	Quantity (In Lac Quintal)
1	Rice	16.8948
2	Wheat	0.70300
3	Pulses	1.393090
4	Oil Seeds	1.006395
5	Vegetables	

> Agriculture support facilities:

(a) Seed/fertilisers/pesticides - 75 Nos (b) Rural Markets/Mandis - 50

(c) Rural Godowns - 14 / 200 tonnes each

(d) Cold storage - 1 Mini cold storage / 350 tonnes

Animal Husbandry:

(a) Plough animals 96,599

(b) Dairy animals

(i) Cattle 1,48,929
(ii) Buffaloes 12,668
(c) Sheep/Goat/Pig 56,878
(d) Poultry 2,62,490

> Crops:

The major crops of the district are paddy and vegetables. Vegetables are grown in the district and are supplied to far off places like Rourkela in Orissa and Kolkata in West Bengal. Custard apple, Jackfruit, Mango, Guava, Papaya are the important horticulture crops grown in the district. Apart from these, the district produces surplus poultry meat and milk which caters to the needs of neighbouring districts also.

Hydrology:

Irrigation (in ha)

(a) Net irrigated area5,748(b) By tanks77(c) By tube wells2,048(d) Dugwell1,809(e) Canals741(f) Other sources - Doba, etc.1,073

> Flora and fauna

One important part of the district is, it is covered with forest. The district has about 27% of forest area while other areas are also covered with lush green forest. Important forest products are Saal seeds, Kokun, Lac, Tendu leaves, Karanj, Chiraunji etc. The major trees can be named as Sal Bija, Gamhar, Kathal, Jamun, Mango, Bamboo, Neem etc.

> Fisheries:

Most of the supply of fish in the district is met from other states as the production of fish is not adequate in the district. Very few people of a particular community in the district take up fisheries on a commercial basis to cater to the needs of local market. The total fish production in the State was 35000 MT against a target of 40000 MT. The contribution of Lohardaga district towards total fish production in the State was 800 MT during the year 2005-06. The Infrastructure available is 176 Govt. and 1600 private ponds covering a total area of 2108 ha and 62 ha, respectively. Govt. ponds have been given on lease varying from 1-3 years. Few ponds are yet to be given on lease. Fry is distributed at Rs 100 per 1000 by the fisheries department for general and Rs 10 per 1000 to tribal on subsidised rate.

One private hatchery is under operation at Kuru but their operation is not satisfactory. Their activities are limited. The loan had been provided by Bank of India, Lohardaga. They have been provided some projects under RSVY for training as well extending fish farming to tribal during the current year. There is a scheme for ST where Rs.40000/- is being provided as 100% grant for digging pond of 30 decimal size. This will be given to 15 beneficiaries only. Cold storage facility is not available for fish but ice is available in the district for preserving it for some time. Supply of fingerlings are not available locally and they have to be brought from neighbouring states from river Sone and Ganga.

In Lohardaga district, small scale industries are there which are mainly based on agriculture, forest, mining, machinery fabrication, leather goods, electric, printing press, Kalin Industry, Road transportation etc. Many labours are engaged in these works and maintain their livelihood based on this work. Average annual income of each entrepreneur is quite good and is enough to maintain the family. Bauxite is extracted from this area and it is done by the two major aluminium companies other than some petty contractors.
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Chapter2: Hazard, Vulnerability, Capacity and Risk Assessment(HVCRA)

Hazard, risk, vulnerability & capacity analysis (HRVCRA) is the most important part of the plan as the entire planning process will be based on its outcome. Any error in identifying the frequency, magnitude and projected impact leads to erroneous identification of major hazard and hence an erroneous plan. Correlation between rainfall data over last 30 years and incidence of cyclones/floods is to be analyzed. The necessary outcomes of the HRV analysis should be the type of hazards that the district is prone to, history of hazards, impact analysis of the worst case, the area, people and infrastructure that is prone to the risk of these hazards and their vulnerability of being damaged by such disasters due to their vulnerability characteristics. Vulnerable Assessment should deal with the socio-economic vulnerability, housing vulnerability and environmental vulnerability. HRV analysis should also include resource inventory/capacity analysis, preparedness analysis in terms of network of communication systems, public distribution systems, storage facilities, transportation facilities, medical facilities, fire stations, cyclone shelters with their capacity, presence of NGOs and other volunteers etc so as to enable quick response.

➤ History of Disasters in the District

NUMBER	DISASTER	MONTH AND YEAR (LAST OCCURRENCE)	DAMAGES
1	Earthquake	2015-2016	• Loss of human lives - 1
2	Flood	2018-2019	• Loss of human lives - 01
		2017-2018	• Loss of human lives - 04
3	Lightning	2019-20	Loss of human lives - 16Loss of Animals lives - 07
		2018-19	Loss of human lives - 18Loss of Animals lives - 21
		2017-18	Loss of human lives - 22Loss of Animals lives - 16
		2016-17	Loss of human lives - 07Loss of Animals lives - 09
		2015-16	 Loss of human lives - 13 Loss of Animals lives - 13

Disaster Risk Analysis.

As per annexure II hardcopy of Guidelines given to you. Identification of Disasters with "disaster wise" details of area and population likely to be effected and mechanism available to fight Lohardaga to move to safer places.

Earthquake

Major parts of Lohardaga lie under Zone-2 area which shows the probability of an earthquake. This zone is classified as Moderate Damage Risk Zone. Recently: - On May 21, 2014- A mild earthquake was felt in Jharkhand measuring 5.6 on the Richter scale.

Lightning

The district of Lohardaga is highly prone to lightening disaster, especially in the pre monsoon period. The laborers are often victimized during the sowing season. The barren land areas with long isolated trees are the main reason for lightening disaster.

> Accidents:

National Highway 23 (NH 23) connects Ranchi and Gumla district, and NH 78 connects with Jashpurnarg. It is highly accident-prone. The figures of road accidents indicate rising trend in Jharkhand.

Fire:

The District experiences various fire accidents till May 2014. Fires may be caused due to occurrence of earthquakes, explosions, electrical malfunctioning and various other causes.

Industrial /Chemical Disaster:

Lohardaga is a mineral rich district. There are more than 6 types of minerals in this district. Almost all the Mining colonies in Lohardaga are vulnerable to the Mining Disaster.

Mining also invariably results in enormous land disturbance, e.g., large scale excavation, removal of top soil, dumping of solid wastes, cutting of roads, creation of derelict land etc..

> Drought

Lohardaga district is prone to be affected by droughts, typically in the pre monsoon period of Mar-Jun. Typically, the district is 51% prone to suffering a drought year. The severity of drought is usually mild to moderate intensity.

The impact of drought in Lohardaga district is also intensified due to non-availability of proper irrigation facilities for farming. Currently, approx. 30% of the net sown area are irrigated area. Major source of irrigation is through wells and channels.

Biological Hazards:

Biological hazards to human beings:

All natural disasters are usually followed by epidemics of communicable diseases and non-communicable diseases like psychological trauma, malnutrition, etc..

• Jharkhand is prone to many water and vect or borne communicable diseases, which get compounded by poor health knowledge, poor sanitation and scarcity of drinking water.

Biological Hazard To Animals

The main diseases and the causal factors that affect animals in the state are:

- Poor disease surveillance system
- Lack of trained personnel, poor equipment and communication systems

> Crowd Management at Religious Places, Fairs (Mela), Exhibitions, and Special Events

There are places of religious importance in Lohardaga where Thousands of people gather at a particular time of the year for a fair (mela). There is always a risk of stampede and chaos in such a large gathering if it is not managed properly.

• Seasonality of Disaster:

Disaster	Jan	Feb-Mar	Apr	May-June	July-Dec
Cyclone					√
Earthquake	V	V	V	V	√
Drought			√	√	
Road Accidents	V	V	V	V	V
Fire			V	V	
Lightning			√	V	√
Hail/storm					V

• Disaster Vulnerability And Impacts:

Type of Hazards	Seasonality	Potential Impact	Vulnerable Areas
Earthquake	Any time	Loss of life, livestock, property and Infrastructure	Entire Region
Forest Fire	Mostly during summer season April- June	Loss of forest, environment degradation	Forest cover in the district
Lightning	Before Monsoon or During Rainy Season	Loss of human life, property and animal	Anywhere in the district

Drought	April – June	Loss of crop and Livestock	Entire Region
Heat Stroke	April – June	Loss of life, Illness	Entire district
Naxalism	Anytime	Loss of life, Government infrastructure, threat to villagers, Development process halted in affected areas	Entire district
Cyclone	July- Dec	Medium	Entire district

• Review of Risk Potentialities:

Type of Disaster	Severity	Major Impact	Damage Prone Areas-Wards
Cyclone	High	Loss of crop, human and animals, and infrastructure also loss of forest area.	Entire District
Drought	High	Loss of crop	Entire District
Earthquake	Medium	Loss of life and infrastructure	Entire District
Sun stroke	High	Loss of life (man and animal)	Entire District
Fire	Medium	Human loss and damage of property	Entire District
Road Accident	Medium	Human life loss	Entire District
Lightening	High	Human and Animal loss and damage of property	Entire District

Chapter 3: Institutional Arrangement for Disaster Management

Every State Government shall, as soon as may be after issue of notification under sub-section(1) of section 14, by notification in the Official Gazette, establish a District Disaster Management Authority for every district in the state with such name as may be specified in that notification. The Disaster Management Act of 2005 mandated institutional setup at National, State, and District levels to have a proactive approach. Accordingly in Lohardaga District Disaster Management Authority is formed with following members. The District Authority shall consist of the Chairperson and such number of other members, not exceeding seven, as may be prescribed by the State Government, and unless the rules otherwise provide, it shall consist of the following namely. The collector or District Magistrate or Deputy Commissioner, as the case may be, of the district who shall be Chairperson ex officio. The elected representative of the local authority who shall be the Co-Chairperson, ex officio. It is provided that in the Tribal Areas, as referred to in the Sixth Schedule to the Constitution, the Chief Executive member of the district council of autonomous district, shall be the Co-Chairperson, ex officio. The chief Executive officer of the district authority, ex officio. The Superintendent of police, ex officio. The chief Medical officer of the district ex officio. The state Government can appoint two other district level officers.

District Disaster Management Authority (DDMA) Members:

S.N.	Designation	Position	Name	MOBILE NO
1	Deputy Commissioner	Chairperson,	Dilip Kumar Toppo	09470590889
2	Zill Parishad Chairperson	Co-Chairperson	Sunaina Devi	09304303798
3	Superintendent of Police of the district	Ex-officio	Priyanka Mina	9431706218
4	Additional Collector	CEO	Akhouri Shashank Sinha	08987462074
5	Deputy Development Commissioner	Ex-officio	Akhouri Shashank Sinha	09431118155
6	DFO	Ex-officio	Vikash Ujjwal	07579216959
7.	Chief Medical Officer	Ex-officio	Vijay Kumar	9113737152
8.	District Disaster Management Officer	DDMO	Vibhakar	9939350932

Rapid Response Team (RRT)

क0	नाम	पदनाम	मोबाईल नं0

1	डॉ वीरा संयुक्ता नैशी	पशु शल्य चिकित्सक, लोहरदगा (नोडल पदाधिकारी)	8340468437
2	डॉ अरूण उरॉव	भ्रमणशील पशुचिकित्सा पदाधिकारी, रामपूर	6202188336
3	डॉ विजय नाग	प्रखण्ड पशुपालन पदाधिकारी, लोहरदगा	9798622959
4	श्री राशिद हसन	प्रावैधिक सहायक लोहरदगा	9771582899
5	श्री अरूण उरॉव	प्रावैधिक सहायक, लोहरदगा	
6	श्री सुनील कुमार सुमन	पट्टी बंधक लोहरदगा	9162739342

Bird Flu Outbreak

क0	नाम	पदनाम	मोबाईल नं0
1	डॉ विजय नाग	प्रखण्ड पशुपालन पदाधिकारी, लोहरदगा	9798622959
2	श्री राशिद हसन	प्रावैधिक सहायक लोहरदगा	6202188336
3	श्री धन्नु उरॉव	अनुसवेक,लोहरदगा	
4	डॉ मृत्युजंय कुमार	प्रखण्ड पशुपालन पदाधिकारी, भण्डरा	8210192338
5	श्री फनिन्द्र वर्मा	प्रावैधिक सहायक, भण्डरा	
6	श्री अशोक शर्मा	अनुसेवक,चट्टी	
7	डॉ अभिनव	प्रखण्ड पशुपालन पदाधिकारी, सेन्हा	9935566365
8	श्री शशि कुमार महतो	प्रावैधिक सहायक, सेन्हा	
9	श्री शंकर महली	अनुसेवक, सेन्हा	
10	डॉ विष्णु शरण महतो	प्रखण्ड पशुपालन पदाधिकारी, किस्को	9304495130
11	श्री बिनोद शर्मा	प्रावैधिक सहायक, पतरातु	
12	श्री प्रभुसहाय एक्का	अनुसेवक, किस्को	
13	डॉ सुशिला तिग्गा	प्रखण्ड पशुपालन पदाधिकारी, कुडू	9430357512
14	श्री विनय सिंह	प्रावैधिक सहायक, कुडू	
15	श्री इबरार अंसारी	अनुसेवक, कुडू	
16	डॉ विजय भारती	भम्रणशील पशुचिकित्सा पदाधिकारी, कैरो	7004774619
17	श्री महादेव उरॉव	अनुसेवक, कैरो	
18	डॉ प्रज्ञा प्रिया लकड़ा	भम्रणशील पशुचिकित्सा पदाधिकारी, खरचा	8877574658

19	श्री राजेन्द्र भगत	प्रावैधिक सहायक, सेन्हा	
20	श्री मकबूल अंसारी	अनुसेवक, खरचा	
	<u>.</u>		

> Institutional Mechanism

The District Disaster Management Authority will act as the District planning, coordinating and implementing body for Disaster Management and take various measures for the purpose of Disaster Management in the District in accordance with the guidelines laid down by the National or State authority. Powers and Functions of District Authority as per Section 30 of DM ACT, 2005 are as under:-

- (i) Prepare a disaster management plan including district response plan of the district
- (ii) Coordinate and monitor the implementation of the National Policy, State Policy, National Plan, State Plan and District Plan
- (iii) Ensure that the areas in the district vulnerable to disasters are identified and measures for the prevention of disasters and the mitigation of its effects are undertaken by the departments of the Government at the district level as well as by the local authorities
- (iv) Ensure that the guidelines for prevention of disasters, mitigation of its effects, preparedness and response measures as laid down by the departments of the Government at the district level and the local authorities in the district
- (v) Give directions to different authorities at the district level and local authorities to take such other measures for the prevention or mitigation of disasters as may be necessary
- (vi) Lay down guidelines for prevention of disaster management plans by the department of the Government at districts level and local authorities in the district;
- (vii) Monitor the implementation of disaster management plans prepared by the Departments of the Government at the district level;
- (viii) Lay down guidelines to be followed by the Departments of the Government at the district level for purpose of integration of measures for prevention of disaster and mitigation in their development plans and projects and provide necessary technical assistance therefore;
- (ix) Monitor the implementation of measures referred to in clause
- (x) Review the state of capabilities for responding to any disaster or threatening disaster situation in the district and give direction to the relevant departments or authorities at the district level for their up gradation as may be necessary;
- (xi) Review the preparedness measures and give directions to the concerned departments at the district level or other concerned authorities where necessary for bringing the preparedness measures to the level required for responding effectively to any disaster or threatening disaster situation;
- (xii) Organize and coordinate specialized training programs for different levels of officer, employees and voluntary rescue workers in the district;
- (xiii) Facilitate community training and awareness programs for prevention of disaster or mitigation with the support of local authorities, governmental and non-governmental organizations;
- (xiv) Set up, maintain, review and upgrade the mechanism for early warnings and dissemination of proper

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

Dissemination of Other IEC Materials

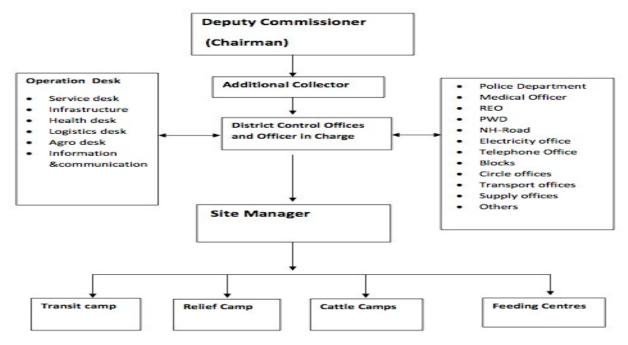
MODE	Agency responsible
Wall painting, Street Play, Village task Force/	
	BDOs- Through CBOs/ Village volunteers

Volunteer Training	NGOs- Through Block level NGO network
Slide in cinema hall	Collectorate
Hand bills, Paper advertisement	DPRO and BDO
Media and Press release	DPRO
Poster, Cartoons, Charts, Photographs, Folk songs	DPRO/ NGOs
Training Camps, Group Discussion and special lectures by Community leaders.	DPRO, BDO

Training and Mock Drills

Mode	Agency Responsible
Training programme for rescue & relief	SP, Dist. fire officer, Civil Defence, NGOs
Training for common people on health care, Sanitation and first aid	CS, BDOs & NGOs

> Institutional Mechanism of the district



Chapter 4: Prevention and Mitigation Measures

Lohardaga broadly faces droughts, lightning in natural disaster, while in manmade disaster are naxalites attacks, accidents, and fire. According to United Nations International Strategy for Disaster Reduction "prevention"

expresses the concept and intention to completely avoid potential adverse impacts through action taken in advance. With proper planning of developmental work in risk prone areas, these hazards can be prevented from turning into disasters. "Mitigation" is referred as the task of minimizing the loss through structural and non-structural measures.

Prevention Stratigies

Drought

Disaster	General Measures	Techno- Legal Measures
Drought	Some of the strategies for prevention of drought are: Controlled use of surface and ground water Watershed development Integrated basin planning Strategy based on Agro-Climatic Regional Planning Water Management in Irrigated Agriculture Adopting appropriate cropping pattern Containing ground water exploitation Rainwater harvesting and Artificial recharge of ground water Renovation of Tanks and Ponds Proper Maintenance of Irrigation systems Deficit Irrigation Sprinkler and drip irrigation Reuse of irrigation water	 Setting up real time dynamic database for water resource and development of water resource information system (WRIS) Conducting a detailed water resource inventory, including annual variations at micro watershed level Expanding current network of automatic weather stations and rain gauge stations for much more granular records of evaporation and rainfall data DMCs will harmonize the current/ ongoing efforts by various knowledge centres at the national and international levels.

Earthquake Mitigation

SHORT – TE	RM MEASURES	LONG –TERN	MEASURES
STRUCTURAL MEASURES	NON-STRUCTURAL MEASURES	STRUCTURAL MEASURES	NON-STRUCTURAL MEASURES
 Revision of General Development Control Regulation (GDCR) to regulate construction and land use planning 	 Orientation of PWD and UDH staff for earthquake safety and their role in disaster management Capacity building of architects, engineers and masons on earthquake resistant features 	 Strict enforcement of Byelaws pertaining to seismic safety for all structures Notification of risk prone areas by seismic micro zonation 	 Safety audit in all cities, towns and villages Mock-drills for Schools, Hospitals, Public Buildings Intensive trainings and orientation on earthquake resistant construction to private and government engineers, architects Notices to all private buildings not complying to safety norms and that are structurally
			unsafe

Pre disaster	During disaster	Post disaster
 Identify safe places in each room. Locate safe places outdoors. Ensure all family members know how to respond after an earthquake. Application of science and technology and engineering inputs to 	 If indoors: Take cover under a piece of heavy furniture or against an inside wall and stay inside. If outdoors: Move into the open, away from buildings, street lights, and utility wires and remain there until shaking stops. If in a moving vehicle: Stop quickly, stay in vehicle, move to a clear area away from buildings, trees, overpasses, or utility wires. 	 Restoration of basic infrastructure. facilities, for example, ports, airports, power stations etc. Identify the trauma cases and counsel them appropriately Special attention to ladies, children and elder.
improve building design, construction and	• Setting up of field hospitals in the affected areas and deployment of	• Arrangements for distribution of

siting.		mobile hospitals.	gratuitous relief	and
• Conducting	extensive	• Arrangement for food, clothing,	cash doles.	
public	awareness	blanket/bedding, drinking water,		
programme	and	sanitation and hygiene, lighting		
dissemination	n of	arrangements and essential medicine.		
information a	about risks,			
preparedness	and			
mitigation me	easures.			

> Fire

Fire accidents can be avoided and their impact can be reduced by:

- 1. Maintaining proper fire exits and proper exit signage (e.g., exit signs pointing to them that can function in a power failure).
- 2. Placing and maintaining the correct type of fire extinguishers in easily accessible places.
- 3. Prohibiting flammable materials in certain areas of the high population density.
- 4. Periodically inspecting buildings for violations, issuing orders to comply and, potentially, prosecuting or closing buildings that are not in compliance, until the deficiencies are corrected or condemning it in extreme cases.
- 5. Obtaining and maintaining a complete inventory of fire safety equipment.
- 6. Maintaining a high level of training and awareness of occupants and users of the building to avoid obvious mistakes, such as the propping open of fire doors.
- 7. Emergency contact numbers of all nearby district fire officers should be available and displayed for faster response.
- 8. Include all operators to connect the emergency no. 101, presently only an Airtel, BSNL and Idea operator can connect with the emergency no. of 101.

Pre Disaster	During Disaster	Post Disaster
 To familiarize professionals like fire fighters, medical personnel with special tactics and hazards To review the total plan, including communications and logistics, so that updating modifying and training activities can be improved 	 Control emergency by arresting leakages, spillage, fighting fire Mobilization of specialized equipment and machinery to affected areas Arrangement for food, clothing, blanket/bedding, drinking water, sanitation and hygiene, 	 To ensure that law and order is maintained at evacuation/relief centres and in the affected areas as well Identify the trauma cases and counsel them appropriately Arrangements for distribution of gratuitous relief and cash doles Special attention to ladies, children and elders

lighting arrangements and essential medicines	

Lightning

Pre disaster	During disaster	Post disaster	
 Installation of an effective lightning Conductor system Seeking shelter in a low area and staying away from trees Staying away from metal objects and tall objects, such as telephone poles, light standards, antennas and tall trees Staying away from water 	Mobilization of specialized equipment and machinery to affected areas Arrangements to be made for quick transportation of injured victims to the hospitals	Arrangements for distribution of gratuitous relief and cash	

Few Tips to survive lightning:

- If you are in a building it is advisable to stay inside. Stay away from windows, doors, fireplaces, stoves, metal pipes, sinks and other electrical charge conductors.
- Unplug TVs, radios and other electrical appliances.
- Don't use the phone or other electrical equipment.
- If you are outside, seek shelter in a building, cave or depressed area. Lightning typically strikes the tallest item in an area.
- If you're caught in the open, bend down with your feet close together and your head down. Don't lie flat by minimizing your contact with the ground you reduce the risk of being electrocuted by a ground charge.
- Get off bicycles, motorcycles, and tractors.
- If you are in a car, stop the car and stay in it. Don't stop near trees or power lines that could fall.

Cyclone

Pre disaster	During disaster	Post disaster

- Cyclone alert and warning at least 48 hours and 24 hours respectively before the commencement of the bad weather
- Ensure that all critical activities (mainly industrial production) in areas likely to be affected are shutdown
- Setting up of field hospitals in the
 affected areas and deployment of
 mobile hospitals
 - Mobilization of specialized equipment and machinery to affected areas
 - Arrangement for food, clothing, blanket/bedding, drinking water, sanitation and hygiene, lighting arrangements and essential medicines
- Creation/ Retrofitting of structures – including roads, bridges that may have been destroyed/ damaged due to the disaster
- Special attention to ladies, children and elders
- Arrangements for distribution of gratuitous relief and cash doles

Biological Disaster

Disaster	General Measures	Techno-Legal Measures
Epidemic	 Targeted vaccination drives Procurement of equipment for critical care Establishment of new laboratories and up gradation of existing laboratories Awareness generation on safe sanitation and hygiene promotion, household water treatment methods, use of ORS and other commonly used preventive medicines Fogging and spraying of insecticides as a preventive measure against vector borne diseases 	 Developing a platform to share real time information amongst various departments and authorities during epidemics Regulation on handling of toxic material like insecticides commonly used for fogging, spraying

Disease	Symptoms	Environmental Risk	Health Hazards
		Factors	
Acute upper	All symptoms of the common	Crowding, poor	Influenza and pneumonia
respiratory tract	cold, fever and heavy coughing.	hygiene	may cause severe
infections	Chest pain and pain between		complications, especially
	shoulder blades in pneumonia.		in groups at risk
Diarrhoea	Watery stools at least three	Contaminated	Dehydration, especially
	times a day, with or without	drinking- water or	in children, shown by
	blood or slime. May be	food, or poor	dark colouration of urine,
	accompanied by fever, nausea	sanitation	dry tongue or leathery
	or vomiting.		skin
	_		

Measles	A disease of early childhood, characterized by fever and catarrhal symptoms, followed by maculopapular rash in the mouth.	Crowding, poor hygiene	Severe constitutional symptoms, high case fatality rate
Malaria	Painful muscles and joints, high fever with chills, headache, possibly diarrhea and vomiting.	Breeding of Anopheles mosquitoes in stagnant water bodies	Disease may rapidly become fatal, unless medical care is provided within the first 48 hours
Meningococcal meningitis	Infected persons may show no symptoms for a considerable time. When an epidemic is in progress, headache, fever and general malaise will suggest the diagnosis, which must be confirmed by lumbar puncture.	Crowding	Often fatal if untreated at an early stage; neurological problems in survivors
Shigella dysentery	Diarrhoea with blood in the stools, fever, vomiting and abdominal cramps.	Contaminated drinking- water or food, or poor sanitation, poor hygiene	Case fatality rate may be high
Viral Hepatitis A	Nausea, slight fever, pale- colured stools, dark-colured urine, jaundiced eye whites and skin after several days.	Poor hygiene	Long-term disabling effects
Louse-borne typhus	Prolonged fever, headache, body pains.	Unhygienic conditions leading to lice infestations	May be fatal without treatment
Typhoid Fever	Starts off like malaria, sometimes with diarrhoea, prolonged fever, occasionally with delirium.	As for diarrhoea	Without appropriate medical care, may lead to fatal complications in a few weeks
Cholera	Modest fever, severe, but liquid diarrhoea (rice water stools), abdominal spasms, vomiting, rapid weight loss and	As for diarrhoea	As for diarrhoea

	dehydration.		
Dengue and Dengue Hemorrhagic fever (DHF)	High fever, headaches, pain in muscles and joints, red spots on skin.	Breeding of Aedes mosquitoes in natural or artificial containers, filled with water	Dengue usually runs a mild course. DHF, however, is often accompanied by heavy haemorrhages, which may be fatal
Diphtheria	Inflamed and painful throat, coughing.	Crowding, poor hygiene	A secretion is deposited in the respiratory tract, which can lead to asphyxiation
Tetanus	Muscle spasms, starting in the jaws and extending to the rest of the body over several days	Poor hygiene, injury	Fatal
Rabies	Fatigue, headache, disorientation, paralysis, hyperactivity	Bite from infected animal host	Fatal if untreated
Heat Stress	Elevated body temperatures, nausea, vomiting, headache	Excessive temperatures	Risk of coma
Relapsing fever (louse-borne or tick-borne)	Acute high fever at intervals	Unhygienic conditions leading to lice or tick infestations	Often fatal in untreated persons, depending on immunity levels

Road Safety:

Preparedness:

- 1. It is especially important to lower speed while nearing schools, on narrow roads, hilly areas, rural areas and when visibility is poor. Speed-breakers/Bumpers are to be laid near these areas and all the hospitals should have multiple entry/exit points.
- 2. Preference is to be given to pedestrians and children crossing the road.
- 3. Caution signs are very important as they warn about accident-prone spots so that the driver can reduce the speed of the vehicle. Signboards on the road are vital clues about road design so that the person behind the wheel can exercise caution.
- 4. Vehicle must be in good working condition- there should be no compromise on the quality of brakes and tires. RTO should ensure that the vehicles registered under them should be properly inspected before

allowed to hit the roads/also old and substandard vehicles should not be allowed to enter the road. Old vehicles/heavy vehicles (specially) should be checked for air, sound pollutions and its working conditions too.

5. **Roads should be in good condition** with proper signboards. It is vital to install reflectors on roads so that deviations and medians are clearly visible to drivers.

Response:

- 1. Single site the treatment of specific types of accident at a single location
- 2. Mass action plans the application of a known remedy to locations with a common accident problem
- 3. Route action plans tile application of known remedies along a route with a high accident rate
- 4. Area with schemes the applications of various treatments over a wide area of town/city, i.e. including traffic management and traffic calming (speed reducing devices).

Controlling Anti-Socials: (Strength of Para-military and other forces?)

Our main intention is to neutralize the guerrilla hard core while at the same time avoid large scale collateral damage inherent in any counter militancy campaign.

- 1. Ensure strict vigil on the strategic entry points to check the movement of anti-socials. (Preparedness/Response/Mitigation)
- 2. Particular stress should be given on restricting the transportation of contraband items like liquor, arms and ammunitions, explosives and money from either side of the state that might be used by the groups having vested interests to influence the societal peace. (Preparedness)
- 3. The key to success in fighting Naxals effectively lies in obtaining accurate and reliable intelligence. Reliable Public sources should/can be used in this regard. (Response/Preparedness)
- 4. Use of Special Forces like "Greyhound" used in Andhra Pradesh that has shown good results in Anti-Naxalite regard (or) Proper training to the internal "Jharkhand Jaguars" with proper infrastructural development and required arms and ammunition. (Preparedness).
- 5. Finally it would require high level of tactical training with emphasis on mobility, hard hitting combat power, reliance on stealth, surprise and endurance to stay out in the jungles for protracted periods. (Mitigation).

Climate change & mitigation

The adverse impact of climate change in four broad sectors: I) water resources, ii) Agriculture and Animal Husbandry, iii) Forests and Bio diversity, and IV) Health. The plan gives broad strategies and enlists short term and long term measures for mitigation of climate change impacts on all the four sectors and also outlines other measures to counter climate change such as enhanced energy efficiency, building sustainable habitats and increasing strategic knowledge of climate change.

The strategic approaches as suggested in the plan are given below in table.

SECTOR	STRATEGIES
Water resources	Developing a comprehensive database for assessment of impacts of climate change on water resources
	Ground water management with focus on over exploited areas

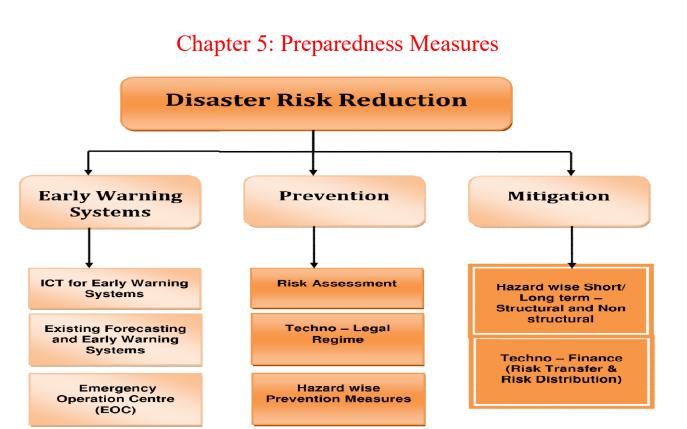
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	Development of drought monitoring and early warning systems		
	Water Conservation and demand management in urban and rural systems		
	Improving water use efficiency		
Forestry and Biodiversity	 Aforestation/ reforestation for maximizing the mitigation potential of forests Monitoring likely shifts in forest types, species, especially in desert ecosystems and sand dunes Integrating traditional knowledge in adaptation techniques 		
Health	Enhancing disease monitoring and surveillance systems		
	Health impact assessments for vulnerable populations		
	Greater inter-sectoral convergence to enhance primary, secondary and tertiary health care		
Engage	Inventorisation and management of Greenhouse gases (GHG)		
Energy Efficiency	Harnessing the full renewable energy potential in the state		
	Focusing on energy efficiency		
Sustainable	Integrating land use and transportation planning habitats		
	Green building legislation		
	Reducing GHG from transport sector		
	Urban waste management		

Risk transfer or Risk distribution

Considering that the assistance provided by the Government for rescue, relief, rehabilitation and reconstruction needs cannot compensate for massive losses on account of disasters, new financial tools such as catastrophe risk financing, risk insurance, catastrophe bonds, microfinance and insurance etc.., will be promoted with innovative fiscal incentives to cover such losses of individuals, communities and the corporate sector.

Crop Insurance

The State Government shall promote agricultural insurance programs suitable for different agro-climatic zones, and ensure that farmers are informed about the availability of insurance products and educate them about the need for managing their yield and income risks through insurance coverage. The state would work with the central government to widen the scope of the National Agricultural Insurance Scheme (NAIS) to include presowing and post-harvest losses.



Preparedness

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

General Preparedness Measures

1. Establishment of the Control Rooms

The district administration should ensure the operation of control rooms. The control rooms which are presently run by major line departments at revenue, police, Hospital, etc. at block and district level should be function able.

2. Plan Updation

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

3. Communication System

Training is given for search and rescue teams, first aid teams, disaster management teams at village, taluka and district level. These teams will provide timely help during any type of disaster. To make provision of wireless

sets at all Sub-division and Taluka Offices for effective communication of cyclone/heavy rainfall/heat waves. Fire Brigades at all the Municipal Offices. Widespread community awareness programmes in drought so that villages are sensitized about the consequences and measures to address drought.

4. Training for Disaster Management Team Members

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

5. Organize the Mock Drills

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

6. Community Awareness on Various Disasters

- Construction of Earthquake Resistant Structures
- -retrofitting the weak structures
- -House insurance
- -construction of watershed structures
- Rehabilitation of people in safe places
- -development of plans for shifting people from vulnerable area to safer area

The contingency plan for Disaster Management is based on past experiences as well as according to the instructions given by the Deputy Commissioner of the district. The mitigation strategy has been developed keeping in view the pre, during and post disaster situation. The district is divided into three sub divisions and senior level officers of the district will work as zone officers who will look after the rescue and relief operations and monitor the day to day situation under the direct supervision of the Deputy Collector.

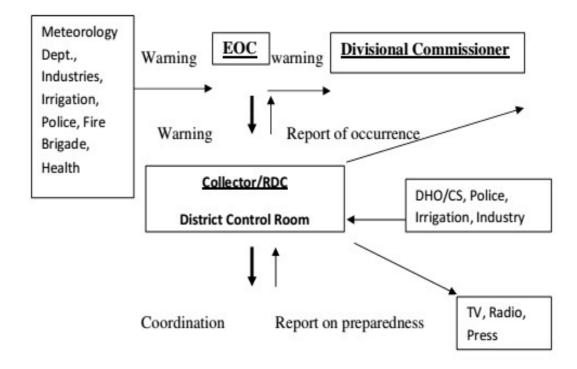
Response mechanism during Warning Stage

At district level, before the occurrence of disaster and immediately after the disaster, the district administration will activate the district control room so that proper information will be provided to the concerned authorit

Incident Response system

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

- 1. Command
- 2. Operations
- 3. Logistics
- 4. Planning
- 5. Finance / Administration



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

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

1. Incident Commander The Incident Commander is responsible for all incident activity. Although other functions may be left unfilled, there will always be an Incident Commander.

2. Operations Section Develops tactical organization and directs all the resources to carry out the Incident Action Plan.

3. Planning Section It is responsible for the collection, evaluation, and display of incident information, maintaining status of resources, and preparing the Incident Action Plan and incident related documentation.

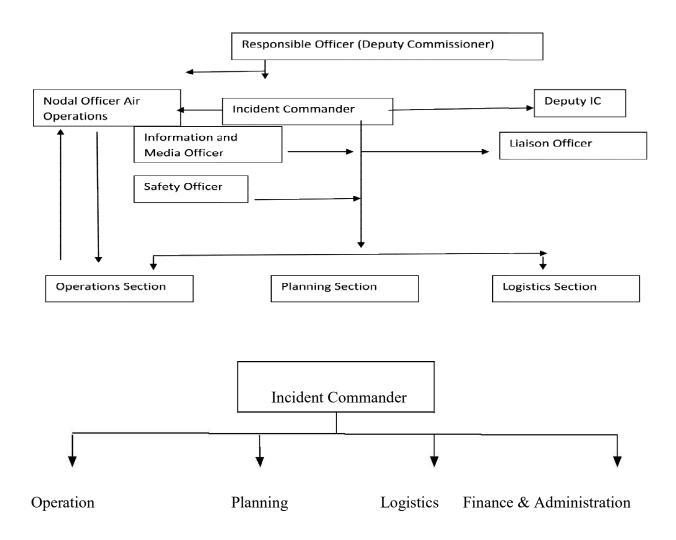
4. Logistics Section Provides resources and all other services needed to support the organization.

5. Finance

Administration Section Monitors costs related to the incident, provides accounting, procurement, time recording, cost analysis, and overall fiscal guidance.

District Incident Response System

At the district level, there will be one District Headquarters Team with the primary function of assisting the Deputy Commissioner in handling tasks like general co-ordination, distribution of relief materials, media management and the overall logistics. Suitable officers from the district administration will be carefully selected and professionally trained for the different IRS positions in order to constitute the District Level Incident Response Teams (DIRTs). The teams will focus on the operational aspects of response management, duly supported by other functions in IRS, e.g. Planning, Logistics, Finance/Administration, etc. The officers drawn for this assignment will be carefully selected by the Deputy Commissioner depending upon their fitness, ability and aptitude for any of the DIRT positions and they will be professionally trained to fulfil their assigned roles. Arrangements will also be made for ensuring their mobilization in a time-bound manner for their deployment to the incidence location.



Chapter 6: Capacity Building and Training Measures

Capacity Building develops and strengthens skills, competencies and abilities of both Government and non-government officials and communities to achieve their desired results during and after disasters, as well as preventing hazardous events from becoming disasters. When undertaking disaster management planning assessments, it is important that the indigenous traditions, methods and materials being used for disaster management locally are considered and incorporated appropriately. Local residents are likely to be the first emergency responders to such incidents, particularly in remote areas and, therefore, critical to the successful outcome. The capacity building plan should cater to the 'differential capacity building needs' based on the functional responsibilities assigned to stakeholders. It should address –

- 1. Institutional capacity building
 - a) Officials / policy makers
 - b) Engineers, Architects, Masons, Doctors, Nurses, Teachers and other professionals
 - c) State Police, Fire Services, State Disaster Response Force
- 2. Community capacity building and Community Based Disaster Management which should also focus on vulnerable groups women, children, aged persons and persons with various kinds of disabilities.
- 3. Training of Trainers
 - i. Civil Defence/Home Guards/Volunteers
- 4. Disaster Management Education
 - I Schools,
 - II Colleges: medical, Engineering
- 5. Skill up gradation and follow up training programmes
- 6. Inventory of trained professionals, engineers, architects and masons, medical Professionals, rescue specialists etc.

Capacity Building on Psycho-social Care in DM:

Every disaster, natural or manmade, results in deaths and injuries, damages and destructions, which are always visible. What are not so visible is the mental agony, trauma and stress of the survivors who have suffered losses of their near and dear or sustained damages of their assets and property. Often such invisible impacts of disasters escape the notices of decision makers till the mental health patients crowd the hospitals or suicide rates go up. Often such distress has continued for years after the physical damages have been restored and reconstructed. Early recognition and counselling could have prevented many such prolonged agonies. Belated though it is there has been recognition of the need and importance of psychosocial counselling immediately after disaster. Often the numbers that need such counselling are far beyond the capacity of available mental health experts. So there is need of community based psycho-social counselling to the community workers and other local level functionaries.

The following organisations/people at district level are the potential on disaster psychosocial care training.

- Department of disaster management, Health, women and child development and Education
- PRI members
- People working in NGOs/CBOs and faith based organisations
- Social workers
- Volunteers in NSS, NYKS, NCC

Chapter 7: Response and Relief Measures

Once the rescue phase is over, the district administration shall provide immediate relief assistance either in case or in kind to the victims of the disaster. The District Disaster Management Authority, Lohardaga & its Emergency Support functionaries shall enter in to pre-contract well in advance and procure materials required for life saving. The office of Deputy Commissioner is responsible for providing relief to the victims of natural & human made disasters like fire, lightning, drought, earthquakes, riot, terrorist attacks, accidents etc. Department of Disaster Management, Govt. of Jharkhand, the scales for grant of relief in various eventualities have been provided to the victims of incidents/disaster as per norms of State Disaster Response Fund (SDRF) and National Disaster Response Fund (NDRF) as per revised period 2015-20, MHA letter No 32-7/2014-NDM-1 dated 8th April, 2015.

Revised List of Items And Norms of Assistance From State Disaster Response Fund (SDRF) and National Disaster Response Fund (NDRF).

(Period 2015-20, MHA letter No 32-7/2014-NDM-1 dated 8th April, 2015.)

S.N.	Item	Norms of Assistance
1.	Gratuitous Relief	
(a)	Ex-Gratia payment to families of deceased persons	Rs. 4.00 lakh per deceased person including those involved in relief operations or associated in preparedness activities, subject to certification regarding cause of death from appropriate authority.
(b)	Ex-Gratia payment for loss of a limb or eyes(s).	Rs. 59,100/- per person, when the disabilities is between 40% and 60%. Rs.2.00 lakh/- per person, when the disability is more than 60%. Subject to certification by a doctor from a hospital or dispensary of Government, regarding extent and cause of disability.
(c)	Grievous injury requiring hospitalization	Rs.12,700/- per person requiring hospitalization for more than a week. Rs.4,300/- per person requiring hospitalization for less than a week.
(d)	Clothing and utensils/house- hold goods for families whose houses have been washed	Rs.1,800/- per family, for loss of clothing. Rs.2,000/- per family, for loss of

	away/fully damaged/severely inundated for more than a week due to natural calamity.	utensils/household goods.
(e)	Gratuitous relief for families whose livelihood is seriously affected	Rs.60/- per adult and Rs.45/- per child, not housed in relief camps. State Govt. will certify that identified beneficiaries are not housed in relief camps. Further State Govt. will provide the basis and process for arriving at such beneficiaries district-wise.
		Period for providing gratuitous relief will be as per assessment of the State Executive Committee(SEC) and the Central Team(in case of NDRF). The default period of assistance will up to 30 days, which may be extended up to 60 days in case of drought/pest attack. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit subject to that expenditure on this account should not exceed 25% of SDRF allocation for the year.
2.	Search & Rescue Operation	
(a)	Cost of search and rescue measures/ evacuation of people affected/ likely to be affected.	As per actual cost incurred assessed by SEC and recommended by central team (in case of NDRF).
		By the time the Central Team visits the affected area, these activities are already over. Therefore, the State Level Committee and the Central Team can recommended actual/near-actual costs.
(b)	Hiring of boats for carrying immediate relief and saving lives.	As per actual cost incurred assessed by SEC and recommended by central team (in case of NDRF).
		The quantum of assistance will be limited to the actual expenditure incurred on hiring boats and essential equipment requiring for rescuing stranded people and thereby saving human lives during a notified natural calamity.

3.	Relief Measures	
(a)	Provision for temporary accommodation, food, clothing, medical care etc. for people affected/ evacuated and sheltered in relief camp.	As per assessment of need by SEC and recommended of the Central Team (in case of NDRF), for a period of up to 30 days. The SEC would need to specify the number of camp, their duration and the number of persons in camps. In case of continuation of a calamity like drought or widespread devastation caused by earthquake or flood etc., this period may be extended to 60 days, and up to 90 days in case of severe drought. Depending on the ground situation, the State Executive Committee can extend the time period beyond the prescribed limit subject to that expenditure on this account should not exceed 25% of SDRF allocation for the year. Medical care may be provided from Nation Rural Health Mission (NRHM).
(b)	Air dropping of essential supplies.	As per actual, based on assessment of need by SEC and recommendation of the Central Team (in case of NDRF). The quantum of assistance
(c)	Provision of emergency supply of drinking water in rural areas and urban areas.	As per actual cost, based on the assessment of need by NEC and recommended by the Central Team(in case of NDRF), up to 30 days and may be extended up to 90 days in case of drought. Depending on the ground situation, the SEC can extend the time period beyond the prescribed limit subject to that expenditure on this account should not exceed 25% of SDRF allocation for the year.
4.	Clearance of Affected Areas	
(a)	Clearance of debris in public areas.	As per actual cost within 30 days from the date of start of the work based on assessment of need by SEC for the assistance to be provided under SDRF and as per assessment of the Central Team for assistance to be provided by NDRF.
(b)	Drainage of flood water in affected areas.	As per actual cost within 30 days from the date of start of the work based on assessment of need by SEC for the assistance to be provided under SDRF and as per assessment of the Central Team for (in

		case of (NDRF).
5.	Agriculture	
(a)	De-silting of agriculture land (where thickness of sand/silt deposit is more than 3", to be certified by the competent authority of the State Govt.)	Rs. 12,200/- per hectare for each item. (Subject to condition that no other assistance/ subsidy has been availed of by/ is eligible to the beneficiary under any other Govt. scheme.)
(b)	Removal of debris on a agricultural land in hilly areas.	
(c)	De-silting /Restoration/repair of fish farms.	
(d)	Loss of substantial portion of land caused by landslide, avalanche, change of course of rivers.	Rs.37,500/- per hectare to only those small and marginal farmers whose ownership of the land is legitimate as per the revenue records.
(e)	Input subsidy where crop loss is 5	50% and above
>	For agriculture crops, horticulture crops and annual plantation crops	Rs. 6,800/- per hectare in rainfall areas and restricted to sown areas. Rs. 13,500/- per hectare in assured irrigated areas, subject to minimum assistance not less than Rs.1000/- and restricted to sown areas.
\	Perennial Crops	Rs. 18,000/- hectare for all type of perennial crops subject to minimum assistance not less than Rs.2000/- and restricted to sown areas.
>	Sericulture	Rs. 4,800/- per hectare for Eri, Mulberry, Tussar Rs. 6000/- per hectare for Muga.
(f)	Input subsidy to farmers having more than 2 Ha of landholding	Rs. 6,800/- per hectare in rainfall areas and restricted to sown areas. Rs. 13,500/- per hectare for areas under assured irrigation and restricted to sown areas. Rs. 18,000/- per hectare for all types of perennial crops and restricted to sown areas. - Assistance may be provided where crop loss is 33% and above, subject to a ceiling

		of 2 hectare per farmer.
6.	Animal Husbandry	
(a)	Replacement of milch animals, drought animals or animals used for haulage.	Milch animals – Rs 30,000/-Buffalo/cow/camel/yak/Mithun etc. RS. 3,000/- Sheep/goat/pig.
		Drought animals - Rs. 25,000/- Camel/Hosrse/Bullock etc.
		Rs.16,000/- Calf/Donkey/Pony/ Mule
		- The assistance may be restricted for the actual loss of economically productive animals and will be subject to a ceiling drought animal or 30 small milch animals or 3 large drought animals or 6 small drought animals per household irrespective of whether a household has lost a large number of animals.
		Poultry –
		Poultry @ Rs. 50/- per bird subject to a ceiling of assistance 5000 per beneficiary household. The death of the poultry birds should be on account of natural calamity.
		Note – Relief under these norms is not eligible if the assistance id available from any other Govt scheme. e.g. loss of birds due to Avian Influenza or any other diseases for which the Department of Animal Husbandry has a separate scheme for compensating the poultry owners.
(b)	Provision of fodder/feed	Large animals – Rs 70/- per day.
	concentrate including water supply and medicines in cattle	Small animals – Rs 35/- per day.
	camps.	Period for providing relief will be as per assessment of the SEC and the Central Team (in case of NDRF). The default period for assistance will be upto 30 days. Which may be extended upto 60 days in the first instance and in case of severe drought up to 90 days. Depending on the ground situation, the SEC can extend the time period

		beyond the prescribed limit, subject to the stipulation that expenditure on this account should not exceed 25 % of SDRF allocation for the year. Based on assessment of need by SEC and recommendation of the Central Team (in case of NDRF) consistent with estimates of cattle as per Livestock Census and subject to the stipulation that expenditure on this account should not exceed 25% of SDRF allocation for the year. Based on assessment of need by SEC and recommendation of the Central Team (in case of NDRF) consistent with estimates of cattle as per Livestock Census and subject to the certificate by
		the competent authority about the requirement of medicine and vaccine being calamity related.
(c)	Transport of fodder to cattle outside cattle camps.	As per the actual cost of transport, based on assessment of need by SEC and recommendation of the Central Team (in case of NDRF) consistent with estimated of cattle as per Livestock Census.
7.	Fishery	
(a)	Assistance to Fisherman for repair/replacement of boats, nets – damaged or lost(boat, dugout-canoe, catamaran, net). This assistance will not be provided if the beneficiary is eligible or has availed of any subsidy/assistance, for the instant calamity, under any other Govt. Scheme.	Rs.4,100/- for repair of partially damaged boats only. Rs.2,100/- for repair of partially damaged net. Rs.9,600/- for repair of fully damaged boats. Rs.2,600/- for repair of fully damaged net.
(b)	Input subsidy for fish seed farm	Rs.8,200/- per hectare.(This assistance will not be provided if the beneficiary is eligible or has availed of any subsidy/assistance, for the instant calamity, under any other Govt. Scheme of Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture.)

8.	Handicrafts/Handloom – Assistance to Artisans		
(a)	For replacement of damaged tools/equipment.	Rs. 4,100/- per artisan for equipments. (Subject to certification by the competent authority designated by the Govt. about damage and its replacement).	
(b)	For loss of raw-materials/goods in process/finished goods.	Rs. 4,100/- per artisan for raw material.(Subject to certification by the competent authority designated by the Govt. about damage and its replacement).	
9.	Housing		
(a)	Fully damaged/destroyed houses. (Pucca and Kutcha house)	Rs. 95,100/- per house in plain areas. Rs. 1,01,900/- per house in hilly areas including Integrated Action plan(IAP) districts.	
(b)	Severely damaged houses. (Pucca and Kutcha house)	integrated rector plan(i) if y districts.	
(c)	Partially damaged houses		
	- Pucca (other than huts) where the damage is at least 15%.	Rs.5,200/- per house	
	- katcha (other than huts) where the damage is at least 15%.	Rs.3,200/- per house	
(d)	Damaged/destroyed huts .	Rs. 4,100/- per huts (Huts means temporary, make shift unit, inferior to kutcha house, made of thatch, mud plastic sheets etc. traditionally recognized as huts by the State/District authorities.) Note — The damaged house should be an authorized construction duly certified by the Competent Authority of the State Govt.	
(e)	Cattle shed attached with	Rs. 2,100/- per shed	
10.	Infrastructure		
	Repair/restoration (of immediate nature) of damaged infrastructure. > Roads & bridges > Drinking water supply	Activities of immediate nature — Activities which may be considered as works of an immediate nature are given in the appendix. Assessment of requirement —	

works

- > Irrigation
- Power(only limited to immediate restoration of electricity supply in the affected areas)
- > School
- > Primary health centre
- Community assets owned by panchayat

Sector such as Telecommunication and power (expect immediate restoration of power supply), which generate their own revenue, and also undertake immediate repair/restoration works from their own funds/resources are excluded.

Based on assessment of need, as per State's cost/rate/schedules for repair by SEC and recommendation of the Central Team (in case of NDRF).

-As regards repair of roads, due to consideration shall be given to Norms for maintenance of roads in India, 2001 as amended from time to time, for repair of roads affected by heavy rains, floods, cyclone, landslide ,sand dunes etc. to restore traffic. For reference these norms are-

- * Normal and Urban areas: up to 15% of the total of ordinary repair (OR) and periodical repair (PR).
- * Hills: up to 20% of total of OR and PR.

-In case of repair of roads, assistance will be given based on the notified ordinary repair and periodical renewal of the state. In case of OR & PR rate is not available, then assistance will be provided@Rs.1 lakh/km for state highway and Major district road and @Rs.0.60 lakh/km for rural roads. The condition of state shall first use its provision under the budget for maintenance and repair will no longer be required, in view of the difficulties in monitoring such stipulation, though it is desirable goal for all the States.

-In case of repair of bridges and irrigation works, assistance will be given as per the schedule of rates notified by the concerned states. Assistance for micro irrigation scheme will be provided@Rs. 1.5 lakh per damaged scheme. Assistance for restoration of damaged medium and large irrigation projects will also be given for the embankment portions, on par with the case of similar rural road subject to the stipulation that no duplication would be done with any ongoing schemes.

-Regarding repairs of damaged drinking water schemes, the eligible damaged drinking water structures will be eligible for assistance @ Rs.1.5

		lakh/damaged structure.
		-Regarding repair of damaged primary and secondary schools, primary health centres, Anganwadi and community assets owned by the panchayats, assistance will be given @ Rs. 2 lakh/damaged structure.
		-Regarding repair of damaged power sector, assistance will be given to damaged conductors, poles and transformers upto the level of 11 kv. The rate of assistance will be @Rs.4000/poles, Rs.0.50 lakh per km of damaged conductor and Rs.1.00 lakh per damaged distribution transformer.
11.	Procurement	
	Procurement of essential search, rescue and evacuation equipments including communication equipments, etc. for response to disaster.	-Expenditure is to be incurred from SDRF only (and not from NDRF), as assessed by the SEC. -The total expenditure on this item should not exceed 10% of the annual allocation of the SDRF.
12.	Capacity building	-Expenditure is to be incurred from SDRF only (and not from NDRF), as assessed by the SEC. -The total expenditure on this item should not exceed 5% of the annual allocation of the SDRF.)
13.	State specific disasters within the local context in the state, which are not included in the notified list of disasters eligible for assistance from SDRF/NDRF, can be met from SDRF within the limit of 10% of the annual funds allocation of the SDRF.	-Expenditure is to be incurred from SDRF only (and not from NDRF), as assessed by the SEC. -The norm for various items will be the same as applicable to other notified natural disasters, as listed above, or -The flexibility is to be applicable only after the State has formally listed the disasters for inclusion and notified norms and guidelines with a clear procedure for identification of the beneficiaries for disaster relief for such local disasters, with the approval of SEC.

Minimum Standards of Relief for victims of disaster -

DDMA, Lohardaga shall rendered relief to the disaster victims as per minimum standards of relief suggested by NDMA :

S.N.	In respect of relief camps	Steps to ensure Minimum Standards
1.	Shelters	 Identification of the Relief Centres in each Block of the District. Each relief centres shall be temporary in nature and must have 3.5 sq.m of covered areas per person. Each centres have basic facilities like toilets, water supply, electricity supply as well as power back up with fuel etc. Safety of inmates and special arrangements to differently able persons, old and mentally serious patients should be giving top most priority. District Nazarat office shall be in MOU with supplier to provide all the items may require in case of Disaster.
2.	Food	 Each relief centre must have adequate quantity of food especially for Aged & Children. Arrangements of milk & other dairy products shall be provided to the children & lactating mothers. Hygiene at community & at camp kitchens. Date of manufacturing and date of expiry on the packaged food items shall be kept in view before distribution. Supplied food with calorie of 2400 Kcal per day for adult and 1,700 Kcal per day for infants.
3.	Water	 Maximum distance from the relief camp to the nearest water point shall be not be more than 500 mts. Sufficient quantity of water shall be provided in the relief camps for personal cleanliness and had wash. Minimum supply of 3 litters of water per person per day is made available in the relief camps. In case of safe drinking water is not possible at least double chlorination of water needs to be ensured.

4.	Sanitation	 One toilet for 30 persons may be arranged or built. Separate toilet and bath area for women and children. 15 litters of water per person needs to be arranged for toilets/bathing. Hand wash facilities in the toilets should be ensured. Dignity kits for women shall be provided with sanitary napkins and disposable paper bags with proper labelling. Steps may be taken for control of spread of diseases. Toilets should not be more than50 m away from the relief camps. Pit Latrines and Soak ways shall be at least 30 m from any ground water source and the bottom of any latrine has to be at least 1.5 m above the water level. Drainage or spilling from the defection system shall not run towards any surface water source or shallow ground water source.
5.	Medical Cover	 Steps shall be taken to avoid spread of any communicable diseases. Helping should be set up contact number and details shall be adequate publicized. For pregnant women, arrangement of basic arrangements for safe delivery. All the hospitals, doctors and paramedical staff are available in short notice. Doctors and paramedical staff should be available on 24x7 basis in the relief centres. In case of referral cases to the hospitals suitable transportation shall be arranged. Medical emergency/contingency plan should be activated in case of mass casualty.
6.	Relief for Widows Orphans & PWD (personwith disabilities)	 Separate register duly counter signed by officials having complete details women who are widowed and for children who are orphaned due to disaster shall be maintained and kept in permanent record. Special care shall be given to widow and orphaned who are separated from the family. Very special care will be given to PWD(person with disabilities) at the time of disaster facilities

	like drinking water, sanitation, food & medical
	care.

Role of Emergency Operation Centre (EOC) for Relief:

EOC is a nodal point for the overall coordination and control of relief work in case of any disaster situation. In case of any disaster district level EOC has to be activated. The primary function of EOC is to facilitate smooth inflow and outflow of relief and other disaster related activities. These EOCs act as bridges between state and centre government.

State Level Disaster: Lightning

Lightning – vide sankalp 1055, 11.09.2015 and depletion of water level more than 4 ft has been declared state specific disasters within the local context in the State Jharkhand, which are not included in the notified list of disasters eligible for assistance from SDRF/NDRF. Thirteen deaths have been already reported due to lightning in the District Lohardaga in this financial year 2015-2016 so far.

List of activities identified as of an immediate nature:

S.N.	Topic	Activities
1.	Drinking Water Supply	 Repair of damaged platforms of hand pump/ring wells/spring-tapped chambers/public stand posts. Restoration of damaged stand posts including replacement of damaged pipe length with new pipe lengths, cleaning of clear water reservoir(to make it leak proof). Repair of damaged pumping machines, leaking overhead reservoirs and and water pumps including damaged intake- structure, approach gantries/jetties.
2.	Roads	 Filling up of breaches and potholes, use of pipe for creating waterways, repair and stone pitching of embankments. Repair of breached culverts. Providing diversions to the damaged/washed out portions of bridges to restore immediate connectivity. Temporary repair of approaches to bridges/embankments of bridges, repair of damaged railing bridges, repair of causeways to restore immediate connectivity, granular sub base,

		over damaged stretch of roads to restore traffic.
3.	Irrigation	 Immediate repair of damaged canal structure and earthen/masonry works of tanks and small reservoirs with the use of cement, sand bags and stones. Repair of weak areas as piping or rat holes in dam walls/embankments. Removal of vegetative material/building material/debris from canal and drainage system. Repair of embankments of minor, medium and major irrigation projects.
4.	Health	Repair of damaged approach roads, buildings and electrical lines of PHCs/Community Health Centres.
5.	Community assets of Panchayat	 Repair of village internal roads. Removal of debris from drainage/sewerage lines. Repair of internal water supply lines. Repair of street lights. Temporary repair of primary schools, panchayat ghars, community halls, anganwadi, etc.
6.	Power	➤ Poles/Conductors and Transformers upto 11 kv.
7.	The assistance will be considered as per the merit toward the following activities:	
(a)	1.Damaged primary school building . 2.Higher secondary /middle/college and other educational institutions building.	Upto Rs. 1.50 lakh/unit. 2. Not covered.
(b)	Primary health centre	Upto Rs. 1.50 lakh/unit.
(c)	Electric poles ad wires etc.	Normative cost (upto Rs. 4000 per pole and Rs.0.50 lakh per km)
(d)	Panchayat ghar/ Angnawadi/Mahila mondal/Yuva	Upto Rs. 2 lakh/unit.

	Kendra/Community hall	
(e)	State highways/Major district road	Rs.1.00 lakh/km
(f)	Rural road/bridge	Rs. 0.60 lakh/km
(g)	Drinking water scheme	Upto Rs. 1.50 lakh/unit.
(h)	1.Minor irrigation schemes/canal.	1.Upto Rs.1.50 lakh/schemes.
	2.Major irrigation scheme.	2. Not covered.
	3.Flood control and anti erosion protection work.	3. Not covered.
(i)	Hydro power project/HT distribution systems/Transformers and subs stations.	Not covered.
(j)	High tension lines (above 11 kv)	Not covered.
(k)	State Govt buildings viz. Departmental/office building, departmental/residential quarters, religious structures, patwarkhana, court premises, play ground, forest bungalow property and animal/ bird sanctuary etc.	Not covered.
(1)	Long terms/Permanent restoration work incentive.	Not covered.

(j)	Any new work of long term nature.	Not covered.
(k)	Distribution of commodities.	Not covered.(However, there is provision for the assistance as GR to families in dire need of assistance after a disaster)
(1)	Procurement of equipments/machineries under NDRF.	Not covered.
(m)	National highway	Not covered. (Since GOI born entire expenditure towards restoration work activities.)
(n)	Fodder seed to augment fodder Production.	Not covered.

The Department of Disaster Management, Government of Jharkhand, have been allotted budget under their respective heads of Accounts – Major Heads 2245 Relief on account of Disaster Management to meet the expenditure on payments of gratuitous relief, in case of any incident, natural calamities like fire, bomb blast, earthquake, etc as well as Human induced Disaster. Further, Powers to sanction of relief to the victims have already been delegated to all the Deputy Commissioner, being Head of Department in all cases vide sankalp 604 dated 18.05.2015 except infrastructure & Natural Disaster like Drought in accordance with the scale approved in the SDRF to ensure timely disbursal of relief. To make the process more effective and transparent, relief should be expedite within 30 days after Disaster and should be credited to the Disaster victims via DBT. In case of Natural Calamities like Drought, agricultural assistance or relief shall be provided as per decisions of Sate Executive Committee, Jharkhand State Disaster Management Authority (SDMA).

Chapter 8: Reconstruction, Rehabilitation and Recovery Measures

Reconstruction and rehabilitation activities come under the post-disaster phase. Currently, the activities in this phase are primarily carried out by the local bodies (Gram Panchayats, District, Blocks, Municipal Corporations and Municipalities etc..) and various Government departments and boards. However, their activities in this phase shall be in accordance with the reconstruction and rehabilitation plans framed by JSDMA, in conjunction with implementing authorities. The reconstruction and rehabilitation plan is design specifically for worst case scenario. It is activated in case of L3 type of disaster in which the capacity of State and District authorities have been overwhelmed and require assistance from the Central Government for re-establishing normalcy in the affected districts

The key activities in this phase are as below-

Detailed Damage Assessment

While a preliminary damage assessment is carried out during disaster phase, a detailed assessment must be conducted before commencing reconstruction and rehabilitation activities. The relevant Government departments and local authorities shall initiate detailed assessment at their respective level for damages sustained in housing, industry/services, and infrastructure, agriculture, health / education assets in the affected regions.

Assistance to restore houses & dwelling units

GoJ may, if needed, will formulate a policy of assistance to help the affected to restore damaged houses and dwellings. This should neither be treated as compensation for damage nor as an automatic entitlement.

Relocation (Need based)

The GoJ believes that need-based considerations and not extraneous factors drive relocation of people. The local authorities, in consultation with the people affected and under the guidance of JSDMA, shall determine relocation needs taking into account criteria relevant to the nature of the calamity and the extent of damage. Relocation efforts will include activities like:

- Gaining consent of the affected population
- Land acquisition
- Urban/ rural land use planning
- Customizing relocation packages
- Obtaining due legal clearances for relocation
- Getting the necessary authorization for rehabilitation
- Livelihood rehabilitation measures for relocated communities, wherever necessary

Dispute resolution mechanisms

JSDMA, in conjunction with relevant agencies, shall institutionalize mechanisms to address beneficiary grievances at various levels, as well as explore innovative ways of dispute minimization like involving the community in reconstruction initiatives. Appropriate mechanism with penalties for dealing with false claims will be evolved to prevent misuse of assistance.

Implementing initiatives for recovery reconstruction costs

The GoJ shall finalise and implement select recovery measures such as:

- Imposing tax surcharge levies (central);
- Imposing local taxes;
- Facilitation of funding responsibility sharing by beneficiaries etc..

Functions of Recovery

For the purpose of effective coordination aspects of recovery are conceptually grouped into four functions. It is important to acknowledge that the four functions of recovery overlap and recovery arrangements must reflect the inter-relationship between each of these functions.

Economic:

Economic recovery includes renewal and growth of the micro economy (within the affected area) and the macro economy (overall economic activity of the state). Economic recovery includes individual and household entities (e.g. employment, income, insurance claims), private and government business enterprises and industry. It includes assets, production and flow of goods and services. It includes capacity for the export of goods and services from the affected region, and securing confidence of overseas markets.

Environment:

Environment, or natural environment, recovery includes restoration and regeneration of biodiversity (species and plants) and ecosystems, natural resources, environmental infrastructure, amenity/aesthetics (e.g. scenic lookouts), culturally significant sites and heritage structures. It includes management of environmental health, waste, contamination and pollution and hazardous materials.

Human-social:

Human-social recovery includes personal support and information, physical health and emotional, psychological, spiritual, cultural and social well-being, public safety and education, temporary accommodation, financial assistance to meet immediate individual needs and uninsured household loss and damage.

Infrastructure:

Infrastructure, or built environment, recovery includes repair and reconstruction of residential and public buildings, commercial, industrial and rural buildings and structures, government structures, utility structures, systems and services (transport, water, sewage, energy, communications) and other essential services.

Parameters and Constraints

In many instances multiple agencies may be involved in the delivery of specific community recovery services. This is particularly the case with more significant or complex disaster events. In providing community recovery services agencies can adopt either a lead agency role or a support role.

Operational and Action Plans

Where a recovery team is formed and which undertakes recovery as the result of an event, a Recovery Group Implementation Plan is to be developed and forwarded to the DDMA for review and approval.

Post Disaster Reconstruction and Rehabilitation

Post disaster reconstruction and rehabilitation should pay attention to the following activities for speedy recovery in disaster hit areas. The contribution of both government as well as affected people is significant to deal with all the issues properly.

- Damage assessment
- Disposal of debris
- Disbursement of assistance for houses
- Formulation of assistance packages
- Monitoring and review
- Cases of non-starters, rejected cases, non-occupancy of houses
- Relocation
- Town planning and development plans
- Reconstruction as Housing Replacement Policy
- Awareness and capacity building
- Housing insurance
- Grievance redress

Administrative Relief

The district is the primary level with requisite resources to respond to any natural calamity, through the issue of essential commodities, group assistance to the affected people, damage assessment and administrating appropriate rehabilitation and restoration measures. The district level relief committee consisting of official and non-official members including the local legislators and the members of parliament review the relief measures.

A district is sub-divided into sub-divisions and tahsils or talukas. The head of a sub-division is called the Sub-Division Officer (SDO) while the head of a Tahsil is known as a Tehsildar. When a disaster is apprehended, the entire machinery of the district, including the officers of technical and other departments, swings into action and maintains almost continuous contact with each village in the disaster threatened area.

Reconstruction of Houses Damaged / Destroyed

Houses should be reconstructed in the disaster hit areas according to the following instructions:

- Owner Driven Reconstruction
- Public Private Partnership Program (PPPP)
- Under the PPPP the houses are reconstructed by the NGOs for the beneficiaries to be registered in the joint names of the husband and wife.
- All the houses should be insured.
- Financial, technical and material assistance provided by the government.
- The designs for seismic reconstruction of houses provided by the government.
- The material assistance provided through material banks at subsidized rates.
- Design of 20 model houses provided to the public to choose from with an option to have one's own design.

Military Assistance

If the district administration feels that the situation is beyond its control then immediate military assistance could be sought for carrying out the relief operations.

Medical Care

Specialized Medical Care may be required to help the affected population. Preventive medicine may have to be taken to prevent outbreak of diseases.

Epidemics

In the relief camps set up for the affected population, there is a likelihood of epidemics from a number of sources. The strategy should be to subdue such sources and immunize the population against them. The public health centres, health departments can practice vaccination drives, public awareness to drink boiled water, use chlorine tablets to purify the water sources.

Corpse Disposal

Disposal of dead bodies is to be carried out as a part of the operation to prevent outbreak of epidemics. Minimum official requirements should be maintained as it is a very sensitive issue.

The following points may be considered by the concerned authorities at the time of corpse disposal:-

- Mass photographs of corpses,
- Consent of the relatives or hand over to them
- Make a panchnama of concerned localities.

Salvage

A major effort is needed to salvage destroyed structure and property. Essential services like communications, roads, bridges, electricity would have to be repaired and restored for normalization of activities.

Outside Assistance

During disaster situations, considerable relief flows in from outside, thus there is an immediate need to co-ordinate the relief flows so that the maximum coverage is achieved and there is no duplication of work in the same area.

Special Relief

Along with compensation packages, essential items may have to be distributed to the affected population to provide for temporary sustenance.

Information

Information flow and review is essential part of the relief exercises. Constant monitoring is required to assess the extent of damage, which forms the basis of further relief to the affected areas.

Social Rehabilitation

Disabled persons

- Artificial limbs fitted to affected persons.
- Modern wheelchairs, supportive devices provided.

Children

- Orphaned children are fostered.
- Day centres set up
- Orphanages established.
- Child help lines established.

Paraplegics

- Pension scheme introduced for paraplegics.
- Physiotherapy under continuous supervision of doctors.
- Old Persons
- Aged persons given pensions.
- Old Age Homes established.

Women

- Pension sanctioned.
- Women's Livelihood Restoration Project started.
- Self-employment Schemes for Women.

Infrastructure

- Power
- Water supply
- Public buildings
- Roads and Bridges
- Dams and Irrigation.

Chapter 9: Financial Resources for implementation of DDMP

Budget and other financial allocations:

(According to ACT No. 53 of 2005 – the Disaster Management Act, 2005, Chapter IX, Finance, Account and Audit.) 48-Establishment of funds by the State Government . The State Government shall immediately after notifications issued for constituting the State Authority and the District Authorities, establish for the purposes of this Act the following funds, namely:-

- a) The fund to be called the District Disaster Response Fund;
- b) The fund to be called the District Disaster Mitigation Fund;

Chapter IX, Section 50 – Emergency procurement and accounting Where by reason of any threatening disaster situation or disaster, the National Authority or the District Authority is satisfied that immediate procurement of provisions or materials or the immediate application of resources are necessary for rescue or relief, -

- a) It may authorize the concerned department or authority to make the emergency procurement and in such case, the standard procedure requiring inviting of tenders shall be deemed to be waived;
- b) A certificate about utilization of provisions or materials by the controlling officer authorized by the National Authority, State Authority or District Authority, as the case may be, shall be deemed to be a valid document or voucher for the purpose of accounting of emergency, procurement of such provisions or materials. Special budget at district, taluka and village level should be allocated for training of various teams against disaster, purchasing of equipment to save the life and property of the people, organizing mock drills to create awareness among the people, updating the disaster management plans, etc. Fund allocation should be made by Zilla Parishad, Panchayat Samiti and Gram Panchayat to carry out the following DRM activities:-
- a) To train Search and Rescue, First Aid groups
- b) To create awareness among the people
- c) To procure search and rescue materials
- d) To evacuate and set up temporary shelter for disaster victims

Chapter 10: Procedure and methodology for monitoring, evaluation, updation and maintenance of DDMP

Detail of review and evaluation plan

Evaluating the effectiveness of plans involves a combination of training events, exercises etc. to determine whether the goals, objectives, decisions, actions and timing outlined in the plan will result in an effective response. So the District Disaster Management Plan shall be reviewed periodically and also after every disaster that occurs in the district or in a neighbouring district where support relief was provided by district. The effectiveness of the DDMP and Sub-plans shall be reviewed against the below mentioned criteria:

- As per Sub Section (4) of Section 31 of the Disaster Management Act, 2005, the plan would be reviewed and updated annually and the year in which the plan has been reviewed would be clearly mentioned in shape of header in each page of the plan.
- Keep District, State and National Disaster Resource Inventory updated (SDRN / IDRN) and connected with the plan.
- Update coordinates of responsible personnel and their roles / responsibility every six months or whenever a change happens. Names and contact details of the officers/officials who are the nodal officers or the in-charge of resources to be updated on regular basis.
- The plan specifies roles and responsibilities of all lead combat and support agencies in response and recovery.
- The plan identifies key individuals by titles that are responsible for carrying out specific functions in response and recovery.
- The plan identifies individuals by title with responsibility for plan development and maintenance.
- The plan includes a logical aim.
- The plan is consistent with higher level plans.
- The plan provides for special needs of vulnerable community groups (e.g. the aged, disabled or destitute).
- The plan is reviewed and agreed to by all agencies assigned responsibilities.
- Provision is made for distribution of amendments to all plan holders.
- Private sector and voluntary organizations that can provide assistance are identified.

Post disaster Review Plan

The District Disaster Management Plan is to be reviewed and updated after the occurrence of a disaster in the district. The main objective of the review is to record the event facts and first hand experiences of the department personal. This activity will help to make the DDMP better by identification of gaps and suggestions for filling of the same.

Periodic updation

The District Disaster Management Plan is to be reviewed every 6 months. This is to check for changes in the district conditions from the past 6 months and update based on the impacts of these changes. The updation is to be undertaken by all the Functional Departments at their levels. The following schedule is to be followed for periodic updation.

Chapter 11: Coordination Mechanism for implementation of DDMP

Introduction

There are a number of participants in a typical disaster relief operation. Participants may include; national government, local government, national and international humanitarian organizations, expert and volunteer rescue teams, third-party logistics providers, suppliers of goods used for disaster relief, and the affected people. Coordination of Response at the District Level, The District Magistrate/DC is the head of the District administrative set up and chairperson of the DDMA as per the DM Act, 2005. He has been designated as the RO in the District. The heads of different departments in the District will have separate roles to play depending on the nature and kind of disaster. The roles and responsibilities of the members of the DDMA will be decided in advance in consultation with the concerned members.

SDMA SDMA will be involved in the following activities: Search and Rescue operations, Providing Temporary Shelters, Public Information, Relief Distribution, Construction materials, Restoration of infrastructure.

DDMA DDMA will be involved in the following activities: Providing Temporary Shelters, Construction materials, Restoration of infrastructure.

Fire Services Fire will be involved in the following activities: Search and Rescue operations, Evacuation, Public Information.

PWD PWD will be involved in the following activities: Construction materials, Restoration of infrastructure, Providing temporary shelters.

Civil DefenceCivil Defence and Home Guards will be involved in the following activities: Cordoning of area, Search and Rescue operations, Evacuation, First Aid operations.

Home Guards Providing Temporary Shelters, Relief Distribution, Reception/ Information Centres.

Deptt. of Health Deptt. Of Health will be involved in the following activities: Medical aid (Treatment of injuries and surgical operations), Health and sanitation Disposal of Dead (as per customs).

Irrigation and Flood Control Irrigation and Flood Control Department will be involved in the following activities: Construction materials, Restoration of infrastructure.

BSNL BSNL will be involved in the following activities: Communication, Reception/Information Centres, Restoration of infrastructure.

Red Cross Red Cross will be involved in the following activities: Providing Temporary Shelters, Medical aid (Treatment of injuries and surgical operations), Health and sanitation, Relief Distribution.

PR Deptt. PR will be involved in the following activities: Public Information, Communication, Reception/ Information Centres.

Army and NCC Army will be involved in the following activities: Search and Rescue operations, Evacuation, Traffic Management and Security of properties, Temporary Shelters, Disposal of Dead, Relief Distribution, Relief Supplies.

Air Force Air Force will be involved in the following activities: Search and Rescue operations, Aerial Reconnaissance, Evacuation, Disposal of Dead, Relief Distribution, Relief Supplies, Restoration of infrastructure.

NGOs emerging trends in managing natural disasters have highlighted the role of nongovernmental organizations (NGOs) as one of the most effective alternative means of achieving an efficient communications link between the disaster management agencies and the effected community. In typical disaster situation, they can be of help in preparedness, relief and rescue, rehabilitation and reconstruction and also in monitoring and feedback. The role of NGOs is a potential key element in disaster management. The NGOs operating at grassroots level can provide a suitable alternative as they have an edge over governmental agencies for invoking community involvement. This is chiefly because, the NGO sector has strong linkages with the community base and can exhibit great flexibility in procedural matters vis-à-vis the government.

Chapter 12: Standard Operating Procedures (SOPs) and checklist.

Section 30(2) (xvi) of the Disaster Management Act stipulates that the DDMA under the chairmanship of the Collector and the co-chair of the elected representative of the local authority, shall 'coordinate response to any threatening disaster situation or disaster'. The Collector/District Magistrate as the head of administration at the district shall be the focal point in the command and control for disaster response at the district level, in accordance with the policies/guidelines/instructions from the national and state levels. Depending on the nature of disaster and response he will be the Incident Commander himself or delegate the responsibility to some other officer.

The Procedures for dealing with disasters will be as per the District Disaster Management Plan for Cyclones, Floods, Drought, etc.. In the normal times a high powered committee holds a meeting of the stakeholder departments twice in a year in the 2nd /3rd week of April and September every year, headed by the district collector. DDMA meetings shall be held once every half yearly.

Objective of SOPs:

- To provide, in a concise and convenient form, a list of major executive actions involved in responding to natural disasters and necessary measures for preparedness, response and relief activities to be taken
- To prevent/ reduce potential losses/damage due to hazards.
- To attain and resilient recovery.
- To indicate various actions this would be required by the District Administration within their sphere of responsibilities so that they may prepare and review the Departmental Action Plans accordingly.
- To ensure that all concerned Departments of the Government, know the precise measures required of them at each stage of the process and also to ensure that all actions are closely and continuously monitored.

Police Department



S D P O: Sub-divisional Officer Police

Dy. S P: Deputy Superintendent of

The Police Department is one of the key Government departments. Both in the normal times when no disasters occur and in times of disasters, this department is an asset to community and it has to respond very well in various critical events.

Normal Times

- 1. SP of Dist. will make arrangements for providing adequate number of mobile VHF sets up to District/Blocks/village Police stations for meeting the exigencies.
- 2. Ensure that Police stations are equipped with sufficient number of cars/jeeps fitted with wireless sets and trained personnel to handle them.
- 3. List out trained persons responsible at Dist., Blocks and Village level Police stations for disaster management activities with details of address and phone numbers. Provide this list to Dist Collector and concerned line departments.
- 4. Prepare a Dist. wise list of retired/reserve constables/drivers/ other use-full personnel. Their services could be used during future emergencies. The lists will be kept in all Police stations in vulnerable areas.
- 5. Plan and execute Dist. wide training programs for Police personnel with improved techniques for better management of disasters in future.

Pre disaster phase

1. The Police authorities shall provide VHF/Mobile wireless sets with operators in Control Room at Dist. Collectorate and at other temporary Control Rooms already setup. Ensure

adequate numbers of VHF sets are provided at Blocks and vulnerable villages for effective communication.

- 2. Establish communication with Control Room. Wireless station to be kept round the clock if necessary wireless stations to be set near the villages. And keep the officers standby.
- 3. Collect information of vulnerable points and diversion routs for all Roads in the district from the engineering departments responsible for the maintenance and plan for traffic control.
- 4. Procurements of necessary equipment, storage of petroleum and other lubricants.
- 5. Pass effectively all communications of warnings and precautions received from Control rooms and media to the public through announcements and by loud speakers.
- 6. Shall obtain sufficient maps from the Collectorate regarding vulnerable village's areas/habitations. These maps shall be distributed to the sub-divisional officers/circle inspectors on as required basis.
- 7. Training to teams on Disasters, roles and responsibilities and allotment of duties to these effected areas.

During disaster phase

- 1. Ensure passage of warnings and precautions to the people in affected areas of Blocks and Village Police Communication network. Alert teams and arrange to deploy them at risk points.
- 2. Keeping close contact with District Collectorate, and collect all vital information and inform district authorities. And Coordinate the search & rescue operations.
- 3. Superintendent of Police will coordinate with District Collector, DROs and other agencies for providing assistance to rescue and evacuate people in the affected areas of Blocks and Villages.
- 4. Provide guidance and assistance for forming task forces by MROs for evacuation, rescue and emergency relief operations.
- 5. Help revenue and medical department in transporting Injured and sick persons to Medical centres.
- 6. Ensure enforcement of law and order in the affected/evacuated villages and at shelters to avoid thefts and unlawful acts.
- 7. Assisting the community in organizing emergency transport for injured.

Post disaster phase

- 1. Continue to pass warnings and precautions to the people in affected areas. Introduce latest transport and communication facilities.
- 2. Assist local officers in identifying the dead persons and for making proper records. Continue to Coordinate with DCs for rescue, relief and rehabilitation. Police Dept. should

provide maximum services by getting additional persons from Police stations of unaffected Districts. They should further coordinate and assist NCC, Scouts, Guides, Army, Navy and Air force personnel in all rescue, relief and rehabilitation activities.

- 3. Update list of trained Police personnel at Districts. /Blocks and provide them to concerned authorities. And up-date lists of retired constables and drivers in each Dist. /Blocks for use during future disasters.
- 4. Provide assistance to people who are in a position to move from relief camps to their places where ever normalcy returns. Ensure strict maintenance of law and order in the affected/evacuated villages and at shelters.
- 5. Officers made available to inquire into and record of deaths, and make arrangements for post mortem of dead person with legal procedure for speedy disposal. Assistance to district authorities for taking necessary action against hoarders, black marketers and those found manipulating relief material and Provide security / band bust to VIPs.

Medical & Health department



Normal Phase

- 1) District Superintendents of District Hospital shall prepare a Hospital Disaster management Plan to deal with mass causality management and emergencies.
- 2) Take precautionary measures for hospital safety during disasters since hospitals are life line buildings so as to serve uninterruptedly. All structural and non- structural measures shall be taken up to make hospital safe.
- 3) Conduct mock drills in normal times to have an idea about hospital preparedness.
- 4) To identify the requirements of equipment and medical stocks that is needed during various kinds of emergencies.

- 5) To build network with referral hospitals, blood banks, ambulance services, etc.
- 6) To prepare a contingency plan as a part of Hospital DM Plan to handle specialized emergencies during Chemical, Industrial, Nuclear Disasters, etc..

Pre disaster phase

- 1. Prepare a list of precautions to be taken by the public before, during and after the disaster to ensure that they maintain normal health under adverse conditions during the disasters and arrange for propagation in the Dist.
- 2. DMHO to prepare and circulate in vulnerable areas, a list of precautions to be taken by the public before, during and after the disaster to ensure that they maintain normal health under adverse conditions.
- 3. Plan methods for quick transportation of seriously injured and sick person from disaster areas to specialties hospitals for effective treatment.
- 4. DMHO will have arrangements for providing funds to Dist./Blocks/Village medical centres during emergencies. DMHO will nominate a nodal officer from his Dept. to be with MRO-MPDO, assist and coordinate all the medical relief activities during the disaster.
- 5. After receiving the first flood warning, alert Dist. Medial Health Officer (DMHO) to plan and keep in readiness mobile hospitals, emergency field medical teams, Para medical teams, surgery facilities, first aid kits etc. with sufficient equipment and medicines at Dist. Hospitals and PHCs. They should be in a position to move to the affected areas at short notice.
- 6. Keep teams of doctors ready with stocks of medicines required for relief to move to vulnerable areas in short time. Stock adequate quantities of medicines, life-saving drugs, disinfectants, vaccines, inoculations and chlorination equipment.
- 7. Ensure availability of adequate doctors, trained personnel, medical stores and equipment for movement at short notice to vulnerable areas. Make provision of sufficient number of ambulances and transport vehicles. Plan additional space for extra beds in hospitals/PHCs.
- 8. Plan for establishment of field medical centres, mobile clinics, emergency operation centres and trauma counselling centres at vulnerable areas on short notice.
- 9. Plan for stocking sufficient quantities of blood of different groups at near by Blood banks. Update the list of Govt. /private doctors and supporting staff whose services can be utilized during emergencies. Instruct them to be in readiness to move at short notice.
- 10. DMHO to prepare and circulate in vulnerable areas, a list of precautions to be taken by the public before, during and after the disaster to ensure that they maintain normal health under adverse conditions.

During disaster phase

1. C.S will be in regular touch with District Collector and Control room to know the severity of situation and extend medical services accordingly in the affected areas. A medical control room at district and division levels shall be established with help lines.

- 2. Where ever necessary seriously injured and sick persons are shifted to Dist./State/Referral hospitals for specialist services. Provide fist aid and medical assistance for injured and sick people. Special care should be taken for the aged and disabled people, children and pregnant women.
- 3. C.S will move maximum number of medical and Para medical teams, ambulances and mobile hospitals with adequate equipment, medicines etc.. to the affected area and provide medical assistance round the clock to the people. Each team should be allotted specific place in the disaster area and specified relief centres.
- 4. C.S should take all measures to ensure that replenishments are made continuously. C.S will requisition the services of medical teams from unaffected Districts. for use in disaster affected areas. C.S will liaise with State for providing additional specialists teams and equipment from State headquarters and other States.
- 5. Ensure that sufficient numbers of temporary medical camps are set up in the affected areas. C.S will take maximum precautions to prevent breakage of epidemics/water borne diseases in the disaster areas.
- 6. Utilize the services of private doctors, Allopathic, Ayurveda and Homeopathy in the disaster-affected areas. Organize mobile health units and temporary hospitals for providing medical relief and for preventing break of epidemics. Teams of specialist doctors will tour affected areas with adequate medicines and equipment for providing on the spot specialist services.

POST DISASTER PHASE

- 1. Ensure that C.S and other medical authorities at Dist. and Blocks levels are in constant touch with Control rooms, know the latest situation and expand medical facilities accordingly. Ensure continuation of educating people on precautions to be taken for maintaining hygiene and health in adverse conditions.
- 2. C.S to continue provision of medical facilities at the affected areas and relief camps till the people return to their places. Ensure adequate measures to continue for preventing break of epidemics by using disinfectants and chlorination.
- 3. C.S will obtain information on the medical relief provided at disaster areas, quantities of medicines used, the quality of services provide by medical and Para medical staff, the adequacy of medical facilities available at vulnerable areas and forward to State for future action.
- 4. Maintain a record of persons treated with full details and particulars for reference at later date. Update and send plans for additional requirement of facilities, infrastructure to be created at vulnerable areas. Prepare a document on the event and send to State authorities for reference in future.
- 5. Ensure that C.S and other medical authorities at Dist. and Blocks levels are in constant touch with Control rooms, know the latest situation and expand medical facilities accordingly.

- 6. Ensure continuation of educating people on precautions to be taken for maintaining hygiene and health in adverse conditions. C.S to continue provision of medical facilities at the affected areas and relief camps till the people return to their places.
- 7. Ensure adequate measures to continue for preventing break of epidemics by using disinfectants and chlorination. C.S will obtain information on the medical relief provided at disaster areas, quantities of medicines used, the quality of services provide by medical and Para medical staff, the adequacy of medical facilities available at vulnerable areas and forward to State for future action.
- 8. Maintain a record of persons treated with full details and particulars for reference at later date. Update and send plans for additional requirement of facilities, infrastructure to be created at vulnerable areas. Prepare a document on the event and send to State authorities for reference in future.
- 9. Vector borne like malaria, filarial, dengue, chikangunia, Japanese encephalitis, sprinkling of bleaching power and lime on the drains and roads to prevent gastro enteritis with the help of Sanitation team.
- 10. During the natural calamities the immune states of the children will reduce naturally. Hence there is need of Post disasters immunization like Polio, Measles and Vitamin- A.

Animal Husbandry Department

Normal phase

- 1. Demographic profile of families engaged in fishing, fish farming, poultry, dairy, sheep, goat and pig rearing, their location, unit size etc. will be mapped and provided to Blocks and Village levels. The fishing activity includes, fishing on sea, rivers, canals, lakes, tanks, brackish waters etc..
- 2. Cattle rearing community at vulnerable places will be advised not to go for heavy animals, since shifting them during disaster period would be difficult. Plan and implement schemes for educating fishermen and animal rearing communities of the vulnerable villages, on the measures to be taken before/during/after cyclones to avoid loss of lives and properties and animals.
- 3. Sufficient publicity will be planned at villages through visual education, training and mock drills. Identify safe shelter places for animals with adequate fodder and water facilities in all vulnerable villages for use during disasters.
- 4. The department has to prepare a departmental DM plan including resource inventories, list of shelter places, medical needs, awareness generation plan, etc.. The mitigation measures for life loss shall be detailed worked out.

Pre disaster phase

- 1. District authorities will activate control rooms, flood-warning centres. Ensure that flood warnings and precautions are properly received by the vulnerable communities and prepare them to face the disaster.
- 2. Demographic profile of families engaged in fishing, fish farming, poultry, dairy, sheep, goat and pig rearing, their location, unit size etc. will be mapped and provided to Blocks and Village levels. The fishing activity includes, fishing on sea, rivers, canals, lakes, tanks, brackish waters etc..
- 3. Cattle rearing community at vulnerable places will be advised not to go for heavy animals, since shifting them during disaster period would be difficult. Move cattle, sheep, goats, pigs etc. to safer cattle yards from vulnerable areas and provide fodder and water
- 4. Ensure that boats and other equipment of fishermen are moved to safer places and secured in association with fisheries department. Staff meant for emergency duties will be sent to their respective places of work and will be ready to undertake rescue and relief measures.
- 5. Provide medical help to distressed animals.
- 6. Chalk out a strategy to deal with drought situation so as to ensure continuous supply of fodder and water to the animals.

During disaster phase

- 1. The control rooms and flood-warning centres at Districts will provide/send warning and other information to all affected areas. The dept. will ensure that flood warnings and precautions are properly received by the vulnerable communities and face the disaster.
- 2. Blocks and Villages will arrange for shifting fishermen staying very near the sea and at low lying areas to safer places and relief camps. Ensure that boats and other equipment of fishermen are moved to safer places and secured.
- 3. Ensure that poultry farms take measures to safeguard their poultry birds and equipment. Move cattle, sheep, goats, pigs etc. to safer cattle yards from vulnerable areas and provide fodder and water
- 4. Arrange for providing medical help to distressed animals. Ensure sufficient quantities of medicines and vaccines are stored at places nearer to the vulnerable villages. Arrange for visits of veterinary doctors to affected villages.

Post disaster phase

- 1. Ensure that control rooms and flood-warning centres at Blocks will continue sending messages to the affected villages.
- 2.Plan and implement schemes for educating fishermen and animal rearing communities of the vulnerable villages, on the measures to be taken before/during/after floods to avoid loss of lives and properties and animals. Sufficient publicity will be planned at villages through visual education, training and mock drills.

- 3. For increasing the awareness among fishermen community, provide training/conduct mock drills.
- 4. Coordinate for veterinary help to distressed animals. Ensure supply of medicines and vaccines at places nearer to the vulnerable villages. Coordinate for mass vaccination wherever necessary. Plan for strengthening storage facilities for medicines and vaccines.
- 5. Private Doctors to establish veterinary service centres in vulnerable areas. Plan for more mobile health units for cattle.
- 6. Provide sufficient food/fodder/water for animals kept at safe yards. Coordinate for veterinary help to distressed animals. Ensure supply of medicines and vaccines at places nearer to the vulnerable villages.

Agriculture Department

Agriculture Department always sustains losses/damage when floods and cyclone occur in the State. The quantum of losses is proportional to the intensity, time and duration of the hazard. It is difficult to prevent such losses but remedial measures can be taken to save the crops and if this is not possible to go in for alternative measures suitable for the area and type of soil.

Normal Phase

- 1. Plan and equip the Dist. to have latest technologies to asses the standing crop position, with reference to probable disaster, mechanism to advice farmers for safe guarding and in case of losses, procedures to estimate the damages and to inform State authorities.
- 2. Ensure that regular feedback is provided by Blocks indicating seriousness of disaster, level of distress, position of standing crop and likely losses.
- 3. Districts will prepare a long term action plan for meeting relief requirements of farmers in vulnerable areas.
- 4. Estimate drought proneness and plan for such contingencies
- 5. Create awareness among farmers on various kinds of threats and possible mitigation measures
- 6. Prepare departmental action plans with all plausible mitigation measures to minimize crop losses with long term perspective

Pre disaster phase

- 1. Collect standard data base village wise, crop wise, survey number wise, former wise data from village revenue officer (VRO).
- 2. Formation of village, Blocks, division, and district level disaster team with other departments consisting Agriculture, veterinary, Sericulture, Fisheries, Horticulture, Revenue, Pahcayat Raj, Irrigation, and Drainage etc..
- 3. Contingency crop plans prepared by ANGRAU may be made available up-to Blocks level in the month of May. Prepare vulnerability maps of villages likely to be prone in the Blocks based on previous year's data (viz. irrigation sources wise areas prone to flood).

- 4. Existing seed storage godowns (Seed store/oil seed godowns etc.) are to be repaired for storing of seeds during calamities. Formation of seed banks with the help of RMGs. RMGs are encouraged to construct pucca godwons to store harvested produce under Govt. schemes (Grameen Bhandar Yojana Scheme)
- 5. Update credit facilities and crop insurance details from financial institutions
- 6. Ensure that sufficient quantities of agricultural inputs such as seeds, fertilizers, pesticides, equipment and fodder are available at three levels. If necessary, they will be supplied at short notice at vulnerable areas.
- 7. Move and position the staff meant for disaster management duties at their pre-decided places. They should move in villages and advise farmers on precautions to be taken for protecting the standing crop.
- 8. The nodal officer should ensure that suitable instructions are issued to their field officers including their duties and function before, during and after disasters.

During disaster phase

- 1. Coordinate with Blocks and Villages to get feed back on seriousness of disaster, level of distress, relief provided, steps taken for saving maximum standing crop, extent of flooded agricultural lands and estimated loss of crop.
- 2. Dist. will direct Blocks/Villages to be in close coordination with other line departments to ensure adequate relief is provided to the farming community.

Post disaster phase

- 1. Village level team should visit the vulnerable cropped area and give suitable technical advices received from MAO's.
- 2. Ensure that adequate and timely relief/credit is made available to farmers for purchase of agricultural inputs through Govt. /private and easy loans through banks.
- 3. Seeds, fertilizers and pesticides should be provided at subsidized rates. Ensure all relief measures, credit facilities and inputs are made available continuously to farmers till their next crop is harvested.
- 4. Develop data base village wise crop wise, irrigation, source wise, insurance details, credit facilities tec., with an objective of forecast of damages due to disasters.
- 5. Fodder should be supplied in sufficient quantities at low prices.
- 6. The enumeration team while enumerating the crop loss, should also record the names of the tenant farmers, along with the owners name. They should also record extent cultivated byte tenant farmer.

Responsibilities of Officials:

S.N.	Designation	Roles & Responsibilities
1.	District Agriculture Officer	 Formation of Teams Formation of Control room Preparation of advanced precautionary measures, Pamphlets Advance indent of seeds & other inputs etc
		 Data base collection Inputs requirement Disseminating warning in the district. Supervision & Inspection of crop and land, damage prone areas in advance & consolidation of crop & land damage information. Conducting meetings with formers once in season and divisional level.
2.	Blocks Agriculture Officer	 Inspection of prone areas & preparation of vulnerability maps. Preliminary data collection of crop & land damage. Detailed crop / land damage farmer wise through village committee.

Checklist:

S.NO	Action to be taken	Yes/No	Details/Remarks
A	Before Disaster		
1	Planning of team and control room		
2	Preparation of data base information		
3	Preparation of damage prone maps in advance		
4	Preparation of schedule of trainings in advance		
5	Advance indent and positioning of inputs duly make ready of seed store and oil seeds godowns for storage of inputs		
6	Preparation of pamphlets on cyclone/flood damage areas		

7	Make ready of plant protection equipment in the villages	
8	Removal weeds & cleaning drainage to avoid flood.	
В	During Disaster	
1	Disseminating warning to lower level officers AEO has to conduct trainings to farmers at villages	
2	Inspections damage prone sources	
3	Suggestions to the farmers about precautionary measures	
C	After Disaster	
1	Preliminary enumeration	
2	Preparation pamphlets on control measures to protect the moderate damaged crops	
3	Meetings to be conducted at village level on rejuvenation of crops	
4	Breaches to sources to be closed locally	
5	Detailed assessment of damages in proforma	
6	Positioning seeds and other inputs etc,	
7	Credit facilities to affected farmer liaison with financial institutions	

PANCHAYAT RAJ INISTITUTE (PRIS) DEPARTMENT NORMAL PHASE:

- 1. Convening the special meeting of Gram Pahchayat meeting inviting VOs, CBOs, Youth Groups, Village elders, NGOs, and other organizations institutions and officials working in the Gram Pahchayat to discuss on the management of disasters and constitution of Gram Pahchayat Disaster Management Committee.
- 2. Energize the Control Rooms to monitor warning signals and to pass on necessary information through wireless, HAM Radio sets, etc.
- 3. Identification of Vulnerable areas discusses for various activities and prepare database.
- 4. Selection of Cyclone shelters/ relief centres for shifting people / livestock to safer places. Ensure periodic inspection and repair of shelters and other buildings identified for running relief camps.
- 5. The plans prepared for disaster management for implementation at Blocks and Village levels will include all works related to drinking water, minor irrigation canals, minor tanks and bunds, safe shelters, sanitation, food other essential items. These plans will be sent to district and Blocks much in advance for implementation.

- 6. Direct Districts. Blocks and Villages to implement plans for provision of safe drinking water. Lay down procedures and mechanism for implementing long term sanitation requirements and their maintenance.
- 7. Plan and provide sufficient number of hand pumps, bilge pumps and other suitable equipment to drain water quickly. Drinking water hand pump sets should be planned and constructed about the normally expected flood level.
- 8. A list of water tankers available with public/private departments /agencies will be prepared with requisite details. Their services will be used during floods for supply of safe drinking water.
- 9. Depending on the topography, high and low levels of lands in Blocks and Villages, the natural drainage routes for rainwater will be identified. They will be suitably mapped. Steps will be taken to ensure that these routes are maintained and never blocked.
- 10. Private buildings will be identified suitable for use as shelters by the departments at Districts. and Blocks. Prepare list of such buildings and provide them to necessary authorities.

PRE DISASTER PHASE:

- 1. District level committee shall have public representatives and the will participate and take steps for facing the disaster. The control room will be activated.
- 2. Mapping of resources of NGOs/CBOs/ Charitable Organization to arrange training programmes and to make special arrangements for evacuation of old, handicapped, children, expectant and lactating mothers.
- 3. Identification of alternative road/ path/ route to reach the cyclone centres/ relief centres safely. And constitute volunteers teams in consultations with the members present in the Gram Panchayat meeting habitation wise.
- 4. Conduct training programme and Mock drills on the disaster management for the following:
 - Members of Gram panchayat
 - Members and officials of other institutions.
 - NGOs and other voluntary organization.
- 5. Ensure flood shelters and other buildings identified for running relief camps are kept ready for operation. And maintain keep the shelters and other identified public buildings in good condition ready for use.
- 6. Direct the 3 levels to take advance action for provision of safe drinking water during crisis. Make arrangements for maintaining continuous supply and availability of food, kerosene and other essential items.
- 7. Direct line authorities to position sufficient number of hand pumps, bilge pumps and other suitable equipment to drain water quickly.

- 8. Alert the Dept. to position water tankers available with public/private departments/agencies for providing safe drinking water in the likely affected areas.
- 9. Direct authorities to ensure that the natural drainage routes are kept free in all vulnerable villages to allow flooder to drain quickly. Rural Water supplies should be maintained efficiently to avoid disruption. Chlorine/bleaching powder should be stocked in sufficient quantities.
- 10. Identify low-lying areas and arrange for bailing out water in case of inundation. Clear all the drains to ensure free flow of storm water.
- 11. The village Disaster management committee should be in tough should be in tough with the revenue authorities convened for supply and storage of essential items like K. Oil, food grains saws, axes, old tyres, ropes, lantern lights, gas lights, etc. and keep them ready on hearing cyclone warning.
- 12. The village Disaster Management Committee shall procure tarpaulins other materials from agricultural market committee, corporations and locally, to meet the future requirements.
- 13. Identity dried branches of trees of roads sides and cut them to avoid accidents, the dried up wood stored and may be used at cooking centres.
- 14. The Gram Panchayats shall take steps to keep the required sand bags and wooden poles at the vulnerable points like M.I of tanks, ponds etc..
- 15. The Gram Pahchayat shall clean the drainage system and arrange additional drainage system to drain the excess water.

DURING DISASTER PHASE:

- 1. The control room will be further strengthened.
- 2. Control Room will monitor warning singles / precautions and pass the information to the people through wireless, HAM Radio sets.
- 3. Direct the 3 levels to take suitable action for provision of safe drinking water in affected villages and at relief camps through tankers and other means.
- 4. Coordinate with line authorities to drain water quickly. First priority for water pump hoses, sub stations hospitals etc.. Second priority will be residential areas. Ensure that flood water drains out through natural drainage routes by removing obstructions if any.
- 5. Direct officials to make up stocks of essential food items, medicines etc.. required for distribution to affected villages and relief camps. Similarly for items required for repair works and for de- watering.
- 6. Keep ready the required rice and other provisions at centres, along with Civil Supplies Department, and required fire wood, gas, gas stoves. Assist Civil Supply Department in keeping ready the requirement in keeping ready the required rice and other provisions at centres and required fire wood, gas, gas stoves.
- 7. Keep ready for first aid teams with required medicines by contact the PHC, M.O. and Blocks Officers/ MPDO and position them at the cyclone centres/ relief centres.

- 8. Arrange vehicles for transport of people from the low lying areas to cyclone shelters. Assist Revenue department in evacuating the people from low lying areas to safe places. Inform the people through mikes, tom-tom through the volunteer teams and help people prepare for to evacuation from the areas.
- 9. Inform the people to drive away the cattle sheep and goat to the safe and elevated places.
- 10. Make arrangement for the cooking and supply of food at the cooking centres identified. And keep all the sanitation material at cyclone centres/ relief centres.

POST DISASTER PHASE:

- 1. Removal of dead bodies, animal carcasses with the help of Revenue, Police and Medical Departments. Arrange for their disposal/ cremation, to prevent any epidemic.
- 2. Planning and implementation of Rehabilitation of affected people, Rehabilitation of affected people; Repair and Reconstruction of damaged houses, physical infrastructure, etc.., and return to normal economic activities including farming etc., should start immediately
- 3. Assist Revenue department in the assessment for dead persons, livestock and damages to houses and properties of individuals, agriculture, community assets.
- 4. Supervise the preparedness levels of Gram Panchayat by inspecting the vulnerable houses, roads, buildings, water sources contingency plan etc..
- 5. The long term mitigation plan should integrated normal development plan in such manner that protective and preventive measures against the disasters are included in the implementation of all development projects under each and every sector.
- 6. Identification of material availability locally for construction of temporary sheds.
- 7. Ensure communication facilities such as Telephone, cell phones, wireless sets and their functioning. And procure sanitation material like lime, phenyl, bleaching power, with equipment.
- 8. The repair and reconstruction activities should be integrated with the long term mitigation planning so that the quality of reconstruction and repair is in consonance with the specifications provided for disaster resistant structure.
- 9. List out donor's philanthropists, trusts, and request them to assist in relief and rehabilitation measures.
- 10. Mapping of Hazards and vulnerability should be initiated, if it is not done and detailed maps should be prepared for each block and district and should be placed in both district and blocks.
- 11. Control room will continue its activities. Restore normal communication, power and drinking water facilities on priorities.
- 12. Coordinate with line authorities to drain water quickly. First priority for water pump houses, sub stations, hospitals etc.. Second priority will be residential areas.

- 13. Special funding should be made available for the construction of physical infrastructure to include disaster resistant technologies particularly in the construction of Houses, Roads, Electric Transmission Lines, Drinking Water facilities, Bridges and Culverts, Tele Communication Irrigation Canals, Tanks and Reservoirs, etc.., for the sections which are most vulnerable. And supervise all construction and developmental activities.
- 14. District Officials to make stocks of essential food items, medicines etc. and continue supply to affected people and relief camps. And make arrangement supply of food, kerosene and other essentials items.

Roles and Responsibilities of PR Officials:

S. N	Designation	Roles and Responsibility
1.	Gram Panchayat Secretary	 Convene meetings to ensure timely warning Update information on civic amenities/ population, etc Select safe locations for people and livestock. Arrangements to evacuate the disable people. Sanitation facilities at relief camps Storing food grain, drinking water, sanitation material. Keep emergency fund in Pahchayat funds at Panchayat level. To establish village level teams for various tasks.
2.	Blocksa Parishad Development Officer, Blocks Praja Parishad	 Supervise Preparedness of GP. Consolidate village level Assessing preparedness of 1 information on items listed under GP Assessing Preparedness of primary health centres. Engineering staff at the Blocks level should repair drainage, road etc Function as link between district and village level counter disaster activities. Provide Emergency Fund at Blocks level
3.	A.E.,/ D.E.E./ E.E/ S.E	 Inspection and emergency repairs of roads/ bridges, public utilize and buildings. To ensure alternative routes/means of communication for movement of relief material and personnel to marooned areas or likely to be marooned. Clearing of roads and establish connectivity, restore, roads, to traffic at the earliest. In case of floods, the district level team headed by SE will be coordinating with the district administration regarding intensity
4.	Chief Executive Officer, Zila Parishad	 Convene a meeting of all Engineering staff, MPDOs DLPOs, DPOs, and ZP members before the start of likely cyclone period.

 To take up necessary repair and maintenance and related works for preparedness Check inventories of items required at short notice for rescue and relief operations
 Providing Emergency Fund at Zilla Parishad.

ROADS AND BUILDINGS DEPARTMENT

NORMAL PHASE:

- 1. Private buildings will be identified suitable for use as shelters by the departments at Districts. and Blocks. Prepare list of such buildings and provide them to necessary authorities.
- 2. Direct Dist. and Blocks authorities to inspect and identify roads, bridges, culverts and buildings which are vulnerable for floods and repair/strengthen them.
- 3. The identified weak bridges and culverts weak once should be demolished and the new ones are to be constructed. Buildings which are in collapsible stage should be demolished. New roads/repair of roads should be carried out. The roads/buildings should be made hazard proof.
- 4. Ensure that building codes are strictly followed by public in disaster prone areas. They should be made mandatory.
- 5. In case of heavy rains, the roads are prone to breaches. Vulnerable points have to be listed out in advance and indicated in maps. They shall be reviewed every year before the monsoon and repair accordingly.
- 6. Ensure that the new construction does not block natural drainage lines. Enough culverts etc may be provided.
- 7. A good network of motorable roads should be constructed in all vulnerable coastal areas. This not only facilitates quick evacuation at the time of need, but also the supply of relief to the needy, in the aftermath of flood.
- 8. Retrofitting of buildings, building foundations and structures should be made as a component of disaster management policy, applicable in vulnerable areas. Suitable guidelines may be issued for retrofitting.
- 9. Dist. authorities will inspect and identify roads, bridges, culverts and buildings which are vulnerable for floods and repair/strengthen them.
- 10. The identified weak bridges and culverts should be demolished when the new ones are constructed. Buildings which are in collapsible stage should be demolished. New roads/repair of roads should be carried out. The roads/buildings should be made hazard proof.
- 11. Ensure that building codes are strictly followed by public in disaster prone areas. They should be made mandatory.
- 12. In case of heavy rains, the roads are prone to breaches. Vulnerable points have to be listed out in advance and indicated in maps. They shall be reviewed every year before the monsoon and repair accordingly.

PRE DISASTER PHASE:

- 1. S.E shall conduct the disaster preparedness meeting twice in a year and advice the field functionaries to gear up for the situation such meetings shall be organized well advance before the onset of monsoon.
- 2. The AEE shall keep the available machinery such as Power saws under the control of one competent Work Inspector/ Gang mazdoor who frequent trails so that the available machinery will be in working condition, at all times.
- 3. The Dy. EE shall verify the working condition of the machinery once in three months.
- 4. Shelters and private buildings identified for use as relief camps should be checked and strengthened where ever necessary. Special attention should be given for securing weak doors, windows and compound walls.
- 5. Direct Districts. And Blocks to make a final check of roads, bridges, culverts and buildings and carry out urgent repairs where ever necessary.
- 6. Shelters and private buildings identified for use as relief camps should be checked and strengthened where ever necessary. Special attention should be given for securing weak doors, windows and compound walls.
- 7. Dist. authorities to make a final check of roads, bridges, culverts and buildings and carry out urgent repairs where ever necessary.
- 8. Shelters and private buildings identified for use as relief camps should be checked and strengthened where ever necessary. Special attention should be given for securing weak doors, windows and compound walls.
- 9. Move machinery and equipment meant for repair of roads and buildings. And for removing obstructions nearest to the vulnerable areas for use during emergency.

DURING DISASTE PHASE:

- 1. Observation of the cyclone movement and situation
- 2. Alerting of field teams.
- 3. Enquiring the availability of machinery and requesting them to keep them ready for deployment were ever necessary.
- 4. Deputing of field staff from non-effected areas to assist staff in likely effected areas.
- 5. Staff on leave should return to their Head Ouarters.
- 6. No leave shall be sanctioned at the time of disaster.
- 7. Preparation for post disaster activities.

POST DISASTER PHASE:

- 1. Ensure restoration of traffic movement where ever possible by quick repair of breaches. Inspection of roads and removal of traffic obstruction. And inspection of roads for assessment of damages and reporting in higher authorities and preparation of its estimations.
- 2. Coordinate with State and plan for providing adequate number of drains by the side of roads, particularly considering the past experience.
- 3. Sanction and entrustment of temporary restoration works. And updation of maps.
- 4. Steps will be taken for raising the stretc.hes of roads passing through low areas and increase drainage facilities with prior approval of the State.

5. R&B/PRE will create a reliable road network that connects vulnerable areas and selected nodal centres, from where transport, relief and rehabilitation operations can be undertaken during future disasters.

Roles and Responsibilities:

S. N	Designation	Roles and Responsibilty		
1.	Assistant Engineer /	Identification of vulnerable points		
	Asst. Exe. Engineer	Preparation and submission of estimates for taking		
		up and strengthening of vulnerable points.		
		• List out the machinery like power saws, JCBs etc,		
		with their conditions and submit to the Dy.		
		Executive Engineer.		
		 List out the contractors with their address and contacts numbers. 		
		• Inspection of weak and narrow Bridges, Culverts		
		and cause ways with details of repairs to be taken		
		up.		
		• Identification of over flowing locations impending disaster.		
		Identify and removal of weak and dried trees along		
		the road side.		
		Alternate routes to be identified and listed out.		
		• Execution of works approved and preparation and		
		submission of bills for payments.		
		Submission of Utilization certificate.		
2.	Deputy Executive	• Verification and submission of items 1 to 8 and 10		
	Engineer	to Executive Engineer.		
		• Check measurements of all the works executed by		
2	Essentine Essinees	the AE/ AEE and submission of bills for payments Sanction of estimates submitted Deputy Executive		
3.	Executive Engineer	Sanction of estimates submitted Deputy Executive Engineer		
		Engineer. • Entrustment of works to the contractors on		
		• Entrustment of works to the contractors on nomination basis or short tender basis.		
		Verification and super check measurement of all		
		works executed by AE/AEE and DEE		
		Payment of bills to the contractors.		
4.	Superintending	Sanction of estimates submitted Executive Engineer		
	Engineer	(Works above 10 lakhs below 50 lakhs).		
		• Entrustment of works to the contractors on		
		nomination basis or short tender basis.		
		Verification and super check measurement of all		
		works executed by AE / AEE and DEE.		

Getting all correspondence regarding activities to be
taken including all repairs or construction pre,
during and post disaster with district administration

IRRIGATION AND COMMAND AREA DEVELOPMENT

NORMAL PHASE:

- 1. Materials such as empty cement bags, sand, metal, stone bellies etc.. will be stocked in adequate quantities in all flood stores for immediate use before and during floods.
- 2. Ensure no human encroachment near the drains and settlements in the low-lying areas.
- 3. Ensure repair /restoration of canals, Irrigation tanks and desalination of damaged agricultural fields.

PRE DISASTER PHASE:

- 1. Catchments maps are to be ready for all irrigation sources. And all the vulnerable locations in the sources are to be identified along with the Water Users Associations / Distributory Committees / Project Committees.
- 2. Check and repair the main Irrigation canal system and control structures.
- 3. After receipt of first flood warning discharge through dams all lower riparian rights villages downstream of the dam are required to be given the information along with District Collector/RDO/MRO of the concerned district.
- 4. During the closure period the irrigation staff has to procure required stores i.e. empty gunny bags, sand, bullies of 1m length with 100mm dia, gaslights, bamboo thatties, gamelas, country twine, needles, crow bars, hammer with handles, torch light etc..
- 5. One flood store will be maintained under the control of each Dist. Collector. The flood store will keep empty sand bags, dewatering pumps, diesel generators, tarpaulins, tents etc.
- 6. The Asst. Engineer should make arrangement to intensify patrolling of river banks round the clock and as soon as the reservoir comes to full tank level and the spillway gates are to be operated to avoid further storage in the reservoir with intimation to Revenue Authorities.
- 7. Before cyclone / flood the AEE / DEE will inspect each and every vulnerable points and the areas prone for inundation for taking precautionary temporary measures and the summary of all actions intimated to the higher officers.
- 8. Materials such as empty cement bags, sand, metal, stone bellies etc.. will be stocked in adequate quantities in all flood stores for immediate use in the event of disaster.
- 9. Strengthen the weak bunds of all irrigation sources and arranges for patrolling weaker points to avert breaches.
- 10. Ensure that all the irrigation drains are cleared of blockades and obstructions.
- 11. Move all emergency duty officers/staff and equipment to vulnerable area.
- 12. They should be ready to take up emergency works.

DURING DISASTER PHASE:

1. Materials such as empty cement bags, sand, metals, stone bellies etc.. will be stocked in adequate quantities in all flood stores for immediate use for plugging the breaches.

- 2. After receiving 1st warning the status of flood is to be intimated to the District Collector, RDO, and NGOs, MRO to address public by in all adjacent villages & it is to be intimated to AIR and for live telecast channels.
- 3. Strengthen the weak bunds of all irrigation sources wherever necessary to prevent breaches. Assistance from local people will be used.
- 4. After receiving cyclone/ flood warning from catchment area to source utilization location the departmental field officers have to inspect all the sources jurisdiction wise including luskers.
- 5. After flood / cyclone warning, control room are to formed at SE/EE/ offices respectively and required vehicles are to be kept at store sheds to carry the materials to the spot required. Ensure that all the irrigation drains are cleared from obstructions.
- 6. Continue to clear the mouths of all drains for free flow of flood water.

POST DISASTER PHASE:

- 1. After floods recede necessary arrangements have to be made to the farming community to safe guard agriculture by making temporary restoration arrangements to the affected irrigation sources, which include forming ring bunds, close breaches, removing of all shoals and rectifying damages to structures.
- 2. The officers involve for restoration of post disaster damaged irrigation sources are AEE/AE, DEE, EE, and SE. and identify the breaches and take up restoration work.
- 3. Restore the damaged infrastructure. Attempts will be made for farming community to start agriculture within minimum possible time to bring the socio economic life back to normal in the affected areas.
- 4. Review and request for construction of dams, check dams and new irrigation/drainage canals for long term improvement and for sustained economic growth.
- 5. Suggest measures for strengthening the river banks and canal bunds to avoid breaches.

FISHERIES DEPARTMENT

PRE DISASTER PHASE:

- 1. Demographic profile of families engaged in fishing, fish farming. The fishing activity includes, fishing on sea, rivers, canals, lakes, tanks brackish water etc..
- 2. Establish control room and a monitoring Cell with operational field teams with available staff; assist district administration and coordinate with line departments.
- 3. Arrange medical relief to fishermen. Provide medical help to distressed animals. Stock sufficient quantities of medicines and vaccines at places nearer to the vulnerable villages.
- 4. The FDO and fisherman elder will elder ill identify the vulnerable fishermen colonies likely to be damaged by floods/ cyclones including the assessment of emergent requirement of food and drinking water supply, kerosene, clothing, medical aid etc..
- 5. List of NGOs involved with fishermen activities and their capability for providing assistance.

- 6. Identification of vulnerable habitations, creek points, likely marooned areas, rate of inundation and receding waters, identify the locations where fishing craft are anchored and prone do damages.
- 7. Fisheries department should educate fishermen families to stop sea fishing activity soon after receiving first flood warning.
- 8. Up keeping of the available life saving appliances, communication equipment i.e., life jackets, life floats, Very High Frequency communication sets, cyclone warning kits etc..,
- 9. Assessment of probable damages to the boats ad nets, fishermen huts, house hold articles in terms of quantity and value i.e. one time pre cyclone survey.
- 10. Constitution of teams with officers/ NGOs for pre, during, and post disaster activities.
- 11. Ensure that boats and other equipment of fishermen are moved to safer places and secured. And ensure positioning the relief boats and expert swimmers, life saving appliances at vulnerable points for preventive and rescue activities.
- 12. Telephone numbers and others contact of officers of officers also to be collected and shall be provided to all concerned up to habitation level.
- 13. The fisheries development officer shall check the functioning of life saving appliances and provide and render services of such equipment.
- 14. List to be prepared active fishermen, families with Livelihood activities and complete address for identification in case of emergency.

DURING DISASTER PHASE:

- 1. Dissemination of cyclone warnings, weather reports to the fishermen localities, fishing boat operator's departmental personnel and liaison.
- 2. Evacuation of field staff / volunteers from other safe areas to provide assistance in most vulnerable areas.
- 3. Mobilize expert swimmers to the cyclone / flood hit areas. And alerting the teams for post disaster activities. 4. Arrange for providing medical relief to fishermen.

POST DISASTER PHASE:

- 1. Plan and implement schemes for educating fishermen communities of the vulnerable villages on the measures to be taken pre/during/post disasters to avoid loss of the lives and properties.
- 2. For increasing the awareness among fishermen community, provide training/ conduct mock drills.
- 3. Coordinate for medical relief to fishermen. And plan for strengthening storage facilities for medicines and vaccines.
- 4. Ensure quick disposal of carcasses.
- 5. Seek help of Coast Guard in case of any emergency for search operations and asses the casualties if any
- 6. Asses the loss/damages to household articles, fishing implements.

- 7. Visit of teams to the affected fishermen habitations, shore areas to inspect the type of loss/damages to the fishing boats and nets.
- 8. Preparation of estimated value of such loss/ damages
- 9. Consolidation of the assessed losses/ damages and reporting.

Roles and Responsibilities:

S. N.	Designation	Roles and Responsibility		
1.	Fisheries development	The FDO shall be responsible for data gathering		
	Officer	 within the jurisdiction and liaison with the fishermen community and the Divisional officers and furnish timely reports to the Divisional level cyclone and flood relief committee and officer for Fisheries activities. He will record the movement of fishing vessels and ensure registration/ licences and monitor the same Identifies the vulnerable areas and cyclone / flood maps in the jurisdiction. Identifies the requirement of field level teams and NGOs and required assets. Transport and guide the expert swimmers, relief boats and rescue team before the crisis situation and supervise the search and rescue and relief activity. Assess the requirement of funds and furnish to the ADF for the emergency relief work Co-ordinate and work with other Line department for proper relief operations Assess the value and quantity of losses, make proposals on such losses and temporary restoration as per norms of calamity relief fund (CRF) Distribution of compensation to the affected fishermen as per norms 		
2.	Director of Fisheries /	• He is the member of the divisional level cyclone,		
	FDO at Division Level	flood relief committee		
	Level	 Identify and consolidate the information on vulnerable areas and cyclone / flood maps and information 		
		 Review and ensure the movement and registration of fishing vessels 		
		 Consolidate the requirement of field level teams and NGOs 		
		• Timely reports and appraise progress of all activities to the District monitoring cell		

		 Deployment of expert swimmers relief boats and rescue teams in areas noted Monitoring the flood / Cyclone areas and related activities Liaison with other Line departments for proper co – ordination of relief operations Formulate and submission of proposals for compensation of losses and temporary restoration as per norms of calamity relief fund (CRF) Monitor distribution of compensation to the affected fishermen as per norms
3.	Director of Fisheries / FDO at District Level	 The FDO is the member of District level cyclone and flood relief committee and officer for Fisheries activities. Consolidates the information on vulnerable areas and cyclone / flood maps and information Consolidates the requirement of field level teams and NGOs and required assets Arrange for training of staff / NGOs /Fishermen elders Activate the district monitoring cell and supervise the divisions and villages Deployment of expert swimmers relief boats and rescue teams in the areas identified by the divisions Supervise the Flood / cyclone related activities Consolidates the requirement of funds and procure from the District Collector for emergency relief work Submission of proposals to Commissionerate for compensation of losses and temporary restoration as per norms of calamity relief fund (CRF) through the Collector. Takes steps for distribution of compensation to the affected fishermen as per norms. Submission of audited utilization certificates to the commissioner, Disaster management through District Collector and HOD.

RURAL WATER SUPPLY

PRE DISASTER PHASE:

- 1. AEE/ AE will identity the non functioning schemes or Hand Pumps, repairs to platforms and Tap fountains including its surroundings in coordination with the GP level teams and action is to Abe taken to get them repaired.
- 2. The Gram panchayat shall be suitably instructed the DPO/ CEO to utilize the funds for restoration of Water Supply sources on top priority
- 3. The AEE/AE will identify the vulnerable water sources which are to be chlorinated before and after the Disaster with the help of Gram Panchayat teams.
- 4. The Hand pumps existing in the low lying area shall be raised to the expected maximum flood water level by raising the casing pipes and plat forms to avoid possible contamination.
- 5. Keeping ready stock of Liquid Chlorine / Bleaching power with the Gram Panchayat and to observe proper chlorination being done regularly
- 6. Ensure that identify the Safe sources in the Gram Pancayat area and adjacent areas where safe water can be brought in case of submergence of the area.
- 7. The unsafe sources if any shall be suitable marked and shown to concern team members.
- 8. The safe source including private sources are to be identified with proper testing for portability using the field testing kits available.

DURING DISASTER PHASE:

- 1. Keep ready stock of all relevant with the department
- 2. The team has to observe the required stock of H2S vials availability with GPs to check bacteriological contamination. Chronoscopes are to be kept available with the all vulnerable areas in order to verify the residual chlorine in the drinking water.
- 3. Ensure that the list of tankers are to be ready by the AEE/AE/ MPDO along with capacity of tankers, their address, contact members and distance from a vulnerable areas.
- 4. Availability of generators and their owners along with contact address and distance to the vulnerable area are too ascertained by the assigned team members.
- 5. During the disaster awareness is to be created by the team members among people to construct and use ISLs in order to avoid open defecation during Cyclone/ Floods. The vulnerable villages are to be brought up to Nirmal Gram Puraskar status.
- 6. Ensure that in the time of relief should be provide good water.

POST DISASTER PHASE:

1. The list of damages occurred during cyclone/ floods are to be identified by the AEE/ AE in consolidation with the Team along with required budget for temporary / permanent restoration.

- 2. Ensure that permanent restoration may also be taken with local funds if the amounts required are small.
- 3. Monitoring of water quality should be restored or initiated immediately. Post disasters daily determination of the chlorine residual in public water supplies is sufficient.
- 4. Ensure that Chlorine and chlorine liberating compounds are the most common disinfectants. Chlorine compounds for water disinfection are usually available in ihitt forms.
- 5. Chlorinate lime or bleaching power, which has 25% by weight of available chlorine when fresh, its strength should always be checked before use.
- 6. If the damage for water is urgent, or the repaired main cannot be isolated, the concentration of the disinfecting solution may be increased to 100 mg/ litre and the contact period reduced to 1 hour.

Roles and Responsibilities:

	nd Responsibilities:	Roles and Responsibility		
S. N 1.	Designation Superintending Engineer	 Roles and Responsibility Consolidate the information on vulnerable areas and location of hand pumps and schemes safe / unsafe low lying areas and maps. Indent for required pump sets, hand pump spares, minimum stock for material required for PWS/ CPWS schemes with proper sanctions at district level Arrange for training of RWS & S Staff and awareness through DEE/ AEE to Sarpanchs / Secretaries on maintenance of Schemes / Hand pumps, Chlorination etc, Active the Monitoring cell at District level, Division level, Sub - Division level, Blocks level and GP level. Deployment of DEEs/AEEs /AEs of not affected areas to the affected areas. Monitoring the Cyclone / Flood related activities. Consolidate the requirement for funds and take sanction from district collector for emergency relief works. Consolidate requirement of funds for permanent measures and submission to the head of the department for sanction. Liaison with other line department for proper coordination of relief operations. Submission of audited utilization certificates to the commissioner, Disaster Management through District Collector and HOD 		
2.	Executive Engineer	Consolidate the information on vulnerable areas and location of hand pumps and schemes safe/ unsafe low		

3. Deputy Executive Engineer	 Submission of requirement of pump sets, hand pump spares, minimum stock of all materials required for PWS / CPWS schemes to the SE Arrange for training of RWS staff and awareness through DEE/ AEE to Sarpanches/ Secretaries on maintenance of Schemes / Head pumps, chlorination etc, Activate the monitoring cell at Division level, Blocks level, and GP level. Deployment of DEE/AEE / AEs from unaffected areas to the affected areas. Monitoring the Cyclone/ Flood related activities. Consolidate the requirement of funds for permanent measures and submission to the superintending Engineer for sanction. Liaison with other line department for proper coordination of relief operations. Submission of audited utilization certificates to the Commissioner, Disaster Management through SE. Consolidate the information on vulnerable areas and location of hand pumps and schemes safe / unsafe low lying areas and maps Submission of requirement of pump sets, hand pump spares, minimum stock of materials required of PWS/ CPWS schemes to the EE. Arrange for training of RWS staff and awareness through AEE to Sarpances / Secretaries on maintenance of Schemes / Hand Pumps, Chlorination etc Activate the monitoring cell at Sub – Division level, Blocks level, and GP level. Monitoring the Cyclone/ Flood related activities Consolidate requirement of funds and submit to EE for emergency relief works. Consolidate requirement of funds for permanent measures and submission to the Executive Engineer for sanction Liaison with other line department for proper coordination or relief operations.
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Engineer/ Assistant Engineer

- location of hand pumps and schemes safe / unsafe low lying areas and maps
- Submission of requirement of pump sets, hand pump spares, minimum stock of materials required of PWS/ CPWS schemes to the DEE.
- Conducting training awareness to Sarpanchs / Secretaries on maintenance of schemes/ Head pumps, Chlorination etc..
- Activate the monitoring cell at Blocks level, and GP level.
- Monitoring the Cyclone/ Flood related activities.
- Consolidate the requirement of funds and submit to DEE for emergency relief works.
- Consolidate requirement of funds for permanent measures and submission to the Dy. Executive Engineer for sanction.
- Liaison with other line department for proper coordination of relief operation.

TRANSCO DEPARTMENT

Normal time activity

Establish at each sub-station a disaster management tool kit comprising cable cutters, pulley blocks, jungle knives, axes, crowbars, ropes, hacksaws and spinners. Tents for work crews should also be in storage. Action Plan Objective in a Disaster Situation should be to restore the power supply and ensure uninterrupted power to all vital installation/facilities at sites.

Activities on Receipt of Warning or Activation of DDMP

Within the affected district/Blocks, all available personnel will be made available to the District Collector. If more personnel are required, the cut of station officers or those on leave may be recalled. All personnel required for Disaster Management should work under the overall supervision and guidance of District Collector. Establish radio communications 1 with district control room and departmental offices within the district. All district level officials of the department would be asked to report to the collector. Appoint one officer as "NODAL OFFICER - Power Supply" at district level. Review and update precautionary measures and procedures and review with staff the precautions that have been taken to protect equipment and the post disaster procedures to be followed. Assist the district authorities to make arrangements for standby generators in the following public service offices from the time of receipt of alert warning

- Hospitals
- Water department
- Collectorate
- Police stations

- Telecommunications buildings
- Meteorological stations.
- Fill department vehicles with fuel and park them in a protected area
- Check emergency tool kits, assembling any additional equipment needed.
- Immediately undertake inspection from the time of receipt of alert warning of
- High tension lines
- Towers
- Substations
- Transformers
- Insulators
- Poles

On the recommendations of the collector/district control room/" Officer-in- Charge - Power Supply" of the department in the district will Instruct district staff to disconnect the main electricity supply for the affected area Dispatch emergency repair gangs equipped with food, bedding, tents, and tools. On the recommendations of the collector/district control room/" Officer-in- charge.

Relief and Rehabilitation

Field office priorities

- Hire casual labourers on an emergency basis for clearing of damaged poles and salvage of conductors and insulators.
- Begin repair/reconstruction.
- Assist hospitals in establishing an emergency supply by assembling generators and other emergency equipment, if necessary.
- Establish temporary electricity supplies for other key public facilities, public water systems, etc.
- Establish temporary electricity supplies for transit camps, feeding centres, relief camps, district control room and on access roads to the same.
- Compile an itemized assessment of damage, from reports made by various city supply electrical receiving centres and sub-centres.
- Report all activities to the head office.
- Establish temporary Plan for emergency accommodations for staff from outside the area.

TELECOM DEPARTMENT

SOPs for Department of Telecom (DOT), Bharat Sanchar Nigam Ltd. (BSNL).

Activities on Receipt of Warning or Activation of DDMP

Establish radio communications with state control room, district control room and departmental offices within the district. All personnel required for Disaster Management should work under the overall supervision and guidance of District Collector. Appoint one officer as "NODAL OFFICER- Communication" at the district level. Review and update precautionary measures and procedures, and review with staff the precautions that have been taken to protect equipment and the post-disaster procedures to be followed.

Fill department vehicles with fuel and park them in a protected area.

- Inspect and repair all
- Radio masts
- Anchorages
- Foundations and cables
- Poles
- Overhead circuits.

Upgrade outside equipment to withstand wind speeds and other adverse weather conditions. Designate at each exchange a member of staff (such as an inspector) as a disaster officer. He must live in the area, be instructed in the likely effects of a disaster, and should be knowledgeable about necessary precautions and post-disaster procedures. House all electrical and switching equipment in damage-proof buildings. All storage batteries should be charged fully during alert for long use in the post disaster period, when the electricity supply is not likely to be available.

Establish an emergency tool kit at each exchange, including:

- Cable cutlers
- Cutting pliers
- Spanners
- Ropes
- Ratchet tension
- Crosscut saws
- Pulley blocks with rope
- Hand gloves

Check emergency tool kits and assemble any additional equipment needed.

Provide at least two tarpaulins in every building with radio equipment, Teleprinter equipment, and manual and auto-exchanges. Install standby generators in all exchange buildings for the recharging of batteries. Secure all outside equipment to the extent possible. Arrange for the transport of additional vehicles for inspectors. Assemble equipment and emergency stocks of materials likely to be necessary for restoration of services. Arrange emergency standby cable for dispatch to the affected area immediately after the disaster. Remove fuses from the lines and disconnect the power supplies to equipment in disaster areas, if necessary.

Relief and Rehabilitation

File priorities

Give priority and concentrate on repairs and normalization of communication in disaster areas. Identify the public services with in the affected community for which communication links are most vital, and establish a temporary service, if feasible.

Establish a temporary communication facility for use by the public.

- Identify requirements, including;
- Manpower needed
- Vehicles needed
- Materials and equipment needed.

Begin restoration by removing and salvaging wires and poles from the roadways through recruited casual labourers. Establish a secure storage area for incoming equipment and salvaged materials. Carry out temporary building repairs for new equipment. Report all activities to head office.

BREAK DOWN OF LAW AND ORDER AND IMMINENT THREAT THEREOF

The Law and order situation in the district is more or less peaceful. Crime situation is also of under control. However considering the fact that the district shares interstate boundaries and due to presence of minor organized criminal groups moving across vulnerability of the district can't be ignored. In addition to that occasional protests/agitation/road jam etc.. by various interests groups/public/political protests for better civic facilities, against the policies of the government etc.. are reported in the district. Hence this SOP's focus is on crowd management and preventive action.

Others

Dharna/Public agitation/Bhandh/Hartal etc.

The emerging law and order situation to be dealt primarily by the local administration as assisted by sub divisional police/magistrate. In case of large crowd or in grievous situation the senior offices like SDPO, SDO, Designated Sr. officers, SP, DM etc.. will step in to the situation as per need. Following things to be kept in mind while dealing with these kinds of emerging law and order situations. As a preventive step public awareness campaigns to be

taken up at various level with an intention to educate public regarding various government programmes and the following points to be taken care of.

- a) Legal awareness with special focus on penal actions may initiate for involvement of illegal activities
- b) Confidence building measures like elders committee, peace committee, neighbourhood groups etc. to be formed and regular meetings to be held against recurrent law n order situation
- c) Preparing the list of possible trouble makers as well as peace lovers/activists of the area
- d) Tracking/collecting information regarding the activities of various organizations/communities in general and of antisocial elements in particular
- e) Adequate planning, preventive steps like security measure u/s 107, 113, 144 etc. of Cr PC against the trouble makers
- f) Deputation of adequate forces/special magistrate/fire force/photography etc. on agitation
- g) Barricading, drop gate, physical check-up of participants and vehicle etc. in systematic manner in prefixed programmes
- h) In sudden breakup of law and order situation like road jam/public protest etc. quick response through QRT along with adequate reinforcement to be ensured and crowd formation to be prevented by guarding the area.
- i) Adequate number of vehicle, arms and equipment, public announce system, videographer etc. to be ensured
- j) In case of unruly crowd disposal through announcement/warning, teargas/water cannon, mild lati charge etc. to be resorted and senior officers to be kept updated. All actions to be photo/video graphed.
- k) In case of violation Criminal Cases to be charged against identified leaders/ activists
- l) In case of Bandh/Hartal frequent police patrolling, adequate security cover to the shop keepers who are willing to open their shops, police security/escort to the moving vehicles, static force deputation at various/strategic/important locations etc. to be ensured.
- m) Many times criminal acts like Murder, Robbery, Dacoity, theft, Extortion, Kidnapping, Rape etc. evokes very high emotional response leading to law order problems. Primarily the local level field officers especially the SHO are expected to play a very active rule in dealing with such situation. Depending upon the gravity and volume of the situation senior officers at the sub divisional level, district levels are also to be involved. The civil administration is expected to extend necessary assistance to the police administration in these cases.
- n) In addition to the FIR and case proceedings in criminal matters speedy disposal of case situation like dead body, remaining/debris of explosives/buildings, speedy arrest of the culprits, avoiding mob formation, preventive/security measures to prevent further occurrences etc. to strictly followed.

ROLE OF NGO's

The Non-governmental organizations play an important role in disaster management and provide valuable resources and expert manpower. Their capacity to reach out to community groups and their sensitivity to local traditions of the community give them added advantage during the disaster situation.

The specific areas where the NGO can be involved are.

- Emergency First Aid
- Management of Relief Camps
- Trauma Care
- Services to Vulnerable Groups
- Rehabilitation, etc..,

Annexure -

Area Profiler List Of Elected Members

State Name Local Body Type Generated On JHARKHAND Zilla Parishad 14-Mar-16

S.N.	Name of the Block	Member Name	Designation Name	Phone	Gender	Categori es=Caste Categori es
_						
1	Peshrar	Binod singh	Member	9546420595	Male	General
2	Lohardaga	Birajmani oraon	Member	7294981440	Female	ST
3	Kuru-3	Brajkishor bhagat	Member	9939990939	Male	ST
4	Kairo	Poonam minz	Member	N.A.	Female	General
5	Senha	Ram lakhan Prasad	Member	9334538911	Male	OBC
6	Kisko	Rani devi	Member	N.A.	Female	OBC
7	Bhandra	Sunaina Kumari	CHAIRMAN	9304303798	Female	ST
8	Kuru-4	Zaffarulla khan	VICE- CHAIRMAN	9709143415	Male	OBC

Print Media Contacts in the District of Lohardaga.

S1.	Newspaper	Name of	Mobile No.	Email
No		contact		
		person		
1	Prabhat	Gopi Krishna	9431171997	pklohardaga@gmail.com

	Khabar	Kunwar		
2	Danik Jagran	Rakesh Sinha	9835522995	Rksinha.jagran@gmail.com
3	Hindustan	Deepak Mukherjee	9931556060	htlohardaga@gmail.com
4	Danik Bhashar	Bablu Oraon	8271501701	Sgosh.185@gmail.com
5	Sanmarg	Md. Quim Khan	9431749388	Qkhan58@gmail.com
6	Ranchi Express	Satyakam	9431183102	satyakamsuman@gmail.com

Electronic Media in the district of Lohardaga.

Sl. No.	TV	Name	Mobile
1	ETV	Gautam Lenin	9334025060
2	Naxatra	Anand Soni	9386159419
3	Sahara TV	Gautam Lenin	9334025060
4	Aaj Tak	Satish Sahdeo	9431754042

Distribution of Rural and Urban Population by sex in the district.

S.	Block	RuralPopulation		Urban Po	opulation	To	Total Population		
N		Male	Female	Male	Female	Male	Female	Total	
1	2	3	4	5	6	7	8	9	
1	Lohardaga (urban)	-	-	29374	28037	29374	28037	57411	
2	Lohardaga (rural)	34484	34114	-	-	34484	34114	68598	
3	Kuru	42480	42437	-	-	42480	42437	84827	
4	Senha	35308	34460			35308	34460	69768	

8	Pesrar	15764	15293	-	-	15764	15293	31057
7	Kairo	18773	19094	-	-	18773	19094	37867
6	Bhandra	28754	28549	-	-	28754	28549	57303
5	Kisko	27692	27267	-	-	27692	27267	54959

Area, Population and Density of Population –

S.N	Block	Area(Sq. Km.)	Population	Density of	% of Population
				Population (per	to District
				sq. K. m)	Population
1	2	3	4	5	6
1	Lohardaga (urban)	161.68	57411	1639	12.43
2	Lohardaga (rural)	35.02	68589	424	14.85
3	Kuru	217.41	84827	390	18.37
4	Senha	212.46	69768	328	15.11
5	Kisko	253.30	54959	217	11.90
6	Bhandra	160.66	57303	357	12.41
7	Kairo	102.28	37867	370	08.20
8	Pesrar	348.67	31057	89	06.73
Distri	ct Total	1491.48	461790	310	100.00

S.N	Block	So	cheduled Ca	aste	Scheduled Tribe			
		Male	Female	Total	Male	Female	Total	
1	2	3	4	5	6	7	8	
1	Lohardaga (urban)	1182	1113	2295	6888	7374	14262	

2	Lohardaga (rural)	911	853	1764	22646	22631	45277
3	Kuru	2238	2105	4343	19966	20320	40286
4	Senha	1236	1151	2387	21718	21773	43491
5	Kisko	836	827	1663	16851	16708	33559
6	Bhandra	492	487	979	18198	18435	36633
7	Kairo	366	360	726	11552	12033	23585
9	Pesrar	601	572	1173	12995	12646	25641
	Total	7862	7468	15330	130814	131920	262734

Scheduled Caste and Scheduled Tribe Population by sex in the district

Population in five year age group by residence and sex –

S.N	Age	Rural		J	Urban		Total	
	Group	Male	Female	Male	Female	Male	Female	Total
1	2	3	4	5	6	7	8	9
1	0-4	23095	22665	2709	2544	25804	25209	51013
2	5-9	29240	27990	3279	3035	32519	31025	63544
3	10-14	29670	28961	3553	3378	33223	32339	65562
4	15-19	22313	20704	3272	3273	25585	23977	49562
5	20-24	15466	15599	2840	2894	18306	18493	36799
6	25-29	13679	13755	2434	2496	16113	16251	32364
7	30-34	11749	12531	2122	2093	13871	14624	28495
8	35-39	11418	11733	1964	1967	13382	13700	27082
9	40-44	10069	10346	1778	1530	11847	11876	23723
10	45-49	9290	8902	1571	1277	10861	10179	21040
11	50-54	6959	6855	1058	934	8017	7789	15806
12	55-59	5772	6086	862	781	6634	6867	13501

13	60-64	5822	6367	745	726	6567	7093	13660
14	65-69	4020	4192	488	467	4508	4659	9167
15	70-74	2512	2450	313	294	2825	2744	5569
16	75-79	985	946	146	157	1131	1103	2234
17	80+	1073	927	166	141	1239	1068	2307
18	Age not stated	123	115	74	50	197	165	362

Naxalism:

- Call Police and Rapid Action Force immediately.
- Find a safe place to be safe from attacks.





Undertake contingency crop planning. Water harvesting and conservation. Reduce the wastage of water. Implement drought mitigation measures.





Emergency Contacts:

Superintendent of POLICE - 6526- 224070

D.C. Lohardaga - 6526-224093

Forest Fire:

- Avoid use of fire in dry forest area.
- Don't use
- plastics in forest area
- Use biodegradable material.
- Always carry back your left over.