



GOVERNMENT OF CHHATTISGARH

# **District Disaster Management Plan-(DDMP)**

## **JASHPUR**

**DISTRICT DISASTER MANAGEMENT AUTHORITY**  
**JASHPUR**

**REVENUE & DISASTER MANAGEMENT DEPARTMENT**  
**MAHANADI BHAWAN, MANTRALAYA, ATAL NAGAR, RAIPUR, CHHATTISGARH**

जयसिंह अग्रवाल  
मंत्री



छत्तीसगढ़ शासन,  
राजस्व एवं आपदा प्रबंधन विभाग  
मंत्रालय महानदी भवन  
अटल नगर रायपर



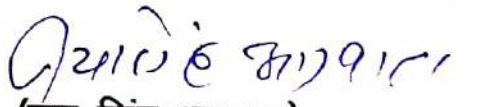
## संदेश (प्रारूप)

जिले की आपदा प्रबंधन योजना प्रदेश सरकार की एक नवीन पहल है। इस योजना का लक्ष्य जिले में घटने वाली संभावित आपदाओं से होने वाले व्यापक हानि को कम करना है। यह योजना अपने दायरे में व्यापक है और यह प्रशासन के सभी वर्गों को विस्तृत निर्देश देता है।

पिछले कुछ वर्षों में आपदा जोखिम प्रबंधन सभी राज्यों व जिलों के लिए एक चुनौती बन गया है। किसी महाविनाशकारी स्थिति से निपटना एक कठिन कार्य है। जिसमें विभिन्न प्रकार से कार्य निष्पादन, जोखिम आंकलन, जागरूकता तथा प्रशिक्षण, पर्याप्त आधारभूत संरचना हेतु योजना एवं क्रियान्वयन, आपदा की तैयारी, प्राकृतिक संसाधनों का बेहतर प्रबंधन तथा नीति बनाना अहम् कार्य है।

चूँकि आपदा प्रबंधन योजना एक स्थायी प्रक्रिया है तथा इस परिपेक्ष्य में राजस्व एवं आपदा प्रबंधन विभाग एवं सहयोगी द्वारा जिला आपदा प्रबंधन योजना तैयार किया जाना आपदाओं से सशक्त तौर पर निपटने के लिए अति महत्वपूर्ण कदम है।

मैं, विभाग के इस सराहनीय पहल का स्वागत करता हूँ, मुझे विश्वास है कि यह योजना जिले के नागरिकों की आपदाओं से बचाव तथा जिले की क्षमता में वृद्धि करने में सफल होगी।

  
(जय सिंह अग्रवाल)

सुनील कुमार कुजूर  
मुख्य सचिव



छत्तीसगढ़ शासन,  
मंत्रालय महानदी भवन  
अटल नगर रायपुर  
दिनांक




## संदेश

प्रदेश के सभी 27 जिले परम्परागत रूप से प्राकृतिक एवं मानव जनित अपदाओं तथा विभिन्न प्रकार की संवेदशीलताओं और उनकी विशालता से प्रभावित रहें हैं। इन बढ़ती आपदाओं से जिलों के नागरिकों पर प्रतिकूल प्रभाव पड़े है, जिसके कारण भौतिक, सामाजिक एवं आर्थिक गतिविधियों पर भी प्रतिकूल प्रभाव पड़ता है।

आपदाओं के नुकसान को रोकने या कम करने के लिए आवश्यक है कि वैज्ञानिक, व्यावहारिक और लचीली योजनायें बनाई जाये ताकि स्थिति के अनुरूप उनमें परिवर्तन किया जा सके और समय पर सभी सुरक्षात्मक उपाय अपनाये जा सके। ऐसी परिस्थिति में छत्तीसगढ़ सरकार के राजस्व एवं आपदा प्रबंधन विभाग द्वारा जिलों की आपदा प्रबंधन योजना तैयार की गयी है।

राजस्व एवं आपदा प्रबंधन विभाग तथा उनके सहयोगी विभाग द्वारा जिले की आपदा प्रबंधन योजना तैयार करने के सफल प्रयास की प्रशंसा करता हूँ तथा कामना करता हूँ कि सभी विभागों के आपसी सहयोग से जिले में बेहतर आपदा प्रबंधन एवं आपदा जोखिम न्यूनीकरण कर जिले को एक आपदा प्रतिरोधी जिला व छत्तीसगढ़ को एक आपदा प्रतिरोधी राज्य बनाने में सफल होंगे।

  
(सुनील कुमार कुजूर)  
मुख्य सचिव



## संदेश

आपदाओं के कारण व्यापक रूप से जन-जीवन एवं विकास कार्य प्रभावित होता है। अतः आपदा पूर्व प्रयासों जैसे तैयारी, क्षमता-वर्धन, उचित ट्रेनिंग और पुनर्निर्माण से जान और माल के नुकसान को कम किया जा सकता है।

सम्पूर्ण जिले के नागरिकों के साथ ही अत्यधिक संवेदनशील वर्ग जैसे बच्चे, महिलायें, बुजुर्ग, दिव्यांग एवं मजदूर वर्ग पर आपदा के प्रभाव के न्यूनीकरण हेतु जन भागीदारी, जागरूकता, प्रतिक्रिया एवं समन्वय बढ़ाने के लिए आपदा प्रबंधन योजना तैयार की गयी है जो कि प्रशंसनीय है।

आपदा प्रबंधन योजना के माध्यम से प्रदेश एवं जिले में एक ऐसा तंत्र विकसित होगा जो भविष्य में घटित होने वाली किसी भी घटना/आपदा से निपटने में सहायक होगा।

सचिव

राजस्व एवं आपदा प्रबंधन विभाग  
छत्तीसगढ़ शासन

## **Acknowledgment**

Under the leadership of Chief Minister of Revenue and Disaster Management, Chhattisgarh, expresses gratitude towards all the participants who contributed to the preparation of District Disaster Management Plan. According to the guidelines of Disaster Management Act 2005, this scheme has been prepared for public utility.

Disaster Management Plan has been prepared with the aligned departments for the utmost benefit of the 'community'. The role of each of the department has been determined, to ensure coordination, preparation and appropriate action in the same manner before, during and after the disaster.

Mrs. Rita yadav, Deputy Secretary / Deputy Commissioner, Department of Revenue and Disaster Management, has given special cooperation for the preparation of Disaster Management Plan.

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District Nodal Officer of Revenue and Disaster Management Department and other officers of related departments have made full cooperation for the document preparation required for the plan.

## अंग्रेजी एवं इसके संक्षिप्त शब्दों का हिन्दी अर्थ :-

<b>BSNL</b>	Bharat Sanchar Nigam Limited	भारत संचार निगम लिमिटेड
<b>CAF</b>	Central Armed Forces	केन्द्रीय सुरक्षा बल
<b>CBO</b>	Community Based Organizations	सामुदायिक संगठन
<b>CE</b>	Chief Engineer	मुख्य अभियंता
<b>CEO</b>	Chief Executive Officer	मुख्य कार्यपालक पदाधिकारी
<b>CMO</b>	Chief Medical Officer	मुख्य चिकित्सा पदाधिकारी
<b>CMRF</b>	Chief Minister Relief Fund	मुख्य मंत्री राहत कोश
<b>CSO</b>	Civil Society Organization	नगर संस्था
<b>DM-ACT</b>	Disaster Management Act 2005	आपदा प्रबंधन अधिनियम 2005
<b>DDMA</b>	District Disaster Management Plan	जिला आपदा प्रबंधन प्राधिकरण
<b>DDMP</b>	District Disaster Management Plan	जिला आपदा प्रबंधन योजना
<b>DDRF</b>	District Disaster Response Force	जिला आपदा प्रत्युत्तर बल
<b>DM</b>	District Magistrate	जिला कलेक्टर
<b>DMT</b>	Disaster Management Team	आपदा प्रबंधन दल
<b>DRR</b>	Disaster Risk Reduction	आपदा जोखिम न्यूनीकरण
<b>EOC</b>	Emergency Operation Center	आपातकालीन परिचालन केन्द्र
<b>ESF</b>	Essential Service Functions	आवश्यक सेवा कार्य
<b>EWS</b>	Early Warning System	पूर्व चेतावनी प्रणाली
<b>FRT</b>	First Response Team	प्रथम प्रत्युत्तर टीम
<b>GIS</b>	Geographic Information System	भौगोलिक सूचना प्रणाली
<b>GP</b>	Gram Panchayat	ग्राम पंचायत
<b>GPS</b>	Global Position System	स्थिति निर्धारण वैश्विक प्रणाली
<b>HFA</b>	Hyogo Framework for Action	हयोगो कार्रवाई निर्णय
<b>HRVCA</b>	Hazard Risk Vulnerability Capacity Analysis	खतरा, जोखिम, सम्बेदनशीलता (भेद्यता) क्षमता विप्लेशन
<b>HVCA</b>	Hazard Vulnerability Capacity Analysis	खतरा, सम्बेदनशीलता (भेद्यता) क्षमता विप्लेशन
<b>IAF</b>	Indian Armed Force	भारतीय सशस्त्र बल
<b>IAG</b>	Inter-Agency Group	इन्टर एजेंसी ग्रुप
<b>IAP</b>	Immediate Action Plan	तात्कालिन कार्य योजना
<b>ICDS</b>	Integrated Child Development Services	समेकित बाल विकास सेवायें
<b>IMD</b>	Indian Metrological Department	भारतीय मौसम विज्ञान विभाग
<b>IMT</b>	Incident Management Teams	घटना (आपदा) प्रबंधन टीम
<b>IRS</b>	Incident Response System	घटना (आपदा)प्रत्युत्तर प्रणाली
<b>IRT</b>	Incident Response Team	घटना (आपदा)प्रत्युत्तर टीम
<b>IYA</b>	Indira Awas Yojna	इंदिरा आवास योजना
<b>LSG</b>	Lower Selection Grade	निम्न प्रवर कोटि
<b>MGNREG S</b>	Mahatma Gandhi National Rural Employment Guarantee Scheme	महात्मा गाँधी राष्ट्रीय ग्रामीण रोजगार गारंटी योजना
<b>MI&amp;CT</b>	Ministry of Information &	सूचना एवं संचार प्रौद्योगिकी मंत्रालय

	Communication Technology	
<b>MLA</b>	Member of Legislative Assembly	विधान सभा सदस्य
<b>MNREGA</b>	Mahatma Gandhi National Rural and Education Guarantee Action	महात्मा गाँधी राष्ट्रीय ग्रामीण रोजगार गारंटी अधिनियम
<b>MoAFW</b>	Ministry of Agriculture and Farmers Welfare	कृषि एवं किसान कल्याण मंत्रालय
<b>MoCI</b>	Ministry of Commerce and Industry	वाणिज्य एवं उद्योग मंत्रालय
<b>MoEF&amp;CC</b>	Ministry of Environment forest Climet change	पर्यावरण वन व जलवायु परिवर्तन मंत्रालय
<b>MoHFW</b>	Ministry of Health & Family Welfare	स्वास्थ्य एवं परिवार कल्याण मंत्रालय
<b>MHA</b>	Ministry of Home Affairs	गृह मंत्रालय
<b>MoHRD</b>	Ministry of Human Resources Development	मानव संसाधन विकास मंत्रालय
<b>MoL&amp;E</b>	Ministry of Labour & Employment	श्रम एवं रोजगार मंत्रालय
<b>Mop</b>	Ministry of Power	विद्युत मंत्रालय
<b>MoPR</b>	Ministry of Panchayati Raj	पंचायती राज मंत्रालय
<b>MoRD</b>	Ministry of Rural Development	ग्रामिण विकास मंत्रालय
<b>MoRTH</b>	Ministry of Road Transport and Highway	सड़क परिवहन और राजमार्ग मंत्रालय
<b>MoWF</b>	Ministry of Water Resources	जल संसाधन मंत्रालय
<b>MoUD</b>	Ministry of Urban Development	शहरी विकास मंत्रालय
<b>MP</b>	Member of Parliament	संसद सदस्य
<b>MPLADS</b>	Member of Parliament Local Area Development Schemes	सांसद क्षेत्रीय विकास योजना
<b>NABARD</b>	National Bank for Agriculture and Rural Development	राष्ट्रीय कृषि एवं ग्रामीण विकास बैंक
<b>NCC</b>	National Cadet Corps	राष्ट्रीय छात्र सेना
<b>NDMA</b>	National Disaster Management Authority	राष्ट्रीय आपदा प्रबंधन प्राधिकरण
<b>NDRF</b>	National Disaster Response Force/ Relief Fund	राष्ट्रीय आपदा प्रत्युत्तर बल/ राहत कोष
<b>NIDM</b>	National Institute of Disaster Management	राष्ट्रीय आपदा प्रबंधन संस्थान
<b>NGOs</b>	Non- Government Organizations	गैर-सरकारी संगठन
<b>NRSC</b>	National Remote Sensing Center	राष्ट्रीय सुदूर संवेदन केन्द्र
<b>NREGA</b>	National Rural Employment Guarantee Act	राष्ट्रीय ग्रामीण रोजगार गारंटी अधिनियम
<b>NREGS</b>	National Rural Employment Guarantee Scheme	राष्ट्रीय ग्रामीण रोजगार गारंटी योजना
<b>NRHM</b>	National Rural Health Mission	राष्ट्रीय ग्रामीण स्वास्थ्य मिशन
<b>NSV</b>	National Service Volunteer	राष्ट्रीय सेवा स्वयंसेवक
<b>NYK</b>	Nehru Yuva Kendra	नेहरू युवा केन्द्र
<b>PDS</b>	Public Distribution Shop	जनवितरण दूकानें
<b>PHC</b>	Primary Health Center	प्राथमिक स्वास्थ्य केन्द्र
<b>PHED</b>	Public Health Engineering Department	लोक स्वास्थ्य अभियंत्रण विभाग
<b>PMRF</b>	Prime Minister Relief Fund	प्रधानमंत्री राहत कोष
<b>PWD</b>	Public Works Department	लोक यांत्रिकी विभाग
<b>Q&amp;A</b>	Quality and Accountability	गुणवत्ता एवं जवाबदारी

<b>QRT</b>	Quick Response Team	त्वरित प्रत्युत्तर टीम
<b>SDMA</b>	State Disaster Management Plan	राज्य आपदा प्रबंधन योजना
<b>SDRF</b>	State Disaster Response Force/ Relief Fund	राज्य आपदा प्रत्युत्तर बल/ राहत कोष
<b>SHG</b>	Self Help Group	लघु एवं मध्यम उद्योग / उपक्रम
<b>SME</b>	Small and Medium Enterprise	लघु एवं मध्यम उद्योग / उपक्रम
<b>SOP</b>	Standard Operating Procedure	मानक परिचालन पद्धति
<b>SP</b>	Superintendent of Police	पुलिस अधीक्षक
<b>WRD</b>	Water Resources Department	जल संसाधन विभाग
<b>WHO</b>	World Health Organisation	विश्व स्वास्थ्य संगठन



## Introduction

The Disaster Management Act, 2005 (DM Act 2005) provides institutional and coordinating mechanisms for effective disaster management at national, state, district and local level. Essentially, the Government of India formulated a multi-level institutional system, in which National Disaster Management Authority (NDMA), headed by the Prime Minister, State Disaster Management Authority (SDMA) headed by Chief Minister and District Disaster Management Authority (DDMA) under the chairmanship of District Collectors and local bodies are chaired by co-chairing.

Disaster is the result of natural or man-made causes; this creates serious disruption in the functioning of a society, thereby causing massive harm to humans, physics or the environment. The social and economic protection procedures available to cope with are inadequate, so the dangerous distress is actually a disaster.

All possible natural and manmade disasters have been included in the District Disaster Management Plan. The plan has been described for prevention and control of various disasters. This District Disaster Management Plan has been prepared as per the guidelines given by National Disaster Management Authority.

It is divided into 4 sections.

In **section 01**, the background of the district, the sensitivity of the disaster in the district, the capacity and the risk assessment, with the planning requirements, objectives of the plan, the brief introduction of the district, identification of potential disasters of the district, risk analysis and disasters in the district like drought, floods, accidents, epidemics etc. have been shown. Under the institutional arrangements, the structure of disaster management, from the district level to the gram panchayat level, the formation process of the Disaster Management Committee and information of the District Emergency Operations Center is shown.

**Section 02** is divided into category of prevention, preparedness, training, structural and non-structural capacity building during the disaster In which general preparedness and mitigation plan, establishment of control room, renewal of plans, communication system, training for members of disaster management team, community awareness on various disasters, As well

as in the case of immediate pre-disaster, during disaster and post disaster coordination mechanism of the District Disaster Management Authority has been included. Based on the potential disaster in the district, structural and non-structural prevention measures, disaster risk reduction plan, institutional capacity building, the role and responsibilities of each department are shown.

**Section 3** has included the standard operating procedure for the implementation of the Disaster Management Plan and various departments at the time of disaster. In this plan, pre disaster relief and rehabilitation, relief and rehabilitation during disaster and with the post disaster relief and response, the reconstruction and rehabilitation process has been shown. Financial resources for district disaster management scheme and other financial resources at the district level, inspection, evaluation and evaluation of district disaster management plan and coordination mechanism for organizing and implementing Mock Drill at district level has been mentioned.

In **section 4**, in accordance with District Disaster Management Plan, in order to deal with the situation of any emergency, information related to various departments such as contact list, vehicle list, health centers, police stations, list of fire brigade, as well as areas in the disaster prone areas of the district Maps, etc. have been included. Coordination and coordinated mechanism has been mentioned.

This plan is useful in the form of guidance for better coordination, organizing and implementation of district administration, other stakeholders before disaster and after disaster. This plan guides the process mechanism operating in relief work and increases the community capacity to deal with the disaster. The District Disaster Management Plan has been conceived as a preparedness plan, which is activated only after getting information about the disaster and makes the reaction mechanism functioning without losing any time.

# **VOLUME-1**

# District Disaster Management Authority (Disaster Management Plan)

## List of Contents:

S.No.	Contents	Pg. No.
<b>1</b>	<b>Background</b>	<b>1-21</b>
1.1	District Disaster Management Plan	1-2
1.2	Need of the Plan	3
1.3	Objectives of the Plan	3-4
1.4	Scope of the Plan	4
1.5	Authority and Reference	4
1.6	Plan Development	4-5
1.7	Stakeholders and Their Responsibilities	5
1.8	Approval Mechanism of the Plan	5
1.9	District Profile	5-21
<b>2</b>	<b>District Hazard, Vulnerability, Capacity and Risk Assessment</b>	<b>22-51</b>
2.1	Identification of Potential Disasters	23-22
2.1.1	Six main disasters	24
2.2	History of Disasters	25-41
2.3	Risk Profile	42-43
2.4	Risk Analysis	43
2.5	Vulnerability Analysis	43-44
2.6	Disasters in Jashpur District	46-51
2.6.1	Drought	46-48
2.6.2	Accidents	48-49
2.6.3	Epidemic	50-51
<b>3</b>	<b>Disaster Management Amendment Act, 2005</b>	<b>52-75</b>
3.1	Institutional arrangements	52
3.2	District Disaster Management Authority	52-53
3.3	District Disaster Management Advisory Committee	54
3.4	Local self government authority	54
3.5	Urban area disaster management committee	55
3.6	Disaster Management Committee at Tehsil level	55
3.7	Village level disaster management committee	55-56
3.8	District Emergency Operations Center	56-57
3.9	Event (Incident) Response System (IRS)	57-59
3.10	District Control Center	59-61

## List of Tables :

S.No.	Table	Pg. No.
1	Table 1: Brief introduction to district	6
2	Table 2: Geography	6
3	Table 3: Reservoir	7
4	Table 4: Demographic details	10
5	Table 5: Average rainfall during the year 2009 to 2017	11
6	Table 6: Water Resources	11
7	Table 7: Economic statement	12
8	Table 8: Major Crops	13
9	Table 9: Livestock details	14
10	Table 10: Cultural statement	14
11	Table 11: Details of school	15
12	Table 12: Other Infrastructure and Services	16
13	Table 13: Information of the offices	16
14	Table 14: Contacts	16
15	Table 15: Public Health Center	17
16	Table 16: Industrial and services	17
17	Table 17: Industrial details	17
18	Table 18: Bank	18
19	Table 19: Public Distribution Shop in the District	18
20	Table 20: Road Network	19
21	Table 21: Historical and Cultural Places	20
22	Table 22: Mine and Minerals in the District	21
23	Table 23: Assessment of the Disasters that Occurred in the last 10 years	40
24	Table 24: Last 10 years (Animal and Human Loss) monthly information of Disaster	41
25	Table 25: Risk Profile	42
26	Table 26: Risk Analysis	43
27	Table 27: Sensitivity Analysis	44
28	Table 28: Drought and its Damage in 2017-18	47
29	Table 29: Safe locations of some village in the following tehsils	49
30	Table 30: Road accidents in the district	48
31	Table 31: Details of main accident possible route & areas of Jashpur District	49
32	Table 32: The Epidemic in the District during the year from 2008-2017	50
33	Table 33: Danger areas at the Tehsil level and sensitive villages	51
34	Table 34: Structure of DDMA	53
35	Table 35: Structure of Disaster Management Advisory Committee	54
36	Table 36: Urban area disaster management committee	55
37	Table 37: Structure of Disaster Management Committee at Tehsil level	55
38	Table 38: Village level disaster management committee	56

39	Table 39: District Control Center	60
40	Table 40: District Control Center	75

### **List of Figures :**

<b>S.No.</b>	<b>Figure</b>	<b>Pg. No.</b>
1	Figure 1: Disaster Management Cycle	2
2	Figure 2: Location map	7
3	Figure 3: Political map	8
4	Figure 4: Road map of Jashpur district	19
5	Figure 5: Areas affected by Snake bite	45

### **List of Graphs :**

<b>S.No.</b>	<b>Graph</b>	<b>Pg. No.</b>
1	Graph 1: Average rainfall during the year 2009-17	11
2	Graph 2: Road accidents	49
3	Graph 3: Number of susceptible villages in terms of epidemics	51

### **List of Flowcharts :**

<b>S.No.</b>	<b>Flowchart</b>	<b>Pg. No.</b>
1	Flowchart 1: District Disaster Management Authority Flow Chart	53
2	Flowchart 2: Organizational Structure for Disaster Management	56
3	Flowchart 3: Incident Response System	57

# Chapter 1

## Introduction

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### Background

Disaster is the result of natural or man-made causes, it causes serious disruption of the functioning of a society, which is human, material or environmental comprehensive loss. Which are insufficient mechanisms of social and economic protection for the face that is suspected plague the disaster actually occurred.

Strong communication, an effective district disaster with efficient databases, documents and Practice Management Plan (DDMP) is important to be active in the shortest possible time. It is with the government at all levels. The goal of DDMP is to develop the capacity of the Jashpur district, to ensure continuity of services required for life during disaster and non-adolescent situations.

### Categorization of Disasters:

Origin of disasters is categorized in following below mentioned types:

1. Climate Related: Flood, droughts, cyclones, clouds bursts, hot and cold winds, storms and lightning fall.
2. Geological Related: Earthquake, landslide, rupture of bunds, fire in mines.
3. Chemical, industrial and nuclear related: Chemical and industrial disaster and nuclear disaster.
4. Accidental Related: Fire, bomb, explosion, air, road and rail accidents, flooding in mines, collapse of main buildings.
5. Biological disaster: Epidemic, grasshopper invasion, animal pandemic etc.

Under the same human-caused disasters, industrial accidents, environmental degradation, etc. can be included. With this, Chhattisgarh is also affected by Naxalite activities.

### 1.1 District Disaster Management Plan (DDMP):-

According to Section 31 of the Disaster Management Act 2005 (DM Act), there will be a Disaster Management Plan (DMP) for every district of the state. In each district the district

disaster management authority (DDMA) will be responsible for preparing, working, reviewing and updating of DDMP in consultation with the local authorities, according to the nodal agency, national and state plans. Apart from this, continuous and integrated process of planning, organizing, coordination and implementation of necessary measures for the prevention and mitigation of disasters at the district level will be included in DDMA. For efficient execution of the DDMP, the plan has been organized in four stages as shown in Figure 1.



**Figure 1 : Disaster Management Cycle**

- i. **Preparedness :** To combat the disaster, implement the training and disaster management plan to keep the crowd safe.
- ii. **Mitigation:** Mitigation refers to the effect of disaster by structural and non-structural a measure which reduces disasters.
- iii. **Response :** Conduct relief operations during the disaster.
- iv. **Recovery :** Improve the state of the affected life due to the disaster.



## **1.2 Need of the Plan :-**

Jashpur district is particularly vulnerable to threats like Snake bite, Elephant attack, flood, epidemic. Considering these potential threats in the district, which enhances life, livelihood and property loss, it was considered important to develop a scheme to improve the district's response to disasters and to reduce the risks of disaster risks. Increasing the capacity of the community by reducing and implementing the prepared plan.

## **1.3 Target and objectives of District Disaster Management Action Plan:**

- i. Determine the preparedness of the district by analyzing the impact of the danger from the disasters in the district.
- ii. To find out the level of basic facilities of different disasters and their control existing in the district so as to increase administration capacity.
- iii. The various aspects of disaster mitigation includes the development of the area's special schemes.
- iv. To prepare the framework for districts in accordance with the details, records and past history of disasters.
- v. During disaster, it is necessary to coordinate with various departments, adopting standard work process.
- vi. Under the policy framework of the State Government, the District Disaster Management Plan should be an effective management tool.

Due to lack of proper planning, coordination during disasters leads to dangerous impact. Therefore, the pre-disaster management plan is very overwhelming, in which the work point is as follows:

- (a) Preparation of pre-planning in the correct order of response actions.
- (b) To determine the responsibility of the partner departments.
- (c) Standardization of the manner of working of different departments employed.
- (d) Preparation of list of available facilities and resources.
- (e) Creating effective management of resources.

(f) To co-ordinate all assistance works.

(g) Coordination for assistance from state level control room.

#### **1.4 Area of Plan: -**

In view of the impact of disaster on government, industry and agriculture, emergency planning process is very important for any district. The scope of this scheme will be broad, which is as follows: -

- The geographical areas which are vulnerable to hazards in the district.
- Roles and responsibilities of various government departments, agencies, private sector, NGOs and citizen.
- Various terms in disaster management, such as prevention, preparation, mitigation, reaction (including withdrawal and temporary shelter). This contingency plan is helpful in reducing public and property loss.

#### **1.5 Authorization and Reference:-**

District and Assistant Schemes have been laid down under the DM Act 2005. According to the Act, the District Collector is authorized to seek assistance from other parties for reducing the impact of disasters. District collector and government authority, SDMA, relief commissioner (COR), and other public, with the support of private parties, are responsible for the management of disasters and risks in the district. Role of the collector and other parties, responsibilities and liability act have been determined in details. The roles, responsibilities and obligation of the Collector and other parties are set out in detail in the Act and are considered as part of this plan.

#### **1.6 Plan Development:-**

Various steps involved in planning include:

- i) Data collection and planning - Data collection, data analysis (risk identification and understanding, assessment of risk in the district) and formation of a planning team from all line departments.
- ii) Development - Analysis of requirements and development of all line departments and identification of needs and resources.
- iii) Preparation - Preparation, review, approval and dissemination of plans.

- iv) Implementation and maintenance - Implementation, evaluation, review and update of the scheme.

### **1.7 Stakeholders and Their Responsibilities:-**

**At State level** – State Disaster Management Authority is an important body at the state level who is capable of dealing with any types of disaster. The main line department of all state machinery and the agency that operates the emergency relief work, State emergency EOC at the time of the disaster provides assistance during disasters.

**At District level:** District Disaster Management Authority is an important institution for the disaster and district administration and to protect the public community. The District Collector is the Chairman of the Authority who can coordinate the various departments of the district level to deal with the disaster during the disaster. In the implementation of the District Disaster Management Plan, preparations, training, community and non-government organizations are important contributors.

### **1.8 Approval Mechanism of the Plan -**

Formation of District Disaster Management Authority for all the districts under notification number F8 (4) DM & R / DM / 023 dated 06.09.2007. According to DDMA, it is also responsible for ensuring compliance with all the departments on NDMA / SDMA / SEC guidelines related to prevention, mitigation at the district level.

### **1.9 District Profile –**

Jashpur District is located in the north-eastern corner of Chhattisgarh state in India, near the border of Jharkhand and Odisha. Jashpur Nagar is the administrative headquarters of the District. It is currently part of the Red Corridor. One of the homesteads of the Eastern State Agency during the British Raj Jashpur City was the capital of Jashpur state. The north-south length of the district is about 150 km, and its east-west Width is about 85 km. Its total area is 6,205 sq km. It is between 22 degrees 17 ' and 23 degrees 15 ' northern latitude and 83 degrees 30 ' and 84 degrees 24 ' east longitude. It is geographically divided into two parts. The Northern Hill belt is called the Upper pier. The remainder, the southern part, is called Nichaghat.

<b>District Jashpur</b>						
<b>Tehsil</b>	<b>Geographic area</b>	<b>Number of cities</b>	<b>Total number of villages</b>	<b>Number of gram panchayat</b>	<b>Number of janpath panchayat</b>	<b>Number of nagar panchayat</b>
Jashpur	6,205	8	704	421	5	6
Manora						
Duldula						
Kunkuri						
Farsabhar						
Kasabel						
Bagicha						
Pathalgaon						
Bagbahar						

**Table 1: Brief Introduction to District**

Note:- Forest area - 898 sq km

District Jashpur has 8 tehsil, 8 Janpath panchayat which is Jashpur, Manor, Duldula, Kunkuri, Kasabel, Farasabhar, Patthalagaon, Bagicha, 6 nagar panchayat and 1 municipality which is Jashpur. The district has 13 police stations, 09 Chauki and a total of 10 revenue inspectors Circle, 215 Patwari Circle and 02 agricultural producers Mandi are Jashpur, Pathalagaon.

### **Geographical Situation**

The north-south length of Jashpur district is about 150 km, and its east-west Chaidai is approximately 85 km. Its total area is 6,205 sq km. It is between 22 degrees 17 ' and 23 degrees 15 ' northern latitude and 83 degrees 30 ' and 84 degrees 24 ' east longitude. It is geographically divided into two parts. The Northern Hill belt is called the Upper pier. The remaining, southern part, is called Nichaghat.

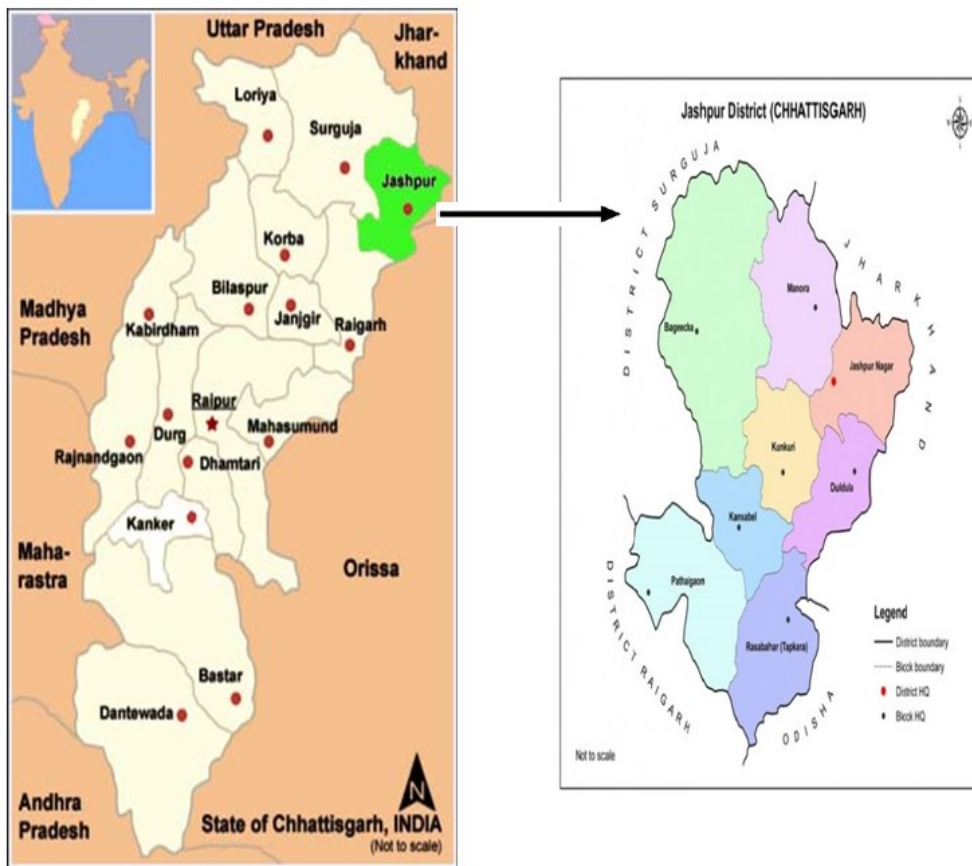
Latitude and longitude	22 degrees 17 ' and 23 degrees 15 ' northern latitude 83 degrees 30 ' and 84 degrees 24 ' east longitude
Major rivers	Eb River, Lava River, Manny River, Dodaki River
Neighbouring district	District Raigarh and Ambikapur

**Table 2: Geographical Status**

Reservoir	Small	Medium	Large
Total number	18	0	0
Drinking Water (Tube Well and Number of Wells)	15894		
Canal	04 Pachakaki Canal/ Marga Canal/ Mayali Canal/ Dodaki Canal		

**Table 3: Reservoir**

**Location Map:-**



**Figure 2: Location Map**

**Political Map:-**



**Figure 3: Political Map**

**Physical nature -**

**Area :-**

The total area of the district is 645741 hectare according to 2011 census. Its population is 851669 and the density is 132 per sq. km.

**Soil :-**

Usually red colour in the district. Black Mud-Kanhar, Matasi, Bhata Tikrit/ Yellow soils are found.

**Demographic details :-**

The demographic details 2011 According to the census of Jashpur district of population 8, 51669. Each in Jashpur has a gender ratio of 1004 women for 1000 men and the literacy rate is 67.92 %. Various tribal communities remain in the district. The languages spoken in the district are Kuduuk , Sandra , and Hindi language. Literacy rate is 58.17 %. The district's decade growth rate is 14.60 %. Major agricultural farms are born. Many varieties of rice, including fragrant rice, pulses, maize, ramil and wheat. Horticulture has gained momentum over the past two decades and the district is proudly proving to be the horticulture hub of Chhattisgarh.

<b>Demography</b>		
1	Population -	851669
	Scheduled Caste	48844
	Scheduled Tribes	530378
	Rural (Male/Female)	775677
	Male	386307
	Female	389370
	Urban (Male/Female)	75992
	Male	38440
	Female	37552
	Child(0-6 yrs)	122266
	Male	61744
	Female	60522
2	Population Density	132 sq.km
3	Decadal Growth Rate	14-60 %
	Rural	11-60

	Urban	57-82
4	Sex Ratio (No. females per 1,000 males)	1004
	Rural	1007
	Urban	976
	Child (0-6 Years)	122266
5	Literacy Rate (as a Census 2011)	58.17 %
	Male Literacy Rate as of 2011 census	66.07 %
	Female Literacy Rate as of 2011 census	50.30 %
	Rural Literacy Rate as of 2011 census	56.70 %
	Urban Literacy Rate as of 2011 census	73.16 %
6	Crude Birth Rate (Per 1000 Population)	22.6 %
7	Crude Death Rate (Per 1000 Population)	9.1
8	Infant Mortality Rate (Per 1000 live birth)	56 %
9	Maternal Mortality Rate (Per 1000 live birth)	23 %
10	Natural birth Growth Rate (Per 1000 Population)	64 %

**Table 4: Demographic details****Rainfall –**

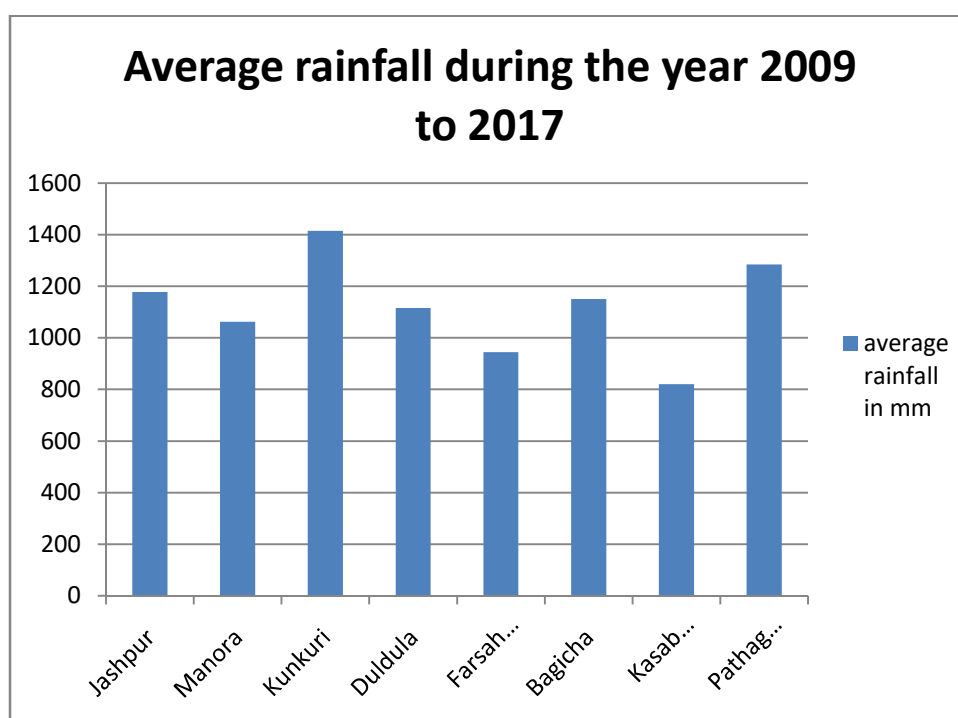
The average rainfall in the district is 1089.8 mm but is usually lower in the north-east, south-west side. The total annual rainfall of about 93 % rainfall occurs from June to September.

<b>Average rainfall during the year 2009 to 2017</b>										
S. No.	Tehsil	Normal Rainfall	Year 2009 &10	Year 2010 &11	Year 2011 &12	Year 2012 &13	Year 2013 &14	Year 2014 &15	Year 2015 &16	Year 2016 &17
1	Jashpur	1178.5	1672.1	1269.8	1942	1376.4	782.6	624.7	686	817.8
2	Manora	1063.1	1678.3	652.2	907.2	727.8	1106.6	877.2	882.2	1169.4
3	Kunkuri	1415.1	1698.2	1247	1709	1332.3	1308.8	1295.4	1418.9	1440.6
4	Duldula	1116.4	1708.0	802.7	1194	1091.7	908	779.1	833.6	969.5
5	Farsaha bar	944.2	1703.1	619.6	957.8	1017.1	796.3	736.9	636	841.8



6	Bagicha	1150.6	835	968	1355	980	1042.0	962	954	1935
7	Kasabhel	821.1	839	813.5	1032.2	663.1	795.2	479.7	583.1	925
8	Pathalgaon	1284.8	844.2	1311.9	1843.8	1057.8	1260.9	912.2	1366.3	1437.3
<b>Total</b>		8973.8	10977.9	7684.7	10941	8246.2	8000.4	6667.2	7360.1	9536.4
<b>Average rainfall (on the basis of 10 years average rainfall)</b>		1121.725	1372.238	960.5875	1367.625	1030.78	1000.05	833.4	920.01	1192.1

**Table 5 : Average rainfall from the year 2009 to 2017**



**Graph1: Average rainfall**

<b>Water Resources</b>	
Irrigation Capacity	22622 hectare
Government	22622 hectare
Private	—

**Table 6: Water Resources**

**Economic and Social Status -**

<b>Economic Profile</b>		
Main Occupation	Numbers	
Agriculture	Small and marginal farmer	Other large farmers
	130286	2173
Industries workers	7351	
Business	2138	
Other	0	

**Table 7: Economic Statement****Major Crops –**

The agricultural is mainstay of most of populations in Jashpur. The district's economy is mainly dependent on rainfall agriculture, horticulture and animal husbandry. Major agricultural farms exist, many varieties of rice, including fragrant rice, pulses, maize, ramil and wheat. Horticulture has gained momentum over the past two decades and the district is proudly proving to be the horticulture hub of Chhattisgarh. Major fruits are exist like mango, Lichi, pear, cashew nuts and strawberries. The district is rapidly becoming the state's vegetable center. It produces large quantities of tomatoes and chilies with other green vegetables.

<b>Agriculture</b>	<b>Production / Quantity: Annual</b>
Rice	361200 tonne
Wheat	8575 tonne
Maize	19000 tonne
Barley	0
Millet	0
Koda Kutki	457 tonne
Other	6626 tonne
<b>Pulse Productivity</b>	

Arhar	5060 tonne
Urad dal	12500 tonne
Mung dal	228 tonne
Masur Dal	236 tonne
Tivara	458 tonne
Other	805 tonne
<b>Oil seeds productivity</b>	
Soyabean	-
Peanut	19200 tonne
Linseed	1253 tonne
Mustard	5018 tonne
Sunflower	-
Other	9800 tonne
<b>Productivity of main vegetables</b>	
Masala	-
Other	-

Table 8: Major crops

**Livestock Details -**

<b>Animal Husbandry</b>		
Total number of Animals	Dairy Cattle	Dry Cattle
Cattle	4980	48196
Buffaloes	0	10326
The sheep	67338	0
Goat	0	0
Horse	0	
Donkey	0	

Pig	0
Milk Production	43.503 (000)metric tone
Fish production	-
Poultry Farm	1
Other	0

**Table 9: Livestock Details**

Cultural Profile	
Local language	Kudukku language,Sadri language,Hindi language
Dress	Luga saya, Jhula, Baju Bera, Chhuchhiya, tap, Anklet, Bichhiya, Bangle, Turban Dhoti, Lungi,Kardhani, Gamcha, Saree, Salwar, Pants Shirt
Food	Chuda, Bhat, Stale Bhat, Lakada page, Mahua lata, Kherahi, Mushroom ,Khokhadi, Dal Bhat
Market (Daily / Weekly / Other)	Daily,Weekly
Fairs and festivals (brief description of the main celebration)	Hareli, Tija-Pola, Chherchhera, Mandai Fair, Dussehra, Diwali, Holi
House	
Number of raw houses	18773
Roofing system	-
No. of Pucca Houses	25618
Roofing system	-

**Table 10 : Cultural Statement****Infrastructure Details and Services -**

The district has good rail and road connectivity. Educational facilities are better in the district. 13 police stations in the district, 03 Chowki.

**Education –**

School Profile		Jashpur	Manora	Kunkuri	Duldula	Farsahabhar	Bagicha	Kasabhel	Pathalgaon
1	Number of Primary Schools	223	205	198	131	240	370	158	368

District Disaster Management Plan, Jashpur

2	Number of Secondary schools	77	60	73	39	61	85	54	115
3	Number of High Schools	12	11	10	9	12	17	11	23
4	Number of Secondary Schools	20	10	17	10	10	15	12	28
5	Number of Rural Schools	291	283	258	186	320	455	233	484
6	Number of Urban Schools	41	0	40	0	0	32	0	48
7	Number of Risk Potential Schools	0	0	0	0	0	0	0	0
	<b>Total</b>	<b>332</b>	<b>286</b>	<b>298</b>	<b>189</b>	<b>323</b>	<b>487</b>	<b>235</b>	<b>534</b>

**Table 11 : Details of the school**

**Other –**

Anganwadi	4333
Institute / College	-
University	9
<b>Other Infrastructure</b>	Number
Dam	18
Bridge	665
Garden	07
Open Field	8
High Building	08 (250 persons per building, all urban areas)
Community Building (capacity, location and number)	37
Number of Offices	0
Godown	0
Cold storage	0
Bus Stand	10
<b>Total Length of Road</b>	2837.6

	Rural	
	Urban	1058.76
<b>No. of Railway Station &amp; Junctions</b>		0
Total length		.
Airport		Agadih Airport, Jashpur Latitude 22 <sup>0</sup> -56'-00"-N Longitude 84 <sup>0</sup> -14'-00"-E
Helipad		04
Lattitude		220-53'-29"-N
Longitude		840-09'-02"-E

**Table 12: Other Infrastructure Details and Services**

<b>Offices Information</b>	<b>Numbers</b>
Government	37
Semi Government	-
Private	-
Civil Society/NGO	0

**Table 13: Information of the offices****Communication –**

<b>Communication</b>		
<b>Sl.No.</b>	<b>Means of Communication</b>	<b>Number</b>
<b>1</b>	Post office	Sub-13, Branch-86 total-99
<b>2</b>	Telephone center	601
<b>3</b>	PCO Rural	0
<b>4</b>	STD & PCO	0

**Table 14: Contacts****Health –**

In Jashpur district, there are mainly 01 district hospitals, 34 primary health centers and 10 community health centers and 24 ambulance available.

<b>Government Health Center</b>			
<b>Sl.No.</b>	<b>Types of Hospital</b>	<b>Numbers</b>	<b>Numbers of Bed/ Capacity</b>
1	Allopathic Hospital	9	366
2	Ayurvedic Hospital	56	40
3	Primary Health Center	34	186
4	Community Health Centre	10	-
5	Sub Health Centre	259	259
6	Sub Health Center	24	-
7	Numbers of Ambulances (108 and 102)	30	-

**Table 15 : Public Health Center****Industry –**

<b>Industry and Services</b>		
<b>S. No.</b>	<b>Top</b>	<b>Number</b>
1	Number of Registered Industries	2138
2	Total Number of Industries	2138
3	Number of Employees	7351

**Table 16: Industrial**

<b>Industrial Details</b>				
<b>S.No.</b>	<b>Small</b>	<b>Medium</b>	<b>Large</b>	<b>Remark</b>
1	27	0	0	-

**Table 17 : Industrial details****Bank –**

<b>Bank</b>		
<b>S. No.</b>	<b>Bank Category</b>	<b>Number of Banks</b>
1	Commercial Bank	15 (37 Branches)

2	Gramin Bank	01 (27 Branches)
3	Cooperative Bank	01 (01 Branches)
4	Primary Land Development Bank branches	0
	<b>Total</b>	<b>17 (65 Branches)</b>

Table 18 : Bank details

**Public Distribution Shop in the District -**

<b>Fair value Shop holder in the district</b>		
<b>S.No</b>	<b>Tehsil</b>	<b>Number of fair value shop</b>
1	Jashpur	47
2	Manora	40
3	Kunkuri	53
4	Duldula	30
5	Farsabhar	58
6	Bagicha	89
7	Kasabel	37
8	Pathalgaon	88
	<b>Total</b>	<b>442</b>

Table 19 : Public Distribution in the fair price shop holder

**Communications & Traffic –**

<b>Road Network</b>									
<b>Length of road under PWD till March 2018</b>									
<b>Sl . No.</b>	<b>Type of Roads</b>	<b>Total length (7+10)</b>	<b>On the Surface</b>				<b>Unsurfable</b>		
			<b>WBM</b>	<b>BT</b>	<b>CC</b>	<b>Total (4+5+6 )</b>	<b>Traffic able</b>	<b>NonT raffic able</b>	<b>Total (8+9)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
1	National highway	-	-	-	-	-	-	-	-
2	State highway	254	-	254	-	254	-	-	-
3	Other PWD Roads	484.06	30.40	383.26	2.40	416.06	68.00	0.00	68.00



4	Major District Roads	320.70	34.80	282.00	3.90	320.70	-	-	-
<b>Total</b>									

Table 20: Road network

**Road map of Jashpur district:**



Figure 4: Jashpur District Road Map

**Main areas of historical and cultural importance –**

Various fairs and festivals are also seen in Jashpur. The main places of tourism are:-

<b>Areas of Historical and Cultural Importance</b>			
<b>S. No</b>	<b>Place/Site</b>	<b>Details</b>	<b>Danger</b>
1	Kailash cave (Sightseeing) Vikaskhand –Bagicha	1.Shivmandir 2.Jharna	-
2	Khudiarani(Sightseeing) Vikaskhand Bagicha	1.Temple of Khudirani 2. Cave	-
3	Rajpuri ghag(Picnic spot) Vikaskhand Bagicha	1.Jharna	-
4	Sogta ashram(Archaeological site) Vikaskhand manora	1.Kalidevi temple	-
5	Gulluw Fal(Picnic spot) Vikaskhand Manora	1.Jharna 2.Water Electricity Production Site	-
6	Shranidah(Picnic spot) Vikaskhand Jashpur	1. Jharna 2.Picnic spot	-
7	Damera (Picnic spot) Vikaskhand Jashpur	1.Jharna 2.Picnic spot	-
8	Aatapath(archaeological site) Vikaskhand Jashpur	1.Hunting lodge	-
9	Balaji temple and Kali devi temple Vikaskhand Jashpur	1.Temple	-
10	Kunkuri church	Asia's Second Largest Church	-

**Table 21 :Areas of historical and cultural importance****Information of Mine and Minerals in the District –**

<b>Information of Mine and Minerals</b>				
<b>S.No</b>	<b>Names of mines and minerals</b>	<b>Area where Minerals is found</b>	<b>Govt./ Private</b>	<b>Onsite &amp; Offsite plan</b>

1	Iron	-	-	-
2	Gold	-	-	-
3	Tin	-	-	-
4	Flouride	-	-	-
5	Dolomite	-	-	-
6	Bauxite	-	-	-
7	Limestone	-	-	-
8	Blackstone	-	-	-
9	Granite	-	-	-
10	Others	-	-	-

**Table 22: Details of mine and minerals in District**

## Chapter 2

# District Hazard, Vulnerability, Capacity and Risk Assessment

Disasters adversely affect life and after the occurrence of disaster, destruction, plight, panic arises. It takes several decades for disaster affected people to come back to rehabilitation. Low level of livelihood and less awareness has not only increased the adverse effects of disasters, but also the serious consequence of interruption in economic development.

It is therefore necessary that the identification of the people who are living below the poverty line, identifying the potential occurrences of any district, risks arising from them, areas which come in its periphery, children, the elderly, women, the disabled, and those Identifying the economic, social and physical sensitivity of the people living in the area and assessing their potential should deal with the impact of the disaster. Demonstrations should be made so that the plans can be implemented to reduce the risk of disasters.

**Natural Disasters** -Natural phenomena that pose a threat to people, structures or financial properties simultaneously contribute to human life. Mainly floods, earthquakes, droughts, volcanoes, fires, tsunamis, landslides etc are the natural threats.

**Humanitarian Disasters** – Disasters that occur due to human-caused causes and situations which can bring disastrous consequences to society, are called human calamities, mainly due to industrial accidents, explosions, environmental degradation, leakage of poisonous gases, war , accidents etc. have been included.

Due to increased risk of frequency vulnerability among people arises and by decreasing the ability of people consequences increase the risk of increased risk.

$$\text{Risk} = \frac{\text{Hazard (H)} \times \text{Vulnerability (V)} \times \text{Exposure (E)}}{\text{Capacity to Cope (C)}}$$

**Hazard** - Hazard is a situation where there is a possibility of loss of life, health, environment or property. This can be natural or man-made incidents, which can not be stopped. It causes heavy losses of life and property in the state and district.

**Vulnerability** - Due to the nature, construction and proximity to threatened areas or disaster prone areas, a community, structure, service or geographic area is likely to be damaged or interrupted by the effects of special danger.

**Risk** - Risks occur when there is an event of danger, the expected loss of any community. It may include loss of life, injury to individuals, loss of property and / or interruption in economic activities and livelihood.

**Capacity** - Using the skills and resources available to manage adverse conditions, risks or disasters is the ability to increase the eligibility of people, organization and systems. In order to cope with any situation, it is essential to develop awareness of the resources and resources of the resources, during normal times as well as during the disasters or adverse conditions.

**Exposure** - The existence and the number of people, property, infrastructure, housing, production capabilities, livelihood, systems and other elements located in hazardous areas are known as exposures.

In order to assess the sensitivity of the District Jashpur disaster and the risks of the district officials, public representatives, NGOs held meeting on the District Disaster Management Plan regarding the potential disasters in the district, people affected by it and the ability of the district to deal with the calamities Assessed. Potential main disasters were identified by conducting workshop in the district. For Major disasters a general action plan with detailed and specific informations was recommended for all the districts. In districts, 12 potentially viable disasters were identified. Of these, it is to undertake general work plans for detailed and specific work plans and other disasters for the major seven disasters.

## **2.1 Identification of potential disasters -**

The disasters are mainly divided into five parts.

- Climatic

- Geologic
- Chemical, industrial and nuclear related
- Accidental Related
- Biological disaster

In order to assess district's disaster and sensitivity of the risk, district officials, public representatives, NGOs, held meeting on district disaster management plan regarding the potential disasters in the district, people affected by them and the ability of the district to deal with the disasters Assessed.

The potential 12 disasters were marked in the districts. Of these, it is recommended to undertake general work plans for detailed and specific work plans and other disasters for the major seven disasters.

#### **2.1.1 Six main disasters are below mentioned -**

1. Drought
2. Flood
3. Earthquake
4. Accident
5. Fire
6. Seasonal Diseases

Other 5 disasters are Communal riots, Hailstorm, dam breakage, Heatstroke and Cold wave, also Chhattisgarh is affected by Naxalism.

## 2.2 History of Disasters –

Apart from natural calamities like drought and flood in Jashpur district, other disasters such as animal conflict, epidemics, road accidents, electricity and storms are also there. The history of various disasters in the district is as follows.

<b>Hazard, vulnerability, capacity and Risk Assessment (HVCRA)</b>																		
<b>Assessment of the Disasters that Occurred in the last 10 years</b>																		
S.No.	Disaster	Event year	Event Place Tehsil	Casualties (Jan Hani)									Animal loss (Pashu Hani)			Property Loss	Crop Damage	
				Death			Injured			Missing			Death	Injured	Missing		Irrigated	Non-Irrigated
				Male	Female	Child	Male	Female	Child	Male	Female	Child						
1	Flood	2008	Kunkuri,Pathalgaon,Farsabaha har	5	5	2	0	0	0	0	0	0	0	0	0	15	0	0.932
		2009	Kunkuri,Pathalgaon,Farsabaha har	10	7	2	0	0	0	0	0	0	0	0	0	18	0	0
		2010	Duldula,Kasabel,Jashpur,Kunkuri,Pathalgaon,Farsabaha r	4	6	15	0	0	0	0	0	0	0	0	0	22	0	11.345
		2011	Duldula,Kasabel,Jashpur,Kunkuri,Pathalgaon,Farsabaha r,Manora	21	6	8	0	0	0	0	0	0	0	0	0	188	0	0.152

		2012	Duldula,Kasabel,Jashpur,Kunkuri,Pathalgaon,Manora	23	9	6	0	0	0	0	0	0	0	0	0	105	0	0.707
		2013	Duldula,Jashpur,Kunkuri,Pathalgaon	12	7	2	0	0	0	0	0	0	0	0	0	98	0	4.142
		2014	Duldula,Kunkuri,Farsabahar	0	1	0	0	0	0	0	0	0	0	0	2776011	0	8.071	
		2015	Duldula,Kasabel,Kunkuri,Pathalgaon,Farsabahar	0	1	1	0	0	0	0	0	0	0	0	2776528	0	8.071	
		2016	Duldula,Jashpur,Kunkuri,Pathalgaon,Farsabahar,Manora	17	17	6	0	0	0	0	0	0	0	0	140	0	0	
		2017	Duldula,Jashpur,Kunkuri,Pathalgaon,Manora	10	4	2	0	0	0	0	0	1	0	0	1643743	0	10	
		2018	Pathalgaon	19	6	5	0	0	0	0	0	0	0	0	0	0	0	10.335
2	Drought	2008		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2009		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2010		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2011		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



		2012	Kunkuri	0	0	0	0	0	0	0	0	0	0	0	0	0	15	4	
		2013		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2014		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2015	Duldula,Kasabel,Jashpur,Kunkuri,Farsabahar,Manora	0	0	0	0	0	0	0	0	0	0	0	0	0	0	331	1511.96
		2016		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2017		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2018		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Fire	2008	Kunkuri,Farsabahar	2	4	1	0	0	0	0	0	0	0	0	0	2	15	11.809	
		2009	Kunkuri,Farsabahar	0	0	1	0	1	0	0	0	0	0	0	0	949637	0	2.396	
		2010	Kunkuri	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2011	Manora	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0.405	
		2012	Farsabahar,Manora	0	1	0	2	2	1	0	0	0	0	0	0	2	0	0	
		2013	Kunkuri,Manora	0	0	0	0	0	0	0	0	0	0	0	0	4	1	1	
		2014	Kunkuri,Manora	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	

		2015	Kunkuri	0	1	0	0	0	0	0	0	0	0	0	0	2	0	1.62	
		2016	Farsabahar	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.48	
		2017	Kunkuri,Mano ra	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	
		2018		0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.437	
4	Lightni ng	2008	Bagicha,Farsa bahar	27	6	6	0	0	0	0	0	0	36	0	0	0	0	0	
		2009	Bagicha,Farsa bahar	31	10	5	0	0	0	0	0	0	0	44	0	0	0	0	0
		2010	Duldula,Kasa bel,Jashpur,K unkuri,Pathalg aon,Farsabaha r,Manora,Bagi cha	23	21	9	0	1	0	0	0	0	0	55	0	0	0	0	0
		2011	Duldula,Kasa bel,Jashpur,K unkuri,Pathalg aon,Farsabaha r,Manora,Bagi cha	30	8	3	0	0	0	0	0	0	0	67	0	0	0	0	0
		2012	Duldula,Kasa bel,Jashpur,K unkuri,Pathalg aon,Manora,B agicha	52	9	1	0	0	0	0	0	0	0	128	0	0	0	2	2
		2013	Duldula,Kasa bel,Jashpur,K unkuri,Pathalg	28	11	3	0	0	0	0	0	0	0	83	0	0	0	0	0

		aon,Farsabaha r,Manora,Bagi cha														
	2014	Duldula,Kasa bel,Jashpur,K unkuri,Pathalg aon,Farsabaha r,Manora,Bagi cha	10	7	1	0	0	0	0	0	0	58	0	0	0	0
	2015	Duldula,Kasa bel,Jashpur,K unkuri,Pathalg aon,Farsabaha r,Manora,Bagi cha	19	7	3	0	0	0	0	0	0	75	0	0	0	0
	2016	Duldula,Kasa bel,Jashpur,K unkuri,Pathalg aon,Farsabaha r,Manora,Bagi cha	39	8	9	1	0	0	0	0	0	92	0	0	0	0
	2017	Duldula,Kasa bel,Jashpur,K unkuri,Pathalg aon,Farsabaha r,Manora,Bagi cha	4	6	1	0	0	0	0	0	0	102	0	0	0	0
	2018	Duldula,Kasa bel,Jashpur,K unkuri,Farsab ahar,Manora, Bagicha	2	3	0	0	0	0	0	0	0	51	0	0	0	0

		2008		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2009		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2010		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2011		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2012		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Lu (Heat Stroke)	2013		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2014		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2015		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2016		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2017		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2018		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	Snake Bite/Sc orpion/ Honey Bee/Gu hera Bite	2008	Kunkuri,Farsa bahar,Bagicha	8	3	1	0	0	0	0	0	6	0	0	0	0	0	
		2009	,Kunkuri,Path algaon,Farsab ahar,Bagicha	16	5	3	0	0	0	0	0	0	20	0	0	0	0	0
		2010	Jashpur,Kunk uri,Pathalgaon ,Farsabahar,B agicha	15	4	10	0	0	0	0	0	0	36	0	0	0	0	0

	2011	Duldula,Kasabel,Jashpur,Kunkuri,Pathalgaoon,Farsabahar,Manora,Bagicha	15	6	3	0	0	0	0	0	0	11	0	0	0	0	0
	2012	Duldula,Kasabel,Jashpur,Kunkuri,Pathalgaoon,Farsabahar,Manora,Bagicha	31	7	2	0	0	0	0	0	0	17	0	0	0	0	0
	2013	Duldula,Kasabel,Kunkuri,Pathalgaoon,Farsabahar,Manora,Bagicha	19	5	3	0	0	0	0	0	0	45	0	0	0	0	0
	2014	Duldula,Kasabel,Kunkuri,Pathalgaoon,Farsabahar,Manora,Bagicha	10	4	2	0	0	0	0	0	0	22	0	0	0	0	0
	2015	Kasabel,Jashpur,Kunkuri,Pathalgaoon,Farsabahar,Manora,Bagicha	9	7	1	0	0	0	0	0	0	20	0	0	0	0	0
	2016	Duldula,Kasabel,Jashpur,Kunkuri,Pathalgaoon,Farsabahar,Manora,Bagicha	18	12	8	0	0	0	0	0	0	21	0	0	0	0	0
	2017	Kasabel,Jashpur,Farsabahar,Manora,Bagic	8	8	1	0	0	0	0	0	0	15	0	0	0	0	0

		ha																	
		2018	Farsabaha,Manora,Bagicha	2	0	0	0	0	0	0	0	0	8	0	0	0	0		
7	Dam Collapse	2008		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		2009		0	0	0	0	0	0	0	0	0	0	0	0	0	10	5	
		2010		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2011		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2012		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2013	Manora	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2014	Manora	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2015	Manora	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2016	Manora	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2017	Manora	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2018	Manora	3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8	Pest Infestation	2008		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2009		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2010		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2011		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

		2012		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2013		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2014		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2015		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2016		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2017		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2018		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Epidemic	2008		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2009		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2010		6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2011		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2012		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2013		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2014		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2015		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2016		3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2017		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

		2018		0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Road & Rail Accidents	2008		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2009		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2010		10	3	0	0	0	0	0	0	0	0	0	0	0	0
		2011		13	2	0	2	0	0	0	0	0	0	0	0	0	0
		2012		36	4	0	3	3	0	0	0	0	0	0	0	0	0
		2013		138			340			0	0	0	0	0	0	0	0
		2014		147			367			0	0	0	0	0	0	0	
		2015		137			487			0	0	0	0	0	15	0	
		2016		149			333			0	0	0	0	0	0	0	
		2017		188			379			0	0	0	0	0	0	0	
		2018		0	0	0	0	0	0	0	0	4	0	0	0	0	
11	Fire (Forest)	2008		0	0	0	0	0	0	0	0	0	0	0	0	0	
		2009		0	0	0	0	0	0	0	0	0	0	0	0		
		2010		0	0	0	0	0	0	0	0	0	0	0	0		
		2011		0	0	0	0	0	0	0	0	0	0	0	0		
		2012		0	0	0	0	0	0	0	0	0	0	0	0		



		2013		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2014		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2015		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2016		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2017		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2018		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Buildin g Collaps e	2008		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2009		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2010	Jashpur	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0
		2011	Jashpur	0	0	0	0	0	0	0	0	0	0	0	0	71	0	0
		2012	Jashpur	0	0	0	0	0	0	0	0	0	0	0	0	159	0	0
		2013	Jashpur	0	0	0	0	0	0	0	0	0	0	0	0	51	0	0
		2014	Jashpur	0	0	0	0	0	0	0	0	0	0	0	0	31	0	0
		2015		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2016	Jashpur	0	0	0	0	0	0	0	0	0	0	0	0	56	0	0
		2017	Jashpur	0	0	0	0	0	0	0	0	0	0	0	0	73	0	0
2018	Jashpur	0	0	0	0	0	0	0	0	0	0	0	0	32	0	0		

		2008		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2009		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2010		0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	Bomb Blast / Terrorism	2011		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2012		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2013		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2014		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2015		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2016		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2017		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2018		0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Stampede	2008		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2009		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2010		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2011		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2012		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2013		0	0	0	0	0	0	0	0	0	0	0	0	0	0

		2014		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2015		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2016		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2017		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2018		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	Festive Disasters	2008		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		- 2009		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2010		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2011		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2012		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2013		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2014		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2015		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2016		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2017		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2018		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16	Human	2008		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	and Animal Conflic ts	2009		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2010		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2011		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2012		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2013		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2014		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2015		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2016		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2017		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2018		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	Chemic als and Industri al Accide nts	2008		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2009		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2010		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2011		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2012		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2013		0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		2014		0	0	0	0	0	0	0	0	0	0	0	0	0	0	

		2015		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2016		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2017		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2018		0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	Landslide	2008		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2009		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2010		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2011		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2012		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2013		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2014		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2015		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2016		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2017		0	0	0	0	0	0	0	0	0	0	0	0	0	0
2018		0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19	Earthquake	2008		0	0	0	0	0	0	0	0	0	0	0	0	0	0
		2009		0	0	0	0	0	0	0	0	0	0	0	0	0	0

	2010		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2011		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2012		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2013		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2014		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2015		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2016		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2017		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2018		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 23 : Assessment of the Disasters that Occurred in the last 10 years

Tehsil wise Casualties (Jan Hani) Information (Last ten years information)															
S. No	Casualties (Jan Hani)	Jan	Month												Total
			Jan uary	Febru ary	Ma rch	April	May	June	July	August	Septe mber	Octob er	Novem ber	Dece mber	
			1	2	3	4	5	6	7	8	9	10	11	12	
1	Male		67	28	45	36	81	103	85	80	30	40	39	28	684
2	Female		17	21	22	22	32	33	25	32	24	9	6	2	245
3	Child		7	7	8	4	15	22	20	12	9	3	6	2	115
4	Details of Rescued people		0	10	2	0	0	0	0	1	0	0	0	0	13

<b>Total</b>	91	66	77	62	128	158	130	125	63	52	51	32	1057	
<b>Tehsil wise Animal loss (Pashu Hani) Information (Last ten years information)</b>														
<b>S. No</b>	<b>Animal loss (Pashu Hani)</b>	<b>Month</b>												
		<b>Jan uary</b>	<b>Febru ary</b>	<b>Mar ch</b>	<b>April</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>August</b>	<b>Septe mber</b>	<b>Octob er</b>	<b>Novem ber</b>	<b>Dece mber</b>	<b>Total</b>
		1	2	3	4	5	6	7	8	9	10	11	12	13
1	Dairy Cattle	55	33	42	31	83	95	108	81	55	24	33	14	667
2	Dry Cattle	15	18	23	17	35	52	86	57	39	7	5	1	355
	<b>Total</b>	70	51	78	48	118	147	194	138	94	31	38	15	1022

Table 24 : Last 10 years (Human and Animal Loss) monthly information of Disaster

## 2.3 Risk Profile -

A risk profile has been developed for each risk identified in Jashpur. A risk profile includes the following information about the danger:

1. Frequency of the incident - how often it is likely to occur.
2. Intensity and potential intensity - how bad it can be.
3. Location - where is likely to occur.
4. Duration - How long can it last?
5. Seasonal Pattern - The time of year during which it is more likely to occur.
6. Speed of the start - how fast is the possibility of it.

Hazard	Potential Magnitude (% of Community That Can Be Affected)	Frequency of Occurrence	Areas Likely to be Affected Most	Probable Duration	Probable Time of the Year	Potential Speed of Onset (Probable Amount of Warning Time)
Flood	Critical	Probable	All District	1-3 Week	June-September	More than 24 hours
Drought	Limited	Probable	All District	1-3 Month	May 1 <sup>st</sup> week	More than 24 hours
Earthquake	Likely	Probable	All District	Few hours	Throughout the year	Minimum or No Warning
Fire	Critical	Frequently	All District	Few hours	Throughout the year	Minimum or No Warning
Epidemic	Limited	Mostly	All District	Few Days	Throughout the year	Minimum or No Warning
Road Accidents	Critical	Mostly	All District	Few Seconds	Throughout the year	Minimum or No Warning
Seasonal Disease	Frequently	Probable	All District	Few Seconds	Throughout the year	Minimum or No Warning

**Table 25 : Risk profile**

**Note: Potential quantity –**

1. Dangerous: More than 50%
2. Serious: 25-50%



3. Limited: 10-25 %

4. Fewer than 10%.

### The frequency of the event –

1. Most likely: In the next year approximately 100 %.
2. Probability: 10-100 % with atleast one change in the next year.
3. Occasionally probable: 1-10 % in the next year or Probability between at least one change in the next 100 years.
4. Impossible: Less than 1% chance in the next 100 years.

### 2.4 Risk Analysis -

Risks can be a threat to people, services, specific facilities and structures in the community. By reducing the risk, the district can focus on those hazards that create high risk for life, property and environment. Analysis of risk is helpful in developing reaction priorities. Risk priority is assigned using qualitative ratings such as high, medium, and low.

S. No	Hazards	Geography	Infrastructure & Property	Demography
1	Flood	Medium	Medium	High
2	Drought	Medium	Low	High
3	Earthquake	Low	Low	High
4	Fire	Low	Medium	High
5	Epidemic	Low	Low	High
6	Road accidents	Critical	Medium	High
7	Seasonal disease	High	High	High

**Table 26 : Risk analysis**

### 2.5 Sensitivity analysis –

Based on the review and analysis of data, the context of the most important design risk is identified for the lowest administrative unit in the district. Based on this, the sensitivity analysis is done as follows.

S.No	Sensitivity analysis	Answer
1	Sensitivity analysis Result	
	What is the single or multiple threat facing the community? Which are the most important? Referring to the	Communities affected by risks such as Flood,drought, fire and epidemic.

	incident, frequency / return period, intensity and duration as well as the contact of affected families, compare these hazards?	
	Are risks or new risks emerging?	Epidemic cases were also there. No significant tendency has been seen.
2	Result of Sensitivity Analysis	
	Where is the most sensitive area?	District is affected by snake bites in tapkara tehsil ,Pathalgaon tehsil affected by elephants
	How are communities sensitive to the risks of influencing the community and those risks?	Relief work is available in District Office. The community information is given in time.
3	The result of capacity analysis	
	What are the main capabilities in the community?	Hospitals, police stations, rescue equipment, relief camps, transport etc. Drinking Water Supply Scheme, Prime Minister's Crop Insurance Scheme, Crop Contingency Schemes etc.
	Explain them and how do they increase the flexibility of the community?	<ul style="list-style-type: none"> <li>• Hospital: For immediate medical assistance.</li> <li>• Police Station: For rescue operation and withdrawal.</li> <li>• Rescue equipment: For rescue operations.</li> <li>• Relief camps: For temporary shelters and first aid.</li> <li>• Transport and communication system: It is well connected to neighboring districts through road and vehicular traffic.</li> <li>• Drinking Water Supply Scheme: Availability of potable water.</li> <li>• Prime Minister Crop Insurance Scheme: For Financial Assistance</li> <li>• Crop contingency plans: delay in rainfall or block rainfall, early breed crop etc.</li> </ul>
	Main weaknesses	<ul style="list-style-type: none"> <li>• Insufficient number of fire stations.</li> <li>• There is no NGO working on disaster management awareness..</li> </ul>
4	Preparations and reactions to reduce the effects of disaster	
	Based on potential of risks, assistance is needed to reduce the vulnerabilities and increase the capabilities of the community.	<ul style="list-style-type: none"> <li>• Construction of river embankments.</li> <li>• Protection of water during the rainy season.</li> <li>• Construction of new check dams, ponds and wells</li> </ul>

Table 27: Sensitivity analysis

**Tapakara Farasabahr** affected by the Snake bite and are known as ' Nagalok ' in the name of Jashpur. Jashpurs surrounded by tribal-dominated and jungles often get snakes in every area, but from Farasabahr to Tapakara to the locality, even today people know the Nagalok. There are a total of 40 species of snakes with about 4-5 species of serpent Vishdhar. On an average 100-150 people died of death by a snake or a toxic creature, yet the figure is 50-70.

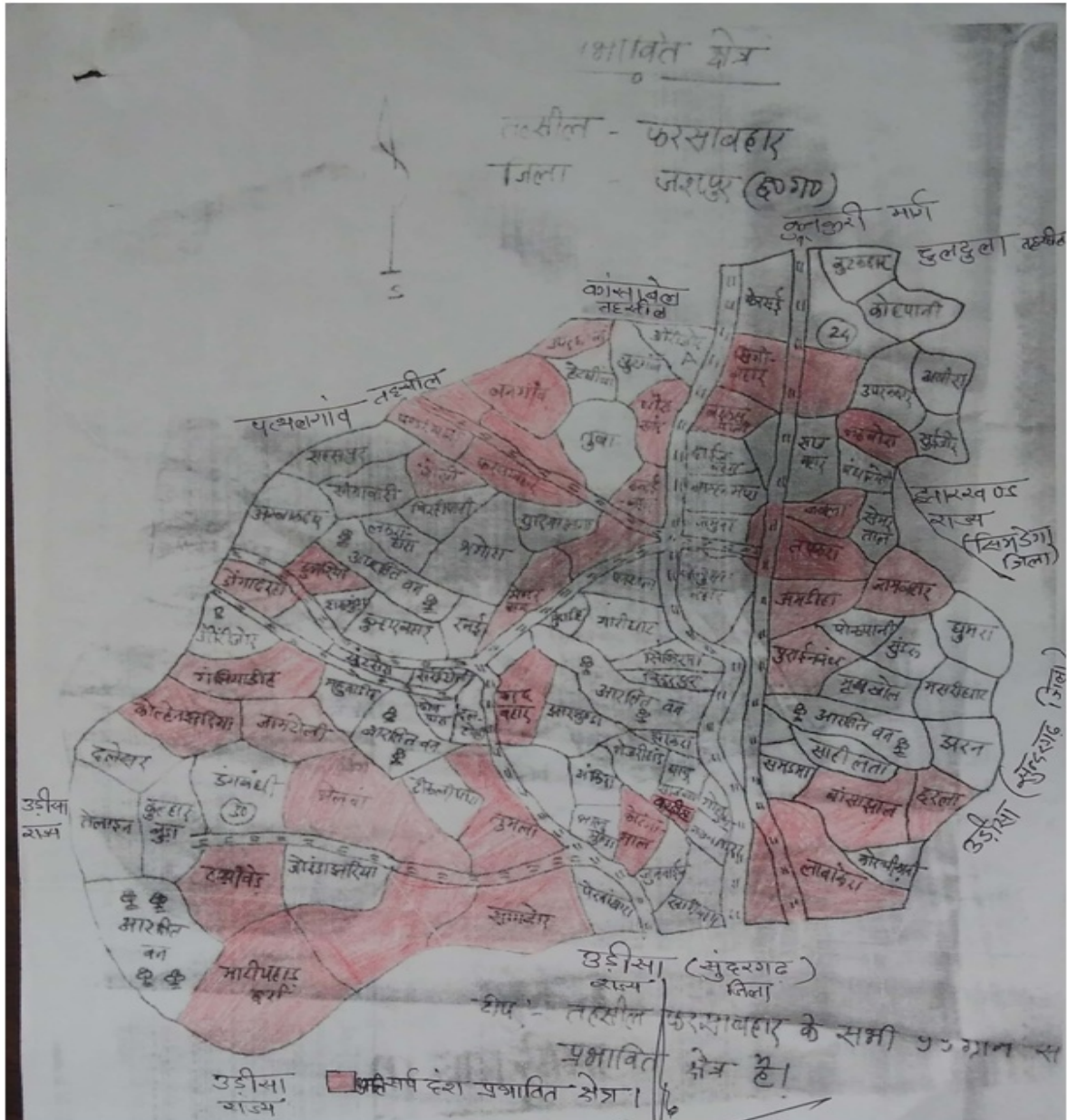


Figure 5: Areas affected by Snake bite

## 2.6 Disasters in Jashpur District -

### 2.6.1 Drought -

There is cumulative effect of the lack of dry water. The effect of which falls on agriculture, natural environment and related processes in the form of a natural disaster. If its effectiveness continues to increase, then the situation of famine arises. The Indian Meteorological Department has divided the drought into two parts - the drought and the common drought. Thirsty drought has less than 50 percent rainfall, while the normal drought is 25 percent less than the average rainfall.

According to the definition of drought given by the irrigation commission, this is the situation in which the area has received 75 percent less rain than normal rainfall. If this deficiency is between 25 to 50 percent, it is defined as the status of severe drought and if the deficiency is more than 50 percent then it is considered as a condition of severe drought.

Dry is a gradual natural disaster that gives us a lot of time to deal with. Due to not having proper management of water, its effects also increase over time. The main cause of drought is the lack of rainfall.

Common indicators of drought -

- Lack of water in reservoirs
- Low rainfall or not on time or low water storage
- Low water level
- Wells drying
- Destruction of crops

### Types of Drought -

- **Meteorological Drought** - Inadequate rainfall, irregularity, uneven distribution of water.
- **Due to hydrological drought** - Lack of water, lower ground water level, deprivation of water bodies, ponds, wells and reservoirs drying.
- **Agricultural drought** - Lack of crop or fodder, deficiency in soil moisture.

Village/Area in lower Domicile that is affected by flood conditions is the following below mentioned.

S.No	Tehsil	Total number of villages
1	Jashpur	99
2	Manora	97
3	Duldula	66
4	Kunkuri	62
5	Farsahbahar	99
6	Kasabel	62
7	Bagicha	138
8	Pathalgaon	109

**Table 28: Drought and its Damage in 2017-18**

**Safe locations of some village in the following tehsils:**

Safe locations of some villages during flood							
S. No	Tehsil	River name	Total no of villages	Potentially affected village	Potentially affected area (ha)	Description of relief Camp	Marked school
1	2	3	4	5	6	7	8
1	Jashpur	Baki river	99				
2	Manora	Lava river	97				
3	Duldula	Shri river	66				
4	Kunkurio	Dodki river	62				
5	Farsahbahar	Ib river	99	Lava kare	20 Acre	Lavakera high school	High school Lavakera
6	Kasabel	Maini river, ib river	62				
7	Bagicha	Dodki river, maini river	138				
8	Pathalgaon	Maad river, main	109				

		i river				
<b>Total</b>			<b>732</b>			

**Table 29: Safe locations of some village in the following tehsils during flood****2.6.2 Accidents****Road accidents –**

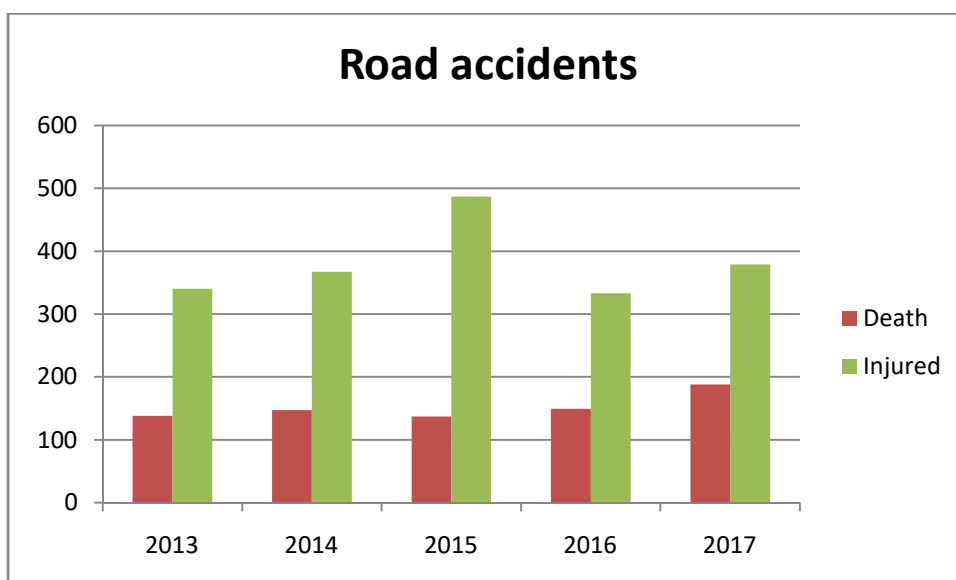
Science and technological advances have made human life soothing, which has resulted in the distances being counted in hours today. But the number of accidents is increasing day by day due to inadequacy and technical failure due to non-compliance of the rules of traffic.

About 37 percent of all deaths due to accidents in India die only due to road accidents. The fate of the situation can be assumed by the fact that 10 people die of road accidents every day and in every hour they die and four times more than that, 40 persons are injured, many of whom are crippled for ages.

On the basis of the proportion of the number of motor vehicles, the number of road accidents in India is much higher than the developed countries, and even more worrisome is that accidents increase by about 4 percent annually in the accidents. Today, it is necessary that we stop the accidents so that it can also reduce the number of dead people.

<b>Road accidents</b>				
<b>S.No</b>	<b>Year</b>	<b>Number of accidents</b>	<b>Death</b>	<b>Injured</b>
<b>1</b>	2013	356	138	340
<b>2</b>	2014	395	147	367
<b>3</b>	2015	427	137	487
<b>4</b>	2016	361	149	333
<b>5</b>	2017	370	188	379
	<b>Total</b>	<b>1909</b>	<b>759</b>	<b>1906</b>

**Table 30 : Road accidents in the district**



**Graph 2 : Road accidents in the district**

**The main reason for road accidents -**

- Negligence in driving
- Do not follow traffic rules
- Bad roads
- Extreme vehicles and crowds on the roads
- Improper maintenance of trains.

S.No	Road ways	Accident possible Area
1	Jashpur	Gamria turn
		Girang turn
		Tondatoli karamghat
2	Duldula	Loroghat
		Patratoli chowk
3	Bagicha	Budhadhand turn
		Tahsil chowk bagicha
4	Narayanpur	Damgada shiv temple

**Table 31: Details of main accident possible route & areas of Jashpur District**

**2.6.3 Epidemic-**

<b>Epidemic in the District during from the year 2008-2017</b>						
<b>S.NO</b>	<b>Year</b>	<b>Tehsil/ Vikaskhand</b>	<b>Name of epedimic</b>	<b>Number of epidemic</b>	<b>Number of affected people</b>	<b>Death</b>
1	2008	-	-	-	-	-
2	2009	-	-	-	-	-
3	2010	Kameli/Manora/aastha	Diarrhoea	1	83	2
		Manora/Sonkyari	Diarrhoea	1	75	1
		Alori/Manora/Sonkyari	Diarrhoea	1	35	1
		Kolenjharia/farsahabhar	Diarrhoea	1	213	2
4	2011	Kardana/Manora	Diarrhoea	1	18	1
		Paiku/lodham	Diarrhoea	1	4	&
5	2012	Lavakera/Farsahabhar	Diarrhoea	1	45	&
6	2013	Tabakachar/jabala/Bagicha	Diarrhoea	1	64	1
		Makribandha/Duldula	Diarrhoea	1	15	1
7	2014	-	-	-	-	-
8	2015	-	-	-	-	-
9	2016	Bodopehri/Bagicha	Diarrhoea	1	4	3
10	2017	-	-	-	-	-

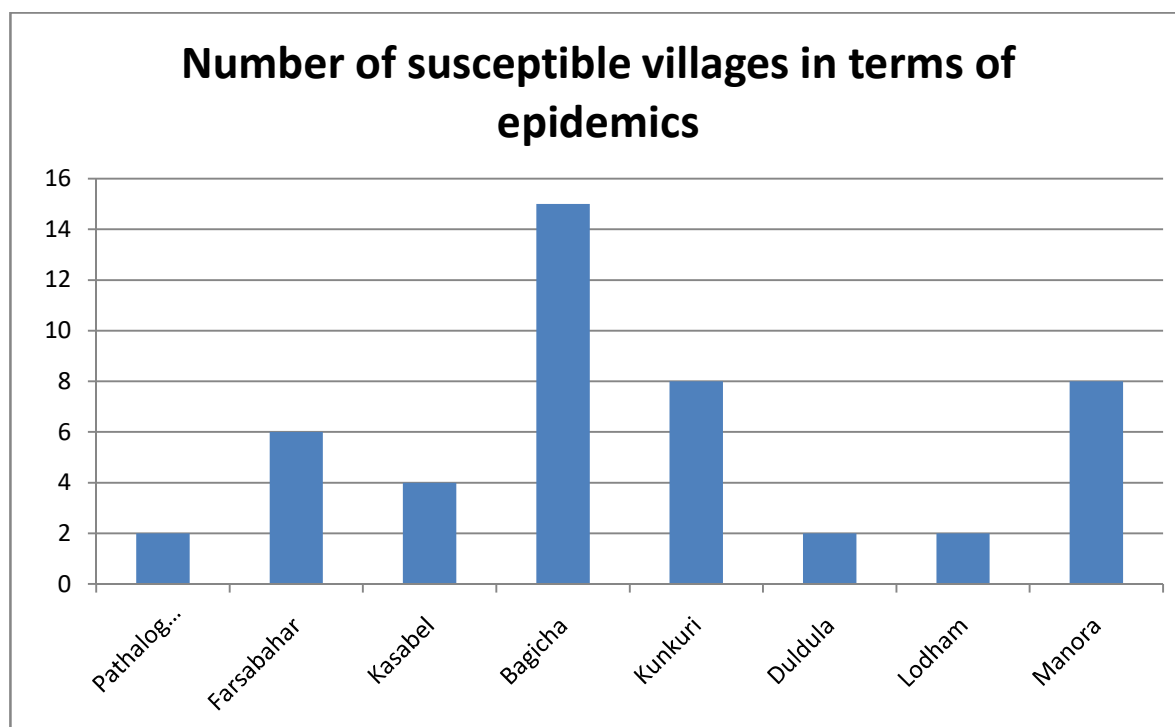
**Table 32 :The Epidemic in the District during the year from 2008-2017**

<b>S.No</b>	<b>Total number of villages</b>	<b>Tehsil name</b>	<b>Number of susceptible villages in terms of epidemics</b>	<b>Inaccessible area</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	107	Pathalogaon	2	Rajamma



2	99	Farsabahar	6	-
3	62	Kasabel	4	-
4	144	Bagicha	15	Jabala, Dhodharamba, Mahadev, Buchidadi, Tamiya, Sajapani, Dhanguri, Bedekona, Icholi, Hukarakona, Bijaghat, Belwar, Birasi, Sukma, sajapani, lodhanapadh, Baladharpath
5	93	Kunkuri	8	-
6	66	Duldula	2	Devadelangi
7	97	Lodham	2	Sekebira, Kumnicheka
8	97	Manora	8	Khamahali, Amgaon, Adhla, Irai, Kurrag, Karadari, Littim

**Table 33: Danger areas at the Tehsil level and sensitive villages**



**Graph 3: Number of susceptible villages in terms of epidemics**

# Chapter 3

## Disaster Management Amendment Act, 2005

### 3.1 Institutional arrangements -

Disaster management is more effective if it is in institutional framework. For this purpose, it has been directed to constitute a Disaster Management Authority at the district level under DM Act 2005. It will provide guidance on the district level to effectively give immediate response to any disaster situation according to the disaster plan.

Institutional mechanism for disaster management at the district level, as it is included in the National Plan, is given below:

- District disaster management authority
- District Disaster Management Advisory Committee
- Local self government authority
- District Emergency Operation Center

### 3.2 District Disaster Management Authority -

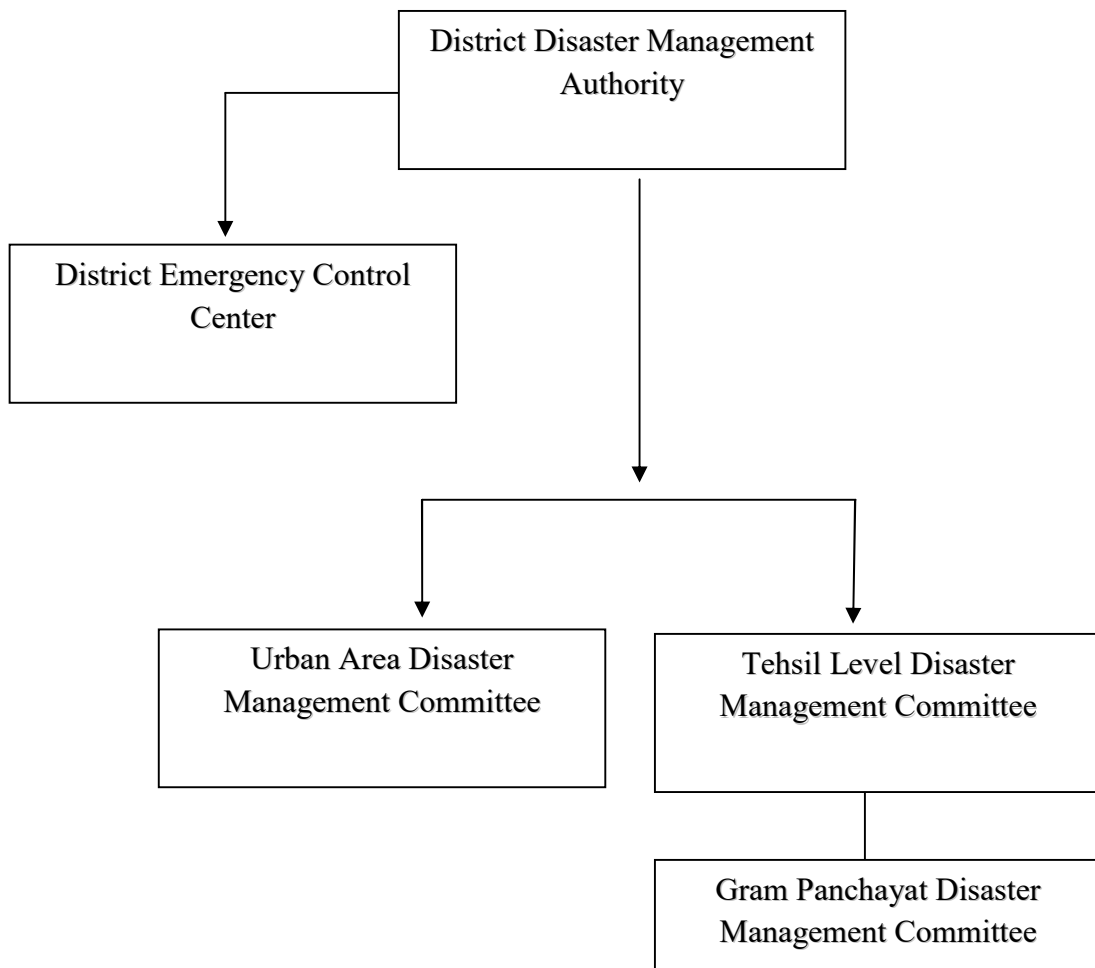
According to DDMA, planning, coordination and implementation of disaster management, and guidelines set by the National and State Authorities, all the measures are taken for the purpose of disaster management in the district. And it ensures that the guidelines for the prevention of disasters, lack of its impact, preparation and response measures are being followed by the district level and local authorities in all the departments of the government. Number of Chairman and other Members in District Authority.

S.No.	Government Rank	Post authority
1	District Collector/District Magistrate (District Disaster Management Authority)	Chairperson
2	Chief Executive Officer (CEO), Zilla Panchayat	Member
3	Superintendent of Police	Member
4	Chief Medical & Health Officer	Member

5	Executive Engineer, PWD Department	Member
6	Executive Engineer, Irrigation Department	Member
7	Additional Collector	Member
8	District Compondent, Home Guards	Member

**Table 34 : Structure of DDMA**

The District Disaster Management Committee is a foremost planning committee, it plays a major role for volatility and mitigation. At the district level the response is coordinated under the guidance of the District Collector, who works as District Disaster Manager.



**Flow Chart 1: District Disaster Management Authority Flow Chart**

### 3.3 District Disaster Management Sahlak Committee -

One and more Disaster Management Consultant Committee has been constituted for the District Disaster Management Authority's mission to discharge its functions. The members of this committee are appointed by the chairman of the District Disaster Management Authority, in which the members of the district panchayat, various departments, NGOs etc. are included.

<b>S. No</b>	<b>Designation</b>	<b>Position</b>
1	District Collector	Chairman
2	Superintendent of Police	Vice President
3	Deputy Collector	Member
4	Chief Medical & Health Officer	Member
5	Chief Executive Officer (CEO), Zilla Panchayat	Member
6	District Forest Officer	Member
7	District Food Officer	Member
8	District Education Officer	Member
9	Deputy Director, Agriculture	Member
10	R.T.O.	Member
11	District level NGOs Representative	Member

**Table 35: District Disaster Management Advisory Committee**

### 3.4 Local self government authority -

For the purpose of this policy, Local Authority Panchayati Raj Institutions (RI), Municipalities, District and Statement Board; (Cantonment board) and Municipal Planning Authorities are included which governs and operates civil services. These bodies will ensure the capacity building of their officers and employees to deal with disasters, will undertake relief rehabilitation and reconstruction activities in the affected areas and the National Disaster Management Authority, State Disaster Management.

### 3.5 Urban area disaster management committee -

A Disaster Management Committee will be set up at the senior level to conduct disaster management activities in all urban areas of the district office. Proposed infrastructure for the formation of Urban Disaster Management Committee.

<b>S. No</b>	<b>Designation</b>	<b>Position</b>
1	Nagar Palika Chairman	Chairman
2	Chief Executive Officer	Co-Chairman
3	Sub Divisional Magistrate	Member
4	Block Medical Officer	Member
5	EE, PWD	Member
6	EE, Electricity	Member
7	Forest Officer	Member

**Table 36 : District Disaster Management Advisory Committee**

### 3.6 Disaster Management Committee at Tehsil level &

Management committee will be constituted at Tehsil level for smooth operation of disaster management activities in Tehsil.

<b>S. No</b>	<b>Designation</b>	<b>Position</b>
1	Tehsildar	Chair Person
2	T.I Police	Member
3	Chair Person, Panchayat Samiti	Member
4	AE, Irrigation & Public Health	Member
5	AE, Electricity Dept.	Member
6	AE, PWD	Member
7	Medical Officer	Member
8	NGO (non-governmental)	Member

**Table 37: Disaster Management Committee framework at Tehsil level**

### 3.7 Village level disaster management committee -

The disaster management committee will be constituted at village level for coordination with the District Disaster Management Authority, to tackle the disaster at the village level and the proposed nature is as follows.

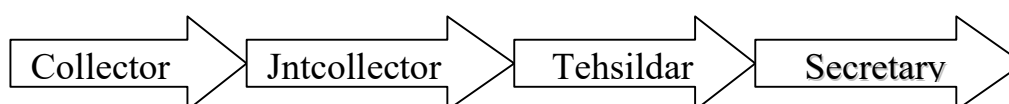
S. No	Designation	Position
1	Gram Panchayat Sarpanch	Chair Person
2	Secretary Gram Panchayat	Member
3	ANM (Health Dept.)	Member
4	Teacher (Education Department)	Member
5	Soldiers (Home guard)	Member
6	Kotwar	Member

**Table 38: Disaster Management Committee at Village Level**

### 3.8 District Emergency Operations Center -

DEOC is located in the District Collector's office. It is also the center point for information gathering, processing and decision-making to deal with the disaster. Based on the information gathered and processed, most important decisions are taken in this control room in relation to disaster management, it works the whole year and orders various departments to work according to the guidelines during the disaster. Incident Commander takes charge in the District Control Room, who directs emergency operations, Organizational structure for disaster management is given below in the picture. To deal with any disaster, the District Collector will direct the joint collector to the relief work and the joint collector will direct Tahsildar will direct to the Gram Panchayat Patwari Secretary.

Organizational structure for disaster management is given below in the picture



**Flow Chart 2: Organizational structure for disaster management is given below in the picture**

### Facilities/Arrangements District Control Room/Center -

In order to deal with the disaster in the District Control Center and to coordinate the various line departments, the following arrangements will be –

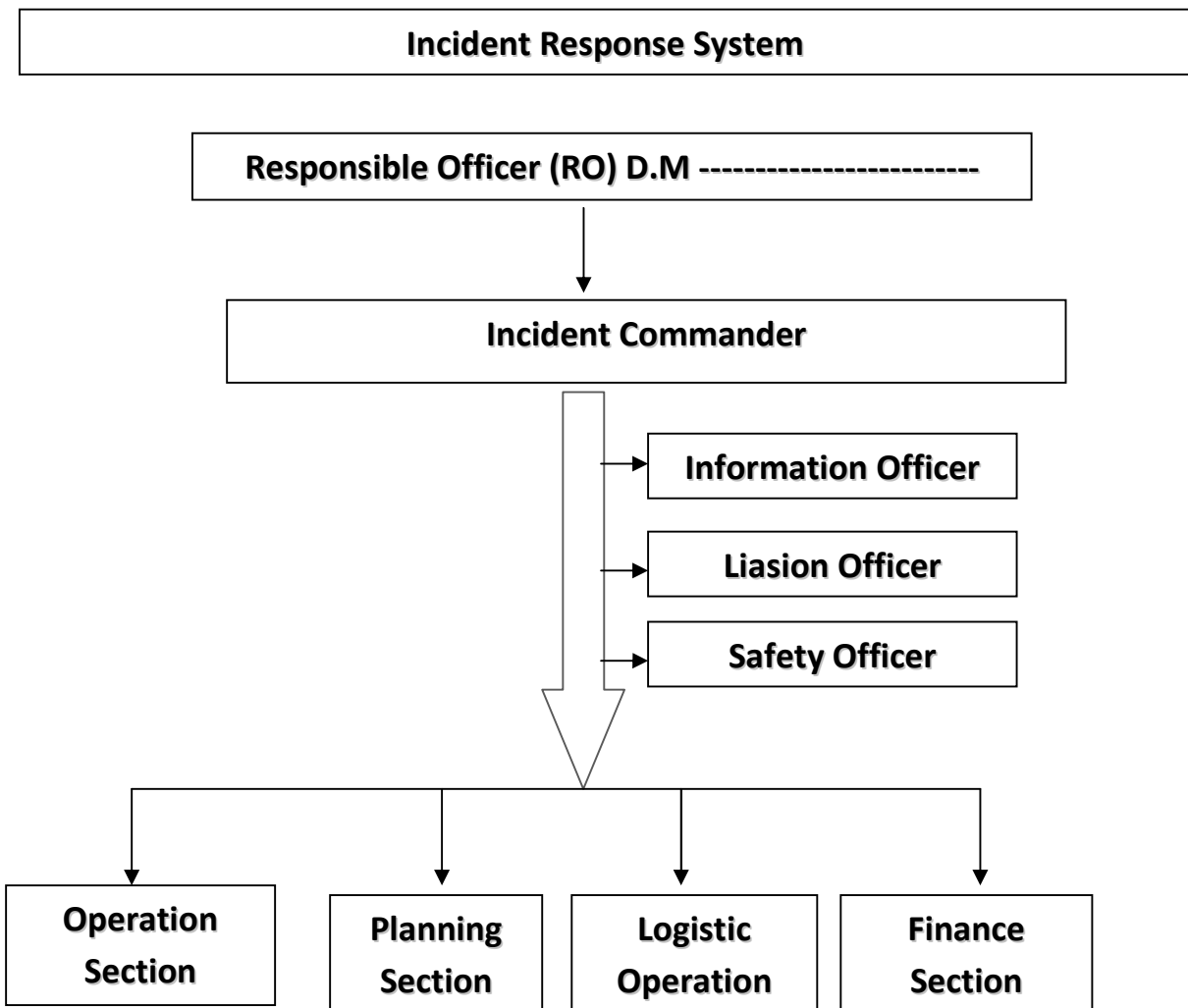
Hot lines for contact with State Disaster Management Control Center

- Telephone, satellite phone
- Copy of the Disaster Management Plan
- Wireless set
- Conference room
- Walkie Talkie
- A computer with internet

- Other essentials

### 3.9 Event (Incident) Response System (IRS) –

IRS organization works through field response response team. District Collector, DDMA, is the highest office bearer and accountant in the event response management. District collector can assign his assignment to any other accountable officer as necessary. If the disaster occurs in more than one district then the collector of that district acts as an incident commander, where the severity of the disaster is highest. As well as the active response of the event response system, a working operations section plays a role from a planning section and a finance section with immediate effect in their respective officers and employees. The only officer who has the right to appoint the in-charge of these sections is to the incumbent commander. All related liability lies in the sectional charges till the victims reach the logistics support.



Flow chart 3: Event Responder System

**The following are the common tasks of the Incident Commander:**

- Developing mechanisms for uninterrupted communication flow during the Emergency and its integration.
- Provide facility for its protocol and work process of various ESFs (emergency support function) of the district, state and central government.
- To keep the communication system in such a way that all the information that can be received at the time of the disaster can be retained, can be kept in record and the acceptance letter of exchange of information.
- Managing the distribution of relief material available to the ISF in emergency.

Apart from these above normal tasks, the incident commander has to perform several following specific tasks such as –

- Estimate the situation
- Estimate the risk of human life
- Determine the immediate objectives (tasks)
- Dec iding the availability of adequate resources in the disaster area / ordering for availability.
- Setting an immediate action plan
- Creating an initial improvised organization

**The main function of the operation section charge -**

- Responsibility for managing all types of direct tasks to fulfill the primary objective,
- To make the requirements and request related departments for additional resources,
- Reviewing the list of available resources and recommending for the distribution of resources,
- Reporting all special activities and events to the incident commander.

**Main Sections of Planning Section Incharge –**

- Collection, evaluation, dissemination and use of information in connection with any assistance, information about the updated status.
- Creating a Flexible Plan and controlling all the tasks.
- Inspecting the urgent action plan creation.



- Deliver new tasks to any officer working in the disaster area as necessary.
- Decide the need for a specific resource for the event response.

### **Chief Functions of Logistics Section Incharge -**

- Establishing the necessary information and reporting mechanism for the resource for the planning section.
- Compile and display information about the incident status of the accident.
- Monitoring the preparation and implementation of the event appropriation plan.
- Reviewing these by including traffic, medical, safe areas and communication etc. in the plans.
- Provide information to the media on the updated status and resource availability, setting goals, setting the work area limits, creating the work, creating groups, setting strategies and security guidelines for each department.
- Assign responsibility of the work area to the employees
- Identify the services and needs required for pre-employed and future work for their work.
- To initiate process requests for additional resources and coordinate for it.

### **The main functions of the Finance Section Incharge –**

Finance section is basically for administration and finance management. Incident command post, Aadhaar office area, management of the Aadhaar and camps are under the main functions of the finance section.

The following functions are done under Finance section:

- Keeping in mind the availability and needs of resources, proper management,
- Give IC's accountability for planning for resource utilization and acceptance of resources for contingency.

### **3.10 District Control Center –**

The District Control Center will work in a primary center under the control of the District Collector. The purpose of its formation-

- To monitor
- To coordinate
- Applying Disaster Management's Action

This room is functioning throughout the year and issues instructions to various departments to take action during disaster. The District Disaster Committee is as follows –

<b>District level control room</b>			
<b>S. No.</b>	<b>Disaster Control Room</b>	<b>Officers</b>	<b>Telephone/Mobile</b>
<b>1</b>	State Level	Shri. N. K. Xaxa Secretary, Department of Revenue Revenue and Disaster Management, (Atal nagar Raipur)	0771-2223471
<b>2</b>	District level	Mr.Nilesh Kumar Mahadev Kshirsagar, Collector Jashpur Shri I. L. Thakur Upper Collector, Jashpur (Nodal officer)	
			94241-17626
<b>3</b>	Tehsil Level Jashpur	Shri Parmeshwar Lal Mandavi Tehsildar	94062-03798
	Patathalgaon	Shri Mayananad Chandra Tehsildar	99267-59295
	Kunkuri	Shri Manish Kumar Verma Tehsildar	94063-49496
	Kasabel	Shri A.K. Bajare Tehsildar,	94060-63343
	Farsabhar	Shri Uday raj singh Tehsildar	99770-66235
	Duldula	Shri Maneish Kumar Verma Tehsildar	94063-49496
	Manora	Shri Rubin Khalko Tehsildar	82240-76699
	Bagicha	Shri.B.Kujur Tehsildar	76975-22991
	<b>4</b>	Municipal Corporation	Shri Jitendra Kushwaha Chief municipality, Jashpur
<b>5</b>	Medical Department	Dr.R.L Tiwari(Chief Medical Health Officer)	96305-14949
<b>6</b>	District Commandant, Homeguard	Shri.N.S Netam	99263-89977
<b>7</b>	Police Control Room, Civil Lines	Shri.Prashant singh thakur	94252-05400/ 223240

**Table 39 : District Control Center**

### **Alternative Control Room -**

An emergency control center has been established at the district level to deal with any kind of disaster. Alternate emergency control rooms are also set up in the district, homeguard, police department, for the smooth operation of the disaster with the control center.

### **Police force and fire services -**

The police force and the fire services will take immediate action in the disasters. Police forces are trained to achieve multi-risk rescue capability.

### **Citizen Protection and Home Guards -**

Civil protection and home guards play an effective role in the field of disaster management. They have a huge contribution in community preparation and public awareness. Immediate proper action is taken by them when a disaster arrives.

### **Information and Warning Agency -**

There is an urgent need to establish, upgrade and modernize prediction and early warning systems for all kinds of disasters. Monitoring and monitoring of specific natural disasters

There is an urgent need to establish, upgrade and modernize prediction and early warning systems for all kinds of disasters. Nodal agencies, responsible for monitoring and monitoring specific natural disasters, will identify technological differences and project projects for their upgradation so that they can be completed in a timely manner.

Disaster	Likely Period of Disasters	Districts likely to be affected	Severity Level	Preparedness/ Monitoring Measures	Time Line	Stakeholders
Cold Wave	December-January	Sarguja, Koriya, Jashpur, Surajpur	High	Preparedness Workshop/Meeting	First Week of November	<b>Central Agencies:</b> IMD, NDMA, NIDM, WHO, MoHRD, MoHFW, MoUD, MoPR, MoRD, MoAFW.
				Issuance of Advisory	Second Week of November	
		Balrampur, Raipur, Durg, Bastar, Sukma, Bijapur, Dantewada, Narayanpur, Kondagaon, Kanker	Medium	Print & Electronic Media Awareness Campaign	Second Week of November	<b>State Agencies:</b>
				Social Media Awareness Campaign	Second Week of November	
		Other Districts	Low	Review of Preparedness through Video Conference	First Week of December	IMD, SDMA, Health Department, Education Department, Municipal Corporations, Women and Child Development, Agriculture, Horticulture, Animal and Husbandry, Labour, Forest and Food department etc.
				Regular Video Conference	Every Fortnight	
Mid Term Review	First Week of January					
Heat Wave/ Heat Stroke	April - June	Bilaspur, Baloda Bazar, Raipur, Janjgir-Champa, Durg, Kabirdham and	High	Preparedness Workshop/Meeting	Second Week of March	<b>Central Agencies:</b>

		Kanker.		Issuance of Advisory	Third Week of March	IMD, NDMA, NIDM, , MoHFW, WHO, MoHRD, MoWR, MoUD, MoPR, MoRD, MoL&E, DRM (Railway)
				Print & Electronic Media Awareness Campaign	Third Week of March	
		Dhamtari, Rajnandgaon, Raigarh, Korba, Sukma and Dantewada.	Medium	Social Media Awareness Campaign	Last Week of March	<b>State Agencies</b>
				Review of Preparedness through Video Conference	First Week of April	SDMA, SDRF, Health Department, PHED, Municipal Corporations, Education, Labour, PR Department, Home, Rural & Urban Development Women and Child Development, Horticulture, Animal and Husbandry
		Other Districts	Low	Regular Video Conference	Every Fortnight	
				Mid Term Review	Second Week of May	
<b>Forest Fire</b>	April - June	Bijapur, Korba, Surguja, Surajpur, Balrampur and Koriya	High	Preparedness Workshop/Meeting	Second Week of March	<b>Central Agencies:</b>
				Issuance of Advisory	Third Week of March	MoEF&CC, MHA, NRSC, MoRD, MoRTH
				Print & Electronic Media Awareness Campaign	Third Week of March	
		Bastar, Jashpur, Gariyaband, Kondagaon	Medium	Social Media Awareness	Last Week of March	<b>State Agencies:</b>

		and Dhamtari		Campaign		
				Review of Preparedness through Video Conference	First Week of April	Forest, SDRF, SDMA, PHED, PWD, Agriculture, Horticulture, Animal and Husbandry Department
		Narayanpur, Kanker, Mungeli and Raigarh	Low	Regular Video Conference	Every Fortnight	
				Mid Term Review	Second Week of May	
<b>Lightning</b>	June - September	Korba, Raigarh, Mahasamund, Bastar, Koriya, Surajpur, Balrampur, Sarguja and Jashpur	High	Preparedness Workshop/Meeting	Third Week of April	<b>Central Agencies:</b>
				Issuance of Advisory	First Week of May	IMD, MHA, NDMA, NDRF, NRSC, MoH&FW, MoUD, MoRD, Ministry of Railway, MoRTH, MoP, MI&CT, Ministry of Petroleum and Natural Gas, Ministry of Food Processing Industries.
		Gariyaband, Durg, Rajnandgaon, Kondagoan, Bijapur, Dantewada and Sukma	Medium	Print & Electronic Media Awareness Campaign	First Week of May	<b>State Agencies:</b>
				Social Media Awareness Campaign	Second Week of May	
				Review of Preparedness through Video Conference	First Week of June	SDMA, WRD, PHED, PWD, Health Department, Municipal Corporations, Electricity

		Other Districts	Low	Regular Video Conference	Every Fortnight	Department, Industrial Dept., Animal and Husbandry Department and Education.
				Mid Term Review	Second Week of July	
<b>Flood</b>	June-September	Bastar, Bilaspur, Mahasamund, Raipur, Korba, Jashpur, Sarguja, Sukma, Dantewada, Kanker, Janjgir champa and Raigarh	High	Preparedness Workshop/Meeting	Third Week of April	<b>Central Agencies:</b>
				Issuance of Advisory	First Week of May	IMD, MHA, NDMA, NDRF, NRSC, MoH&FW, MoUD, MoRD, Ministry of Railway, MoRTH, Ministry of Power, Ministry of Information and Communication Technology, Ministry of Petroleum and Natural Gas, Ministry of Food Processing Industries
				Print & Electronic Media Awareness Campaign	First Week of May	
		Surajpur, Kondagoan Gariyaband, Balod, Durg, Baloda bazar, Bijapur, Narayanpur, Dhamtari and Rajnandgaon	Medium	Social Media Awareness Campaign	Second Week of May	<b>State Agencies:</b>
				Review of Preparedness through Video Conference	First Week of June	SDMA, SDRF, WRD, PHED, PWD, Home, Health Department, Agriculture, Municipal Corporations, Electricity Department, Department of Education, Women and Child Development,
		Other Districts	Low	Regular Video Conference	Every Fortnight	
Mid Term Review	Second Week of July					

						Horticulture, Animal and Husbandry, Food, Forest, Labour dep, PRD, PR Dept.
<b>Urban Flood</b>	June - September	Raipur, Dhamtari, Durg, Bilaspur, Raigarh, Bastar and Kanker	High	Preparedness Workshop/Meeting	Third Week of April	<b>Central Agencies:</b>
				Issuance of Advisory	First Week of May	
		Janjgir Champa, Mungeli and Korba	Medium	Print & Electronic Media Awareness Campaign	First Week of May	<b>State Agencies:</b>
				Social Media Awareness Campaign	Second Week of May	
				Review of Preparedness through Video Conference	First Week of June	
		Other Districts	Low	Regular Video Conference	Every Fortnight	
		Mid Term Review	Second Week of July			



<b>Landslide/ Mudslide</b>	June- September	Kondagaon, Kanker, Dantewada and Sarguja	High	Preparedness Workshop/Meeting	Third Week of April	<b>Central Agencies:</b>  MoM, NDMA, NIDM, MoRD, NDRF, MoUD, IITs, BRO, MoHRD
				Issuance of Advisory	First Week of May	
		Kabirdham, Jashpur, Bijapur, Narayanpur	Medium	Print & Electronic Media Awareness Campaign	First Week of May	<b>State Agencies:</b>  SDMA, SDRF, Home, PHED, Health Department, Municipal Corporations, Electricity Department, Public Relation Department.
				Social Media Awareness Campaign	Second Week of May	
		Other Districts	Low	Review of Preparedness through Video Conference	First Week of June	
				Regular Video Conference	Every Forthnight	
Mid Term Review	Second Week of July					
<b>Drought</b>	July - October	Bemetara, Raigarh, Mahasamund, Raipur, Baloda Bazar, Janjgir- champa, Korba, Mungeli, Durg, Rajnandgaon, Narayanpur, Kanker, Kondagaon, Dhamtari and Kabirdham	High	Preparedness Workshop/Meeting	First Week of May	<b>Central Agencies:</b>  Ministry of Agriculture & Farmers Welfare, IMD, MNCFC, CRIDA, MoWR,RD & GR, ISRO, SRSACs
				Issuance of Advisory	Regularly (Every Month)	

		Koriya, Surajpur, Balrampur, Dantewada,	Medium	Print & Electronic Media Awareness Campaign	Round the Year (Every Month)		
				Social Media Awareness Campaign	Round the Year	<b>State Agencies:</b>	
		Sarguja, Sukma, Bastar	Low	Review of Preparedness through Video Conference	First Week of November	SDMA, Relief Commissioner, Agriculture Department, Irrigation Department, PHED, Health Department, Municipal Corporations, Electricity Department, Department of Education	
				Regular Video Conference	Regularly (Every Month)		
				Mid Term Review	First Week of November		
<b>Road Accident</b>	Round the Year	Raigarh, Janjgir champa, Balrampur, Korba, Raipur, Jashpur, Bastar, Kanker, Rajnandgaon, Durg, Mungeli, Kondagaon, Sarguja, Bilaspur, Surajpur,	High	Preparedness Workshop/Meeting	Every Month	<b>Central Agencies:</b>	
				Issuance of Advisory	Regularly (Every Month)		MoRTH, MoUD, NDMA, NIDM
				Print & Electronic Media Awareness Campaign	Round the Year (Every Month)		
		Baloda bazar, Mahasamund, Dhamtari,	Medium	Social Media Awareness	Round the Year	<b>State Agencies</b>	

		Balod, Sukma, Kawardha		Campaign		
				Review of Preparedness through Video Conference	First Week of Every Month	SDMA, Transport Department, PWD, Health Department, Municipal Corporations, Electricity Department, Department of Education
		Narayanpur, Dantewada, Bijapur, Gariyaband, Bemetara, Koriya	Low	Regular Video Conference	Regularly (Every Month)	
				Mid Term Review	First Week of Every Month	
<b>Fire Accidents</b>	Round the Year	Bilaspur, Janjgir Champa, Raipur, Durg, Korba, Rajnandgaon, Mungeli	High	Preparedness Workshop/Meeting	Every Month	<b>Central Agencies:</b>
				Issuance of Advisory	Regularly (Every Month)	MoEF&CC, NRSC, MoRD, MoRMHA, NDMA, NIDM
				Print & Electronic Media Awareness Campaign	Round the Year (Every Month)	
		Bastar, Raigarh, Baloda bazar, Mahasamund, Dhamtari, Balod, Kanker	Medium	Social Media Awareness Campaign	Round the Year	<b>State Agencies:</b>
				Review of Preparedness through Video Conference	First Week of (Every Month)	Fire Services, Relief Commissioner, SDMA, PHED, PWD, Municipal Corporation
			Low	Regular Video Conference	Regularly (Every Month)	

		Sukma, Bijapur, Narayanpur, Dantewada, Jashpur, Kabirdham, Gariyaband, Kondagaon		Mid Term Review	Frist Week of (Every Month)	
<b>Earthquake</b>	Round the Year	Raigarh, Bilaspur, Korba, Koriya, Sarguja and Surajpur	Zone III	Preparedness Workshop/Meeting	Every Month	<b>Central Agencies:</b> IMD, MHA, NDMA, NDRF, NRSC, MoH&FW, MoUD, MoRD, Ministry of Railway, MoRTH, Ministry of Power, Ministry of Information and Communication Technology, Ministry of Petroleum and Natural Gas, Ministry of Food Processing Industries
				Issuance of Advisory	Every Month	
				Print & Electronic Media Awareness Campaign	Regularly (Every Month)	
				Social Media Awareness Campaign	Round the Year	
		Other Districts	Zone II	Review of Preparedness through Video Conference	Frist Week of Every Month	SDMA, SDRF, Home Department PHED, Health Department, Municipal Corporations, Electricity Department, Department of Education, PWD
				Regular Video Conference	Regularly (Every Month)	

				Mid Term Review	Frist Week of Every Month	
<b>Snake Bite</b>	Round the Year	Bastar, Surajpur, Rajnandgaon, Balarampur, Sarguja, Jaspur, Raigrah, Bilaspur, Korba, Kanker, Kabirdham, Jashpur, Koriya	High	Preparedness Workshop/Meeting	Every Month	<b>Central Agencies:</b> NIDM, MoHRD, MoHFW, WHO
				Issuance of Advisory	Regularly (Every Month)	
		Kondagaon, Sukma, Bijapur, Mungeli, Raipur, Dhamtari, Durg, Mungeli Mahashamund, Gariyaband	Medium	Print & Electronic Media Awareness Campaign	Round the Year (Every Month)	<b>State Agencies:</b>
				Social Media Awareness Campaign	Round the Year	
		Narayanpur, Bemetara, Balod	Low	Review of Preparedness through Video Conference	First Week of Every Month	SDMA, Health Department, Municipal Corporations, Department of Education, Forest, Animal Husbandry, Women and Child Department
				Regular Video Conference	Regularly (Every Month)	
Mid Term Review	First Week of Every Month					
<b>Naxalite Attacks</b>	Round the Year	Sukma, Bijapur, Narayanpur, Dantewada,	High	Preparedness Workshop/Meeting	Every Month	<b>Central Agencies:</b>

		Jashpur, Kondagaon, Bastar, Kanker		Issuance of Advisory	Regularly (Every Month)	MHA, Central Armed Forces
				Print & Electronic Media Awareness Campaign	Round the Year (Every Month)	
		Rajnandgaon, Dhamtari, Jashpur, Mahashmund, Gariyaband, Balod, Koriya, Sarguja, Balrampur	Medium	Social Media Awareness Campaign	Round the Year	<b>State Agencies:</b>
				Review of Preparedness through Video Conferencing	Frist Week of (Every Month)	State Police, Home Department, Department of Education
				Regular Video Conference	Regularly (Every Month)	
		Other District	Low	Mid Term Review	Frist Week of (Every Month)	
<b>Epidemics</b>	Round the Year	Surajpur, Raigarh, Janjgir Champa, Kondagaon, Sukma, Bijapur, Bilaspur, Korba, Durg, Bemetara, Balod, Kabirdham, Baloda bazar, Mahasamund, Dhamtari	High	Preparedness Workshop/Meeting	Every Month	<b>Central Agencies:</b>
				Issuance of Advisory	Regularly (Every Month)	NDMA, NIDM, MoHRD, MoHFW, WHO, MoUD, MoRD

		Raipur, Gariyaband, Mungeli, Surguja, Jashpur	Medium	Print & Electronic Media Awareness Campaign	Round the Year (Every Month)	
				Social Media Awareness Campaign	Round the Year	<b>State Agencies:</b>
		Balrampur, Kanker, Narayanpur, Dhamtari, Rajnandgaon	Low	Review of Preparedness through Video Conference	First Week of Every Month	SDMA, , PHED, Health Department, Municipal Corporations, Electricity Department, WRD, Department of Animal Husbandry, Food and Education Department
				Regular Video Conference	Regularly (Every Month)	
				Mid Term Review	First Week of Every Month	
<b>Animal Conflict</b>	Round the Year	Sarguja, Jashpur, Balod , Dhamtari	High	Preparedness Workshop/Meeting	Every Month	<b>Central Agencies:</b>
				Issuance of Advisory	Regularly (Every Month)	MoEF, MoPR, MoAFW
		Kondagaon, Bastar, Rajnandgaon, Raipur, Sukma, Bijapur	Medium	Print & Electronic Media Awareness Campaign	Round the Year (Every Month)	
				Social Media Awareness Campaign	Round the Year	<b>State Agencies:</b>

		Other Districts	Low	Review of Preparedness through Video Conference	First Week of (Every Month)	SDMA, Forest Department ,SDRF, Home Department PHED, Health Department, Municipal Corporations,
				Regular Video Conference	Regularly (Every Month)	
				Mid Term Review	First Week of Every Month	
<b>Crowd Management</b>	Round the Year	Raipur, Durg, Rajnandgaon, Dantewada, Bastar, Janjgir champa, Korba, Raigarh, Bilaspur, Mungeli	High	Preparedness Workshop/Meeting	Every Month	<b>Central Agencies:</b>
				Issuance of Advisory	Regularly (Every Month)	NIDM, NDMA, NDRF, MoUD,MoRD, MoPR
		Sukma, Bemetara, Narayanpur, Kondagaon, Bijapur, Balod Bazar	Medium	Print & Electronic Media Awareness Campaign	Round the Year (Every Month)	<b>State Agencies:</b>
				Social Media Awareness Campaign	Round the Year	
		Other Districts	Low	Review of Preparedness through Video Conferencing	First Week of Every Month	SDMA, Relief Commissioner,SDRF, Home Department, Health Department, Municipal Corporations, Department of Education, Department
Regular Video Conference	Regularly (Every Month)					



				Mid Term Review	First Week of (Every Month)	of Transport
<b>Chemical (Industrial) Disaster</b>	Round the Year	Raigarh, Raipur, Bilaspur, Janjgir Champa, Mungeli, Bastar, Dantewada, Durg, Korba, Rajnandgaon	High	Preparedness Workshop/Meeting	Every Month	<b>Central Agencies:</b> NIDM, NDMA, NDRF, MoEFCC, MoCI, MoSME
				Issuance of Advisory	Regularly (Every Month)	
				Print & Electronic Media Awareness Campaign	Round the Year (Every Month)	
		Sarguja, Mahasamund, Dhamtari, Kabirdham	Medium	Social Media Awareness Campaign	Round the Year	<b>State Agencies:</b> SDMA, Relief Commissioner, SDRF, State Police, Health Department, Municipal Corporations, Department of Education, DoCI
				Review of Preparedness through Video Conference	First Week of Every Month	
		Other Districts	Low	Regular Video Conference	Regularly (Every Month)	
Mid Term Review	First Week of Every Month					

Table 40: Yearly calendar of disasters

# **VOLUME-2**

## List of Contents :

<b>S.No.</b>	<b>Contents</b>	<b>Pg. No.</b>
<b>1</b>	<b>Preparedness Measures</b>	<b>1-17</b>
1.1	General Preparedness Measures	1-4
1.1.1	Control Room Establishment	1-2
1.1.2	Plan Updation	2
1.1.3	Communication System	3
1.1.4	Training for Disaster Management Team Members	3
1.1.5	Organization of Mock Drills	3
1.1.6	Community Awareness on Various Disasters	3-4
1.2	Coordination Mechanism of DDMA in Pre Disaster Situation	4-5
1.3	Coordination Mechanism of DDMA in Immediate Pre Disaster Situation (Immediately after Early Warning Received)	5-6
1.4	Coordination Mechanism of DDMA during Disaster (Relief Distribution Mechanism)	7
1.5	Coordination Mechanism of DDMA in Post Disaster Situation	7-8
1.6	General Preparedness Checklist	8-9
1.7	Department Wise Preparedness Checklist	9-16
<b>2</b>	<b>Prevention and Mitigation Measure</b>	<b>17-25</b>
2.1	Hazard wise Structural and Non- structural Mitigation Measures	17-24
2.1.1	Hazard: Flood	18-19
2.1.2	Hazard: Drought	20-21
2.1.3	Hazard: Road Accidents	21-22
2.1.4	Hazard: Epidemics	22-23
2.1.5	Hazard: Fire	23-24
2.1.6	Hazard: Heat Wave	24
<b>3</b>	<b>Disaster Risk Reduction Plan</b>	<b>25-38</b>
3.1	Capacity Building	25-26
3.2	Recommendations for Disaster Risk Reduction	26-31
3.3	Mainstreaming DRR in Development National Flagship Schemes	31-34
3.4	Mainstreaming DRR in Development State level Flagship Schemes	34-38
<b>4</b>	<b>Climate Change Actions</b>	<b>39-45</b>
<b>5</b>	<b>Capacity Building and Training Measures</b>	<b>46-50</b>
5.1	Capacity Building	46
5.2	Institutional Capacity Building	46-47
5.3	India Disaster Resource Network (IDRN)	47
5.4	Department wise Roles and Responsibilities of HODs	48-49
5.5	Community Based Disaster Management	49-50

## List of Tables :

S.No.	Table	Pg. No.
1	Table 1: Coordination Mechanism of DDMA in Pre Disaster Situation	5
2	Table 2: Coordination Mechanism of DDMA in Immediate Pre Disaster Situation (Immediately after Early Warning Received)	6
3	Table: 3 Coordination Mechanism of DDMA during Disaster (Relief Distribution Mechanism)	7
4	Table 4: Coordination Mechanism of DDMA in Post Disaster Situation	8
5	Table 5: Department Wise Preparedness Checklist	16
6	Table 6: Structural Mitigation Measures for Flood	19
7	Table 7: Non-Structural Mitigation Measures for Flood	19
8	Table 8: Structural Mitigation Measures for Drought	20
9	Table 9: Non-Structural Mitigation Measures for Drought	21
10	Table 10: Structural Mitigation Measures for Road Accidents	21
11	Table 11: Non-Structural Mitigation Measures for Road Accidents	22
12	Table 12: Structural Mitigation Measures for Epidemics	22
13	Table 13: Non-Structural Mitigation Measures for Epidemics	23
14	Table 14: Structural Mitigation Measures for Fire	23
15	Table 15: Non-Structural Mitigation Measures for Fire	24
16	Table 16: Structural Mitigation Measures for Heat Wave	24
17	Table 17: Non-Structural Mitigation Measures for Heat Wave	24
18	Table 18: DRR Initiatives that need attention	31
19	Table 19: Mainstreaming DRR in Development National Flagship Schemes	34
20	Table 20: Mainstreaming DRR in Development State level Flagship Schemes	38
21	Table 21: Sector Specific Activities for Climate Change	44
22	Table 22: Initiatives for Mitigating Climate Change	45
23	Table 23: Department wise Roles and Responsibilities of HODs	49
24	Table 24: Community Based Disaster Management	50

## List of Flowcharts :

S.No.	Flowchart	Pg. No.
1	Flowchart 1: Control Room	3

# **1. Preparedness Measures**

The goal of preparedness programs is to achieve a level of readiness to respond to any emergency situation through programs that strengthen the technical and managerial capacity of governments, organizations, and communities. Preparedness can also take the form of ensuring that strategic reserves of food, equipment, water, medicines and other essentials.

Disaster preparedness activities involve forecasting and taking precautionary measures prior to an imminent threat when advance warnings are possible. During the preparedness phase, governments, organizations, and individuals develop plans to save lives, minimize disaster damage, and enhance disaster response operations. This includes emergency exercises/training, warning systems, emergency communications systems, evacuations plans and training, resource inventories, emergency personnel/contact lists, mutual aid agreements and public information/education.

Preparedness planning improves the response to a disaster in terms of timely and effective rescue and relief operations. Every line department has played an important role in mapping the vulnerability, hazards and capacities of the community and the vulnerable groups and prioritizing Preparedness activities during emergencies. The District Disaster Management Plan of Jashpur is prepared with the help of the communities and different stakeholder's.

## **1.1 General Preparedness Measures**

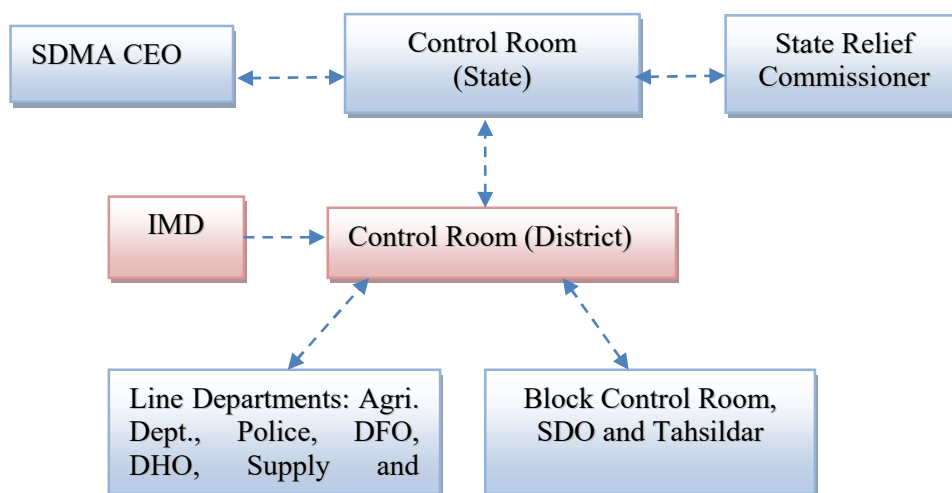
District Administration is a separate disaster management committee. The District Collector and CEO, who perform their role like the center point in the affairs of the disaster, also monitor the district control room. The district administration should ensure that all the control rooms continue to function after the establishment.

Monitoring of warnings by the control room, monitoring of relief and rescue operations, assessment of preparations, preparation of standard operating procedure (SOP), assessment of disaster sensitivity, preparation of community-based district disaster management plan, exemplary practice And through awareness training is spreading awareness about disaster preparedness. At present, the revenue department coordinates with other related departments and operates the control room.

### **1.1.1 Control Rooms Establishment:**

#### **➤ Preparedness of Control Room:-**

- Preparation of disaster management plans.
  - Proper dissemination of vital information about district control.
  - Weather tracking and timely warning to minimize the effect of a disasters.
  - Avoid or prohibit major development in flood prone area.
  - Maintaining contact details of all public institutions, NGOs/Private Sector Organizations, which can be assign the task of community-level preparedness which will be used during emergencies.
  - The use of modern technology like GIS and RS in the preparation of plans.
  - Keeping records of vulnerable areas, monitoring of rescue and relief operations deciding response and managing the database etc.
  - Up gradation and updating of District control room system according to the situation in district, and maintain an inventory of resources.
  - Record of Maps with data inputs of climatological, frequency of flood, wind speed and history of past disasters.
  - Training of the various functionaries and spread of effective public awareness in schools education and communities to ensure that the plans disseminated to the lowest levels.
  - Receive information on a routine and regular basis from the departments on the vulnerability of the various Gram panchayats and Villages to disaster.



**Flow Chart 1: Control Room**

### **1.1.2 Plan Updation:-**

The DDMP should be updated every six months, by considering the suggestions for improvement of the response document DDMP from various stakeholders, NGOs / Private Sector Organizations, communities.

### **1.1.3 Communication System:-**

In case of Sub-Division the Tehsil or Block, the respective heads, i.e. Sub divisional Officer (SDO), Tahsildar, Block Development Officer (BDO) will function as the Incident Commander (IC) in their respective Incident Response Team (IRTs) and the Operations Section Chief (OSC) will be selected as per nature of the disasters in the district. The district collector ensures that IRTs are formed at District, Sub-Division, Tehsil or Block levels and IRS is also integrated in the District DM Plan as per Section 31 of the DM Act, 2005. This may ensure free emergency numbers of existing Police, Fire and Medical support systems which are linked to the Emergency Operations Centre (EOC) for response, command and control.

### **1.1.4 Training for Disaster Management Team Members:-**

To enhance the capacity of disaster management committees, trainings and development of skills is important. DMT consist of a group of members, which includes women and men volunteers. Training should be conducted on regular process for disaster risk reduction and

mitigation planning. DMT assigned with a special task to Search and Rescue and First Aid Teams in disaster situation at district level.

### **1.1.5 Organization of Mock Drills:-**

To coordinate with vulnerable areas, responsible authority should take the initiative of conducting mock drills on various types of natural and manmade disasters. This has also helped to inculcating a culture of preparedness and generated awareness. Institutionalizing the DM plan and regular mock drills should also be conducted in schools and colleges.

### **1.1.6 Community Awareness on Various Disasters:-**

Community awareness programs will help the community to be prepared for disasters at all levels right from the household to the district levels to minimize the impact of Disasters. The district management committee cannot reach out immediately to each and every household and village at the time of disaster. The community is the first responder to any disaster and develops some traditional coping mechanisms to reduce their risk and vulnerabilities. Communities living in a common territory comprise of youths, women, men, students, teachers and various stakeholders. In addition, to areas such as BPL households, villages, wards, slums where people from diverse social and economic background live together. Community based Disaster awareness can make community responsible for their peace, protection and prosperity. The involvement of the community is the key factor in any disaster preparedness and awareness.

## **1.2 Coordination Mechanism of DDMA in Pre Disaster Situation**

The emergency plan for Disaster Management is based on past experiences as well as suggestions and inputs given by the District Magistrate of the district. The strategy has been developed keeping in view the pre and post disaster experiences. The district consists of sub - divisions and senior level officers of the district who will work as zone officers. They are responsible for rescue and relief operations, monitor and evaluate on daily basis situation under District Magistrate.

<b>Preparation</b>	<b>Objectives</b>	<b>Actions Initiated by</b>
Co-ordination of District Level Committee	<ul style="list-style-type: none"><li>• To Provide relief and response</li><li>• Precautionary measures for warehouse and food</li></ul>	<ul style="list-style-type: none"><li>• District Emergency Operation Center</li></ul>



	storage.	
Mapping of vulnerable points	<ul style="list-style-type: none"> <li>• Regular mapping of vulnerable spots</li> <li>• Planning and implementation of preventive measures.</li> <li>• Early warning</li> </ul>	<ul style="list-style-type: none"> <li>• Deputy collector</li> <li>• CEOs (Janpad Panchayat),</li> <li>• BDOs, Executive engineers</li> </ul>
Essential commodities	<ul style="list-style-type: none"> <li>• Stock of food grains, Kerosene, fuel in Gram Panchayat.</li> </ul>	<ul style="list-style-type: none"> <li>• CEOs (Janpad Panchayat)</li> <li>• BDOs</li> </ul>
Selecting Shelters	<ul style="list-style-type: none"> <li>• Arranging safe shelter during period of emergency.</li> </ul>	<ul style="list-style-type: none"> <li>• Additional collectors</li> <li>• CEOs (Janpad Panchayat)</li> <li>• BDOs through</li> <li>• PRIs and local people</li> </ul>
Medicines, Establishment of mobile teams, Identification of epidemic prone areas	<ul style="list-style-type: none"> <li>• Keeping a stock of medicines</li> <li>• Delegation of personnel.</li> </ul>	<ul style="list-style-type: none"> <li>• DCMO</li> <li>• Civil surgeon</li> </ul>
Arranging food and fodder for the cattle	<ul style="list-style-type: none"> <li>• Maintaining stocks</li> </ul>	<ul style="list-style-type: none"> <li>• Veterinary Assistance surgeon (VAS), (Animal Husbandry)</li> </ul>
Organizing Mock drills	<ul style="list-style-type: none"> <li>• Generating awareness</li> <li>• Preparedness training</li> </ul>	<ul style="list-style-type: none"> <li>• District level officers</li> </ul>

**Table 1: Coordination Mechanism of DDMA in Pre Disaster Situation**

### **1.3 Coordination Mechanism of DDMA in Immediate Pre Disaster Situation (Immediately after Early Warning Received)**

<b>Preparation</b>	<b>Objectives</b>	<b>Actions Initiated by</b>
Collection of Information	<ul style="list-style-type: none"> <li>• From IMD/SRC control room/DEOC</li> </ul>	<ul style="list-style-type: none"> <li>• DEOC</li> </ul>
Information dissemination	<ul style="list-style-type: none"> <li>• From DEOC to all C/BDOs/line depts.</li> </ul>	<ul style="list-style-type: none"> <li>• DEOC</li> <li>• Head of line depts.</li> <li>• Sub collectors</li> <li>• BDOs</li> <li>• COs</li> </ul>
Immediate setting and functioning of control room, Rescue and evacuation	<ul style="list-style-type: none"> <li>• Evacuation</li> <li>• Identified shelters</li> <li>• logistic Supply</li> </ul>	<ul style="list-style-type: none"> <li>• Civil Defence unit</li> <li>• Police Department armed forces</li> <li>• Fire officers,</li> </ul>

		<ul style="list-style-type: none"> <li>• Fire Offices</li> <li>• Red-cross team ready with rescue kits which are to be made available to them through the DEOC</li> </ul>
Arrangement of kitchen	<ul style="list-style-type: none"> <li>• Provision of immediate feeding to the evacuated people</li> </ul>	<ul style="list-style-type: none"> <li>• BDOs/CDPOs/NGOs</li> </ul>
Sanitation and medicines	<ul style="list-style-type: none"> <li>• Prevention of epidemics and infections</li> </ul>	<ul style="list-style-type: none"> <li>• Executive engineer of PHE Department</li> <li>• Civil Surgeon</li> </ul>
Ensuring transportation of relief materials to affected areas	<ul style="list-style-type: none"> <li>• Ensuring timely reach of relief materials to the affected people</li> </ul>	<ul style="list-style-type: none"> <li>• DSO/ SDM/ BSOs/ DTO</li> </ul>
Ensuring safety of life and properties	<ul style="list-style-type: none"> <li>• Preventing anti-social activities</li> </ul>	<ul style="list-style-type: none"> <li>• SP/DSP/Inspector</li> <li>• SI of the affected block</li> <li>• NGOs</li> </ul>
Ensuring availability of safe drinking water and health facilities	<ul style="list-style-type: none"> <li>• Checking the inception of epidemics</li> </ul>	<ul style="list-style-type: none"> <li>• CS/Executive engineers of PHED</li> </ul>
Conducting meeting with field level officers for every 24 hours and to review the situation	<ul style="list-style-type: none"> <li>• Better coordination</li> </ul>	<ul style="list-style-type: none"> <li>• DM</li> <li>• DDC at district level</li> <li>• SDM at sub-divisional level</li> </ul>
Collection of information by the core group of the EOC and daily reporting to concerned officers	<ul style="list-style-type: none"> <li>• Triangular linkage between field, district and state control room</li> </ul>	<ul style="list-style-type: none"> <li>• Core group of EOC/ Officers of line departments</li> </ul>
Estimating number of vehicles-Light/ Medium/ Heavy	<ul style="list-style-type: none"> <li>• Ensuring smooth transportation for relief works</li> </ul>	<ul style="list-style-type: none"> <li>• DTO</li> </ul>
Arranging road cleaners/ power saw and other essential equipment's	<ul style="list-style-type: none"> <li>• Cleaning the roads</li> <li>• Removing the fallen trees</li> <li>• Clearing the debris etc.</li> </ul>	<ul style="list-style-type: none"> <li>• DTO</li> <li>• Executive Engineer</li> <li>• Executive Officer – Nagar Panchayat</li> </ul>
Arranging trucks loaded with generators	<ul style="list-style-type: none"> <li>• Moving to the field immediately after the disaster is over</li> </ul>	<ul style="list-style-type: none"> <li>• DTO</li> </ul>

**Table 2: Coordination Mechanism of DDMA in Immediate Pre Disaster Situation  
(Immediately after Early Warning Received)**

## 1.4 Coordination Mechanism of DDMA during Disaster (Relief Distribution Mechanism)

Preparation	Objectives	Actions Initiated by
Readiness and Inclination to get ready in action, immediately after the disaster	<ul style="list-style-type: none"> <li>• To save the trapped and wounded persons</li> </ul>	<ul style="list-style-type: none"> <li>• All line department and stakeholders</li> </ul>
Control room activated 24 hours	<ul style="list-style-type: none"> <li>• To mitigate the effects of the disaster</li> </ul>	<ul style="list-style-type: none"> <li>• District control room</li> <li>• All line depts., BDOs, CEO's</li> </ul>
Distribution of relief as per provisions	<ul style="list-style-type: none"> <li>• To provide food and other essential commodities for survival</li> </ul>	<ul style="list-style-type: none"> <li>• SDM</li> <li>• BDOs</li> <li>• CEOs</li> <li>• NGOs</li> </ul>

**Table: 3 Coordination Mechanism of DDMA during Disaster (Relief Distribution Mechanism)**

## 1.5 Coordination Mechanism of DDMA in Post Disaster Situation

Preparation	Objectives	Actions Initiated by
Distributing relief as per provisions	<ul style="list-style-type: none"> <li>• Provision food and other essential commodities for survival</li> </ul>	<ul style="list-style-type: none"> <li>• SDM</li> <li>• BDOs</li> <li>• COs</li> <li>• NGOs</li> </ul>
Damage Assessment	<ul style="list-style-type: none"> <li>• Reporting actual loss to the government</li> </ul>	<ul style="list-style-type: none"> <li>• All line depts.</li> <li>• COs</li> <li>• BDOs</li> <li>• Executive engineers</li> <li>• Sub Collectors</li> </ul>
Monitoring and evaluation of relief operations by external agencies.	<ul style="list-style-type: none"> <li>• Maintaining consistency of relief administration</li> </ul>	<ul style="list-style-type: none"> <li>• DM</li> <li>• SDM</li> </ul>
Restoring of Roads and Railway networks	<ul style="list-style-type: none"> <li>• Timely and Prompt delivery</li> <li>• Transportation of relief articles</li> <li>• Deployment of rescue teams</li> </ul>	<ul style="list-style-type: none"> <li>• Executive engineers of concerned depts.</li> <li>• Military and paramilitary forces</li> <li>• police</li> </ul>
Restoring electronic communication system	<ul style="list-style-type: none"> <li>• Ensuring proper coordination linkage</li> </ul>	<ul style="list-style-type: none"> <li>• BSNL, Technocrats of police signals</li> </ul>
Immediate arrangement of free kitchen for the effected	<ul style="list-style-type: none"> <li>• Avoiding starvation</li> </ul>	<ul style="list-style-type: none"> <li>• Sub collectors</li> <li>• BDO's</li> </ul>

people		<ul style="list-style-type: none"> <li>• Line depts.</li> <li>• PSUs</li> </ul>
Documentation of the entire event-Written, Audio, Video	<ul style="list-style-type: none"> <li>• For reporting purposes and institutional memory</li> </ul>	<ul style="list-style-type: none"> <li>• SDM</li> <li>• BDO</li> </ul>
Monitoring	<ul style="list-style-type: none"> <li>• To review the relief works and remove the bottlenecks</li> </ul>	<ul style="list-style-type: none"> <li>• DM</li> <li>• DDC</li> <li>• ADC</li> </ul>

**Table 4: Coordination Mechanism of DDMA in Post Disaster Situation**

## **1.6 General Preparedness Checklist**

- i. Collector, the chairperson of DDMA shall ensure that preparedness checklist is duly followed by each front line departments and status of the same is discussed in monthly meetings.
- ii. Head of the department of each frontline department shall ensure that the departments are prepared to meet the challenges of any emergency/disaster by duly following the preparedness checklists.
- iii. Nodal officers of each of the frontline departments shall ensure that the district disaster management resource inventory is maintained and updated on quarterly basis and submission of the same to the district revenue officer, by
  - a) Adding any changes in the human resources of their department along with their updated contact numbers, if any.
  - b) Adding to the equipment list, relevant resources for response activities from both the government and private sectors.
- iv. DRO shall ensure that the same has been updated and uploaded on the website of district administration and India Disaster Resource Network (IDRN) on quarterly basis with the help of District Information Officer (DIO).
- v. Nodal officers of each of the frontline departments shall also report to head of the department and/or collector about requisition of any relevant resource/equipment, not available with the government and/or private sector, for disaster management activity.
- vi. DDMA shall ensure the establishment of emergency operation centre with the following facilities:
  - a) Adequate space for planning and logistics section chief and staff.
  - b) Enough space for control room with adequate communication equipment including landline telephones, mobile phones, satellite phones, walkie-talkie, ham radio, computer/ laptop with printer facility, email facility, fax machine,

television, etc.

- c) Ensure proper space for meeting, conference, media briefing along with LCD, computer and video conferencing facilities.
- d) Availability of district disaster management resource inventory and also a note of the neighboring district (Raigarh, Ambikapur) disaster management resource inventory of the state and other critical national resources.
- e) Availability of DDMP.

## 1.7 Department Wise Preparedness Checklist

Departments	Preparedness Checklist
<b>DDMA</b>	<ul style="list-style-type: none"> <li>• Regularly monitoring rain gauge at all tehsils and updating database for distribution and variation in rainfall.</li> <li>• Preparing flood control order by 31st May every year and ensure proper mechanism for early warning at village level through Tehsildars, Sarpanch, Patwaris, etc.</li> <li>• Ensure proper functioning of DEOC along with availability of fully functional resources and rescue equipment.</li> <li>• Preparation of a database of critical and lifesaving infrastructure, safe locations for evacuation and updated list of relief camps in the district annually.</li> <li>• Identify competent persons/experts from various required fields for carrying out damage and need assessment of post disaster scenario.</li> <li>• Keep interacting with the voluntary organizations in the district and prepare proper mechanism for disbursement of compensation to victims or families of deceased.</li> </ul>
<b>Agriculture</b>	<ul style="list-style-type: none"> <li>• Preparation of agriculture contingency plans and identify vulnerable areas prone to pest infestation, droughts, floods and other hazards</li> <li>• Constitute a crop weather watch group at district level (as per 'A Model Manual for Drought Management', GoI) with representatives from concerned departments dealing with agricultural inputs, credit extension, etc.</li> <li>• Imparting training to the farmers to adopt new agriculture practices, alternate cropping practices, proper storage of seeds and use of modern technology.</li> <li>• Ensure availability of adequate stock of seeds, stock for immediate replacement of broken/non-functioning gadgets/equipment and other agro inputs particularly for areas vulnerable to hazards.</li> <li>• Prepare trained and equipped team for assessing damage caused to soil, crop, plantation, drainage, embankment, other water bodies and storage</li> </ul>

	<p>facilities that might impact agricultural activities.</p> <ul style="list-style-type: none"> <li>• Assist farmers in providing timely information regarding crop insurance, compensation, repair of agro equipment and restoring of agricultural activities at the earliest.</li> <li>• Identify sources of feed and fodder.</li> </ul>
<p><b>Animal Husbandry</b></p>	<ul style="list-style-type: none"> <li>• Isolating/ separating sick and healthy animals and make arrangements for feeding and watering animals suffering from contagious diseases. Sensitize farmers/ owners for the above problems.</li> <li>• Ensure proper disinfection of space, vehicle and manpower involved in transportation of sick/ infected and dead animals from contagious diseases and activating a fully functional mobile veterinary unit at disposal.</li> <li>• Prepare a database of veterinary hospitals/ clinics and agencies working for animal care, so that it could be used at the emergency situations.</li> <li>• To check the availability of stock of mineral and feed supplements, lifesaving drugs, electrolytes, vaccines, etc., along with filling feed banks before the scarcity period.</li> <li>• Sensitizing farmers about protection of their feed and fodder prior to the onset of monsoon.</li> <li>• Prepare the feed of poultry birds for drought situation and also locate feed and fodder banks in view of submergence situation during the monsoon.</li> <li>• Identify source for procurement of fodder and the safe locations for fodder depot and cattle camps within the district and provide source of water for drinking and growing fodder.</li> <li>• Use of tarpaulin sheets to cover the sheds during heat and cold waves.</li> <li>• Taking special care of productive and lactating animals; also supplement them with additional fodder and other requirements.</li> <li>• Ensure proper administration of de-worming and vaccinations for cattle, sheep and goats, pigs and take other relevant measures for disease management.</li> <li>• Identify space for burial of dead animals and ensure proper disposal of carcass.</li> </ul>
<p><b>Education</b></p>	<ul style="list-style-type: none"> <li>• Organize awareness generation programs in schools and colleges for students, teachers, administrative staff and other helpers. These programs should focus on do's and don'ts for various hazards and safe</li> </ul>

	<p>evacuation in case of any emergency.</p> <ul style="list-style-type: none"> <li>• Conduct hygiene promotion activities as per direction issued by the health department on a regular basis.</li> <li>• Preparation of first aid and disaster management kit in each school and college.</li> <li>• Identify such schools and colleges within that area that serves as relief shelters in case of any emergency.</li> </ul>
<b>CSEB</b>	<ul style="list-style-type: none"> <li>• Prepare a database of critical infrastructure in the district and prepare for providing uninterrupted power supply to them.</li> <li>• Make provisions for continuous power supply to the affected areas and for prompt replacement/recommissioning of affected power supply system.</li> <li>• Providing electrical connections and systems at short notice in affected areas for the purpose of pumping flood water and illumination.</li> <li>• Ensure availability of adequate stock of important equipment like transformers, poles, conductors, cables, insulators, etc. for prompt action whenever required.</li> </ul>
<b>Fire Services</b>	<ul style="list-style-type: none"> <li>• Firefighting equipment, appliances and respiratory equipments are in place and functional.</li> <li>• Ensure the availability of clear and proper sketched maps and marked evacuation routes with glowing sign in all important buildings like schools, hospitals, apartments, amusement areas, malls, theatres and organize for regular evacuation drills as per evacuation plans etc.</li> <li>• Make a database of existing firefighting services and facilities provided with private agencies.</li> </ul>
<b>Food Supplies &amp;</b>	<ul style="list-style-type: none"> <li>• Prepare a database of godowns and cold storage facilities in the district and safety measures taken against inundation, water logging, fire and other possible hazards.</li> <li>• Prepare for out-movement of food grains to a pre-decided safer location, if required.</li> <li>• Ensure availability of adequate food grains storage in godowns in view of the scarcity or emergency period and also check for adequate stock of gas cylinders, kerosene.</li> <li>• Prepare a database of kerosene depots, petrol pumps, gas agencies, etc. and update the same in DDMRI.</li> <li>• Maintain a database of private retailers, wholesalers of edible food</li> </ul>

	<p>items, providers of catering service and providers of refrigerated vehicles for transportation of perishable food items.</p> <ul style="list-style-type: none"> <li>• Prepare a database of private providers of tents, tarpaulin sheets, poles, cooking utensils, polythene bags, shrouds and other essential items that could be used for community kitchen and cremation and burial purposes.</li> </ul>
<b>Forest</b>	<ul style="list-style-type: none"> <li>• Ensure proper functioning of fire rescue equipment and vehicles.</li> <li>• To check that there should be no trespassing in the restricted forest areas.</li> <li>• Prepare an evacuation plan for animals in case of forest fires.</li> <li>• Maintain a database of aara machine holders and carpenters.</li> <li>• Prepare team for catching wild animals to prevent them entering in habituated areas, relief camps, etc.</li> </ul>
<b>RTO</b>	<ul style="list-style-type: none"> <li>• Ensure proper functioning of filling station, vehicles and equipment including fire extinguishers, first aid kits, etc.</li> <li>• Prepare mechanical team for prompt repair of equipment and vehicles; check the availability of trained drivers and conductors in first aid and basic life saving techniques.</li> <li>• Identify vehicles for rescue operations and prepare for prompt deployment of vehicles at short notice for various purposes like mass evacuation, transportation of response teams, relief items, victims, etc.</li> <li>• Familiarizing drivers with routes of potential hazardous installations and follow incident traffic plan.</li> <li>• Make a database of private vehicles available with schools, colleges and other private agencies, so that it can be used for evacuation purpose, if required.</li> </ul>
<b>Health</b>	<ul style="list-style-type: none"> <li>• Prepare a team of paramedics, trained mobile medical teams at emergency sites and keeping materials ready if required for healthcare and hygiene.</li> <li>• Develop dos and don'ts plan for health and hygiene in general and in situations of disaster in particular.</li> <li>• Organize awareness camps with help of CHC/ PHCs and Panchayats for hygiene promotion and public health issues.</li> <li>• Prepare psychological and psychosocial care teams.</li> <li>• Ensure availability of adequate space for storage of medicines; availability of stock of medicines, lifesaving equipment and portable</li> </ul>



	<p>supplies including portable oxygen cylinders, portable X -ray machine, portable ultrasound machines, triage tags, etc.</p> <ul style="list-style-type: none"> <li>• Prepare a database of doctors registered with Indian Medical Association (IMA), private hospitals and nursing homes with services and facilities available and keep updating it annually.</li> <li>• Prepare a database of available ambulance services from government, private agencies and district Rotary/ Lions Club, if any.</li> <li>• Maintain a database of blood donors in the district and update the same in DDMRI and check the availability of adequate supply of blood units.</li> <li>• Train drivers and attendants of ambulance and mobile medical units in first aid and basic life saving techniques.</li> <li>• Prepare for prompt establishment of temporary hospitals, mobile surgical units, etc. at short notice near the affected area.</li> <li>• Ensure proper and safe mechanism for medical waste disposal.</li> <li>• Prepare for proper disease surveillance system.</li> <li>• Make proper arrangement and mechanism for mass casualty management.</li> </ul>
<b>Irrigation</b>	<ul style="list-style-type: none"> <li>• Ensure proper early warning mechanism in place for flood by monitoring water level of surface water bodies.</li> <li>• Inspection of conditions of bunds, siphons, regulators, embankments, inlet and outlets of lakes and reservoirs, etc.</li> <li>• Timely de-silting and dredging of rivers and canals and prompt repair of channels.</li> <li>• Ensure proper functioning of all equipment including dewatering pumps.</li> <li>• Prepare for the arrangements of clean drinking water for affected livestock and poultry.</li> </ul>
<b>Nagar Palika</b>	<ul style="list-style-type: none"> <li>• Prepare for sanitation operations in view of post flood situations within jurisdiction of the area.</li> <li>• Cleaning of drains before the monsoon season.</li> <li>• Prepare mechanism for proper solid waste management and disposal of waste in shelter and relief camps, feeding centers and affected area.</li> <li>• Check the availability of tractor ,trolleys and other required equipments for the same.</li> </ul>

	<ul style="list-style-type: none"> <li>• Plan to provide building/ guest house at different locations to establish control room, first aid and medical post or shelters during emergency.</li> </ul>
<b>Police</b>	<ul style="list-style-type: none"> <li>• To develop a mechanism for early warning of different hazards through police stations and police posts.</li> <li>• Check the availability of guards at tourist places, annual exhibitions and fairs and festival where there is a possibility of stampede.</li> <li>• Arrange for public address system and siren.</li> <li>• Installation of temporary wireless systems between district and tehsils in case of any damage to existing wireless system with the department.</li> <li>• Train the communication wing of police in setting up control room at short notice at a required site.</li> <li>• Prepare contingency plans in response to riots, stampede ,other law and order emergencies.</li> <li>• Prepare deployment plan of home guards and other volunteers for protection of property of affected community.</li> <li>• Prepare for proper arrangement for custody of recovered belongings and property from dead bodies and affected sites.</li> <li>• Police personal and staff of PCR vans should keep basic first aid box and ensure proper functioning of available equipment.</li> <li>• Train police personnel and staff of PCR vans in first aid and basic life saving techniques.</li> <li>• Protection of dead bodies to avoid their theft and false claims.</li> <li>• Prepare for safety and security of food and other commodities.</li> <li>• Protection against hoarding, black marketing of relief material.</li> <li>• Arrange for safety and security arrangements in the evacuated/affected areas, transit camps, relief camps, hospitals, medical centers, cattle camps and feeding centers.</li> <li>• Keep updated the telephone numbers and database of reserved battalions of police, BDS and Dog Squads in police control room.</li> <li>• Prepare teams trained in search and rescue, first aid, firefighting, etc.</li> <li>• Maintain a database of volunteers and equipment and update the same in DDMRI.</li> </ul>
<b>PCB</b>	<ul style="list-style-type: none"> <li>• Prepare a database of hazardous chemicals and pollutants in the districts</li> </ul>

	<p>and their probable adverse effects on environment.</p> <ul style="list-style-type: none"> <li>• Prepare for methods and techniques of decontamination of the same</li> </ul>
<b>PHED</b>	<ul style="list-style-type: none"> <li>• Check the availability and functioning of all available equipments and vehicles.</li> <li>• Prepare for arrangement of safe drinking water supply, water purifying tablets, bleaching powder and chlorination of public water resources, for community in the affected areas and also in relief camps and shelters and maintains a database of suppliers and distributors of packaged drinking water.</li> <li>• Prepare for prompt repair of pipelines supplying potable water, sewerage systems and water works.</li> <li>• Make standby arrangements of generators for running the water pumps.</li> <li>• Ensure installations of tube wells, if needed, before the monsoon to provide underground water to the livestock during flood period.</li> <li>• Ensure availability of adequate number of water tankers, drums, jerry cans or identify their private suppliers to prepare for supply of water, in scarcity period and in emergency.</li> <li>• Ensure availability of water supplies/ filling points for fire tenders, water cannons, hospitals and other necessary lifesaving infrastructure.</li> <li>• Prepare for prompt provision of temporary toilets/ trench latrines in the affected area and relief camps.</li> <li>• Restoration of ponds, lakes in the district in coordination with Irrigation Department.</li> </ul>
<b>Public Relations</b>	<ul style="list-style-type: none"> <li>• Ensure distribution of Information, Education and Communication (IEC) material to community for awareness generation.</li> <li>• Prepare for proper public address system ensuring rumor control.</li> <li>• Managing media for release of information to public from time to time, giving emergency contact departments/ personnel/ numbers, without creating any chaos among the public.</li> <li>• Maintain database of dos and don'ts of all possible hazards in the district.</li> <li>• By giving awareness, information to the public through booklets, pamphlets, radio, television, film shows, newspapers, documentary films, door to door campaign, meetings, etc.</li> </ul>

<b>PWD</b>	<ul style="list-style-type: none"><li>• Prepare for:</li><li>• A data base of availability and functioning of heavy equipment like cranes, JCBs.</li><li>• Prompt clearance of debris, repairing of damaged roads, culverts, bridges and flyovers.</li><li>• Construction of new temporary roads for diverting traffic from the affected area, temporary facilities like that of medical post, temporary shelters, etc. at short notice.</li><li>• Prompt establishment of helipad near the affected site for VVIP visits. Prepare for restoration of government buildings damaged during disaster.</li></ul>
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**Table 5: Department Wise Preparedness Checklist**

## **2.Prevention and Mitigation Measure**

Prevention and mitigation measures play vital role in reducing the risk of the disaster. The type of intervention for prevention and mitigation defines whether the measure is structural or non-structural. The measures carried out in infrastructures and services come under the head of structural mitigation measures whereas measures carried out in informative and policy-making way come under the head of non-structural mitigation measures. There are two mitigation measures, Firstly structural mitigation measures deals with the physical vulnerabilities and Secondly non-structural mitigation measures deals with social vulnerabilities. Development schemes and disaster mitigation measures, both certainly work for lowering the vulnerabilities directly or indirectly. Both are complementary to each other and hence the developmental schemes like MGNREGA, Sarv Shiksha Abhiyan, and National Rural Health Mission can be used to incorporate various mitigation measures. Merging the mitigation measures with development schemes can result into optimum benefit out of it, following are some attributes, which can be accomplished by doing it.

- Capacity building.
- Short term as well as long term sustainable development planning.
- More enhanced preparedness.
- Disaster risk reduction.

### **2.1 Hazard wise Structural and Non- structural Mitigation Measures**

#### **Structural Mitigation**

Structural Mitigation involves retrofitting of a building's structural elements to reduce or eliminate earthquake damage. As stated previously, the structural elements of a building act as a skeleton that supports the rest of the building, and include the foundation, load-bearing walls, beams, columns, floor system, and roof system as well as the connections between these elements. A failure of one or more of these structural elements can lead to a collapse of the entire building. Structural mitigation measures may also be applied to non-building structures, such as bridges, dams, and utility system elements.

### **Non-Structural Mitigation**

Non-Structural Mitigation involves retrofitting a building's non-structural elements. The nonstructural elements of a building are those elements that will not cause a building to collapse if they fail, and include exterior elements, interior elements, building electrical, mechanical and plumbing systems, and contents.

#### **2.1.1 Hazard: Flood**

#### **Structural Mitigation Measures for Flood**

<b>Probable Mitigation Measures</b>	<b>Implementing Departments</b>	<b>Convergence with Scheme/ Program</b>	<b>Time Frame</b>
Desalting and deepening of water channel	<ul style="list-style-type: none"> <li>• Irrigation and Rural Development</li> </ul>	<ul style="list-style-type: none"> <li>• Departmental program &amp; MGNREGA</li> </ul>	Regularly
Construction of embankments/protection wall	<ul style="list-style-type: none"> <li>• Rural Development</li> <li>• Forest department</li> </ul>	<ul style="list-style-type: none"> <li>• Departmental program</li> <li>• MGNREGA watershed</li> <li>• Integrated coastal zone management programme</li> </ul>	0 to 5 years
Departmental program & MGNREGA, watershed, Integrated coastal zone management programme	<ul style="list-style-type: none"> <li>• Rural Development</li> </ul>	<ul style="list-style-type: none"> <li>• Departmental program</li> <li>• MGNREGA</li> </ul>	Regularly
Repair and maintenance of Flood Channels, canals, natural drainage, storm water lines	<ul style="list-style-type: none"> <li>• Irrigation department</li> </ul>	<ul style="list-style-type: none"> <li>• Departmental or special plan</li> </ul>	0-1 years
Construction of Safe Shelters (new construction through different housing schemes.	<ul style="list-style-type: none"> <li>• District Panchayat</li> </ul>		Regularly
Protection wall and bamboo	<ul style="list-style-type: none"> <li>• Forest and Rural</li> </ul>	<ul style="list-style-type: none"> <li>• Department</li> </ul>	0-6 months

and vegetative cover against river level intrusion and land erosion	development, Agriculture department	schemes • MGNREGA,	
Desalting of water bodies like river and ponds	• Irrigation • Rural Development	• MGNREGA Land Development	Regularly

**Table 6: Structural Mitigation Measures for Flood**

**Non-Structural Mitigation Measures for Flood**

<b>Probable Mitigation Measures</b>	<b>Implementing Departments</b>	<b>Convergence with Scheme/ Program</b>	<b>Time Frame</b>
Safety audit of existing and proposed department	Education department, health department, PWD, Rural development	• Pradhan Mantri Aawas Yojana • Other Housing schemes	Regularly
Promotion of Traditional, local and innovative practices like bamboo, Rafts.	• DDMA • DRDA • Panchayat • Recreational spaces • Self-help groups • Youth groups • Social workers • NGOs	• Training and capacity building plan for disaster management at all level	Regularly
Capacity building of volunteers and technicians	• DDMA	• Training and capacity building plan for disaster management at all level	Regularly
Awareness generation on health and safety of livestock	• Veterinary officer • Rural development	• Departmental Scheme	Regularly

**Table 7: Non-Structural Mitigation Measures for Flood**

## 2.1.2 Hazard: Drought

### Structural Mitigation Measures for Drought

<b>Probable Mitigation Measures</b>	<b>Implementing Departments</b>	<b>Convergence with Scheme/ Program</b>	<b>Time Frame</b>
Development of Pasture land in common property, seed farms and trust land	<ul style="list-style-type: none"> <li>• DDMA</li> <li>• DRDA</li> <li>• Rural Development</li> <li>• Panchayats</li> </ul>	<ul style="list-style-type: none"> <li>• Departmental Scheme</li> <li>• MGNREGA</li> </ul>	0-3 years
Rain Water Harvesting storage tanks at household level and public buildings	<ul style="list-style-type: none"> <li>• DDMA</li> <li>• DRDA</li> </ul>	<ul style="list-style-type: none"> <li>• MGNREGA</li> </ul>	0-3 years
Structures for water harvesting and recharging like wells, ponds, check dams, farm ponds.	<ul style="list-style-type: none"> <li>• PWD</li> <li>• DDC</li> <li>• Rural development</li> <li>• Irrigation and water resource department.</li> </ul>	<ul style="list-style-type: none"> <li>• MGNREGA</li> <li>• Watershed programs</li> <li>• Departmental schemes</li> </ul>	0-3 years
Development of fodder plots/ banks	<ul style="list-style-type: none"> <li>• DDMA</li> <li>• Agriculture department.</li> <li>• Animal husbandry department</li> </ul>	<ul style="list-style-type: none"> <li>• DDMP</li> <li>• Development plan</li> </ul>	Regularly
Repair and maintenance, de silting of water sources, check dams, hand pumps.	<ul style="list-style-type: none"> <li>• Irrigation</li> <li>• Rural Development</li> <li>• water resources</li> </ul>	<ul style="list-style-type: none"> <li>• MGNREGA</li> <li>• Watershed</li> </ul>	0-3 years

**Table 8: Structural Mitigation Measures for Drought**

### Non-Structural Mitigation Measures for Drought

<b>Probable Mitigation Measures</b>	<b>Implementing Departments</b>	<b>Convergence with Scheme/ Program</b>	<b>Time Frame</b>
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Listing/ developing shelf of work for drought proofing/ scarcity works including Identification of potential sites of water bodies	<ul style="list-style-type: none"> <li>• Rural Development</li> <li>• DDMA</li> </ul>	<ul style="list-style-type: none"> <li>• MGNREGA</li> </ul>	Regularly
Farmer education to practice drought resistant crops and efficient water use	<ul style="list-style-type: none"> <li>• Agriculture and horticulture department</li> </ul>	<ul style="list-style-type: none"> <li>• Departmental schemes</li> </ul>	Regularly
Set up control mechanism for regulated water use (ponds, small dams, check dams) on the early onset.	<ul style="list-style-type: none"> <li>• Panchayats</li> </ul>		Regularly

**Table 9: Non-Structural Mitigation Measures for Drought**

### 2.1.3 Hazard: Road Accidents

#### Structural Mitigation Measures for Road Accidents:

<b>Structural Mitigation Measures</b>	<b>Implementation agency</b>	<b>Convergence with programme/ scheme</b>	<b>Time frame</b>
Construction of Dividers on overcrowded road.	PWD		
Setup and maintenance of the traffic signals in squares	PWD, Police Department		
Construction of bypass road for highways passing through cities	PWD		
Retrofitting and maintenance of roads, dividers, road safety symbols and speed breakers			

**Table 10: Structural Mitigation Measures for Road Accidents**

#### Non-Structural Mitigation Measures for Road Accidents:

<b>Non-Structural Mitigation Measures</b>	<b>Implementation agency</b>	<b>Convergence with programme/ scheme</b>	<b>Time frame</b>

Set up of high way safety patrolling	<ul style="list-style-type: none"> <li>• Police department</li> </ul>		Every day
Fully trained fire brigade personnel	<ul style="list-style-type: none"> <li>• City Fire brigade office</li> </ul>		Monthly training
Awareness by road safety symbols, and through wall paintings.	<ul style="list-style-type: none"> <li>• Traffic control department.</li> <li>• RTO</li> </ul>	<ul style="list-style-type: none"> <li>• Vehicle insurance</li> </ul>	
Up gradation of facilities in hospitals nearby highway.	<ul style="list-style-type: none"> <li>• Private hospitals</li> <li>• Government hospitals</li> <li>• District Health department.</li> </ul>	<ul style="list-style-type: none"> <li>• Health insurance</li> </ul>	

**Table 11: Non-Structural Mitigation Measures for Road Accidents**

#### 2.1.4 Hazard: Epidemics

##### Structural Mitigation Measures for Epidemics

<b>Structural Mitigation Measures</b>	<b>Implementation agency</b>	<b>Convergence with programme/ scheme</b>	<b>Time frame</b>
Setup of monitoring centres for surveillance	<ul style="list-style-type: none"> <li>• District health department.</li> </ul>	<ul style="list-style-type: none"> <li>• District Development Plan</li> </ul>	Every month
Set up of health centres in the vicinity of people	<ul style="list-style-type: none"> <li>• District health department.</li> </ul>	<ul style="list-style-type: none"> <li>• District Development Plan</li> </ul>	Regularly
Up gradation of rural hospitals with facilities like blood bank, surgical facilities and pathology.	<ul style="list-style-type: none"> <li>• Ministry of Health</li> </ul>	<ul style="list-style-type: none"> <li>• District Development Plan</li> </ul>	Regularly

**Table 12: Structural Mitigation Measures for Epidemics**

##### Non- Structural Mitigation for Epidemics

<b>Non-Structural Mitigation Measures</b>	<b>Implementation agency</b>	<b>Convergence with programme/ scheme</b>	<b>Time frame</b>

Preparation Contingency plan for response for vulnerable regions	<ul style="list-style-type: none"> <li>• District health department</li> <li>• PRIs.</li> </ul>	<ul style="list-style-type: none"> <li>• District development plan.</li> </ul>	Yearly
Mapping of health centres, inventories of drugs & vaccines, laboratory set up, no. of doctors and staff	<ul style="list-style-type: none"> <li>• District health department</li> </ul>		Regularly
First aid training, and Public health awareness programmes	<ul style="list-style-type: none"> <li>• Education department</li> <li>• District health department</li> </ul>	<ul style="list-style-type: none"> <li>• Sarwa Shiksha Abhiyan</li> <li>• National Rural Health Mission</li> </ul>	Regularly

**Table 13: Non-Structural Mitigation Measures for Epidemics**

### 2.1.5 Hazard: Fire

#### Structural Mitigation Measures for Fire

<b>Structural mitigation measures</b>	<b>Implementation agency</b>	<b>Convergence with programme/scheme</b>	<b>Time frame</b>
Installation of sprinklers, fire extinguisher, sand buckets	District fire department, PWD		Once
Installation of fire/ smoke alarms	District fire department, PWD		Once
Provision of proper and wide fire exit with direction signs	District fire department, PWD		Once
Use of fire-proof materials in construction	PWD		Once

**Table 14: Structural Mitigation Measures for Fire**

#### Non-Structural Mitigation Measures for Fire

<b>Non-Structural Mitigation Measures</b>	<b>Implementation agency</b>	<b>Convergence with programme/ scheme</b>	<b>Time frame</b>
Preparation of emergency plan	District fire department	District development plan.	Yearly
Preparation of evacuation plans	District fire department	District development plan	Yearly

Fire safety trainings/education	District fire department, District education department.	Sarv Shiksha Abhiyan	Regularly
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**Table 15: Non-Structural Mitigation Measures for Fire**

**2.1.6 Hazard: Heat Wave**

**Structural Mitigation Measures for Heat Wave**

<b>Structural mitigation measures</b>	<b>Implementation agency</b>	<b>Convergence with programme/ scheme</b>	<b>Time frame</b>
Provision of temporary shelters for homeless people	District Administration, District health department		Yearly
Provision of cotton clothes, trampoline sheets, medicine, ORS.	District Administration, DDMA, District health department		Yearly

**Table 16: Structural Mitigation Measures for Heat Wave**

**Non-Structural Mitigation Measures for Heat Wave**

<b>Non-Structural Mitigation Measures</b>	<b>Implementation agency</b>	<b>Convergence with programme/scheme</b>	<b>Time frame</b>
Provision of alert mechanism to warn people about heat wave	District administration, DDMA,	National health mission	Yearly (particularly summer )
Programmes to aware people for preventive measures.	District administration, DDMA, District health department	National health mission	Yearly (particularly summer )

**Table 17: Non-Structural Mitigation Measures for Heat Wave**

### **3. Disaster Risk Reduction Plan**

*“Disaster risk reduction is aimed at preventing new and reducing existing disaster risk and managing residual risk, all of which contribute to strengthening resilience and therefore to the achievement of sustainable development”.*

The Disaster Risk Reduction Plan (DRR) of district comprised of activities and measures that, if performed and supported the district will tend towards reducing the risks of disasters including those associated to climate-induced hazards. The plan prepared is based on consultations conducted with the communities, key line departments and on field assessment performed in vulnerable villages. Thus, it recommends building upon the gaps observed in the process of disaster management in the district. Moreover, this plan also lists the major developmental schemes and programmes, which can be lined up with DRR and disaster recovery with in the district. DRR Planning is a long - term strategy and links disaster management with developments and it requires involvement of multiple stakeholders for its effective planning.

The disaster risk reduction actions in this roadmap will amplify the district in building its Resilient. It is based on five building blocks keeping in mind the two distinct demographic profiles of rural and urban area.

- Resilient Villages
- Resilient Livelihoods
- Resilient Critical infrastructure
- Resilient Basic Services
- Resilient Cities

#### **3.1 Capacity Building**

Capacity building serves as an integral component of disaster risk reduction. Lack of adequate capacities amongst all the concerned stakeholders proves to be a major hurdle in successful implementation of disaster mitigation and recovery programmes. Capacity building can be seen as a by-product effective learning and training. Capacity is the

combination of all the strengths and resources available within a community, society or organization that can reduce the level of risk or the effects of a disaster.

### **3.2 Recommendations for Disaster Risk Reduction**

- One of the important measures to be undertaken by the DDMA towards DRR is to establish and strengthen District Emergency Operation Centre (DEOC) and Flood Control Room need to be to its par excellence.
- The District Crisis Management Group (DCMG) is not formally organized at district level. It is recommended that the CMG be created and their members should get regular trainings.
- There is a need to form and document the list of stakeholders for disaster response which is not readily available within the district administration. This is a critical element when it comes to preparedness.
- Therefore, it is strongly recommended that the district administration should prepare and fill all the contact details, which will help as quick reference during emergencies. Regular meetings should be organized with these stakeholders in order to improve the coordination between them.
- All the Disaster response mechanisms and Incident Command System should be placed and awareness about them should be spread. Disaster response equipment need to be monitored and regular stock should be maintained. All the Loss and Damage Assessment and First-hand Information should be regularly documented.
- There is no early warning system placed at panchayat and at district levels. Most of the warnings are given only by the India Meteorological Department (IMD) and other central institutes/organizations.
- In this regard, the district administration should revise the mechanism currently adopted for early warning and ensure that every concerned stakeholder is included and communicated in a timely manner as per the block-wise hazards.

- Human resources are less in many departments, schools and Anganwadis, which is hampering the lives of the women and children who are the strength of the communities.
- Department wise trainings about disaster management should be set on monthly basis to ensure skilled workforce. Moreover mock-Drills and Emergency Management Exercise have to be planned and conducted on regular basis.
- Key buildings such as schools, Anganwadi, panchayats, community halls requiring retrofit or repair, were identified need immediate attention.
- Accountable and transparent Panchayati Raj Institutions PRI's and governance are essential for integrating risk issues into a sustainable DRR process.
- Inclusive of all genders and marginalized communities must be there in community consultations, decision making and implementation to move from policies to practices.
- Policies for each disaster such as drought, floods, fire, accidents, epidemics, man animal conflicts need to establish a clear set of principles or operating guidelines to govern the management of disasters and its impacts, as well as the development of a preparedness plan that lays out a strategy to achieve these objectives.
- Proper monitoring of risk assessment and identification of appropriate risk reduction measures should be done on regular basis, which are the core components of any policy and plan.
- Policy mechanisms to ensure that drought and floods risk reduction strategies are carried out and enforced regularly.
- New approach undertaking pro-active initiatives to involve techno-social-cultural-economic-environmental-governance initiatives. The emergence of smart phones and its wide range of users cannot be ignored as a resource which can be used for multiple purposes like imparting training programmes, updates and basic Do's and Don'ts of different disaster events. Social factors including education, awareness and social capital will determine to a large extent the success and failure of these strategies.

- The ideas of economic disparity and the brutality of market forces and logistic and supply chain of products were recorded during post disaster needs planning for its smooth functioning of sustainable livelihood practices.

**DRR Initiatives that need attention**

<b>Priorities</b>	<b>Programs</b>	<b>Main concerns</b>
<b>Policies/Schemes/Programs</b>	<p><b>Village level:</b></p> <ul style="list-style-type: none"> <li>• Mukhya Mantri Baans Baadi Yojana</li> <li>• Mahatari Jatan Yojana- Nutrition diet for pregnant women</li> <li>• Mukhya Mantri Amrit Yojana- Nutrition diet to Children</li> <li>• Mukhya Mantri Amrit Yojana to eradicating malnutrition in Chhattisgarh</li> <li>• Mukhya Mantri Khadya or Poshan Suraksha Yojana</li> <li>• Mukhya Mantri Bal Sandarbh Yojana healthcare scheme</li> <li>• Pradhan Mantri Fasal Bima Yojana</li> <li>• Mukhya Mantri Awas Yojana</li> <li>• Dindayal Upadhyay Gram Jyoti Yojana</li> <li>• Pradhan Mantri Gram Sadak Yojana</li> <li>• Van Bhumi Adhikar patta</li> <li>• Pradhan Mantri Tirth Yatra Yojana Suchna Kranti Yojana</li> <li>• Mukhya Mantri Paduka yojana</li> <li>• Jananni Suraksha Yojana</li> </ul> <p><b>State level:</b></p>	Regular monitoring and evaluation



	<ul style="list-style-type: none"> <li>• Mahatma Gandhi National Rural</li> <li>• Employment Guarantee Schemes             <ul style="list-style-type: none"> <li>• Pradhan Mantri Awas Yojana</li> <li>• Pradhan Mantri Ujjwala Yojna</li> </ul> </li> <li>• Pradhanmantri Krishi Shinchai Yojana</li> <li>• Pradhanmantri Mudra Yojna</li> <li>• Sanjeevni Express</li> <li>• Swatch Bharat mission</li> <li>• Dindayal Upadhay Gram Jyoti Yojana</li> <li>• Pradhan Mantri Jan Dhan Yojana</li> <li>• Pradhanmantri Suraksha Bima Yojana</li> <li>• Mukhya Mantri Kanya Vivah Yojana</li> <li>• Swaraswati Cycle yojana</li> <li>• Mission Smart City Raipur             <ul style="list-style-type: none"> <li>➤ Make in India</li> <li>➤ Standup India</li> <li>➤ Digital India</li> <li>➤ Startup India</li> </ul> </li> </ul>	
<p><b>Institutions</b></p>	<ul style="list-style-type: none"> <li>• Indian Meteorological department</li> <li>• Krishi Vigyan Kendra</li> <li>• Public Health Centers</li> <li>• Government Hospitals</li> <li>• Gram Panchayats</li> <li>• Schools</li> </ul>	<p>Regular evaluation and plannig</p>

	<ul style="list-style-type: none"> <li>• College</li> <li>• Anganwadi</li> <li>• Fire stations</li> <li>• Collectorate</li> </ul>	
<b>Plans, Sop's and Financial Management</b>	Planning for triangular linkage between field, district and state control room	Yearly basis
<b>Infrastructure, materials and equipment</b>	<p><b>School and Anganwadi:</b></p> <ul style="list-style-type: none"> <li>• Emergency and first aid kits</li> <li>• Toilets</li> <li>• Grain Storage trunks</li> <li>• LPG Connections</li> <li>• Water taps</li> <li>• Playgrounds</li> <li>• Fire Extinguisher</li> </ul> <p><b>Gram panchayats:</b></p> <ul style="list-style-type: none"> <li>• Flood rescue equipment's</li> <li>• Fire rescue equipment's</li> <li>• Warning alarms</li> </ul> <p><b>Village level:</b></p> <ul style="list-style-type: none"> <li>• Warning alarms on dams and rivers</li> <li>• Bridges on rivers, Roads ill fields and rivers</li> <li>• Community halls</li> <li>• Safe shelters</li> <li>• Fencing of forests areas</li> <li>• Warehouse</li> <li>• PHC's</li> <li>• Medicine shops</li> </ul>	Every six Month
<b>Capacity Building</b>	• Stocking of the sand bags,	Need to

	<p>alerting people near highly vulnerable pockets.</p> <ul style="list-style-type: none"> <li>• Stocking of food grains and other essential things in Gram panchayats or ware house.</li> <li>• Village tanks</li> <li>• Emergency facilities 108, 100, 102 Mehtari Express.</li> <li>• Pradhan Mantri Kaushal Vikas Yojana</li> </ul>	Strengthen
<b>Public Awareness and Education</b>	Wash and Sanitation	Regularly
<b>Risk Assessments</b>	Establish warning systems between the local to district level with media.	Regularly
<b>DRR Programs and Schemes</b>	Swachh Bharat Abhiyan. Providing relief in case of casualty due to natural calamities under Revenue Book Circular 6(4). As per the revised provisions.	Regularly

**Table 18: DRR Initiatives that need attention**

Ongoing efforts will be towards capacity building, strengthening the functioning of district level institutions like District Disaster Management Authorities and public awareness campaigns.

### **3.3 Mainstreaming DRR in Development National Flagship Schemes**

<b>S.No.</b>	<b>Name Of Schemes</b>	<b>Eligibility</b>	<b>Benefits</b>	<b>DRR Integration</b>
1	Mahatma Gandhi National Rural Employment Guarantee Schemes	Any adult who does work physically .	The scheme provides a legal right to employment for adult members of rural households. At least one-third beneficiaries have to be women. Wages must be paid	Increasing the wage rate in rural areas and strengthening the rural economy through the creation of infrastructure

			according to the wages specified for agricultural labourers in the state under the Minimum Wages Act, 1948, unless the central government notifies a wage rate (this should not be less than Rs.60 per day).	assets.
2	PradhanMantri Aawas Yojana	Economical Weaker Section Household	Chhattisgarh Housing Board will construct homes for EWS and LIG categories under the PM Awas Yojana	Provide affordable housing to Economical Weaker Section will allow them to invest in other productive capital
3	PradhaMantri Gram Sadak Yojana	Unconnected Habitations with a population of 250 persons and above (census 2001)	Rural road connectivity would promote access to economic and productive employment opportunities	Improved road networks would enhance the capacity of rural communities
4	PradhanMantri Ujwala Yojna	BPL households	Replacing the unclean cooking fuels mostly used in the rural India with the clean and more efficient LPG (Liquified Petroleum Gas)	Clean fuel will help BPL families ensure healthy and smoke free environment within house. It will minimise the burden of women to fetch wooden fuel.
5	Pradhanmantri	Farmers	Expand cultivable area under	Improved irrigation

	Krishi Shinchai Yojana		assured irrigation, improve on farm water use efficiency to reduce wastage of water, enhance the adoption of precision-irrigation and other water saving technologies (more crops per drop), and introduce sustainable water conservation practices.	facility lead to increase in the productivity of farmer. Drought prone areas become resilient to water scarcity.
6	Dindayal Upadhyay Gram Jyoti Yojana	Rural Population	Rural electrification: Providing round the clock power to rural households and adequate power to agricultural consumers.	Separation of agriculture and non-agriculture feeders would facilitate judicious rostering of supply to agricultural and non-agricultural consumers in the rural areas.
7	Pradhanmantri Mudra Yojna	Person who want initiate Micro enterprise	It would develop micro enterprise sector in the country by extending various support including financia; support in the form of refinance.	Employment generation and increase in economic activity.
8	Swacch Bharat mission	All people	Elimination of Open defecation and Eradication of Manual Scavenging.	Improve Sanitation will limit the diseases caused due to open defecation.
9	Pradhan Mantri Jan Dhan Yojana	All people	It will insure access to various financial services like availability of basic savings bank accoount, access	Financial inclusion of the marginalised people

			to need based credit, remittances facility, insurance and pension to the excluded sections i.e. weaker sections and low income groups.	
10	Pradhan Mantri Fasal Bima Yojana	Farmers	Scheme provides insurance coverage and financial support to the farmers in the event of failure of any of the notified crop as a result of natural calamities, pests and diseases.	It would stabilise the income of farmers to ensure their continuance in farming.
11	Make in India	Companies, Labour Force	Encourage national, as well as multinational companies to manufacture their products in India	Build Economic Capital.
12	Digital India	All people	E-governance initiative, major projects such as railway computerization, land record computerization, etc which focused mainly on the development of information systems.	Spread awareness related to agriculture, climatic conditions and early warnings.

**Table 19: Mainstreaming DRR in Development National Flagship Schemes**

### **3.4 Mainstreaming DRR in Development State level Flagship Schemes**

<b>S.No.</b>	<b>Name Of Schemes</b>	<b>Eligibility</b>	<b>Benefits</b>	<b>DRR Integration</b>
1	Mukhya Mantri Baans baadi Yojana	Villagers from the poor family	Poor people will be given high quality bamboo plants to grow it in free of	Will help to fulfil the economic need of the poor and the

			cost. It can be grown in the backyard of the house with required small space. Fulfil the economic needs of the poor and future demand of Bamboo.	marginalize during the time of emergency situations.
2	Mahatari Jatan Yojana-Nutrition diet for pregnant women	Pregnant women at Aganwadi centers	Provide nutritious diet and ready to eat food to pregnant women.	Provide nutrition and protein to weaker section unable to afford nutritional food, during disasters.
3	Mukhya Mantri Amrit Yojana-Nutrition diet to children	Children at Aganwadi centers	The scheme is to provide nutritious diet to children at Aganwadi centers.	Provide nutrition and protein to the childrens for the families who are unable to afford supplementary food, especially rural areas farmers in economic losses due to floods and droughts.
4	Mukhya Mantri Amrit Yojana to eradicate malnutrition in Chhattisgarh	Children aged between 6 to 9 years once every week	Special drive of eradicating malnutrition, nutritious milk will be distributed.	Reduce mortality rate and children at high risk.
5	Mukhya Mantri Khadya or Poshan Suraksha Yojana	All ration card holders	Ration will be distributed to existing beneficiaries holding ration cards after taking affidavit given by nodal officer.	Ensure weaker sections that lack purchasing power to buy enough food to quench their hunger are able to purchase atleast rice and wheat

				through ration shops at cheap prices. Meet the requirement of sustainable development goal of zero hunger.
6	Mukhya Mantri Bal Sandarbh Yojana- Healthcare scheme	Children	Provide health check-up and medical counselling facility to children suffering from severe malnutrition and other crisis.	Increasing life expectancy and reducing some of the common killers associated with child and maternal mortality.
7	Mukhya Mantri Awas Yojana	EWS and LPG applicants	Provide a financial assistance to the eligible EWS and LIG applicants, housing schemes under EWS and LIG homes will be constructed.	Provide save shelters to people who cannot afford to build houses. Helps people to build resilience.
8	Dindayal Upadhyay Gram Jyoti Yojana	Rural areas	To provide continous power supply to rural India.	Help farmers in irrigation facilities.
9	Suchna Kranti Yojana	Youth	Provide free smart phones to the youth in the state. The state government has announced the scheme to promote digitization in the state for making the youth digitally literate.	Help to spread awareness related to agricultural, rainfall and early warning.
10	Sanjeevani Express	People of Chhattisgarh	108 Sanjeevani Express Ambulance service	Ambulance service is one of the integral components of health care to pregnant



				women, children during emergencies. The transport component is known to contribute to accelerate the achievement of various Millennium Development goals, including reducing maternal and infant mortalities.
11	Mukhya Mantri Kanya Vivah Yojana	Daughters	To relieve poor families from expenses of organizing marriage ceremonies, to encourage mass marriage, to curb social evil of dowry system, and to refrain from unnecessary expenses on marriage ceremonies.	The scheme reduces stress of poor farmers who fall in debt or take loans for their daughters marriages, and unable to pay due to failure of crops or less productivity or drought.
12	Saraswati Cycle Yojana	Girls of IX standard	To ensure the cent percent enrolment of girls (BPL, SC and ST) who have passed class VIII and to ensure their retention up to the class XII. To improve the girl's enrolment, attendance and retention upto class XII, continuation of education till 12 <sup>th</sup> standard. To ensure that the girl's	Girls are the agents of change their priorities and needs have been taken into account. In rural areas girls are forced into house hold work, fetch water or look after their siblings and was unaware of the sanitation and hygiene conditions. By

			students continue their education beyond the level of primary.	providing cycles it motivates them to continue education and become self dependent.
13	Mission Smart City	Civilians	To provide the civilians with high quality modern and efficient Municipal services, sustainable development and sound environmental management.	Infrastructural development and better construction enhance resilient structure which incorporates indigenous knowledge and modern techniques.
14	Suchita Yojana	Government Schools	To encourage girls about their personal and menstrual hygiene. Helping pupils in overcoming hesitation, they face while buying sanitary napkins from the markets.	Helps to maintain sanitation and hygiene and prevent girls from diseases.

**Table 20: Mainstreaming DRR in Development State level Flagship Schemes**

## 4. Climate Change Actions

Climate change has increased the intensity and frequency of disaster events around the world resulting in massive destruction with regard to loss of human lives, livelihoods, infrastructure, environment etc thereby disrupting the social, economic and cultural setup. Risks related to change of climate have become a major concern regarding the sustainability of livelihood options, infrastructure, ecosystem services and the local economy especially for the South Asian nations. An increase has been witnessed in the magnitude and frequency of precipitation related hazards such as floods, droughts, landslides, typhoons, cyclones and so on.

India has also been a witness to natural and climate induced devastations. The unique geo-climatic, socio-economic conditions and developmental indicators make the nation even more vulnerable to a kaleidoscope of hazardous events such as droughts, floods, cyclones, landslides, forest fires and so on. Events such as the Chennai floods, Thane Cyclone, Uttarakhand cloud burst, Assam floods etc- have resulted in emerging of serious concerns regarding disaster response, preparedness and mitigation at various levels. In Chhattisgarh, a study was conducted by the Institute of Human Development, New Delhi in which several drought districts have been identified. This includes Bastar, Bilaspur, Janjgir-Champa, Dantewada, Dhamtari, Durg, Jashpur, Kanker, Korba, Kabirdham, Mahasamund, Raigarh, Koriya, Raipur, Rajnandgaon and Sarguja, etc.

### **Sector Specific Activities for Climate Change**

Sector	Invention Type	Activities
<b>Agriculture</b>	Improved practices	<ul style="list-style-type: none"> <li>• Developing and deploying resources for adoption of multi-cropping as a practice.</li> <li>• Developing cold storage facilities at the district level for safe storage perishable horticulture, forest and food products.</li> <li>• Crop diversification to cope with increasing climatic variability.</li> <li>• Introduction of sprinkler and drip irrigation systems and better drainage network.</li> </ul>

		<ul style="list-style-type: none"> <li>• Construction and strengthening of flood walls or embankments along the rivers.</li> </ul>
	Planning	<ul style="list-style-type: none"> <li>• Mapping the potential for growth of agro and forest based industries in each district.</li> <li>• Proper implementation of insurance based measures for transfer of risks incurred from loss of harvest, from farmer to government.</li> </ul>
	Conservation of water and soil	<ul style="list-style-type: none"> <li>• Implementation of steps for minimizing losses incurred through water and soil such as agro-forestry, integrated watershed management, water harvesting through check dams, renovation of existing ponds as agriculture is primarily rain-fed.</li> <li>• Renovation of traditional water management systems.</li> </ul>
	Forecasting and early warning systems	<ul style="list-style-type: none"> <li>• Strengthening of early warning systems and weather services through advanced agro-systems.</li> </ul>
	Integrated nutrient and pest management	<ul style="list-style-type: none"> <li>• Research and education on integrated nutrition and management of pests along with promotion and integration of conservation agriculture.</li> <li>• Applying fertilizers based on soil quality, thereby increasing the efficiency of fertilizers and decrease in pollution of ground water and soil.</li> </ul>
<b>Disaster Management</b>	Research and Capacity building	<ul style="list-style-type: none"> <li>• Community based disaster risk management activities, establishing search and rescue teams in every village.</li> <li>• Integration of indigenous techniques with better scientific management.</li> <li>• Encouragement of traditional practices and indigenous knowledge for mitigating risks.</li> </ul>
	Awareness	<ul style="list-style-type: none"> <li>• Mock drills and first aid training in schools and colleges.</li> <li>• Training village authorities in hazard and vulnerability mapping activities in coordination with community members or representatives.</li> </ul>
		<ul style="list-style-type: none"> <li>• Preparedness of emergency response plans and safety</li> </ul>

		evacuation plans in various public buildings.
	Vulnerability and Risk Management	<ul style="list-style-type: none"><li>• Assessment of vulnerable structures in urban as well as rural areas.</li><li>• Relocation and resettlement of most vulnerable groups and structures to safer and better locations.</li></ul>
	Monitoring and evaluation	<ul style="list-style-type: none"><li>• Monitoring the variations in various climatic parameters through establishment of automated weather stations and satellite signals.</li><li>• Monitoring training of concerned authorities according to their requirements and for enhancement of their potentials for mitigating future disaster risks; alongwith periodic evaluation and valuable feedbacks.</li><li>• Preparing regular audit reports of various departments highlighting their progress and drawbacks with regard to disaster risk reduction and mitigation.</li><li>• Establishing close coordination and sharing of information regarding plans of various line departments.</li></ul>

<p><b>Water resources and Sanitation</b></p>		<ul style="list-style-type: none"> <li>• Regular review and feedback sessions of the functional hydrological stations, automated weather and rain gauge stations.</li> <li>• Developing curriculums of educational institutions, especially in rural areas for mass awareness regarding relevance of water conservation and proper sanitation measures.</li> <li>• Developing and deploying capacity building initiatives for professionals of various departments as well as among various Panchayats and municipal wards, so that they can pass it on to other people in their areas.</li> <li>• Promoting the disadvantages of open defecation and significance of various initiatives such as ‘Gramin Seat’ through intensive social communication, street plays, banners and so on.</li> <li>• Improving drainage networks and periodic evaluation of drinking water sources present in village.</li> <li>• Regular testing and treatment of water sources in rural and urban areas for preventing eutrophication and loss of aquatic flora and fauna.</li> </ul>
<p><b>Forests and Biodiversity</b></p>	<p>Conservation of biodiversity</p>	<ul style="list-style-type: none"> <li>• Identification and documentation on amount of remaining green cover and its exposure to various anthropogenic risks.</li> <li>• Preventing diversion of forest lands for non-forest purposes.</li> <li>• Preventing the spread of invasive species and encouraging growth of indigenous species of flora.</li> <li>• Conservation of existing ground water sources and promotion of sustainable livelihoods through institutional development initiatives such as Joint Forest Management (JFM), SHG’s and so on.</li> <li>• Wetland conservation.</li> </ul>
	<p>Intervention in</p>	<ul style="list-style-type: none"> <li>• Clear demarcation of areas accessible to people,</li> </ul>

	forest and non-forest areas	especially to communities dependent on forest for meeting their daily requirements.
	Awareness and Research	<ul style="list-style-type: none"> <li>• Studies on traditional and religious beliefs of tribals that tally with conservation of biodiversity.</li> <li>• Awareness on ecosystem services, eco-friendly and green technologies for maintaining equilibrium between development and conservation of biodiversity.</li> </ul>
	Fire Management	<ul style="list-style-type: none"> <li>• Adopting appropriate measures for preventing spread of forest fires, especially during the dry season.</li> </ul>
<b>Urban Development</b>	Management of solid waste and waste water	<ul style="list-style-type: none"> <li>• A comprehensive and sustainable approach for managing solid waste and waste water from households, taking into consideration the availability of dumping sites and their proximity to human habitation.</li> </ul>
	Adoption of renewable	<ul style="list-style-type: none"> <li>• Developing strategic plans for improving energy efficiency of households, including plans for bringing in the use of alternative and renewable sources of energy.</li> <li>• Encouraging innovation and competitiveness in renewable energy sources for mitigating and adapting to climate change.</li> </ul>
	Improving resilience	<ul style="list-style-type: none"> <li>• Increasing community based disaster risk management and advance earning systems for improving the adaptive capacity of habitats and households to climate change.</li> <li>• Establishing a committee for looking after the conservation of urban water bodies, green and open spaces and treatment of waste water.</li> <li>• Maintenance of peri urban spaces especially in busy locations in urban areas.</li> <li>• Promotion and adoption of energy efficient codes for urban housing projects and various other programmes.</li> </ul>
<b>Transport</b>	Transport infrastructure, planning and management	<ul style="list-style-type: none"> <li>• Promoting and ensuring the availability and use of cleaner energy sources for fuel.</li> <li>• Car pooling can be used as an alternative.</li> </ul>

		<ul style="list-style-type: none"> <li>• Ensuring pollution certificates for all the vehicles and confirming that the emitted pollution levels are within the permitted amount.</li> </ul>
<b>Energy</b>	Conservation and improvement in energy efficiency	<ul style="list-style-type: none"> <li>• Promoting the use of solar powered lights, heaters, pumps and other such renewable sourced energy products.</li> <li>• Introducing smart grid metering systems in households and public buildings.</li> </ul>
<b>Industries</b>		<ul style="list-style-type: none"> <li>• Regular check on pollutants released by industries in air as well as water bodies.</li> <li>• Promoting use of pollution control mechanisms and filters.</li> <li>• Building awareness regarding adoption of GHG mitigation measures, energy audits, benefits of fuel switching and so on.</li> </ul>
<b>Human Health</b>		<ul style="list-style-type: none"> <li>• Constitution of a Climate Change Cell in the health department as well as various sub-cells within the district level.</li> <li>• Developing emergency response plans and conducting mock drills in PHC's and CHC's.</li> <li>• Spreading awareness on adoption of Sphere Standards while conducting emergency response during and after disasters.</li> <li>• Training and sensitization programmes with proper feedbacks for department personnel as well as community members.</li> <li>• Development, training and deployment of disaster management teams in every PHC and CHC for responding to impact of extreme climatic variations.</li> </ul>

**Table 21: Sector Specific Activities for Climate Change**



## Initiatives for Mitigating Climate Change

<b>Initiatives to mitigate disasters (intensified by climate change)</b>	<b>Initiatives to mitigate climate change</b>
Development and deployment of strategies and action plans for reducing vulnerability to disasters.	Promotion of renewable energy sources including an increase in the share and utilization of alternative fuels.
Improvement coordination among various line departments and agencies for improving management of risks and response to disasters.	Promoting energy efficient technology, especially in buildings, transportation, industrial set ups and household appliances.
Upgrading and retrofitting of important infrastructural set-ups in hazardous areas according to recommended building codes.	Total implementation of Green India Mission and other such initiatives.
Improving access to information regarding specific hazard and vulnerabilities as well as communication campaigns through infotainment, especially in high risk zones	Reduction in the amount of emissions especially from the transport and industrial sector.
Periodic HRVC activities in close coordination with community members or representatives for making disaster friendly plans, including those induced by anthropogenic factors.	Reduction in emissions from solid waste and waste water from households

**Table 22: Initiatives for Mitigating Climate Change**

## **5. Capacity Building and Training Measures**

### **5.1 Capacity Building**

As per the DM Act (2005), capacity-building includes:

1. Identification of existing resources and resources to be acquired or created;
2. Acquiring or creating resources identified under sub-clause (i)
3. Organization and training of personnel and coordination of such trainings for effective management of disasters.

The primary purpose of capacity-building in disaster management is to reduce risk and thus make communities safer. This can be done by increasing resilience and enhancing coping capacities. Effective capacity-building requires the active participation of all those who are tasked with it. It must, therefore, include maintaining a comprehensive and up-to-date district disaster management resource inventory, awareness generation, education and systematized training.

The district collector should ensure the following activities of the entire district, and the various heads of departments should ensure capacity-building of their respective departments. Furthermore, the nodal officers should, in coordination with the HODs, procure relevant equipments for disaster management activities.

### **5.2 Institutional Capacity Building**

Institutional capacity-building will be structured upon a level-system that will be designed to bring officials and professionals from multiple fields and skill-sets at the district level. The DDMA will utilize the abilities and expertise of representatives from following areas, structured in the form of levels on the basis of priority.

Chhattisgarh Academy of Administration (CGAA) holds responsibility at the State level for conducting training programs on Disaster Management in all the districts of Chhattisgarh. The trainings take place for three to five days and involve district officials from various departments, as per the specificities of the training being conducted. It is incumbent upon these officials to attend the trainings for which they have been nominated. The officials in

charge of updating the DDMP are also responsible for keeping track of all trainings conducted and at the time of updating the plan, they shall include the names and contact details of all officials from district who have attended any disaster management related training in the past six- months. This will ensure the availability of trained human resources capable of dealing with disasters at the district level.

The various stakeholders to be trained are NGOs, community-based organizations (CBOs), social workers, youth organizations, National Cadet Corps (NCC), National Service Scheme (NSS), school teachers and school children. Training is the most important, essential and central activity of all capacity development.

Training is the most important, essential and central activity of all capacity development programmes. Trained personnel respond much better to different disasters in time and appreciate the need for preventive measures. Systems, measures and initiatives would be taken to ensure intensive training for building up of human resources, especially to improve disaster awareness, safety and enhance capabilities of disaster managers at various levels.

### **5.3 India Disaster Resource Network (IDRN)**

IDRN is a web based information system, which is a list of devices, efficient human resources and critical supply management for emergency response. The primary focus is to make decision makers able to find answers to the availability of the necessary tools and human resources to deal with any emergencies. This database will enable them to assess the level of preparation for specific vulnerabilities.

Each user of all the districts of the state has been given a unique username and password through which they can update data entry and data in IDRN for available resources in their district.

The IDRN network has the functionality to generate several question choices on the basis of important supplies, with specific tools, skilled human resources and their location along with the contact details.

### **5.4 Department wise Roles and Responsibilities of HODs**

<b>Departments</b>	<b>Roles and Responsibilities of HODs</b>
<b>Agriculture</b>	<ul style="list-style-type: none"> <li>● Formation and training of weather watch group for the purpose of monitoring crops in the district.</li> <li>● Keeping in place disaster management protocols for the hazards of drought, flood, hailstorm, etc.</li> <li>● Formation of rapid damage assessment teams for assessing the condition of soil, fields, irrigation systems and any other damage to crops in post-disaster situations.</li> </ul>
<b>Animal Husbandry</b>	<ul style="list-style-type: none"> <li>● Ensure the formation of rapid damage assessment teams capable of examining and assessing damage caused to livestock, feed and fodder, and other things within the domain of animal husbandry.</li> </ul>
<b>Education</b>	<ul style="list-style-type: none"> <li>● Formation and training of damage and needs assessment teams within the department.</li> <li>● Provision of trainings in first aid and basic survival skills for teachers and students in the district.</li> <li>● To check whether education and awareness programs are in the curriculum.</li> <li>● Capacity-building at the institutional level should be enhanced by carrying out various activities under the School Safety Programme (SSP).</li> </ul>
<b>CSEB</b>	<ul style="list-style-type: none"> <li>● Ensure the timely purchase of electric equipments necessary for maintaining a state of adequate preparedness and for speedy and efficient disaster response, through the appropriate channels of the district administration.</li> </ul>
<b>Fire Services</b>	<p>Conducting :</p> <ul style="list-style-type: none"> <li>● Fire-safety trainings for all district officials.</li> <li>● Safety audits of various government and civilian buildings in order to check whether they are compliant with fire-safety norms.</li> <li>● Regular mock-drills should for fire-fighting and evacuation procedures.</li> <li>● Training programs on disaster management by CDM, CGAA from time to time.</li> </ul>
<b>Civil Defense &amp; Home Guards</b>	<ul style="list-style-type: none"> <li>● Provision of trainings for volunteers in Search and Rescue (SAR), first aid, traffic management, dead body management, evacuation, shelter and camp management, mass care and crowd management.</li> <li>● Arrange for the purchase of Search and rescue (SAR) equipments through appropriate channels of the district administration.</li> </ul>
<b>Forest</b>	<ul style="list-style-type: none"> <li>● Ensure the formation and training of teams within the department for catching wild/escaped animals which pose a threat to human safety.</li> </ul>
<b>RTO</b>	<ul style="list-style-type: none"> <li>● Provision of training to drivers, conductors and staff in first aid and basic life saving techniques.</li> <li>● Adequate stocking/replenishing of first aid kits and maintenance of fire extinguishers in all vehicles and depots in the district.</li> </ul>

<b>Health</b>	<ul style="list-style-type: none"> <li>• Formation and training of damage and need assessment teams within the department.</li> <li>• Provision of trainings for Quick Response Medical teams (QRMTs) of paramedics, mobile medical teams, psychological first aid teams and psycho-social care teams.</li> <li>• Arrange for timely procurement/ purchase of portable equipments for field and hospital diagnosis, triage, etc.</li> <li>• Provision of trainings for health attendants and ambulance staff in first aid and life- saving techniques.</li> <li>• Provision of training to members of local communities in health and hygiene practices.</li> <li>• Enhancing capacity building at the institutional level by carrying out various activities related to Capacity Building and Training measures.</li> </ul>
<b>Irrigation</b>	<ul style="list-style-type: none"> <li>• Provision of trainings to all human resources with regard to early-warning for flood.</li> <li>• Arrange for timely purchase of early warning and communication equipments through appropriate channels of the district administration.</li> </ul>
<b>Police</b>	<ul style="list-style-type: none"> <li>• Deployment of trained police personnel within the district in disaster management.</li> <li>• Conduct trainings for the police personnel to deal with various situations, an important aspect of capacity-building in the district.</li> <li>• Preparing for prevention of human trafficking and other activities in the aftermath of disasters.</li> </ul>

**Table 23: Department wise Roles and Responsibilities of HODs**

## **5.5 Community Based Disaster Management**

Community Based Disaster Management would ensure community members take appropriate action for disaster risk management thereby ensuring a “culture of prevention” and creation of safer communities. The concept of risk reduction through community based disaster management will help in:

- Institutionalization of community based disaster risk management in policy, planning and implementation.
- Intensive work with the community for information dissemination and awareness generation.

This would enable community groups and other stakeholders including the government to identify potential risks and vulnerabilities, assess capacities, and plan for preparedness, prevention, and mitigation to overcome the ill effects of disasters through a coordinated effort.

<b>Work</b>	<b>Responsibility</b>	<b>Department</b>
Community Preparedness	<ul style="list-style-type: none"> <li>• Selection of weak community and the most vulnerable groups in danger.</li> <li>• Broadcast information about vulnerability and exposure to the community.</li> <li>• Promote local level disaster risk management plan through participation approach. Provide advice and guidelines wherever necessary for community disaster prevention, mitigation and preparation through local resources and participation approach.</li> <li>• Provide necessary resources and support for disaster risk reduction at the community level.</li> <li>• Review the preparation at the community level; take appropriate action to increase the capacity of the community.</li> <li>• Promote community education, awareness and training.</li> <li>• Make sure to safeguard the community to predict the coming calamity and to spread the warnings timely.</li> <li>• Broadcast instant information at the community level in any disaster situation.</li> </ul>	<ul style="list-style-type: none"> <li>• District Collector</li> <li>• Revenue Dept</li> <li>• Weather Dept</li> <li>• Finance Dept</li> <li>• Nagar Nigam Commissioner</li> <li>• Rural and Urban Development Dept</li> <li>• Panchayati Raj</li> </ul>

**Table 24: Community Based Disaster Management**

# **VOLUME-3**

## List of Contents:

<b>S.No.</b>	<b>Contents</b>	<b>Pg. No.</b>
<b>1</b>	<b>Response and Relief Measures</b>	<b>1-8</b>
1.1	Stages of Response and Relief	1
1.2	Pre-Disaster Relief and Response	2-3
1.3	During Disaster Relief and Response	4
1.4	Execution of Phase II of Relief and Response in the context of Jashpur District	4
1.5	Activation of State government/ District administration	4-6
1.6	Post Disaster Relief and Response	7
1.7	Reconstruction	7-8
<b>2</b>	<b>Measures for Reconstruction and Rehabilitation</b>	<b>9-14</b>
2.1	Reconstruction and Rehabilitation	9
2.2	Recovery Activities	10-14
2.2.1	Short Term Recovery	10
2.2.2	Long Term Recovery	10-11
2.2.3	Assessment of Loss and Policy Determination	11-12
2.2.4	Reorganization (Rectification)	12-14
<b>3</b>	<b>Financial resources for the District Disaster Management Plan</b>	<b>15-17</b>
3.1	Availability of financial resources from Center and State	15
3.1.1	Fund for capacity Building	15
3.2	Other fundings by state	16
3.2.1	External funding systems	16
3.2.2	Financial provisions	16
3.2.3	Disaster relief fund	16
3.3	National Calamity Contingency fund	16
3.4	State Disaster Relief Fund	16
3.5	Chhattisgarh relief fund	17
3.6	Other provisions of the finance system	17
3.7	District Financial Resources	17
3.8	Other Financial Resources at District Level	17
<b>4</b>	<b>Monitoring, Evaluation and Updation of District Disaster Management Plan</b>	<b>18-21</b>
4.1	Evaluation of DDMP	18
4.2	Authority for Maintaining and Reviewing DDMP	19
4.3	Post Disaster Evaluation Mechanism	19
4.4	Disaster Evaluation Mechanism	19-20
4.5	Media Management	20-21
4.6	Conducting Mock Drills at District Level	21
4.6.1	Following are the responsible institution for Mock Drill	21



<b>5</b>	<b>Coordination Mechanism for Implementation of DDMP</b>	<b>22-28</b>
5.1	Coordination with the Center and the State	23
5.1.1	National Disaster Management Authority	23
5.1.2	National Executive Committee	23
5.1.3	National Institute of Disaster Management (NIDM)	23
5.1.4	National Disaster Management Force (NDRF)	23
5.2	State Disaster Management Authority (SDMA)	23-24
5.2.1	State Executive Committee (SEC)	24
5.3	District Disaster Management Authority (DDMA)	24
5.4	State Disaster Response Force (SDRF)	24
5.5	Disaster Management Center	24
5.6	Nodal Department	25
5.7	Coordination at District Level	25
5.8	Coordination at Local Level	26
5.9	Coordination with Private Institutions and Social Service Organizations	27
5.10	Coordination with Neighbour Districts	27
5.11	Coordination with SDMP	27-28
<b>6</b>	<b>Standard Operating Procedures and Checklist</b>	<b>29-37</b>
6.1	Standard Operating Procedure	29-30
6.2	Preparedness for Flood	30-32
6.2.1	Precautions	30-31
6.2.2	Emergency Response Resources	31-32
6.3	Preparedness for Drought	32-33
6.3.1	Precautions	32-33
6.3.2	Information Utilization for Drought Management	33
6.4	Preparedness Measures for Stampede	33
6.5	General SOPs for all other Disaster	34-35
6.6	Assistance from the Central / State Government	35-36
6.7	Human Relief and Assistance	36-37

### List of Tables :

<b>S.No.</b>	<b>Table</b>	<b>Pg. No.</b>
1	Table 1: Stages of Response and Relief	1
2	Table 2: Steps of IRTF	6
3	Table 3: Nodal Departments/ Officer for Reconstruction and Reorganization	13
4	Table 4: Other Financial Resources at District Level	17
5	Table 5: Format for DDMP Review Panel	19
6	Table 6: Nearest Districts/State for assistance	27

7	Table 7: Action plan to deal with flood situation	32
8	Table 8: Assistance from the Central / State Government	36
9	Table 9: Human relief and assistance	37

### List of Figures :

S.No.	Figure	Pg. No.
1	Figure 1: The Proposed Disaster Pre-Warning System of the District	2
2	Figure 2: Incident Response Team framework (IRTF)	6
3	Figure 3: Sources of funds for the Disaster Relief and Response	8
4	Figure 4: Key points of Policy Making	12
5	Figure 5: Tactical system of monitoring and updating of DDMP	20

### List of Flowcharts :

S.No.	Flowchart	Pg. No.
1	Flowchart 1: Diagrammatic representation of Relief and Response	1
2	Flowchart 2: Flowchart of Events for Major Emergency Response	3
3	Flowchart 3: Stepwise Of Administrative Response System	5
4	Flowchart 4: Incident Response Team framework	5
5	Flowchart 5: Reconstruction and Repair Work	9
6	Flow Chart 6: Coordinated mechanism for implementing DDMP	22
7	Flowchart 7: Horizontal and vertical coordinated mechanism at the district level	25
8	Flowchart 8: Horizontal and vertical coordinated mechanisms at the local level	26
9	Flowchart 9 : District Disaster Management Plan	28

# 1. Response and Relief Measures

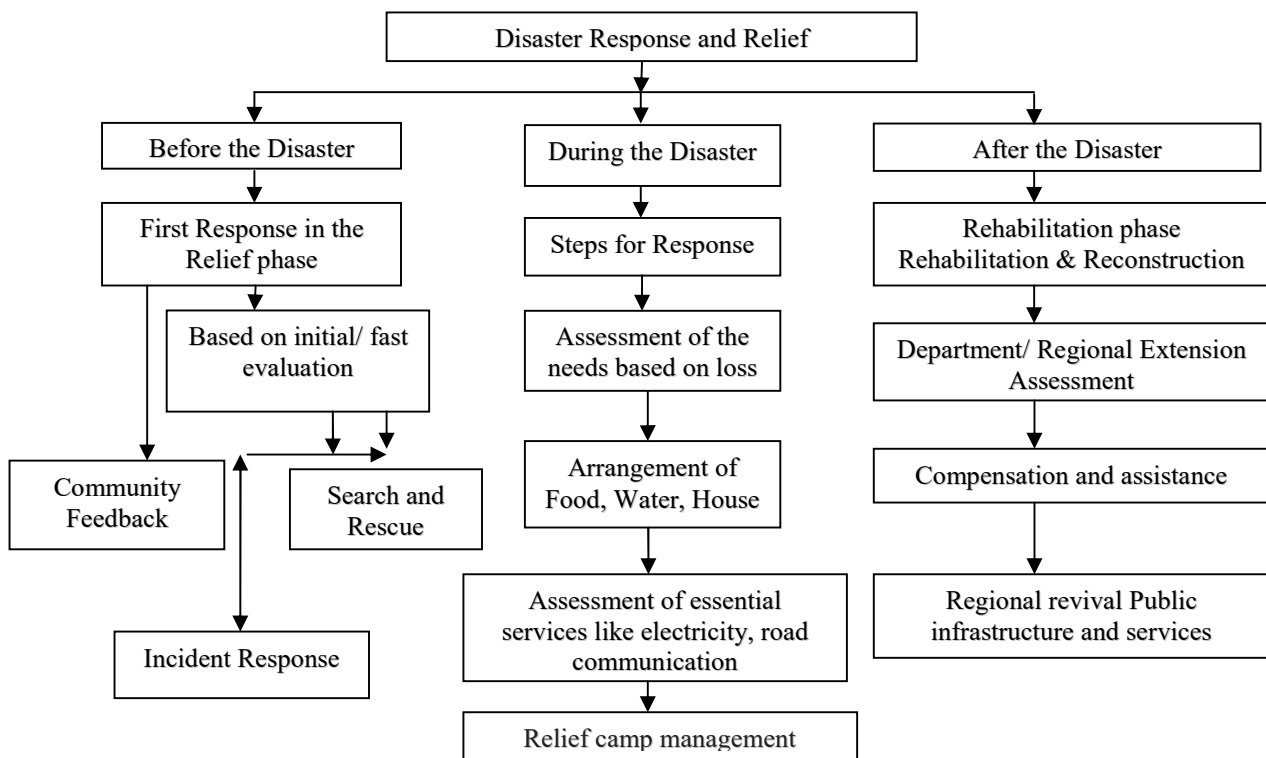
All disasters, incidental events and crisis events are extremely dynamic through which physical, mental and emotional disorders can also arise. Relief and response are the measures that are used immediately after the disaster. Their purpose is to protect the lives of the people before the disaster and the post-disaster situation, to remove their troubles, to safeguard the property and to deal with the disaster losses. Relief and response measures are generally implemented in extreme conditions. These campaigns require a large number of human resources, equipments and other resources, so it is difficult to succeed in these campaigns without adequate planning, management, training and feedback team. The extent and effectiveness of action in response to disaster can be reduced to the extent of loss and risk.

## 1.1 Stages of Response and Relief

Before Disaster	Warnings, Necessary Preparedness
During Disaster	First Response- Relief
After Disaster	Relief-Rectification

**Table 1: Stages of Response and Relief**

It involves essential work before, during, and after the disaster. Therefore it is categorized in three steps. Diagrammatic representation of relief and response are as follows-



**Flowchart 1: Diagrammatic representation of Relief and Response**

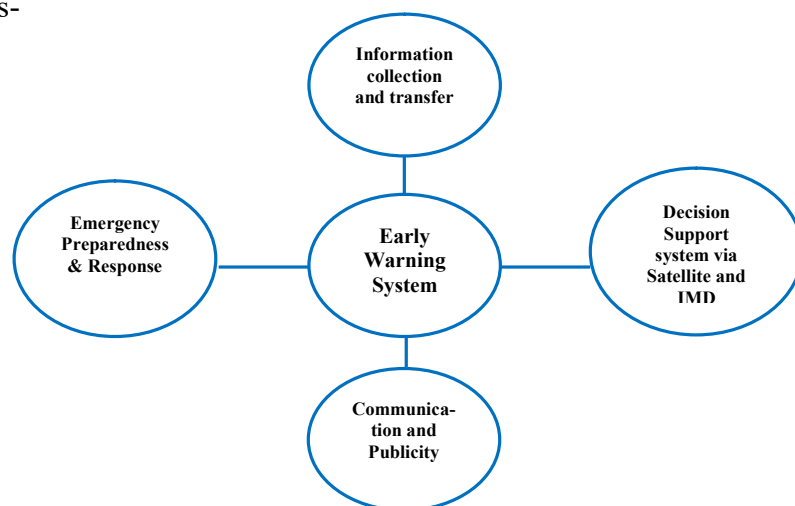
## 1.2 Pre-Disaster Relief and Response

**Disasters can be divided into two parts based on early warnings and prediction -**

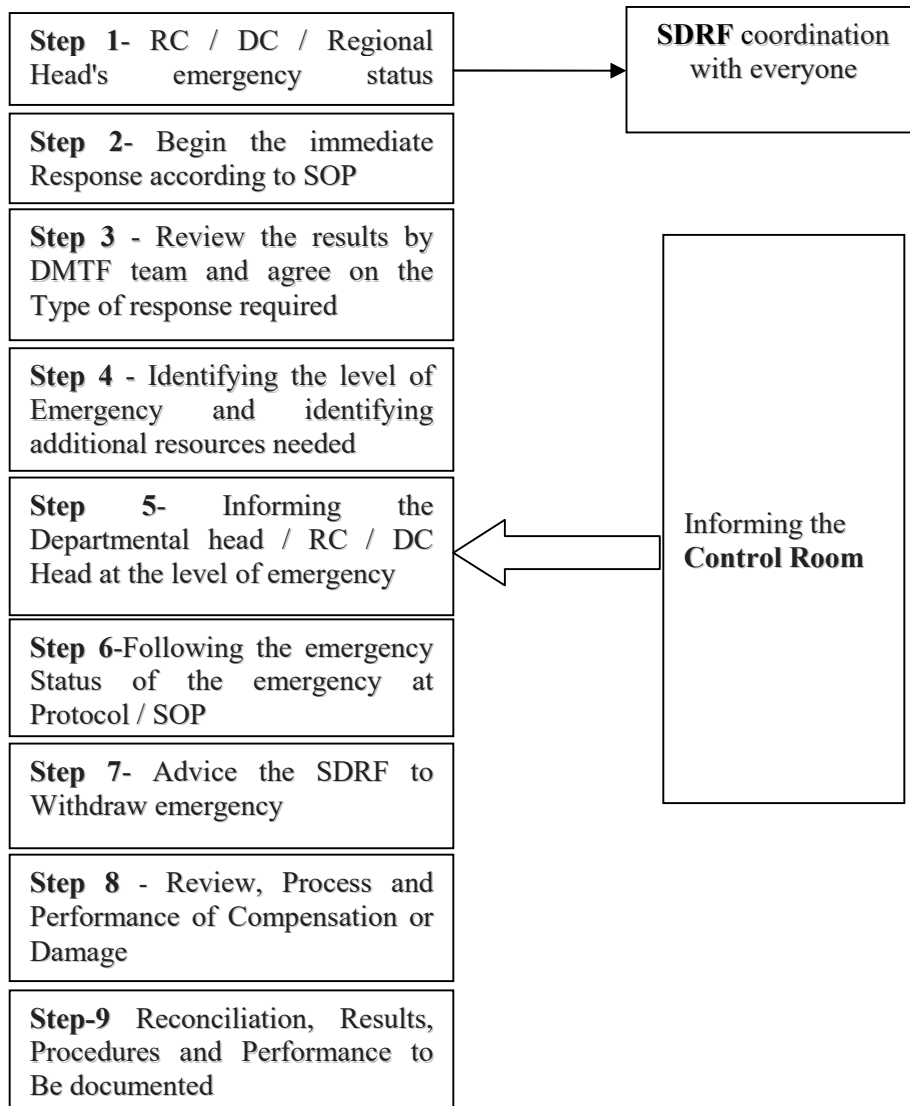
The **first** type of disaster are those whose early warnings and prediction are possible. The **second** type of disasters which happens accidentally, whose prediction or early warning is not possible. The pre-disaster relief and response activities are implemented for both of the above disasters. The measures taken before the occurrence of a disaster is known as disaster preparedness. The following elements are included in the pre-disaster relief and response –

- Early Warning System
- Collection of disaster related data
- Shelter Identification
- Availability of disaster related equipment at one place
- Mockdrill
- Correcting the Communication system
- High alert should be notified to the Concern Department
- High alert should be notified to the First Response Unit
- Evacuate the houses from the High Risk zone
- Accumulation of food, water, medicine etc

Flood and Drought are the major natural disaster of the Jashpur district whose early warning and forecasting are possible. Fire, Road and Industrial Accident are that disaster whose early warning is not possible. It is necessary to strengthen the warning system in the district for the forecasting and warning of different types of disasters. It is proposed to amend the communication/ early warning system by the district administration. This system will work in the following steps-



**Figure 1: The Proposed Disaster Pre-Warning System of the District**



**Flowchart 2: Flowchart of Events for Major Emergency Response**

The following institutions work at the State and National level for pre warning related to disasters –

- 1. State Disaster Management Authority**
- 2. IMD**
- 3. State Economic and Statical Department**
- 4. Remote Sensing Department and Geographical Information System**

### **1.3 During Disaster Relief and Response**

In the event of disaster, people are mostly affected by its adverse effect. During this phase, relief and response is required. Quick and efficient action taken in response to the disaster will result in lesser damage to the human lives and property. During disaster, the district administration will follow the steps given below for relief and response

1. Formation of First Response Group
2. Activation of State government and District administration
3. Search and Rescue Team
4. Immediate reinstatement of necessary services
5. Transportation of the victims in the Shelter and Hospital
6. Maintaining peace
7. Acquisition of cranes, bulldozers and other resources as needed
8. Establishment of temporary relief camps
9. Supply of relief material
10. Assessment of damage after disaster
11. Immediate relief to the disaster victims

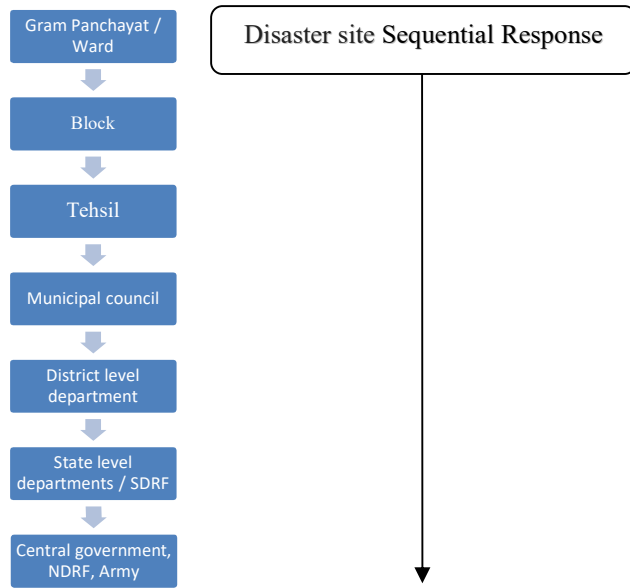
### **1.4 Execution of Phase II of Relief and Response in the context of Jashpur District**

#### **First Response Group**

After sudden disaster, it takes about 12 to 24 hours to get help, so local public / community work as a first-responder. In Jashpur district, it is necessary for the people living in and around the surrounding areas to work as the first responder at the time of disaster. For this, their Training and Capacity Building are necessary.

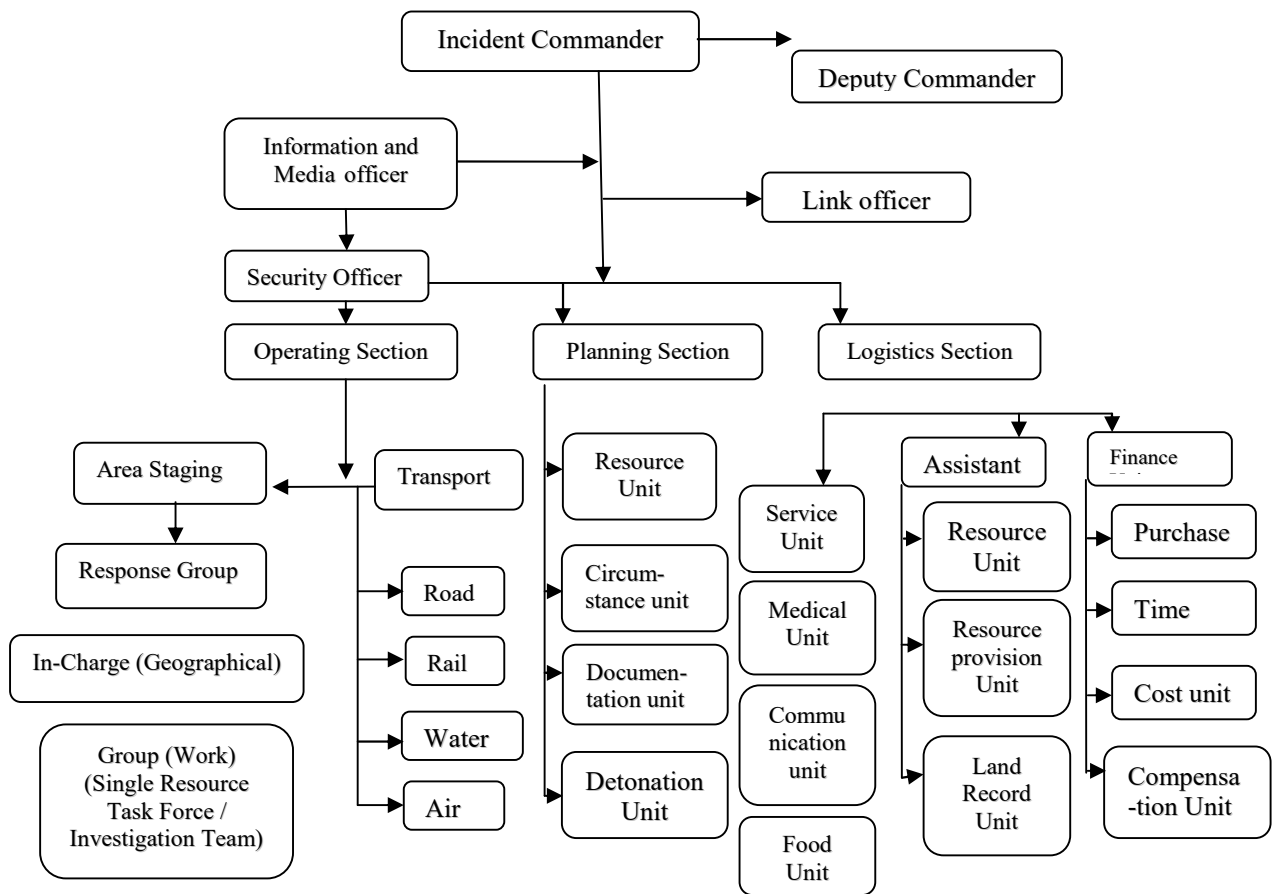
### **1.5 Activation of State government/ District administration**

After First Responder Group it is the responsibility of Gram Panchayat, Block, Tehsil and Municipality / Council to respond towards disaster. If required help from State or Central can also be taken. The different steps of administrative response system are as follows-



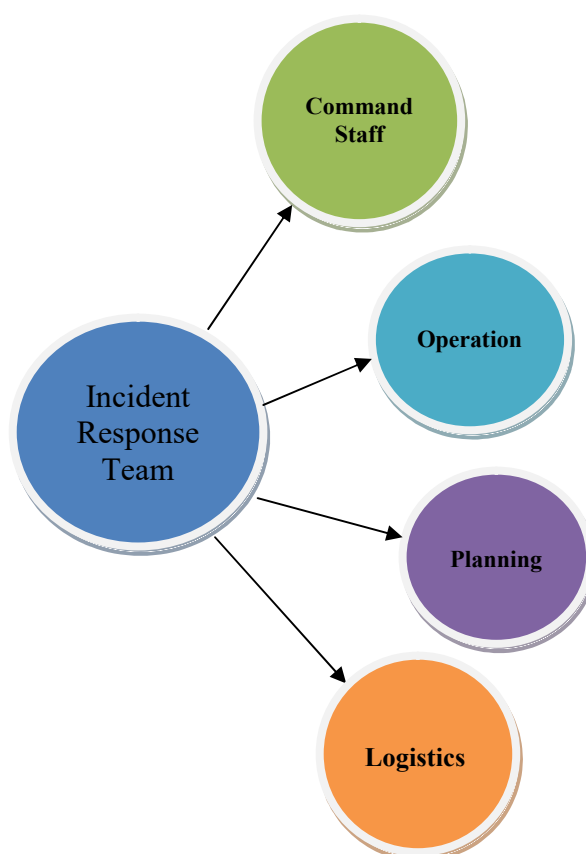
**Flowchart 3: Stepwise Of Administrative Response System**

In order to provide quick response to the disaster, the district will need an emergency Response Team (Quick Workforce) and an Incident Response System, which can immediately control the situation by getting itself operational at the time of the disaster. The framework of the district Jashpur Incident Response Team will be as follows :



**Flowchart 4: Incident Response Team framework**

Thus, the district's Incident Response Team framework will have four main sections. What is the procedure to activate the incident response team framework and what is to be done are the responsibility of the Command staff. The district collector (DM) will be the chief. This framework will be the spine of disaster relief and response. The head office of the incident response team will be the district office, which will work with the coordination of the Emergency Operation Centre (EOC). During the disaster, various steps and components of IRTF will be activated in a phased manner which are as follows –



**Figure 2: Incident Response Team framework (IRTF)**

L – 0	This is the normal level of disaster of preparedness.
L – 1	This will be the level of disaster that can be managed at the district level.
L – 2	This will be the level of disaster that can be managed only with state-level cooperation.
L – 3	This will be the level of disaster in which the central government and the national and international cooperation will be required.

**Table 2: Steps of IRTF**



## **1.6 Post Disaster Relief and Response**

It is a quick response situation against disaster. In this situation, the intensity and risk of disaster are almost diminished, but the work of relief and response continues. In this state the priorities of relief and response are changed. The main function of this stage is rehabilitation and resettlement. The post disaster relief and response phase in Jashpur district are as follows-

- Assessment of detailed loss will be done by the district administration on the losses due to disaster by the local level secretary, Patwari, Kotwar, Sarpanch. This will help to assess the financial need for the rehabilitation of the affected people and the restoration of the infrastructure. Along with the losses, reasons and deficiencies in disaster management will also be kept by the department of disaster management for the betterment in the future.
- Rehabilitation of affected people.
- The major problem is rehabilitation after the disaster. People living in relief camps want to return to their homes, for this, the following measures can be taken by the district administration-
  - To provided adequate finanacial assistant from the state government to the affected people.
  - Allocation of land and financial assistance will be done as per the requirement of the affected people.
  - The district administration and the state government will ensure the basic needs like electricity, drinking water, education, medicine.

## **1.7 Reconstruction**

Reconstruction process at the district level will be done in such a way that it replaces adverse conditions and results in a better construction which would be a lengthy process. A dedicated work group will be constituted for this purpose. The work will be monitored at the higher level, giving high priority by the PWD.

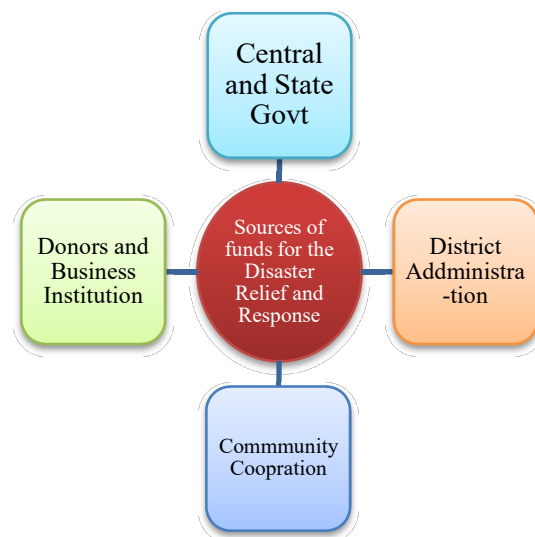
- **Regeneration of livelihood**

The major problem by the disaster affected families will be of livelihood. For this, the following efforts have been suggested -

1. Rehabilitation of the structures of shops, commercial buildings etc, so that the employment of affected people can be resumed.
2. Those who have lost livelihood resources will be provided alternative employment or financial assistance will be given to start their own employment.
3. New livelihood resources will be developed as per local requirement. In this sequence, special attention will be taken of women and weaker sections.

- **Fund Allocation and Audit**

After spending the money in disaster relief and reimbursement received from central government, state government, district administration, donors, industrial establishments and people's co-operation, its audit will be proposed, so that the money received cannot be misused.



**Figure 3: Sources of funds for the Disaster Relief and Response**

## **2. Measures for Reconstruction and Rehabilitation**

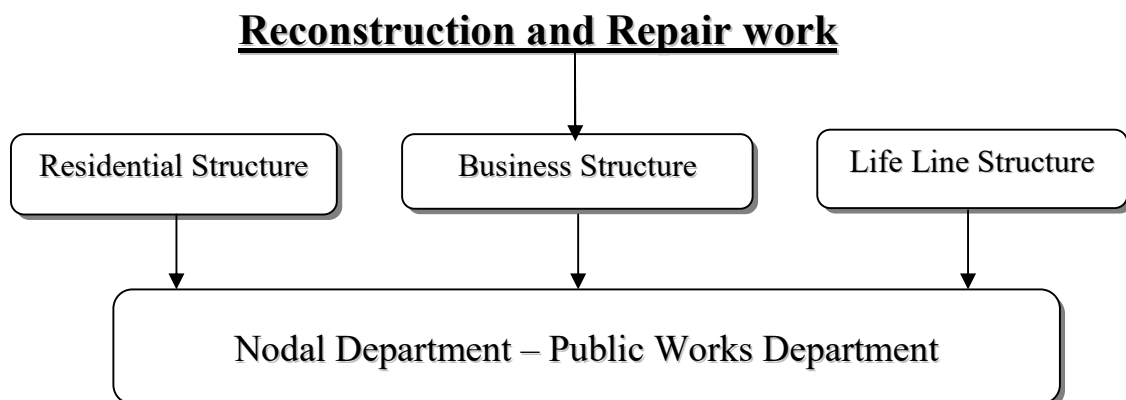
### **2.1 Reconstruction and Rehabilitation**

Reconstruction refers to the full restoration of all services, local infrastructure, replacement of damaged physical structures, the revitalization of economy and restoration of social and cultural life. Reconstruction must be fully integrated into long-term development plans, taking into account future disaster risks and possibilities to reduce such risks by incorporating appropriate measures.

Rehabilitation refers to the actions taken in the aftermath of a disaster to enable basic services to resume functioning, assist victim's self-help efforts to repair physical damage and community facilities, revive economic activities and provide support for the psychological and social well-being of the survivors. It focuses on enabling the affected population to resume more or less normal patterns of life. Following sectors will require rehabilitation and reconstruction inputs-

- Buildings and houses in villages prone to flooding.
- Infrastructure like roads, bridges etc.
- Economic assets (including commercial and agricultural activities etc.)
- Healthcare facilities
- All other lifeline buildings

It is natural to have damage to residential buildings and administrative and other buildings at the time of disaster. Therefore, after the disaster, reconstruction and repair work is required. This work has three parts-



**Flow Chart 5: Reconstruction and Repair Work**

## **2.2 Recovery Activities**

### **2.2.1 Short Term Recovery**

Short term recovery phase starts during the first hours and days after an emergency event. The principal objectives are to restore the necessary structural and non-structural facilities. The short-term recovery with urgent measures to be undertaken includes the following -

- Communication networks
- Rehabilitation
- Drinking water supply
- Health care facilities
- Food and Clothes
- Debris removal and disposal of corpse and carcass
- Mass care/sheltering and housing
- Roads and bridges
- Electricity supply
- Drainage and sewage
- Reconstruction and recovery of lifeline buildings

### **2.2.2 Long Term Recovery**

Long term recovery efforts must focus on redeveloping and restoring the socio-economic viability of the disaster areas. The reconstruction phase requires a substantial commitment of time and resources by government and non-governmental organizations. The activities involved would most often be the result of a catastrophic event that has caused substantial, long term damage over a very large area. However, there has been no history of catastrophic events in Jashpur . In case of any future catastrophic disaster, the following efforts shall be made-

- Long term reconstruction of public infrastructures and social services damaged by the disaster.
- Re-establishment of adequate housing to replace that which has been destroyed.
- Restoration of jobs which were lost.
- Restoration of the economic base of the disaster areas.

- In the district disaster management plan, the following programs will be included in quick or short term programs-
- Reinstatement of most essential services
- Reconstruction of infrastructure
- Rebuilding
- Subsidies
- Rehabilitation of affected people

**In the long term rehabilitation scheme of the district, the following objectives are to be obtained in the long run-**

- Reforming the lives of affected people.
- Availability of mental therapist, counselling in the affected areas, so that people can forget the bad experiences.
- Continuous efforts to improve the quality of life of the people.
- Long term efforts like life insurance for providing economic protection to the people.
- Problem Solution Camp in Affected Areas on Fixed Terminal
- Establishment of parks, cinema houses, malls etc. in affected areas, so that people can spend their time in recreation.

### **2.2.3 Assessment of Loss and Policy Determination**

District collector will be in charge of assessing the damage from the disaster who will instruct for the formation of a local level committee. This committee will submit the report to the District Collector after detailed assessment. The District Collector will determine the level of disaster and accordingly decide at what level rehabilitation program is needed.

- **Policy formulation**

There will be three major steps for the Resettlement, Reconstruction and Rehabilitation policy-

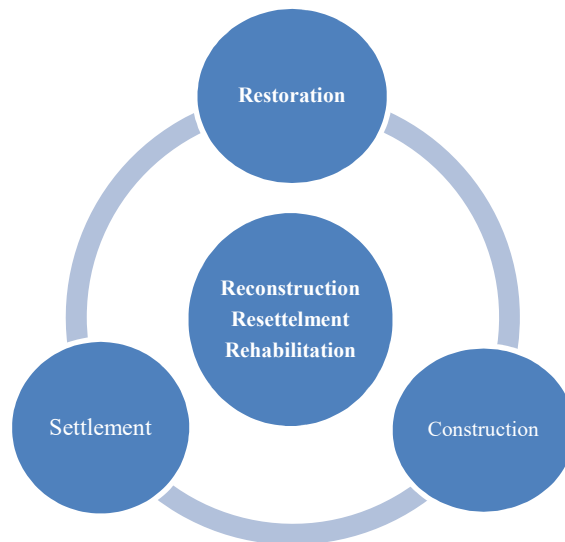
1. Restoration
2. Construction
3. Settlement

- **Restoration**

This will be the first phase required, due to the disaster, the urgent needs will be restored. At the time of disaster, services like electricity, communication, drinking water, sewerage, medical, education etc. are the most likely to be effected. Therefore, in the policy making, effective proposals will be made for the restoration of these essential services.

- **Construction**

During the disaster the infrastructure is completely destroyed. In the disaster like earthquake, flood, fire, tsunami etc. residential buildings, administrative buildings, railway stations, bus stands, commercial buildings, roads, tracks etc. are damaged, so the second stage of the policy making will be rebuilt, which includes reconstruction of damaged and destroyed infrastructure.



**Figure 4: Key points of Policy Making**

- **Settlement**

Settlement and rehabilitation is essential for homeless and physically-mentally effected people from the disaster.

#### **2.2.4 Reorganization (Rectification)**

District Collector will assess the losses and provide necessary and appropriate directions to the in-charge departments and the responsible person. Different departments will function in the nodal department for the purpose of reconstruction and reorganization.

S. No.	Item	Nodal Department
1	Transformers, Electric poles etc.	CSEB
2	Water supply, Drainage and Sewage	DWS, Municipalities
3	Roads, buildings, bridges etc.	PWD, CPWD
4	Transportation	RTO
5	Health and hygiene	Health
6	Animal care	Animal Husbandry
7	Removal of fallen trees	Forest, PWD
8	Removal of debris, corpse and carcass	Municipalities, SDRF, PWD
9	Communication	BSNL, Mobile service provider
10	Hospitals, Schools	PWD

**Table 3: Nodal Departments/ Officer for Reconstruction and Reorganization**

Required services are included under the reorganization or reconstruction which can be divided into two parts-

- **Basic Services** – Basic services include water supply, sanitation, solid waste management, sewerage etc. These services should be made available as soon as possible. This work is possible with the help of related departments and special agencies and NGOs. To ensure water supply in Jashpur district, water supply from water tankers and construction of temporary tanks etc. will be done along with the cleanliness. Temporary toilets, walk-in toilets and bathrooms will be provided in the affected areas for sanitation and sewerage, so that the problem of sanitation and sewerage can be solved at those places. After the disaster, the assistance of city councils and private agencies will be taken for JCBs and tractors etc. to remove debris.

**Essential Services** – Restoration of lifelines services like electricity, communication, transport etc. are very important because the relief and response depends on these facilities. Normally, the social system depends on how fast the basic essential services are restored, because of its failure; the situation of chaos, riot, and migrations arises. On the order of district collector, the power distribution corporation, the department of telecommunication and the department of transportation will become nodal department for the establishment of

electricity, communication and transport, respectively who will work in coordination with other related departments.

The reconstruction of residential structure includes design, planning and reconstruction of all the damaged houses of urban and rural areas. The public works department will be the nodal department for this work in the district. Two measures can be taken for this –

1. Provide financial support to the people for housing.
2. Determining the appropriate location, providing house to the needy people.

Financial support will be given to partially damaged residential or commercial structures for reconstruction. Reconstruction of fully destroyed residential and commercial structures are necessary. After the selection of appropriate construction site, large number of building materials are also required. Assistance of experienced engineers will be taken in this district. On this basis temporary and permanent houses will be built for the affected people. Participation process can be adopted in the design of houses, etc. to ensure the acceptance of reconstruction of building.



### **3. Financial resources for the District Disaster Management Plan**

#### **3.1 Availability of financial resources from Center and State**

Policy and Funding procedures are included in plan to assist disaster victims. The Finance commission appointed by the Government of India reviews in every 5 years. On the recommendation of finance commission, a state-owned Calamity Relief Fund (CRF) has been set up in each state, the structure of the calamity fund is determined by the finance commission, 75 percent contribution is contributed by the central government and 25 percent is contributed by the state government. Relief assistance is provided to victims of natural disaster from CRF. If disaster occurred on a large scale for which additional funds are required, then fund is given in the National Calamity Contingency Fund (NCCF) which is established by the Central Government. This is approved by a high level committee. Institutional arrangements for funding for relief and response related programs in the country have been made, which are very strong and effective, though there is a need to reconsider the list of disaster and demand. And this work should be done according to the geographical location of the state.

According to the 13th Finance Commission recommendation's and National Disaster Management Act (2005), the name of Calamity Relief Fund has been named State Disaster Resource Fund (SDRF) and National Disaster Resource Fund (NDRF) in 2010-11, and the State Disaster Mitigation Fund (SDMF) ) has also been arranged. The main agency, which assesses the loss, is the district administration and in this work, employees of various departments such as Revenue, Home, Medical, Animal husbandry, Forest, Water supply (PHE), Public works (PWD), Health, Women and child welfare etc. are also involved.

##### **3.1.1 Fund for capacity Building**

The Central Government has made a provision of giving 4 crore (financial year 2010-11 to 2014-15) for 5 years (up to 5 years) for capacity building of the administrative system in disaster management. This fund will be spent through programs and radio, printing, electronic media on Public awareness training and IEC material production and dissemination as mentioned in Chapter 6.

## **3.2 Other fundings by state**

In addition to the above provisions, the state has also set up a fund called Chhattisgarh Relief Fund, for which initially there is a provision of Rs. 6 Crores and in the upcoming years 25 lakh rupees will be added annually in this fund. This fund will be used for rescue and relief of the victims by accidents.

### **3.2.1 External funding systems**

So far, there is a provision to raise fund for some projects from United Nation agencies as external sources.

### **3.2.2 Financial provisions**

Budgetary funds are provided to the disaster affected people by center and state government for providing assistance.

### **3.2.3 Disaster relief fund**

The assistance amount under the Disaster Relief Fund is given by the central government since 21.12.2010 for providing assistance during the natural calamities notified under the recommendations of the commission. Wherein 75% is of center and 25% is of state, the center has issued detailed guidelines for the use of Disaster Relief Fund.

## **3.3 National Calamity Contingency fund**

If the disaster goes beyond the capacity of state government/ disaster relief fund then the center funds the same via National Disaster Contingency Fund. For this, a detailed advertisement is sent by the state to the central government which is further assessed by a central team. On the basis of the report of the central team, the amount of National Calamity Contingency Fund is approved by the central government.

## **3.4 State Disaster Relief Fund**

To recommend the 13th Finance Commission and to follow the Disaster Management Act State Disaster Relief Fund has been created in the State. In the State Disaster Relief Fund, 75% is of the center and 25 % contribution is from the state. This fund will be utilized as per the prescribed criteria during the calamities for immediate help etc.

### **3.5 Chhattisgarh relief fund**

Chhattisgarh Relief Fund has been set up to provide relief / expenditure to such natural calamities in which State Disaster Relief Fund cannot be used. It has a budget provision of 25 lakhs per annum. Apart from this, the amount can also be collected through public cooperation. A state level committee has been constituted for its operation / management at the state level.

### **3.6 Other provisions of the finance system**

For prevention, preparedness, rehabilitation and reconstruction under disaster management in the state, the finance will be arranged department wise under the planned scheme. For the preparedness, the state government will make provision for disaster management in the departmental budget every year.

Apart from this, financial resources such as risk insurance under disaster management will also be encouraged and schemes such as Crop Insurance Scheme, Self Help Group will be developed. In the industrial and commercial units, the responsibility of disaster prevention and disaster damages will be the responsibility of the concerned unit.

### **3.7 District Financial Resources**

Although financial assistance is required on a very large scale during disaster, which is generally not possible at the district level. However, for immediate help, its arrangement is necessary at the district level.

### **3.8 Other Financial Resources at District Level**

Other financial resources at district level are given below from where financial assistance can be taken during of disaster –

Professional Resources	The prestigious Commercial Institutes of the district, showrooms, hotels etc.
Industrial Institute	Rice mill etc,
NGO	Various Social Service Indtitutes and Donors
Public Cooperation	Various Social Workers
Government Employee	Donation of one day salary

**Table 4: Other Financial Resources at District Level**

## **4. Monitoring, Evaluation and Updation of District Disaster Management Plan**

### **4.1 Evaluation of DDMP**

Evaluating the effectiveness of plans involves a combination of training events, exercises, post disaster questionnaire etc. to determine whether the goals, objectives, decisions, actions and timing outlined in the plan will result in an effective response. Indicative guidelines for monitoring and evaluation of the plan are given below -

- Regularly reviewing the implementation of the plan.
- Checking the efficiency of the plan after any major disaster/emergency in the district to identify the things that did and didn't work and further making amendments to the plan accordingly.
- Keeping Indian Disaster Resource Network (IDRN) updated and connected with the plan.
- Updating coordinates of responsible personnel and their roles/responsibility half- yearly/ annually 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.
- Plan should be circulated to all stakeholder departments, agencies and organizations so that they know their role and responsibilities and also prepare their own plans.
- Regular drills /exercises should be conducted to test the efficacy of the plan and checking the level of preparedness of various departments and other stakeholders. It would ensure that all parties understand their roles and responsibilities clearly and understand the population size and needs of vulnerable groups.
- Regular training and orientation of the officers/officials responsible to implement the plan should be done so that it becomes useful document to the district administration.
- Army, NDRF, SDRF and other agencies should be integrated into the plan and exercise regularly.
- DDMA should hold regular interaction and meetings with the army or any other central government agencies for strengthening coordination during disasters.

## **4.2 Authority for Maintaining and Reviewing DDMP**

The task for updating of DDMP lies with the District Disaster Management Authority (DDMA). The plan will be updated annually. The following officers of the authority are responsible for maintaining and reviewing the DDMP.

<b>S.No</b>	<b>Details of Officers</b>	<b>Designation</b>	<b>Office</b>	<b>Mobile</b>
1	Collector	Chairman	Mr.Nilesh Kumar Mahadev Kshirsagar, Collector Jashpur	94241-17626
2	Elected Representative of Local Authority	Co - Chairman	Shri Vinay Kumar Bhagat	9329441415
3	CEO, Zila Panchayat	Member	Shri Kuldip Sharma	81308-48500
4	Superintendent of Police	Member	Shri. Prashant Singh Thakur	9425205400, 223240
5	CMHO	Member	Dr.R.L Tiwari	96305-14949
6	EE, Water Resource Department	Member	Shri.D.R Darro	94790-31329

**Table 5: Format for DDMP Review Panel**

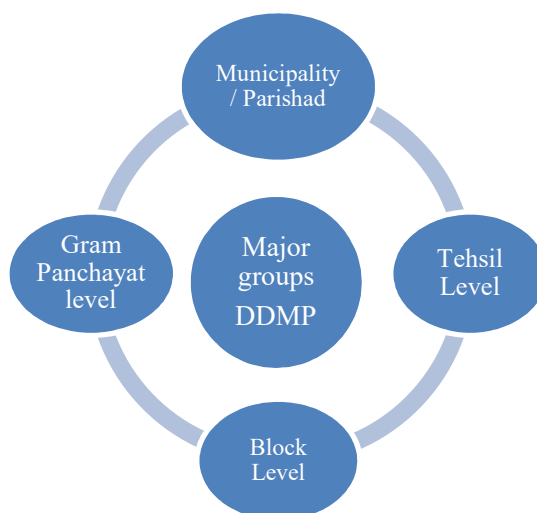
## **4.3 Post Disaster Evaluation Mechanism**

As a part of post-disaster evaluation mechanism, a meeting of the DDMA will be held within 2 weeks of disaster in the district where the team leaders/ nodal officers of each participating department/ agency shall remain present. Schedule for updation of DDMP will be in the month of April/ May on the basis of information/data received from various agencies.

## **4.4 Disaster Evaluation Mechanism**

The implementation of the DDMP depends on how the system mentioned in the plan is being used at the ground level. There will be different levels of evaluation and updation of DDMP.

A district disaster management authority will be constituted first at the district level presided by the District Collector. This Authority will include the Disaster Management Authority in charge, Chief Executive Officer, District Panchayat, Superintendent of Police, Chief Medical and Health Officer, Executive Engineer of Electricity Department, Executive Engineer Public Works Department and Subject Specialist. It will be a 8-10 member team and it will be the right of the district collector to determine the number.



**Figure 5: Tactical system of monitoring and updating of DDMP**

Such a District Disaster Management Authority, committee should also be formed at the level of Municipality, Tehsil, block level and Gram Panchayat. Each committee of each level will work according to the instructions given in ddmp. The Committee of each level will prepare annual report of the necessities in their respective areas of disasters, their impact, available financial resources and relief and response. This report will be presented to the District Committee at the end of the year or on the necessity. According to which District Disaster Management Authority Committee make the necessary updates in DDMP.

#### **4.5 Media Management**

Media management is one of the core issues related to disaster management. Usually, in case of disaster, media correspondents reach the site even before the outside disaster management agencies and they assess the situation. The report they release on air is contradicting and creates panic. In order to control the situation certain arrangements shall be made by the

district. As a disaster is noticed the Incident Commander shall do the following measures to control the media -

- Along with information dissemination to the vertical and horizontal agencies, press people shall be called and given preliminary data based on assessment. This shall reduce the spread of rumors.
- Only the state owned electronic, print media should be taken to the site.
- In every one hour or so, the Incident commander shall give press release in order to control false information to the outside world.
- No media shall be allowed to air or print pictures of dead bodies with worst condition.

In a disaster situation, only PR office in district level will communicate with the media and provide brief, no other parallel agency or ESF or voluntary agency involved in the disaster management shall give any sort of press briefings.

#### **4.6 Conducting Mock Drills at District Level**

The district level mock drill shall be conducted every year before the disaster phase in the disaster prone areas. The concerned departments shall take part in the mock drill to show their preparedness in evacuation, search & rescue, health & first-aid, drinking facilities and relief camps set-up. Evaluation of performance is to be made by the DEOC, the responsible organizing committee.

##### **4.6.1 Following are the responsible institution for MockDrill -**

- Those institutions that are related to the disaster, whose MockDrill is being done. Municipal councils and fire brigade for the Mock Drill of Fire Accident.
- The administration of that area is being proposed for Mock-Drill. Like the Mock-Drill in Jashpur district, the Home Guard (Nagar Sena) will be a local administrative organization.

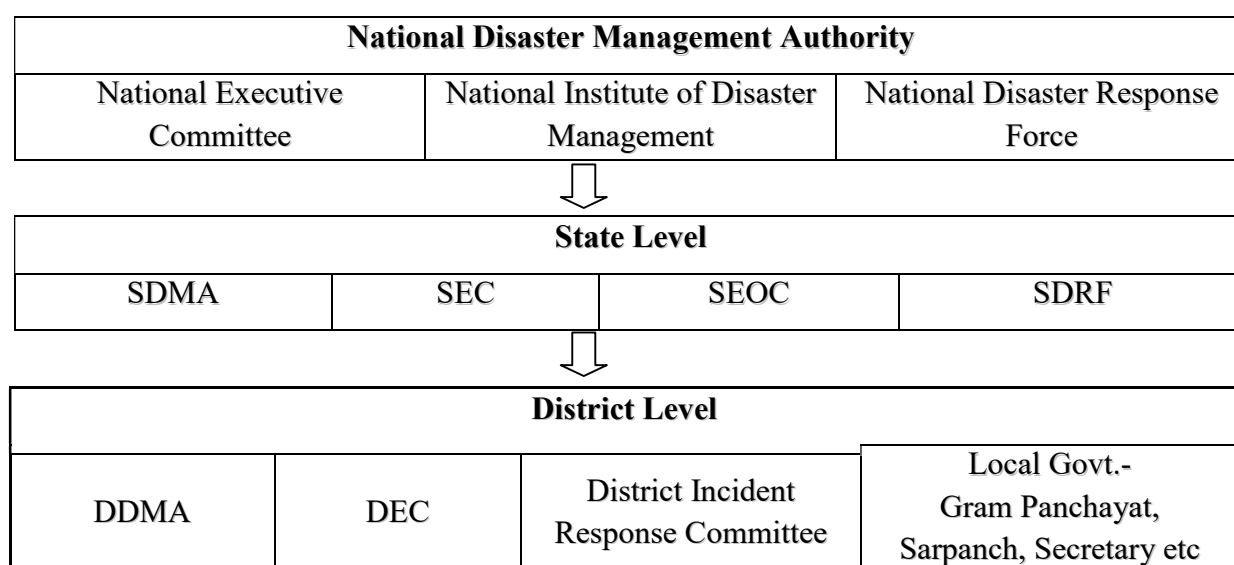
Thus, making the disaster special and local administration a responsible institution would make MockDrill more effective, where as financial resources will be obtained from the District administration and the State Disaster Management Fund.

## 5. Coordination Mechanism for Implementation of DDMP

After the implementation of the Disaster Management Act 2005, institutional infrastructure has developed at national, state and district level for disaster management. All these organizations are responsible for working for disaster management with mutual coordination. Better coordination between all departments will serve as a strong base for achieving effective management and mitigation objectives of disasters. All government departments and other participants needs active participation in coordination at the state and district level. In case of any disaster, emergency response is first of all. Local people also help in this. Many other agencies and organizations are also involved in this work.

Emergency services are always in active state, so that they can immediately respond and the administration can alert other services. Different emergency services are compulsory but to deal better with disasters, Some other useful services also support. All institutions are different; their authority is different; the hierarchy is different. To improve the rescue operations, it is necessary to work with all the departments and agencies in better coordination. It is also important to understand the abilities, limitations and obligations of each other.

At the time of disaster in Jashpur district, required efforts will be made between all departments and agencies to better coordination. by the district, Coordination will be maintained at the center level and at the state level which is important. The coordinated implementation of DDMP from center to local level is as follows –



**Flow Chart 6: Coordinated mechanism for implementing DDMP**



## **5.1 Coordination with the Center and the State**

### **5.1.1 National Disaster Management Authority**

National Disaster Management Authority constituted under the chairmanship of the Prime Minister. NDMA is responsible for managing policies, schemes and guidelines for disaster management, effective action and coordination in implementation at the time of the disaster.

### **5.1.2 National Executive Committee**

The “National Executive Committee”, constituted under the Chairmanship of the Union Home Secretary, assists the National Disaster Management Authority in discharging its duties and also ensures compliance with the direction issued by the Central Government.

### **5.1.3 National Institute of Disaster Management (NIDM)**

The ' National Executive committee ', constituted in the Chair of the Union home Secretary, helps to discharge its duty to the National Disaster Management Authority and also assure compliance with guidelines issued by the central government.

### **5.1.4 National Disaster Management Force (NDRF)**

National Disaster Response Force has been set up to conduct search and rescue operations in a challenging disaster situation. It will be available for the states when called in the event of disaster. It will be available to states if needed in case of disaster.

## **5.2 State Disaster Management Authority (SDMA)**

State Disaster Management Authority is constituted under the chairmanship of Chief Minister for disaster management in the state. . It is the top body for determining disaster management policies and schemes in the state. Its work is to approve state disaster planning, coordinate implementation for state disaster planning, provision for prevention, mitigation, preparation measures and monitoring disaster related development plans of different departments of the state.

### **5.2.1 State Executive Committee (SEC)**

State Executive Committee has been constituted under the chairmanship of Chief Secretary to assist in the work of State Disaster Management Authority. This committee will work to coordinate and monitor the implementation of national and state policy and plans.

### **5.3 District Disaster Management Authority (DDMA)**

District Disaster Management Authority has been constituted under the chairmanship of District Collector for disaster management in each district. This system will make plans for disaster management at the district level and will ensure that the guidelines issued by the National Disaster Management Authority, State Disaster Management Authority and the State Executive Committee for prevention, mitigation, preparation and response to all the departments at the district level and Follow by the authorities.

### **5.4 State Disaster Response Force (SDRF)**

On the basis of Center, a state disaster response force has also been formed in the state. Members of this force will be provided special training for disaster management. It will be equipped with modern equipment to deal with the disaster. Under this, special teams will be formed for flood, earthquake, chemical and molecular disasters. Women members will also be included in this special care for women and children. It will be expanded as per requirement.

### **5.5 Disaster Management Center**

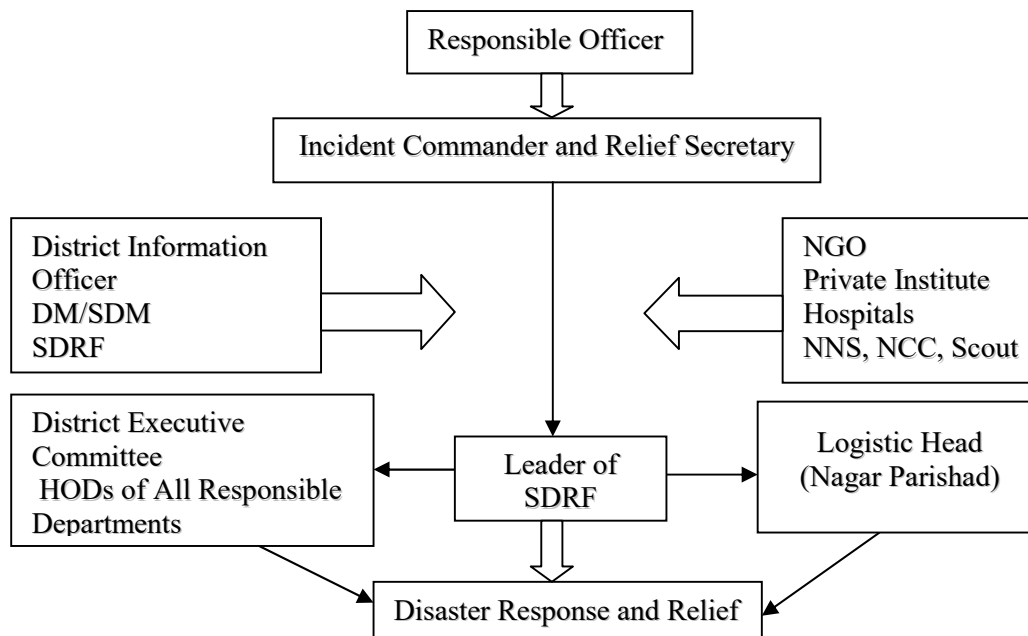
For the purpose of promoting the capacity of all the stakeholders for disaster management in the state, the Disaster Management Training Center is working in Chhattisgarh administration academy, Nimora, Raipur. This organization organizes training programs for disaster management, preparing promotional material for disaster management, working for knowledge management and research for disaster management. In future, a separate independent existence of the Disaster Management Center will be developed. Apart from this, Police Training School is located in Raipur, which is working for capacity building.

## 5.6 Nodal Department

Based on the nature of the disasters by the state government, their nodal departments have been set up. It will be amended from time to time with the approval of the State Disaster Management Authority. It is a duty of these nodal departments to make necessary plans for prevention, mitigation and preparation of the disaster related disaster.

## 5.7 Coordination at District Level

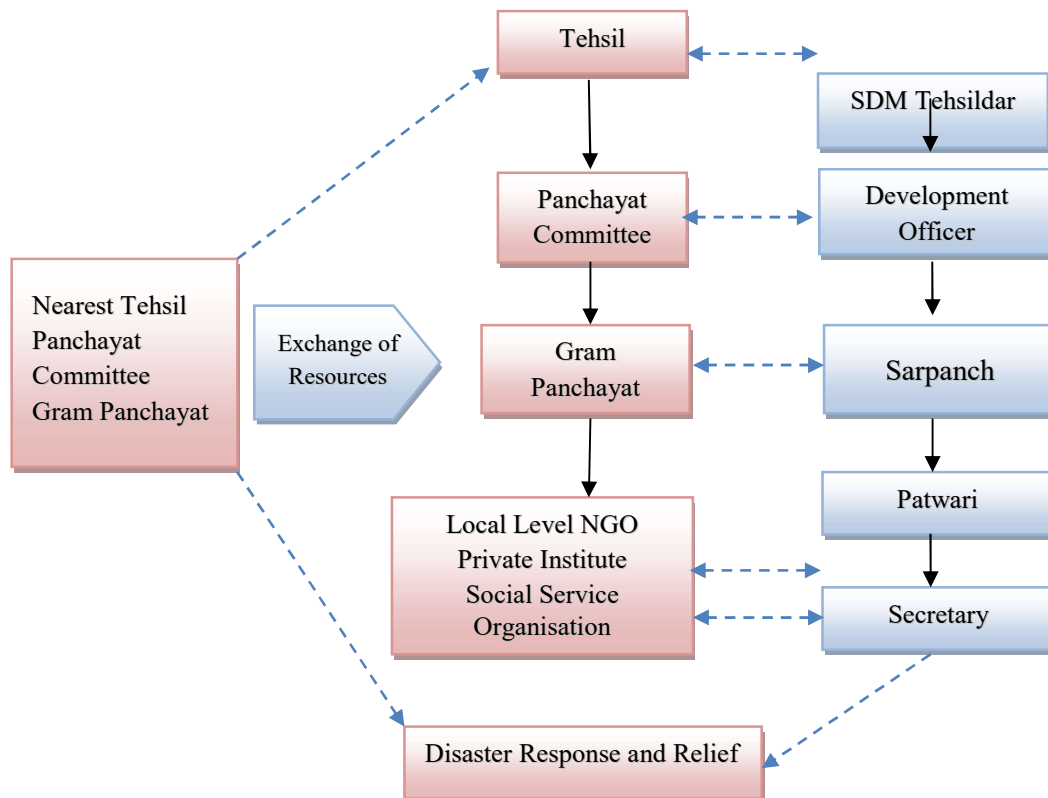
First Responders are local administrators and people at the time of the disaster. After that, the district has to take responsibility. DDMP in the district is at the highest level. After this the District's responsible officer will be the District Collector. After this, the Chief Secretary of the District Disaster Management Authority will act as Commander. With this, the District Information Officer, SDM or Tehsildar (of related place) will work. One officer of the SDRF will be for coordination. After this the team will be divided into three parts. (1) Head of all responsible departments (2) Leader of SDRF (3) Logistics Head. This integrated structure will be as follows –



**Flow Chart 7: Horizontal and vertical coordinated mechanism at the district level**

### 5.8 Coordination at Local Level

At the time of any disaster, local administration and local people are primary response factors. They have to bear the first effect of disaster and they also have to do the counter attack. Therefore local administration Tahsil Panchayat Samiti, Gram Panchayat is a major response factor. In this view, local administration will be strengthened in Jashpur district and by providing training and necessary equipment, they will be empowered to counter attack in the disaster potential village. For this, the Gram Panchayat will be formed at the village level, a Quick Disaster Response Team. It will include Sarpanch, Patwari, Secretary, Kotwar, Mitanin, medical officer and social worker of the village. Similarly, nearby Tehsil, Panchayat Samiti and Gram Panchayat can also be as useful as the first response. At the local level, Patwari, Secretary, Sarpanch Secretary, Kotwar are the basis of the entire system, which works during the disaster. At the time of disaster, local people / employees can give correct information about the remote location information, communication of information, assessment of the level of disaster, surveillance of disaster damage.



**Flow Chart 8: Horizontal and vertical coordinated mechanisms at the local level**

## **5.9 Coordination with Private Institutions and Social Service Organizations**

Various NGOs, Self Help Groups and Social Services are such factors that work effectively as well as in the time of disaster. This is an institution which has been working in this area for a long time. Similarly, the private school private hospital also becomes an integral part of the coordinated system at the time of disaster. All private and government schools and private hospitals in the Jashpur district can be encouraged to provide shelter and necessary medical facilities

## **5.10 Coordination with Neighbour Districts**

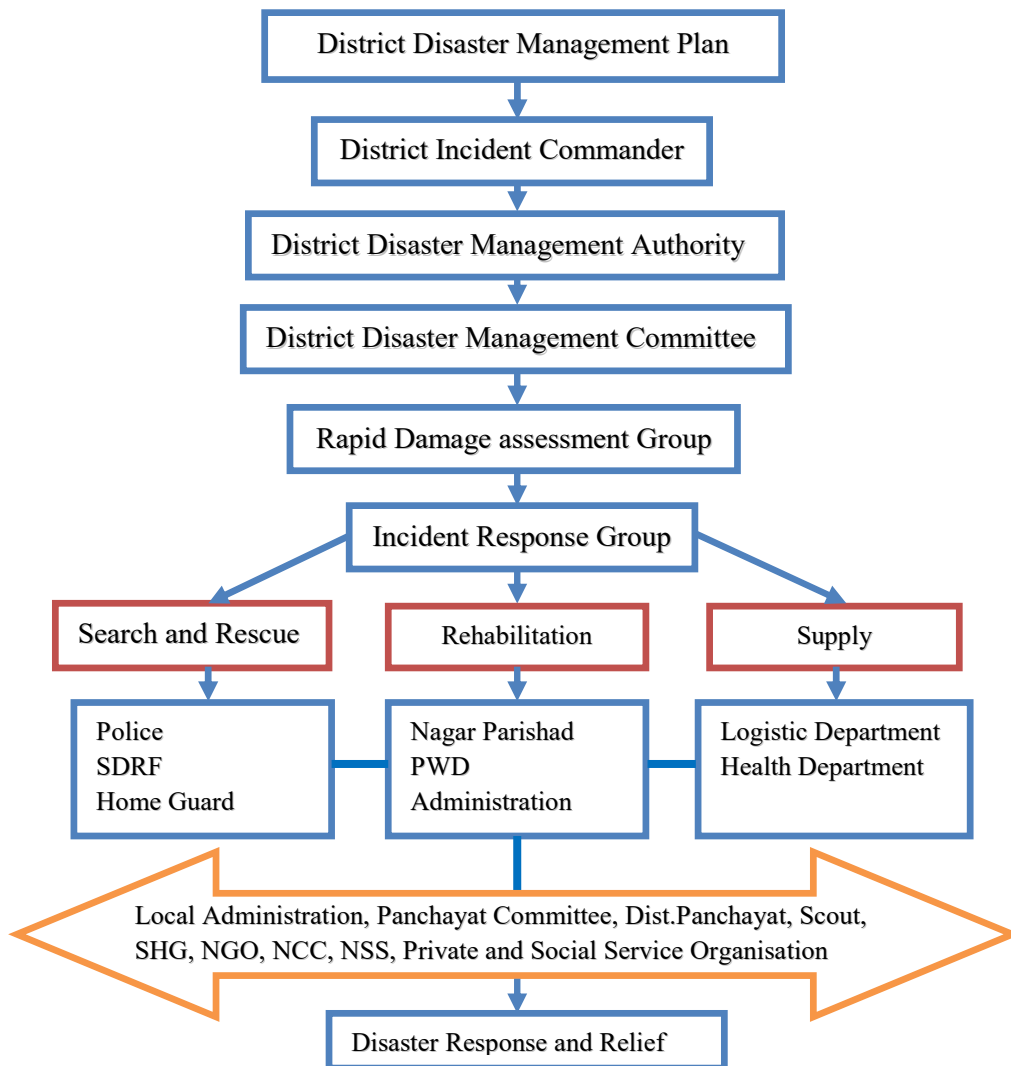
Every district, in the context of disaster management, is not equipped from all resources and capable. There is a need for external assistance at every moment during the disaster. For this, list of available resources in nearest districts and tehsils in such inaccessible/ Vulnerable areas will be kept at District Headquarters of Jashpur . So that help can be taken when needed. Here the list of such districts and states is being given, which are near and immediate assistance can be taken at the time of disaster.

<b>Area</b>	<b>Neighbouring Districts/State</b>
Jashpur	Raigarh ,Ambikapur, Gumala Jharkhand

**Table 6: Nearest districts and States for assistance**

## **5.11 Coordination with SDMP**

SDMP will be the ideal level and standard for all districts. All districts will improve their implementation mechanisms and coordination mechanisms according to SDMP.



**Flow Chart 9 : District Disaster Management Plan**

## **6. Standard Operating Procedures and Checklist**

This chapter includes -

1. SOP for Flood, Drought and Stampede
2. Emergency evacuation plan for Fire accidents, Natural Disasters

### **6.1 Standard Operating Procedure**

As per the risk analysis, it is identified that flood is the major natural disaster. Drought is also a hazard of concern in Jashpur, however, its being a slow occurring process and does not require immediate aid compared to flood. The district is prone to other general disasters like road accidents, forest fires, epidemics, etc. Since huge gathering occurs at the fairs organized in the district, there are chances of mismanagement, as a result natural calamities like stampede, fire accidents can occur during the festival. SOPs are proposed for Fire accidents and Natural Disasters to ensure safety and increase in disaster risk reduction.

#### **i. Precautionary Measures for Fire Accidents**

To increase the level of safety in hospitals, colleges, government offices, commercial buildings etc., installation of smoke alarms or automatic fire detection /alarm systems will be proposed as an early warning of fire to the occupants. To prevent fire mishaps and to manage the emergency situation during fire following activities and precautions are proposed.

- Emergency evacuation plans or building evacuation plans are important for all residential buildings, and the same will be prepared as per Fire & Safety rules.
- Regular mock drills will be carried out to create awareness on procedures to be followed in times of evacuation.
- It will be advised to keep fire extinguishers, medical kits and masks to prevent smoke inhalation especially for those with respiratory disorders.

#### **ii. Precautionary Measures for Natural Disaster**

The following steps should be adopted by any individual during the times of disaster -

- During an earthquake, remember to crouch under some heavy furniture or stand under the doorframe for cover.
- In case of a fire in the building, leave the building by the stairs. Do not use a lift

- If the house is flooded, then climb up to the roof.
- Do not use the telephone, except to call for help, so as to leave telephone lines free for the organization of response.
- Listen to the messages broadcast by radio and the various media so as to keep updated with the latest information.
- Carry out the official instructions given over the radio or by loudspeaker.
- Keep a family emergency kit ready. In all the different types of emergency, it is better to be prepared than to get ready, to get information so as to get organized, to wait rather than act too hastily.
- During floods turn off electricity to reduce the risk of electrocution.
- As soon as flood begins, take vulnerable people (old, children, sick, etc.) to upper floor.
- Beware of water contamination, wait until the water is declared safe before drinking or boil the water before drinking.
- Clean and disinfect the room that is flooded.
- During storms and hurricanes do not go out in a car or a boat once the storm has been announced.
- If you go out in the storm, then take asylum in the shelter as soon as possible (never below the tree), if there is no shelter, lie down directly in a pit or a gap.
- Avoid doors, windows, and electrical conductors in storm or storm, unplug the electrical appliances and television aircrafts. Do not use any electrical equipment or telephone.

## **6.2 Preparedness for Flood**

### **6.2.1 Precautions**

- All the tube wells, sanitary wells should be checked before the onset of monsoon and out of order hand pumps have to be repaired.
- Disinfection of all wells and other sources of drinking have to be made and preventive and control measures should be adopted for the areas affected by diarrhoea.
- Search and rescue teams to be kept in standby for any emergency rescue operations.
- Emergency coordination team to monitor the situation.



- Ensure that drainage channels / nallas are de-silted and bunds are periodically maintained.
- The Tehsildars and BDOs will take necessary steps to conduct meeting at their level and form relief parties involving field staff/ PRI/ NGO/ local volunteers.
- Present hourly report to the District Collector during the disaster.

## **6.2.2 Emergency Response Resources**

### **A. Specialist Resources**

- Search and rescue teams (divers/swimmers, emergency medical)
- Specialized equipment- like boats, life jackets, helicopters, etc.

### **B. Manpower**

- Support Personnel

### **C. Medical Support**

- Ambulances (complete with emergency medication)
- Doctors
- Nurses
- Stretcher Bearers
- Oral Rehydration Sachets (ORS)

### **D. Law & Order Agencies**

- Police
- SDRF/ NDRF
- Army/ Air Force (if needed)

### **E. Other Essentials**

- Water storage tanks
- Chlorine tablets
- Temporary shelters with sanitation facilities
- Temporary common kitchen or food packets

The incident action plan for any flood like situation is given below-

<b>Task/ Function /Activity</b>	<b>Department/ Responsible Officer</b>
Raise alarm /Mass messaging/ Community syren	District Emergency Operation Center

system	
Look out for regular updates from Indian Meteorological Department (IMD) and Central Water Commission (CWC) for forecast and follow up action.	DEOC
Alert all IRT to start working on their role	Incident Commander
Assess situation, make evacuation plan and move community to safer zones	Incident Response Team
Activate special resources Search and rescue (divers / swimmers, boats, life jackets, searchlights, nylon ropes) Specialized equipment (helicopters, sandbags, crowbars, spades, portable motor pumps)	IC
Establish unified command (for liaison with responding agencies)	IRT
Close / cordon flooded roads and areas from entry	IRT
Assess situation hour to hour in close contact with IMD/CWC and other agencies	IRT
Conduct damage assessment	DDMA
Only after thorough check-up and formal clearance, community can be permitted to return to their habitation	IRT

**Table 7: Action plan to deal with flood situation**

## **6.3 Preparedness for Drought**

### **6.3.1 Precautions**

- Preparation of Agriculture Contingency Plans for districts and sub-districts levels, especially in vulnerable districts.
- Identification of drought prone areas preferably at the sub district level.
- Prepositioning of inputs like drought resilient variety seeds at strategic locations.

- Repair and maintenance of water bodies/ tanks/ wells etc. to help critical irrigation during dry spells.
- Develop protocols for various departments to initiate contingency measures with clear allocations of responsibilities.
- Creating awareness among the farmers on management practices like intercropping, mulching, weed control, etc.
- Encouraging farmers to have crop insurance.
- Intensification of water conservation measures like rainwater harvesting and watershed management in the villages.

### **6.3.2 Information Utilization for Drought Management**

- Using frontier technologies like remote sensing and GIS for providing information.
- Database to be created and updated regularly on weather, crop condition, market information etc.
- Getting information regularly from National Informatics Centre (NIC), village resources centers established by ISRO, ICAR, State agricultural universities, etc.

### **6.4 Preparedness Measures for Stampede**

- The first step is to regulate traffic in areas surrounding the pandals and shelter grounds.
- Route maps for the reaching the prime locations and exit routes to be put up at strategic points.
- Barricading at the entrance to ensure the movement of people in a queue to control a burgeoning crowd.
- CCTV cameras and police presence to reduce risk of snatching and other petty crimes.
- Professional swimmers as a part of rescue team are deployed around certain depth of water to prevent children and elders from drowning.
- An ambulance and health care professionals on stand-by.
- Unplanned and unauthorized electrical wirings, LPG cylinders at food stalls to be checked during the event.
- Prepare a list of nearby hospitals and clinics.

## **6.5 General SOPs for all other Disaster**

### **i. Fire**

#### **Call the fire rescue department:**

During fire in building/apartment, leave the premises by nearest available exit. Call fire department and do not assume anyone else has called the fire department. Never use lift for leaving the premises or apartment during emergency. If your cloth catches fire, do not get panic or run, stop, drop and roll.

#### **Cover your nose and mouth with a wet clean cloth:**

Stay calm cover your nose and mouth with a wet, clean cloth to prevent smoke inhalation injury and choking. Never jump off or attempt to climb down the side of a tall building as it will mean certain death.

#### **Do not run:**

During a fire, smoke containing poisonous gases such as carbon monoxide (CO) tends to rise up. When you run in a smoke filled room, you tend to inhale the smoke faster. CO dulls the senses and prevents clear thinking, leading to panic. To prevent being asphyxiated, dip tissues or cloth in water and cover your nose with it.

### **ii. Natural Disaster**

Disaster occur without notice. Most of the disasters are natural such as earthquake, flood, hurricane, sandstorm, landslide, tsunami and volcanos. We have no way of stopping them, but we can learn to deal with the difficult situation that arise due to them. During disasters like flood, fire, earth quake, landslide, rescue begins at home. Even before external help arrives, people affected by the disaster help each other.

The government and many voluntary organization send teams of worker trained in rescue operations to disaster-affected areas. These teams join hands with the local community helpers such as doctors, nurses, social workers and policemen.

Temporary shelters are built for displaced people. Doctor and nurse provide medical aid. They treat the wounded and work to control epidemics. Social workers collect food and cloth from all over the country for the disaster-affected people. The police maintain law

and order. Media –person help in spreading news about the victims and their conditions. They also post advertisements that urge people to donate for victims.

In extreme conditions, the Army and Air force organize rescue operation. They clear roads, send medical teams and help to move people to safer place. The air force drops food, water and clothes in the affected areas. Organization like UN helps in providing aid during massive disasters.

## **6.6 Assistance from the Central / State Government**

<b>S.No</b>	<b>Function</b>	<b>Departments</b>	<b>Standard Relief Level and Rehabilitation</b>
1	Vacate (residential and commercial building)	Police, Nagar Parishad	<ul style="list-style-type: none"><li>• Empty risk full buildings, immediately.</li><li>• Transportation of persons and essential items at safe places.</li><li>• Provision of temporary safe accommodation for displaced people.</li></ul>
2	Search and Rescue	Police, NGOs, Scout, NSS,NCC, SDRF	<ul style="list-style-type: none"><li>• Save the people trapped in the crisis and escort them to a safer place</li><li>• Protecting the Endangered Animals</li><li>• Search for missing persons</li></ul>
3	Security of affected area	Police, Home gaurd, SDRF	<ul style="list-style-type: none"><li>• Security to avoid untoward at the affected site so that the crowd can be kept away from the disaster site.</li></ul>
4	Traffic control	Traffic Police NGOs	<ul style="list-style-type: none"><li>• Do not allow vehicles to come near the affected area.</li><li>• Arrangements for fast transport of vehicles engaged in relief work.</li><li>• Arrangement of vehicles when needed.</li></ul>
5	Law and order	Police, SDRF	<ul style="list-style-type: none"><li>• The arrangement to stop the stampede at the time of the disaster.</li><li>• Stop rumors</li><li>• Prevent riots and looting.</li><li>• Protection of life and property to affected</li></ul>
6	Decay of dead	Police, Health	<ul style="list-style-type: none"><li>• Immediate displacement of dead bodies to</li></ul>

	bodies	Department, Nagar Parishad	<p>avoid epidemic and pollution.</p> <ul style="list-style-type: none"> <li>• The arrangement for the funeral of dead bodies</li> <li>• Arrangement of post mortem of dead bodies in case of chemical or biological or epidemic.</li> <li>• Inform to relatives of the deceased.</li> </ul>
7	Debris disposal	Police, Nagar Parishad, SDRF	<ul style="list-style-type: none"> <li>• Removal of debris for the re-installation of urgent services.</li> <li>• Put in the proper place of debris.</li> <li>• Careful deletion of debris, which does not damage valuable items and dead bodies.</li> </ul>

**Table 8: Assistance from the Central / State Government**

## 6.7 Human Relief and Assistance

Under the relief and rehabilitation, there are various types of humanitarian needs, which is essential for normal human life. The following criteria will be available to provide the necessary facilities -

S. No.	Essential human facilities	Standard level work
1	Food	<ul style="list-style-type: none"> <li>• Distribution of milk, bread, milk powder etc.</li> </ul>
		<ul style="list-style-type: none"> <li>• Food packets from donors, collecting from home, logistics department.</li> </ul>
		<ul style="list-style-type: none"> <li>• Distribution of fruits etc.</li> </ul>
2	Drinking Water	<ul style="list-style-type: none"> <li>• Providing Drinking Water Tanker by the Nagar parishad.</li> </ul>
		<ul style="list-style-type: none"> <li>• Clean drinking water by the Public Health Department</li> </ul>
		<ul style="list-style-type: none"> <li>• Cleanliness of existing water sources.</li> </ul>
		<ul style="list-style-type: none"> <li>• Restore drinking water supply immediately</li> </ul>

3	Medicine	<ul style="list-style-type: none"> <li>Essential medicines by government hospital- Distribute medicine of fever, diarrhea etc</li> </ul>
		<ul style="list-style-type: none"> <li>Ensuring adequate stock in medical</li> </ul>
4	Cloth	<ul style="list-style-type: none"> <li>Distribution of blankets and textiles by District Administration and donors</li> </ul>
		<ul style="list-style-type: none"> <li>Collection of old textiles by NGOs,NSS, NCC and distributions in needy.</li> </ul>
6	Temporary Shelters	<ul style="list-style-type: none"> <li>Arrangement of temporary accommodation (school, college, government building)</li> </ul>
		<ul style="list-style-type: none"> <li>Tarpaulin distribution for rain protection</li> </ul>
		<ul style="list-style-type: none"> <li>Temporary Tents</li> </ul>
7	Helpline	<ul style="list-style-type: none"> <li>Establishment of control room at the site.</li> </ul>
		<ul style="list-style-type: none"> <li>Establishment of helpline number immediately on the control room of the site.</li> </ul>
8	VIP Touring	<ul style="list-style-type: none"> <li>Inspection arrangements for Leaders, administrative officials, ministers of the government.</li> </ul>
		<ul style="list-style-type: none"> <li>Transportation and control of the crowd.</li> </ul>
9	Support from Private Institute	<ul style="list-style-type: none"> <li>Private school as temporary accommodation</li> </ul>
		<ul style="list-style-type: none"> <li>Use of resources of private hospitals</li> </ul>
		<ul style="list-style-type: none"> <li>Taking help of JCB, tractor trolley, dumper etc. from private builders.</li> </ul>

**Table 9: Human relief and assistance**

A SOP (Standard Operating Procedure) has been set up for the implementation of Disaster Management Action Plan in the district. Disaster and disaster levels will be defined through the District Disaster Management Plan.

According to the level of disaster and the requirement, obtaining external assistance will be considered. There will be special arrangements for sending information from the disaster site to the district headquarters.

Management of communication media, support, resource and various standard levels of relief has been mentioned in DDMP.

# **VOLUME-4**



# अनुबंध

जिला - जशपुर (छ.ग.)

क्रमांक	विषय - सूची	पृष्ठ संख्या
1	अनुबंध 1 संपर्क विवरण	1-16
2	अनुबंध 2 उपकरणों की सूची	16-17

## 1. संपर्क विवरण

National Disaster Management Authority राष्ट्रीय आपदा प्रबंधन प्राधिकरण (NDMA)	एन.डी.एम.ए., भवन
	ए-1, सफदरजंग एन्क्लेव
	नई दिल्ली - 110029
	दूरभाष +91-11-26701700
Government of India भारत सरकार	नियंत्रण कक्ष +91-11-26701728
	हेल्पलाइन नंबर 011-1078
	फैक्स +91-11-26701729

एनडीएमए नियंत्रण कक्ष				
नाम	कार्यालय	फैक्स	मोबाइल	ईमेल आई डी
नियंत्रण कक्ष	011-26701728	011- 26701729	9868891801	controlroom@ndma.gov.in
	011-1078		9868101885	ndmacontrolroom@gmail.com

एनडीआरएफ मुख्यालय				
मुख्यालय एनडीआरएफ, अन्त्योदय भवन, बी-2 विंग 9th फ्लोर				
सीजीओ काम्प्लेक्स, लोधी रोड, नई दिल्ली - 110033				
नियंत्रण कक्ष की जानकारी				
नंबर - 011-24363260, फैक्स न. - 011-24363261				
EMAIL ID: <a href="mailto:hq.ndrf@nic.in">hq.ndrf@nic.in</a>				
एक्सचेंज/रिसेप्शन विवरण				
क्र. - 011-24369279, फैक्स - 011-24363261				
एनडीआरएफ यूनिट				
श्री जैकब किसपोट्टा, कमांडेंट				
3री एनडीआरएफ बटा.				
पो - मुंडाली, कटक - ओडिसा, पिन - 754013				
नाम	कार्यालय	फैक्स	यूनिट कंट्रोलरूम न.	ईमेल आई डी
ओडिसा जोन	0671-2879710	0671-2879711	0671-2879711 09437581614	ori03-ndrf@nic.in

राज्य बाढ़ नियंत्रण कक्ष				
राज्य बाढ़ नियंत्रण कक्ष			श्रीमती हीना नेताम, संयुक्त आयुक्त	
			पुराना भू - अभिलेख कार्यालय	
			गाँधी चौक, रायपुर	
राज्य बाढ़ नियंत्रण कक्ष				
नाम	कार्यालय	फैक्स	मोबाइल	ईमेल आई डी
नियंत्रण कक्ष	0771- 2223471	0771- 2223472	7974916920	cgrelief@gmail.com

## 2. अधिकारियों के नाम, पदनाम एवं दूरभाष नंबर - जशपुर:

क्र.	नाम	पदनाम	दूरभाष नंबर
1	श्री निलेश कुमार महादेव क्षीरसागर	कलेक्टर, जशपुर	223226, 220227, फ़ै. 223460
2	श्री आई.एल.ठाकुर	अपर कलेक्टर, जशपुर	223281 , 88890-95701 94241-17626
3	श्री कुलदीप शर्मा	मुख्य का. अधिकारी, जिला पंचायत, जशपुर	223633 ,223204 75874-59467
4.	श्री नान साय भगत	डिप्टी कलेक्टर, जशपुर	94252-31042
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8.	श्री आर.एस.तिवारी	डिप्टी कलेक्टर, जशपुर	94063-04894 , 89650-55849
9.	श्री विजेन्द्र सिंह पाटले	अनुविभागीय अधिकारी (राजस्व) जशपुर , कार्यालय	223730, 88898-97747
10.	श्री श्रवण कुमार टण्डन	डिप्टी कलेक्टर, अनुविभागीय अधिकारी (राजस्व) पत्थलगांव	94255-64594, 96175-10006
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12.	श्री अजीत कुमार	सहायक सूचना एवं विज्ञान अधिकारी	220528 75871-65655
13.	श्री नीलांकर बसु,	ई-जिला प्रबन्धक, ई-गर्वनेंस एवं सूचना प्रौद्योगिकी	8770406121, 94079-68994 ,98060-43351 8770406121
14.	श्री प्रशांत सिंह ठाकुर	पुलिस अधीक्षक, जशपुर	9425205400, 223240 223442 फैक्स 94791-93600
15.	श्री अनिल कुमार प्रसाद	कमाण्डेंट, सी.आर.पी.एफ. 81 बटालियन, श्री रवि प्रकाश, द्वितीय कमान अधिकारी डिप्टी कमाण्डेंट श्री एम.के. सिन्हा	220026 9425570558 94252-5489294 25254893
16.	सुश्री उनेजा खातून अंसारी	अतिरिक्त पुलिस अधीक्षक, जशपुर,	223805, 94791-93601
17.	श्री पंकज राजपूत	वन मण्डलाधिकारी, वन मण्डल, जशपुर	223225, 94561-02756
18.	श्री एस एल चौधरी	उप वनमण्डलाधिकारी, जशपुर	94241-14261
19.	श्री टी.पी.भूसाखरे	जिला आबकारी अधिकारी, जशपुर	220327, 98261-93115
20.	श्री संतोष श्रीवास्तव	जिला योजना एवं सांख्यिकी जशपुर	81095-74944, 220648 89639-42525
21.	सुश्री श्रुति ठाकुर	सहायक संचालक, जनसंपर्क कार्यालय, जशपुर	97547-06767, 223736 , 79700-6558
22.	श्री मुक्ति प्रकाश बेक	जिला जनसंपर्क अधिकारी, जशपुर/बलरामपुर	96850-95258
23.	श्री कमल ज्योति	सूचना सहायक, प्रभारी जनसंपर्क कार्यालय,	88273-96677

		जशपुर	
24	श्री दिनेश्वर प्रसाद	खाद्य अधिकारी, जशपुर	94064-71249, 220317 98933-30054
25	श्री गणेश कुमार चक्रधर	नापतौल निरीक्षक	99934-05654
26	श्री एम.डी.जोशी	प्रभारी खनि अधिकारी	223896, 79741-83629
27	श्री हेलेन्द्र कुमार स्वर्णपाल	खनि निरीक्षक	94255-62393
28	श्री एडमोन मिंज	जिला कोषालय अधिकारी, जशपुर	220315, 94063-09518
29	डॉ. आर.एल.तिवारी	मुख्य चिकित्सा एवं स्वास्थ्य अधिकारी	96305-14949
30	डॉ.रंजीत टोप्पो	जिला स्वास्थ्य अधिकारी	89658-80702, 94062-57639
31	डॉ.अनामय कमलाकर बिडवई	चिकित्सा अधिकारी	94454-21543
32	डॉ.सी.खाखा	सिविल सर्जन सह मुख्य अस्पताल अधिक्षक, जशपुर	83196-34905
33	श्री के.आर.दरश्यामकर	कार्यपालन अभियंता, लोक नि. वि., जशपुर	94256-85624, 81209-5624, 223248 99072-51771
34	श्री एम.आर.चारी	कार्यपालन अभियंता, लोक निर्माण विभाग, पत्थलगांव	96692-70052
35	श्री खेस	कार्य.अभि.लो.नि.वि.(वि./यां.), जशपुर	94252-51291
36	श्री टी. कुजूर	अनुविभागीय अभि., विद्युत/यां. खण्ड, जशपुर	94063-14198
37	श्री सी.एस. करवर	अनुविभागीय अधिकारी, सेतु निर्माण उपसंभाग,(लो. नि.विभाग)	87707-74025

38	श्री अमितेश किण्डो	उप अभियंता, सेतु निर्माण उपसंभाग, जशपुर	73897-42040
39	श्री सुनील शुक्ला	प्रभारी कार्यपालन अभियंता, लोक स्वास्थ्य यांत्रिकी	223757ए 75878.79398 98274-01202 94062-10020
40	श्री डी.आर.दर्दो	कार्यपालन अभियंता, जल संसाधन विभाग, जशपुर	223371 94790-31329
41	श्री एम.के.देशपाण्डेय	कार्य.अभि., प्रधानमंत्री ग्राम सड़क योजना जशपुर	76948-14070, 220388 94062-14070
42	श्री व्ही.पी.पटेल	कार्य. अभियंता, प्रधानमंत्री ग्राम सड़क योजना पत्थलगांव	96305-79992
43	श्री व्ही.के.राम 9669729660	कार्य. अभियंता, मुख्यमंत्री ग्राम सड़क योजना जशपुर	94241-82237
44	श्री एन.एस. सिदार	कार्यपालन अभियंता, ग्रा.या.सेवा, जशपुर	223507 91115-97972 , 91098-34572
45	श्री पटोरिया	कार्यपालन अभियंता, रा.राज मार्ग, अम्बिकापुर	99933-11553
46	श्री संजय दिवाकर	अनुविभागीय अधिकारी, राष्ट्रीय राज मार्ग,	78797-91101, 70009-24735
47	श्री अजय बंजारे	राष्ट्रीय राज मार्ग	96856-98707, 79998-52131
48	श्री टी.आर. राजवाड़े	कार्यपालन अभियंता, छ.ग.राज्य विद्युत मण्डल, जशपुर	79998-31489, 94255-40611
49	श्री के.डी. भौमिक	कार्यपालन अभियंता, छ.ग.राज्य विद्युत मण्डल, पत्थलगांव	84355-77357
50		सहायक यंत्री, छ.ग.राज्य विद्युत मण्डल	
51	श्री संदीप बजारे	सहा.अभि.छ0ग0रा0 अक्षय ऊर्जा वि0अभि0 , जशपुर	89592-64564,

			94063-27266
52	श्री डी. सिदार	कार्यपालन अभि.,छ0ग0रा0 अक्षय ऊर्जा वि0अभि0	223104, 94062-88788
53	श्री अनिल निगम	कनिष्ठ सहायक, अक्षय उर्जा क्रेडा	97528-58768, 94792-35287
54	श्री एस.के. शर्मा	कार्यपालन अभियंता, छ.ग.गृह निर्माण मण्डल रायगढ़	94242-09023
55	श्री राघवेन्द्र मरस्कोले	जिला पंजीयक, पंजीयन एवं मुद्रांक विभाग, रायगढ़	94252-53184
56	श्री विभूति कुमार क्षेत्रज्ञ	प्रभारी जिला पंजीयक, पंजीयन एवं मुद्रांक विभाग जशपुर	84355-54241
57	श्री योगेश पटेल	सहायक अभियंता, छ.ग.गृह निर्माण मण्डल, जशपुर	99072-85405
58	श्री लहरे जी	सहायक अभियंता, छ.ग.गृह निर्माण मण्डल, जशपुर	88396-36781 ,73153-72489
59	श्री एस.के.वाहने	सहायक आयुक्त, आदिम जाति कल्याण विभाग	223657, 94241-81619
60	श्री पी.आर. यादव	मुख्य कार्य. अधिकारी, जिला अंत्यावसायी शाखा	94060-13404
61	श्री सी.आर.टेकाम	महाप्रबंधक, जिला उद्योग एवं व्यापार केन्द्र, जशपुर	220244 94252-62623
62	श्री ललित पटेल	जिला रोजगार अधिकारी, जशपुर	220498, 96695-99431
63	श्री रमाशंकर सिंह	अधीक्षक जेल	223235, 99810-74714 97549-39116
64	श्री आजाद पात्रे	श्रम पदाधिकारी	700082-7342, 78282-45577
65	श्री डी.पी.ताण्डेय	श्रम निरीक्षक	75873-18540



66	श्री सुरेश कुरे	श्रम निरीक्षक	88391-45455
67	कु. ललिता धुर्वे	सहा.संचालक, ग्राम तथा नगर निवेश	220187 96919-43525
68	श्री विराज किस्पोट्टा	जिला अंकेक्षण पंचायत, जशपुर	223531 94079-50493
69	श्री फुलसाय देवांगन	उप संचालक, समाज कल्याण विभाग, जशपुर	94062-18182
70	श्री सत्येन्द्र सिंह	कार्य.अभि.नगरीय प्रशासन विकास विभाग अम्बिकापुर	94252-42955
71	डॉ. जी.एस. तंवर	उप संचालक, पशु चिकित्सा सेवाएँ	223495 79991-78966, 88278-17931
72	श्री योगेश पटेल	प्रबंधक, दुग्ध महासंघ, जशपुर	88898-39586
73	श्री आर.के. गोनेकर	उप संचालक, कृषि विभाग, जशपुर	94079-94400, 220571, 223125 98271-87467
74	श्री कवच राम भगत	सहायक संचालक, कृषि	97131-96431, 94241-91933
75	श्री सुरेन्द्र पटेल	भूमि संरक्षण अधिकारी	89659-09382, 94063-85048
76	श्री व्ही.पी.विश्वास	सहायक संचालक, रेशम विभाग, जशपुर	94255 11491 220339 ,99939-11840
77	श्री पाठक जी	रेशम निरीक्षक	89627-04101
78	श्री डी.के.इजारदार	सहायक संचालक, मछली पालन विभाग	220991 94255-73534
79	श्री पैकरा जी	सहायक मस्त्य अधिकारी	91796-82661
80	श्री राम अवध सिंह	सहायक संचालक, उद्यानिकी	7999816061

	भदौरिया		223692 ,94062-50100
81	श्री आर.के.शर्मा	उद्यान अधीक्षक	96919-34074 ,94241-82706
82	श्री उमाशंकर भट्ट	जिला प्रबंधक, ना. आ. नि., जशपुर	94255-23634, 220251 88179-03460
83	श्री निर्मल एक्का	क्वालिटी इंस्पेक्टर	88179-03487
84	श्री अरुण साहू	क्वालिटी इंस्पेक्टर	96911-51789
85	श्री जी.एस.शर्मा	सहायक पंजीयक, सहकारी संस्थायें	83199-36711, 91791-97556
86	श्री बी.जे.एक्का	अंकेक्षण अधिकारी सहकारी संस्थायें	223856 91651-69568
87	श्री रामहरि पैकरा	सहायक प्रबंधक, वेयर हाऊस, जशपुर	88172-32366
88	श्री के.के.सोनी	जिला विपणन अधिकारी, (जशपुर)	220680 99772-43683 ,94255-68468
89	श्रीमती आई.टोप्पो	जिला कार्यक्रम अधिकारी महिला एवं बाल विकास विभाग	223810 79747-33508 ,94241-81874
90	श्रीमती नेहा राठिया	जिला महिला एवं बाल विकास अधिकारी	7772022820 ,93295-89193
91	श्री एन. कुजूर	जिला शिक्षा अधिकारी	7987039312, 220362, 94255-55343
92	श्री बी.पी.जाटवर	सहायक जिला परियोजना अधिकारी, आर.एम.एस.ए.	94241-91850
93	श्री विनोद गुप्ता	जिला कार्यक्रम समन्वयक यशस्वी जशपुर	87704-91200

			223122 ,94060-59900
94	श्री शषिकान्त सिंह 98266-04070	सचिव, सतत् शिक्षा एवं सर्व शिक्षा कार्यक्रम, जशपुर	220225, 223870 94064-61244
95	श्री एम.जेड.यु सिद्दीकी	शिक्षा विभाग	97705-43490
96	श्री एल.पी.डाहिरे	शिक्षा विभाग	94076-56259
97	श्री निर्मल कुजूर	प्र.जिला खेल एवं यु.क.अधिकारी	79870-39312 94255-55343
98	श्री हरिषंकर	खेल (बाबू)	94241-86144
99	डॉ० भुवनेश्वर प्रसाद	अधीक्षक, जिला आयुर्वेद विभाग, जशपुर	220994 ,94077-70442
100	श्री एन०एस०नेताम	जिला कमाण्डेंट, नगर सेना 99263-89977	94241-84267
101	श्री शिवशकर सोनपाकर	असिस्टेंट कमाण्डेंट, नगर सेना	07763-202290 ,97537-34521
102	श्री किशनलाल महावर	जिला परिवहन अधिकारी, जशपुर 220916	220916 87190-07716 ,75872-82501
103	श्री प्रदीप सिंह	जिला सैनिक कल्याण अधिकारी, जशपुर	220954 90118-88137
104	श्री बालकिशुन राम	सहायक सैनिक कल्याण अधिकारी	75878-57926
105	श्री विवेक कुमार गुप्ता	सहायक संचालक, ग्रामोद्योग विभाग, जशपुर	74404-08721, 84528-17420
106	श्री जितेन्द्र कुशवाहा	मु.न.पा.अधि., न. पा., जशपुर	87705-06058 223344 ,96171-66855
107	श्री टुनु राम यादव	मुख्य नगरपालिका अधि., नगर पंचायत, कुनकुरी	88210-22125

			,99267-74017
108		मुख्य नगरपालिका अधि., नगर पंचायत, पत्थलगांव	94062-28573
109	श्री रमेश द्विवेदी	मुख्य नगरपालिका अधि., नगर पंचायत, कोतबा	80855-09040
110	श्रीमती पुष्पा खलखो	मुख्य नगरपालिका अधि., नगर पंचायत, बगीचा	76971-77214
111	प्रो० सतीष देशपाण्डे	प्राचार्य, शास० एन० ई० एस० महाविद्यालय- जशपुर	94252-53275
112	प्रो० विजय रक्षित	प्राचार्य, शास०कन्या महाविद्यालय- जशपुर	74893-48048, 98278-82837 ,94252-51946
113	डॉ.ए.के.खैरवार	प्राचार्य, शासकीय पोलीटेक्नीक, जशपुर	94063-20245
114	श्री ओ.पी.दुबे	प्र० प्राचार्य, षास०बालक उच्च० माध्य० विद्यालय, जशपुर	94241-80773
115	श्रीमती आशा चौधरी	प्राचार्य, शास०कन्या उच्च० माध्य० विद्यालय, जशपुर	94241-80655
116	श्री बी. बखला	प्राचार्य, जिला शिक्षा एवं प्रशिक्षण सं. (क्वम्ज) जशपुर	94063-10825
117	श्रीमती सरोज संगीता भोई	प्राचार्य, शास०नवीन उच्च० माध्य० विद्यालय, जशपुर	96695-97100
118	श्री सतीष कुमार	प्राचार्य, केन्द्रीय विद्यालय संगठन, जशपुर	94536-18729
119	श्री अखिलेश कुमार सिंह	प्राचार्य, नवोदय विद्यालय, जशपुर	96440-16948
120	श्री जे.एक्का	सचिव, कृषि उपज मण्डी समिति, जशपुर	89599-75099
121	श्री प्रेम सिंह मरकाम	मुख्य कार्यपालन अधिकारी,जनपद पंचायत दुलदुला	93038-39360 ,94791-31700
122	श्री एस.सी.गुप्ता	मुख्य कार्यपालन अधिकारी,जनपद पंचायत कांसाबेल	07769-262285 ,89668-82901
123	श्रीमती सोनमती तिर्की	मुख्य कार्य. अधि.,जनपद पंचायत बगीचा	94241-23045
124	श्री आर.बी.तिवारी	मु का. अधिकारी, जनपद पंचा. कुनकुरी	91650-86873

125	श्री सी. आर. पहाड़ी	सहायक परियोजना अधिकारी जि.पंचा. जशपुर	96691-48742 94062-23601
126	श्री भजन साय	मुख्य कार्य. अधि., जनपद पंचायत पत्थलगांव	94241-82207 84350-73700
127	श्री बी.एल.सरल	मुख्य कार्यपालन अधिकारी, जनपद पंचायत, फरसाबहार	89595-11390 ,94241-84590
128	श्री प्रेम सिंह मरकाम	मुख्य कार्य. अधि., जनपद पंचायत दुलदुला	81204-04016
129	श्री प्रेम सिंह मरकाम	मु.कार्य.अधि.ज.पं.जशपुर	93038-39360 223427 ,81204-04016
130	श्री डी.के.यादव	खण्ड शिक्षा अधिकारी, जशपुर	7587790848, 81204-04016, 223423 93038-39360
131	श्री नरेन्द्र कुमार सिन्हा	खण्ड शिक्षा अधिकारी, मनोरा	81090-38688 ,93009-83607
132	श्री के.पी.पटेल	खण्ड शिक्षा अधिकारी, दुलदुला	70006-98449 ,99817-15590
133	श्री प्रमोद कुमार भटनागर	खण्ड शिक्षा अधिकारी, कुनकुरी	94255-74073
134	श्री सेलबेस्तर कुजूर	खण्ड शिक्षा अधिकारी, कांसाबेल	88899-33706
135	श्री ए गुरु	खण्ड शिक्षा अधिकारी, बगीचा	86028-27332 ,99813-46498
136	श्री बी.एस.पैकरा	खण्ड शिक्षा अधिकारी, फरसाबहार	94063-32424
137	श्री डी.के.दिवाकर	खण्ड शिक्षा अधिकारी, पत्थलगांव	88892-58958 ,82248-91847
138	डॉ० ए० डी० तिर्की	खण्ड चिकित्सा अधिकारी, लोदाम ( जशपुर )	94060-56306
139	डॉ० रोशन बरियार	खण्ड चिकित्सा अधिकारी, मनोरा	86024-24726

			97538-43311
140	डॉ० व्ही० के० इन्दवार	खण्ड चिकित्सा अधिकारी, दुलदुला	94061-25177
141	डॉ० एस० टोप्पो	खण्ड चिकित्सा अधिकारी, कुनकुरी	94255-74098
142	डॉ० सी० आर० भगत	खण्ड चिकित्सा अधिकारी, फरसाबहार	94062-71163
143	डॉ० व्हाय. के. टोप्पो	खण्ड चिकित्सा अधिकारी, कांसाबेल	94241-81949
144	डॉ० आर० एन० दुबे	खण्ड चिकित्सा अधिकारी, बगीचा	94241-87327
145	डॉ० जेम्स मिंज	खण्ड चिकित्सा अधिकारी, पत्थलगांव	94241-80229
146	श्री मायानन्द चन्द्रा	तहसीलदार, पत्थलगांव	99267-59295 75877-08907
147	मनीष कुमार वर्मा	तहसीलदार कुनकुरी	94063-49496 78282-71732
148	श्री ए.के.बंजारे	तहसीलदार,कांसाबेल	94060-63343
149	श्री परमेश्वर लाल मण्डावी	तहसीलदार जशपुर /मनोरा	94062-03798 77728-07710
150	श्री उदय राज सिंह	नायब तहसीलदार फरसाबहार	93994-87508 ,94079-22729
151	श्री परमेश्वर लाल मण्डावी	तहसीलदार जशपुर	94062-03798 77728-07710
152	मनीष कुमार वर्मा	नायब तहसीलदार, दुलदुला	94063-49496 ,78282-71732
153	श्री मुखदेव प्रसाद यादव	नायब तहसीलदार बगीचा /सन्ना	94255-85569 ,95759-51209
154	सुश्री प्रिति शर्मा	नायब तहसीलदार, पत्थलगांव	82369-98917 ,62610-70064
155	सुश्री अनुराधा पटेल	नायब तहसीलदार, जशपुर	81097-01471

156	कुमारी डिंपल ध्रुव	नायब तहसीलदार, जिला कार्यालय जशपुर	93991-34458
157	श्री लक्ष्मण कुमार राठिया	नायब तहसीलदार, फरसाबहार	8871196750 89599-48765
158	श्री किशोर शर्मा	नायब तहसीलदार, कुनकुरी	98279-56898
159	श्री सुनील कुमार गुप्ता	नायब तहसीलदार, बगीचा	74156-30891 ,94063-39209
160	श्री अमरेन्द्र सिंह,	नायब तहसीलदार, मनोरा	79744-10434 ,74705-33009
161	श्री शंकर राम	अनुविभागीय अधिकारी, जशपुर	94252-01436
162	श्री अजय सिंह ठाकुर	पीए टू कलेक्टर	77710-05125 ,9926364849, ,94060-84992
163	श्री ब्रह्मानन्द साय	स्टेनो सहायक	75870-46823 ,96915-52224
164	श्री भोजकेशवर साहू (भोज)	स्टेनो सहायक	99266-49683 ,79995-51729
165	श्री कमलेशवर राम	अधीक्षक	94064-90160
166	श्री राधेशवर राम प्रधान	प्रभारी अधीक्षक	94241-84227
167	श्री लक्ष्मी यादव	जिला सत्कार लिपिक, जशपुर	70000-71316 94252-53568
168	श्री गोविंद राम कुर्रे	उप संचालक, जिला अभियोजन जशपुर	93025-58950
169	श्रीमती रोजालिया खलखो	जिला अभियोजन अधिकारी	94241-94060
170	श्री सौरभ समैया	सहा. अभियोजन अधिकारी	94256-55614
171	श्री रवि कृष्णना	पी.एम.आर.डी.एफ. 93997-23612	96443-06011
172	श्री देवाशीष	पी.एम.आर.डी.एफ. 93043-83849	95340-30484
173	श्री प्रकाश यादव	सहायक संचालक, स्कील डेवलपमेंट	076975-84747, ,9109181926,

	93996—6970		75877—81157
174	श्री अमरनाथ	प्राचार्य, लाईवलीहुड कॉलेज	06260265759, ,9109140453 70497—90009
175	श्री बलबीर शर्मा	नेहरू युवा केन्द्र	99774—80000
176	श्री मोहित गोड	अग्रणी बैंक अधिकारी	
177	श्री किण्डो जी	अपेक्स बैंक, जशपुर	94076—49125
178	श्री अरविन्द शुक्ला	अपेक्स बैंक, जशपुर	94255—40845
179	श्री आर.के.पाण्डेय	प्रबन्धक, भारतीय स्टेट बैंक, मुख्य शाखा, जशपुर	94252—77213

#### उपकरणों एव सामग्रियों की सूची नगर सेना जशपुर

क्र.	सामग्री का नाम	संख्या
1	2	3
1	कम्प्यूटर सेट	1
2	लेजर प्रिंटर	1
3	यु.पी.एस.	1
4	फैक्स मशीन लेजर	1
5	सूपिरियर ऑफिस टेबल	1
6	सूपिरियर ऑफिस चेयर	1
7	सूपिरियर स्टील बैंच	1
8	सूपिरियर कम्प्यूटर टेबल ऑल इन वन	1
9	सूपिरियर कम्प्यूटर चेयर	1
10	सूपिरियर स्टील बूक केश	1
11	सूपिरियर अलमिरा	1
12	फायर एस्टिंगयूजर पोर्टेबल	2
13	फायर प्रोक्सीमटी सूट	1
14	प्रोटेक्टिव ग्लोबस हॉट एण्ड कोल्ड प्रोटेक्शन	6
15	पोर्टेबल वॉटरमिस्ट टेक्नालीजी	1
16	फायर एप्रोच सूट फायर एंट्री सूट	2
17	गैस मास्क फोर वेरियस टाईप ऑफ गैस	2
18	फायर बेल	1
19	फायर हूटर	1 सेट



20	ओ.बी.एम. स्टैण्ड रोबोटिक टाईप	1
21	अमेल्स लाईट (टार्च)	2
22	तैराक संख्या	35
23	रबर मोटर वेट विथ ओ.बी.एम.	2
24	लाईफ जैकेट	22
25	लाईफ बॉय	20
26	सर्च लाईट	3
27	ट्यूब	4
28	ड्रम	5
29	नायलोन रोप 100X 2	10
40	तालपोलिन शीट	4
41	रबर के दस्ताने	2
42	मेगा फोन	2
43	एक्टेसन लेडर	2
44	स्टेचर	2
45	मनीला रोप 100X2	10
46	मनीला रोप 100X3	10
47	गम बूट	25
48	बाल्टी	10
49	फावड़ा	6
50	गैंती	6
51	ब्लचा	3
52	तगाड़ी	4
53	चप्पू छोटा	2 सेट
54	रेनकोट	875
55	पोर्टेइलेटेबल इमरजेंसी लाईट	2
56	डिस्ट्रेस सिग्नल यूनिट	12
57	गैस मॉक्स	1
58	वोल्ट कटर	2
59	ओ.बी.एम. स्टैण्ड	2

