



GOVERNMENT OF CHHATTISGARH

District Disaster Management Plan-(DDMP)

Raigarh

DISTRICT DISASTER MANAGEMENT AUTHORITY
RAIGARH

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



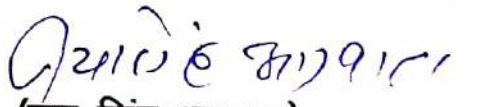
संदेश (प्रारूप)

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.

Abbreviation:-

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

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

| | | |
|----------------|--|-------------------------------------|
| Q&A | Quality and Accountability | गुणवत्ता एवं जवाबदारी |
| QRT | Quick Response Team | त्वरित प्रत्युत्तर टीम |
| SDMA | State Disaster Management Plan | राज्य आपदा प्रबंधन योजना |
| SDRF | State Disaster Response Force/ Relief Fund | राज्य आपदा प्रत्युत्तर बल/ राहत कोष |
| SHG | Self Help Group | लघु एवं मध्यम उद्योग/ उपक्रम |
| SME | Small and Medium Enterprise | लघु एवं मध्यम उद्योग/ उपक्रम |
| SOP | Standard Operating Procedure | मानक परिचालन पद्धति |
| SP | Superintendent of Police | पुलिस अधीक्षक |
| WRD | Water Resources Department | जल संसाधन विभाग |
| WHO | 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)

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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 Raigarh District is prepared with the help of the communities and different stakeholder's.

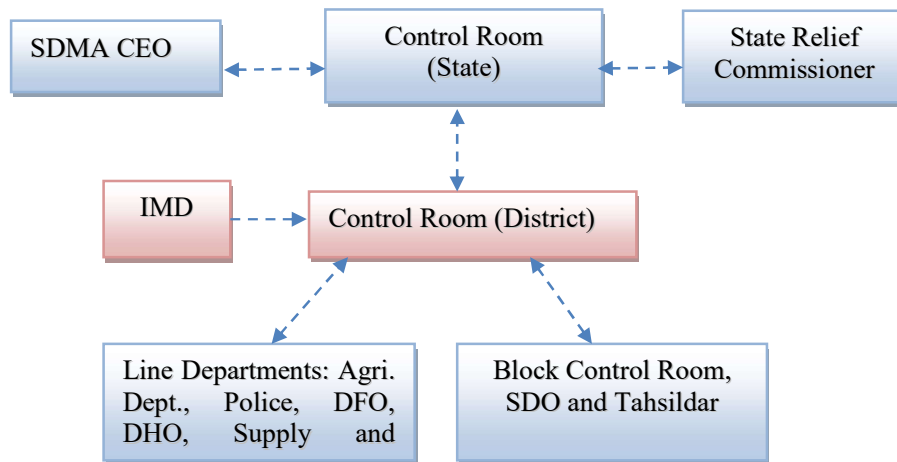
1.1 General Preparedness Measures

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.

| Preparation | Objectives | Actions Initiated by |
|---|---|---|
| Co-ordination of District Level Committee | <ul style="list-style-type: none">• To Provide relief and response• Precautionary measures for warehouse and food storage. | <ul style="list-style-type: none">• District Emergency Operation Center |
| Mapping of vulnerable points | <ul style="list-style-type: none">• Regular mapping of vulnerable spots• Planning and implementation of preventive measures.• Early warning | <ul style="list-style-type: none">• Deputy collector• CEOs (Janpad Panchayat),• BDOs, Executive engineers |
| Essential commodities | <ul style="list-style-type: none">• Stock of food grains, Kerosene, fuel in Gram Panchayat. | <ul style="list-style-type: none">• CEOs (Janpad Panchayat)• BDOs |
| Selecting Shelters | <ul style="list-style-type: none">• Arranging safe shelter during period of emergency. | <ul style="list-style-type: none">• Additional collectors• CEOs (Janpad Panchayat) |

| | | |
|--|--|---|
| | | <ul style="list-style-type: none"> • BDOs through • PRIs and local people |
| Medicines, Establishment of mobile teams, Identification of epidemic prone areas | <ul style="list-style-type: none"> • Keeping a stock of medicines • Delegation of personnel. | <ul style="list-style-type: none"> • DCMO • Civil surgeon |
| Arranging food and fodder for the cattle | <ul style="list-style-type: none"> • Maintaining stocks | <ul style="list-style-type: none"> • Veterinary Assistance surgeon (VAS), (Animal Husbandry) |
| Organizing Mock drills | <ul style="list-style-type: none"> • Generating awareness • Preparedness training | <ul style="list-style-type: none"> • District level officers |

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)

| Preparation | Objectives | Actions Initiated by |
|--|--|--|
| Collection of Information | <ul style="list-style-type: none"> • From IMD/SRC control room/DEOC | <ul style="list-style-type: none"> • DEOC |
| Information dissemination | <ul style="list-style-type: none"> • From DEOC to all C/BDOs/line depts. | <ul style="list-style-type: none"> • DEOC • Head of line depts. • Sub collectors • BDOs • COs |
| Immediate setting and functioning of control room, Rescue and evacuation | <ul style="list-style-type: none"> • Evacuation • Identified shelters • logistic Supply | <ul style="list-style-type: none"> • Civil Defence unit • Police Department armed forces • Fire officers, • Fire Offices • Red-cross team ready with rescue kits which are to be made available to them |

District Disaster Management Plan, Raigarh (C.G.)

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

| | | |
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| with generators | immediately after the disaster is over | |
|-----------------|--|--|

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"> To save the trapped and wounded persons | <ul style="list-style-type: none"> All line department and stakeholders |
| Control room activated 24 hours | <ul style="list-style-type: none"> To mitigate the effects of the disaster | <ul style="list-style-type: none"> District control room All line depts., BDOs, CEO's |
| Distribution of relief as per provisions | <ul style="list-style-type: none"> To provide food and other essential commodities for survival | <ul style="list-style-type: none"> SDM BDOs CEOs NGOs |

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"> Provision food and other essential commodities for survival | <ul style="list-style-type: none"> SDM BDOs COs NGOs |
| Damage Assessment | <ul style="list-style-type: none"> Reporting actual loss to the government | <ul style="list-style-type: none"> All line depts. COs |

| | | |
|--|---|---|
| | | <ul style="list-style-type: none"> • BDOs • Executive engineers • Sub Collectors |
| Monitoring and evaluation of relief operations by external agencies. | <ul style="list-style-type: none"> • Maintaining consistency of relief administration | <ul style="list-style-type: none"> • DM • SDM |
| Restoring of Roads and Railway networks | <ul style="list-style-type: none"> • Timely and Prompt delivery • Transportation of relief articles • Deployment of rescue teams | <ul style="list-style-type: none"> • Executive engineers of concerned depts. • Military and paramilitary forces • police |
| Restoring electronic communication system | <ul style="list-style-type: none"> • Ensuring proper coordination linkage | <ul style="list-style-type: none"> • BSNL, Technocrats of police signals |
| Immediate arrangement of free kitchen for the effected people | <ul style="list-style-type: none"> • Avoiding starvation | <ul style="list-style-type: none"> • Sub collectors • BDO's • Line depts. • PSUs |
| Documentation of the entire event-Written, Audio, Video | <ul style="list-style-type: none"> • For reporting purposes and institutional memory | <ul style="list-style-type: none"> • SDM • BDO |
| Monitoring | <ul style="list-style-type: none"> • To review the relief works and remove the bottlenecks | <ul style="list-style-type: none"> • DM • DDC • ADC |

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 (Balasore, Balaudabazar, Sarguja, Jashpur, Korba, Janjgir-Champa, Mahasamund, Odisha State (Sundargarh, Jharsuguda, Bargarh District)) 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 |
|--------------------|---|
| DDMA | <ul style="list-style-type: none"> • Regularly monitoring rain gauge at all tehsils and updating database for distribution and variation in rainfall. • Preparing flood control order by 31st May every year and ensure proper mechanism for early warning at village level through Tehsildars, Sarpanch, Patwaris, etc. • Ensure proper functioning of DEOC along with availability of fully functional resources and rescue equipment. • Preparation of a database of critical and lifesaving infrastructure, safe locations for evacuation and updated list of relief camps in the district annually. • Identify competent persons/experts from various required fields for carrying out damage and need assessment of post disaster scenario. • Keep interacting with the voluntary organizations in the district and prepare proper mechanism for disbursement of compensation to victims or families of deceased. |
| Agriculture | <ul style="list-style-type: none"> • Preparation of agriculture contingency plans and identify vulnerable areas prone to pest infestation, droughts, floods and other hazards • 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. • Imparting training to the farmers to adopt new agriculture practices, alternate cropping practices, proper storage of seeds and use of modern technology. • 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. • Prepare trained and equipped team for assessing damage caused to soil, crop, plantation, drainage, embankment, other water bodies and storage facilities that might impact agricultural activities. |

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|--------------------------------|--|
| | <ul style="list-style-type: none"> • Assist farmers in providing timely information regarding crop insurance, compensation, repair of agro equipment and restoring of agricultural activities at the earliest. • Identify sources of feed and fodder. |
| <p>Animal Husbandry</p> | <ul style="list-style-type: none"> • 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. • 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. • Prepare a database of veterinary hospitals/ clinics and agencies working for animal care, so that it could be used at the emergency situations. • 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. • Sensitizing farmers about protection of their feed and fodder prior to the onset of monsoon. • Prepare the feed of poultry birds for drought situation and also locate feed and fodder banks in view of submergence situation during the monsoon. • 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. • Use of tarpaulin sheets to cover the sheds during heat and cold waves. • Taking special care of productive and lactating animals; also supplement them with additional fodder and other requirements. • Ensure proper administration of de-worming and vaccinations for cattle, sheep and goats, pigs and take other relevant measures for disease management. • Identify space for burial of dead animals and ensure proper disposal of carcass. |
| <p>Education</p> | <ul style="list-style-type: none"> • 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 evacuation in |

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|----------------------------|---|
| | <p>case of any emergency.</p> <ul style="list-style-type: none"> • Conduct hygiene promotion activities as per direction issued by the health department on a regular basis. • Preparation of first aid and disaster management kit in each school and college. • Identify such schools and colleges within that area that serves as relief shelters in case of any emergency. |
| CSEB | <ul style="list-style-type: none"> • Prepare a database of critical infrastructure in the district and prepare for providing uninterrupted power supply to them. • Make provisions for continuous power supply to the affected areas and for prompt replacement/recommissioning of affected power supply system. • Providing electrical connections and systems at short notice in affected areas for the purpose of pumping flood water and illumination. • Ensure availability of adequate stock of important equipment like transformers, poles, conductors, cables, insulators, etc. for prompt action whenever required. |
| Fire Services | <ul style="list-style-type: none"> • Firefighting equipment, appliances and respiratory equipments are in place and functional. • 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. • Make a database of existing firefighting services and facilities provided with private agencies. |
| Food & Supplies | <ul style="list-style-type: none"> • 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. • Prepare for out-movement of food grains to a pre-decided safer location, if required. • 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. • Prepare a database of kerosene depots, petrol pumps, gas agencies, etc. |

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|---------------|---|
| | <p>and update the same in DDMRI.</p> <ul style="list-style-type: none"> • Maintain a database of private retailers, wholesalers of edible food items, providers of catering service and providers of refrigerated vehicles for transportation of perishable food items. • 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. |
| Forest | <ul style="list-style-type: none"> • Ensure proper functioning of fire rescue equipment and vehicles. • To check that there should be no trespassing in the restricted forest areas. • Prepare an evacuation plan for animals in case of forest fires. • Maintain a database of aara machine holders and carpenters. • Prepare team for catching wild animals to prevent them entering in habituated areas, relief camps, etc. |
| RTO | <ul style="list-style-type: none"> • Ensure proper functioning of filling station, vehicles and equipment including fire extinguishers, first aid kits, etc. • 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. • 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. • Familiarizing drivers with routes of potential hazardous installations and follow incident traffic plan. • 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. |
| Health | <ul style="list-style-type: none"> • Prepare a team of paramedics, trained mobile medical teams at emergency sites and keeping materials ready if required for healthcare and hygiene. • Develop dos and don'ts plan for health and hygiene in general and in situations of disaster in particular. • Organize awareness camps with help of CHC/ PHCs and Panchayats for hygiene promotion and public health issues. |

| | |
|---------------------|---|
| | <ul style="list-style-type: none"> • Prepare psychological and psychosocial care teams. • Ensure availability of adequate space for storage of medicines; availability of stock of medicines, lifesaving equipment and portable supplies including portable oxygen cylinders, portable X -ray machine, portable ultrasound machines, triage tags, etc. • 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. • Prepare a database of available ambulance services from government, private agencies and district Rotary/ Lions Club, if any. • 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. • Train drivers and attendants of ambulance and mobile medical units in first aid and basic life saving techniques. • Prepare for prompt establishment of temporary hospitals, mobile surgical units, etc. at short notice near the affected area. • Ensure proper and safe mechanism for medical waste disposal. • Prepare for proper disease surveillance system. • Make proper arrangement and mechanism for mass casualty management. |
| Irrigation | <ul style="list-style-type: none"> • Ensure proper early warning mechanism in place for flood by monitoring water level of surface water bodies. • Inspection of conditions of bunds, siphons, regulators, embankments, inlet and outlets of lakes and reservoirs, etc. • Timely de-silting and dredging of rivers and canals and prompt repair of channels. • Ensure proper functioning of all equipment including dewatering pumps. • Prepare for the arrangements of clean drinking water for affected livestock and poultry. |
| Nagar Palika | <ul style="list-style-type: none"> • Prepare for sanitation operations in view of post flood situations within jurisdiction of the area. • Cleaning of drains before the monsoon season. • Prepare mechanism for proper solid waste management and disposal of |

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

| | |
|-------------------------|--|
| | <ul style="list-style-type: none"> • Prepare teams trained in search and rescue, first aid, firefighting, etc. • Maintain a database of volunteers and equipment and update the same in DDMRI. |
| PCB | <ul style="list-style-type: none"> • Prepare a database of hazardous chemicals and pollutants in the districts and their probable adverse effects on environment. • Prepare for methods and techniques of decontamination of the same |
| PHED | <ul style="list-style-type: none"> • Check the availability and functioning of all available equipments and vehicles. • 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. • Prepare for prompt repair of pipelines supplying potable water, sewerage systems and water works. • Make standby arrangements of generators for running the water pumps. • Ensure installations of tube wells, if needed, before the monsoon to provide underground water to the livestock during flood period. • 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. • Ensure availability of water supplies/ filling points for fire tenders, water cannons, hospitals and other necessary lifesaving infrastructure. • Prepare for prompt provision of temporary toilets/ trench latrines in the affected area and relief camps. • Restoration of ponds, lakes in the district in coordination with Irrigation Department. |
| Public Relations | <ul style="list-style-type: none"> • Ensure distribution of Information, Education and Communication (IEC) material to community for awareness generation. • Prepare for proper public address system ensuring rumor control. • Managing media for release of information to public from time to time, giving emergency contact departments/ personnel/ numbers, without |

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| | <p>creating any chaos among the public.</p> <ul style="list-style-type: none">• Maintain database of dos and don'ts of all possible hazards in the district.• By giving awareness, information to the public through booklets, pamphlets, radio, television, film shows, newspapers, documentary films, door to door campaign, meetings, etc. |
| PWD | <p>Prepare for:</p> <ul style="list-style-type: none">• A data base of availability and functioning of heavy equipment like cranes, JCBs.• Prompt clearance of debris, repairing of damaged roads, culverts, bridges and flyovers.• 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.• Prompt establishment of helipad near the affected site for VVIP visits. <p>Prepare for restoration of government buildings damaged during disaster.</p> |

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

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

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| schemes. | | | |
| Protection wall and bamboo and vegetative cover against river level intrusion and land erosion | <ul style="list-style-type: none"> • Forest and Rural development, Agriculture department | <ul style="list-style-type: none"> • Department schemes • MGNREGA, | 0-6 months |
| Desalting of water bodies like river and ponds | <ul style="list-style-type: none"> • Irrigation • Rural Development | <ul style="list-style-type: none"> • MGNREGA Land Development | Regularly |

Table 6: Structural Mitigation Measures for Flood

Non-Structural Mitigation Measures for Flood

| Probable Mitigation Measures | Implementing Departments | Convergence with Scheme/ Program | Time Frame |
|--|--|--|-------------------|
| Safety audit of existing and proposed department | Education department, health department, PWD, Rural development | <ul style="list-style-type: none"> • Pradhan Mantri Aawas Yojana • Other Housing schemes | Regularly |
| Promotion of Traditional, local and innovative practices like bamboo, Rafts. | <ul style="list-style-type: none"> • DDMA • DRDA • Panchayat • Recreational spaces • Self-help groups • Youth groups • Social workers • NGOs | <ul style="list-style-type: none"> • Training and capacity building plan for disaster management at all level | Regularly |
| Capacity building of volunteers and technicians | <ul style="list-style-type: none"> • DDMA | <ul style="list-style-type: none"> • Training and capacity building plan for disaster management at all level | Regularly |
| Awareness generation on | <ul style="list-style-type: none"> • Veterinary officer | <ul style="list-style-type: none"> • Departmental Scheme | Regularly |

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| health and safety of livestock | <ul style="list-style-type: none"> • Rural development | | |
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Table 7: Non-Structural Mitigation Measures for Flood

2.1.2 Hazard: Drought

Structural Mitigation Measures for Drought

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

Table 8: Structural Mitigation Measures for Drought

Non-Structural Mitigation Measures for Drought

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

Table 9: Non-Structural Mitigation Measures for Drought

2.1.3 Hazard: Road Accidents

Structural Mitigation Measures for Road Accidents:

| Structural Mitigation Measures | Implementation agency | Convergence with programme/ scheme | Time frame |
|---|------------------------------|---|-------------------|
| 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 | | | |

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| maintenance of roads, dividers, road safety symbols and speed breakers | | | |
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Table 10: Structural Mitigation Measures for Road Accidents

Non-Structural Mitigation Measures for Road Accidents:

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

Table 11: Non-Structural Mitigation Measures for Road Accidents

2.1.4 Hazard: Epidemics

Structural Mitigation Measures for Epidemics

| Structural Mitigation Measures | Implementation agency | Convergence with programme/ scheme | Time frame |
|--|---|--|-------------------|
| Setup of monitoring centres for surveillance | <ul style="list-style-type: none"> • District health department. | <ul style="list-style-type: none"> • District Development | Every month |

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| | | Plan | |
| Set up of health centres in the vicinity of people | <ul style="list-style-type: none"> • District health department. | <ul style="list-style-type: none"> • District Development Plan | Regularly |
| Up gradation of rural hospitals with facilities like blood bank, surgical facilities and pathology. | <ul style="list-style-type: none"> • Ministry of Health | <ul style="list-style-type: none"> • District Development Plan | Regularly |

Table 12: Structural Mitigation Measures for Epidemics

Non- Structural Mitigation for Epidemics

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

Table 13: Non-Structural Mitigation Measures for Epidemics

2.1.5 Hazard: Fire

Structural Mitigation Measures for Fire

| Structural mitigation measures | Implementation agency | Convergence with programme/scheme | Time frame |
|---|-------------------------------|--|-------------------|
| 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

| Non-Structural Mitigation Measures | Implementation agency | Convergence with programme/ scheme | Time frame |
|---|--|---|-------------------|
| 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 |

Table 15: Non-Structural Mitigation Measures for Fire

2.1.6 Hazard: Heat Wave

Structural Mitigation Measures for Heat Wave

| Structural mitigation measures | Implementation agency | Convergence with programme/scheme | Time frame |
|--|---|--|-------------------|
| 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

| Non-Structural Mitigation Measures | Implementation agency | Convergence with programme/scheme | Time frame |
|---|---|--|-------------------------------|
| 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

| Priorities | Programs | Main concerns |
|----------------------------------|---|-----------------------------------|
| Policies/Schemes/Programs | Village level: <ul style="list-style-type: none"> • Mukhya Mantri Baans Baadi Yojana • Mahatari Jatan Yojana- Nutrition diet for pregnant women • Mukhya Mantri Amrit Yojana- | Regular monitoring and evaluation |

| | | |
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| | <p>Nutrition diet to Children</p> <ul style="list-style-type: none">● Mukhya Mantri Amrit Yojana to eradicating malnutrition in Chhattisgarh● Mukhya Mantri Khadya or Poshan Suraksha Yojana● Mukhya Mantri Bal Sandarbh Yojana healthcare scheme● Pradhan Mantri Fasal Bima Yojana● Mukhya Mantri Awas Yojana● Dindayal Upadhyay Gram Jyoti Yojana● Pradhan Mantri Gram Sadak Yojana● Van Bhumi Adhikar patta● Pradhan Mantri Tirth Yatra Yojana Suchna Kranti Yojana● Mukhya Mantri Paduka yojana● Jananni Suraksha Yojana <p>State level:</p> <ul style="list-style-type: none">● Mahatma Gandhi National Rural● Employment Guarantee Schemes● Pradhan Mantri Aawas Yojana in Naya Raipur● Pradhan Mantri Ujwala Yojna● Pradhanmantri Krishi Shinchai Yojana● Pradhanmantri Mudra Yojna● Sanjeevni Express● Swatch Bharat mission | |
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| | <ul style="list-style-type: none"> • Dindayal Upadhyay Gram Jyoti Yojana • Pradhan Mantri Jan Dhan Yojana • Pradhanmantri Suraksha Bima Yojana • Mukhya Mantri Kanya Vivah Yojana • Swaraswati Cycle yojana • Mission Smart City Raipur <ul style="list-style-type: none"> ➤ Make in India ➤ Standup India ➤ Digital India ➤ Startup India | |
| Institutions | <ul style="list-style-type: none"> • Indian Meteorological department • Krishi Vigyan Kendra • Public Health Centers • Government Hospitals • Gram Panchayats • Schools • College • Anganwadi • Fire stations • Collectorate | Regular evaluation and plannig |
| Plans, Sop's and Financial Management | Planning for triangular linkage between field, district and state control room | Yearly basis |
| Infrastructure, materials and equipment | School and Anganwadi: <ul style="list-style-type: none"> • Emergency and first aid kits • Toilets • Grain Storage trunks | Every six Month |

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| | <ul style="list-style-type: none"> • LPG Connections • Water taps • Playgrounds • Fire Extinguisher <p>Gram panchayats:</p> <ul style="list-style-type: none"> • Flood rescue equipment's • Fire rescue equipment's • Warning alarms <p>Village level:</p> <ul style="list-style-type: none"> • Warning alarms on dams and rivers • Bridges on rivers, Roads ill fields and rivers • Community halls • Safe shelters • Fencing of forests areas • Warehouse • PHC's • Medicine shops | |
| Capacity Building | <ul style="list-style-type: none"> • Stocking of the sand bags, alerting people near highly vulnerable pockets. • Stocking of food grains and other essential things in Gram panchayats or ware house. • Village tanks • Emergency facilities 108, 100, 102 Mehtari Express. • Pradhan Mantri Kaushal Vikas Yojana | Need to Strengthen |
| Public Awareness and Education | Wash and Sanitation | Regularly |
| Risk Assessments | Establish warning systems between | Regularly |

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| | the local to district level with media. | |
| DRR Programs and Schemes | 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

| S.No. | Name Of Schemes | Eligibility | Benefits | DRR Integration |
|--------------|--|--------------------------------------|---|--|
| 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 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). | Increasing the wage rate in rural areas and strengthening the rural economy through the creation of infrastructure assets. |
| 2 | PradhanMantri Aawas Yojana in Atal nagar | Economical Weaker Section Household | Chhattisgarh Housing Board will construct homes for EWS and LIG categories | Provide affordable housing to Economical Weaker |

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| | | | under the PM Awas Yojana in Atal Nagar | 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 oppurtunities | 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 Krishi Shinchai Yojana | Farmers | Expand cultivable area under 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. | Improved irrigation facility lead to increase in the productivity of farmer. Drought prone areas become resilient to water scarcity. |
| 6 | Dindayal Upadhay Gram | Rural Population | Rural electrification: Providing round the clock | Separation of agriculture and non- |

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| | Jyoti Yojana | | power to rural households and adequate power to agricultural consumers. | 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 acoount, access to need based credit, remittances facility, insurance amd pension to the excluded sections i.e. weaker sections and low income groups. | Financial inclusion of the marginalised people |
| 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 | It would stabilise the income of farmers to ensure their continuance in farming. |

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| | | | natural calamities, pests and diseases. | |
| 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

| S.No. | Name Of Schemes | Eligibility | Benefits | DRR Integration |
|--------------|---|------------------------------------|---|--|
| 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 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. | Will help to fulfil the economic need of the poor and the 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 |

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| | | | | 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 | Children | Provide health check-up | Increasing life |

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| | Bal Sandarbh Yojana- Healthcare scheme | | and medical counselling facility to children suffering from severe malnutrition and other crisis. | 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 |

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|----|----------------------------------|----------------------|---|---|
| | | | | 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 th standard. To ensure that the girl's students continue their education beyond the level of primary. | Girls are the agents of change their priorities and needs have been taken into account. In rural areas girls are forced into household work, fetch water or look after their siblings and was unaware of the sanitation and hygiene conditions. By providing cycles it motivates them to continue education |

District Disaster Management Plan, Raigarh (C.G.)

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| | | | | 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. About Chhattisgarh, a study was done by the Human Development Institute, New Delhi, in which several drought-hit districts have been identified. This includes Bastar, Bilaspur, Janjgir-Champa, Dantewada, Dhamtari, Durg, Jashpur, Kanker, Korba, Kabirdham, Mahasamund, Raigarh, Korea, Raipur, Rajnandgaon and Sarguja etc.

Sector Specific Activities for Climate Change

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

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

| | | |
|---------------------------------------|-----------------------------------|---|
| | | <ul style="list-style-type: none"> • Preparedness of emergency response plans and safety evacuation plans in various public buildings. |
| | Vulnerability and Risk Management | <ul style="list-style-type: none"> • Assessment of vulnerable structures in urban as well as rural areas. • Relocation and resettlement of most vulnerable groups and structures to safer and better locations. |
| | Monitoring and evaluation | <ul style="list-style-type: none"> • Monitoring the variations in various climatic parameters through establishment of automated weather stations and satellite signals. • 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. • Preparing regular audit reports of various departments highlighting their progress and drawbacks with regard to disaster risk reduction and mitigation. • Establishing close coordination and sharing of information regarding plans of various line departments. |
| Water resources and Sanitation | | <ul style="list-style-type: none"> • Regular review and feedback sessions of the functional hydrological stations, automated weather and rain gauge stations. • Developing curriculums of educational institutions, especially in rural areas for mass awareness regarding relevance of water conservation and proper sanitation measures. • 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. • 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. |

| | | |
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| | | <ul style="list-style-type: none"> • Improving drainage networks and periodic evaluation of drinking water sources present in village. • Regular testing and treatment of water sources in rural and urban areas for preventing eutrophication and loss of aquatic flora and fauna. |
| Forests and Biodiversity | Conservation of biodiversity | <ul style="list-style-type: none"> • Identification and documentation on amount of remaining green cover and its exposure to various anthropogenic risks. • Preventing diversion of forest lands for non-forest purposes. • Preventing the spread of invasive species and encouraging growth of indigenous species of flora. • 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. • Wetland conservation. |
| | Intervention in forest and non-forest areas | <ul style="list-style-type: none"> • Clear demarcation of areas accessible to people, especially to communities dependent on forest for meeting their daily requirements. |
| | Awareness and Research | <ul style="list-style-type: none"> • Studies on traditional and religious beliefs of tribals that tally with conservation of biodiversity. • Awareness on ecosystem services, eco-friendly and green technologies for maintaining equilibrium between development and conservation of biodiversity. |
| | Fire Management | <ul style="list-style-type: none"> • Adopting appropriate measures for preventing spread of forest fires, especially during the dry season. |
| Urban Development | Management of solid waste and waste water | <ul style="list-style-type: none"> • 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. |
| | Adoption of renewable | <ul style="list-style-type: none"> • Developing strategic plans for improving energy |

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| | | <p>efficiency of households, including plans for bringing in the use of alternative and renewable sources of energy.</p> <ul style="list-style-type: none"> • Encouraging innovation and competitiveness in renewable energy sources for mitigating and adapting to climate change. |
| | Improving resilience | <ul style="list-style-type: none"> • Increasing community based disaster risk management and advance earning systems for improving the adaptive capacity of habitats and households to climate change. • Establishing a committee for looking after the conservation of urban water bodies, green and open spaces and treatment of waste water. • Maintenance of peri urban spaces especially in busy locations in urban areas. • Promotion and adoption of energy efficient codes for urban housing projects and various other programmes. |
| Transport | Transport infrastructure, planning and management | <ul style="list-style-type: none"> • Promoting and ensuring the availability and use of cleaner energy sources for fuel. • Car pooling can be used as an alternative. • Ensuring pollution certificates for all the vehicles and confirming that the emitted pollution levels are within the permitted amount. |
| Energy | Conservation and improvement in energy efficiency | <ul style="list-style-type: none"> • Promoting the use of solar powered lights, heaters, pumps and other such renewable sourced energy products. • Introducing smart grid metering systems in households and public buildings. |
| Industries | | <ul style="list-style-type: none"> • Regular check on pollutants released by industries in air as well as water bodies. • Promoting use of pollution control mechanisms and filters. • Building awareness regarding adoption of GHG mitigation measures, energy audits, benefits of fuel switching and so on. |

| | |
|----------------------------|--|
| <p>Human Health</p> | <ul style="list-style-type: none"> • Constitution of a Climate Change Cell in the health department as well as various sub-cells within the district level. • Developing emergency response plans and conducting mock drills in PHC's and CHC's. • Spreading awareness on adoption of Sphere Standards while conducting emergency response during and after disasters. • Training and sensitization programmes with proper feedbacks for department personnel as well as community members. • Development, training and deployment of disaster management teams in every PHC and CHC for responding to impact of extreme climatic variations. |
|----------------------------|--|

Table 21: Sector Specific Activities for Climate Change

Initiatives for Mitigating Climate Change

| <p>Initiatives to mitigate disasters (intensified by climate change)</p> | <p>Initiatives to mitigate climate change</p> |
|--|---|
| <p>Development and deployment of strategies and action plans for reducing vulnerability to disasters.</p> | <p>Promotion of renewable energy sources including an increase in the share and utilization of alternative fuels.</p> |
| <p>Improvement coordination among various line departments and agencies for improving management of risks and response to disasters.</p> | <p>Promoting energy efficient technology, especially in buildings, transportation, industrial set ups and household appliances.</p> |
| <p>Upgrading and retrofitting of important infrastructural set-ups in hazardous areas according to recommended building codes.</p> | <p>Total implementation of Green India Mission and other such initiatives.</p> |
| <p>Improving access to information regarding specific hazard and vulnerabilities as well as communication campaigns through</p> | <p>Reduction in the amount of emissions especially from the transport and industrial sector.</p> |

| | |
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| infotainment, especially in high risk zones | |
| 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

| Departments | Roles and Responsibilities of HODs |
|--|---|
| Agriculture | <ul style="list-style-type: none"> • Formation and training of weather watch group for the purpose of monitoring crops in the district. • Keeping in place disaster management protocols for the hazards of drought, flood, hailstorm, etc. • 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. |
| Animal Husbandry | <ul style="list-style-type: none"> • 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. |
| Education | <ul style="list-style-type: none"> • Formation and training of damage and needs assessment teams within the department. • Provision of trainings in first aid and basic survival skills for teachers and students in the district. • To check whether education and awareness programs are in the curriculum. • Capacity-building at the institutional level should be enhanced by carrying out various activities under the School Safety Programme (SSP). |
| CSEB | <ul style="list-style-type: none"> • 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. |
| Fire Services | <p>Conducting :</p> <ul style="list-style-type: none"> • Fire-safety trainings for all district officials. • Safety audits of various government and civilian buildings in order to check whether they are compliant with fire-safety norms. • Regular mock-drills should for fire-fighting and evacuation procedures. • Training programs on disaster management by CDM, CGAA from time to time. |
| Civil Defense & Home Guards | <ul style="list-style-type: none"> • 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. |

| | |
|-------------------|--|
| | <ul style="list-style-type: none"> • Arrange for the purchase of Search and rescue (SAR) equipments through appropriate channels of the district administration. |
| Forest | <ul style="list-style-type: none"> • Ensure the formation and training of teams within the department for catching wild/escaped animals which pose a threat to human safety. |
| RTO | <ul style="list-style-type: none"> • Provision of training to drivers, conductors and staff in first aid and basic life saving techniques. • Adequate stocking/replenishing of first aid kits and maintenance of fire extinguishers in all vehicles and depots in the district. |
| Health | <ul style="list-style-type: none"> • Formation and training of damage and need assessment teams within the department. • Provision of trainings for Quick Response Medical teams (QRMTs) of paramedics, mobile medical teams, psychological first aid teams and psycho-social care teams. • Arrange for timely procurement/ purchase of portable equipments for field and hospital diagnosis, triage, etc. • Provision of trainings for health attendants and ambulance staff in first aid and life- saving techniques. • Provision of training to members of local communities in health and hygiene practices. • Enhancing capacity building at the institutional level by carrying out various activities related to Capacity Building and Training measures. |
| Irrigation | <ul style="list-style-type: none"> • Provision of trainings to all human resources with regard to early-warning for flood. • Arrange for timely purchase of early warning and communication equipments through appropriate channels of the district administration. |
| Police | <ul style="list-style-type: none"> • Deployment of trained police personnel within the district in disaster management. • Conduct trainings for the police personnel to deal with various situations, an important aspect of capacity-building in the district. • Preparing for prevention of human trafficking and other activities in the aftermath of disasters. |

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.

| Work | Responsibility | Department |
|------------------------|---|--|
| Community Preparedness | <ul style="list-style-type: none"> • Selection of weak community and the most vulnerable groups in danger. • Broadcast information about vulnerability and exposure to the community. • 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. • Provide necessary resources and support for disaster risk reduction at the community level. • Review the preparation at the community level; take appropriate action to increase the capacity of the community. | <ul style="list-style-type: none"> • District Collector • Revenue Dept • Weather Dept • Finance Dept • Nagar Nigam Commissioner • Rural and Urban Development Dept • Panchayati Raj |

| | | |
|--|---|--|
| | <ul style="list-style-type: none">• Promote community education, awareness and training.• Make sure to safeguard the community to predict the coming calamity and to spread the warnings timely.• Broadcast instant information at the community level in any disaster situation. | |
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Table 24: Community Based Disaster Management

Volume - 2

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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 Raigarh District is prepared with the help of the communities and different stakeholder's.

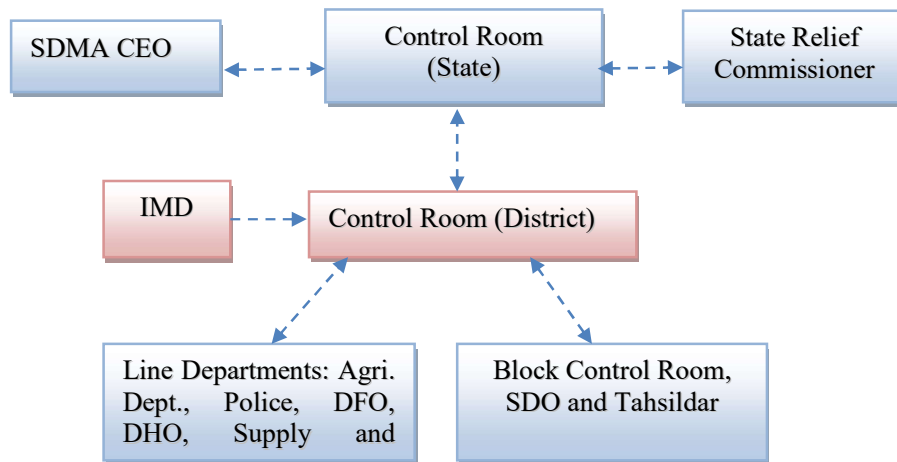
1.1 General Preparedness Measures

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.

| Preparation | Objectives | Actions Initiated by |
|---|---|---|
| Co-ordination of District Level Committee | <ul style="list-style-type: none">• To Provide relief and response• Precautionary measures for warehouse and food storage. | <ul style="list-style-type: none">• District Emergency Operation Center |
| Mapping of vulnerable points | <ul style="list-style-type: none">• Regular mapping of vulnerable spots• Planning and implementation of preventive measures.• Early warning | <ul style="list-style-type: none">• Deputy collector• CEOs (Janpad Panchayat),• BDOs, Executive engineers |
| Essential commodities | <ul style="list-style-type: none">• Stock of food grains, Kerosene, fuel in Gram Panchayat. | <ul style="list-style-type: none">• CEOs (Janpad Panchayat)• BDOs |
| Selecting Shelters | <ul style="list-style-type: none">• Arranging safe shelter during period of emergency. | <ul style="list-style-type: none">• Additional collectors• CEOs (Janpad Panchayat) |

| | | |
|--|--|---|
| | | <ul style="list-style-type: none"> • BDOs through • PRIs and local people |
| Medicines, Establishment of mobile teams, Identification of epidemic prone areas | <ul style="list-style-type: none"> • Keeping a stock of medicines • Delegation of personnel. | <ul style="list-style-type: none"> • DCMO • Civil surgeon |
| Arranging food and fodder for the cattle | <ul style="list-style-type: none"> • Maintaining stocks | <ul style="list-style-type: none"> • Veterinary Assistance surgeon (VAS), (Animal Husbandry) |
| Organizing Mock drills | <ul style="list-style-type: none"> • Generating awareness • Preparedness training | <ul style="list-style-type: none"> • District level officers |

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)

| Preparation | Objectives | Actions Initiated by |
|--|--|--|
| Collection of Information | <ul style="list-style-type: none"> • From IMD/SRC control room/DEOC | <ul style="list-style-type: none"> • DEOC |
| Information dissemination | <ul style="list-style-type: none"> • From DEOC to all C/BDOs/line depts. | <ul style="list-style-type: none"> • DEOC • Head of line depts. • Sub collectors • BDOs • COs |
| Immediate setting and functioning of control room, Rescue and evacuation | <ul style="list-style-type: none"> • Evacuation • Identified shelters • logistic Supply | <ul style="list-style-type: none"> • Civil Defence unit • Police Department armed forces • Fire officers, • Fire Offices • Red-cross team ready with rescue kits which are to be made available to them |

District Disaster Management Plan, Raigarh (C.G.)

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

| | | |
|-----------------|--|--|
| with generators | immediately after the disaster is over | |
|-----------------|--|--|

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"> To save the trapped and wounded persons | <ul style="list-style-type: none"> All line department and stakeholders |
| Control room activated 24 hours | <ul style="list-style-type: none"> To mitigate the effects of the disaster | <ul style="list-style-type: none"> District control room All line depts., BDOs, CEO's |
| Distribution of relief as per provisions | <ul style="list-style-type: none"> To provide food and other essential commodities for survival | <ul style="list-style-type: none"> SDM BDOs CEOs NGOs |

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"> Provision food and other essential commodities for survival | <ul style="list-style-type: none"> SDM BDOs COs NGOs |
| Damage Assessment | <ul style="list-style-type: none"> Reporting actual loss to the government | <ul style="list-style-type: none"> All line depts. COs |

| | | |
|--|---|---|
| | | <ul style="list-style-type: none"> • BDOs • Executive engineers • Sub Collectors |
| Monitoring and evaluation of relief operations by external agencies. | <ul style="list-style-type: none"> • Maintaining consistency of relief administration | <ul style="list-style-type: none"> • DM • SDM |
| Restoring of Roads and Railway networks | <ul style="list-style-type: none"> • Timely and Prompt delivery • Transportation of relief articles • Deployment of rescue teams | <ul style="list-style-type: none"> • Executive engineers of concerned depts. • Military and paramilitary forces • police |
| Restoring electronic communication system | <ul style="list-style-type: none"> • Ensuring proper coordination linkage | <ul style="list-style-type: none"> • BSNL, Technocrats of police signals |
| Immediate arrangement of free kitchen for the effected people | <ul style="list-style-type: none"> • Avoiding starvation | <ul style="list-style-type: none"> • Sub collectors • BDO's • Line depts. • PSUs |
| Documentation of the entire event-Written, Audio, Video | <ul style="list-style-type: none"> • For reporting purposes and institutional memory | <ul style="list-style-type: none"> • SDM • BDO |
| Monitoring | <ul style="list-style-type: none"> • To review the relief works and remove the bottlenecks | <ul style="list-style-type: none"> • DM • DDC • ADC |

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 (Balasore, Bargarh, Jharsuguda, Korba, Jajpur, Sundergarh, Mahasamund, Odisha State (Sundargarh, Jharsuguda, Bargarh District)) 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 |
|--------------------|---|
| DDMA | <ul style="list-style-type: none"> • Regularly monitoring rain gauge at all tehsils and updating database for distribution and variation in rainfall. • Preparing flood control order by 31st May every year and ensure proper mechanism for early warning at village level through Tehsildars, Sarpanch, Patwaris, etc. • Ensure proper functioning of DEOC along with availability of fully functional resources and rescue equipment. • Preparation of a database of critical and lifesaving infrastructure, safe locations for evacuation and updated list of relief camps in the district annually. • Identify competent persons/experts from various required fields for carrying out damage and need assessment of post disaster scenario. • Keep interacting with the voluntary organizations in the district and prepare proper mechanism for disbursement of compensation to victims or families of deceased. |
| Agriculture | <ul style="list-style-type: none"> • Preparation of agriculture contingency plans and identify vulnerable areas prone to pest infestation, droughts, floods and other hazards • 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. • Imparting training to the farmers to adopt new agriculture practices, alternate cropping practices, proper storage of seeds and use of modern technology. • 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. • Prepare trained and equipped team for assessing damage caused to soil, crop, plantation, drainage, embankment, other water bodies and storage facilities that might impact agricultural activities. |

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| | <ul style="list-style-type: none"> • Assist farmers in providing timely information regarding crop insurance, compensation, repair of agro equipment and restoring of agricultural activities at the earliest. • Identify sources of feed and fodder. |
| Animal Husbandry | <ul style="list-style-type: none"> • 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. • 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. • Prepare a database of veterinary hospitals/ clinics and agencies working for animal care, so that it could be used at the emergency situations. • 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. • Sensitizing farmers about protection of their feed and fodder prior to the onset of monsoon. • Prepare the feed of poultry birds for drought situation and also locate feed and fodder banks in view of submergence situation during the monsoon. • 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. • Use of tarpaulin sheets to cover the sheds during heat and cold waves. • Taking special care of productive and lactating animals; also supplement them with additional fodder and other requirements. • Ensure proper administration of de-worming and vaccinations for cattle, sheep and goats, pigs and take other relevant measures for disease management. • Identify space for burial of dead animals and ensure proper disposal of carcass. |
| Education | <ul style="list-style-type: none"> • 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 evacuation in |

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| | <p>case of any emergency.</p> <ul style="list-style-type: none"> • Conduct hygiene promotion activities as per direction issued by the health department on a regular basis. • Preparation of first aid and disaster management kit in each school and college. • Identify such schools and colleges within that area that serves as relief shelters in case of any emergency. |
| CSEB | <ul style="list-style-type: none"> • Prepare a database of critical infrastructure in the district and prepare for providing uninterrupted power supply to them. • Make provisions for continuous power supply to the affected areas and for prompt replacement/recommissioning of affected power supply system. • Providing electrical connections and systems at short notice in affected areas for the purpose of pumping flood water and illumination. • Ensure availability of adequate stock of important equipment like transformers, poles, conductors, cables, insulators, etc. for prompt action whenever required. |
| Fire Services | <ul style="list-style-type: none"> • Firefighting equipment, appliances and respiratory equipments are in place and functional. • 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. • Make a database of existing firefighting services and facilities provided with private agencies. |
| Food & Supplies | <ul style="list-style-type: none"> • 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. • Prepare for out-movement of food grains to a pre-decided safer location, if required. • 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. • Prepare a database of kerosene depots, petrol pumps, gas agencies, etc. |

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| | <p>and update the same in DDMRI.</p> <ul style="list-style-type: none"> • Maintain a database of private retailers, wholesalers of edible food items, providers of catering service and providers of refrigerated vehicles for transportation of perishable food items. • 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. |
| Forest | <ul style="list-style-type: none"> • Ensure proper functioning of fire rescue equipment and vehicles. • To check that there should be no trespassing in the restricted forest areas. • Prepare an evacuation plan for animals in case of forest fires. • Maintain a database of aara machine holders and carpenters. • Prepare team for catching wild animals to prevent them entering in habituated areas, relief camps, etc. |
| RTO | <ul style="list-style-type: none"> • Ensure proper functioning of filling station, vehicles and equipment including fire extinguishers, first aid kits, etc. • 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. • 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. • Familiarizing drivers with routes of potential hazardous installations and follow incident traffic plan. • 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. |
| Health | <ul style="list-style-type: none"> • Prepare a team of paramedics, trained mobile medical teams at emergency sites and keeping materials ready if required for healthcare and hygiene. • Develop dos and don'ts plan for health and hygiene in general and in situations of disaster in particular. • Organize awareness camps with help of CHC/ PHCs and Panchayats for hygiene promotion and public health issues. |

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| | <ul style="list-style-type: none"> • Prepare psychological and psychosocial care teams. • Ensure availability of adequate space for storage of medicines; availability of stock of medicines, lifesaving equipment and portable supplies including portable oxygen cylinders, portable X -ray machine, portable ultrasound machines, triage tags, etc. • 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. • Prepare a database of available ambulance services from government, private agencies and district Rotary/ Lions Club, if any. • 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. • Train drivers and attendants of ambulance and mobile medical units in first aid and basic life saving techniques. • Prepare for prompt establishment of temporary hospitals, mobile surgical units, etc. at short notice near the affected area. • Ensure proper and safe mechanism for medical waste disposal. • Prepare for proper disease surveillance system. • Make proper arrangement and mechanism for mass casualty management. |
| Irrigation | <ul style="list-style-type: none"> • Ensure proper early warning mechanism in place for flood by monitoring water level of surface water bodies. • Inspection of conditions of bunds, siphons, regulators, embankments, inlet and outlets of lakes and reservoirs, etc. • Timely de-silting and dredging of rivers and canals and prompt repair of channels. • Ensure proper functioning of all equipment including dewatering pumps. • Prepare for the arrangements of clean drinking water for affected livestock and poultry. |
| Nagar Palika | <ul style="list-style-type: none"> • Prepare for sanitation operations in view of post flood situations within jurisdiction of the area. • Cleaning of drains before the monsoon season. • Prepare mechanism for proper solid waste management and disposal of |

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

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| | <ul style="list-style-type: none"> • Prepare teams trained in search and rescue, first aid, firefighting, etc. • Maintain a database of volunteers and equipment and update the same in DDMRI. |
| PCB | <ul style="list-style-type: none"> • Prepare a database of hazardous chemicals and pollutants in the districts and their probable adverse effects on environment. • Prepare for methods and techniques of decontamination of the same |
| PHED | <ul style="list-style-type: none"> • Check the availability and functioning of all available equipments and vehicles. • 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. • Prepare for prompt repair of pipelines supplying potable water, sewerage systems and water works. • Make standby arrangements of generators for running the water pumps. • Ensure installations of tube wells, if needed, before the monsoon to provide underground water to the livestock during flood period. • 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. • Ensure availability of water supplies/ filling points for fire tenders, water cannons, hospitals and other necessary lifesaving infrastructure. • Prepare for prompt provision of temporary toilets/ trench latrines in the affected area and relief camps. • Restoration of ponds, lakes in the district in coordination with Irrigation Department. |
| Public Relations | <ul style="list-style-type: none"> • Ensure distribution of Information, Education and Communication (IEC) material to community for awareness generation. • Prepare for proper public address system ensuring rumor control. • Managing media for release of information to public from time to time, giving emergency contact departments/ personnel/ numbers, without |

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| | <p>creating any chaos among the public.</p> <ul style="list-style-type: none">• Maintain database of dos and don'ts of all possible hazards in the district.• By giving awareness, information to the public through booklets, pamphlets, radio, television, film shows, newspapers, documentary films, door to door campaign, meetings, etc. |
| PWD | <p>Prepare for:</p> <ul style="list-style-type: none">• A data base of availability and functioning of heavy equipment like cranes, JCBs.• Prompt clearance of debris, repairing of damaged roads, culverts, bridges and flyovers.• 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.• Prompt establishment of helipad near the affected site for VVIP visits. <p>Prepare for restoration of government buildings damaged during disaster.</p> |

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

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

| | | | |
|--|--|--|------------|
| schemes. | | | |
| Protection wall and bamboo and vegetative cover against river level intrusion and land erosion | <ul style="list-style-type: none"> • Forest and Rural development, Agriculture department | <ul style="list-style-type: none"> • Department schemes • MGNREGA, | 0-6 months |
| Desalting of water bodies like river and ponds | <ul style="list-style-type: none"> • Irrigation • Rural Development | <ul style="list-style-type: none"> • MGNREGA Land Development | Regularly |

Table 6: Structural Mitigation Measures for Flood

Non-Structural Mitigation Measures for Flood

| Probable Mitigation Measures | Implementing Departments | Convergence with Scheme/ Program | Time Frame |
|--|--|--|-------------------|
| Safety audit of existing and proposed department | Education department, health department, PWD, Rural development | <ul style="list-style-type: none"> • Pradhan Mantri Aawas Yojana • Other Housing schemes | Regularly |
| Promotion of Traditional, local and innovative practices like bamboo, Rafts. | <ul style="list-style-type: none"> • DDMA • DRDA • Panchayat • Recreational spaces • Self-help groups • Youth groups • Social workers • NGOs | <ul style="list-style-type: none"> • Training and capacity building plan for disaster management at all level | Regularly |
| Capacity building of volunteers and technicians | <ul style="list-style-type: none"> • DDMA | <ul style="list-style-type: none"> • Training and capacity building plan for disaster management at all level | Regularly |
| Awareness generation on | <ul style="list-style-type: none"> • Veterinary officer | <ul style="list-style-type: none"> • Departmental Scheme | Regularly |

| | | | |
|--------------------------------|---|--|--|
| health and safety of livestock | <ul style="list-style-type: none"> • Rural development | | |
|--------------------------------|---|--|--|

Table 7: Non-Structural Mitigation Measures for Flood

2.1.2 Hazard: Drought

Structural Mitigation Measures for Drought

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

Table 8: Structural Mitigation Measures for Drought

Non-Structural Mitigation Measures for Drought

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

Table 9: Non-Structural Mitigation Measures for Drought

2.1.3 Hazard: Road Accidents

Structural Mitigation Measures for Road Accidents:

| Structural Mitigation Measures | Implementation agency | Convergence with programme/ scheme | Time frame |
|---|------------------------------|---|-------------------|
| 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:

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

Table 11: Non-Structural Mitigation Measures for Road Accidents

2.1.4 Hazard: Epidemics

Structural Mitigation Measures for Epidemics

| Structural Mitigation Measures | Implementation agency | Convergence with programme/ scheme | Time frame |
|--|---|--|-------------------|
| Setup of monitoring centres for surveillance | <ul style="list-style-type: none"> • District health department. | <ul style="list-style-type: none"> • District Development | Every month |

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| | | Plan | |
| Set up of health centres in the vicinity of people | <ul style="list-style-type: none"> • District health department. | <ul style="list-style-type: none"> • District Development Plan | Regularly |
| Up gradation of rural hospitals with facilities like blood bank, surgical facilities and pathology. | <ul style="list-style-type: none"> • Ministry of Health | <ul style="list-style-type: none"> • District Development Plan | Regularly |

Table 12: Structural Mitigation Measures for Epidemics

Non- Structural Mitigation for Epidemics

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

Table 13: Non-Structural Mitigation Measures for Epidemics

2.1.5 Hazard: Fire

Structural Mitigation Measures for Fire

| Structural mitigation measures | Implementation agency | Convergence with programme/scheme | Time frame |
|---|-------------------------------|--|-------------------|
| 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

| Non-Structural Mitigation Measures | Implementation agency | Convergence with programme/ scheme | Time frame |
|---|--|---|-------------------|
| 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 |

Table 15: Non-Structural Mitigation Measures for Fire

2.1.6 Hazard: Heat Wave

Structural Mitigation Measures for Heat Wave

| Structural mitigation measures | Implementation agency | Convergence with programme/scheme | Time frame |
|--|---|--|-------------------|
| 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

| Non-Structural Mitigation Measures | Implementation agency | Convergence with programme/scheme | Time frame |
|---|---|--|-------------------------------|
| 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

| Priorities | Programs | Main concerns |
|----------------------------------|---|-----------------------------------|
| Policies/Schemes/Programs | Village level: <ul style="list-style-type: none"> • Mukhya Mantri Baans Baadi Yojana • Mahatari Jatan Yojana- Nutrition diet for pregnant women • Mukhya Mantri Amrit Yojana- | Regular monitoring and evaluation |

| | | |
|--|--|--|
| | <p>Nutrition diet to Children</p> <ul style="list-style-type: none">• Mukhya Mantri Amrit Yojana to eradicating malnutrition in Chhattisgarh• Mukhya Mantri Khadya or Poshan Suraksha Yojana• Mukhya Mantri Bal Sandarbh Yojana healthcare scheme• Pradhan Mantri Fasal Bima Yojana• Mukhya Mantri Awas Yojana• Dindayal Upadhyay Gram Jyoti Yojana• Pradhan Mantri Gram Sadak Yojana• Van Bhumi Adhikar patta• Pradhan Mantri Tirth Yatra Yojana Suchna Kranti Yojana• Mukhya Mantri Paduka yojana• Jananni Suraksha Yojana <p>State level:</p> <ul style="list-style-type: none">• Mahatma Gandhi National Rural• Employment Guarantee Schemes• Pradhan Mantri Aawas Yojana in Naya Raipur• Pradhan Mantri Ujwala Yojna• Pradhanmantri Krishi Shinchai Yojana• Pradhanmantri Mudra Yojna• Sanjeevni Express• Swatch Bharat mission | |
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| | <ul style="list-style-type: none"> • Dindayal Upadhay Gram Jyoti Yojana • Pradhan Mantri Jan Dhan Yojana • Pradhanmantri Suraksha Bima Yojana • Mukhya Mantri Kanya Vivah Yojana • Swaraswati Cycle yojana • Mission Smart City Raipur <ul style="list-style-type: none"> ➤ Make in India ➤ Standup India ➤ Digital India ➤ Startup India | |
| Institutions | <ul style="list-style-type: none"> • Indian Meteorological department • Krishi Vigyan Kendra • Public Health Centers • Government Hospitals • Gram Panchayats • Schools • College • Anganwadi • Fire stations • Collectorate | Regular evaluation and plannig |
| Plans, Sop's and Financial Management | Planning for triangular linkage between field, district and state control room | Yearly basis |
| Infrastructure, materials and equipment | School and Anganwadi: <ul style="list-style-type: none"> • Emergency and first aid kits • Toilets • Grain Storage trunks | Every six Month |

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| | <ul style="list-style-type: none"> • LPG Connections • Water taps • Playgrounds • Fire Extinguisher <p>Gram panchayats:</p> <ul style="list-style-type: none"> • Flood rescue equipment's • Fire rescue equipment's • Warning alarms <p>Village level:</p> <ul style="list-style-type: none"> • Warning alarms on dams and rivers • Bridges on rivers, Roads ill fields and rivers • Community halls • Safe shelters • Fencing of forests areas • Warehouse • PHC's • Medicine shops | |
| Capacity Building | <ul style="list-style-type: none"> • Stocking of the sand bags, alerting people near highly vulnerable pockets. • Stocking of food grains and other essential things in Gram panchayats or ware house. • Village tanks • Emergency facilities 108, 100, 102 Mehtari Express. • Pradhan Mantri Kaushal Vikas Yojana | Need to Strengthen |
| Public Awareness and Education | Wash and Sanitation | Regularly |
| Risk Assessments | Establish warning systems between | Regularly |

| | | |
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| | the local to district level with media. | |
| DRR Programs and Schemes | 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

| S.No. | Name Of Schemes | Eligibility | Benefits | DRR Integration |
|--------------|--|--------------------------------------|---|--|
| 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 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). | Increasing the wage rate in rural areas and strengthening the rural economy through the creation of infrastructure assets. |
| 2 | PradhanMantri Aawas Yojana in Atal nagar | Economical Weaker Section Household | Chhattisgarh Housing Board will construct homes for EWS and LIG categories | Provide affordable housing to Economical Weaker |

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| | | | under the PM Awas Yojana in Atal Nagar | 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 oppurtunities | 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 Krishi Shinchai Yojana | Farmers | Expand cultivable area under 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. | Improved irrigation facility lead to increase in the productivity of farmer. Drought prone areas become resilient to water scarcity. |
| 6 | Dindayal Upadhay Gram | Rural Population | Rural electrification: Providing round the clock | Separation of agriculture and non- |

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| | Jyoti Yojana | | power to rural households and adequate power to agricultural consumers. | 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 acoount, access to need based credit, remittances facility, insurance amd pension to the excluded sections i.e. weaker sections and low income groups. | Financial inclusion of the marginalised people |
| 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 | It would stabilise the income of farmers to ensure their continuance in farming. |

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| | | | natural calamities, pests and diseases. | |
| 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

| S.No. | Name Of Schemes | Eligibility | Benefits | DRR Integration |
|--------------|---|------------------------------------|---|--|
| 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 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. | Will help to fulfil the economic need of the poor and the 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 |

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| | | | | 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 | Children | Provide health check-up | Increasing life |

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| | Bal Sandarbh Yojana- Healthcare scheme | | and medical counselling facility to children suffering from severe malnutrition and other crisis. | 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 continuous 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 |

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| | | | | 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 th standard. To ensure that the girl's students continue their education beyond the level of primary. | Girls are the agents of change their priorities and needs have been taken into account. In rural areas girls are forced into household work, fetch water or look after their siblings and was unaware of the sanitation and hygiene conditions. By providing cycles it motivates them to continue education |

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| | | | | 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. About Chhattisgarh, a study was done by the Human Development Institute, New Delhi, in which several drought-hit districts have been identified. This includes Bastar, Bilaspur, Janjgir-Champa, Dantewada, Dhamtari, Durg, Jashpur, Kanker, Korba, Kabirdham, Mahasamund, Raigarh, Korea, Raipur, Rajnandgaon and Sarguja etc.

Sector Specific Activities for Climate Change

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

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

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| | | <ul style="list-style-type: none"> • Preparedness of emergency response plans and safety evacuation plans in various public buildings. |
| | Vulnerability and Risk Management | <ul style="list-style-type: none"> • Assessment of vulnerable structures in urban as well as rural areas. • Relocation and resettlement of most vulnerable groups and structures to safer and better locations. |
| | Monitoring and evaluation | <ul style="list-style-type: none"> • Monitoring the variations in various climatic parameters through establishment of automated weather stations and satellite signals. • 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. • Preparing regular audit reports of various departments highlighting their progress and drawbacks with regard to disaster risk reduction and mitigation. • Establishing close coordination and sharing of information regarding plans of various line departments. |
| Water resources and Sanitation | | <ul style="list-style-type: none"> • Regular review and feedback sessions of the functional hydrological stations, automated weather and rain gauge stations. • Developing curriculums of educational institutions, especially in rural areas for mass awareness regarding relevance of water conservation and proper sanitation measures. • 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. • 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. |

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| | | <ul style="list-style-type: none"> • Improving drainage networks and periodic evaluation of drinking water sources present in village. • Regular testing and treatment of water sources in rural and urban areas for preventing eutrophication and loss of aquatic flora and fauna. |
| Forests and Biodiversity | Conservation of biodiversity | <ul style="list-style-type: none"> • Identification and documentation on amount of remaining green cover and its exposure to various anthropogenic risks. • Preventing diversion of forest lands for non-forest purposes. • Preventing the spread of invasive species and encouraging growth of indigenous species of flora. • 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. • Wetland conservation. |
| | Intervention in forest and non-forest areas | <ul style="list-style-type: none"> • Clear demarcation of areas accessible to people, especially to communities dependent on forest for meeting their daily requirements. |
| | Awareness and Research | <ul style="list-style-type: none"> • Studies on traditional and religious beliefs of tribals that tally with conservation of biodiversity. • Awareness on ecosystem services, eco-friendly and green technologies for maintaining equilibrium between development and conservation of biodiversity. |
| | Fire Management | <ul style="list-style-type: none"> • Adopting appropriate measures for preventing spread of forest fires, especially during the dry season. |
| Urban Development | Management of solid waste and waste water | <ul style="list-style-type: none"> • 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. |
| | Adoption of renewable | <ul style="list-style-type: none"> • Developing strategic plans for improving energy |

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| | | <p>efficiency of households, including plans for bringing in the use of alternative and renewable sources of energy.</p> <ul style="list-style-type: none"> • Encouraging innovation and competitiveness in renewable energy sources for mitigating and adapting to climate change. |
| | Improving resilience | <ul style="list-style-type: none"> • Increasing community based disaster risk management and advance earning systems for improving the adaptive capacity of habitats and households to climate change. • Establishing a committee for looking after the conservation of urban water bodies, green and open spaces and treatment of waste water. • Maintenance of peri urban spaces especially in busy locations in urban areas. • Promotion and adoption of energy efficient codes for urban housing projects and various other programmes. |
| Transport | Transport infrastructure, planning and management | <ul style="list-style-type: none"> • Promoting and ensuring the availability and use of cleaner energy sources for fuel. • Car pooling can be used as an alternative. • Ensuring pollution certificates for all the vehicles and confirming that the emitted pollution levels are within the permitted amount. |
| Energy | Conservation and improvement in energy efficiency | <ul style="list-style-type: none"> • Promoting the use of solar powered lights, heaters, pumps and other such renewable sourced energy products. • Introducing smart grid metering systems in households and public buildings. |
| Industries | | <ul style="list-style-type: none"> • Regular check on pollutants released by industries in air as well as water bodies. • Promoting use of pollution control mechanisms and filters. • Building awareness regarding adoption of GHG mitigation measures, energy audits, benefits of fuel switching and so on. |

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| <p>Human Health</p> | <ul style="list-style-type: none"> • Constitution of a Climate Change Cell in the health department as well as various sub-cells within the district level. • Developing emergency response plans and conducting mock drills in PHC's and CHC's. • Spreading awareness on adoption of Sphere Standards while conducting emergency response during and after disasters. • Training and sensitization programmes with proper feedbacks for department personnel as well as community members. • Development, training and deployment of disaster management teams in every PHC and CHC for responding to impact of extreme climatic variations. |
|----------------------------|--|

Table 21: Sector Specific Activities for Climate Change

Initiatives for Mitigating Climate Change

| <p>Initiatives to mitigate disasters (intensified by climate change)</p> | <p>Initiatives to mitigate climate change</p> |
|--|---|
| <p>Development and deployment of strategies and action plans for reducing vulnerability to disasters.</p> | <p>Promotion of renewable energy sources including an increase in the share and utilization of alternative fuels.</p> |
| <p>Improvement coordination among various line departments and agencies for improving management of risks and response to disasters.</p> | <p>Promoting energy efficient technology, especially in buildings, transportation, industrial set ups and household appliances.</p> |
| <p>Upgrading and retrofitting of important infrastructural set-ups in hazardous areas according to recommended building codes.</p> | <p>Total implementation of Green India Mission and other such initiatives.</p> |
| <p>Improving access to information regarding specific hazard and vulnerabilities as well as communication campaigns through</p> | <p>Reduction in the amount of emissions especially from the transport and industrial sector.</p> |

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|--|---|
| infotainment, especially in high risk zones | |
| 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

| Departments | Roles and Responsibilities of HODs |
|--|---|
| Agriculture | <ul style="list-style-type: none"> • Formation and training of weather watch group for the purpose of monitoring crops in the district. • Keeping in place disaster management protocols for the hazards of drought, flood, hailstorm, etc. • 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. |
| Animal Husbandry | <ul style="list-style-type: none"> • 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. |
| Education | <ul style="list-style-type: none"> • Formation and training of damage and needs assessment teams within the department. • Provision of trainings in first aid and basic survival skills for teachers and students in the district. • To check whether education and awareness programs are in the curriculum. • Capacity-building at the institutional level should be enhanced by carrying out various activities under the School Safety Programme (SSP). |
| CSEB | <ul style="list-style-type: none"> • 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. |
| Fire Services | <p>Conducting :</p> <ul style="list-style-type: none"> • Fire-safety trainings for all district officials. • Safety audits of various government and civilian buildings in order to check whether they are compliant with fire-safety norms. • Regular mock-drills should for fire-fighting and evacuation procedures. • Training programs on disaster management by CDM, CGAA from time to time. |
| Civil Defense & Home Guards | <ul style="list-style-type: none"> • 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. |

| | |
|-------------------|--|
| | <ul style="list-style-type: none"> • Arrange for the purchase of Search and rescue (SAR) equipments through appropriate channels of the district administration. |
| Forest | <ul style="list-style-type: none"> • Ensure the formation and training of teams within the department for catching wild/escaped animals which pose a threat to human safety. |
| RTO | <ul style="list-style-type: none"> • Provision of training to drivers, conductors and staff in first aid and basic life saving techniques. • Adequate stocking/replenishing of first aid kits and maintenance of fire extinguishers in all vehicles and depots in the district. |
| Health | <ul style="list-style-type: none"> • Formation and training of damage and need assessment teams within the department. • Provision of trainings for Quick Response Medical teams (QRMTs) of paramedics, mobile medical teams, psychological first aid teams and psycho-social care teams. • Arrange for timely procurement/ purchase of portable equipments for field and hospital diagnosis, triage, etc. • Provision of trainings for health attendants and ambulance staff in first aid and life- saving techniques. • Provision of training to members of local communities in health and hygiene practices. • Enhancing capacity building at the institutional level by carrying out various activities related to Capacity Building and Training measures. |
| Irrigation | <ul style="list-style-type: none"> • Provision of trainings to all human resources with regard to early-warning for flood. • Arrange for timely purchase of early warning and communication equipments through appropriate channels of the district administration. |
| Police | <ul style="list-style-type: none"> • Deployment of trained police personnel within the district in disaster management. • Conduct trainings for the police personnel to deal with various situations, an important aspect of capacity-building in the district. • Preparing for prevention of human trafficking and other activities in the aftermath of disasters. |

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.

| Work | Responsibility | Department |
|------------------------|---|--|
| Community Preparedness | <ul style="list-style-type: none"> • Selection of weak community and the most vulnerable groups in danger. • Broadcast information about vulnerability and exposure to the community. • 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. • Provide necessary resources and support for disaster risk reduction at the community level. • Review the preparation at the community level; take appropriate action to increase the capacity of the community. | <ul style="list-style-type: none"> • District Collector • Revenue Dept • Weather Dept • Finance Dept • Nagar Nigam Commissioner • Rural and Urban Development Dept • Panchayati Raj |

| | | |
|--|---|--|
| | <ul style="list-style-type: none">• Promote community education, awareness and training.• Make sure to safeguard the community to predict the coming calamity and to spread the warnings timely.• Broadcast instant information at the community level in any disaster situation. | |
|--|---|--|

Table 24: Community Based Disaster Management

Volume - 3

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1. Response and Relief Measures

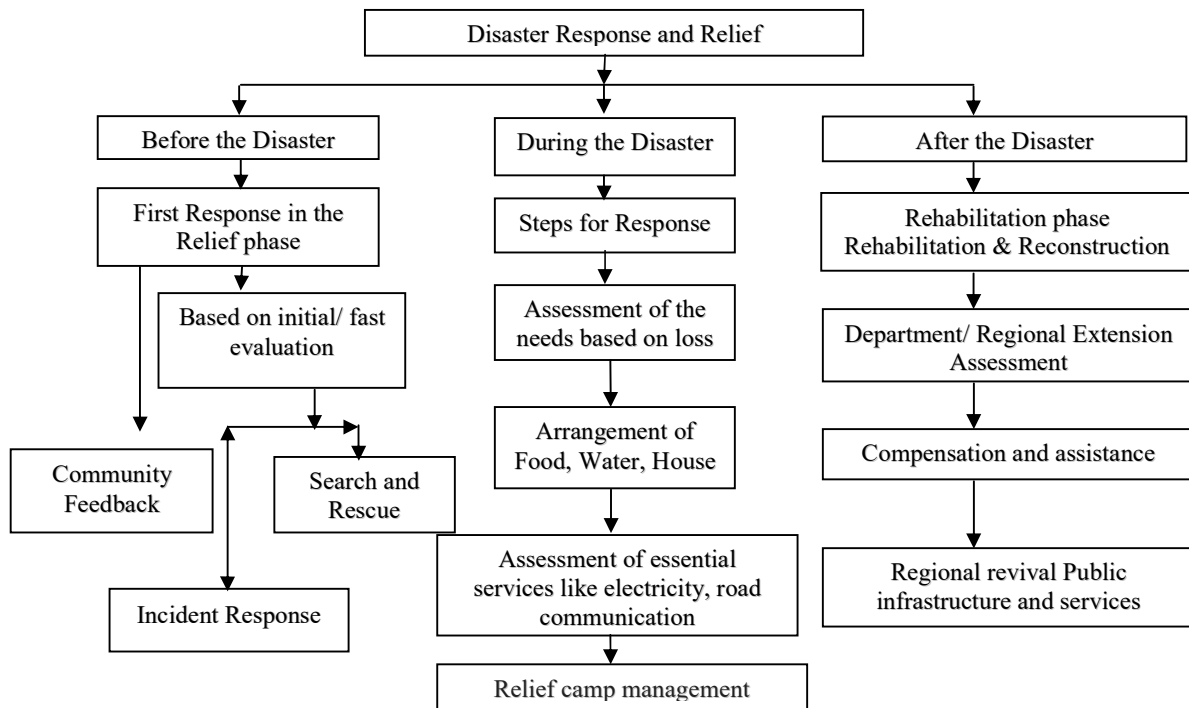
All disasters, incidental events and crisis events are extremely dynamic through which physical, mental and emotional disorders can also arise. Relief and response are the measures that are used immediately after the disaster. Their purpose is to protect the lives of the people before the disaster and 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 Raigarh 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-

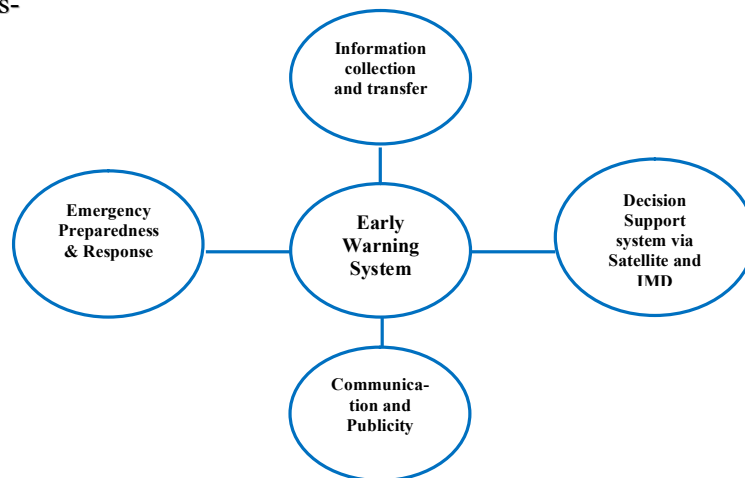
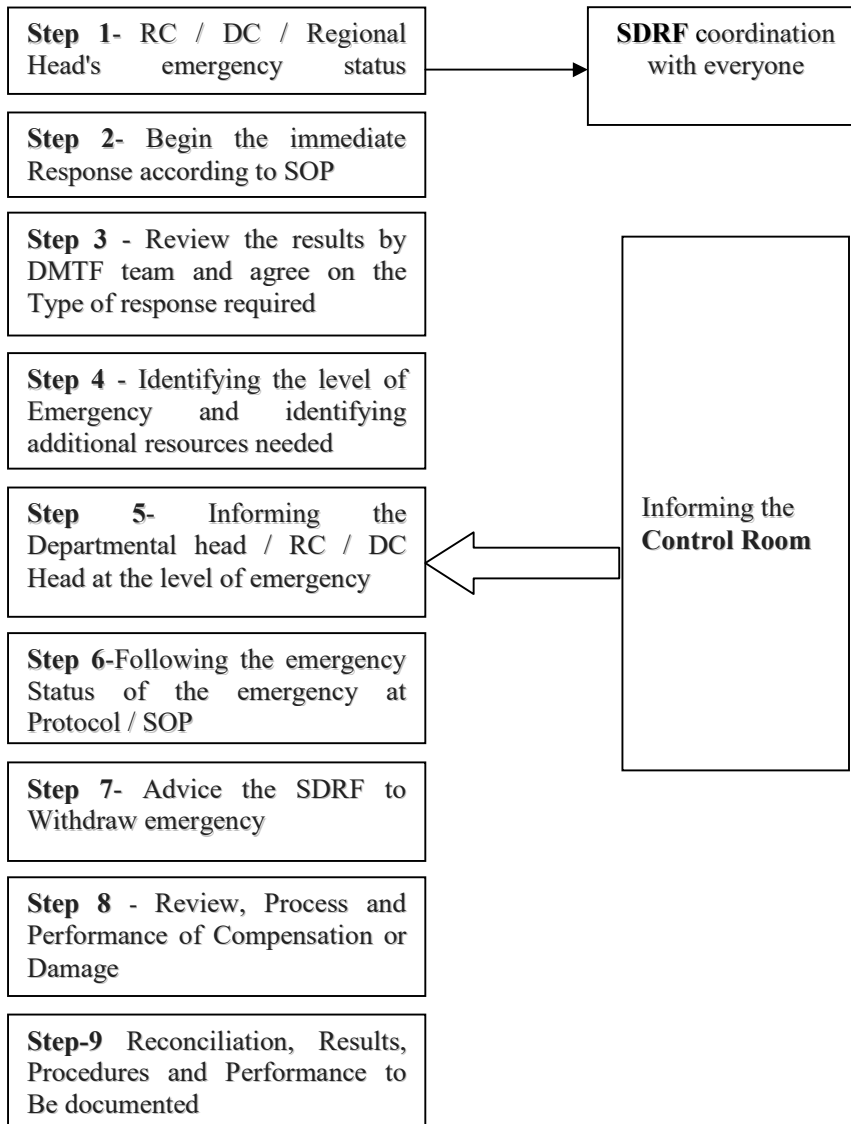


Figure 1: The Proposed Disaster Pre-Warning System of the District



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

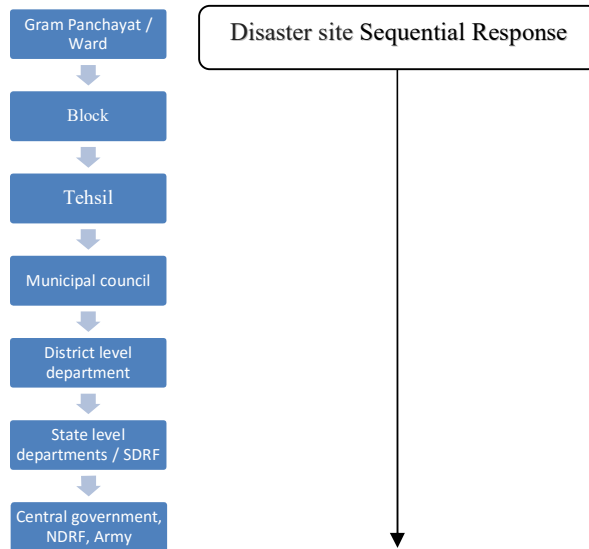
1.4 Execution of Phase II of Relief and Response in the context of Raigarh District

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 Raigarh 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.

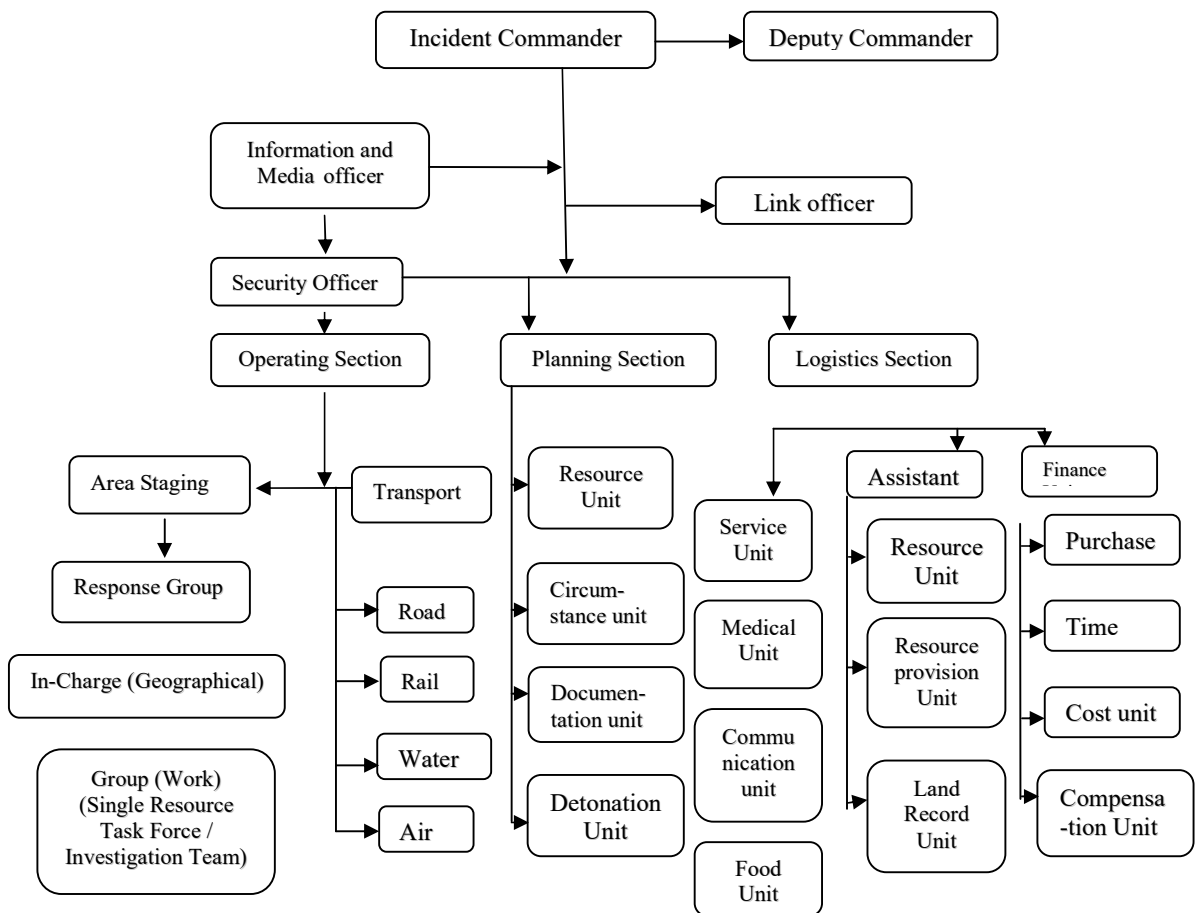
1.5 Activation of State government/ District administration

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 Raigarh 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 –

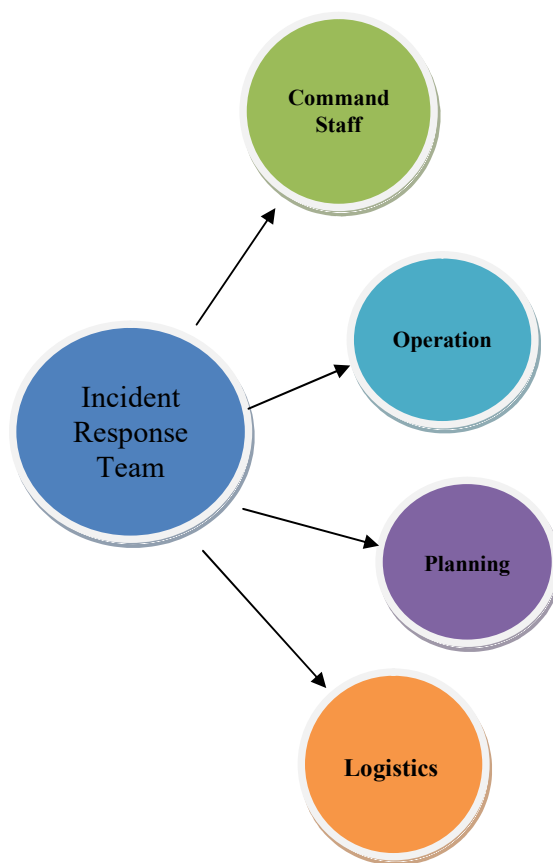


Figure 2: Incident Response Team framework (IRTF)

| | |
|-------|---|
| 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 Raigarh 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.

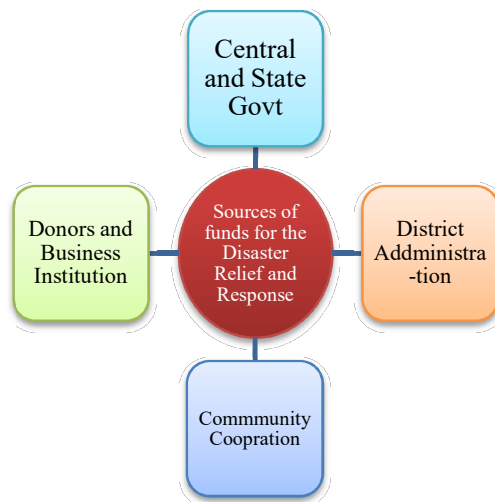


Figure 3: Sources of funds for the Disaster Relief and Response

2. Measures for Reconstruction and Rehabilitation

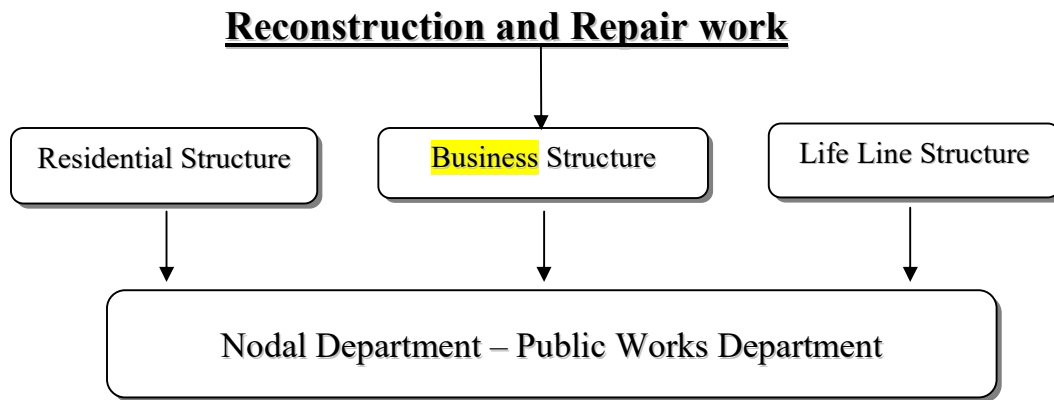
2.1 Reconstruction and Rehabilitation

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 Raigarh . 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.

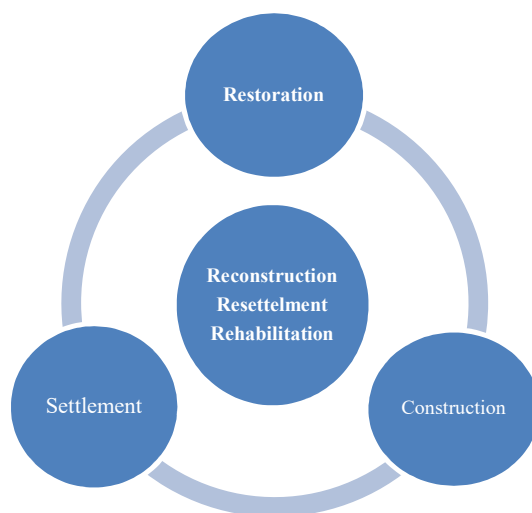


Figure 4: Key points of Policy Making

- **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 Raigarh 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.

| S.No | Details of Officers | Designation | Office | Mobile |
|-------------|---|--------------------|---------------------|--------------------------|
| 1 | Collector | Chairman | 07762-222103 | 9424203999 |
| 2 | Elected Representative of Local Authority | Co - Chairman | -- | 9425250992 |
| 3 | CEO, Zila Panchayat | Member | 07762-222032/224496 | 9009157223 |
| 4 | Superintendent of Police | Member | 07762-223333 | 9479157200 |
| 5 | CMHO | Member | 07762-232044 | 9424194328 8319599131 |
| 6 | EE, Water Resource Department | Member | 07762-220266 | 9406355335 |

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.

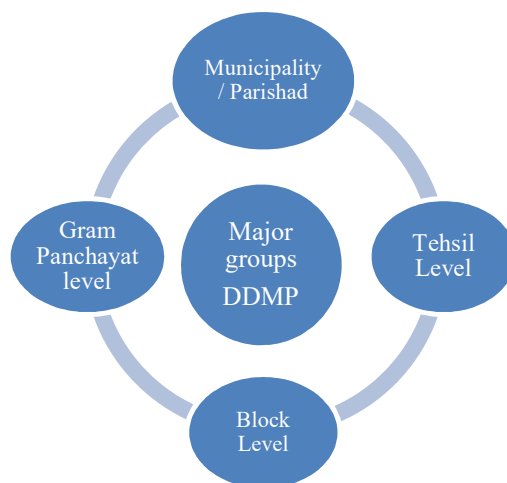


Figure 5: Tactical system of monitoring and updating of DDMP

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 Raigarh district, the Home Guard (Nagar Sena) will be a local administrative organization.

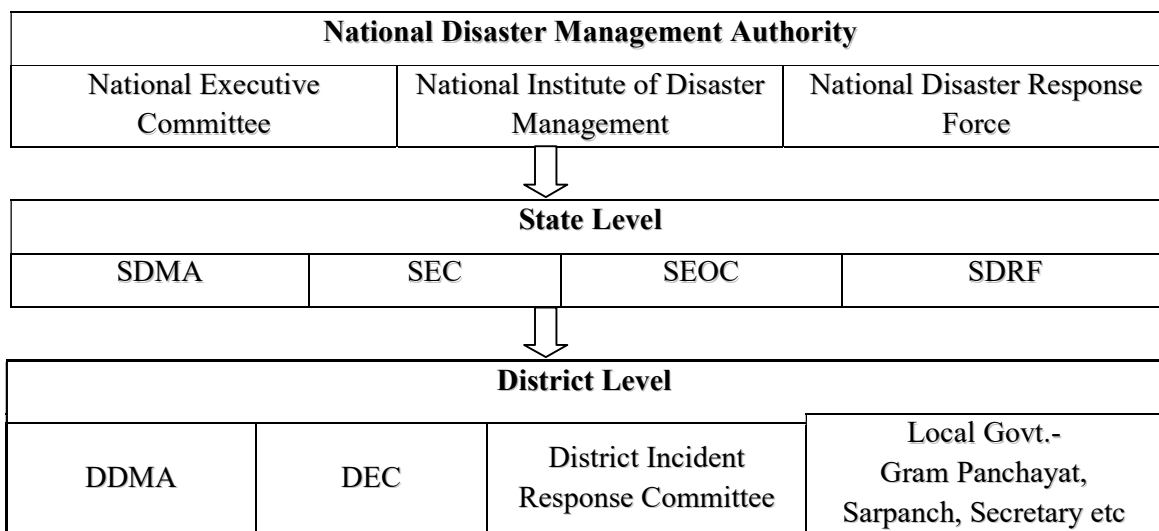
Thus, making the disaster special and local administration a responsible institution would make MockDrill more effective, where as financial resources will be obtained from the District administration and the State Disaster Management Fund.

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 Raigarh 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

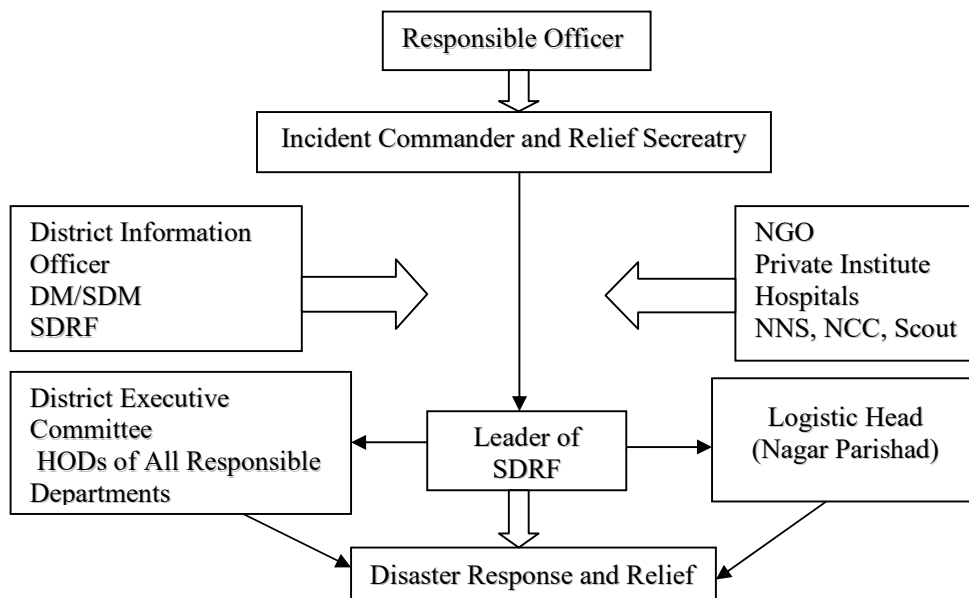
For the purpose of promoting the capacity of all the stakeholders for disaster management in the state, the Disaster Management Training Center is working in Chhattisgarh administration academy, Nimora, Raipur. This organization organizes training programs for disaster management, preparing promotional 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

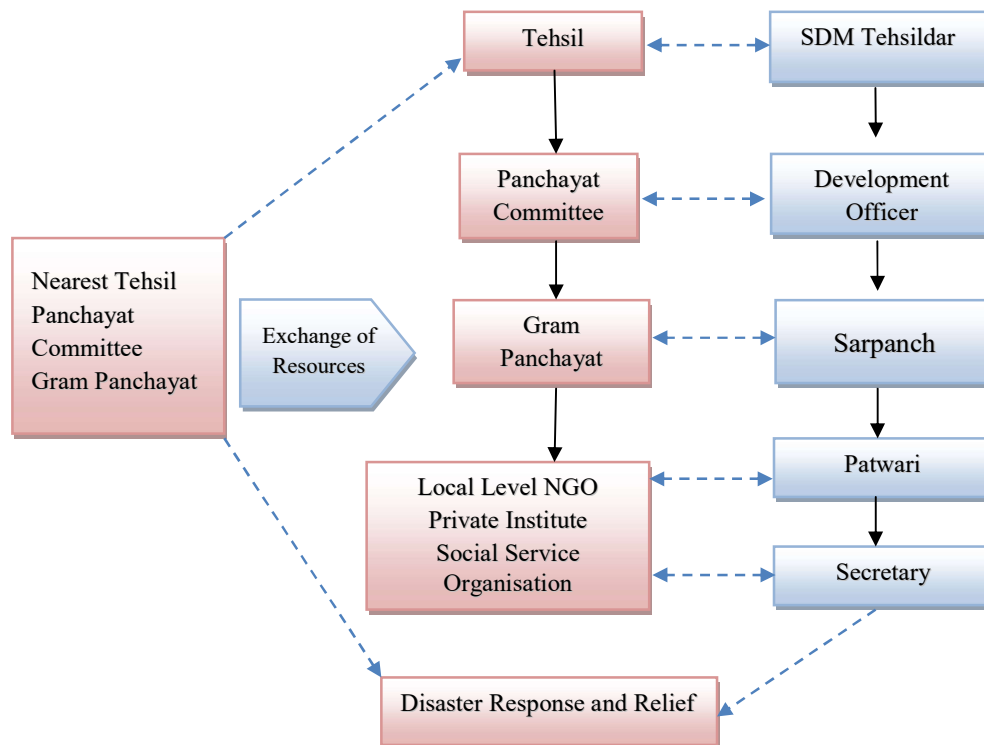
First Responders are local administrators and people at the time of the disaster. After that, the district has to take responsibility. DDMP in the district is at the highest level. After this the District's responsible officer will be the District Collector. After this, the Chief Secretary of the District 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 Raigarh 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 Raigarh district can be encouraged to provide shelter and necessary medical facilities

5.10 Coordination with Neighbour Districts

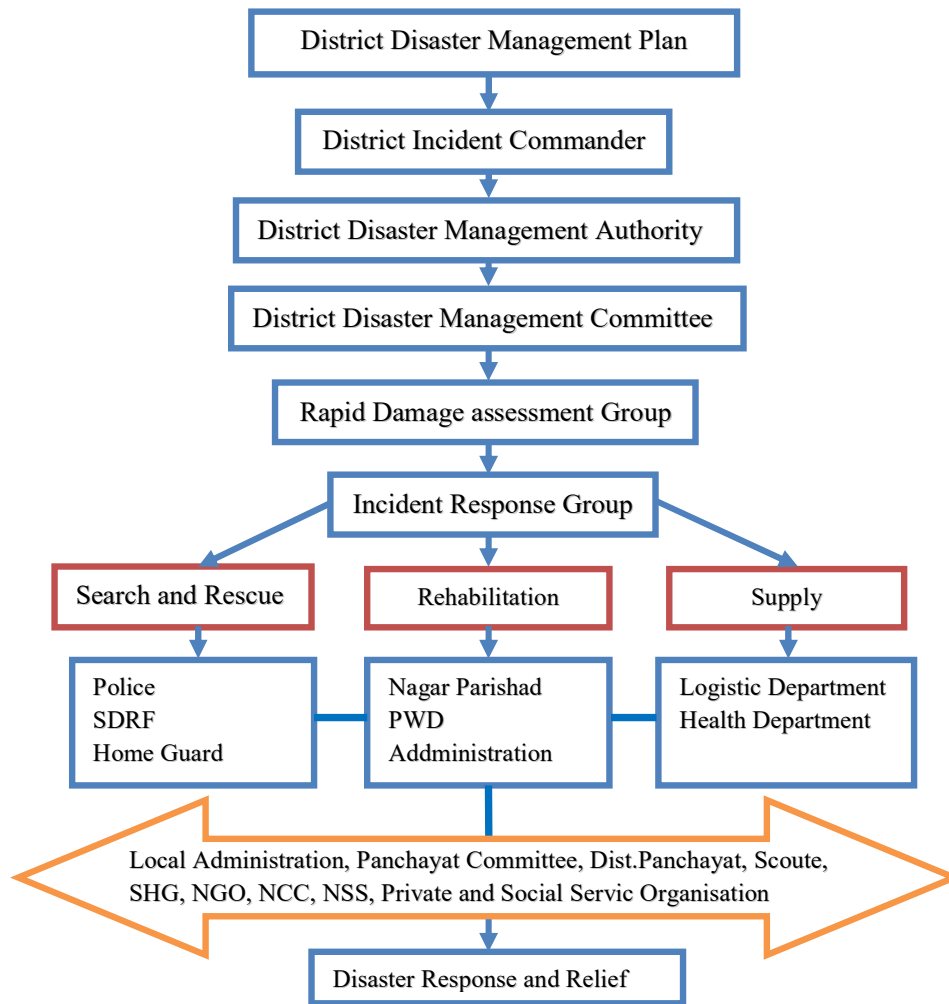
Every district, in the context of disaster management, is not equipped from all resources and capable. There is a need for external assistance at every moment during the disaster. Raigarh district is a critical district in terms of disaster situation. For example, Tahsil Sarangarh, Baramkela of the district such areas where in case of disaster, the assistance from the neighboring district, Tehsil can be reached immediately, rather than district headquarter. Example - In case of disaster occurrence at Tehsil Sarangarh relief can be taken immediately from Janjgir-Champa, Balodabazar, Mahasamund district headquarter in Expectation of district headquarters Raigarh. For this, list of available resources in adjacent districts and tehsils in such remote areas will be kept at Raigarh District headquarter. So that help can be taken when needed. Here a list of districts and states is being given which are near and immediate assistance can be taken at the time of the disaster.

| Area | Neighbouring Districts |
|---------------|---|
| Raigarh | Janjgir-Champa District, Sundergarh district of Orisa |
| Sarangarh | Janjgir-Champa, Balodabazar, Mahasamund district |
| Kharsiya | Janjgir-Champa, Korba district |
| Gharghoda | Janjgir-Champa District |
| Lailunga | Jashpur District, Orisa Sundargarh District |
| Dharamjaygarh | Korba, Sarguja, Jashpur District |
| Tamnar | District, Sundergarh district of Orisa |
| Baramkela | Janjgir-Champa, Mahasamund district, Barghad district of Orisa |
| Pusaur | Janjgir-Champa, Mahasamund district, Jharsuraguda district of Orisa |

Table 6: Nearest district and state as per Tehsil 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 Raigarh, 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 organize 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-

| Task/ Function /Activity | Department/Responsible Officer |
|---|---------------------------------------|
| Raise alarm /Mass messaging/ Community syren system | District Emergency Operation Center |
| 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

| S.No | Function | Departments | Standard Relief Level and Rehabilitation |
|-------------|---|--|---|
| 1 | Vacate (residential and commercial building) | Police, Nagar Parishad | <ul style="list-style-type: none">• Empty risk full buildings, immediately.• Transportation of persons and essential items at safe places.• Provision of temporary safe accommodation for displaced people. |
| 2 | Search and Rescue | Police, NGOs, Scout, NSS,NCC, SDRF | <ul style="list-style-type: none">• Save the people trapped in the crisis and escort them to a safer place• Protecting the Endangered Animals• Search for missing persons |
| 3 | Security of affected area | Police, Home gaurd, SDRF | <ul style="list-style-type: none">• Security to avoid untoward at the affected site so that the crowd can be kept away from the disaster site. |

District Disaster Management, Raigarh (C.G.)

| | | | |
|---|----------------------|---|--|
| 4 | Traffic control | Traffic Police NGOs | <ul style="list-style-type: none"> • Do not allow vehicles to come near the affected area. • Arrangements for fast transport of vehicles engaged in relief work. • Arrangement of vehicles when needed. |
| 5 | Law and order | Police, SDRF | <ul style="list-style-type: none"> • The arrangement to stop the stampede at the time of the disaster. • Stop rumors • Prevent riots and looting. • Protection of life and property to affected |
| 6 | Decay of dead bodies | Police, Health Department, Nagar Parishad | <ul style="list-style-type: none"> • Immediate displacement of dead bodies to avoid epidemic and pollution. • The arrangement for the funeral of dead bodies |
| | | | <ul style="list-style-type: none"> • Arrangement of post mortem of dead bodies in case of chemical or biological or epidemic. • Inform to relatives of the deceased. |
| 7 | Debris disposal | Police, Nagar Parishad, SDRF | <ul style="list-style-type: none"> • Removal of debris for the re-installation of urgent services. • Put in the proper place of debris. • Careful deletion of debris, which does not damage valuable items and dead bodies. |

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"> • Distribution of milk, bread, milk powder etc. |
| | | <ul style="list-style-type: none"> • Food packets from donors, collecting from home, logistics department. |
| | | <ul style="list-style-type: none"> • Distribution of fruits etc. |
| 2 | Drinking Water | <ul style="list-style-type: none"> • Providing Drinking Water Tanker by the Nagar parishad. |
| | | <ul style="list-style-type: none"> • Clean drinking water by the Public Health Department |
| | | <ul style="list-style-type: none"> • Cleanliness of existing water sources. |
| | | <ul style="list-style-type: none"> • Restore drinking water supply immediately |
| 3 | Medicine | <ul style="list-style-type: none"> • Essential medicines by government hospital- Distribute medicine of fever, diarrhea etc |
| | | <ul style="list-style-type: none"> • Ensuring adequate stock in medical |
| 4 | Cloth | <ul style="list-style-type: none"> • Distribution of blankets and textiles by District Administration and donors |
| | | <ul style="list-style-type: none"> • Collection of old textiles by NGOs, NSS, NCC and distributions in needy. |
| 6 | Temporary Shelters | <ul style="list-style-type: none"> • Arrangement of temporary accommodation (school, college, government building) |
| | | <ul style="list-style-type: none"> • Tarpaulin distribution for rain protection |
| | | <ul style="list-style-type: none"> • Temporary Tents |
| 7 | Helpline | <ul style="list-style-type: none"> • Establishment of control room at the site. |
| | | <ul style="list-style-type: none"> • Establishment of helpline number immediately on the control room of the site. |

| | | |
|---|--------------------------------|---|
| 8 | VIP Touring | <ul style="list-style-type: none">• Inspection arrangements for Leaders, administrative officials, ministers of the government. |
| | | <ul style="list-style-type: none">• Transportation and control of the crowd. |
| 9 | Support from Private Institute | <ul style="list-style-type: none">• Private school as temporary accommodation |
| | | <ul style="list-style-type: none">• Use of resources of private hospitals |
| | | <ul style="list-style-type: none">• Taking help of JCB, tractor trolley, dumper etc. from private builders. |

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.

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अनुबंध

जिला – रायगढ़ (छ०ग०)

विषय-सूची

| क्रमांक | विषय - सूची | पृष्ठ संख्या |
|---------|--------------------------|--------------|
| 1 | अनुबंध 1 संपर्क विवरण | 1-11 |
| 2 | अनुबंध 2 उपकरणों कि सूची | 12-18 |
| 3 | अनुबंध 3 संसाधन | 19-22 |

अनुबंध 1 – संपर्क विवरण

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: hq.ndrf@nic.in | | | | |
| एक्सचेंज/रिसेप्शन विवरण | | | | |
| क्र. - 011-24369279, फैक्स - 011-24363261 | | | | |
| एनडीआरएफ यूनिट | | | | |
| श्री जैकब किसपोटटा, कमांडेंट | | | | |
| 3री एनडीआरएफ बटा. | | | | |
| पो - मुंडाली, कटक - ओड़िसा, पिन - 754013 | | | | |
| नाम | कार्यालय | फैक्स | यूनिट कंट्रोलरूम न. | ईमेल आई डी |
| ओड़िसा जोन | 0671-2879710 | 0671-2879711 | 0671-2879711 09437581614 | ori03-ndrf@nic.in |

| | |
|--------------------------|-----------------------------|
| राज्य बाढ़ नियंत्रण कक्ष | श्री एन.आर. साहू, उप सचिव |
| | पुराना भू - अभिलेख कार्यालय |
| | गाँधी चौक, रायपुर |

| राज्य बाढ़ नियंत्रण कक्ष | | | |
|--------------------------|---------------|---------------|--------------------|
| नाम | कार्यालय | फैक्स | ईमेल आई डी |
| नियंत्रण कक्ष | 0771- 2223471 | 0771- 2223472 | cgrelief@gmail.com |

जिला स्तर नियंत्रण कक्ष -

| क्र0 | आपदा नियंत्रण कक्ष | अधिकारी | दूरभाष/मोबाईल |
|------|---------------------------------|---|---------------|
| 1 | राज्य स्तर | श्री एन.आर. साहू , उप सचिव , राजस्व विभाग (आपदा प्रबंधन मंत्रालय, रायपुर) | 0771-2223471 |
| 2 | जिला स्तर | डॉ. दीनानाथ चौधरी, प.चि.स.श. पशु चिकित्सा रायगढ़ | 9752623592 |
| 3 | तहसील स्तर | डॉ. विनोद अग्रवाल, प.चि.स.श. विकासखण्ड रायगढ़ | 9977362642 |
| | | डॉ. सी.एस. पटेल, कृत्रिम गर्भाधान केन्द्र पुसौर | 8088579500 |
| | | डॉ. नरेश कुमार खुटे, विकासखण्ड बरमकेला | 79879977283 |
| | | डॉ. एस.के. जोल्हे, पशु चिकित्सालय सारंगढ़ | 9424262504 |
| | | डॉ. दिलीप कुमार पटेल, विकासखण्ड खरसिया | 9301346171 |
| | | डॉ. दिनेश कुमार कुर्रे, विकासखण्ड घरघोड़ा | 9329499827 |
| | | डॉ. वी.पी. सिदार, विकासखण्ड तमनार | 9098989567 |
| | | डॉ. ललित कुमार बिशवाल, विकासखण्ड लैलूंगा | 9617887365 |
| | | डॉ. विवेक नायक, विकासखण्ड धरमजयगढ़ | 8109299564 |
| 4 | नगर निगम | श्री प्रवीण सिंह गहलौत, मुख्य नगर पालिका अधिकारी खरसिया | 9977424466 |
| 5 | चिकित्सा विभाग | डॉ. एच.एस. उरांव मुख्य चिकित्सा एवं स्वा. अधिकारी | 9826191766 |
| 6 | जिला सेनानी, नगर सेना | ब्लांसियु कुजुर नगर सेना कमाण्डेड रायगढ़ | 9406331306 |
| 7 | पुलिस नियंत्रण कक्ष, सिविल लाईन | पुलिस अधीक्षक रायगढ़ | 9479193200 |

प्रशासकीय अधिकारियों के दूरभाष नंबरों की सूची
जिला रायगढ़ (छ0ग0)
विभाग का नाम – राजस्व विभाग

| क्रं. | अधिकारी का नाम | पदनाम | दूरभाष क्रमांक | | |
|-------|---------------------------|----------------------------------|----------------|--------|----------------------------|
| | | | कार्यालय | निवास | मोबाईल |
| 1 | श्रीमती शम्मी आबिदी | कलेक्टर | 222103 | 222101 | 94242-03999 |
| 3 | श्री मयंक चतुर्वेदी | सहायक कलेक्टर | | | 83779-94233 88402-66244 |
| 4 | श्री संजय दीवान | अपर कलेक्टर | 223912 | 223910 | 94060-17077 70007-30811 |
| 5 | श्री सुकनाथ अहिरवार | अपर कलेक्टर | | | 75873-71661 |
| 9 | श्रीमती नम्रता आनंद डोगरे | डिप्टी कलेक्टर | | | 96178-45121 79875-80824 |
| 10 | श्री गिरीश कुमार रामटेके | डिप्टी कलेक्टर | | | 99074-15109 |
| 11 | श्रीमती सरस्वती बंजारे | डिप्टी कलेक्टर | | | 91310-15171 |
| 12 | श्री दीपक कुमार निकुंज | डिप्टी कलेक्टर | | | 87178-33848 |
| 13 | सुश्री रुचि शर्मा | डिप्टी कलेक्टर (परिवीक्षाधीन) | | | 70492-90495 79746-65278 |
| 14 | श्री अरुण कुमार सोम | डिप्टी कलेक्टर (परिवीक्षाधीन) | | | 75874-50521 |

अनुविभागीय अधिकारी / तहसीलदार –

| अनुविभागीय अधिकारी (राजस्व) SDM | | | | | |
|--|-------------------------------------|---------------------------------|----------------|--------|----------------------------|
| क्रं. | अधिकारी का नाम | पदनाम | दूरभाष क्रमांक | | |
| | | | कार्यालय | निवास | मोबाईल |
| 1 | श्री हरीश एस. IAS | अनुविभागीय अधिकारी, खरसिया | 272651 | 224232 | 97877-89074 |
| 2 | श्री भागवत प्रसाद जायसवाल | अनुविभागीय अधिकारी, रायगढ़ | 222133 | 222125 | 9981995555 |
| 3 | श्री हितेश कुमार बघेल | अनुविभागीय अधिकारी, सारंगढ़ | 233213 | 233138 | 94252-81312 |
| 4 | श्री नंद कुमार चौबे डिप्टी, कले. | अनुविभागीय अधिकारी, धरमजयगढ़ | 266223 | 266223 | 88897-28864 |
| 5 | श्री अशोक कुमार मार्बल | अनुविभागीय अधिकारी, घरघोड़ा | 284523 | 284569 | 94255-84600 96448-00384 |
| 6 | श्री अभिषेक गुप्ता | अनुविभागीय अधिकारी, लैलूंगा | 274275 | | 94077-20005 |

| तहसीलदार | | | | |
|----------|-------------------------|--|----------------|----------------------------|
| क्रं. | अधिकारी का नाम | पदनाम | दूरभाष क्रमांक | |
| | | | कार्यालय | मोबाईल |
| 1 | श्री शशांक शेखर शुक्ला | प्र. तहसीलदार एवं नायब तहसीलदार रायगढ़ | 224233 | 94062-48817 |
| 2 | श्रीमती अवंति गुप्ता | तहसीलदार खरसियां | 272651 | 89823-92566 |
| 3 | श्री आशीष कुमार सक्सेना | तहसीलदार, घरघोड़ा | | 79749-20243 |
| 4 | श्री तीरथराम कश्यप | प्र. तहसीलदार एवं नायब तहसीलदार, तमनार | | 97701-00209 |
| 5 | कु. मधु गभेल | नायब तहसीलदार तमनार | | 96699-73194 |
| 6 | श्री गोविन्द राम डहरिया | तहसीलदार बरमकेला | | 97546-13085 |
| 7 | कु. प्रेमा किस्पोट्टा | नायब तहसीलदार बरमकेला | | 96170-66079 |
| 8 | श्री बालचंद्र सिंह | प्र. तहसीलदार एवं नायब तहसीलदार लैलूंगा | | 70896-11413 |
| 9 | सूश्री नीतु भगत | नायब तहसीलदार लैलूंगा | | 79996-32910 76975-19473 |
| 10 | कु. माया अंचल | प्र. तहसीलदार एवं नायब तहसीलदार धरमजयगढ़ | | 81030-48596 |
| 11 | श्री उमेश्वर बाज | नायब तहसीलदार धरमजयगढ़ | | 83499-87189 |
| 12 | श्री विवेक कुमार पटेल | नायब तहसीलदार खरसियां | | 75099-54555 |
| 13 | श्री सतीश कुमार रामटेके | प्र. तहसीलदार/नायब तहसीलदार सारंगढ़ | 233707 | 97546-53476 |
| 14 | श्री हेमराज ध्रुव | अतिरिक्त तहसीलदार उप तहसील कापू | | 94064-75462 |
| 15 | श्री हितेश कुमार साहू | नायब तहसीलदार घरघोड़ा | | 96699-24292 |
| 16 | श्री बंदे राम भगत | प्र. तहसीलदार एवं नायब तहसीलदार पुसौर | 262987 | 73893-91868 70896-06600 |
| 17 | कु. रेवती जांगड़े | नायब तहसीलदार पुसौर | | 93010-15352 |
| 18 | सुश्री कमलावती सिंह | नायब तहसीलदार सारंगढ़ (परि.) | | 82349-91778 |
| 19 | श्री लीलाधर चंद्रा | नायब तहसीलदार रायगढ़ (परि.) | | 83497-21876 99077-48330 |

जिला पंचायत/जनपद पंचायत –

| क्रं. | अधिकारी का नाम | पदनाम | दूरभाष क्रमांक | | |
|--|-------------------------------|---|------------------|--------|----------------------------|
| | | | कार्यालय | निवास | मोबाईल |
| 1 | श्रीमती चन्दन संजय त्रिपाठी | मुख्य कार्यपालन अधिकारी | 222032 224496 | 222146 | 90091-57223 |
| 2 | श्री दिलीप कुमार कुर्रे | अतिरिक्त मुख्य कार्यपालन अधिकारी | | | 94255-64640 87707-76271 |
| मुख्य कार्यपालन अधिकारी, जनपद पंचायत, जिला रायगढ़ | | | | | |
| 1 | श्री आशीष देवांगन (डि.कले.) | मु. का.पा.,अधि.ज.पं.रायगढ़ | 222717 | 222217 | 79997-09456 75870-79064 |
| 2 | श्री सी.एल. सिदार | मु. का.पा.,अधि.ज.पं.घरघोड़ा | 284568 | 284891 | 96170-56009 94252-60009 |
| 3 | श्री बी. आर. साहू | मु. का.पा.,अधि.ज.पं.तमनार | 281983 | | 98218-04599 94241-92499 |
| 4 | श्री एल.एन. सिदार | प्र. मु. का.पा.,अधि.ज.पं.लैलूंगा | 274202 | | 94241-92367 |
| 5 | श्री पयाम | मु. का.पा.,अधि.ज.पं.बरमकेला | 265243 | 265243 | 77719-00050 |
| 6 | श्री ओ.पी. शर्मा | मु. का.पा.अधि.ज.पं., खरसिया | 272053 | | 82240-07469 |
| 7 | श्री उपाध्याय | मु. का.पा.,अधि.ज.पं, पुसौर श्री राजेश चौधरी, सहा.ग्रेड. 76975.00207 | 262823 262987 | 262847 | 95848-95589 |
| 8 | श्री मयंक चुतर्वेदी | मु. का.पा.,अधि.ज.पं, धरमजयगढ़ | 266252 | | 83779-94233 88402-66244 |
| 9 | श्री ऋषि केश तिवारी (डि.कले.) | मु. का.पा.,अधि.ज.पं, सारंगढ़ | 233214 | | 94252-81258 |

पुलिस विभाग –

| क्रं. | अधिकारी का नाम | पदनाम | दूरभाष क्रमांक | | |
|-------|---------------------------|---------------------|-----------------------|--------|-------------|
| | | | कार्यालय | निवास | मोबाईल |
| 1 | श्री दीपक कुमार झा IPS | पुलिस अधीक्षक | 223333 | 222244 | 94791-93200 |
| 2 | श्री हरीश राठौर | अतिरिक्त पुलिस अधी. | 224581 Fax- 225506 | 224582 | 94791-93201 |
| 3 | श्री सिद्धार्थ तिवारी IPS | नगर पुलिस अधीक्षक | | | 79745-50759 |
| 4 | | कंट्रोल रूम | 222599 | | |

नगर निगम/नगर पालिका –

| मुख्य नगर पालिका/पंचायत अधिकारी, जिला रायगढ़ | | | | |
|--|-------------------------------|---|----------------|----------------------------|
| क्रं. | अधिकारी का नाम | पदनाम | दूरभाष क्रमांक | |
| | | | कार्यालय | मोबाईल |
| 1 | श्री विनोद पाण्डेय | आयुक्त, नगर पालिक निगम | 222911 | 94242-64100 62617-82208 |
| 2 | श्री प्रवीण सिंह गहलोत | मुख्य नगर पालिका अधिकारी खरसियां | 272277 | 99774-24466 |
| 3 | श्री खेल कुमार पटेल | मुख्य नगर पालिका अधिकारी, सारंगढ़ | 233208 | 88230-64000 99071-27763 |
| 4 | श्री जमुना प्रसाद बंजारे | मुख्य नगर पालिका अधिकारी, धरमजयगढ़ | 266234 | 99776-20592 |
| 5 | श्री जे.एस. राठिया | मुख्य नगर पालिका अधिकारी, घरघोड़ा | 284539 | 94255-71897 |
| 6 | श्री पी.एन. पटनायक | मुख्य नगर पालिका अधिकारी, लैलूंगा | 274788 | 73542-52530 |
| 7 | श्रीमती नीतु अग्रवाल | मुख्य नगर पालिका अधिकारी, पुसौर | 263043 | 99771-07570 |
| 8 | श्री राजेश तिवारी | मुख्य नगर पालिका अधिकारी, बरमकेला | 265213 | 87708-58237 |
| 9 | श्री आनंद राय | मुख्य नगर पालिका अधिकारी, सरिया | 267088 | 91115-12276 |
| 10 | श्री रामायण प्रसाद पाण्डेय | मुख्य नगर पालिका अधिकारी, किरोडीमल नगर | 262742 | 93297-64716 |

जिले के जल संसाधन विभाग के दूरभाष की जानकारी –

| जल संसाधन संभाग रायगढ़/धरमजयगढ़ | | | | | |
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| क्रं. | अधिकारी का नाम | पदनाम | कार्यालय का नाम | दूरभाष क्रमांक | |
| | | | | कार्यालय | निवास |
| 1 | श्री केशव कुमार | अधीक्षण अभियंता | 220266 | 220267 | 94063-55335 |
| 2 | श्री एस.एन.सिंह | अधीक्षण अभियंता | 272705 | | 94063-43243 99939-99344 |
| 3 | श्री कुलदीप तिर्की | अधीक्षण अभियंता | | | 99814-42876 |
| 4 | श्री आर.आर. सारथी | कार्यपालन अभियंता | 266267 | 266217 | 84629-94327 79875-23196 |
| 5 | श्री बी.के. मजूमदार | कार्यपालन अभियंता | 224778 | 224778 | 98261-06346 |
| 6 | श्री. आर.के.अग्रवाल | कार्यपालन अभियंता | | | 9425530369 |
| 7 | श्री पी.के. शुक्ला | कार्यपालन अभियंता | | | 94255-30239 |
| 8 | श्री एस.पी. सोनी | कार्यपालन अभियंता | | | 70494-38596 |

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| 9 | श्री शेख शाकिर | कार्यपालन अभियंता | | | 8225010568 |
| 10 | श्री सुनील कुमार गोहिल | कार्यपालन अभियंता | | | 98261-81481 |
| | श्री टी.आर. गुप्ता | अनुविभागीय अधिकारी वि/याँ | | | 80859-16045 |

जिले के विभागवार दूरभाष की जानकारी –

| क्रं. | अधिकारी का नाम | पदनाम | दूरभाष क्रमांक | | |
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| | | | कार्यालय | निवास | मोबाईल |
| 1 | श्री जगदेव प्रधान | जिला महिला बाल विकास अधिकारी | | | 96178-80552 |
| 2 | श्री नोहर सिंह ठाकुर | सहायक आयुक्त आबकारी | 222733 | 222921 | 76976-40119 94079-55255 |
| 3 | श्री अनिल पटेल | जिला कोषालय अधिकारी | 222815 | - | 93006-05514 |
| 4 | श्री संजय शर्मा | अधीक्षण अभियंता | | 220506 | 94252-11404 |
| 5 | श्री अखिलेश तिवारी | कार्यपालन अभियंता | | | 99817-56837 88172-36496 |
| 6 | श्री व्ही. के.भार्गव | सहायक अभियंता | | | 98261-39290 |
| 7 | श्री अगस्टीन टोप्पो | परिवहन अधिकारी | 225026 | | 94252-52024 |
| 8 | श्री आर.के. शर्मा | क्षेत्रीय पर्यावरण अधिकारी | 226569 | | 96850-95441 |
| 9 | श्री रमेश गुप्ता | प्र. मुख्य कार्यपालन अधिकारी अन्त्यावसायी | 223266 | 231023 | 98266-52579 |
| 10 | श्री जगजीवन राम जांगड़े | जिला अल्प बचत अधिकारी | - | 220911 | 94241-90082 |
| 11 | श्री एस.एस.नाग | उप संचालक, खनि विभाग, रायगढ़ | 220310 | | 70007-44432 72230-40707 |
| 12 | श्री बसंत कुमार | उप पंजीयक सहकारी संस्थाएं | 222752 | - | 83494-17105 |
| 13 | श्रीमती उषा साहू | प्रभारी जिला पंजीयक, | 224513 | 223739 | 94061-20621 |
| 14 | श्री जी.पी. राठिया | खाद्य अधिकारी | 222550 | | 94252-52188 88893-99438 |
| 15 | श्री ऋषि कुमार श्री पवन | प्रभारी, जिला सूचना एवं विज्ञान केन्द्र सूचना सहायक | 224531 | | 99261-11396 93013-89479 |
| 16 | श्री शिव कुमार पटेल | प्रभारी अधीक्षक भू-अभिलेख | 220193 | - | 70002-00605 |
| 17 | श्री कृपाराम सिदार | प्रभारी अधीक्षक जिला कार्यालय | 222291 | - | 78285-08866 |
| 18 | श्री एस. सी. सिंह | सहा संचालक, जिला योजना एवं सांख्यिकी | 223241 | 223044 | 98265-00179 |
| 19 | श्री एस.के. शर्मा | कार्यपालन अभियंता | 226935 | | 94242-09023 |
| 20 | श्री एस.पी.सिंह | अपेक्स बैंक (सहकारी बैंक) | 220238 | | 99936-83326 |
| 21 | श्रीमती शारदा पैकरा | प्रकिया प्रभारी, छ.ग.बीज निगम | | | 78790-19033 |

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| 22 | श्री शंभू कुमार देवांगन | जिला विपणन अधिकारी | 222895 | | 93006-21181 97705-11145 |
| 23 | श्री आर.के. बाघे | वाणिज्यकर अधिकारी सर्किल-1 | 222727 | 220841 | 94241-47577 |
| 24 | सुश्री मीना मिश्रा | वाणिज्यकर अधिकारी सर्किल-2 | 220670 | | 94255-13213 |
| 25 | श्री दीपक निषाद | विपणन | | | 94242-44769 |
| 26 | श्री पी.एस. आहूजा | सहा.दुग्ध आयुक्त | | 213054 | 98932-87814 |
| 27 | डॉ0 आर.एच. पाण्डेय | उप संचालक, पशुपालन विभाग | 231627 | | 94252-05158 |
| 28 | श्री आर.बी.आर.सिंह | जिला परियोजना अधिकारी | 224374 | | 94255-70389 |
| 29 | डॉ. उषा किरण बडाईक | उप संचालक | 222371 | 222623 | 94252-85626 |
| 30 | श्री धीरेन्द्र पंडा | जिला सैनिक कल्याण प्रभारी | 215766 | | 094398-60427 |
| 31 | श्री रमेश देवांगन | जिला मिशन समन्वयक | | | 99937-86923 91790-80121 |
| 32 | श्री आयुश | ई-गवर्नरर्स फेलो | | | 85271-96999 93991-30355 |
| 33 | श्री अनुपेन्द्र प्रधान | ई-डिस्ट्रिक मैनेजर | | | 77708-00709 |
| 34 | श्री डी.बी. प्रसाद | वेयर हाउस मैनेजर | | | 95840-78514 |
| 35 | जिला निर्वाचन कार्यालय | रायगढ़ | | DCC | 222290 231950 224141 |
| 36 | श्री जाधव श्रीकृष्ण ए.एन.एस. | वन मण्डलाधिकारी | 224426 226047 (F) | 222178 | 75870-12600 79871-76690 |
| 37 | श्री प्रणय मिश्रा | वन मण्डलाधिकारी | 07766-266739 | 266599 | 76920-79151 94500-64090 |
| 38 | श्री एस.आर. साय | उप वनमण्डलाधिकारी अधिकारी, रायगढ़ | | | 99932-46797 75870-12620 |
| 39 | श्री एन.आर खुटे | अनुविभागीय अधिकारी रायगढ़ | | | 94255-06111 |
| 40 | श्री एस.आर. बंजारे | अनुविभागीय अधिकारी | | | 97531-52309 |
| 41 | श्री हेमचंद पहारे | उपमंडलाधिकारी (घरघोड़ा) | | | 90096-66570 |
| 42 | श्री ए.के. व्यास | अधीक्षक, वन्यप्राणी अभ्यारण्य | | | 94062-21158 |
| 43 | श्री बी.एस. सरोटे | उप प्रबंध संचालक, जिला लघु वनोपज रायगढ़ | | | 94241-59875 96309-55160 |
| 44 | श्री बाबूलाल पटेल | सहा. श्रमायुक्त रायगढ़ | 222128 | | 99938-42789 |
| 45 | श्री सी. आदि नारायण | नागरिक आपूर्ति निगम (नान) | 224296 | | 96447-42408 |
| 46 | श्री एस.एस.कंवर | उप संचालक रेशम | 232463 | | 94252-52935 |
| 47 | श्री एम.आर.भगत | उप संचालक, कृषि | 223078 | 221365 | 94252-52794 |
| 48 | श्री के. एल. उईके | मुख्य महाप्रबंधक | 222914 | 225334 | 96175-35708 |
| 49 | ए. तिकी | महाप्रबंधक | | | 94061-13449 |
| 50 | श्री प्रमोद जैन | जिला रोजगार अधिकारी | 223042 | | 94252-75006 |

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| 51 | श्री मोहन कुमार | आयकर अधिकारी | 222893 | 223554 | 75871-90063 |
| 52 | श्री आर.पी. आदित्य | जिला शिक्षा अधिकारी | 222718 | | 94241-52005, 82260-12005 |
| 53 | श्री बी. बी. पाण्डेय | सहायक संचालक | 222364 | 222491 | 76979-22767 |
| 54 | श्री रमेश कुमार साहू | प्र.उप संचालक | 222732 | | 96913-79968 |
| 55 | श्री अभिमन्यु साहू | उप संचालक | | | 98939-35620 |
| 56 | श्री निधान सिंह कुशवाहा | सहायक संचालक उद्यान | 223039 | | 94061-24863 70001-97762 |
| 57 | श्री मनीष श्रीवास्तव | उप संचालक | | | 94255-47693 |
| 58 | श्री एस.के. देवांगन | सहायक नियंत्रक | | | 98935-66094 |
| 59 | श्री डी सिदार | कार्यपालन अभियंता, क्रेडा | 226069 | | 94062-88788 |
| 60 | श्री संदीप मार्को श्री राजू पटेल | सहायक अभियंता तकनीकी कर्मचारी 90981-95371 | | | 90989-22099 |
| 61 | श्री वेद प्रकाश पटेल | प्रभारी उप संचालक अभियोजन | 221270 | | 78797-85960 |
| 62 | श्री पंचानन गुप्ता | शासकीय अधिवक्ता | | | 98261-14426 |
| 63 | डॉ. सी.पी. देवांगन | जिला आयुर्वेद अधिकारी | 221622 | | 89669-83835 |
| 64 | श्री आर.एन. प्रसाद | प्र.सहायक संचालक | 226510 | | 94252-13911 |
| 65 | श्री उपेन्द्र वासिनिक | जिला विकास प्रबंधक | 221598 | | 94250-17463 |
| 66 | श्री अनंतराम प्रधान | सहायक संचालक | | | 94242-27913 |
| 67 | श्री प्रेम किशोर प्रधान | सहायक संचालक खेल एवं युवा कल्याण | | | 77469-63986 |
| 68 | श्री प्रमोद बैस | जिला खेल अधिकारी | | | 99261-51700 |
| 69 | श्री ए. एक्का | लीड बैंक अधिकारी | | | 82260-07240 94076-01964 |
| 70 | श्री व्ही.के.पण्डा | अधीक्षक | 232380 | | 94060-32840 |
| 71 | श्री के.के. पाटनवार | ड्रग इन्सपेक्टर | | | 9993450580 |
| 72 | श्री एल.एस बट्टी | प्रबंधक | 223113 | | 9300321027 |
| 73 | श्री टी.के.नाथ | अधीक्षक, सेन्ट्रल एक्साईस | | | 94790-69106 |
| 74 | श्री संतोष कुमार मिश्रा | जेल अधीक्षक, जिला जेल रायगढ़ | 222818 | | 98267-65955 |
| 75 | श्री बी. कुजूर | जिला सेनानी, नगर सेना | 222976 | 222864 | 94063-31306 |

छत्तीसगढ़ राज्य विद्युत मण्डल CSEB

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|---|--------------------|-------------------|--------|--------|-------------|
| 1 | श्री सी.एस.सिंह | अधीक्षण अभियंता | 226351 | 232935 | 94255-60671 |
| 2 | श्री गुंजन शर्मा | कार्यपालन अभियंता | 222016 | 222076 | 82258-33137 |
| 3 | श्री रणधीर दयासी | कार्यपालन अभियंता | 221113 | | 94252-52689 |
| 4 | श्री व्ही.पी. पटेल | कार्यपालन अभियंता | | | 99779-61515 |
| | श्री बलराम साहू | कार्यपालन अभियंता | | | 9424165394 |
| 5 | श्री पी.सी. महिस | कार्यपालन अभियंता | | | 98269-45037 |

| लोक निर्माण विभाग PWD | | | | | |
|-----------------------|---------------------------------|-----------------------------------|----------------------|--------|----------------------------|
| 1 | श्री ए.के. दीवान | कार्यपालन अभियंता | 220417 | 222172 | 94242-00944 98268-08944 |
| 2 | श्री मुरारी सिंह नायक | अनुविभागीय अधिकारी | | | 94252-52398 |
| 3 | श्री एस.बी.साय | अनुविभागीय अधिकारी | | | 94241-94279 |
| 4 | श्री गणेश शर्मा | अनुविभागीय अधिकारी | | | 97559-18900 |
| 5 | श्री एन.आर.भगत | अनुविभागीय अधिकारी | | | 982654-50345 |
| | श्री खारखा | अनुविभागीय अधिकारी | | | 78282-84029 |
| | श्री एन.के. लाल | कार्यपालन अभियंता | | | 94255-04983 |
| 6 | श्री ऋषि गुप्ता | अनुविभागीय अधिकारी | | | 98265-29709 97524-25701 |
| 7 | श्री सी.एच. चन्द्राकर | अधीक्षण अभियंता | 221671 222096 (F) | 222097 | |
| 8 | श्री रामावतार तिवारी | कार्यपालन अभियंता | 220354 (F) | | 94062-12152 89595-29990 |
| 9 | श्री ए.एल. बरेठ | सहायक अभियंता | | | 78989-09121 |
| 10 | श्री रामेश्वर प्रसाद सिंह मरकाम | प्रभारी अनुविभागीय अधिकारी | | | 99818-49670 |
| 11 | श्री मनोज कोराट | कार्यपालन अभियंता, नेशलन हाईवे | 224088 | | 91972-98899 |
| 12 | श्री बी.एल. ध्रुव | अनुविभागीय अधि०, नेशलन हाईवे | 224088 | | 94241-51128 |
| 13 | श्री बी.एस. भदोरिया | सहायक अभियंता | 77710-63855 | | 94255-73435 |
| 14 | श्री चंद्रिका पटेल | सब इंजीनियर | | | 99818-49670 |
| 15 | श्री आर.डी. पटेल | सब इंजीनियर | | | 98279&84197 |

ग्रामीण यांत्रिकी सेवा संभाग

| | | | | | |
|----|--------------------------|-------------------------------|--------|--------|-------------|
| 1 | श्री जी.एन.सिंह. तंवर | कार्यपालन अभियंता | | | 99931-94833 |
| 2 | श्री एस. एन. महापात्र | अनुविभागीय अधिकारी | 222196 | 220918 | 88273-29610 |
| 3 | श्री एस.के. कामण्डे | सहायक अभियंता | | | 94255-75429 |
| 4 | श्री लखन लाल चौहान | सहायक अभियंता | 284781 | 220880 | 94241-89412 |
| 5 | श्री एस.के. साहू | सहायक अभियंता | 266270 | 266270 | 88398-53490 |
| 6 | श्री एस. एन. महापात्र | प्रभारी अनुविभागीय अधिकारी | 272651 | | 88273-29610 |
| 7 | श्री सी.के.राठौर | सहायक अभियंता | 233805 | | 94252-52005 |
| 8 | श्री बी.एल.कोलाम | सहायक अभियंता | | | 95896-94744 |
| 9 | श्री संदीप मेहर | प्रभारी सहायक अभियंता | | | 83195-15233 |
| 10 | श्री रामसिंह सिदार | प्रभारी सहायक अभियंता | | | 81034-07471 |

| लोक स्वास्थ्य यांत्रिकी विभाग | | | | | |
|-------------------------------|----------------------|------------------------------|--------|--------|-------------|
| 1 | श्री संजय सिंह | कार्यपालन अभियंता | 222972 | 225202 | 94242-48000 |
| 2 | श्री जे.पी.गोड़ | सहायक अभियंता | | | 94061-67886 |
| 3 | श्री विश्राम टंडन | प्रसहायक अभियंता | | | 94241-13837 |
| 4 | श्री एस.के.करसोलिया | सहायक अभियंता | | | 98933-81677 |
| 5 | श्री ए.के.साहू | सहायक अभियंता | | | 94255-70710 |
| 6 | श्री पी.पी.एस. पैकरा | सहायक अभियंता | | | |
| 7 | श्री व्ही. एन. धीरही | अनुविभागीय अधिकारी वि/यों | | | 99260-51149 |

अनुबंध 2 – उपकरणों की सूची

नगर सेना कार्यालय रायगढ़ जिला की जानकारी –

श्री श्री बी. कूजूर, कमान्डेड होमगार्ड, रायगढ़
मोबाईल नम्बर – 94063.31306

बाढ़ बचाव प्रशिक्षित/तैराक जवानों की सूची –

| क्र0 | पदनाम | नाम | मो0 नं0 | रिमार्क |
|------|-------------|------------------|------------|----------|
| 1 | पी0सी0व्ही0 | तोषण तिवारी | 9691564418 | बोट चालक |
| 2 | हवलदार | सुरेश कुमार होता | 8236938084 | |
| 3 | सैनिक | राम कुमार | 8827148855 | |
| 4 | नायक | ष्वेत कुमार | 9907934650 | |
| 5 | सैनिक | मुनारीलाल | 9981605260 | |
| 6 | सैनिक | पिलेष्वर | 7898931913 | |
| 7 | —”— | जगदीष प्रसाद | 9977554625 | |
| 8 | —”— | सन्त राम | 9770522696 | |
| 9 | —”— | गनपत लाल | 7566576222 | |
| 10 | —”— | सुरीत लाल | 7694095549 | |
| 11 | —”— | उदय लकडा | 9754074384 | |
| 12 | —”— | कांषी राम | 9754508350 | |
| 13 | —”— | सुन्दर मणी | 8817428345 | बोट चालक |
| 14 | —”— | हरिषंकर | 9770982275 | |
| 15 | —”— | माधव सिंह | 9827537438 | |
| 16 | सैनिक | नरायण पटेल | 9753305310 | |
| 17 | —”— | बुध राम | 9753599271 | |
| 18 | लां.ना. | दिलचन्द | 9981671845 | |
| 19 | —”— | लखन लाल | 9755201526 | |
| 20 | —”— | कृष्ण कुमार | 8889484529 | |
| 21 | —”— | उदय राम | 8959731433 | |
| 22 | —”— | कुलदीप | 8120491107 | |
| 23 | —”— | तिलकसाय | 9753903584 | |
| 24 | लां.ना. | गजानन्द | 9301587069 | |
| 25 | सैनिक | जीवनलाल | 9584082919 | |
| 26 | —”— | तिजकुमार | 8878251518 | |
| 27 | —”— | मुनूराम | 9669056881 | |
| 28 | —”— | ललित कुमार | 9303621341 | |
| 29 | सैनिक | गजेन्द्र प्रसाद | 9329955828 | |

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|----|--------|-----------------|------------|----------|
| 30 | ला.ना. | मायाराम | 9630472190 | |
| 31 | सैनिक. | चैतन सिंह | 7441140721 | बोट चालक |
| 32 | —"— | गनपत सिदार | 9575847947 | |
| 33 | —"— | चन्द्रहास | 8889973281 | |
| 34 | —"— | जितेन्द्र कुमार | 8319314597 | |
| 35 | —"— | तरुण कुमार | 9617078268 | |
| 36 | —"— | बलवन सिंह | 9754158480 | |
| 37 | —"— | निर्मल साव | 9752010176 | |
| 38 | —"— | आनन्दराम | 9111317921 | |
| 39 | —"— | सर्मेसिंह सिदार | 9617508209 | |
| 40 | —"— | श्रवण कुमार | 9644613169 | |
| 41 | —"— | मुन्नालाल | 7879458269 | |
| 42 | —"— | नरसिंह भगत | 9753817524 | |
| 43 | —"— | सफेदराम | 8770671066 | |
| 44 | —"— | शीलानाथ | 9575355597 | |
| 45 | —"— | महेन्द्र गुप्ता | 9826327076 | |

फायर —

अग्निषमन कर्मचारियों की जानकारी

| क्र. | कर्मचारियों का नाम | पदनाम | मो0 न0 |
|---|------------------------|-------------------|------------|
| 1. | श्री अनिल वैद्य | फॉयर अधिकारी | 8319317065 |
| 2. | श्री प्रमोद कुमार जोगी | फॉयरमेन ग्रेड- II | 9685249576 |
| 3. | श्री विपिन कुमार खलखो | फॉयरमेन ग्रेड- II | 9617886603 |
| 4. | श्री सुमित केसरवानी | फॉयरमेन ग्रेड- II | 9827502359 |
| फॉयर चालक/फॉयरमेन प्लेसमेंट कर्मचारी | | | |
| क्र. | कर्मचारियों का नाम | पदनाम | मोबाईल नं. |
| 1. | सुभाष यादव | फॉयर चालक | 9098527019 |
| 2. | भरत पटेल | फॉयर चालक | 7089852466 |
| 3. | बाबुलाल चौहान | फॉयर चालक | 9644811606 |
| 4. | संतोष सिंह | फॉयर चालक | 9424194725 |
| 5. | कृष्ण चंद्र जगत | फॉयर चालक | 9685854170 |
| 6. | रवि निषाद | फॉयर चालक | 8349431154 |
| 7. | रघुनाथ चौहान | फॉयर चालक | 9691352392 |
| 8. | धरमू यादव | फॉयर चालक | 8223972559 |
| 9. | नारायण डेहरी | फॉयर चालक | 8962175820 |
| 10. | किशन साहू | फॉयरमेन | 7772999800 |
| 11. | राज कुमार साहू | फॉयरमेन | 9827502359 |
| 12. | जावेद सिंह | फॉयरमेन | 7389212977 |

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|-----|----------------------|---------|------------|
| 13. | राजेन्द्र पटेल | फॉयरमेन | 9424267191 |
| 14. | डिगेश पटेल | फॉयरमेन | 8821826883 |
| 15. | डिगम्बर यादव | फॉयरमेन | 8085570827 |
| 16. | संदीप कुजूर | फॉयरमेन | 9406941485 |
| 17. | लोकनाथ पटेल | फॉयरमेन | 9425566191 |
| 18. | लक्ष्मीनारायण यादव | फॉयरमेन | 9424274191 |
| 19. | रंजीत गुप्ता | फॉयरमेन | 8349057861 |
| 20. | अनिल कुमार भगत | फॉयरमेन | 8103571291 |
| 21. | जितेन्द्र कुमार साहू | फॉयरमेन | 9993367300 |

जिला रायगढ़ में आपतकालीन स्थिति की सूचना से संबंधी मोबाईल नम्बर एवं लैण्ड लाईन नम्बर निम्नानुसार है –

| | | |
|----|--------------------------------------|--------------------------------|
| 01 | फायर कन्ट्रोल रूम रायगढ़ – | 101, 07762–223885 |
| 02 | पुलिस कन्ट्रोल रूम चक्रधरनगर रायगढ़– | 100, 07762–222599, 94791–93299 |
| 03 | जिला अस्पताल रायगढ़– | 07762–222979 |
| 04 | जिला सेनानी,कार्यालय रायगढ़ – | 07762–222976 |

जिला रायगढ़ में उपलब्ध फायर सामग्री/बाढ़ बचाव सामग्री एवं तैराक जवानों की सूची वर्ष 2018

बाढ़ आपदा राहत, सामग्री की सूची –

| क्रं. | वस्तु का नाम | संख्या |
|-------|--------------------------------|-------------|
| 01 | लाइफ बाय | 9 |
| 02 | लाइफ जैकेट | 88 |
| 03 | ट्रक ट्यूब | 03 |
| 04 | एल्युमिनियम मोटर बोट इंजन सहित | 01 |
| 05 | रबर मोटर बोट मय इंजन 25 एच.पी. | 03 |
| 06 | रबर मोटर बोट मय इंजन 40 एच.पी. | 01 |
| 07 | सर्च लाइट | 06 |
| 08 | मनीला रोप 100X1.5 | 17 |
| 09 | नायलोन रोप 100X1.5 | 11 |
| 10 | तारपोलियन ष्ठीट 12X12 | 04 |
| 11 | कटिंग प्लायर | 02 |
| 12 | ड्रम 200 लीटर | 05 |
| 13 | मेगा फोन | 02 |
| 14 | नारियल रस्सी | 09 कि0ग्रा0 |

| | | |
|----|--------------------------------|----|
| 15 | चप्पू (ओर्स) | 10 |
| 16 | पम्प | 01 |
| 17 | जाली | 01 |
| 18 | टार्च सादा | 04 |
| 19 | नायलोन रस्सा 100 फीट | 01 |
| 20 | पेट्रोल/मिट्टी तेल टंकी | 10 |
| 21 | पेट्रोल पाईप | 05 |
| 22 | कीलें | 04 |
| 23 | गम बुट | 44 |
| 24 | इनपलेटेबल इमरजेंसी लाईट सिस्टम | 04 |
| 25 | रोप लांचिंग गन | 01 |
| 26 | चैन साँ | 04 |

जिले की फायर स्टेशन में उपलब्ध वाहन/उपकरण एवं सामग्रियों की सूची निम्नानुसार है -

| क्रमांक | सामान का नाम | संख्या |
|---------|------------------------------------|--------|
| 01 | कम्प्यूटर सेट | 01 |
| 02 | प्रिंटर लेजर | 01 |
| 03 | यु0पी0एस0 | 01 |
| 04 | फैक्स मशीन | 01 |
| 05 | ऑफिस टेबल | 01 |
| 06 | ऑफिस चेयर | 01 |
| 07 | स्टील बेन्च | 01 |
| 08 | एंगल आयरन रेक | 01 |
| 09 | कम्प्यूटर टेबल | 01 |
| 10 | कम्प्यूटर चेयर | 01 |
| 11 | स्टील बुक केस | 01 |
| 12 | स्टील अलमारी | 01 |
| 13 | फायर प्रोक्सीविटी शूट | 01 |
| 14 | प्रोटेक्टिव ग्लोब हाट एण्ड कोल्ड | 06जोड़ |
| 15 | वाटर जेल फायर वर्न ब्लैकेट | 01 |
| 16 | पोर्टेबल वाटर मिस्ट टेक्नोलाजी पैक | 02 |
| 17 | फायर एप्रोचसूट फायर एण्ट्रीसूट | 02 |
| 18 | गैस मास्क फार वेरियस टाईप आफ गैसेस | 04सेट |
| 19 | फायर हुटर | 01 |
| 20 | फायर बेल | 01 |
| 21 | सेफ्टी टार्च | 01 |
| 22 | हेलमेट | 09 |
| 23 | गम बूट | 12 |
| 24 | सेल्फ पावर शॉ बूट | 01 |
| 25 | इलेक्ट्रानिक चैन शॉ | 01 |
| 26 | डिस्ट्रेस सिग्नल यूनिट | 01 |
| 27 | रोटरी हेमर डील | 01 |
| 28 | रोटरी हेमर डील बिट | 01 |
| 29 | रेसी प्रेक्टिंग शॉ | 01 |

| | | |
|----|---|----|
| 30 | रेसी प्रेक्विटग शॉ ब्लेड वूड | 01 |
| 31 | रेसिं प्रेक्विटग शॉ मेटल | 01 |
| 32 | कार्डलेस हेमर ड्रील | 01 |
| 33 | ओ.बी.एम. | 01 |
| 34 | सेपटी लांग बुट फायर फॉयटिंग | 17 |
| 35 | फायर फायटर हेलमेट | 05 |
| 36 | सर्च लाईट हार्ट पावर | 09 |
| 37 | सेपटी इ.एस. ओ. क्ली. गागल्स | 04 |
| 38 | फायर स्टग्यूसर एसरोसेल / केमि. | 03 |
| 39 | होजरील टाईप ब्रशट 15 मी. | 11 |
| 40 | फायर एट्रीसूट | 01 |
| 41 | बी.ए. बेक प्लेट सेट | 02 |
| 42 | बोल्ट कटर | 03 |
| 43 | फूल बाडी हार्नेस पी.एन. 56 नं. | 01 |
| 44 | सेल्फ कन्टनयूट ओपन सर्किट टाईप विथिंग आपरेट्स | 01 |
| 45 | गैस मासक फार वेरियस आफ गेसेस | 06 |
| 46 | डिस्टेन्स सिग्नल यूनिट | 02 |
| 47 | हेड आफ लाईट | 04 |
| 48 | एवा कुशन ट्रिंकल | 05 |
| 49 | मलटी डिटेक्टर | 01 |
| 50 | हेड ग्लोब | 08 |
| 51 | डिलेक्हरी होहज पाईप मेल एण्ड फिमेल | 13 |
| 52 | सेक्सन रबर होज पाईप | 05 |
| 53 | इमरजेन्सी बांच पाईप | 04 |
| 54 | हाईडेन्ट की | 04 |
| 55 | मेल टू मेल एडाप्टर | 12 |
| 56 | फिमेल टू फिमेल एडाप्टर | 11 |
| 57 | लार्ज एक्स | 16 |
| 58 | पीक एक्स | 16 |
| 59 | स्पेड | 15 |
| 60 | सावेल | 15 |
| 61 | होज रेम्स | 03 |
| 62 | बास्केट स्टेनर | 06 |
| 63 | इमरजेन्सी ड्रेगन लाईट | 03 |
| 64 | टार्च | 08 |
| 65 | फस्टेड बाक्स | 03 |
| 66 | मोबलाईज पोल स्टेक्चर | 04 |
| 67 | हेण्ड टूल किट मैट्रिक | 04 |
| 68 | पावर कोट हेण्ड ग्लोब्स | 16 |
| 69 | कामटेक्स केनवास हेण्ड ग्लोब | 16 |
| 70 | सेक्सन स्पाईनर | 04 |
| 71 | सेक्सन रेन्ज | 04 |
| 72 | सेक्सन पावर | 08 |
| 73 | व्हील स्पाईनर | 04 |
| 74 | स्पेयर अक्सिजन सलेण्डर | 03 |
| 75 | फायर हुक | 02 |

01. फायर ब्रिगेड वाहन क्रमांक CG-13 L- 3517 पानी क्षमता 4500 लीटर

उक्त वाहन में उपलब्ध सामान :- फोम कम्पाउण्ड 500 लीटर

| क्रमांक | सामान का नाम | संख्या |
|---------|---|---------|
| 01 | डिलेवरी होज पाईप (केनवास का) | 04 नग |
| 02 | शक्सन होज पाईप | 02 नग |
| 03 | एक्स्टीग्यूसर 5 KG BC टाईप स्टोर प्रेसर | 01 नग |
| 04 | शार्ट ब्रांच | 01 नग |
| 05 | लंदन पेटर्न हैण्ड कंट्रोल ब्रांच | 01 नग |
| 06 | रिवालवींग ब्रांच | 01 नग |
| 07 | डिपयूजर ब्रांच | 01 नग |
| 08 | हेल्मेट | 04 नग |
| 09 | फोम ब्रांच 2 X | 01 नग |
| 10 | यूनिवर्सल रिच पाना | 02 नग |
| 11 | विल पाना | 01 नग |
| 12 | फोम कम्पाउंड Afff | 40 लीटर |
| 13 | DPC BC 50 KG एक्स्टीग्यूसर | 01 नग |
| 14 | Co2 22.5 Kg एक्स्टीग्यूसर | 02 नग |
| 15 | मोनिटर | 01 नग |
| 16 | होजरील होज पाईप | 02 नग |
| 17 | एल्युमिनियम एक्सटेंशन लेडर | 01 नग |
| 18 | फायर बाकेट | 01 नग |
| 19 | मेटल स्टेनर | 01 नग |
| 20 | एंटी फ्यूमल पम्प | 01 नग |
| 21 | आयरन सिस्टम | 01 नग |
| 22 | फिमेल लॉक लक्स | 01 नग |
| 23 | सर्च लाईट | 02 नग |

02. फायर ब्रिगेड वाहन क्रमांक CG-13 L-3518 पानी क्षमता 4500 लीटर, फोम कम्पाउण्ड 500 लीटर

उक्त वाहन में उपलब्ध सामान -

| क्रमांक | सामान का नाम | संख्या |
|---------|---|---------|
| 01 | डिलेवरी होज पाईप (केनवास का) | 03 नग |
| 02 | शक्सन होज पाईप | 02 नग |
| 03 | शार्ट ब्रांच | 01नग |
| 04 | लंदन पेटर्न हैण्ड कंट्रोल ब्रांच | 01 नग |
| 05 | फोम ब्रांच 2X | 02 नग |
| 06 | फोम ब्रांच 5X | 01 नग |
| 07 | हेल्मेट | 04 नग |
| 08 | फोम कम्पाउंड Afff | 20 लीटर |
| 09 | एक्स्टीग्यूसर 5 KG BC टाईप स्टोर प्रेसर | 01 नग |
| 10 | मोनिटर | 01 नग |
| 11 | यूनिवर्सल रिच पाना | 02 नग |
| 12 | एल्युमिनियम एक्सटेंशन लेडर | 01 नग |
| 13 | DPC BC 50 KG एक्स्टीग्यूसर | 01 नग |
| 14 | Co2 22.5 Kg एक्स्टीग्यूसर | 02 नग |
| 15 | होजरील होज पाईप | 02 नग |
| 16 | मेटल स्टेनर | 01 नग |
| 17 | गोटी फायर बाकेट | 01 नग |
| 18 | सेंटी फ्यूगल पम्प | 01 नग |

| | | |
|----|----------------|-------|
| 19 | फिमेल लॉक लक्स | 01 नग |
| 20 | सर्च लाईट | 01 नग |

03. फायर ब्रिगेड वाहन क्रमांक CG-13 L- 4384

पानी क्षमता 4500 लीटर, फोम कम्पाउण्ड 500ली.

04. मिनी फायर ब्रिगेड वाहन क्रमांक CG-13A - 2520

पानी क्षमता 300 लीटर , फोम कम्पाउण्ड 50 लीटर

उक्त वाहन में उपलब्ध सामान :-

| क्रमांक | सामान का नाम | संख्या |
|---------|-----------------------------|----------|
| 01 | पानी टंकी | 300 लीटर |
| 02 | फोम कम्पाउण्ड | 50 |
| 03 | पम्प | 01नग |
| 04 | फायर एक्स्टिंग्यूसर 5 KG BC | 01 नग |

अनुबंध 3 – संसाधन

रायगढ़ जिले की महामारी नियंत्रण कक्ष की जानकारी –

| कार्यालय मुख्य चिकित्सा एवं स्वास्थ्य अधिकारी जिला रायगढ़ छ.ग. महामारी नियंत्रण कार्यक्रम वर्ष 2018-19 | | | | | | | |
|---|-------------|---------------------------|-------|-------------|-------------------|---------------|--------------|
| काम्बेट दलो की जानकारी | | | | | | | |
| क्रं. | जिले का नाम | काम्बेट दल प्रभारी का नाम | पदनाम | दूरभाष | सदस्यों के नाम | पदनाम | दूरभाष क्रं. |
| 1 | रायगढ़ | डॉ. टी.के. टोण्डर | एम.ओ. | 94241-94328 | डॉ. पी.के. गुप्ता | एम.ओ. | 94252-52730 |
| | | | | | डॉ. डी.आर.प्रधान | पशु चिकि.अधि. | 94241-88345 |
| | | | | | श्री हेमंत पटेल | एल.टी. | 94252-52278 |
| | | | | | श्री जोषी | वाहन चालक | 93001-98886 |

विकासखण्ड काम्बेट दल की जानकारी –

| क्रं. | जिले का नाम | विकास खण्ड का नाम | कॉम्बेट दल प्रभारी का नाम | पदनाम | दुरभाष | सदस्यों का नाम | पदनाम | दुरभाष नम्बर |
|-------|-------------|-------------------|---------------------------|------------------|------------|----------------------|------------------------|--------------|
| 1 | रायगढ़ | बरमकेला | डॉ. संजय पटेल, | चिकित्सा अधिकारी | 7587239108 | श्री एच.एस.पटेल | पर्यवेक्षक | 7354050300 |
| | | | | | | श्री गुलाब नायक | फार्मा ग्रेड 02 | 9826644253 |
| | | | | | | श्री अनुपम सिंह | भृत्य | 9926602454 |
| 2 | रायगढ़ | सारंगढ़ | डॉ.व्ही. पी. साय | चिकित्सा अधिकारी | 9425573590 | डॉ सुनील पटेल | चिकित्सा अधिकारी | 8817227322 |
| | | | | | | श्री दयाशंकर श्रीवास | ग्रामीण चिकित्सा सहायक | 9926131144 |
| | | | | | | श्री ए.ए. वाल्टर | बी.ई.टी.ओ. | 9479130303 |
| | | | | | | श्री एम. आर. कठौतिया | फार्मा ग्रेड 02 | 9300687173 |
| | | | | | | श्री सी.पी. रात्रे | ड्रेसर | 9301147680 |
| | | | | | | श्री डी.आर.तिवारी | वाहन चालक | 7489820221 |
| | | | | | | श्री विजेशंकर सिदार | ओ. टी. अटेण्डेन्ट | 7489502761 |

जिला आपदा प्रबंधन योजना, रायगढ़ (छोगो)

| | | | | | | | |
|-----------------|---------------|------------------------|-----------------------|-------------|------------------------------|---------------------|------------|
| 3 | पुसौर | डॉ. दिनेश नाईक | एम.ओ. | 7354111909 | श्रीमती मंजूषा शर्मा | सहा.चि.अधि. | 9425570706 |
| | | | | | श्री मुन्नालाल यादव | फार्मा ग्रेड 02 | 9827867801 |
| | | | | | श्री सतीश कुमार पटेल | एल.टी. | 9685276205 |
| | | | | | श्री मनोज कंवर | ड्रेसर | 9098917728 |
| | | | | | श्री निलांचल पण्डा | वार्ड ब्याय | 9203575513 |
| | | | | | श्री मेलप्रकाश मिंज | वाहन चालक | 8120808223 |
| 4 | रायगढ़ / लोईग | डॉ. डी. प्रशांता कुमार | एम.ओ. | 7389569112 | डॉ. हितेश जायसवाल | एम.ओ. | 7987960764 |
| | | | | | श्रीमती रश्मि देवांगन | आर.एम.ए. | 9827973231 |
| | | | | | श्री जी.एस. जोशी | फार्मा ग्रेड 02 | 9329748094 |
| | | | | | श्रीमती उपमा सूपकार | एल.एच.व्ही. | 9981158237 |
| | | | | | श्री शंकर सिंह सिदार | सहायक ग्रेड 3 | 9685708850 |
| | | | | | श्री आर.के.सोनी | ड्रेसर | 9303355453 |
| | | | | | श्री राजेन्द्र प्रसाद राठिया | वार्ड ब्याय | 9165043269 |
| श्री रूस्तम खान | वाहन चालक | 7000644056 | | | | | |
| 5 | तमनार | डॉ. धनसिंह पैकरा | खण्ड चिकित्सा अधिकारी | 8770025042 | श्री जयलाल सिदार | पर्यवेक्षक | 9009508642 |
| | | | | | फार्मा.ग्रेड-2 | फार्मासिस्ट ग्रेड 2 | 7024513801 |
| | | | | | श्री रोहित खलखो | वाहन चालक | 9753709904 |
| | | | | | श्री अनिल कुमार सिदार | वार्ड ब्याय | 9754068664 |
| 6 | चपले | डॉ. राजेन्द्र पटेल | एम.ओ. | 78988886098 | श्री डेविड बड़ा | फार्मा ग्रेड 02 | 8109293589 |
| | | | | | श्रीमति जमुना पटेल | स्टाफ नर्स | 9584304656 |
| | | | | | श्री भोजराम जांगड़े | ड्रेसर | 9754023343 |
| | | | | | श्री सुभाष डनसेना | वाहन चालक | 7828423513 |
| 7 | घरघोड़ा | डॉ. ए. मिंज | एम.ओ. | 8103032223 | श्री रामरतन पटेल | वार्ड बॉय | 7999460612 |
| | | | | | श्री व्ही.के. नायक | फार्मा ग्रेड 02 | 9425251643 |

| | | | | | | | |
|----|--------------------------|-------------------------------|-------|------------|-----------------------------|----------------------|------------|
| | | | | | श्री रोहित कुमार डनसेना | आर.एच.ओ. | 9407636682 |
| | | | | | श्री सभाष कुमार भगत | वाहन चालक | 7828690396 |
| | | | | | श्री संतोष निषाद | भृत्य | 9981005272 |
| | | | | | श्री जगबन्धु सिदार | वार्डबॉय | 8817214725 |
| 8 | धरमजयगढ़ | डॉ. शिशिर वृंद राठौर | एम.ओ. | 8208831461 | श्री विष्णु प्रसाद झरिया | सहा.चि.अधि. | 8959192229 |
| | | | | | श्री भुवनेश्वर सिंह कंवर | फार्मा ग्रेड 02 | 9907748427 |
| | | | | | श्रीमती उर्मिला भगत | एल.एच.व्ही. | 895982082 |
| | | | | | कृ. अमलती लकड़ा | लैब टेक्नीशियन | 9691316042 |
| | | | | | श्री मोहर साय सिदार | एम.पी.एस. | 9993087386 |
| | | | | | श्री मनियार सिंह सिदार | वार्ड ब्वाय | 9754363359 |
| 9 | लैलूंगा | डॉ. मनोज पटेल | एम.ओ. | 9827677407 | श्री भवानी शंकर भोय | सहा.चि.अ. | 9926193918 |
| | | | | | श्री रितेश पटेल | फा. ग्रेड 2 | 8117510124 |
| | | | | | श्री पीयूष केरकेट्टा | एम.पी.एस. | 9406127084 |
| | | | | | श्रीमति एस. ओहदार | एल.एच.व्ही. | 9424188061 |
| | | | | | श्री तोषलाल साव | ड्रेसर | 9669566364 |
| | | | | | श्री एम.एस. प्रधान | वाहन चालक | 9754454815 |
| 10 | धरमजयगढ़ (शहरी) सि.अ. | डॉ. व्ही. के. लकड़ा | एम.ओ. | 9406124509 | कृ. राजश्री पटेल | एम.एल.टी. | 9981969573 |
| | | | | | श्रीमती सरिता पैकरा | द्वितीय ए. एन.एम. | 9669913535 |
| | | | | | श्री हरीश कुमार चौहान | भृत्य | 7828693103 |
| 11 | खरसिया शहरी | डॉ. सौरभ अग्रवाल | एम.ओ. | 9961920270 | कृ. दिनेश्वरी नगारची | स्टाफ नर्स | 7868682024 |
| | | | | | रामेश्वर सारथी | ड्रेसर | 9926569559 |
| | | | | | श्री विमलेश बघेल | वाहन चालक | 9752546581 |

कार्यालय मुख्य चिकित्सा एवं स्वास्थ्य अधिकारी, जिला-रायगढ़ छ.ग.
महामारी नियंत्रण कार्यक्रम वर्ष 2019

नियमित जल शुद्धिकरण हेतु जिले के पेय जल स्रोतों की जानकारी

| क्रमांक | जिले का नाम | कुओं की संख्या | हेण्ड पंप की संख्या | नलजल योजना की संख्या | अन्य स्रोतों की संख्या |
|---------|-------------|----------------|---------------------|----------------------|------------------------|
| 1 | रायगढ़ | 4720 | 14833 | 281 | 3057 |
| योग | | 4720 | 14833 | 281 | 3057 |

डिपो होल्डर एवं मितानिन की जिलेवार जानकारी

| क्रमांक | जिले का नाम | डिपो होल्डर की संख्या | मितानिनों की संख्या |
|---------|-------------|-----------------------|---------------------|
| 2 | रायगढ़ | 1975 | 4020 |
| कुल | | 1975 | 4020 |

