DISTRICT DISASTER MANAGEMENT PLAN-2016 HAZARIBAGH- DISTRICT



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FORWARD

It is an attempt to present strategic plan to mitigate the disaster or disaster like situation in district of Hazaribagh in this form of District Disaster Management Plan for the years 2016- 2017. The social and economic losses of disasters are often very high and immeasurable. Usually the most affected sections among our society are the poor and the marginalized like the small and landless farmers, the agriculture labourers, unorganized sector workers, slum dwellers, etc. Among these, Women & children, old aged and people with disability are the most vulnerable victims of any disasters.

Natural Disasters affect societies and nations across the world. Jharkhand often faces natural calamities like earthquake, floods, cyclones, tsunami, heat strokes, thundering and drought which are occurring fairly frequently in different part of the country. Apart from these, man-made disaster like fire hazard, Maoist attacks, building collapses, road accidents, mining related disasters, etc have also been areas of concern. It is now recognized fact that, natural disasters are beyond control of human being but losses due to such calamities can be reduced by preparedness, mitigation and prevention. Lot of human suffering and misery from a large number of natural disasters can be mitigated by taking timely actions, preventing mechanisms and undertaking capital works of long and medium terms.

This DDMP has been evolved through a participatory and consultative process, wherein community and other stakeholders have participated and ascertained their specific disaster needs in HRVC updating since a decentralized, participative, people oriented and transparent disaster management system including not only the post-disaster response but also pre disaster prevention and preparedness actions plays a greater role in reducing the disasters and their impact.

I appreciate officers Mr. Ajoy Kumar (District Disaster Management Officer) and Mr. R.R.Barnwal (In charge officer of Disaster Management Cell) to facilitate our District Disaster Management Authority regarding preparation of DDMP. I also express my sincere thanks to Additional Collector Mr. Anjani Kumar and members of DDMA for their inputs and efforts.

I am hopeful that the district disaster management plan of Hazaribagh has been prepared to spell out a standard action and operation mechanism for disaster management in district wide.

Mukesh Kumar (IAS)
(Deputy Commissioner-cum-Chairperson)
DDMA-Hazaribagh

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Chapter- 1

Introduction to District Disaster Management Plan

1.1 Need for DDMP

Disaster = Hazard X Vulnerability.

Hazards are natural or man-made; we humans can't prevent hazards but can reduce the vulnerability to reduce the risk, known as DRR (disaster risk reduction). For better DRR and management it is important to have planning well in advance so that people can work more professionally. And for doing so, the advance planning is required at the national, state, district, panchayat and village and even family and individual levels. The District Disaster Management Plan (DDMP) is the guide for achieving the objective i.e. mitigation, preparedness, response and recovery.

Any disaster management plan developed at national level may not be able to cater the need of local administration, local community and local actors in disaster management. It is important to evolve and design local resource based and local need based disaster management strategy to address specific preparedness, mitigation, prevention, response and rehabilitation and reconstruction need of victims. A decentralized, participative, people oriented and transparent disaster management system including not only the post-disaster response but also pre disaster prevention and preparedness actions plays a greater role in reducing the disasters and their impact. The districts are the administrative units for district administration and the District Disaster Management Authority and District Disaster Management Coordination Committees headed by the Deputy Commissioner will eventually have to address the emergency situation in specified standard manner. In this purview, the district disaster management plan of Hazaribagh has been prepared to spell out a standard action and operation mechanism for disaster management.

1.2 Changes in Methodology

Earlier there were activities only post a disaster which included Response and Recovery but now the activities also involve pre-disaster occurrence activities like Mitigation and preparation too.

Earlier after an event used to occur authorities used to make plan to respond to the situation and rescue the people and after that pay the victims but nowadays plans are made and resources are gathered before the event occur. Early warning systems play an important role in forecasting the occurrence and people are warned and moved from the site before the event occurs, saving many lives.

1.3 Objective of plan and way to deliver:

The objective is to reduce the vulnerability of population to the hazard and reduce the risk of a disaster.

- To deliver it effective planning is needed along with resources and preparation.
- Early warning systems are needed to work effectively so that evacuation can take place before the event strikes and lives can be saved.
- Awareness about what to do in occurrences of different kind of disaster should be well spread and mock drill should be done at regular intervals.
- A team capable of handling different disasters should be prepared and trained
- Emergency help lines numbers should be available and monitored.
- Resources should be counted, known and tracked at regular intervals.

Period in which plan should be updated:

- 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.

1.4 Scope of the plan

The plan is relevant for all the departments as well as sectors of the district. It is aimed at bringing all them strategies for disaster risk reduction under a single umbrella .The plan has a vast scope for inclusion of all the developmental strategies targeted towards the safety of all the sections of the society, especially the vulnerable groups. The plan has include all disaster phases (Prevention, Preparedness, Mitigation, Response and Recovery), hazards addressed, area / district etc.

1.5 **Limitations of the plan**

The proposed plan has its own limitations that may be broadly named as – lack of coordination between the departments, lack of physical and human resources in the district, the low socio economic status of the community, poor infrastructure etc. The said limitations may stand as a hurdle in the implementation of the plan, which can only be handled by making use of all the existing resources in their full potential.

Hazaribagh District at a Glance

1.6 Location & Geographical Area:

The state JHARKHAND came into existence on 15th November 2000 as a 28th State of Union of India after being bifurcated from Bihar State, the Hazaribagh district is one of the 24 district of Jharkhand. The Hazaribagh district is situated on National Highway 33 & 96 km away from state's capital, Ranchi. The Geographical area of Hazaribagh District is 4302 sq. km. The climate is generally dry with average rainfall 1234.5 mm. The temperature varies between 180 to 42.20. However due to global warming, the temperature goes high up to 440.The district of Hazaribagh is a part of North Chotanagpur Plateau. This area is full of several plateaus, mountains and valleys, most part of district are full of forest and stones. Hazaribagh district is surrounded by North- Gaya district of Bihar State and Koderma district, South- Ramgarh and Chatra district, East- Bokaro and Ramgarh district, West- Chatra district.

1.7 Topography:

The Latitude and Longitude of district is 23.50-24.40 and 85.10-85.90 respectively. The average altitude of Hazaribagh is 2012 feet above the sea level.

The physiographic characteristics of the district are rich. It has waterfalls, hills, and land with avalanches. Hazaribagh is surrounded by green forest.

1.8 History

The district of Hazaribag is a part of Chotanagpur plateau. This area is full of several plateaus, mountains and valleys. There are three natural divisions of this district - Medium Plateau, Lower Plateau and Damodar Valley. The district headquarter is a part of medium plateau, which is situated at the height of about 2,000 ft from the sea level. Except the western part of the medium plateau, the whole area is surrounded by the lower plateau. The height of lower plateau is about 1,300 ft above the sea level. Damodar Valley is in the southern part of this district where Ramgarh town is situated which is about 1,000 ft below the districts headquarter.

The main mountains of Hazaribag are Chandwara and Jillinja and their heights are about 2816 and 3057 ft respectively. The main rivers of this district are Damodar and Barakar. About 45% area of this district is forest area. The forest area of this district is full of medicinal plants and trees. Due to negligence and lack of awareness they are on the verge of extinct. Leopards, bears, jackals and foxes etc. freely move in these forests. In the winter season several foreign birds visit these forests areas.

Due to surroundings of mountains and forests this area has been known as Jharkhand from the ancient time. This area is the native place of tribal people. At the time of Mahabharata, King Jarasandh of Magadh Region ruled this area. Later on King Mahapadmanand Ugrasen defeated Jarasandh and occupied this area.

This area is very important from the religious point of view. People from different areas visit the religious, historical and archaeological places of this district. The 23rd Tirthankara Parasnath met his holy end here. In his memory there is a temple on the top of Parasnath Mountain. Presently it is in Giridih district. After the end of the 'Gupta' dynasty in 5th A.D. a State named Chotanagpur was established. King Phanimukta was its first ruler. At the time of Mughal Empire, King Akbar sent a troop under the leadership of Shahbaj Khan to defeat the local ruler of this region.

This district also played a leading role in Freedom Movement. In 1857 Ramgarh Battalion revolted against the English rule. The Non Co-Operation Movement of 1920 moved the sentiments of local people tremendously. Mahatma Gandhi also visited this area in 1925.

There are several ores and minerals in the naturally rich and beautiful district of Hazaribag. Mica and Coal are the main minerals. These minerals are very important from industrial point of view. China clay and limestone are also found in this district.

Most parts of this district are full of forests and stones. The cultivable land can be divided into two parts namely - Upper land and Lower land. The lands situated on the banks of rivers are fertile. One can get good crop even after using lesser amount of fertilizers in these lands. But the upper land is barren. A huge amount of fertilizers and irrigation is required for cultivation in these lands. Rabi and Kharif crops are generally sown here.

Irrigation facility is not adequate in this district due to hilly area. There are small natural rivulets, which are generally used for irrigation. There is no other natural source of irrigation. After independence government has tried and is still trying to solve the problem of irrigation. For irrigation wells and pump sets are used. Damodar Valley Project is also meant for irrigation in this area but these measures are not sufficient. Generally the farmers depend on rain for their cultivation. When there is scarcity of rain, people of this area usually face the problem of drinking water.

Due to mountains, forests, hills, rivers and valleys etc. the communication by road and rails are tedious and tiresome in this district. Much time is consumed for the travel. People of this area live in fear and terror due to extremist activities. Administration is trying its best to cope with this problem.

1.9 Administrative set up:

From administrative point of view Hazaribagh is the district head quarter, Hazaribagh district is a part of North Chotanagpur Division. The district had tow Sub-Divisions namely Sadar Subdivision and Barhi Subdivision. Sadar Sub-Division comprises of 11 blocks namely sadar Hazaribagh, Katkamsandi, Bishnugarh, Barkagaon, Keradari, Ichak, Churchu, Daru, Tatijhria, Katkamdag and Dari, Barhi Subdivision has 5 blocks namely Padma, Barhi, Chalkusa, Chauparan and Barkatha. The district has 1336 Census villages spread over 257 Panchayats.

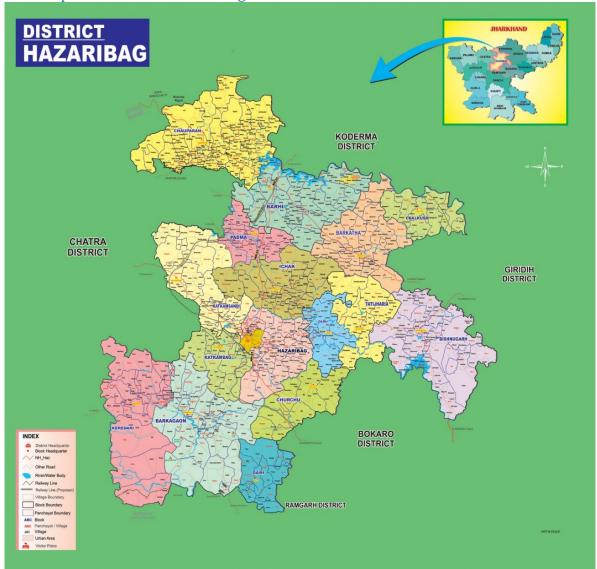
Following are the Designation and Contact no's of administrative Officers of the district:

S.N	Office / Designation	Std code	Telephone no.
1	Donuty Commissioner, Hozoriboa	6546	224805 (o)
1	Deputy Commissioner, Hazaribag		224806(r)
2	D.D.C, Hazaribag	- do-	262624 (o)

3	Director, D.R.D.A, Hazaribag	- do-	263377
4	Add. Collector, Hazaribag	- do-	266463
5	S.D.O, Sadar	- do-	224817 (o)
6	S.D.O, Barhi	6543	266301
7	D.P.R.O,(Panchayat)Hazaribag	6546	266323
8	D.I.O , Hazaribag	- do-	9431334996
9	D.T.O, Hazaribag	- do-	267371
10	N.D.C, Hazaribag	- do-	263449
11	D.P.O, Hazaribag	-do-	265347
11	D.S.O,Hazaribag	-do-	266914
12	Establishment Dy Collector	-do-	9006762785
13	Asst.Dir, Social Security, Hazaribag	-d0-	262869
14	D.P.R.O,Hazaribag	-do-	222851
15	Treasury Officer	-do-	222089

ADMINISTRATIVE INFORMATION				
Particulars	Statistics			
Administrative Units:				
Sub divisions	2			
Tehsils	16			
Panchayat Simitis	257			
Nagar Palika	1			
Gram Panchayats	257			
Revenue villages	1336			
Assembly Area	5			
No of Police Stations	18			
No of Post Offices	117			
Education:				
(a) Primary schools	752			
(b) Middle schools	607			
(c) Secondary & senior secondary schools	106			
(d) Colleges	11			
(e) Technical University	0			
Banking Commercial:				
(a) Commercial Banks	90			
(b) Kshetruya Banks	17			
(c) Central Cooperative Banks	10			
(d) Land Development Banks	3			
News Papers:				
Prabhat Khabar, Hindustan, Dainik Jagaran, (Hindi)Hindustan Times, Telegraph (English), Dainik Bhaskar, Aaj, Khabar Mantra, Azad Sipahi				

1.10 Map of the District Describing Direction



1.11 Demographic Data

In 2011, Hazaribagh had population of 1,734,495 of which male and female were 890,881 and 843,614 respectively. In 2001 census, Hazaribagh had a population of 1,437,626 of which males were 723,626 and remaining 714,000 were females. There was change of 20.65 percent in the population compared to population as per 2001. In the previous census of India 2001, Hazaribagh District recorded increase of 26.13 percent to its population compared to 1991.

Average literacy rate of Hazaribagh in 2011 were 69.75 compared to 57.75 of 2001. If things are looked out at gender wise, male and female literacy were 80.01 and 58.95 respectively. For 2001 census, same figures stood at 71.83 and 42.87 in Hazaribagh District. Total literate in Hazaribagh District were 1,013,249 of which male and female were 596,113 and 417,136 respectively. In 2001, Hazaribagh District had 675,463 in its district.

With regards to Sex Ratio in Hazaribagh, it stood at 947 per 1000 male compared to 2001 census figure of 987. The average national sex ratio in India is 940 as per latest reports of Census 2011 Directorate. In 2011 census, child sex ratio is 933 girls per 1000 boys compared to figure of 972 girls per 1000 boys of 2001 census data.

In 2011, total 122 families live on footpath or without any roof cover in Hazaribagh district of Jharkhand. Total Population of all who lived without roof at the time of Census 2011 numbers to 522. This approx 0.03% of total population of Hazaribagh district.

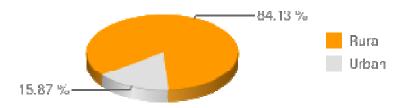
Out of the total Hazaribagh population for 2011 census, 15.87 percent lives in urban regions of district. In total 275,307 people lives in urban areas of which males are 143,947 and females are 131,360. Sex Ratio in urban region of Hazaribagh district is 913 as per 2011 census data. Similarly child sex ratio in Hazaribagh district was 919 in 2011 census. Child population (0-6) in urban region was 35,221 of which males and females were 18,354 and 16,867. This child population figure of Hazaribagh district is 12.75 % of total urban population. Average literacy rate in Hazaribagh district as per census 2011 is 85.49 % of which males and females are 90.59 % and 79.89 % literates respectively. In actual number 205,240 people are literate in urban region of which males and females are 113,777 and 91,463 respectively.

As per 2011 census, 84.13 % population of Hazaribagh districts lives in rural areas of villages. The total Hazaribagh district population living in rural areas is 1,459,188 of which males and females are 746,934 and 712,254 respectively. In rural areas of Hazaribagh district, sex ratio is 954 females per 1000 males. If child sex ratio data of Hazaribagh district is considered, figure is 935 girls per 1000 boys. Child population in the age 0-6 is 246,642 in rural areas of which males were 127,467 and females were 119,175. The child population comprises 17.07 % of total rural population of Hazaribagh district. Literacy rate in rural areas of Hazaribagh district is 66.64 % as per census data 2011. Gender wise, male and female literacy stood at 77.86 and 54.91 percent respectively. In total, 808,009 people were literate of which males and females were 482,336 and 325,673 respectively.

Description	Rural	Urban
Population (%)	84.13%	15.87%
Total Population	14,59,188	2,75,307
Male Population	7,46,934	1,43,947
Female Population	7,12,254	1,31,360
Sex Ratio	954	913
Child Sex Ratio (0-6)	935	919
Child Population (0-6)	2,46,642	35,221
Male Child(0-6)	1,27,467	18,354
Female Child(0-6)	1,19,175	16,867
Child Percentage (0-6)	16.90%	12.79%
Male Child Percentage	17.07%	12.75%
Female Child Percentage	16.73%	12.84%
Literates	8,08,009	2,05,240
Male Literates	4,82,336	1,13,777
Female Literates	3,25,673	91,463
Average Literacy	66.64%	85.49%
Male Literacy	77.86%	90.59%
Female Literacy	54.91%	79.89%

Population Chart

Rural Urban Hazaribagh



Hazaribagh Table Data

Description	2011	2001
Actual Population	17,34,495	14,37,626
Male	8,90,881	7,23,626
Female	8,43,614	7,14,000
Population Growth	20.65%	26.13%
Area Sq. Km	3,555	3,555
Density/km2	488	334
Proportion to Jharkhand Population	5.26%	5.34%
Sex Ratio (Per 1000)	947	987
Child Sex Ratio (0-6 Age)	933	972
Average Literacy	69.75	57.75
Male Literacy	80.01	71.83
Female Literacy	58.95	42.87
Total Child Population (0-6 Age)	2,81,863	2,67,969
Male Population (0-6 Age)	1,45,821	1,35,860
Female Population (0-6 Age)	1,36,042	1,32,109
Literates	10,13,249	6,75,463
Male Literates	5,96,113	4,22,206
Female Literates	4,17,136	2,49,479
Child Proportion (0-6 Age)	16.25%	18.64%
Boys Proportion (0-6 Age)	16.37%	18.77%
Girls Proportion (0-6 Age)	16.13%	18.50%

1.12 Physiographic Details of District

Occupational Structure

The occupational structure of the district is mainly agriculture. The cultivable land can be divided into two parts namely - Upper land and Lower land. The lands situated on the banks of rivers are fertile. One can get good crop even after using lesser amount of fertilizers in these lands. But the upper land is barren. A huge amount of fertilizers and irrigation is required for cultivation in these lands.

Geography

The geography of this taluka comprises of the following things

Rivers : Damodar and Barakar Mountains : Chandwara and Jillinja

Area	4302 Sq. KM.
Latitude	23.5 North to 24.4 North
Longitude	85.1 East to 85.9 East
Geographical Regions	Situated in the north east part of North Chotanagpur Division

Connected Districts	North : Gaya and Koderma South : Ranchi West : Palamu and Chatra East : Giridih and Bokaro
Major Rivers	Damodar and Barakar
Mountains	Chandwara and Jillinja hills

Climate

The climate of this district is pleasant and rainfall is recorded for February till June during the year. The year is divided into four seasons. The winter from December to February, the summer from March to May, the monsoon from June to September (South-West) and post monitor from during October & November.

Soil Texture

Mainly two type of soil are found in Hazaribagh. Due to the presence of iron, soil of Hazaribagh is Red. in color. Presence of Mica gives the soil a little pink color. Lower layer of soil is yellowish. Sandy loam soil is found around the Damodar River basin. The color of soil is a little red, brown & yellow.

Vegetation

The main agricultural seasons in the district are Kharif that starts from the third week of May and lasts till the end of the October. Early varieties of paddy like maize, arhar, etc are grown. Rabi starts at the end of October and lasts till end of February. The main crops grown in this period are wheat, mustard, , gram, barley, potato, etc. Zaid season that begins from March lasts till middle of May. In this period mostly vegetables, like Cauliflowers, Tomato, Lady finger, French beans, etc. are grown.

Rainfall (year 2013)

The average rainfall per year is 1019.9 mm. The month wise distribution is as follows:

Month	Normal Rainfall (in mm)	Actual rainfall (in mm)
January	17.5	0.0
February	14.0	165.4
March	12.4	35.4
April	15.1	95.6
May	32.7	1509.9
June	209.0	2020.3
July	282.1	2277.0
August	292.1	3892.3
September	220.3	1830.5
October	68.6	3753.6
November	6.5	0.0
December	19.2	0.0
January 2014	17.5	283.2
February 2014	14.0	770.6
March 2014	12.4	285.8
April 2014	15.1	0.0
May 2014	32.7	1773.0

1.13 Agriculture and Animal Husbandry

Agriculture is the most affected sector of economy during on disaster like flood, cyclone & earthquake and preside much support to rescue work as it fulfils the primary requirement for food as well as material for industries. Principal Crop is paddy, wheat, maize, millets, mustard and other crop is potato, brinjal, tomato and sugarcane.

No. of Big Farmers in the district : 18054 No. of Marginal Farmers in the district : 97352 No. of Small Farmers in the district : 36769 Others : 58492

Land Use Pattern Data

Total Area : 433633.89 lac hectare
Cultivated Area : 138747.95 lac hectare
Jungle Area : 147364.00 lac hectare
Uncultivated Area : 55573.59 lac hectare
Area being irrigated : 2254 hectares

Crop Pattern Data

Rice 130.744 lac quintal Wheat 15.234 lac quintal Zwar 0.0041 lac quintal Bazra 0.0014 lac quintal lac quintal Maize 16.631 Ragi 0.406 lac quintal Tur 4.633 lac quintal 0.779 Urad lac quintal Moong 0.11lac quintal Ground nut 0.657 lac quintal Sesamum 0.076 lac quintal lac quintal Niser 0.071 Mustard 6.714 lac quintal Linseed 0.411 lac quintal lac quintal Gram 8.12 Masoor 0.796 lac quintal 1.264 lac quintal Pea

Animal Population (2007 census) & veterinary hospitals/doctors

Cattle 501301 Buffalo 121099 Sheep 1305 Goat 392213 Veterinary hospital 1 Veterinary dispensaries 16 Key village hospital 1 Veterinary doctors 19 Veterinary paramedics 11

1.14 Flora & Fauna

Hazaribagh National Park is located with hillocks, deep nullahs, thick tropical forests and grassy meadows. The Sanctuary has wild bears, sambhar, nilgai, chital and kakar, sloth bears, tigers and leopards.

1.15 Industrial Profile

In Hazaribagh District, industries like Agro based, Ready-made garments and embroidery, wood/wooden based furniture, paper & paper products, leather based, chemical/chemical based, mineral based, metal based, Engineering units, Electrical Machinery and Transport Equipment, Repairing & Servicing etc. seem developed.

Damodar Valley Corporation Ltd., Hindustan Petroleum Corporation Ltd., Hazaribagh Mills Pvt. Ltd., Popular Coal and Minerals etc. some of the large scale industries/public sector undertakings in and around Hazaribagh District.

2 Chapter

HAZARD, VULNERABILITY, CAPACITY AND RISK ASSESSMENT

2.1 History of Disaster in the district

Table: 1

Year	Type of Disaster	Area effected	Casualty			
			Dead	Injured	Houses of damaged	Cattles
2007-	Flood					
2008	Drought					
	Fire	3			26	
	Hailstorm					
	Excess Rain	15			749	
	Cyclone	5			168	
	Lightening	4	4			11
	Total	14 Panchayat	4		943	11

Table: 11

Year	Type of Disaster	Area effected	Casualty			
			Dead	Injured	Houses of damaged	Cattles
2008-	Flood					
2009	Drought					
	Fire					
	Hailstorm					
	Excess Rain					
	Cyclone					
	Lightening					
	Total	3 Anchals, 19 Panchayats	2		678	

Table: III

Year	Type of Disaster	Area effected	Casualty				
			Dead	Injured	Houses of damaged	Cattles	
2010-	Flood						
2011	Drought						
	Fire						
	Hailstorm						
	Excess Rain						
	Cyclone						
	Lightening						
	Total	5 Block, 3 Panchayats	8		68	52	

Table: IV

Year	Type of	Area effected	Casualty			
	Disaster		Dead	Injured	Houses of damaged	Cattles
2015-	Flood					
2016	Drought	All 16 blocks				
	Fire	Chalkusa			1	

Hailstorm					
Excess Rain	Sadar,Churchu, Tantijharia, Katakamsandi, Katakamdag	0		Completely- 06 Partially-90 Severely- 10	
Cyclone					
Lightening	Sadar,Churchu, Dari Tantijharia, Padma Chouparan, Barahi, Ichak, Barkatta Katakamdag	19	2		4
Total		19	2	107	4

2.2 Hazard Vulnerability Risk Analysis:

Concept of Hazard Vulnerability and Rask (HVR)

It is evident from the events such as the Indian Ocean Tsunami in 2004, the Kashmir Earthquake in 2005, the Koshi Floods in 2008, the Haiti Earthquake of 2009 and the earthquake in Japan on 11 March followed by a tsunami, which also triggered a nuclear disaster that there has been an increasing frequency of disasters and corresponding losses of human lives and property worldwide. Often, human activities multifariously are exposed to these natural events, thus making communities vulnerable to these events. For instance, the tsunami in Japan triggered a nuclear disaster by damaging the Fukushima Nuclear plant in which communities were exposed to a severe level of radiation.

It is, therefore, essential to understand and study the hazards prevailing in areas and the corresponding risks and vulnerabilities caused by them. Based on these studies, strategies and action plans for preparedness, prevention and mitigation need to be made to reduce the impact of disasters.

Disaster Analysis

I Hazard Assessment

"Hazard is an event or occurrence that has the potential to cause damage to life, property and environment. Hazard assessment is the process of studying the nature of hazards determining its essential features i.e. degree of severity, duration and the extent of the impact area.

II Risk Assessment

Risk has been defined as a measure of the expected losses due to a hazard event of a particular magnitude occurring in a given area over a specific time period. The level of risks depends upon the nature of hazard, the vulnerability of the elements that are affected and the economic value of those elements. Risk is also defined as a probability that negative consequences may arise when hazards interact with vulnerable areas, people, property and environment.

Risk analysis is a methodology to determine the nature and extent of risky by analyzing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property and environment on which they depend.

Therefore, Risk assessment is function of hazard and vulnerability and is often based on an assumption and uncertainty, which contains some degree of errors.

III Vulnerability analysis

The vulnerability of a particular element of community is defined as the degree of loss, which it would suffer as a result of specific hazard event. The nature of vulnerability and its assessment vary according to whether the element involved represents people and social structures, physical structures, or economic assets and activities. Therefore, the vulnerability of an area is determined by the capacity of its social, physical and economic structures to withstand and respond to hazard events.

HRVA is considered to be the first step towards Disaster Risk Reduction (DRR. Risk assessment studies both spatial and temporal dimensions. Thus, there is a need to decide the scale at which the risk assessment is to be conducted

with reference to the timeline for it. The risk maps thus need updating on regular intervals.

HRVA is essential to develop a strong and effective plan; which would focus on the preparedness, prevention, mitigation and response and recovery measures. The DM Act 2005 has emphasized on the importance of conducting HRVA to identify the risks and vulnerabilities.

Vulnerability of the District:

Almost all the 16 blocks are affected by different kind of Disaster. There is great need to strengthen the capacity of District, Block and Panchayat level of departments, institutions and functionaries to respond to the Disaster at their own level in participation of community. Hazaribagh is vulnerable to following kind of Hazards:-

- Forest Fire/Fire
- Road Accident
- Lightening
- Hail / Storm
- Flash Flood / Heavy Rains
- Cyclone
- Opencast coal mining
- Cold wave
- Biological
- भूमिगत जल स्तर के नीचे होने से पेय जल संकट
- Drought
- Riot
- Naxalism
- Earthquake
- Climate Change, Biodiversity loss

EARTHQUAKE

Hazaribagh District faces least to moderate level of earthquake as some part of the district falls under zone II and the rest on zone III in the seismic zoning map of India. Thus district is not prone to earthquake but still preparedness is necessary to avoid loss of life and property. In most earthquakes, the collapse of structures like houses, schools, hospitals and public buildings result in the widespread loss of lives and damage. Earthquakes also destroy public infrastructure like roads, dams and bridges, as well as public utilities like power and water supply installations. Past earthquake show that over 95% of the lives lost were due to the collapse of building that were not earthquake-resistant. Though there are building codes and other regulations which make it mandatory that all structures in earthquake-prone areas in the country/district must be built in accordance with earthquake-resistant construction techniques, new constructions often overlook strict compliance to such regulation and building codes.

FLOOD

The District has experienced least flooding. But sometimes heavy downpours of rain pose as threat to human life as well as cattle.

LIGHTENING

Lightening is a natural phenomenon of the district. Lightening takes lives of humans as wells as cattle almost every year at this district. The Hazaribagh district is highly prone to lightening, especially in the pre monsoon period. The labourers are often victimized during the sowing season. The barren land areas with long isolated trees are the main reason for lightening. There are regions where the intensity of lightning strikes exceeds the moderate zone.

NAXALISM

In last few years internal conflict has intensified in India along most of its regions along the east coast spreading from Nepal border to Tamil Nadu. Though started 40 years ago, it ceased to die out and instead had grown ominously. This region largely includes dense forests and tribal areas and consists of 92,000 sq km. Popularly called the Red Corridor; this area is under the heavy influence of left wing extremists – called Naxals. The area where the Maoists operate has grown dramatically in last two decades. In the early 1990s the number of districts affected by varying degrees of Maoist violence stood at just 15 in four states. This rose to 55 districts in nine states by the end of 2003 and to 32 156 districts in 13 states in 2004. Maoists are currently believed to be operating in around 200 districts (of a total of 604 districts in the country) in 17 states. The worst affected states are Jharkhand, Chhattisgarh, Bihar, and Orissa and Hazaribagh is one of worst naxalism affected district in the state of Jharkhand.

FOREST FIRE:

Forest fires constitute a major threat, as the forests of the District are mostly dry deciduous and are prone to forest fires in the summer season. The longer the interval between two successive fires, the more is the damage due to the higher fuel build up. Therefore, it is essential that a proper disaster management system be put in place. Most of the fires are associated with the activities of mahua and sal seed collection and the desire to promote better grass growth after the rains. The fires caused by mahua collectors are common in March and April and are the cause of wide spread fire damage to the forest growth.

BIOLOGICAL

Hazaribagh is prone to many water and vector borne communicable diseases, which get compounded by poor health knowledge, poor sanitation and scarcity of drinking water.

Ecological changes and regular impact of different kinds of natural disasters like floods, cyclones, droughts and climatic disorders like heat wave create a favourable climate for emergence of new types of pathogenic agents.

The Malaria upsurge in non-endemic areas and drug resistance to malaria in endemic areas is a matter of increasing concern to the District. There is always the potential threat of outbreak of enzoonotic diseases in rural and tribal areas. Food poisoning from eating inedible roots and tubers. It is quite common in tribal areas.

DROUGHT

Irrigation facility is not adequate in this district due to hilly area. There are small natural rivulets, which are generally used for irrigation. There is no other natural source of irrigation. After independence government has tried and is still trying to solve the problem of irrigation. For irrigation wells and pump sets are used. Damodar Valley Project is also meant for irrigation in this area but these measures are not sufficient. Generally the farmers depend on rain for their cultivation. When there is scarcity of rain, people of this area usually face the problem of drinking water. Thus irrigation is a critical input in agriculture and the need for increased food-grain production in the country has accelerated all activities related to development of water resources and its management. Groundwater resources, in particular, have become an invaluable resource for agricultural development and rural water supply schemes in the country. It is a well known fact that timely irrigation boosts crop yields and allows intensive use of land besides providing scope for altering the cropping pattern in favour of high value crops. The fluctuating trend in rainfall over the past few years coupled with the above facts are primarily responsible for the large extent of mono-cropped area in the district, which in turn has led to the deficient food-grain production in the district.

The last decade has shown the increasing severity of Drought situation in the entire state of Jharkhand including Hazaribagh district. The total food production has also decreased significantly.

2.3 Seasonality of Disasters

The following table depicts the various type of natural hazard that are prone in Hazaribagh, its period of occurrence, potential impacts and the vulnerable areas in the District.

S.N	Disaster/Month	Jan-mar	Apr-jun	Jul-sep	Oct-dec
1	Forest Fire/Fire/अग्निकांड	Yes	Yes		Yes
2	Road Accident/सड़क दुर्घटना	Yes	yes	yes	Yes
3	Lightening/वज्रपात		yes	Yes	
4	Hail / Storm/ओलावृश्टि	Yes			Yes
5	Flash Flood / Heavy Rains			Yes	
6	Cyclone/चक्रवात			yes	Yes
7	Opencast coal mining	yes	yes	yes	Yes
8	Cold wave/	yes			Yes
9	भूमिगत जल स्तर के नीचे होने से पेय जल संकट	yes	yes		
10	सुखाड़			yes	Yes
11	Riot/दंगा	yes	yes	yes	Yes
12	Food poisoning at School/Societies	yes	yes	yes	Yes
13	Naxalism	yes	yes	yes	Yes
14	Earthquake	yes	yes	yes	Yes

2.4 Disaster Vulnerability and Impacts

S.N	TYPE OF DISASTER	POTENTIAL IMPACT	AREAS TO BE AFFECTED
1	Forest Fire/Fire/अग्निकांड	Low	Rural area housing / infrastructure & Cattle/Forests
2	Road Accident/सड़क दुर्घटना	Medium	Highways – National and State
3	Lightening/वजपात	Medium	High areas
4	Hail / Storm/ओलावृश्टि	Low	Rural area housing / infrastructure & Cattle
5	Flash Flood / Heavy Rains	Low	Rural area housing / infrastructure & Cattle/Forests
6	Cyclone/चक्रवात	Low	Rural area housing / infrastructure & Cattle
7	Opencast coal mining	Low	Karanpura Valley in the Hazaribagh
8	Cold wave/	Low	Rural area housing / infrastructure & Cattle
9	भूमिगत जल स्तर के नीचे होने से	Low	Rural area housing / infrastructure & Cattle

	पेय जल संकट		
10	सुखाड़	Low	Rural area housing / infrastructure & Cattle/Forests
11	Riot/दंगा	Low	Rural & Urban area housing / infrastructure & Cattle
12	Food poisoning at School/Societies	Low	Rural/Urban people/School children
13	Naxalism	Medium	Rural area housing / infrastructure
14	Earthquake	Low	Rural & Urban area housing / infrastructure & Cattle

3 Chapter

Institutional Mechanism

3.1 Hazaribagh District Disaster Management Authority

For prevention and mitigation effects of disasters and for undertaking a holistic, coordinated and prompt response to any disaster situation it has been decided by the Government. The Disaster Management Act, 2005 provides for the effective management of disasters and for other matters connected therewith or incidental thereto. The Disaster Management ACT, 2005 under section 3, 14 & 25 seek to provide for establishment of National, State and District Disaster Management Authorities.

In line to Disaster Management Act 2005, Hazaribagh District Disaster Management Authority will be constituted as per notification of Government of Jharkhand vide letter no.2/DM-40/2010-824/DM-Ranchi dated 22.09.10 as below

DDMA Structure:

Deputy Commissioner, Hazaribagh
 Chairperson, Zila Parishad
 Additional Collector
 Chairperson
 Co-Chairperson
 Chief Executive Officer

4. Superintendent of Police - Member
5. Deputy Development Commissioner - Member

6. Chief Medical Officer/CS - Member 7. Executive Engineer, DW & SD - Member

3.2 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:-

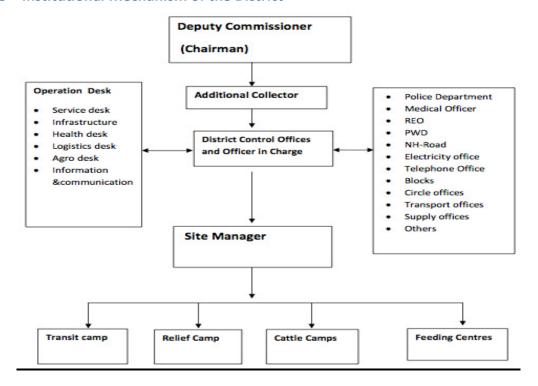
- (i) Prepare a disaster management plan including district response plan of the district
- (ii) Coordinate and monitor the implementation of the National Policy, State Policy, National Plan, State Plan and District Plan
- (iii) Ensure that the areas in the district vulnerable to disasters are identified 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 advise 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 centers or camps and make arrangements for water supply and sanitation in such buildings or places;
- (xxv) Establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at a short notice;
- (xxvi) Provide information to the State Authority relating to different aspects of disaster management;
- (xxvii) Encourage the involvement of non-governmental 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.

Emergency Operation Centre

Hazaribagh district will have an exclusive Emergency Operation Centre (EOC) at District Head Quarter other than the revenue control room. The District EOC is functional of Six days in a week during office hours and is managed by an Emergency Officer. EOC will have certain equipments for dealing with any unforeseen disasters. Considering the unique responsibility of the district Emergency Operation Centre, the equipments provided to it shall not be taken to any purpose other than disaster management. This centre is intended to coordinate all disaster related activities in the district starting from preparedness to rehabilitation and reconstruction. During Emergency, EOC will coordinate with Nodal Officer of Emergency Support Functions and they shall be provided with sufficient telephone connections for effective coordination during crisis. Only the Nodal ESFs are to sit in the EOC and coordinate the disaster management activities in the district with their support agencies. On the basis of the message received from the forecasting agencies, warning has to be issued by EOC for the general public and the departments, which play a vital role during emergencies. Issuing correct and timely warning would be one of the prime responsibilities of EOC. For effective dissemination of warning EOC should have a well-planned line of communication. The DC shall be the competent authority to disseminate a disaster warning.

3.3 Institutional Mechanism of the District



4 Chapter

Prevention and Mitigation Measures

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

Preparedness

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

Mitigation

Mitigation embraces all measures taken to reduce both the effect of the hazard itself and the vulnerable conditions to it in order to reduce the scale of a future disaster. Therefore mitigation activities can be focused on the hazard itself or the elements exposed to the threat. Examples of mitigation measures which are hazard specific include modifying the occurrence of the hazard, e.g. water management in drought prone areas, avoiding the hazard by sitting people away from the hazard and by strengthening structures to reduce damage when a hazard occurs. In addition to these physical measures, mitigation aims at reducing the physical, economic and social vulnerability to threats and the underlying causes for this vulnerability. Proper preparedness and mitigation measures instantly help to respond a disaster in time. So disaster wise preparedness and mitigation is highly required. These are normal time activities. A prepared community is the best community to minimize the loss and damage caused by the disasters. Mitigation focuses on various ways and means of reducing the impacts of disasters on the communities through damage prevention. It is hazard specific including both structural and non-structural issues. It is also very strategic rather than the description of various methods of resistant construction technologies.

Preparedness and Mitigation Measures

Preparedness and mitigation measures towards various disasters certainly help to reduce the risk as well as loss and damage of the life and properties caused by different disasters.

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 functional.

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. Provision of wireless sets at all Sub-division and Taluka Offices for effective communication of cyclone/heavy rainfall/heatwaves. 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. Organization of Mock Drills

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

6. Community Awareness on Various Disasters

The widespread community awareness program in most hazard prone villages is required so that villages are sensitized about the hazard and there are no problems when there is need for evacuation.

- 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
- Awareness on Calamity Relief Fund (CRF)

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.

4.1 Pre Disaster Period

Preparation	Objective	Action Initiated by
Convening District Level	To suggest the least of relief work to	District Emergency
Committee on natural	be undertaken, advise on the	Operation Center
calamity in the month of	precautionary measures to be taken,	
May	directions for stocking of food grains	
	in strategic or key points.	
Identification of	Repairing of breaches, stocking of	Additional collector,
vulnerable points	the sand bags, alerting people near	Cos, BDOs, Executive
according to the expected	highly vulnerable pockets.	engineers
disaster.		
Identification & Indent of	Stocking of food grains and other	Cos, BDOs,
essential commodities for	essential things in GP headquarters	
the inaccessible/scarcity		
pockets		
Selection of Shelters	Arrangements for shelter during	Additional collectors,
	emergency	Cos, BDOs through
		PRIs and local people

Requirement of medicines, formation of mobile teams, identifying epidemic areas				and	Civil surgeon
Arrangement of food and	Stocking of	f the s	ame		
fodder for the cattle					
Organizing Mock drills	Awareness	gener	ation and prac	ctice	District level officers

4.2 Immediate pre disaster

Preparation	Objective	Action Initiated by
Receipt of information	From IMD/SRC control	DEOC
Dissemination of information	room/DEOC From DEOC to all Cos/BDOs/line depts.	DEOC, Head of line depts., sub collectors, BDOs, Tahsildars
Immediate setting and operational of control room round the clock Rescue and evacuation	To evacuate vulnerable people to identified shelters and logistic arrangements	Civil defence unit, police personals, armed forces, fire officers, red-cross team ready with rescue kits which are to be made available to them through the DEOC
Arrangement of free kitchen	To provide immediate feeding to the evacuated people	BDOs/CDPOs/NGOs
Sanitation and medicines	To prevent epidemics and infections	Executive engineer of PHED/Civil Surgeon
Ensuring transportation of relief materials to affected pockets	To ensure that the relief materials reach in time to the affected people	DSO/SDM/BSOs/DTO
Ensuring safety of life and belongings	To prevent anti-social activities	SP/DSP/Inspector and SI of the affected block/NGOs
Ensuring availability of safe drinking water, provision of health facilities and minimum sanitation	To check the onset of epidemics	CS/Executive engineers of PHED
Meeting of field level officers in every 24 hours to review the situation	Better co-ordination	DC,DDC at district level and SDM at sub-divisional level
Collection of information by the core group of the EOC and daily reporting to concerned officers	Triangular linkage between field, district and state control room	Core group of EOC/Officers of line departments
Estimation of number of vehicles – Light/Medium/Heavy	To ensure smooth transportation for relief works	DTO
Arrangement of road cleaners/power sow and other essential equipments	To clean the roads, cut the fallen trees, clear the debris etc.	DTO, Executive Engineer, Executive Officer – Nagar Panchayat
Arrangement of trucks loaded with generators	To move to the field immediately after the disaster is over	DTO

4.3 During Disaster

Preparation	Objective	Action initiated by
	To rescue the trapped and	All the stakeholders
up in action, immediately	injured persons	
after the disaster		
Control room functional	To mitigate the effects of the	District control room, all
round the clock	disaster	line depts., BDOs, Cos
Monitoring	To review the rescue and	DC, SDM
_	relief work	

4.4 Post Disaster

Preparation	Objective	Action Initiated by
Distribution of relief as per provisions	To provide food and other essential commodities for survival	SDM, BDOs, Eos, NGOs
Assessment of Damage	To ascertain the exact loss for reporting to the govt.	All line depts., COs, BDOs, Executive engineers, Sub Collectors
Monitoring the relief operations organized by external agencies/UN agencies/Red Cross / NGOs /Other States etc. by the dist. Authorities	To maintain uniformity of relief administration	DC,SDM
Restoration of communication – Roads & Railways	For timely and Prompt delivery/transportation of relief articles/deployment of rescue teams	Executive engineers of concerned depts., Military and paramilitary forces, police
Restoration of electronic communication system	To ensure proper co- ordination linkage	BSNL Technocrats of police signals
Immediate arrangement of free kitchen for the effected people	To avoid starvation	Sub collectors/BDOs/Line depts./PSUs
Documentation of the entire event-Written, Audio, Video	For reporting purposes and institutional memory	SDM/BDO
Monitoring	To review the relief works and remove the bottlenecks	DC/DDC/AC

4.5 Mitigation Plan for the vulnerable groups

Activity	Directly responsible	Sub division	District
		monitor	Monitor
ICDS centers must run	CDPO	Sub Collector	DSWO
without fail			
NPEGEL schools orphanages	Project Director,	Sub Collector	DEO/DSWO
must run without fail	NPEGEL		
Uninterrupted MDM must be	BEEO/BDO	Sub Collector	DEO/DSWO
provided in all schools			

4.6 Drinking Water for people

Activity	Directly	Sub division	District
	responsible	monitor	Monitor
Pipelines repaired within 48	Concerned SDO,	Sub Collector	Executive
hours of receiving a complaint	PHED		Engineer, PHED
at block / PHD / RWSS			
Prompt/Immediate repair of	Concerned SDO,	Sub Collector	Executive
stand posts	PHED		Engineer, PHED
New tube wells installed at	Concerned SDO,	Sub Collector	Executive
strategic points	PHED		Engineer, PHED
Digging of drinking water wells	BDO	Sub Collector	DRDA
at the place of need			
Renovation of traditional	BDO	Sub Collector	Executive
drinking water sources with			Engineer, PHED
departmental fund of RWSS			

4.7 Public Distribution System

Activity	Directly	Sub division	District
	responsible	monitor	Monitor
To keep close watch on rates of essential commodities and report deviations		SDO	AC/DSO

Monitoring of off take/lifting	Inspector of supplies	SDO	AC/DSO
	/ Marketing officer		
Arrangement for sale of rice,	Inspector of supplies	SDO	AC/DSO
wheat, atta in the affected	/ Marketing officer		
areas			

4.8 Wage Employment/Minimum wages for the able

Activity	Directly responsible	Sub division monitor	District Monitor
Labours shall be provided with work Model percolation tanks shall be dug	BDO	SDO	DC/DRDA
Minimum wages reinforced	DLO	SDO	DLO
Liasioning with govt. for immediate allocation of funds for taking up LI work	BDO	SDO	DC, DRDA
Only labour intensive works will be taken up	BDO	SDO	DC, DRDA

4.9 Epidemic Control and Animal Diseases

Activity	Directly responsible	Sub division monitor	District Monitor
Steps taken on war footing for control of epidemics	Medical Officer	ACMO	CS
Prevention and Control of Animal Diseases	Block Animal Husbandry Officer	SAHO	DAHO

4.10 Plan for capacity Building and Awareness Generation

Activity	Agency Responsible
Training Program on Search and rescue for the teams	SP, Dist. Fire Officer, Civil
	Defense, NGOs
Training program on disaster preparedness for the	NGOs, CS, DSWO
frontline workers of the line depts.(AWW, ANM,	
Sahiya)	
Training on first aid, Health Care, Sanitation for the	CS, BDOs, NGOs
panchayat members	
Mock drills in govt. and non govt. schools	DEO, District fire officer
Wall paintings, street plays	CS-Through field agencies
	BDOs-Through CBOs/volunteers
	NGOs-Through block level NGO
	network
Slide in cinema halls	DPRO and BDO
Hand bills, Paper advertisement, press release	DPRO and BDO
Meetings and group discussions by community	DPRO and BDO
leaders	

4.11 Lightening

Lightening is a natural phenomenon of the district. Every year people as well as cattle die due to the lighting. Therefore the proper measure needs to be taken to reduce the death toll.

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.

Before Disaster	During Disaster	After Disaster
 Installation of an effective lightning rod system Staying inside for at least 30 minutes after the last strike Seeking shelter in a low area and staying away from trees while being caught up in an open area 	Mobilization of specialized equipment and machinery to affected areas Arrangements to be made for quick transportation of	• Arrangements for distribution of
 Staying away from metal objects and tall objects, such as telephone poles, light standards, antennas and tall trees Staying away from water sources like swimming pool, ponds, lakes or rivers 	injured victims to the hospitals	

Do's and Don'ts during Lightning

- If caught on high ground or in an open area, seek shelter in a low area and stay away from trees
- If you are swimming, get out of the water immediately, and move away from the body of water. Being near water is extremely dangerous during a lightning storm
- If you are caught in a lightning storm with a group of people, maintain a distance of at least 50-100 feet between each person
- While inside, keep windows closed, and try to stay within inner rooms of the structure
- In a car, try to avoid touching any part of the metal frame or the car's glass
- Stay inside at least 30 minutes after the last strike. Don't go out if the rain starts letting up

4.12 Drought

There is no substitute for good drought response planning to guide District and local officials in the management of a drought situation. Even with these plans in place, there remains a substantial amount of uncertainty among many communities on how to proceed when a drought event occurs. Improving the effectiveness of local drought response is a primary mitigation action that should be undertaken as part of the District drought plan.

Many of the recommended actions will have direct applications for use in addressing risk to other drought impact sectors including agriculture, the environment, and economic development.

4.12.1 Drought Management:

4.12.1.1 Drinking Water

- There should not be shortage of drinking water
- Drilling rigs should be deployed over drought affected areas for digging adequate no. of wells at strategic points.
- Tankers with potable water should be deployed to the affected rural areas making 3-4 rounds during the day.
- Installation and repairing of Hand Pumps

Task		Activity	Directly Responsible	Sub- Divisional monitor	District Monitor
Drinking	water	Repair within 48 hrs. of	Concerned	Sub-collector	Exe.
for people		receiving a complaint at	SDO, PHED		Engineer,

	Block/ PHD/RWSS office			MI/PHED
New tube wells	Shall be sunk in order of	Concerned	Sub-collector	Exe.
	priority	SDO, PHED		Engineer,
				MI/PHED
Drinking water	To de dug at the place of	BDO	Sub-collector	DRDA
wells/Sinking of	need in consultation			
wells in Ponds	wells in Ponds with Block out of Pas			
	Fund			
Renovation of	To be taken up	BDO	Sub-collector	Exe.
traditional	immediately out of			Engineer, MI
drinking water	departments fund of			
resources	RWSS in consultation			
	with BDO			

4.12.1.2 Contingency Crop Plans

- Choosing suitable crops/crop varieties
- Alternative crop strategies
- Agriculture Officer should seek out contingency plan from the Ministry of Agriculture and provide awareness to the farmers.

S.N	Stages of plant growth	Measures to be taken by farmers
1.	Seedling/ Nursery Stages	Change of micro climate by smoking around the field
		especially during night.
2.	Vegetative Stage	Irrigating the field, smoking the field during night.
3.	Reproductive Stage	
4.	Harvesting Stage	Harvest the crop at physiological maturity stage

4.12.1.3 Livestock Management

- Herds of sheep and goats recover fast, but cattle, buffaloes etc. grow slowly in numbers
- Department of Animal Husbandry should ensure the provision of adequate fodder for protection of livestock
- Farmers can use sugarcane husk, sunflower heads, groundnut/red gram/green gram etc. as cattle feed

4.12.1.4 Drought Proofing:

Harvest rain, involve communities, move from 'drought management' to 'monsoon management'

- Building of dams and irrigation systems
- Revive and strengthen traditional knowledge in water harvesting and conservation if possible.
- If the runoffs of forest areas, mountains and other uninhabited terrain can be harvested, the potential for rainwater harvesting is enormous.
- Making available adequate no. of tanks/ponds in villages for recharging ground water
- Village scale water harvesting must be put higher priority as running water gets lost in a huge amount due to evaporation, infiltration into soil etc.
- A large no. of micro catchments (E.g. 0.1 hectare) provide larger amount of rainwater harvested than a larger catchment though the land area remains the same.

4.12.1.5 Household Strategies

As drought is a frequent phenomenon in Jharkhand, households, the District organisations have evolved various strategies for coping before and after drought.

Before Drought	After Drought	
 crop diversification/ crop variety diversification livelihood diversification staggering of seedling periods early migration keeping land fallow limited re-sowing 	 increased re-sowing if the rains come shift to pulses on upland and medium-level land early sowing of rabi crop providing irrigation to paddy seedlings transplantation of over-mature paddy seedlings to get straw for feeding animals migration asset depletion 	

- borrowings
- reduction in consumption

4.12.2 Drought Measures

- 1. Strengthening of long range, medium range and short range forecasting of monsoon by IMD at Meteorological Sub-Division, District and Block level.
- 2. Artificial recharging of ground water, watershed programmes in privately owned small/marginal farms, laying of pipes/channels for exclusive transportation of water to dry areas.
- 3. Programme for reconstruction and preservation of traditional water harvesting structures, construction of canals for transportation of water from surplus to non-surplus areas, establishment of cost-effective drip /sprinkle irrigation practices etc.
- 4. Construction of "Community Ponds" through Panchayati Raj Institutions (PRI) and maintenance by levying user charges.
- 5. Ensuring provision of medicines and critical health care in the risk prone areas during drought for humans and animals.

Before Disaster	During Disaster	After Disaster
 Dams/reservoirs and wetlands to store water Construction of warehouses and cold storages for preservation / storage of food grains Water rationing Proper selection of crop for drought-affected areas Watershed management Education and training to the people Participatory community programmes Reducing deforestation and fire-wood cutting in the affected areas 	 Ensuring prompt availability of food grains and fodder Ensure availability of drinking water and water needed for basic needs Mobilise district level plans in terms of releasing additional funds to improve irrigation Ensuring prompt supply of inputs like seeds, fertilizers and credit 	Improvement in agriculture through modifying cropping patterns and introducing drought-resistant varieties of crops Animal husbandry activities can help in mitigation with use of improved and scientific methods Arrangements for distribution of gratuitous relief and cash doles

4.13 Earthquake

MEASURES FOR EARTHQUAKE RISK REDUCTION

For better understanding of all the possibilities of earthquake risk reduction, it is important to classify them in terms of the role that each one of them could play. Therefore, in the pre-earthquake phase, preparedness, mitigation and prevention are concepts to work on. Post-disaster, immediate rescue and relief measures including temporary sheltering soon after an earthquake until about 3 months later and reconstruction and rehabilitation measures for a period of about six months to three years need to follow.

To encapsulate, the most effective measures of risk reduction are pre-disaster mitigation, preparedness and preventive measures to reduce vulnerability and expeditious, effective rescue and relief actions immediately after the occurrence of the earthquake. Depending upon the calamity and its consequences, strategies can also be divided into long term (five to fifteen years), medium term (one to five years) and short term (to be taken up immediately in high risk areas). Since it has been realized that earthquakes don't kill people but faulty constructed buildings do, the task of reducing vulnerability of structures and buildings will be the key to earthquake risk reduction. Also, pre-disaster preparedness through a post-earthquake response plan, including training of the concerned personnel in various roles, is considered essential for immediate and effective response after an earthquake occurrence. The major action points are highlighted in the following paragraphs.

PRE-DISASTER PREVENTIVE MEASURES

Long-term measures

- Re-framing buildings' codes, guidelines, manuals and byelaws and their strict implementation. Tougher legislation for highly seismic areas.
- Incorporating earthquake resistant features in all buildings at high-risk areas.
- Making all public utilities like water supply systems, communication networks, electricity lines etc. earthquake-proof. Creating alternative arrangements to reduce damages to infrastructure facilities.
- Constructing earthquake-resistant community buildings and buildings (used to gather large groups during or after an earthquake) like schools, dharamshalas, hospitals, prayer halls, etc., especially in seismic zones of moderate to higher intensities.
- Supporting R&D in various aspects of disaster mitigation, preparedness and prevention and post-disaster management.
- Evolving educational curricula in architecture and engineering institutions and technical training in polytechnics and schools to include disaster related topics.

Medium term measures

- Retrofitting of weak structures in highly seismic zones.
- Preparation of disaster related literature in local languages with dos and don'ts for construction.
- Getting communities involved in the process of disaster mitigation through education and awareness.
- Networking of local NGOs working in the area of disaster management.

POST-DISASTER PREVENTIVE MEASURES

- Maintenance of law and order, prevention of trespassing, looting etc.
- Evacuation of people.
- Recovery of dead bodies and their disposal.
- Medical care for the injured.
- Supply of food and drinking water.
- Temporary shelters like tents, metal sheds etc.
- Repairing lines of communication and information.
- · Restoring transport routes.
- Quick assessment of destruction and demarcation of destroyed areas, according to the grade of damage.
- Cordoning off severely damaged structures that are liable to collapse during aftershocks.

Co-ordination between various agencies involved in rescue and relief work is extremely important to avoid gaps (both in communication and field work) and duplication of effort. Pre-disaster preparation can be conceptualized on the basis of an exercise on hypothetical earthquake occurrence and well-thought out estimates of magnitude of work involved etc.

The following efforts will be useful for preparedness:

- Train communities in high-risk areas in post-disaster search, rescue and relief.
- Practice an extensive programme of mass drills in high-risk areas for earthquake damage reduction.
- Train local NGOs and strengthen their capacity and capabilities.
- Inculcate basic know-how amongst school kids on earthquake dos and don'ts along with safety drills.
- Train field personnel in the science and art of carrying out post disaster damage surveys, for (a) urgent relief purposes and (b) for repair, reconstruction and retrofitting purposes.

During emergencies, affected people need to be involved in the relief activities so as to create a feeling of self-reliance. Also, the sooner they are integrated, the shorter will the period of relief will be.

Post-disaster work would involve:

- Detailed survey of buildings for assessment of damage and repair/reconstruction and seismic strengthening or demolition.
- Selection of sites for new settlements, if required.
- Execution of the reconstruction programme.
- Review of the existing seismic zoning maps and risk maps.
- Review of seismic codes and norms of construction.
- Training of personnel, engineers, architects, builders and masons.

Before Disaster	During Disaster	After Disaster
 Application of science and technology and engineering inputs to improve building design, construction and sitting Conducting extensive public awareness programme and dissemination of information about risks, preparedness and mitigation measures Installing devices that will keep breakages in electrical lines and gas mains from producing fires 	 Setting up of field hospitals in the affected areas and deployment of mobile hospitals Arrangement for food, clothing, blanket / bedding, drinking water, sanitation and hygiene, lighting arrangements and essential medicines Mobilization of specialized equipment and machinery to affected areas Cordoning of affected areas with control of entry and exit Establishment of Temporary shelters for evacuees Setting up of field hospitals in the affected areas and deployment of mobile hospitals 	infrastructure facilities, for example, ports, airports, power stations etc. • Identify the trauma cases and counsel them appropriately • Special attention to ladies, children and elders • Arrangements for distribution of gratuitous relief and cash doles • Identification and demolition of dangerous structures in the affected areas to minimize further

4.14 Cyclones

1. Functioning of Control Rooms:-

- From the start of June, the control Room will be operational 24X7 at the District & Block Head Quarter level.
- During normal time control room should monitor the preparedness activities during pre-disaster, disaster & post disaster, dissemination of early warning on cyclone situation received from Revenue Authorities.
- Ensuring initiation of implementation of public health measures, monitoring trend of diseases and cope with any situation arising out of disaster.
- The line list of district RRT & block RRT with mobile No. of key nodal persons in the cut of areas should be available at district level.

2. Identification of Cyclone Prone areas (Hazard Mapping) & Formation of Zones:-

- The district authorities should identify cyclone prone areas of the district (Block, G.P & Village wise with population) and the list of the affected health institutions based on the last flood / cyclone.
- While hazard mapping, the areas completely submerged / marooned during the last flood / cyclone should be mentioned.
- The districts may be divided into suitable zones keeping in view the operational aspects & each zone is to be assigned to an officer of the rank of

- ADMO/SDMO for supervision and monitoring and to ensure inter departmental coordination for smooth implementation of activities.
- Coordination with revenue division needs to be done for identification of marooned/partially marooned areas, shelter homes, high land & low land areas.

3. Casualty Services & Contingency Plan for Medical Relief Centre:-

- During disasters arrangements should be made to provide casualty services 24X7 at all health institutions.
- Contingency plan to open medical relief centers (MRC) at strategic places to be planned in advance. Those centers should be located at strategic places, so that they can render services to disadvantaged population where existing infrastructures are likely to be ineffective.
- State experiences disasters/cyclone/epidemic each year, the contingency planning should be made in such a way that we need not do the same plan each year & people should be made aware about the plan.
- Mobile Medical team should render the services regularly to displaced persons at their place of shelter and in marooned villages.
- Steps may be taken to make the people aware about the availability of services of 108 ambulances in the districts where ever it is available.

4. Ambulance Services:-

- All the Ambulances of different health institutions of the districts should be kept in readiness.
- Simultaneously, other vehicles have got to be repaired & kept in road worthiness as far as practicable so that they can be pressed in to service during emergency situation.
- In case of non-availability of institutional ambulances, the ambulances may be hired using Untied/ RKS fund of NRHM.
- Wherever 108 ambulance services are available it must be utilized for referral of case

Before Disaster	During Disaster	After 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

4.15 Mining Disasters

Disaster in the Coal Mines

a) Prevention of Mine Disaster from Explosion

- The workers should be well informed about the explosion.
- The area under explosion should be critically examined.

b) Prevention of Mine Disaster from Inundation

- Each Mine shall be critically examined for its proneness to inundation and deliberated in the safety committee of the mine and information disseminated as widely as possible.
- Suitable infrastructure at area level may be provided for drilling advance boreholes to detect presence of waterlogged working in advance.

- Embankment provided against river to guard against inundation should be constructed and properly shown in the underground plan and water danger plan.
- Detailed precautions against inundation by framing and implementation standing order for the safe withdrawal of persons with effective communication system.
- Mechanism may be developed for warning mines about impending heavy rains opening of dams in the river on the upstream side should be examined.

4.16 Fire

Fire accident is the most common accident that occurs in the district. A considerable amount of lives are lost each year due to fire accidents. Below are some of the steps that need to be followed for reduction of loss incurred due to the damaging havoc caused by fire.

Before Disaster	During Disaster	Post Disaster
To familiarize professionals like fire fighters, medical personnel with special tactics and hazards, and enabling them to test their part of the plan 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, shutting off the valves and / or equipment etc. by utilizing the combat team Take measures to preserve the property and minimize damage to environment and loss of material by segregation, covering, salvaging and diverting fire as required Take care of the surrounding areas to reduce the 'domino effect' Nullifying the sources of leak / toxic release 	 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 Identify and characterise the source and its origin Arrangements for distribution of gratuitous relief and cash doles Special attention to ladies, children and elders

Preparedness Measures

The onset of an emergency creates the need for time sensitive actions to save life and property, reduce hardships and suffering, and restore essential life support and community systems, to mitigate further damage or loss and provide the foundation for subsequent recovery. Effective response planning requires realistic identification of likely response functions, assignment of specific tasks to individual response agencies, identification of equipment, supplies and personnel required by the response agencies for performing the assigned tasks. A response plan essentially outlines the strategy and resources needed for search and rescue, evacuation, etc.

Considering all this points, this response plan has been developed. For the first time Incident Command System (ICS) has also been introduced in response plan along with the resource inventory that is directly linked to the website. In fact, during disaster the ICS management tool will be more effective to handle the situation in proper way within limited time.

5.1 Incident Command System

Incident Command Team-I headed by Deputy Commissioner, Hazaribagh:

S.N	Responsibility	Designation	Contact Info	
1	a. Incident Commander	Deputy Commissioner	06546-224805®/ 224806®	
			8986207333	
	b. Deputy Incident Commander	Senior Deputy	06546-266463, 9430318287	
		Collector		
2	Operations Section	DDC	06546-262624, 9431140734	
3	Planning Section	DPO	265347 ,9470922996	
4	Logistics Section	District Statistical	266914, 7870256324	
		officer		
5	Finance/Administration Section	Treasury officer	267748, 9431391756	
6	Safety Officer	Sub Divisional officer	224817, 9431140250	
7	Liaison Officer		9431334996	
8	Information Officer	DPRO	222851, 9470156313	

Incident Command Team-II, headed by Additional Collector, Hazaribagh

	incident Command Team-II	, neaded by Additional	Conector, nazaribagii
S.N	Responsibility	Designation	Name and Contact Info
1	a. Incident Commander	Senior Deputy Collector	06546-266463, 9430318287
	b. Deputy Incident Commander	Sub Divisional officer,	224817, 9431140250
		Sadar	
2	Operations Section	Prabhari Padadhikari,	9431396765
		samanya sakha	
3	Planning Section	Sub Divisional officer	224817, 9431140250
3	Logistics Section	District Welfare Officer	260505, 9431358312
4	Finance/ Administration	District Transport	222089, 9431454542
	Section	Officer	
5	Safety officer	Assistant Director	262869, 9931520911
6	Liaison officer	Est. Deputy Collector	9431396765
7	Information Officer	DPRO	222851, 9470156313

5.2 District Emergency operation Centre (DEOC)

DEOC becomes a nodal point for overall coordination of planning and response. Its main duty is to ensure that the EOC facility has required communication (connecting all stakeholders vertically and horizontally), Decision support system, alert and warning system in working condition. In hazaribagh district EOC facility has been set up at NIC, Hazaribagh. A toll free number of 1077 is being hoisted by DDMA, Hazaribagh for managing the disaster/ disaster like situation in district wide.

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. Knowledge Management, networking and sharing
 - i. Community registries to collate basic contact information for persons with disabilities
- 4. Training of Trainers
 - i. Civil Defense/Home Guards/Volunteers
- 5. Disaster Management Education
 - I Schools,
 - II Colleges: medical, Engineering
- 6. Skill up gradation and follow up training programmes
- 7. Inventory of trained professionals, engineers, architects and masons, medical Professionals, rescue specialists etc.

6.1 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 is not so visible are 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 counseling 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 counseling are far beyond the capacity of available mental health experts. So there is need of community based psycho-social counseling 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
- FLWs of health and ICDS
- PRI members
- People working in NGOs/CBOs and faith based organisations
- Social workers
- Volunteers in NSS, NYKS, NCC

7 CHAPTER

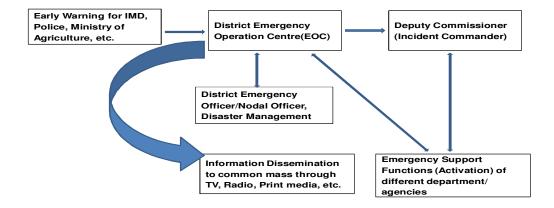
RESPONSE AND RELIEF MEASURES

7.1 Response Plan

The onset of an emergency creates the need for time sensitive actions to save life and property, reduce hardships and suffering, and restore essential life support and community systems, to mitigate further damage or loss and provide the foundation for subsequent recovery. Effective response planning requires realistic identification of likely response functions, assignment of specific tasks to individual response agencies, identification of equipment, supplies and personnel required by the response agencies for performing the assigned tasks. A response plan essentially outlines the strategy and resources needed for search and rescue, evacuation, etc. Considering all this points, this response plan has been developed. For the first time Incident Command System (ICS) has also been introduced in response plan along with the resource inventory that is directly linked to the website. In fact, during disaster the ICS management tool will be more effective to handle the situation in proper way within limited time.

7.2 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 authorities.



7.3 Incident Command System

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

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

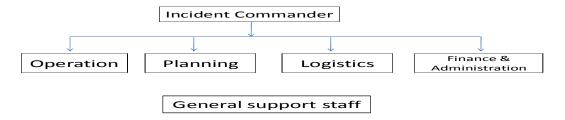
The ICS seeks to strengthen the existing disaster response management system by ensuring that the designated controlling/responsible authorities at different levels are backed by trained Incident Command Teams (ICTs) whose members have been trained in the different facets of disaster response management.

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

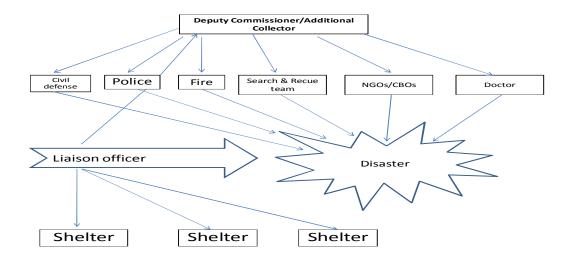
- 1. **Incident Commander:** The Incident Commander is responsible for all incident activity. Although other functions may be left unfilled, there will always be an Incident Commander.
- **2. Operations Section:** Develops tactical organization and directs all the resources to carry out the Incident 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.

7.4 District Incident Command 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 ICS positions in order to constitute the District Level Incident Command Teams (DICTs). The teams will focus on the operational aspects of response management, duly supported by other functions in ICS, e.g. Planning, Logistics, Finance/Administration, etc. 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 DICT 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.



Evacuation Plan:



7.5 Relief Measures

Once the rescue phase is over, the district administration shall provide immediate relief assistance either in cash or in kind to the victims of the disaster. The District Disaster Management Authority, Hazaribagh & its Emergency Support Functionaries shall enter in to pre-contract well in advance and produce materials required for life saving. The office of Deputy Commissioner is responsible for providing relief to the victims of natural & manmade disasters like fire, lighting, drought, earthquakes, riots, naxalism, accidents etc. DDMA, Hazaribagh, vide letter no. 418 dated 13.07.15 from 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. The details are as given below:

Revised List of items and norms of assistance from State Disaster Respond Fund (SDRF) and National Disaster Respond Fund (NDRF)

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

Sl.No.	Items	NORMS OF ASSISTANCE
1.	2	3
	Gratuitous Relief	
	a) Ex-Gratia payments 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 payments for loss of a limb or eye(s)	Rs. 59100/- per person, when the disability 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 away/ fully damaged/severely inundated for more than two days due to a national calamity.	Rs. 1,800/- per family, for loss of clothing. Rs. 2,000/- per family, for loss of 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 Government 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 upto to 30 days, which may be extended upto 60 days in the first instance, if required, and subsequently upto 90 days in case of drought/ per 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 OPERATIONS	
	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 the 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 recommend 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 the Central Team (in case of NDRF). The quantum of assistance will be limited to the actual expenditure incurred pm hiring boats and essential equipment required for rescuing standard 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 camps.	As per assessment of need by SFC and recommendation of the Central Team (in case of NDRF), for a period up to 30 days. The SEC would need to specify the number of camps, 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 periods may be extended to 60 days, and upto 90 days in cased of severe drought. Depending on the flground 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 National 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 will be limited to actual amount raised in the bills by the Ministry of Defense for airdropping of essential supplies and rescue operations only.
	c) Provision of emergency supply of drinking	As per actual, based on assessment of need by SEC and
	water in rural areas and urban areas.	recommendation of the Central Team (in case of NDRF), up to 30 days and may be extended upto 90 days in case of 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.
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 under NDRF.
	b) Draining off 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 (in case of NDRF).
	c) Disposal of dead bodies/carcasses	As per actual, based on assessment of need by SEC recommendation of the Central team (in case of NDRF).
5.	AGRICULTURE	
(i)	Assistance farmers having landholding up to 2 ha	
A.	Assisting for land and other loss	
	a) De-silting of agriculture land (where thickness of sand/silt deposit is more than 3". To be certified by the competent authority if the State Government) b) Removal of debris on agriculture land in hilly areas	RS. 12,200/- per hectare for each item. (Subject to the condition that no other assistance/ subsidy has been availed of by/ is eligible to the beneficiary under any other Government Scheme)
	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.

Input subsidy (where crop loss is 33% and above)	
a) For agriculture crops, horticulture crops and animal plantation crops	Rs. 6,800/- per ha. in rain fed areas and restricted to sown areas. Rs. 13,500/- per ha. in assured irrigation areas, subject to minimum assistance not less than RS. 2000/- and restricted to sown areas.
b) Perennial crops	Rs. 18,000/- ha. for all types of perennial crops subject to minimum assistance not less than RS. 2000/- and restricted to sown areas.
c) Sericulture	Rs. 4,800/- per ha. for Eri, Mulberry, Tussar Rs. 6,000/- per ha. for Muga.
Input subsidy to farmers having more than 2 Ha of landholding	Rs. 6,800/- per hectare in rain fed 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,
ANIMAL HUSRANDRY ASSISTANCE TO	subject to a ceiling of 2 ha. per farmer.
SMALL AND MARGINAL FARMERS	
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. 25000/- Camel/horse/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 of 3 large milch animals or 30 small milch animals or 3 large draught animals or 6 small draught animals per household irrespective of whether a household has lost a larger number of animals. (The loss is to be certified by the Competent Authority designated by the State Government)
	Poultry:- Poultry @ 50/- per bird subject to a ceiling of assistance of Rs 5000/- per beneficiary household. The death of the poultry birds should be on account of a natural calamity.
	Note: - Relief under these norms is not eligible if the assistance is available from any other Government Scheme, e.g loss of birds due to Avian Influenza or any other disease for which the Department of Animal Husbandry has separate scheme for compensating the poultry owners.
ii. Provisions of fodder/ feed concentrate including water supply and medicines in cattle camps.	Large animals- RS. 70/- per day. Small animals- Rs. 35/- per day.
	Period for providing relief will be as per assessment of the State Executive Committee (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 State Executive Committee can extend the time period beyond the prescribed limit, subject to the stipulation that expenditure on this account should not exceed
	above) a) For agriculture crops, horticulture crops and animal plantation crops b) Perennial crops c) Sericulture Input subsidy to farmers having more than 2 Ha of landholding ANIMAL HUSBANDRY ASSISTANCE TO SMALL AND MARGINAL FARMERS i. Replacement of milch animals, drought animals or animals used for haulage. ii. Provisions of fodder/ feed concentrate including water supply and medicines in

	25% of SDRF allocation for the year.
iii. Transport of fodder to cattle outside	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 medicines and vaccine being calamity related. As per actual cost of transport, based on assessment of need
cattle camps	by SEC and recommendation of the Central Team (in case of NDRF) consistent with estimates of cattle as per Livestock Census.
7. FISHERY	
i. Assistance of Fisherman for repair/ replacement of boats, nets- damaged of lostBoat	Rs. 4,100/- for repair of partially damaged boats only. Rs. 2,100/- for repair of partially damaged net.
Dugout- CanoeCatamaran	Rs. 9,600/- for replacement of fully damaged boats.
 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 Government Scheme.) 	Rs. 2,600/- for replacement of fully damaged net.
ii. 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 Government Scheme, except the one time subsidy provided under the Scheme of Department of Animal; Husbandry, Dairying and Fisheries, Ministry of Agriculture.)
8. HANDICRAFTS/ HANDLOOM ASSISTANCE TO ARTISANS	, , ,
i. For replacement of damaged tools/equipment	Rs. 4,100/- for artisan for equipments. — Subject to certification by the competent authority designated by the Government about damage and its replacement.
ii. For loss of raw material/ goods in process/ finished goods	Rs. 4,100/- for artisan for raw material - Subject to certification by the competent authority designated by the state Government about loss and its replacement.
9. HOUSING	· optiocomenti
a) Fully damaged/ destroyed houses	
i. Pucca house	Rs. 95,100/- per house, in plain areas
ii. Kutcha house	
b) Severely damaged houses i. Pucca house ii. Kutcha house	Rs. 1, 01,900/- per house, in hilly areas including Integrated Action plan (IAP) districts.
c) Partially Damaged Houses	
i. Pucca (other than huts) where the damage is at least 15%	Rs. 5,200/- per house
ii. Kutcha (other than huts) where the damage is at least 15%	Rs. 3,200/- per house
d) Damaged/ destroyed huts	Rs. 4,100/- per hut, (Hut means temporary, make shill unit, inferior to Kuthcha house, made of thatch, mud, plastic sheets etc. traditionally recognized as hut by the state/ District authorities)
	Note:- The damaged house should be an authorized construction duly certified by the Competent Authority of the State Government.
e) Cattle shed attached with house	Rs. 2,100/- per shed

10.	INFRASTRUCTURE	
	Repair/ restoration (of immediate nature) of damaged infrastructure:	Activities of immediate nature: Illustration lists of activities which may be considered as works of an immediate nature are given in the enclosed Appendix.
	(1) Roads & bridges (2) Drinking Water Supply works, (3) Irrigation, (4) Power (only limited to immediate restoration of electricity supply in the affected areas), (5) Schools,(6) Primary Health Centers, (7) Community	Assessment of requirements: Based on assessment of need, as per States costs/ rates/ schedules for repair, by SEC and recommended of the Central Team (in case of NDRF).
	assets owned by Panchayat.	 As regards repair of roads, due construction shall be given to Norms for Maintenance of Roads in India, 2001, as amended from time to time, for repairs 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 (OR) and Periodical Renewal (PR) of the State. In case 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 regular maintenance and repair" will no longer be required, in view of the difficulties in monitoring such stipulation, though it is a desirable goal for all States.
		— In case of repairs of Bridge 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 roads, 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 structure will be eligible for assistance @ Rs. 1.5 lakh/ damaged structure. Regarding repair of damaged primary and secondary schools, primary health centers, 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 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 State Executive Committee (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 State Executive Committee (SEC). The total expenditure on this item should not exceed 5% of
13.	State specific disasters within the local context in the State, which are not included in the notified list of disasters eligible for	 the annual allocation of the SDRF. Expenditure is to be incurred from SDRF only (and not from NDRF), as assessed by the State Executive Committee (SEC).

(ii)	assistance from SDRF/ NDRF , can be met from SDRF within the limit of 10% of the annual funds allocation of the SDRF The State Government are to take utmost care a necessary/ mandatory disbursed through the ban The scale of relief assistance against each exceed the norms of SDRF/NDRF. Any amount be borne out of the resources of the State Government are to take utmost care and the scale of relief assistance against each exceed the norms of SDRF/NDRF. Any amount be borne out of the resources of the State Government.	to other notif In these case item for 'loc SDRF. The flexibility formally listed transparent of identification such local distance and ensure that a lik account (viz; Jaritem for all disay the State for such such such local distance and ensure that a lik account (viz) and the State for such such local disay the State for such such such such such such such such	n Dhan Yojana etc.) of the beneficiary. asters including 'local disaster' should not ch disasters over and above the ceiling would
		IX (Item No. 10)	
	Illustrative list of activities ide		ind immediate nature.
1.	Drinking water Supply:		
	 i. Repair of damaged platforms of hand posts, cisterns. ii. Restoration of damaged stand posts in pipe lengths, cleaning of clear water resiii. Repair of damaged pumping machines, 	icluding replace ervoir (to make i , leaking overhe	ment of damaged pipe lengths with new it leak proof).
2.	damaged intake- structure, approach ga Roads:	ntries/jetties.	
	 i. Filling up of breads and potholes, use of embankments. ii. Repair of breached culverts. iii. Providing diversions to the damaged/connectivity. iv. Temporary repair of approaches to bri bridges, repair of causeways to restore stretch of roads to restore traffic. 	/washed out Po	ortions of bridges to restore immediate
3.	Irrigation:		
	 i. Immediate repair of damaged canal structure and earthen/masonry works of tanks and small reservoirs with the use of cement, sand bags and stones. ii. Repair of weak area such as piping or rat holes in dam walls/ embankments. iii. Removal of vegetative material/building material/debris from canal and drainage system. iv. Repair of embankments of minor, medium and major irrigation projects. 		
4.	Health: i. Repair of damaged approach roads, b Centers.		
5.	Community assets of Panchayat:		
	 a) Repair of village internal roads b) Removal of debris from drainage/sewers c) Repair of internal water supply lines d) Repair of street lights. e) Temporary repair of primary schools, Page 1 		community halls, <i>anganwadi,</i> etc.
6.	Power:		
	i. Poles/ conductors and transformers upt		
7.	The assistance will be considered as per th	e merit (toward	
(1)	Items/ Particulars		Norms of assistance will be adopted for immediate repair
(i)	Damaged primary school building Higher secondary/ middle/ college and other institutions buildings	educational	Up to Rs. 1.50 lakh/Unit Not covered

(ii)	Primary Health Centre	Up to Rs. 1.50 lakh/Unit		
(iii)	Electric poles and wires etc.	Normative cost		
		(Up to Rs. 4000 per pole and Rs. 0.50 lakh		
		per km)		
(iv)	Panchayat Ghar/ Anganwadi/ Mahila Mondal/ Yuva Kendra/	Up to 2.00 lakh/unit		
	Community Hall			
(v)	State Highway/ Major District road	Rs. 1.00 lakh/km *		
(vi)	Rural road/ bridge	Rs. 0.60 lakh/km *		
(vii)	Drinking water scheme	Up to Rs. 1.50 lakh/Unit		
(viii)	Irrigation Sector:			
	Minor irrigation scheme/ Canal	Up to Rs. 1.50 lakh/ scheme		
	Major irrigation scheme	Not covered		
	Flood control and anti Erosion Protection work	Not covered		
(ix)	Hydro Power Project/HT Distribution systems/	Not covered		
	Transformers and sub stations			
(x)	High Tension Lines (above 11 kv)	Not covered		
(···/		Not covered		
	building, departmental/ residential quarters, religious			
	structures, patwarkhana, Court premises, play ground ,			
	forest bungalow property and animal/bird sanctuary etc.			
(xii)	Long terrines/ Permanent Restoration work incentive	Not covered		
(xiii)	Any new work of long term nature	Not covered		
(xiv)	Distribution of commodities	Not covered		
		(However, there is a provision for		
		assistance as GR to families in dire need of		
		assistance after a disaster).		
(xv)	Procurement if equipments/ machineries under NDRF	Not covered		
(xvi)	National Highways	Not covered		
		(Since GOI born entire expenditure		
		towards restoration works activities)		
(xvii)	Fodder seed to augment fodder production	Not covered		
	* If OR & PR rates are not provided by the State.	<u> </u>		

The department of Disaster Management Government of Jharkhand, have been allotted budget under their respective head of Accounts –Major Head 2245 Relief on account of Disaster Management to meet the expenditure on payments of gratuitous relief, Tentage, food etc. in case of any incident, natural calamities like fire, bomb blasts, flood, earthquake, etc as well as Human induced Disaster.

Further, power to sanction of relief to the victims have all ready 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, agriculture assistance or relief shall be provided as per decisions of State Executive Committee, Jharkhand State Disaster Management Authority.

7.6 State Level Disaster:

Lighting –vide Sankalp 1055 dated 11.09.2015 and depletion of water level more than 4ft has been declared state specific disaster within the local context in the State Jharkhand, which are not included in the notified list of disasters eligible for assistance from SDRF/NDRF.

7.7 Relief Fund Allocation:

Details of fund with their respective budget head receive by DDMA, Hazaribagh in the FY 2015-16 so far as under:

Allotment amount to Hazaribagh FY: 2015-16

District	Awantan No	Budget Head	Hazard/Disaster	Amount
Hazaribagh	05(AA)/29.04.2015	2245-02-113-03-05-43	House Fire	168100
		2245-02-101-04-06-49	cloth & utensils	54000
Hazaribagh	27(AA)/14.05.2015	2245-02-113-03-05-43	House Fire	17600
		2245-02-101-04-06-49	cloth & utensils	2700
Hazaribagh	31(AA)/19.06.2015	2245-80-102-01-07-59		515000
Hazaribagh	32(AA)/19.06.2015	2245-02-113-03-05-43	House Fire	150000
Hazaribagh	33(AA)/19.06.2015	2245-02-101-03-06-79	Dead Person	896000
Hazaribagh	34(AA)/19.06.2015	2245-02-101-04-06-49	cloth & utensils	55000
Hazaribagh	35(AA)/19.06.2015	2245-02-101-05-06-49	injured person	24000
Hazaribagh	36(AA)/19.06.2015	2245-02-113-02-05-43	House Chakrawat	860000
Hazaribagh	47(AA)/20.01.2016	2245-80-102-13-06-79	Cold wave	150000
Hazaribagh	55(AA)/16.02.2016	2245-02-113-03-05-43	House Fire	48100
Hazaribagh	71(AA)/09.03.2016	2245-80-102-01-07-59	Cloud Burst	591300
Hazaribagh	79(AA)/16.03.2016	2245-01-101-07-06-79	Krishi Input	149210396
Hazaribagh	23(AA)/13.05.2015	2245-01-102-01-03-80	Drinking water	6056000
Hazaribagh	25(AA)/14.05.2015	2245-01-102-02-03-23	Drinking water	6056000
Hazaribagh	82(AA)/18.03.2016	2245-01-102-03-05-43	Hand pump Rep.	20000000
		Total		184854196
Hazaribagh	20(AA)/30.04.2015	2245-80-102-11-06-79	Vajrapat	150000
Hazaribagh	30(AA)/14.05.2015	2245-80-102-11-06-79	Vajrapat	352800
Hazaribagh	51(AA)/03.02.2016	2245-80-102-01-07-59	Vajrapat	1616400
Hazaribagh	69(AA)/04.03.2016	2245-80-102-01-07-59	Vajrapat	780000
Hazaribagh	80(AA)/16.03.2016	2245-80-102-01-07-59	Vajrapat	1350000
		Total		4249200
		Grand Total		18,91,03,396.00

7.8 Minimum Standards of Relief for victims of disasters:

As per section 12 of the Disaster Management Act: National Authority (NDMA) is mandated to recommend Guidelines for the Minimum Standards of Relief to be provided to persons affected by disaster which shall include:-

- a. The minimum requirements to be provided in the relief camps in relation to shelter, food, drinking water, medical cover and sanitation
- b. Special provisions to be made for widows and orphans.
- c. *Ex gratia* assistance on account of loss of life as also assistance on account of damage to house and for restoration of means of livelihood
- d. Such other relief as may be necessary

As per section 19 of Disaster Management Act, 2005, the State Govts are required to "lay down detailed guidelines for providing standards of relief to persons affected by disaster in the State, provided that such standards shall, in no case, be less than the Minimum Standards in the Guidelines laid down by the National Authority in this regards". Hence, NDMA, as mandated by the Act, has worked out the basic minimum standards of relief to be provided to the persons affected by disaster.

DDMA, Hazaribagh shall rendered relief to the Disaster Victims as per Minimum Standard of relief suggested by NDMA.

Definition of Relief and Rehabilitation Camp:-

Relief shelters and Rehabilitation camp shall be set up in order to accommodate people affected by a disaster. The camp shall be temporary in nature, with basic necessities. People in the camp shall be encouraged to return to their respective accommodation once the normalcy is returned.

The District administration sometimes may not be able to implement all the basic guidelines recommended by NDMA from the day one of the disaster and therefore, the following method shall be followed:-

- a) First three days-----Basics norms to the possible extent may be followed.
- b) 4 to 10 days ------Efforts should be made to follow most of the norms recommended by NDAM in this Guideline.
- c) 11 days and above -----NDMA's prescribed norms shall be followed.

The factors like terrain, climate conditions at the site of disaster etc. will also impact the requirement and ability of the administration and other stakeholders to deliver relief. These constraints should also be kept in view while prescribing minimum standards of relief.

S.N	In respect of relief	Steps to ensure Minimum Standards
5.11	<u>-</u>	Steps to ensure minimum standards
	camps	
(i)	Shelter	 a. District Administration shall take necessary steps to pre-identify locations/ buildings like local schools, anganwadi centers/ cyclone shelters/ community centers/ marriage halls etc which can be used as Relief shelters where people can be accommodated in case of disaster in the area. In such centers, necessary facilities like sufficient number of toilets, water supply, generators with fuel for power back up during disasters shall be ensured. b. After a disaster, large covered space shall be required to accommodate the affected people. In order to avoid last minute arrangement and high cost, district administration can explore the option of advance MoUs with manufacturers/ Suppliers for supply of factory made fast track pre-fabricated shelters/ tents/ toilets/ mobile toilets and urinals etc. which can be dismantled and taken back by the supplier after the closure of the camp. This arrangement shall avoid delay in setting up of camp and exorbitant billing of essential supplies. c. In the relief centers, 3.5 Sq.m. of covered area per person with basic lighting shall be catered to accommodate the victims. In mountainous areas, minimum covered area shall be relaxed due to lack of available flat land /built up area. d. Special care shall be taken for safety and privacy of inmates, especially for women, widows and children. e. Special arrangements should be made for differently-abled persons, old and medically serious patients. f. Relief centers shall be temporary in nature and be closed as soon as normalcy returns in the area. g. Sufficient number of sites based on population density shall be identified as relief centers and earmarked well in advance at the time of planning and development of a metro/city/town.
(ii)	Food	a. Milk and other dairy products shall be provided for the children and lactating mothers.b. Every effort shall be taken in the given circumstances to ensure sufficient quantity of food is made available to the affected people (especially for aged people and children) staying in the relief shelters/camps.
		c. Sufficient steps shall be taken to ensure hygiene at community and

	1	comp Tritahana
(iii)	Water	 camp kitchens. d. Date of manufacturing and date of expiry in the packaged food items shall be kept in view before distribution. e. It shall be ensured that men and women are supplied food with minimum calorie of 2,400 Kcal per day. In respect of children/infants, the food to be supplied would be 1,700 Kcal per day. a. Sufficient quantity of water shall be provided in the relief camps for
		personal cleanliness and hand wash. b. It may be ensured that the minimum supply of 3 liters per person, per day of drinking water is made available in the relief camps. Further, the District authorities shall adjust the minimum quantity of water etc as per the geographic, demographic and social practices of the region. If other means for providing safe drinking water is not possible at-least double chlorination of water needs to be ensured. c. In order to ensure adequate water supply, the location of the source of water supply shall preferably be within the premises of relief shelter/camp. However, the maximum distance from the relief camp to nearest water point shall not be more than 500 mtrs. If tapped water supply is available.
(iv)	Sanitation	 a. 1 toilet for 30 persons may be arranged/ built. b. Separate toilet and bath area be catered for women and children. c. At list 15 liters of water per person needs to be arranged for toilets/bathing purposes. d. Hand wash facility in toilets should be ensured. e. Steps may be taken for control of spread of diseases. f. Dignity kits for women shall be provided with sanitary napkins and disposals paper bags with proper labeling. g. Toilets shall not be more than 50 m away from the relief camps. h. 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 least 1.5 m above the water level. i. Drainage or spillage from defection system shall not run towards any surface water source or shallow ground water source.
(v)	Medical cover	 a. Mobile medical teams shall visit relief camps to attend the affected people. Steps shall be taken to avoid spread of communicable diseases. b. If the relief camps are extended over a long time, then necessary arrangement may be made for psychosocial treatment. c. Helpline should be set up and contact number and details of which shall be displayed at the relief/shelters and adequately publicized to inform the people. d. For pregnant women, necessary basic arrangement shall be made by the local administration for safe delivery. e. Advance tie up/ arrangement shall be made with the Govt./ private hospitals so that necessary doctors / para-medical staff are available at short notice for relief camps to attend to the affected people. In respect of people who are affected and being referred to hospitals for treatment/ operation etc. suitable transportation shall be arranged to reach to referred hospital. f. In order to manage mass casualty in a disaster, advance contingency plans for management of multiple causalities shall be developed.
(vi)	Relief for Widows and Orphans	 a. In each camp, a separate register shall be maintained for entering the details of women who are widowed and for children who are orphaned due to the disaster. Their complete details shall be entered in the register, duly counter by the concerned officials and this register shall be kept as a permanent record with the District administration. b. Special care shall be given to widows and orphans who are separated from their families. For widows, certificate by the District Admn shall be issued stating that she lost her husband in the disaster and the same shall be issued within 15 days of disaster. c. As the widow/ family shall be economically weak, the State

- administration shall provide a reasonable amount for the funeral rites of her husband and this payment shall be deducted from the subsequent financial compensation /relief that shall be paid by the Govt.
- d. Necessary financial compensation and other government assistance need to be arranged within 45 days of the disaster to the widow and to the orphaned children. In respect of orphaned children, similar certificate shall be issued and the children need to be taken care of properly and the funds that may be given to the children by the Govt. shall be duly deposited in a PSU Bank in a Joint A/C where the Collector/DC shall be the first account holder of the Bank account. Interest from the fund can be given to the child / guardian every month for his/her proper upkeep. Education for the child shall be ensured by the District / local administration.
- e. As far as ex gratia assistance on account of loss of life as also assistance on account of damage to houses and for restoration of means of livelihood, the norms provided by Govt of India (Ministry of Home Affairs) for assistance from SDRF should be the minimum standards of relief.

Reconstruction, Rehabilitation and Recovery Measures

Rehabilitation and reconstruction comes under recovery phase immediately after relief and rescue operation of the disaster. This post disaster phase continues until the life of the affected people comes to normal. This phase mainly covers 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, awareness and capacity building, housing insurance, grievance redressal and social rehabilitation etc.

8.1 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 redressal

8.2 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 Blocks. The head of a sub-division is called the Sub-Division Officer (SDO) while the head of a block is known as a Block officer.

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.

8.3 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.

8.4 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.

8.5 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.

8.6 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 centers, health departments can practice vaccination drives, public awareness to drink boiled water, use chlorine tablets to purify the water sources.

8.7 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:-

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

8.8 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.

8.9 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.

8.10 Special Relief

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

8.11 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.

8.12 Social Rehabilitation

Disabled persons

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

Children

- Orphaned children are fostered.
- Day centers 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.

Financial Resources for Implementation of DDMP

9.1 Budget and other financial allocations:

(According to ACT No. 53 of 2005 – the Disaster Management Act, 2005, Chapter IX, Finance, Account and Audit.)

District Disaster Response Funds and District Disaster Mitigation Funds are proposed to be created at the District Level as mandated by Section 48 of the DM Act. The disaster response funds at the district level would be used by the DDMA towards meeting expenses for emergency response, relief, rehabilitation in accordance with the guidelines and norms laid down by the Government of India and the State Government.

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

9.2 Financial Requisition for DDMA for FY: 2016-17

In this regard, DDMA Hazaribagh has sent a requisition to JSDMA for allotment for implementation of IEC activity, Capacity Building, sensitization initiatives etc. for the period of FY 2016-17 through vide letter no. 356, Disaster management cell, dated 18/02/2016 as bellow:-

	Financial Requirement for 2016-17				
Code	Programmes /Activities	Unit Cost (In Rs.)	Physic al Target	Amount Approved (In Rs.)	Description
A.1	BCC/IEC activities for DM				
	Hoardings at Block/ District on DM related to Lightening & Thundering remedies	20000	20	400000.00	20 Flex Hoarding (10x10ft) on permanent structure x Rs. 20000
	Development & printing of communication materials (posters, pamphlets, flyers, booklets, flip books, wall writing, flex etc.)/ job aids / IPC tools for issues related to DM.	10000		120000	12 months x 10,000 for printing of IEC materials.
		Sub Total A.1		520000	

A.2	Sensitization meeting				
	Quarterly Sensitization meeting with	10000	4	40000	4 Sensitization meeting with different
	different stakeholders in DM	10000	4	40000	stakeholders x 10000
		Sub Total A.2		40000	
A.3	Initiate Disaster Risk Reduction activities				
	School Safety Disaster Management Plan		16		Participants: School Principal/ Teacher
		39,150.00		6,26,400.00	Duration: 1 day, Batch Size: 35 No.of Batch: 16
	City Disaster Management Plan		1		Participants: Nagar Parisad, Duration: 1 day,
		39,150.00		39,150.00	Batch Size: 35 No. of Batch: 1
	Preparation and Implementation of		16		Participants: Hospital staff Duration: 1 day,
	Hospital Disaster Management Plan	39,150.00		6,26,400.00	Batch Size: 35 No. of Batch : 16
	Community Based DRR & Formulation of		16		Participants: PRI Members, Teachers
	Village Disaster Development Plan	39,150.00		6,26,400.00	Duration: 1 day, Batch Size: 35 No. of Batch:16
	Disaster Psycho-social Care		16		Participants: LS & AWW, ANMs, Duration: 1
		39,150.00		6,26,400.00	day, Batch Size: 35, No. of Batch: 16
	Basic Disaster Management for Police		16		Participants: Block level Police dept. Duration:
	department	39,150.00		6,26,400.00	1 day, Batch Size: 35 No. of Batch: 16
		Sub Total A.3		3171150	
A.4	Annual updation of HRVA Analysis & District DM Plan :				
	District level workshop with different stakeholders for HRVC analysis	12000	1	12000	1 workshop X 12000.00
	,	Sub Total A.4		12000	
A.5	Operational cost on the sustenance of DEOCs	5000	12	60000	Emergency responder vehicle will be operational in District @ Rs 5000 per month
•		Sub Total A.5		60000	
		A.1-5 Total		38,03,150.00	

Procedure and Methodology for Monitoring, Evaluation, Updation & Maintenance of DDMP

10.1 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.

10.2 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.

10.3 Periodic updation Plan

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.

Month	Activity
Jul	Review of DDMP by departments
Jul	Submission of recommendations to DDMA
Aug	Amendments are distributed to all stakeholders

Co-ordination Mechanism for Implementation of DDMP

11.1 Involvement of Defence, Para Military Forces and NGOs:

At district level whatever help would be required during disaster that will be immediately informed to the various departments by the district collector and possible support NGOs and other line agencies in the district would be tapped up. If the District Collector thinks that it cannot cope with the disaster then he can ask help from the defence and paramilitary force.

11.2 Involvement of PRI Members:

Community is the real sufferer and the first responder of any disaster. In disaster situation community develop its own coping mechanisms and strategy to reduce the impact of disaster. So community empowerment and its involvement is vital in disaster management. That is why PRI member focusing ward member declared "Apada mitra" for ensuring community involvement in district wide with vide letter no 3067(DM. Cell), Hazaribagh, dated 26/12/2015.

11.3 NDRF in Disaster Management

Ministry of Home Affairs, Government of India National Disaster Response Force, has raised the National Disaster Response Force (NDRF). The two broad mandate of NDRF is to undertake search and rescue operations during disaster and conduct training and capacity building program during peace time. During disaster, the NDRF may be called for search and rescue operation while services of NDRF can also be utilized for conducting capacity building and training programs for different response groups.

11.4 Temporary Shelter Management

In many emergencies, local authorities would set up public shelters in schools, municipal buildings and places of worship. While they often provide water, food, medicine and basic sanitary facilities.

11.5 Living in Designated Emergency Shelters

- Stay in the shelter until the local authorities say it's safe to leave
- Restrict smoking and ensure that smoking materials are disposed safely.
- Cooperate with local authorities and others staying in the shelter.
- Listen to radio broadcasts
- Watch out for fires
- Assist local authorities and volunteers in the management of water, cooked food and other relief supplies including medical care, if required.
- Make arrangement for pets and cattle before going to a public shelter.
- Organize recreation for children.
- Assist local authorities with the assistance of community members to maintain law and order.
- Immunize the population against epidemics.

Standard Operating Procedures (SOPs) and Check List

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.

12.1 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.

12.2 REVENUE DEPARTMENT

The Revenue Department has been the main department entrusted with the responsibility to coordinate and manage the disasters caused by the Hazards. The department is assisted by the concerned departments/agencies to fulfil the responsibilities assigned. Pre disaster period is the normal times before the disaster months and also the time period just before the first hazard alerts are given by the meteorological department or the CWC/ Irrigation department (Floods).

NORMAL TIMES:

- 1. Holding a meeting of DDMA and with district officials concerned twice in a year before the months of April and September for reviewing the precautionary measures to be taken as per the DM Plans.
- 2. Updating the District Disaster Management plan once every six months. This will be done by the officer specified by the Collector.
- 3. Ensure the communication systems are fully functional for easy and quick dissemination of information. Identify any additional requirement of equipment and operating personnel.
- 4. Updating the list of Voluntary Organizations and NGOs their contact addresses in the district, and provide them to BDO's and Panchayats.
- 5. Ensure Mock drills are carried out periodically. Plan and organize training programs, mock drills etc. for improving community awareness and preparedness for facing the disasters till the other agencies step in.
- 6. Prepare an exhaustive list of equipments used during emergencies such as tractors, bulldozers, transport vehicles, communication equipments, pump

- sets, power generators etc., their availability with Govt. and private agencies and ensure that they are in operational condition.
- 7. Identify vulnerable points/areas in the flood banks.
- 8. Prepare a list of all utility items for meeting any emergency, check their availability in sufficient quantities, make inventory and provide them for reference and use at all levels.
- 9. Devise and implement continuous plan of action to cut, remove and destroy all thorny bushes and trees in vulnerable areas. They become death traps for people.
- 10. Keep adequate number of floats like tyres, inflated rubber tubes, wooden planks, bamboos tied as small platform for people to use for floating during floods.
- 11. Ensure positioning of adequate quantities of vaccines in the respective storage depots. And medical facilities should be increased and Hospitals/PHCs equipped in such a way that they are able to meet emergency situations and requirement of the affected people.
- 12. Ensure that the Veterinary Dept. should plan and strengthen the systems for ensuring prompt veterinary services to the animals and poultry birds. And ensure positioning of adequate quantities of life saving drugs and constitution of medical / Para medical teams.
- 13. Identification of suitable higher places for construction of Helipads. And Plan for construct shelters in any newly identified vulnerable areas. Ensure that the existing shelters are maintained in fit condition.
- 14. Storage facilities for food and essential items should be augmented and inventories are maintained.
- 15. Review the existing flood control structures such as river dams and bunds of rivers, canals and tanks.
- 16. Review thee power distribution system the transmission and distribution towers should be designed to with stand the extreme condition of winds in cyclone.
- 17. Ensure that the line departments mainstream DM activities in their departmental Plans and also review the progress made during each year.

PRE- DISASTER:

- 1. The control Rooms should function round the clock till the necessity ceases. Its contact numbers should be notified in the district editions of the News Papers and also communicated to all Officers in the district.
- 2. Appoint Nodal Officers to oversee the implementation of Disaster Situation to cover all the vulnerable blocks and Villages. They should be positioned in the threatened area to coordinate the evacuation and response action of the stakeholders.
- 3. Inspect the Cyclone Shelters and take up repairs as necessary. And identify all vulnerable points/areas in the flood banks. Ensure that inspection of lock points of rivers and mouths and outlet points of drains.
- 4. Ensure inspection of flood and cyclone stores and make available the required material.
- 5. Organize mass media campaign for Awareness generation among public on natural hazards, which will help build the knowledge, attitude and skills of the people in vulnerability reduction and suitable disaster risk management measures.
- 6. Communicate immediately the first warning to the likely affected area up to Village level and alert all concerned to prepare for facing the disaster. The Control Room at Dist. will keep in constant touch with early warning centres, obtain updates and communicate at frequent intervals.

DURING DISASTER PHASE:

1. The Officer in-charge of the Control Room should maintain a record of incoming and outgoing messages. All the incoming messages should be sent to Collector and Joint Collector and in their absence the DRO.

- 2. All the warnings should be communicated immediately to all the district officers, Divisional officers, BDO's by-e-mail, wireless, Telephone etc. Record of the messages sent should be maintained.
- 3. The Collector shall convene a meeting with all the District Officers at the earliest and issue instructions to all the Nodal Officers or Special Officers to proceed to the areas allotted immediately and report to the Collector that they have reached their Block headquarters, allotted to them and should not leave the area till the clearance is received from the Collector.
- 4. Evacuate marooned and stranded people to safer places such as high raise buildings, schools etc.
- 5. Monitor and rescue people continuously by organizing search through Army, Navy, Air force, Voluntary and youth organizations by deploying navy boats and helicopters. Make arrangements for moving such affected people to the nearest relief camps.
- 6. Keep details of availability of equipment such as power generators, tractors, bulldozers, transport vehicles, communication equipment, pump sets etc. their availability with Govt. and Private agencies, for evacuation and ensure that they are in operational condition. (District, Division, Block)
- 7. Keep adequate number of vehicles ready at the nearest possible point/area to evacuate people in time before the hazard strikes. (District, Division, Block)
- 8. Keep adequate number of floats like tyres, inflated rubber tubes, wooden planks, bamboos tied as small platform for people to use for floating during flood situation. (Community, village and Block)
- 9. Provide first aid and medical assistance for injured and sick people. Special care should be taken for the aged and disabled people, children and pregnant women.
- 10. Deployment of staff in their respective areas with medicines. Nominate medical officers to coordinate with Blocks officers.
- 11. Finalize shelter places in the villages as per the inventory and identified locations in the map, and arrange temporary shelters using tents, Tarpaulins, Plastic sheets etc. Provision of electricity to the identified shelters.
- 12. Deploy Police personal and Volunteers for law and order and provide medical help, if needed transport cases to nearby PHCs/Medical Aid-posts.
- 13. Relief camps for provision of food and drinking water for the evacuated people. Provide temporary sanitation measures for men and women. Ensure adequate security through police at relief camps and at the evacuated villages.
- 14. Identify safe elevate places for animals and advise cattle owners to move them as soon as the order for evacuation is given. And provide fodder & water to the animals where feasible, Carcasses of dead animals should be done quickly to prevent outbreak of infection.

POST DISASTER:

- 1. Huge relief material stocks would be arriving from outside of the affected area and this requires advance planning, provision of staff for receiving, sorting, distribution and dispatch to the areas needing the material.
- 2. Restoration of Road and telecommunication, Electricity, Drinking Water Supply and House construction to the effected people on priority basis.(District, Block, Village)
- 3. Proper record should be made for the dead and missing persons and notify to the concerned authorities for providing compensation on short and long term basis.
- 4. Ensure Mass inoculation and vaccination programmes in the affected areas to prevent outbreak of epidemics by coordinating with Medical & Health Department. Additional medical facilities, hospital and PHCs may be planned and built for meeting increasing requirements.

- 5. Continue Search and disposal of the dead bodies and the carcasses. Ensure sanitation of highest order is maintained at relief camps and affected villages.
- 6. It is essential that spread of epidemics is prevented among people and animals. Respective Departments should take adequate measures by improving sanitation, drinking water and by vaccination. NGOs and other voluntary organizations should be encouraged to run community kitchens at relief camps.
- 7. The Dist. authorities and Line departments should provide comprehensive loss reports to the visiting State and central Govt. teams for arranging compensation. Record all the relief measures taken
- 8. Supply of all essential commodities, such as rice, wheat, pulses, salt, kerosene, diesel etc. should be ensured to all the habitats in the disaster affected areas.
- 9. Sub- Collector/ BDO to arrange for documentation/ record of relief items received from various agencies, distributed and remaining and remaining balances. Reports to be sent to the district administration
- 10. Enumeration of Losses and Damages in a systematic manner, documenting and reporting the same.

Divisional level:

- 1. Holding on divisional level Committee meeting under the Chairmanship of the Revenue Divisional officer/ Sub- Collector in the months of April and September, every year, inviting peoples Representatives in the Division.
- 2. Updating the list of Blocks and Villages vulnerable to disaster.
- 3. Organize teams for evacuation, enumeration of damages and distribution of relief in the division. Gazetted Officers or an officer not below the rank of a Deputy BDO should be Head of the teams. Ensure they are fully conversant with their responsibilities.
- 4. Organization of training to the members of the above teams on the activities entrusted to them in the months of April and August of every year.
- 5. Updating the telephone numbers of Block Level Officers, Railway Station Master, and Police stations including their Cell Nos. located in the Division.
- 6. Identification of the availability of Generators in the Division and the place as which the generators are to be placed.
- 7. Updating of the list of cyclone shelters, buildings of educational institutions Temples, Churches, Mosques, and other public buildings.
- 8. Plan for emergency accommodation at Block Headquarters for Officers and staff coming from outside the jurisdiction of the Division.
- 9. Coordinate with Divisional level Officers in the implementation of department wise disaster plans.
- 10. Ensure keeping adequate stock of essential commodities with the Fair Price Shop dealers.

Block Level:

- 1. Identification of villages vulnerable to disasters in the Block on a map.
- 2. List of names of villages likely to be marooned
- 3. Preparation of list of BPL families, village wise.
- 4. Holding block level meetings with the Block level Officers/ RIs, VROs, and elected representatives of Panchayat Raj Institutions in the months of April, and September.
- 5. Updating of the list of building of Education Institutions, Temples, Churches, Mosques and Public buildings other community Buildings.
- 6. Updating the list of Government Hospitals, Private Hospitals, and Primary Health Centres and Sub- Centres with addresses and telephone numbers.
- 7. Identification of go-downs (both Government and Private) with location and capacity.
- 8. Updating of the list of telephone numbers, addresses of local as well as the District and state level Functionaries concerning with Disaster management

- 9. Preparation of Village level Contingency plans for all villages in the Block.
- 10. Preparation of inventory of rescue and relief materials available and listing them in register with the addresses of owners to make them available when any calamity strikes.
- 11.Inspect the functioning of the Rain gauge stations and early warning systems.
- 12. Prepare an exhaustive list of equipment's used during emergencies such as tractors, bulldozers, transport vehicles, communication equipment's, pump sets, power generators etc., their availability with Government and private agencies and ensure that they are in operational condition.
- 13. Updating the list of available Government and civilian vehicles. Review deployment of vehicles as per plan.
- 14. Updating the Village Organizations, SHGs and Youth Clubs.

Village level:

- 1. Convening of the meetings of the Village Committees under the Chairmanship of the concerned Sarpanch during the first week months of April and September to discuss about the preventive steps.
- 2. Formation of Village Level Teams for assisting evacuation, patrolling etc.
- 3. Identification of area from which people are like to be evacuated to safer places in case of cyclone or floods.
- 4. Identification of low lying areas in the village.
- 5. Preparation of list of phone numbers of Officials concerned at District, Divisional, Block and Village level.
- 6. List of fishermen families and particular of boats with addresses of owners, if it is a fishermen village.
- 7. Identification of Relief Centres and the areas tagged and on to the Relief Centres. Preparation of the list of BPL families in the area.
- 8. Identification of storage facilities.
- 9. Availabilities of cooking vessels.
- 10. List of private vehicles such as Tractors, Jeeps etc. in the village.
- 11. List of nearby private hospitals with phone numbers of Doctors etc.,
- 12. List of tanks affecting Railway, if any, in the village.

12.3 POLICE DEPARTMENT

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/Block/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., Block 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 useful 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 Block 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 routes 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 subdivisional officers/circle inspectors on as required basis.
- 7. Training to teams on Disasters, roles and responsibilities and allotment of duties to these affected 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 Collecterate, 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 to VIPS.

12.4 MEDICAL & HEALTH DEPARTMENT

NORMAL PHASE:

- 1) Civil Surgeon 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 son 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./Block/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's 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, lifesaving 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 nearby 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. DMHO 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 first 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. DMHO will move maximum number of medical and Para medical teams, ambulances and mobile hospitals with adequate equipment's, 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. DMHO should take all measures to ensure that replenishments are made continuously. DMHO will requisition the services of medical teams from unaffected Districts for use in disaster affected areas. DMHO will liaise with State for providing additional specialists teams and equipment's from State headquarters and other States.
- 5. Ensure that sufficient numbers of temporary medical camps are set up in the affected areas. DMHO 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's for providing on the spot specialist services.

POST DISASTER PHASE:

- 1. Ensure that DMHO and other medical authorities at Dist. and Block 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. DMHO 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. DMHO 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 DMHO and other medical authorities at Dist. and Block 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. DMHO 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. DMHO 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, chikungunia, 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.

12.5 ANIMAL HUSBANDARY 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 Block 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 PHASES:

- 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 Block 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's 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's of fishermen are moved to safer places and secured.

- 3. Ensure that poultry farms take measures to safeguard their poultry birds and equipment's. 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 DIASTER 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.

12.6 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 assess 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, Block, division, and district level disaster team with other departments consisting Agriculture, veterinary, Sericulture, Fisheries, Horticulture, Revenue, Panchayat Raj, Irrigation, and Drainage etc.
- 3. Contingency crop plans prepared may be made available up-to Block level in the month of May. Prepare vulnerability maps of villages likely to be prone in

- the Block based on previous year's data (viz. irrigation sources wise areas prone to flood).
- 4. Existing seed storage go-downs (Seed store/oil seed go-downs etc) are to be repaired for storing of seeds during calamities.
- 5. Update credit facilities and crop insurance details from financial institutions
- 6. Ensure that sufficient quantities of agricultural inputs such as seeds, fertilizers, pesticides, equipments 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 feedback 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 DAO.
- 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 database 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:

	Designation	Dolog () Domonoikilition	
S.N	Designation	Roles & Responsibilities	
1.	Joint Director of Agriculture	Formation of Teams	
		 Formation of Control room 	
		 Trainings to DAO 	
		 Preparation of advanced precautionary measures, Pamphlets 	
		Advance indent of seeds & other inputs etc.	
2.	Deputy Director of Agriculture	• In charge of Disaster Management and control room with the assistant technical assistants & subordinate staff.	
3.	Assistant Director of Agriculture	Data base collection	
		 Trainings to DAOs and AEOs 	
		Inputs requirement	
		 Disseminating warning to MAOs& AEO 	
		 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. 	

4.	Block Agriculture Officer	Information to AEO about warnings.
		Training AEOs Adharsa Rythu and VROs etc.
		• 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.N	Action to be taken	Yes/No	Details/Remarks
Α	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 equipments 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		
С	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 Performa		
6	Positioning seeds and other inputs etc.,		
7	Credit facilities to affected farmer liaison with financial		
	institutions		

12.7 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 centers 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 Block 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 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 centers, 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 centers and required fire wood, gas, gas stoves.
- Keep ready for first aid teams with required medicines by contact the PHC, M.O. and Block Tahsildar/ MPDO and position them at the cyclone centers/ relief centers.
- 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 centers identified. And keep all the sanitation material at cyclone centers/ relief centers.

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 Pachayat 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:

Koles	toles 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.	Block Parishad Development Officer, Block Praja Parishad	 Supervise Preparedness of GP. Consolidate village level Assessing preparedness of l information on items listed under GP Assessing Preparedness of primary health centers. Engineering staff at the Block level should repair drainage, road etc. Function as link between district and village level counter disaster activities. Provide Emergency Fund at Block 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, Zilla Parishad	

12.8 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 Block 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-affected areas to assist staff in likely affected areas.
- 5. Staff on leave should return to their Head Quarters.
- 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 stretches 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 centers, from where transport, relief and rehabilitation operations can be undertaken during future disasters.

Roles and Responsibilities:

S.N	Designation	Roles and Responsibility			
1.	Assistant Engineer	Identification of vulnerable points			
	/ Asst. Exe.	reparation and submission of commutes for taking up and			
	Engineer	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 to 					
	Engineer	Executive Engineer.					
		Check measurements of all the works executed by the AE/					
		AEE and submission of bills for payments					
3.	Executive	• Sanction of estimates submitted Deputy Executive Engineer.					
	Engineer	• 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 (Works					
	Engineer	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					

12.9 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 equipments 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.

12.10 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 co ordinate 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. onetime pre cyclone survey.
- 10. Constitution of teams with officers/ NGOs for pre, during, and post disaster activities.
- 11. Ensure that boats and other equipments 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. Conducting Mock drills to alert all fishermen, about the precautions and rescue measures to be followed during disasters.
- 13. Telephone numbers and others contact of officers of officers also to be collected and shall be provided to all concerned up to habitation level.
- 14. The fisheries development officer shall check the functioning of life saving appliances and provide and render services of such equipment.
- 15. List to be prepared active fishermen, families with Livelihood activities and complete address for identification in case of emergency.

DURING DISASTER PHASE:

- 1. Block and villages will arrange for shifting fishermen staying very near the sea and at low lying areas to safer places and relief camps.
- 2. Ensure that boats and other equipments of fishermen are moved to safer places and secured.
- 3. Dissemination of cyclone warnings, weather reports to the fishermen localities, fishing boat operator's departmental personnel and liaison.
- 4. Alerting fishermen elders and fishing boat operators at sea to return to shore
- 5. Collect data of number of boats operating at sea and guide them to a probable route of escape for safe return.
- 6. Evacuation of field staff / volunteers from other safe areas to provide assistance in most vulnerable areas.
- 7. Mobilize expert swimmers to the cyclone / flood hit areas. And alerting the teams for post disaster activities.
- 8. 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:

Roles	Roles and Responsibilities:				
Sr. No	Designation	Roles and Responsibility			
1.	Fisheries development Officer	 The FDO shall be responsible for data gathering 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/ liceneces 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 / FDO at Division Level	 He is the member of the divisional level cyclone, flood relief committee 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				
District Collector for emergency relief work				
• Submission of proposals to Commissioner 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				

12.11 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 Purskar 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:

S.N	Designation	: Roles and Responsibility			
1.	Superintending Engineer	 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, Block 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 lying areas and maps. 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, Block 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. 			
3.	Deputy Executive Engineer	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, Block level, and GP level. Monitoring the Cyclone/ Flood related activities Consolidate the 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. Executive Consolidate the information on vulnerable areas and location Assistant Engineer / Assistant of hand pumps and schemes safe / unsafe low lying areas Engineer 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 Block 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.

12.12 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

- 1. Within the affected district/Block, 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.
- 2. All personnel required for Disaster Management should work under the overall supervision and guidance of District Collector.
- 3. Establish radio communications 1 with district control room and departmental offices within the district.
- 4. All district level officials of the department would be asked to report to the collector.
- 5. Appoint one officer as "NODAL OFFICER Power Supply" at district level.
- 6. 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.
- 7. 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
- 8. 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
- 9. 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

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

12.13TELECOM DEPARTMENT

LSOPs 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 equipments 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, Tele printer 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 Field priorities

Give priority and concentrate on repairs and normalization of communication in disaster areas. Identify the public services within 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 equipments needed.

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

12.14ROLE 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.

12.15 Checklist for DC

12.15.1 DDMP - Checklist for DC

S.N	During Normal Times / During Bi-annual review meeting	Yes / No	Remarks
1	Has DDMP updation person been nominated?		
2	has the following items been updated in ddmp? Communication equipment numbers & functioning list of contact numbers of key members of each department		
	 list of NGO's and their contact details list of resources reqd for DM HRVC - vulnerable villages / areas identified and updated list of possible emergency shelters (schools, hospitals, churches, temples, other public buildings) 		
3	list of trained persons responsible at district, mandal and village level is available and updated		
5	police dept training has been conducted with latest techniques and equipments for effective disaster management and maintenance of law and order? Maps detailing the vulnerable villages / localities are updated and available for		
	use in time of disaster?		
6	has the medical dept made/updated plans for hospital level disaster management?		
7	has mock drills been conducted at key departments: police, medical, search and rescue etc		
8	has mock drills or community awareness programmes been conducted and plans for coming period have been made?		
9	has the resource list (reqd for disaster management) been updated by concerned?		
10	training programmes for general public have been conducted by concerned departments (example - animal rearing and fisherman communities given training on measures to protect against cyclone, farmers being taught agricultural vulnerability reduction measures by agricultural dept etc)		
11	has each department updated / reviewed their departmental DM plan?		
12	are latest technologies being monitored and being checked for feasibility by various departments as preparedness, mitigation measures?		
13	check status of various long term action plans for preparedness and mitigation and gauge its progress; so that corrective actions can be taken where necessary		
14	monitor whether the long term mitigation plans are being incorporated in the normal development plans for most effective results?		
15	monitor whether public infrastructure development has been incorporated with the long term mitigation strategies?		
16	are the physical infrastructure being checked for vulnerability improvement and repairs being made where necessary (ex- for roads, bridges, electricity lines etc)		

S.N	Pre Disaster Phase	Yes / No	Remarks
1	has medical dept circulating awareness on do and donts		
2	Are the medical dept preparations are underway (vehicles, ambulances, food facilities, stockpile of medicines, blood banks etc)		
3	are all departments in working to mitigate disaster impacts? (relocation of equipments, people and cattle; information to departmental designates for DM etc)		
4	for droughts, are sufficient quantities of seeds and food available and stored? Is the condition of godowns acceptable or immediate repairs are needed?		
5	enquire about the quantities and availibility of various resources as listed in idrn resource network		
6	sufficient quantities of chlorine / bleaching powder available for use in water / drinking water		
7	check the daily list of incoming and outgoing messages		

	During Disaster Phase
1	meeting with DM team to brief them on the warning / disaster situation and also
	to issue instructions
	are the emergency shelters usable and are known to everyone?
	availibility of drinking water, food, clothing and sanitation at the emergency
	shelters?
4	is police dept having sufficient resources to enable search and rescue?
	medical dept is sufficiently informed of severity of disaster to plan to improve / expand medical services
6	sufficient number of temporary medical camps are available
	ensure replenishment of emergency resources by co-ordinating / requisitioning from nearby unaffected areas
	timely information being provided to all department designates and monitor whether departments are making optimum use of the information
	During Post Disaster Phase
	have sufficient rehabilitation materials (ex- seeds to farmers) been provided for the affected or relocated persons?
	rehabilitation work is underway and progress is reasonable?
	restoration of essential facilities (road, rail, electricity, telephone, gas, house construction) are underway and progress is reasonable?
	adequate steps are taken to prevent epidemic outbreaks at the emergency centers
	Have the Various depts made and submitted loss reports to decide compensation and also for record?
1	various depts have submitted a written record on the disaster and lists of resources consumed, losses incurred and problems faced?
	is support measure in place for people who can move from relief camps to their places whenever normalcy returns?
8	ensure quick and sooth process for distribution of relief funds to effected
0	Is the information related to disasters is continually given at community
:	shelters (ex-flood warning situation, cyclone warning etc) are steps being taken for rejuvenation of crops at village level?

12.16 Checklist for Department heads.

12.16.1 Preparedness Checklist for the Police Department

- The department is familiar with the disaster response plan and disaster response procedures are clearly defined.
- Orientation and training for disaster response plan and procedures undertaken.
- Special skills required during emergency operations imparted to the officials and the staff.
- Reviewed and updated the precautionary measures and procedures, the
- precautions to be taken to protect equipment, the post-disaster procedures to be followed
- Adequate warning mechanisms established for evacuation.
- An Officer has been designated as Nodal Officer for Disaster Management.
- Sources of materials required for response operations have been identified.

12.16.2 Preparedness Checklist for the Health Department

- The department is familiar with the disaster response plan and disaster response procedures are clearly defined.
- Orientation and training for disaster response plan and procedures undertaken.
- Special skills required during emergency operations imparted to the officials and the staff.
- Reviewed and updated the precautionary measures and procedures, the precautions to be taken to protect equipment, the post-disaster procedures to be followed.
- A hospital plan for the facilities, equipment and staff of that particular hospital based on "The Guide to Health Management in Disasters" has been developed.
- Hospital staff is aware of which hospital rooms / buildings are damage-proof.

- All the staff of the hospital has been informed about the possible disasters in the district, likely damages and effects, and information about ways to protect life, equipment and property.
- An area of hospital identified for receiving large number for casualties.
- Emergency admission procedures with adequate record keeping developed.
- Field staff oriented about DDMP, standards of services, and procedures for tagging.
- An Officer has been designated as Nodal Officer for Disaster Management.
- Sources of materials required for response operations have been identified.

12.16.3 Preparedness Checklist for Energy Department

- The department is familiar with the disaster response plan and disaster response procedures are clearly defined.
- Orientation and training for disaster response plan and procedures undertaken.
- Special skills required during emergency operations imparted to the officials and the staff.
- Reviewed and updated the precautionary measures and procedures, the precautions to be taken to protect equipment, the post-disaster procedures to be followed.
- An Officer has been designated as Nodal Officer for Disaster Management.
- Sources of materials required for response operations have been identified.

12.16.4 Preparedness Checklist for Water Supply Department

- The department is familiar with the disaster response plan and disaster response procedures are clearly defined.
- Orientation and training for disaster response plan and procedures undertaken.
- Special skills required during emergency operations imparted to the officials and the staff.
- Reviewed and updated the precautionary measures and procedures, the precautions to be taken to protect equipment, the post-disaster procedures to be followed.
- Adequate warning mechanisms for informing people to store an emergency supply of water have been developed.
- Procedures established for the emergency distribution of water if existing supply is disrupted.
- An Officer has been designated as Nodal Officer for Disaster Management.
- Sources of materials required for response operations have been identified.

12.16.5 Preparedness Checklist for Irrigation Department

- The department is familiar with the disaster response plan and disaster response procedures are clearly defined.
- Orientation and training for disaster response plan and procedures undertaken.
- Special skills required during emergency operations imparted to the officials and the staff.
- Reviewed and updated the precautionary measures and procedures, the precautions to be taken to protect equipment, the post-disaster procedures to be followed.
- Flood monitoring mechanisms can be activated in all flood prone areas from 1st of June.
- All staff is well aware of the precautions to be taken to protect their lives and personal property.
- Each technical assistant has instructions and knows operating procedures for disaster conditions.
- Methods of monitoring and impounding the levels in the tanks evolved.
- Methods of alerting officers on other dam sites and the district control room, established.
- Mechanisms evolved for forewarning settlements in the downstream, vacuation, coordination with other dam authorities.
- An Officer has been designated as Nodal Officer for Disaster Management.
- Sources of materials required for response operations have been identified.

12.16.6 Preparedness Checklist for Telephone Department

- The department is familiar with the disaster response plan and disaster response procedures are clearly defined.
- Orientation and training for disaster response plan and procedures undertaken.
- Special skills required during emergency operations imparted to the officials and the staff.
- Reviewed and updated the precautionary measures and procedures, the precautions to be taken to protect equipment, the post-disaster procedures to be followed

- An Officer has been designated as Nodal Officer for Disaster Management.
- Sources of materials required for response operations have been identified.

12.16.7 Preparedness Checklist for PWD

- The department is familiar with the disaster response plan and disaster response procedures are clearly defined.
- Orientation and training for disaster response plan and procedures undertaken.
- Special skills required during emergency operations imparted to the officials and the staff.
- Reviewed and updated the precautionary measures and procedures, the precautions to be taken to protect equipment, the post-disaster procedures to be followed.
- All officers are familiar with pre-disaster precautions and post-disaster procedures for road clearing and for defining safe evacuation routes where necessary.
- An Officer has been designated as Nodal Officer for Disaster Management.
- Sources of materials required for response operations have been identified.

12.16.8 Preparedness Checklist for Agriculture Department

- The department is familiar with the disaster response plan and disaster response procedures are clearly defined.
- Orientation and training for disaster response plan and procedures undertaken.
- Special skills required during emergency operations imparted to the officials and the staff.
- Reviewed and updated the precautionary measures and procedures, the precautions to be taken to protect equipment, the post-disaster procedures to be followed.
- Information provided to all concerned officers about the disasters, likely damages to crops and plantations, and information about ways to protect the same.
- The NGOs and the other relief organizations are informed about the resources of the department.
- An Officer has been designated as Nodal Officer for Disaster Management
- Sources of materials required for response operations have been identified.

12.16.9 Preparedness Checklist for Animal Husbandry Department

- The department is familiar with the disaster response plan and disaster response procedures are clearly defined.
- Orientation and training for disaster response plan and procedures undertaken.
- Special skills required during emergency operations imparted to the officials and the staff.
- Reviewed and updated the precautionary measures and procedures, the precautions to be taken to protect equipment, the post-disaster procedures to be followed.
- Hospital staff is aware of which hospital rooms / buildings are damage-proof.
- All the staff of the veterinary hospitals and centers have been informed about the possible disasters, likely damages and effects, and information about the ways to protect life, equipment and property.
- An area of the hospital identified for receiving large number of livestock.
- Emergency admission procedures with adequate record keeping developed.
- An Officer has been designated as Nodal Officer for Disaster Management.
- Sources of materials required for response operations have been identified.

13 Chapter

Annexure: Important Telephone Numbers

13.1 Administration - Hazaribagh

List of Police Officers

LIST OF POLICE OFFICER'S NAME AND CONTACT NO.

S.No	Officer's Rank	Officer's Name	Mobile No.
1	पुलिस अधीक्षक, हजारीबाग	श्री अखिलेश कुमार झा	9431706297
2	ए०एस०पी०, अभियान	श्री कुलदीप कुमार	9631818385
3	अपर पुलिस अधीक्षक, बङ्कागाव	श्री हरिलाल चौहान	9102082901
4	पुलिस उपअधीक्षक, मु0, प्रथम	श्री राधा प्रेम किशोर	9431706298
5	पुलिस उपअधीक्षक, मु0, द्वितीय	श्री दिनेश कुमार गुंप्ता	9431140990
6	पुलिस उपअधीक्षक, सी०पी०आर०	श्री शिवेन्द्र	9631354903
7	अनु० पु०पदाधिकारी, बरही	श्री सुनील कुमार रजवार	9431706299
8	पुलिस निरीक्षक, सदर अंचल	श्री राजीव रंजन कुमार	9431706301
9	पुलिस निरीक्षक, चुरचू अंचल	श्री रेमेजियस टोप्पो	9308288807
10	पुलिस निरीक्षक, बड़कागॉव अंचल	श्री अवधेश कुमार सिंह	9431423316
11	पुलिस निरीक्षक, बरही अंचल	श्री अखिलेश कुमार सिंह	9431362306
12	पुलिस निरीक्षक, विष्णुगढ़ अंचल	श्री विजय सिंह	9771207065
13	पुलिस निरीक्षक, पेलावल अंचल	श्री मो0 खुर्शिद आलम	9471726405
14	पुलिस निरीक्षक, सी०सी०आर० एवं ईचाक अंचल	श्री विजय शंकर	9470111145
15	पुलिस निरीक्षक, बरकट्ठा अंचल	श्री मनिश चन्द्र लाल	9431285759

-प्रखण्ड विकास पदाधिकारी एवं अंचल अधिकारी का विवरण सूची-

प्रखण्ड का	प्रखण्ड विकास	मोबाईल	अंचल अधिकारी का	मोबाईल नं0
नाम	पदाधिकारी का नाम	नं0	नाम	
सदर	श्री राहुल वर्मा	8987485163	श्री राजीव कु0 सिंह	8986772582 7870199100
ईचाक	श्री राम गोपाल पाण्डे	8969725472	श्री द्वारिका बैठा	9431989597
चुरचू	श्री खाखा सु ील कुमार	8809240176	श्री केदार नाथ सिंह	9955747299
पदमा	श्री मलय कुमार	8986652333	श्री असीम बाडा	9431593299
विष्णुगढ़	श्री रंथु महतो	9905151788	श्री रंजीत लोहरा	8002104398
बडकागॉव	श्री अशोक कुमार चोपड़ा	9631136681	श्री संतोश सिंह	9431192628
केरेडारी	श्री राजेश कुमार साहु	8987492575	श्री राजेश कुमार	9431337518
बरकटठा	श्री जय प्रकाश नारायण	7250810541	श्री मनोज कु0 तिवारी	8002681404
बरही	श्री विवेक कुमार मेहता	7352622771	श्री विवेक कुमार मेहता	7352622771
चौपारण	श्री सागर कुमार	9431927652	श्री साधु चरण देवगम	9931145872
कटकमसांडी	श्री गुलाम समदानी	9955529514	श्री संतोश सिंह	9431192628
कटकमदाग	श्रीमती नुतन कुमारी	9386618349	श्री ओम प्रकाश मंडल	9430104541
		7739952828		

टाटीझरिया	श्रीमती मोनी कुमारी	9431798686	श्री हीरा कुमार	9431745300
दारू	श्रीमती सीमा कुमारी	9931150477	श्रीमती सीमा कुमारी	9931150477
डाडी	श्री सुधीर प्रकाश	9431951281	श्री सुधीर प्रकाश	9431951281
		7488349832		7488349832
चलकुशा	श्री प्रेमचन्द कु0 सिंहा	9973716259	श्री प्रेमचन्द कु0 सिंहा	9973716259

जिला मुख्यालय समाहरणालय में पदस्थापित पदाधिकारियों का नाम, पदनाम एवं मोबाईल नम्बर की सूची।

क0	नाम	पदनाम	मोबाईल नम्बर
1.	श्री राजेश कुमार पाठक	उप विकास आयुक्त, हजारीबाग।	9431140734
2.	श्री अंजनी कुमार	अपर समाहर्त्ता, हजारीबाग।	9431140709
3.	श्री अनुज कुमार प्रसाद	अनु० पदा० सदर, हजारीबाग।	9431140250
4.	श्री शब्बीर अहमद	अनु० पदा०, बरही, हजारीबाग।	9431140473
5.	श्री प्रभात कुमार	भूमी सुधार उप समाहर्त्ता, बरही हजारीबाग।	9431107330
6.	श्री अजीत कुमार गुप्ता	कोषागार पदाधिकारी, हजारीबाग।	9431391756
7.	श्री भोगेन्द्र ठाकुर	जिला आपूर्ति पदाधिकारी, हजारीबाग।	9430314237
8.	श्री अजय कुमार	जिला योजना पदाधिकारी, हजारीबाग	9430883259
9.	श्रीमती सरिता डाडेल	जिला शिक्षा पदाधिकारी, हजारीबाग	9431383515
10.	श्री शिवेन्द्र कुमार	जिला शिक्षा अधीक्षक, हजारीबाग	9431831528
11.	श्री अनन्त कुमार	जिला पचायत पदाधिकारी, हजारीबाग	9661287343
12.	श्री राम रतन कुमार वर्णवाल	कार्यपालक दण्डाधिकारी, हजारीबाग	9576572312
13.	श्रीमती मधु कुमारी	कार्यपालक दण्डाधिकारी, हजारीबाग।	9835849764
		प्रतिनियुक्त सदर अनुमण्डल	
14.	श्री कुमुद झा	कार्यपालक दण्डाधिकारी, सदर अनुमण्डल, हजारीबाग।	9931017354
15.	श्री सतीश चन्द्रा	भूमी सुधार उप समाहर्त्ता, सदर	9608463990
16.	श्रीमती वेदवन्ती कुमारी	कार्यपालक दण्डाधिकारी, बरही, हजारीबाग	9905700799
			9122431681
17.	श्री रतिश सिंह ठाकुर	जिला कल्याण पदाधिकारी, ह0बाग।	9431358312
18.	श्री राजीव कुमार सिंह	अंचल अधिकारी, सदर, अति० प्रभार, नाजारत उप समाहर्त्ता, ह0बाग।	8986772582
19.	श्री सुभाश कुमार दत्ता	अवर निबन्धन पदाधिकारी, हजारीबाग।	9470135377
20.	श्री देवेन्द्र नाथ भादुड़ी	जिला जनसम्पर्क पदाधिकारी, हजारीबाग।	9386915298
21.	श्री मिथिलेश कुमार झा	राष्टीय बचत पदाधिकारी	9430312566
22.	श्री प्रवण कुमार पाल	जिला परिवहन पदाधिकारी	9431942442

23.	श्री नारायण विज्ञाण प्रभाकर	निदेशक, डी०आर०डी०ए०	9570213968
24.	श्री अजय कुमार	जिला आपदा प्रबंधन पदाधिकारी	9955480860
25.	श्री हातीम ताई	कार्यपालक पदाधिकारी, नगर पर्षद, हजारीबाग	9431764707
26.	श्री दीपक कुमार साही	वंदोवस्त पदा०, हजारीबाग।	

13.2 Health and Family Welfare Department

Name of the Civil Surgeon : Dr. RS Vandana

Mobile No.: 9431530371, Landline: 06546222787, Fax: 06546222787

Email: cs.hazaribagh@gmail.com

13.2.1 Government/Private Health Infrastructure Details

S. N	Name of the Hospital	Location	Contact Info	Doctor In charge	Bed Capacity	No. of Ambulance	Specialization/ Facilities
1	Sadar	Main Road,	9431324682	Dr. AK Singh	220	1	FRU
	Hospital	Hazaribagh					

A. List of Community Health Centers (CHC)

S.	Name	Location	Contact Info	Doctor In charge	No of	No of	Specialization
N					Beds	Ambulances	/ Facilities
1	CHC	Barhi	09470147395	Dr. SS prasad	6	1	
2	CHC	Barkagaon	09431168052	Dr. RC Prasad	6	1	FRU
3	CHC	Barkatha	09931105477	Dr Shivani Yadav	6	0	
4	CHC	Chouparan	09431531031	Dr. Bipin Kumar	6	0	FRU
5	CHC	Churchu	09431411465	Dr. Yogendra Singh	6	1	
6	CHC	Ichak	09334619803	Dr. Surendra Kr. Prasad	6	0	
7	CHC	Katkamsandi	09431503425	Dr. SK Rajan	6	1	
8	CHC	Keredari	09771222828	Dr. Sanjiv Kumar	6	1	
9	CHC	Sadar	09835542127	Dr. Sandhya Topno		1	

B. List of Primary Health Centers (PHC)

S.N	Name	Location	Contact	Doctor In	No of	No of	Specialization
			Info	charge	Beds	Ambulances	/ Facilities
1	Padma	Barhi				3	
2	Champadih	Barhi				3	
3	Gouriya Karma	Barhi				3	
4	Harli	Barkagaon				3	
5	Badam	Barkagaon				3	
6	Chamgarha	Barkagaon				3	
7	Chalkussa	Barkatha				3	
8	Bankharo	Bishnugarh				3	
9	Basariya	Chouparan				3	
10	Charhi	Churchu				3	
11	Ango	Churchu				3	
12	Sultana	Katkamsandi				3	
13	Daru	Sadar				3	

C. List of Hospital/Nurshing Home

S.NO	Name of Hospital/Nurshing Home	Contact No.
1	2	3
1	Sadar Hospital	222787/222222
2	Hazaribag Nursing Home	263561
3	Mission	222272
4	Sahay	223041
5	H.Bag Child	262153
6	Life Line	261010
7	Vandana	251629
8	Biseswar	222922

9	Shanti	266585
10	Jaipuriyar Hospital	267100
11	Seva Sadan	267618
12	Nidan Nusrshing Home	264643

D. Name of Diagnostic Centers/ X-Ray Pathology

S.N	Name of Diagnostic Centre X-Ray Pathology	Contact No.
1	2	3
1	Aashirwad	9234095355
2	Life Line Pathology	264893, 9835244530
3	Hazaribag Pathology	262152
4	Laxmi	9430125398
5	Asha Kumud Pathology	262275
6	Micro Pathology	264717, 9835378210
7	Thyro Care	9934338627

E. List of Ambulance Service

S.N	.N Name of Ambulance Service Contact No.	
1	2	3
1	Rahmetey Aalam Trust	9973277928
2	Red Cross	9835957800
3	Agarwal Yuva Manch	9431140785
4	Md.Khalid	9835378210
5	Gyan Jyoti	9431393782

F. Mobile Medical Unit

Sl.	Name	e Location		In charge
No.				
1	Citizen Foundation Barkatha Chouparan		09263630782	Prakash Kumar
2	Sons Care	Churchu Bishnugarh	09006375992	Mukesh Kumar Mishra
3	Sons Care	Katkamsandi Keredari	09006375992	Mukesh Kumar Mishra
4	Marksman Welfare Society	Katkamsandi Churchu	08935998434	Vinay Kumar Rana

A. Summary of Paramedics:

Sl	Type Of Paramedics	Govt. Hospital	CHC	PHC	Private Hospital	Total
N		_			-	
1	Health Worker (Female)/ ANM	1	46	32		79
2	Health Worker (Male)	3	0	0		3
3	Health Assistant (Female)/LHV	7	4	0		11
4	Health Assistant (Male)	21	0	0		21
5	Nursing Staff	29	0	0		29
6	Radiographer	3	4	0		7
7	Pharmacist	2	3	0		5
8	Lab Technicians	5	17	2		24

13.3 FIRE AND EMERGENCY DEPARTMENT

	SL NAME OF THE FIRE STATION	_	LOCATION	NAME OF OFFICER	MOBILE & LAND	NUMBER OF STAFF AVAILABLE AT FIRE	NO OF FIRE TENDER AVAILABALE	REMARKS	
	FIRE STATION		INCHARGE	LINE NO.	STATION	AT FIRE STATION			

1	HAZARIBAG HEARNGANJ	COLLEGE MORE, HEARNGANJ	NARESH PRASAD	7870083266, 06546-222666	FIRE OFFICERS- 12 INSPECTOR- HAVALDAR-03 CONSTABLE-08	THREE	TWO BRIDGING OPERATO RS
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13.4 Details of Industries in Hazaribagh

Name of the	Product	Type of	Location	Contact Person&	DM Plan	DM Equipment Details
Industry		threat		mobile Number		
M/s Chintpurni Steel Pvt. Ltd.	Sponge Iron	Fire	Morangi, Demotarh	Dhananjay Kumar Makay 09431109494	Approved by factory Inspector	Safety Belt, D-Cycle, First Aid Box, Fire Buckets with Sand, Fire Extinguisher
M/s Anindita Steels Pvt. Ltd.	Sponge Iron	Fire	Selegarha, Rabud	A Varma 09386898929	Approved by factory Inspector	Safety Belt, D-Cycle, First Aid Box, Fire Buckets with Sand, Fire Extinguisher
M/s Chandrawati Rice Mill Pvt. Ltd.	Rice	Fire		Rupesh Chandra 09431159881	Approved by boiler Inspector	First Aid Box, Fire Buckets with Sand, Fire Extinguisher
M/s Hemkunt Rice Mill Pvt. Ltd.	Rice	Fire	Demotand	Manjeet Singh Kalra 09431140190	Approved by boiler factory Inspector	First Aid Box, Fire Buckets with Sand, Fire Extinguisher
M/s Hazaribagh Rice Mill Pvt. Ltd.	Rice	Fire	Morangi	Ravi Ranjan Mishra 09431473291	Approved by boiler Inspector	First Aid Box, Fire Buckets with Sand, Fire Extinguisher
M/s Ganapati Rice Mill Pvt. Ltd.	Rice	Fire	Demotand	Arun Kumar 09431140406	Approved by boiler Inspector	First Aid Box, Fire Buckets with Sand, Fire Extinguisher
M/s Rashmi Rice Mill, Pvt. Ltd.	Rice	Fire	Nawada Tola, Bansha Mukundganj	Siyaram Singh 09431170157	Approved by boiler Inspector	First Aid Box, Fire Buckets with Sand, Fire Extinguisher
M/s Aditya Rice Mill, Pvt. Ltd.	Rice	Fire	Morangi Demotand	Prakash Jee 09431922328	Approved by boiler Inspector	First Aid Box, Fire Buckets with Sand, Fire Extinguisher
M/s Sankat Mochan Rice Mill, Pvt. Ltd.	Rice	Fire	Motangi	Anjani Kumar 09431350399	Approved by boiler Inspector	First Aid Box, Fire Buckets with Sand, Fire Extinguisher
M/s Bhandari Feeds, Pvt. Ltd.	Poultry Feeds	Fire	Babhanve Mukundganj	Rajesh Bhandari 09431140099	Approved by boiler Inspector	First Aid Box, Fire Buckets with Sand, Fire Extinguisher
M/s Mehta Feeds, Pvt. Ltd.	Poultry Feeds	Fire	Hadari ichak	Mahabir Pd. Mehta 09431504088	Approved by factory Inspector	First Aid Box, Fire Buckets with Sand, Fire Extinguisher
M/s Sudi Plastic Pvt. Ltd.	PVC Pipes	Fire	Morangi	Dilip Kumar Saw 09431140975	Approved by factory Inspector	First Aid Box, Fire Buckets with Sand, Fire Extinguisher
M/s Lucky Rice Mill	Rice	Fire	Demotanh	Munna Tiwari 09431393926	Approved by boiler Inspector	First Aid Box, Fire Buckets with Sand, Fire Extinguisher

13.5 ROAD CONSTRUCTION DEPARTMENT 1. ROAD COMMUNICATION DATA

SL.N	NAME OF ROAD	FROM	TO	LOAD	BOTTLENECKS	REMARKS
0				CLASS	(IF ANY)	
1	Hazaribag-Katkamsandi-Chatra	Indrapuri Chowk	Indra Gram	MDR-010	At Km 09,11	Bridge under
	Road				H.L Bridge	construction
2	Hazaribag-Barkagaon-Tandwa	Hazaribag	Keredari	SH-07	At Km 10,21 27	Bridge under
	Road				H.L	construction
3	Jihoo-Itkhori Road	Jihoo More	Garu Kuraha	MDR-069		
4	Khorhar-Goria-Karma Road	Devchanda More	Karma	MDR-096		
5	Hazaribag Lake Road			MDR-097		
6	Mukundganj-Harhad-Hupad Road	Demotand	Hupad	MDR-098		
7	Dwari Roll Road	Indra More	Roll	MDR-099		
8	Banaso-Budgada Via Penk Road	Banaso	Budgadda	MDR-093		
9	Dhobiadih-Dhamna Via Barhi	Dhobiadih	Dhamna	NH-2		
	Chowk					
10	Konark Bridge NH-33 Hawai	Konark Bridge	Hawai Adda	NH-33	At Km 41 H.L	Bridge under
	Adda Road				Bridge	construction

1	l1	Bugodar-Hazaribag (St. Columbas	St. Columbas	Korrah	MDR-094	
		College to Korrah Chowk) Road	College	Chowk		
1	12	Hazaribag (St. Columbas College)	St. Columbas	Hatyari NH-		
		Churchu Hatyari More (NH-33)	College	33		
		Road				

2. BRIDGES DATA

SL. NO	NAME OF BRIDGE	LOCATION	NAME OF RIVER/NALA ON WHICH MADE	LOAD CLASS	LENGTH	WIDTH	REMARKS
1	H.L Bridge in Hazaribag-	9.0 KM	Chharwa Dam	70 R	86.40 M	12.0 M	Under
	Katkamsandi-Chatra Road						Construction
2	H.L Bridge in Hazaribag-	11.0 KM	Lapasia River	70 R	21.64 M	12.0 M	Under
	Katkamsandi-Chatra Road						Construction
3	H.L Bridge in Hazaribag-	33.0 KM	Garri Nala	70 R	33.20 M	12.0 M	
	Barkagaon-Tandwa-Road						
4	H.L Bridge in Hazaribag-	27.0 KM	Hardhara Nala	70 R	55.80 M	12.0 M	Under
	Barkagaon-Tandwa-Road						Construction
5	H.L Bridge in Hazaribag-	21.0 KM	Burhmu Nala	70 R	12.60 M	12.0 M	Under
	Barkagaon-Tandwa-Road						Construction
6	H.L Bridge in Hazaribag-	4.5 KM	Konar River	70 R	24.64 M	3.75 M	
	Barkagaon-Tandwa-Road						
7	H.L Bridge in Hazaribag-	9.5 KM	Bokaro River	70 R	33.24 M	12.0 M	Under
	Barkagaon-Tandwa-Road						Construction
8	H.L Bridge in Hazaribag-	21.20 KM	Budhia Nala	70 R	10.24 M	12.0 M	Under
	Barkagaon-Tandwa-Road						Construction
9	H.L Bridge in NH-33 Road	41.0 KM	Konar River	70 R	32.0 M	12.0 M	Under
							Construction

13.6 ANIMALS HUSBANDRY DEPARTMENT

VETERINARY HOSPITALS/ INFRASTRUCTURE DATA:

Name of District Animal Husbandry Officer – DR. VIJAY KUMAR SINGH Mobile No . 8987463654 Landlinee No. 06546-267539

1. Veterinary Hospitals (Government / Private) Infrastructure Details

S.N	1	cation	Contact No	Name of Doctor -In-	No. of	Specialization	
	Hospitals /Centers			charge	Vehicles	/ Facilities	
Dist	District Veterinary Hospital / Private Hospital						
1	District Veterinary Hospital Hazaribagh	Pagmil, Hazaribagh	9431509005 9431577168	Dr Dara Sikoh Dr binay Kumar rai		CASTRATION, VACCINATION, INFERTILITY &	
2	Key Village Hospital	Pagmil, Hazaribagh	9631149792	Dr Madhusudhan Bhagat	1	TREATMENT CAMPS	
	erinary Dispensaries at Blo					MEDICINE	
1	Veterinary Dispensary Chauparan	Block Campus	9934142937	Dr Ram Nerash jha		DISTRIBUTION	
2	Veterinary Dispensary Barl	ni Block Campus	9431326476	Dr Dharm Rakshit Vidyathi	1		
3	Veterinary Dispensary Barkhatha	Block Campus					
4	Veterinary Dispensary Bishnugarh	Block Campus					
5	Veterinary Dispensary Chirchu	Block Campus	9809072365	Dr Dilip Ku Rajak			
6	Veterinary Dispensary Keredari	Block Campus	9431331716	Dr Latika			
7	Veterinary Dispensary Barkagaon	Block Campus	9430352568	Dr Kushum Khalko			
8	Veterinary Dispensary Katkamsandhi	Block Campus	8987630419	Dr Amulya Kishor Kachhap			

9	Veterinary Dispensary Ichak	Block Campus	9572535542	Dr Anil Ku Das	1
10	Veterinary Dispensary Padma	Block Campus	9304232557	Dr Suraj Kumar	1
Vete	rinary Hospital at Panchayat	or Village level		<u> </u>	
1	Veterinary Dispensary Rampur	Chauparan Block	9431506788	Dr Kavindar Nath Singh	
2	Veterinary Dispensary Jhumra	Sadar Block	7764901224	Dr Vijay Munda	
3	Veterinary Dispensary Morangi	Sadar Block	9835350800	Dr Saroj	1
4	Veterinary Dispensary Chandwar	Sadar Block			1
5	Veterinary Dispensary Sultana	Katkamsandhi Block	9431174093	Dr Ratan Ku Dubey	
6	Veterinary Dispensary Baliya	Barkagaon Block	9431107787	Dr Dinesh Ku Pradeep	

2. Summary: Veterinary Hospitals

Details	Number of Government Veterinary Hospital	Total
Number of Veterinary Hospital	1	1
Number of Veterinary Dispensaries	16	16
Key Village Hospitals	1	1
Number of Veterinary Doctors	19	19
Numbers of Veterinary Paramedics	11	11

3. Animal Population Data

SL. NO	NO. OF BUFFALO	NO. OF CATTLE	NO.OF SHEEP	NO.OF GOAT
1	121099	501301	1305	392213

13.7 WATER RESOURCE DEPARTMENT

1. River Danger Level Monitoring Data

SL. NO	NAME OF RIVER	DANGER WATER LEVEL	NAME OF OFFICER/ INCHARGE	MOBILE &LAND LINE NO.	NAME OF AREAS UNDER THREAT IN CASE OF FLOOD
1	Gonda	2036.00	Shri. Arjun Singh	9431982871	Kadma, Luta, Godakhar
2	Lotia	1607.00	Shri. Arjun Singh	9431982871	Kadma, Luta, Godakhar
3	Ghagara	1720.00	Shri. Ravi	8969553310	Beltu, Kandaber, Panra
4	Jamunia	1466.75	Shri. Ravi Kujur	7870160593	Beltu, Kandaber, Panra
5	Joranala	1849.00	Shri. Ravi Kujur	7870160593	Boudha
6	Dekuli	627.00	Shri. Yogesh Kr.	9576647994	Gosaidih, Bela, Dumrikala, Khuti, Kevalkala, Dumrikhuri
7	Hiru	1510.00	Shri. Yogesh Kr.	9576647994	Tikar, Kasiadih, Changeri

2. DAM's Water Level Status

SL. N	NAME OF DAM	DANGER WATER LEVEL	LOCATION	NAME OF EXECUTIVE ENGINEER/ INCHARGE OFFICER	MOBILE &LAND LINE NO.	NAME OF AREAS UNDER THREAT IN CASE OF FLOOD
1	GONDA R/S	2036.00	Vill-salgama	Shri. Arjun Singh	9431982871	Kadma, Luta, Godakhar
2	LOTIA R/S	1607.00	Vill-Padma, Ichak	Shri. Arjun Singh	9431982871	Padma
3	GHAGARA R/S	1720.00	Vill-Pandukuli	Shri Ravi	8969553310	Beltu, kandaber
4	JAMUNIA R/S	1466.75	Rishavgarh	Shri Ravi Kujur	7870160593	
5	BOUDHA R/S	1849.00	Vill-Boudha	Shri Ravi Kujur	7870160593	Boudha
6	DULKI R/S	627.00	Hunterganj, Chatra	Shri Yogesh Kr. Tiwary	9576647994	Gosaidih, Bela, Dumrikala, Khuti,
						Kevalkala, Dumrikhurd
7	HIRU R/S	1510.00	Vill Obera, Chatra	Shri Yogesh Kr. Tiwary	9576647994	Tikar, Kasiadih, Changer

13.8 District Transport Officer / Transport Department

Name of District Transport Officer : Shri Pranav Kumar Pal

Tobile : 9431942442

1. Details of Heavy Duty / Specialist Vehicles:

S.N	Type of Vehicle	No.
1	BUS	404
2	TRUCKS	11922
3	JCB LOADER	565
4	CARS	14492
5	AUTORICKSHAW	3687
6	SCOOTERS	44687
7	AMBULANCE	453
8	MINI TRUCK	1114
9	MINI BUS	1022
10	CRANE	105
11	TIPPER	2789
12	TRACTOR	4735
13	WATER TANKER	43
14	ROAD ROLLER	17