

DISTRICT DISASTER MANAGEMENT PLAN- 2025



**DISTRICT DISASTER MANAGEMENT
AUTHORITY, SUNDARGARH**

Foreward

District Disaster Management Plan (DDMP) is such a document which envisages the preparedness of District Administration with all its inventory of resources and capacity to tackle any eventuality in the district. The DDMP-2025 has been prepared in consultation with various departments and other stakeholders that will serve as a guiding document for timely and planned response to mitigate the damaging effect of any hazards systematically and scientifically.

Section 31 of Disaster Management (DM) Act 2005 makes it mandatory to have a District Disaster Management Plan (DDMP) for every district. The District Disaster Management Plan-2025 of Sundargarh district was prepared as per the template developed by Odisha State Disaster Management Authority (OSDMA) with necessary support of Blocks, District Level Line Departments and other stakeholders.

The District Disaster Management Plan (DDMP) of Sundargarh District 2025 includes the facts and figures that has been collected from various formal and informal sources with an view to meet the challenges during any disaster. It is a continuous process to enhance and it will be modified and updated as per needs under District Disaster Management Authority, Sundargarh

Chairperson, Ex-officio
Collector & District Magistrate,
District Disaster Management Authority

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Abbreviations:

- AAO: Assistant Agriculture Officer
- ADMO : Additional District Medical Officer
- ADVO : Additional District Veterinary Officer
- ACSO: Assistance Chief Supply Officer
- ASHA: Accredited Social Health Activist
- AWW: Aganwadi Worker
- BEO: Block Education Officer
- CDMO : Chief District Medical Officer
- CDVO: Chief District Veterinary Officer
- CSO: Civil Supply Officer
- DAO: District Agriculture Officer
- DDMP: District Disaster Management Authority
- DEO: District Education Officer
- DEOC: District Emergency Operation Centre
- DPM: District Programme Manager
- DPO (SSA): District Programme Officer, Sarva Shiksha Abhiyan
- DPO (RMSA); District Programme Officer, Rashtriya Madhyamik Shiksha Abhiyan
- DSWO: District Social Welfare Officer
- DLO: District Labour Officer
- HRVA: Hazard Risk Vulnerability Assessment
- LI : Life stock Inspector
- MI: Marketing Inspector
- MO : Medical Officer

- MVI: Motor Vehicle Inspector
- NDMA: National Disaster Management Authority
- NDRF: National Disaster Response Force
- NEC: National Executive Committee
- NGOs: Non Governmental Organizations
- ORS: Oral Rehydration Solution
- PwD: Persons with Disability
- RI: Revenue Inspector
- RTO: Regional Transport Officer
- SAR: Search and Rescue
- SDMA: State Disaster Management Authority
- SDWO: Sub-Divisional Welfare Officer
- SEC: State Executive Committee
- SI: Supply Inspector
- SLCNC: State Level Committee on Natural calamity
- SDWO: Sub-divisional Welfare Officer
- SoP: Standard Operating Procedure
- VAW: Village Agriculture Worker
- VDs: Veterinary Dispensaries

Summary

The District Disaster Management Plan (DDMP) for Sundargarh district in 2024-25 is designed to ensure preparedness, response, and mitigation in the event of an impending disaster. Its purpose is to activate response mechanisms promptly without reliance on Emergency Officers during critical times. To achieve this, all participating managers must be familiar with their assigned tasks and response protocols in advance. Identifying available resources, including manpower, materials, equipment, and delegating financial and administrative powers appropriately, is essential for the effective operation of the DDMP.

The DDMP serves as the Standard Operating Procedure (SOP) for disaster management efforts on the ground. It prioritizes activities such as evacuation, search and rescue, temporary shelter, provision of food, drinking water, clothing, and ensuring health and sanitation standards as per the Minimum Standards of Relief guidelines issued by the National Disaster Management Authority (NDMA) in New Delhi.

Communication accessibility and public information dissemination are critical components of disaster management and are integral to the activation of the DDMP. These activities are relevant across all types of disasters and require supervision and preparation of action/sub-action plans by specified authorities.

The DDMP 2024-25 in respect of Sundargarh district provides raw information to response in various disasters.

The DDMP requires the disaster managers to:

- ❑ Evolve an effective signal/warning mechanism
- ❑ Identify activities/sub activities under each activity/level of activity
- ❑ Specify authorities for each level of activity / sub activity
- ❑ Determine the response time for each activity
- ❑ Workout individual plans of each specified authority to achieve activation as per the response time.
- ❑ Have quick response terms for each specified authority
- ❑ Have alternative plans and contingency measures
- ❑ Provide appropriate administrative and financial delegation to make the response mechanism functional & viable
- ❑ Undergo preparedness mock drills.

Chapter – 1 **Introduction**

Disaster Management Plan are prepared at various levels to enable the activation of response mechanism promptly, without losing on time in consulting senior officials and in getting formal approval from the higher authorities. India has embarked on the path of having a comprehensive response plans after the experience of Super Cyclone of Odisha 1999, the earthquake in Gujrat in 2001 and Tsunami in 2004. Response is the first stage of the disaster management cycle when a disaster has occurred or is imminent. Disaster response activities include setting up control rooms; putting the contingency plan in action, issue warning, action for evacuation, taking people to safer areas, rendering medical aid to the needy etc. Responders also need to cope with response – generated demands such as the need for coordination, communications, ongoing situation assessment and resource mobilization during the emergency period. There are three phases of responding- pre, during and post disaster.

The response period is of crucial importance. When the earthquake hit Gujrat on 26th January 2001, Crisis Management Group at the Central Government level was informed but it could only meet five and half hours after the tragedy. The Natural Disaster Management Division at the Centre was told about the quake at 8:56 am but medicos were sent to Bhuj at 7:30 p.m. Further, the State Government, which is primarily responsible for disaster management in India, has set up the Control Room by 9:45 am, but little was done for the next 36hours. In contrast, the Swiss Embassy, which was informed at 10 p.m. alerted all the team members of its response team within one hour and they reached there next day afternoon, that is, 14 hours after the request for help was made. This included the travel time from Switzerland to India. Unfortunately, formalities at the Airport took two hours, Had Indian response been equally prompt, may be few more lives could have been saved. The above discussion highlights the need for Response Plan.

Early response is dependent on the state of preparedness and the existence of a suitable response plans. A timely response can reduce the magnitude of loss of life and property. Though there has been a paradigm shift over from response to culture of prevention and mitigation, the uncertainty involving natural disaster makes it imperative to have a response plan. All disasters, including manmade disasters require a ready response plan, even if the prevention aspect has been taken care of in an adequate manner. For timely and adequate response, a comprehensive response Plan is a prerequisite. These are useful for issue of warnings, serve as guide to officials at the critical time by assisting them take immediate action, and time is not lost in consultation with senior officials and in getting formal approval from the authorities.

The District Administration is the focal point for the preparation of Response Plan at the district level as it is the point of public service delivery and responsible for directing, supervising and monitoring relief measures for disasters. This Multi-hazard disaster management plan is to help the district administration in effectively managing any disaster that is likely to be faced by the district of Sundargarh.

Precise actions, procedures and responsibilities have to be laid down well in advance in order to ensure timely response in case of any disaster. Therefore a mechanism that takes into account multiple hazards and basic preparedness has to be articulated in the form of Quick Response Teams, Quick Assessment Teams, Reporting Procedures, Checklist and Handbooks. The mechanism also lays down crucial parameters requirements and organizational composition of Emergency operations centres and incident command systems.

To reduce sustainably the disaster risk of this multi disaster prone district of Sundargarh minimizing the loss of life, property and livelihood during and after any disaster with proper plan to identify all common elements of response. This acts as a base plan or a generic / modular plan for all response activities. It provides a frame work around which other agencies and departments can outline their own activities for disaster response.

The District Disaster Management Plan (DDMP) has been envisaged as a preparedness plan whereby the receipts of a signal of an impending disaster would simultaneously energise and activate the mechanism for response and mitigation without loss of crucial time. This would be entailing all the participating managers to know in advance the task assigned to them and the manner of response. Identification of available resources including man power, materials, equipments and adequate delegation of financial and administrative powers are prerequisites for successful operation of the DDMP.

The DDMP is in essence, the Standard Operating Procedure (SOP) in which the implementation of efforts on ground is well laid down. Importance has been given to activities such as evacuation, search and rescue, temporary shelter, food, drinking water, clothing, health and sanitation. Communications accessibility and public information, that are important components of disaster management, would follow on the activation of the DDMP. These activities are common to all types of disasters and require supervision and preparation of action/sub action plans by each specified authorities. Each group/sub group has been requested to work out the DDMP mechanism to their relevant.

The DDMP requires the disaster managers to:

- ❑ Evolve an effective signal/warning mechanism
- ❑ Identify activities/sub activities under each activity/level of activity
- ❑ Specify authorities for each level of activity / sub activity
- ❑ Determine the response time for each activity

- ❑ Workout individual plans of each specified authority to achieve activation as per the response time.
- ❑ Have quick response teams for each specified authority
- ❑ Have alternative plans and contingency measures
- ❑ Provide appropriate administrative and financial delegation to make the response mechanism functional & viable
- ❑ Undergo preparedness mock drills.

*[Note: Introduction should confine to the following points in brief and limited to **3-4 pages** maximum. The write-ups are indicative only.]*

- *Aims and Objectives of the DDMP*

OBJECTIVES of DDMP

The District Disaster Management Plan is intended

- ❑ For sustainable reduction of impact of natural and man-made disasters through preparedness at District, Block, Gram Panchayat and Village level.
- ❑ To provide effective support and resources to all the concerned individuals, groups and departments in disaster.
- ❑ To assist the line departments, block administration, communities in developing compatible skills for disaster preparedness and management.
- ❑ To disseminate factual information in a timely, accurate and tactful manner while maintaining necessary confidentiality.
- ❑ To develop immediate and long-term support plans for vulnerable people in/during disasters.
- ❑ To create awareness among the people about hazard occurrence and increase their participation in preparedness, prevention, development, relief, rehabilitation and reconstruction process
- ❑ To have response system in place to face any eventuality
- ❑ To affect or elicit the least possible disruption to the normal life process when dealing with individuals in disaster
- ❑ To ensure active participation by the government administration, communities, NGOs, CBOs and volunteers at all levels making optimal utilization of human and material resources at the time of disaster.

PERSPECTIVE OF DDMP

A formal and complete plan for managing disaster would include:

- Understanding the multihazard scenario of the district
- Pre planning a proper sequence of response actions
- Allocation of responsibilities to the participant agencies

- Developing codes and standards operating procedures for various departments and relief agencies involved
- Inventory of existing facilities and resources
- Mechanism for effective management of resources
- Coordination of all relief activities including those of NGOs to ensure a coordinated and effective response
- Coordinating with the state response machinery for appropriate support
- Testing the plan including mock drills
- Defining levels of acceptable risk
- Monitoring and evaluation of actions taken during relief and rehabilitation

Authority for DDMP: Approval & implementation

1.1 District Disaster Management Authority

For the smooth implementation of the proposed Disaster Preparedness/Response/Mitigation Plan, there are some institutional arrangements at the district level. There is a District Disaster Management Authority (DDMA) constituted vide notification No. IVF-(OSDMA)-24/10- 46315/ R & DM dt.12th November, 2010 of Government of Odisha, Revenue and Disaster Management, Department as per Disaster Management Act, 2005 (No.53 of 2005) sub section (1) of Section 25.

In pursuance of sub sections (2) of section 25 of the Disaster Management Act, 2005 (No.53 of 2005), the District Disaster Management Authority for the district of Sundargarh in the State of Odisha which is consisted of the following members:

- | | | |
|-------|------------------------------------|---------------------------------------|
| i. | Collector and District Magistrate | - Chairman, ex-officio |
| ii. | Chairman, Zilla Parishad | - Co-Chairperson, ex-officio |
| iii. | Superintendent of Police | - Member, ex-officio |
| iv. | Chief District Medical Officer | - Member, ex-officio |
| v. | The Executive Engineer, Irrigation | - Member ex-officio |
| vi. | ADM, in charge of Emergency | - Chief Executive Officer, Ex-officio |
| vii. | Executive Engineer, RD | - Member |
| viii. | Project Director, DRDA | - Member |
| ix. | Dy. Director, Agriculture | - Member |

To assist the DDMA the District Disaster Management Teams are constituted on dated .05-05-2017 by the District Authority with distinct roles and responsibilities as per Section 28(1) of Disaster Management Act2005.

DDMA is the nodal committee for the disaster management at the district level and it consists of representatives of various stakeholders like PRIs (ZP President), Govt. Officials (various departmental heads), NGOs etc.

Power and Functions of district Authority:

According to Section 30 of DM Act 2005 the District Authority will act as the district planning, coordinating and implementing body for disaster management and take all measures for the purposes of disaster management in the district in accordance with the guidelines laid down by the national authority and state authority.

Function:

- Prepare the disaster management plan including district response plan for the district.
- Ensure that the areas in the district vulnerable to disasters are identified and measures for the prevention of disasters and the mitigation of its effects are undertaken by the departments of the government at the district level as well as by the local authorities.
- Ensure that the guidelines for prevention of disasters, mitigation of its effects, preparedness and response measures as laid down by the National Authority and the State Authority are followed by all departments of the Government at the district level and the local authorities in the district.
- Give directions to different authorities at the district level and local authorities to take such other measures for the prevention or mitigation of disaster as may be necessary.
- Lay down guidelines for prevention of disaster management plans by the department of the Government at the districts level and local authorities in the district.
- Monitor the implementation of disaster management plan prepared by the different line department of the district.
- Lay down guidelines to be followed by the departments of the government at the district level for purposes of integration of measures for prevention of disaster and mitigation in their development plans and projects and provide necessary technical guidance therefor.
- Review the preparedness measures of all line departments.
- Organize and coordinate specialized training programmes for different levels of officers, employees and volunteer rescue workers in the district. Organize community awareness and training programme for prevention of disaster.
- Prepare, review and update district level response plan and guidelines.
- Coordinate response to any threatening disaster situation or disaster.

DISTRICT DISASTER MANAGEMENT PLAN-2025

- Coordinate with and give guidelines to local authorities in the district to ensure that measures for the prevention or mitigation of threatening disaster situation or disaster in the district are carried out promptly and effectively.
- Establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at a short notice.
- Provide information to the state authority relating to different aspects of disaster management.
- Ensure communication systems are in order and disaster management drills are carried out periodically.
- Examine the construction work in the district abide by the standard of disaster prevention and mitigation.
- Identification of safe shelter in the event of disaster.

Responsibilities:

- To prepare the sector wise preparedness, response and mitigation plan to reduce the impact of disaster
- To ensure the smooth implementation of the plan before, during and after the disaster
- To define the roles and responsibilities of different DMTs and to coordinate with them during disaster.
- To organize training program for the different DMTs and identify suitable resource person.
- To sensitize various stakeholders on Disaster risk management.
- To educate the public on different hazards and what protective steps should be taken
- To make arrangements for emergency action
- To review the plan and to make necessary modification/updating
- Finally to approve the financial arrangement and monitor the program

Timeline For Meeting and Membership:

The DDMA must meet at least once in six months i.e. in the month of May and November before the Disaster Season under the chairmanship of the District Collector to update the plan. The President of the Zilla Parishad should be invited as a “Special Invitee” in the meeting of the DDMA. Collector should review the work of DDMA regularly. But during the time of emergency situation their meeting will be more frequent. According to Section 27-“The District Authority shall meet as and when necessary and at such time and place as the Chairperson may think fit”.

Note: Notification copy is attached in Annexure – I for reference.

District Disaster Management Teams: (DDMT)

The DDMT is formed under the guidance of DDMA as per Disaster Management Act Section 28(1). Various sub teams are formed to perform some sectoral activities for disaster management. The roles and responsibilities of each team are well defined to avoid any form of overlapping or duplicity during the time of disaster. They will perform their roles and responsibilities under the overall guidance of DDMA. In case of Sundargarh the following Additional Disaster Management Committee were formed as per Section 28 (1) of Disaster Management Act 2005 which are as follows:

- **Information Management Team:**

DI & PRO, Sundargarh, District Telecom officer (BSNL), District Emergency Operation Centre, Police Control Room

- **Food & Social Security Team:**

PD (DRDA), Sub-Collector, Sundargarh/ Bonai/ Panposh, All Tahasildar, All BDOs, DSWO, DSSO, DWO, Civil Supply Officer, District Panchayat Officer, District Labour Officer

- **Water Management Team:**

EE (Irrigation), EE (MIP), EE (OLIC), AE (Agriculture), EE (RWSS), (EE PHED), PD (Watershed)

- **Livelihood Team:**

PD DRDA, DDA, Sundargarh, DDH Sundargarh, CDVO, Asst. Director (Fishery), PD (Watershed), DSMS, GM-DIC, NGOs

- **Forest & Environment Team:**

DFO, Sundargarh/ NGOs

- **Rescue & Evacuation Team:**

SP, All Sub Collector, District Fire Officer, ODRAF team of OSAP, Rourkela

- **Emergency Health Management Team:**

CDMO, Red Cross, Representative Private Hospital, CDVO, NGO Coordination Cell

- **Relief Management Team:**

ADM, Sub-Collector, Sundargarh/ **Bonai/** Panposh/ All BDOs, All Tahasildars, Addl SP, NGOs/INGOs

- **Infrastructure Management Team:**

EE (R&B), EE (RD), EE (WESCO), APD (Technical), DRDA, EE (NH), District Panchayat Officer, NGOs/ INGOs.

Evolution of DDMP in brief: (Evolution, Procedure and Methodology to be followed for preparation of DDMP)

The evolution of disaster management thinking and practice since the 1970s has seen a progressively wider and deeper understanding of why disasters happen, accompanied by more integrated, holistic approaches to reducing their impact on society. The modern paradigm of disaster management – disaster risk reduction (Disaster Risk Reduction) – represents the latest step along this path. Disaster Risk Reduction is a relatively new concept in formal terms, but it embraces much earlier thinking and practice, and it is now being widely embraced by international agencies, governments, disaster planners and civil society organizations.

Disaster Risk Reduction is such an all-embracing concept that it has proved difficult to define or explain in detail, although the broad idea is clear enough. Inevitably, there are different definitions of the term in the technical literature but it is generally understood to mean the broad development and application of policies, strategies and practices to minimize vulnerabilities and disaster risks throughout society. The term 'disaster risk management' is often used in the same context and to mean much the same thing: a systematic approach to identifying, assessing and reducing risks of all kinds associated with hazards and human activities. It is more properly applied to the operational aspects of disaster risk reduction: the practical implementation of disaster risk reduction initiatives.

There have been growing calls for greater clarity about the components of disaster risk reduction and about indicators of progress towards resilience – a challenge which the international community took up at the UN's World Conference on Disaster Reduction (WCDR) in Kobe, Japan, in 2005, only days after the 2004 Indian Ocean earthquake. The WCDR began the process of pushing international agencies and national governments beyond the vague rhetoric of most policy statements and towards setting clear targets and commitments for Disaster Risk Reduction. The first step in this process was the formal approval at the WCDR of the Hyogo Framework for Action (2005–2015) (HFA). This is the first internationally accepted framework for Disaster Risk Reduction. It sets out an ordered sequence of objectives (outcome – strategic goals – priorities), with five priorities for action attempting to 'capture' the main areas of Disaster Risk Reduction intervention. The UN's biennial Global Platform for Disaster Risk Reduction provides an opportunity for the UN and its member states to review progress against the Hyogo Framework. It held its first session from 5–7 June 2007 in Geneva, Switzerland.

Sendai Framework of Action:-

Third UN World Conference on Disaster Risk Reduction the Sendai Framework was adopted by UN Member States on 18 March 2015 at the Third UN World Conference on Disaster Risk Reduction in Sendai City, Miyagi Prefecture, Japan.

The Sendai Framework for Disaster Risk Reduction 2015-2030 (Sendai Framework) is the first major agreement of the post-2015 development agenda, with seven targets and four priorities for action. It was endorsed by the UN General Assembly following the 2015 Third UN World Conference on Disaster Risk Reduction (WCDRR).

The Seven Global Targets

Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality rate in the decade 2020-2030 compared to the period 2005-2015.

- (a) Substantially reduce the number of affected people globally by 2030, aiming to lower average global figure per 100,000 in the decade 2020 -2030 compared to the period 2005-2015.
- (b) Reduce direct disaster economic loss in relation to global gross domestic product (GDP) by 2030.
- (c) Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030.
- (d) Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020.
- (e) Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this Framework by 2030.
- (f) Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030.

The Four Priorities for Action

Priority 1. Understanding disaster risk

Disaster risk management should be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment. Such knowledge can be used for risk assessment, prevention, mitigation, preparedness and response.

Priority 2. Strengthening disaster risk governance to manage disaster risk

Disaster risk governance at the national, regional and global levels is very important for prevention, mitigation, preparedness, response, recovery, and rehabilitation. It fosters collaboration and partnership.

Priority 3. Investing in disaster risk reduction for resilience

Public and private investment in disaster risk prevention and reduction through structural and non-structural measures are essential to enhance the economic, social, health and cultural resilience of persons, communities, countries and their assets, as well as the environment.

Priority 4. Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction

The growth of disaster risk means there is a need to strengthen disaster preparedness for response, take action in anticipation of events, and ensure capacities are in place for effective response and recovery at all levels. The recovery, rehabilitation and reconstruction phase is a critical opportunity to build back better, including through integrating disaster risk reduction into development measures.

- **Stakeholders and their responsibilities**

The District Disaster Management Authority, All the Revenue Officials from District to Revenue Circle of Revenue and Disaster Management Department, and the District Emergency Operation Centre, Sudargarh (Emergency Section) district are the major stakeholder that deal with all the phases of disaster management. All the line departments of the district, the district administration, International Agencies, other technical institutions, Panchayati Raj Institutions of the district, Urban Local Bodies, community at large and NGOs etc are the stakeholders of the district disaster management plan.

- **Plan for review and updating: Periodicity**

Under the DM Act 2005, it is mandatory on the part of District Disaster Management Authority (DDMA) to adopt a continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary and expedient for prevention as well as mitigation of disasters. These processes are to be incorporated in the developmental plans of the different departments and preparedness to meet the disaster and relief, rescue and rehabilitation thereafter, so as to minimize the loss to be suffered by the communities and are to be documented so that it is handy and accessible to the general public.

Section 31 of Disaster Management Act 2005 (DM Act) makes it mandatory to have a disaster management plan for every district. DDMP shall include Hazard Vulnerability Capacity and Risk Assessment (HVCRA), prevention, mitigation, preparedness measures, response plan and procedures.

1.1 Aims and Objectives of the DDMP:

An indicative list with possible plan objectives is given below:

- i. To identify the areas vulnerable to major types of the hazards in the district.

- ii. To adopt proactive measures at district level by all the govt. departments to prevent disaster and mitigate its effects.
- iii. To define and assign the different tasks and responsibilities to stakeholders during the pre-disaster and post-disaster phases of the disaster.
- iv. To enhance disaster resilience of the people in the district by way of capacity building.
- v. Reduce the loss of public and private property, especially critical facilities and infrastructure, through proper planning.
- vi. Manage future development to mitigate the effect of natural hazards in the district.
- viii. To develop the standardized mechanism to respond to disaster situation to manage the disaster efficiently.
- x. To prepare a response plan based upon the guidelines issued in the State Disaster Management Plan so as to provide prompt relief, rescue and search support in the disaster affected areas.
- xi. To adopt disaster resilient construction mechanism in the district by way of using Information, Education and Communication for making the community aware of the need of disaster resilient future development.
- xii. To make the use of media in disaster management.
- xiii. Rehabilitation plan of the affected people and reconstruction measures to be taken by different govt. departments at district level and local authority.

The District Disaster Management Plan (DDMP) is the guide for achieving the objective i.e. mitigation, preparedness, response and recovery. This Plan needs to be prepared to respond to disasters with sense of urgency in a planned way to minimize human, property and environmental loss.

1.2 Preparation and Approval of DDMP:

As defined in Section 30 of DM Act 2005, DDMA shall act as the district planning; coordinating and implementing body for disaster management and take all measures for the purpose of disaster management in the district in accordance with the guidelines laid down by the National Authority and the State Authority.

The District Collector will discuss the modalities and seek views for preparation of a holistic plan in the meeting of the DDMA should be held in the month of December and to prepare and update the plan by the end of February every year.

After finalisation the District Authority shall send a copy of the District DM plan to the Odisha State Disaster Management Authority (OSDMA) for approval.

The District Disaster Management Plan should be reviewed and updated annually.

1.3 Evolution of DDMP in brief: Evolution, Procedure and Methodology to be followed for preparation of DDMP

The Disaster Management Act 2005 Section 31 lays down about the Disaster Management Plan of the District.

Section:-

1. There shall be a plan for every district of the state.
2. The district plan shall be prepared by the District Authority and approved by the State Authority.

3. Contents of District Plan
 - a. Vulnerability
 - b. Measures to be taken for prevention and mitigation of disaster
 - c. Capacity building and preparedness measures required to be taken by dept. Of govt.
 - d. Response plan in the event of disaster- allocation of responsibilities, prompt response to disaster and relief, procurement of essential resources, establishment of communication links, and dissemination of information to public.
4. The District plan should be review and up dated annually.

In pursuance to the above provision and direction in the Disaster Management Act 2005, the District Administration, Sundargarh has decided to formulate a plan which focus on to reduce sustainably the disaster risk of this multi disaster prone district of Sundargarh to minimize the loss of life, property and livelihood during and after any disaster with proper plan to identify all common elements of response. This acts as a base plan or a generic / modular plan for all response activities. It provides a frame work around which other agencies and departments can outline their own activities for disaster response.

The District Disaster Management Plan (DDMP) has been envisaged as a preparedness plan whereby the receipts of a signal of an impending disaster would simultaneously energies and activate the mechanism for response and mitigation without loss of crucial time. This would be entailing all the participating managers to know in advance the task assigned to them and the manner of response. Identification of available resources including man power, materials, equipments and adequate delegation of financial and administrative powers are prerequisites for successful operation of the DDMP.

STRATEGY

Preparation of a Disaster Preparedness Plan involves the following steps:

Steps	What is to be done	Who are to be involved	Methodology
I	Review and Analysis	Collector, ADM, Emergency Officer, BDOs, Tahasildars PRI Members, NGOs/CBOs, Community/Village level workers	<ul style="list-style-type: none"> ▪ Past history of disasters to be discussed and documented ▪ Extent of severity and damage to be recorded ▪ The nature of the Warning issued to be analyzed ▪ The nature and extent of the rescue and restoration done, to be revisited
II	Situation Analysis	BDOs, Tahasildars Village community, NGOs/CBOs, Community/Village level workers	<ul style="list-style-type: none"> ▪ Mapping the geography and topography of the risk prone areas, block-wise, GP-wise and village-wise ▪ Demographic details to be recorded ▪ Mapping of the habitation in the

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III	Hazard Analysis	BDOs, Tahasildars Village community, NGOs/CBOs, Community/Village level workers	<p>concerned areas</p> <ul style="list-style-type: none"> ▪ The natural resources to be marked on the maps ▪ Listing all the livelihoods and properties ▪ The existing risk prone/ safe infrastructure to be marked on the map <ul style="list-style-type: none"> ▪ Identification of all possible hazards in the area based on past experience and available records ▪ Identification of the most vulnerable areas with relation to threat to life, livelihoods and property
IV	Vulnerability Assessment	BDOs, Tahasildars Village community, NGOs/CBOs, Community/Village level workers	<ul style="list-style-type: none"> ▪ Locations of the vulnerable areas are to be mapped separately ▪ Identification of the vulnerable people such as, the elderly, the disabled, children and pregnant women, families living in thatched houses, fishermen at sea (if any), ailing people, etc. ▪ Identification of property or assets which are likely to be affected, such as, cattle and other livestock, kachcha houses, weak structures, pump sets, tube wells and other installations, crops, horticulture and plantations, boats, nets, etc. ▪ Identification of weak points on embankments (if any) ▪ Marking the drainage system in the concerned area
V	Opportunity Analysis	BDOs, Tahasildars Village community, NGOs/CBOs, Community/Village level workers	<ul style="list-style-type: none"> ▪ Identification of the existing resources which may help to reduce risks to life and property ▪ Identification of the safe houses and buildings for shelter and storage ▪ Listing the existing flood/hazard prone shelters, if any ▪ Identification of the elevated and up-lands which can act as natural barriers to protect livestock ▪ Listing of the existing health and sanitation facilities ▪ Identification of safe routes for

evacuation

- Identification of the sources of funds to carry out the preparedness activities

PROCEDURE ADOPTED FOR DDMP.

For the preparation of DDMP as per the decision taken by the Collector of DDMA, Sundargarh vide letter no. 1524/dt.05/04/2023 and 4545dt.29-04-2023 of DEOC for collection of different data from all line departments along with format with official letter is sent and the decision taken in the DLCNC mtg held on dt.06/05/2023, required data has been collected. The first preparatory meeting on preparation of DDMP 2023 at district level is already held simultaneously with the DLCNC meeting dated 06-05-2023. Those who have not submitted the data till 03-05-2023 were instructed by Chairperson cum Collector and District Magistrate to submit required information as early as possible

Finally after inclusion of suggestion and collection of data again Draft is placed before Chairperson for approval and signature.

1.4 Stakeholders and their responsibilities

- At the District level, District Disaster Management Authority, with the District Collector designated as the Response Officer (RO), and other line departments at district HQ are responsible to deal with all phases of disaster management within district.
- Other technical institutions, community at large, local self-governments, NGOs etc. are also stakeholders of the District Disaster Management Plan.

[The role of the stakeholders to be defined clearly with the sole objective of making the concerned organizations understands their duties and responsibilities regarding disaster management at all levels and accomplishing them.]

The District Collector has the following duties:

- i. To facilitate and coordinate with local Government bodies to ensure that pre and post disaster management activities in the district are carried out.
- ii. To assist community training, awareness programmes and the installation of emergency facilities with the support of local administration, non-governmental organizations and the private sector.
- iii. To function as a leader of the team and take appropriate actions to smoothen the response and relief activities to minimize the adverse impact of disaster.
- iv. To recommend the Special Relief Commissioner and State Government for declaration of disaster.

Local Authorities have the following duties:

- i. To provide assistance to the District Collector in disaster management activities.
- ii. To ensure training of its officers and employees and maintenance of resources so as to be readily available for use, in the event of a disaster.
- iii. To undertake capacity building measures and awareness and sensitization of the community.

- iv. To ensure that all construction projects under it conform to the standards and specifications laid down.
- v. Each department of the Government in a district shall prepare a disaster management plan for the district. The local authorities need to ensure that relief, rehabilitation and reconstruction activities in the affected area, within the district, are carried out.
- vi. Trust / Organisations managing Places of Worships & Congregation
 - a. Each establishment / organisation identified as –critical infrastructure and key resource,
 - b. Including places of congregation in a district shall prepare –on-site and –off-site
 - c. Disaster management plan. Carry out mitigation, response, relief, rehabilitation and
 - d. Reconstruction activities.

Private Sector:

- i. The private sector should be encouraged to ensure their active participation in the pre-disaster activities in alignment with the overall plan developed by the DDMA or the Collector.
- ii. They should adhere to the relevant rules regarding prevention of disasters, as may be stipulated by relevant local authorities.
- iii. As a part of CSR, undertake DISASTER RISK REDUCTION projects in consultation with district collector for enhancing district's resilience.

Community Groups and Volunteer Agencies:

- i. Local community groups and voluntary agencies including NGOs normally help in prevention and mitigation activities under the overall direction and supervision of the DDMA or the Collector.
- ii. They should be encouraged to participate in all training activities as may be organized and should familiarise themselves with their role in disaster management.

Citizens:

It is the duty of every citizen to assist the District Collector or such other person entrusted with or engaged in disaster management whenever demanded generally for the purpose of disaster management.

1.5 Plan for review and updating: Periodicity

-Dissemination of the plan.

-Revise and Maintain - Planning teams should establish a process for reviewing and revising the plan. Reviews should be a recurring activity. Review on an annual basis is considered minimum. It should be mandatory to consider reviewing and updating the plan after the following events:

- i. A major incident.
- ii. A change in operational resources (e.g., policy, personnel, organizational structures, Management processes, facilities, equipment).
- iii. A formal update of planning guidance or standards.
- iv. Major exercises.
- v. A change in the district's demographics or hazard or threat profile.
- vi. The enactment of new or amended laws or ordinances.

The responsibility for the coordination of the development and revision of the basic plan, annexes, appendices and implementing instructions must be assigned to the appropriate person(s).

It is recommended that a DDMP be internally reviewed on a yearly basis and either be updated or reaffirmed. The updates or reaffirmed document may also be used to summarize the accomplishments of the past year and help the administration to prioritize mitigation goals for the next year.

RESPONSIBILITIES OF THE COLLECTOR, ADM, DEO, SP, CDMO, CDVO, DAO AND OTHER LINE DEPARTMENTS

1. Roles and Responsibilities of the Collector and District Magistrate

PHASE	ACTIVITIES
<p>Pre-Disaster</p>	<p>Preparedness Before the Disaster:</p> <ul style="list-style-type: none"> ▪ Reviewing and analyzing the calamity situation in the district over the next one-year through a meeting at the District level involving all the departments of the district as well as block levels and the locally active NGOs ▪ Identifying and mapping of disaster prone zones and strategies to stay prepared for the worst. ▪ Ensure proper extension of the disaster preparedness techniques for drought, heat wave, flash flood, epidemics by the concerned department. ▪ Ensure IEC through Emergency section/BDO's /Tahasildars/NGO's /AW centers /Street plays/ Workshops / Wallings. ▪ Reviewing the DECO and making it functional as per Standard Operating Procedure (SOP) fixed by him (SOP to be prepared earlier) ▪ Making the DCR well equipped and depute senior officers from time to time to review the receipt of information and dissemination. ▪ Calling a meeting for NGO co-ordination cell. And discuss issues such as Capacity assessment of different NGOs and ask them to adopt certain vulnerable areas to avoid overlapping and duplicity. ▪ Preparing a checklist (containing the dos and don'ts) and pass that on to the NGOs ▪ Ensuring/installing communication system to the inaccessible villages. ▪ Ensuring proper functioning of warning systems & communication systems. ▪ Checking stock of the Public distribution system/ICDS and arrangement of the temporary Godowns. ▪ Checking the Resources with other department such as Police, Fire, Civil Defense and of NSS/NCC/NYKS. ▪ Preparing a list Power Boats already deployed and/or to be deployed on hire during crisis. ▪ Assigning specific duties to different officers/Sr. Officers at Headquarters and staying in constant touch with them. ▪ Ensuring Mock drill of the rescue and relief teams. ▪ Preparing a map showing the location of temporary shelter camps at high elevation with accessibility ▪ Ensuring formation of Block, GP and village level Disaster Management Committee through Block Development officers. <p>Dissemination of Warning:</p> <ul style="list-style-type: none"> ▪ Receiving Warning from reliable sources and crosschecking them for authenticity.

	<ul style="list-style-type: none"> ▪ Disseminating warning to District level officials /Revenue field functionaries /PRIs & coordination with the Revenue control room ▪ Keeping the Control Room active round the clock. ▪ Distributing duties to the District level officials, Sub-collectors, Tahasildars and BDOs. ▪ Arranging vehicles and public address systems for information dissemination. ▪ Establishing coordination with the NGOs and other Civil Society Organisations and assigning them duties. ▪ Asking the people in the vulnerable areas to move to the shelters and to move their domesticated animals to safer places and to cooperate with the volunteers and other officials engaged in similar activities
<p>During Disaster</p>	<p>Flash Flood & Epidemics</p> <ul style="list-style-type: none"> ▪ To co-ordinate with Civil defense, NGOs/CBOs. Police/ Fire Brigade for support during Flash Flood ▪ Arrangement & Deployment of boats/vehicles etc. for evacuation of people from low lying and marooned areas and administer emergent relief. ▪ Deployment of police for maintaining discipline and peace keeping during evacuation, relief distribution etc. ▪ Keeping a record of the affected area and people so as to account for the relief materials needed. ▪ Procurement and transportation of relief materials to affected areas ▪ Arrangement of free kitchen in the shelter camps & affected areas and assigning the responsibilities to officials for proper distribution with coordination from NGOs/CBOs ▪ Distribution of basic medicines and disinfectants to prevent epidemic and ensuring Health care activities by the CDMO in the shelter camps & through mobile Units/Temporary Health in regular intervals ▪ CDVO through Mobile units/Temporary Health camps in the affected areas ▪ Ensuring that there is enough storage of food and pure water in the shelters. ▪ Monitoring all the activities in the affected areas. <p>Drought & Heat Wave:</p> <ul style="list-style-type: none"> • Organizing urgent meeting with key line departments to review the heat wave & drought like situation and the initiatives taken by the department to combat the situation • Instruct the Labour department to issue circulars to all the departments that are implementing labour intensive work for changing the working time and making provision of drinking water at the work site. • Coordinate with the RWSS department to prepare its contingency plan to reduce the drinking water crisis during heat wave and drought situation • Monitor the activities of Blocks, GPs,NGOs etc • Meeting with the Irrigation, MIP, LI, Watershed department to assess the current water availability and the crop area likely to be saved

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	<ul style="list-style-type: none"> • Coordinate with the Agriculture/Horticulture department for timely supply of seeds/ seedlings of suitable variety. • Monitoring and Supervision of the different Food and Social security schemes of the Govt. to check whether it is reaching the target group or not. • Providing employment opportunity to the most vulnerable group by initiating FFW/CFW work.
<p align="center">Post-Disaster</p>	<p>Short-term Measures:</p> <ul style="list-style-type: none"> ▪ Formation of special task force with required equipments. ▪ Assigning responsibilities for specific areas. ▪ Damage Assessment ▪ Temporary supply of food, drinking water and medicines to the shelters and affected areas ▪ Arrangement for safe shelter for animals. ▪ Providing temporary arrangements for income generation for the affected people ▪ Drought resistance short duration paddy seeds to be made available to farmers. ▪ Encouraging NGOs/INGOs from outside to carry out restoration and reconstruction works ▪ Ensuring crop insurance ▪ Supervising all the activities <p>Long Term Measures</p> <ul style="list-style-type: none"> ▪ Immediate restoration of Road communication, Irrigation system, Educational institutions, Govt. Institutions, Electrical installation, Drinking water supply, Construction of IAY houses for the BPL families ▪ Breach Closure and other Embankment Strengthening activities ▪ Planning for holistic approach of drought mitigation through Watershed and Watershed plus intervention ▪ Planning for increasing the irrigation potential of the district through the construction of more Medium and Minor Irrigation Project. ▪ Meeting with district level officials /Officials at Head quarter and chalk out emergency plan with vulnerable areas and resource list ▪ Co-ordination meeting of NGOs /PRIs. &Assignment of duties.

2. Roles and responsibilities of the Additional District Magistrate (A.D.M)

PHASE	ACTIVITIES
<p>Pre -Disaster</p>	<ul style="list-style-type: none"> • Playing a second fiddle to the Collector in all aspects • Ensuring proper dissemination of warning both downward and upward level improper interval of timing. • Ensuring proper functioning of Control room • Deployment of Office in charges of Collectorate in control room round the clock basis.
<p>During Disaster</p>	<ul style="list-style-type: none"> ▪ Arrangement of Vehicles ▪ Keeping the Police and Fire Personnel ready

	<ul style="list-style-type: none"> ▪ Keeping staffs at the DCR ready ▪ Deployment of additional staff if necessary ▪ Proper allocation of relief materials to the affected areas ▪ Allocation of officials for proper distribution of relief materials ▪ Supervision of relief distribution
<i>Post-Disaster</i>	<ul style="list-style-type: none"> ▪ Keeping liaison with all line departments ▪ Restoration of roads, transport and communication systems ▪ Collection of progress report on restoration and reporting to the Govt/SRC/RDC ▪ Periodical visits to the affected areas to supervise the restoration works ▪ Procuring the list of the affected people and property from the BDOs/Tahasildars ▪ Preparing a comprehensive damage report ▪ Allotment of relief materials/financial assistance ▪ Monitoring to make sure that everything is at its place ▪ Coordination with line departments and civil society organizations ▪ Supervision of restoration activities under taken by different voluntary agencies.

The primary objective of the Authority is to have proper coordination among all the line departments. The Collector is the District Disaster Manager of the DDMA and the district level response is coordinated under her guidance. The District Disaster Management Authority exists to assist the Collector in

- Reviewing the threats of disaster
- Analyzing the vulnerability of the district to such disasters
- Evaluating the preparedness strategies of different department
- Close monitoring of the response measures

Considering suggestions for the improvement of the District Disaster Management Plan and to link with the normal development plan.

3. Roles and Responsibilities of the CDMO

PHASE	ACTIVITIES
Pre-Disaster	<ul style="list-style-type: none"> ▪ Preparedness and Warning Dissemination: ▪ Preparedness plan of disaster for deployment of staff and assess the capacity of skill staff for meeting the disaster situation. ▪ Take Stock of Life saving drugs/ORS packets/Halogen tablets on receipt of warning from the Collector/DCR ▪ Transmission of messages to all PHCs to stock medicines and keep the medical staff ready ▪ Disease surveillance and transmission of reports to the higher authorities on a daily basis. ▪ Vaccination in Rural Areas ▪ To obtain and transmit information on natural calamities from the DCR

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	<ul style="list-style-type: none"> ▪ Advance inoculation programme in the flood/drought or hazard prone areas. ▪ Ensuring distribution of areas of operation among the mobile team. ▪ Pre-distribution of basic medicines to the people who are likely to be affected ▪ Shifting the patients who are in critical situation to the District Hospital ▪ Awareness messages to stop the outbreak of epidemics ▪ Conducting mock drill ▪ Keeping sufficient number of Anti Venom Injection to deal with snakebite victim. Information to be share with all.
During Disaster	<ul style="list-style-type: none"> ▪ Depute staff to DEOC to monitor the situation for deployment of medical team. ▪ Constitute mobile teams and visit the worst affected areas. ▪ Dissemination of information about life in risk, material required and material to be ready for future. ▪ Dis-infection of Dressing Pad which may continue or 3 to 5 days. ▪ Sufficient stock of ORS/ chlorine tablet/ bleaching powder/ etc. ▪ Dis-infection of Drinking water sources. ▪ Opening of site camps ▪ Making arrangement for operation ▪ Making special arrangement for pregnant woman ▪ Keep ready the Generator set ▪ Regular Health Check up at Shelter camp/Hazard prone shelter & affected areas ▪ Assigning responsibilities to the ADMOs/ SDMOs for close monitoring of Health camps. ▪ Making emergency ward ready for serious patient coming by Ambulance ▪ Take steps for security of camp and staffs- deployment of police near relief camp ▪ Opening of helpline for information dissemination
Post-Disaster	<ul style="list-style-type: none"> ▪ Restoration and Rehabilitation ▪ Organization of Health Camps, ▪ Opening of mobile camp in case of need in affected area ▪ Deploying mobile fully equipped and manned Medical vans ▪ Close monitoring of Health camps. ▪ Ensuring adequate quantities of medicine/disinfectants ▪ Making sure that there is no out break of water borne diseases/Malnutrition ▪ Take steps for checking of spreading of epidemic ▪ Take necessary steps and take the help of other dept for clearing of waste material and debris. ▪ Co-ordination with the District Rehabilitation Committees, other line departments, NGOs /ICDS projects, village committee, PHD, RWSS, etc.

4. Roles and Responsibilities of the SP

PHASE	ACTIVITIES
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<p>Pre-Disaster</p>	<p><i>Preparedness</i></p> <ul style="list-style-type: none"> ● Capacity building of staff on disaster management ● Conducting mock drill to check the readiness ● Identification of shelter in affected areas, vulnerable village list, making pre plan for security arrangement at hospital and CHC center. ● Dissemination of Warning <ul style="list-style-type: none"> ▪ Reception of Warning from the DCR ▪ Communication establishment with District and PS Control rooms and departmental offices within the division. ▪ Alerting the APR force for deployment at the time of calamity ▪ To issue directive to police field functionaries to co-operate with Revenue Personnel in management of Relief operation. ▪ Training of staff on Search and Rescue ▪ Keep coordination with ODRAF, Home Guard and Fire ▪ Checking all communication network ▪ Keep ready all Vehicle for moving of police personnel ▪ Call emergency meeting at Control Room
<p>During Disaster</p>	<p><i>Rescue and Evacuation:</i></p> <ul style="list-style-type: none"> ▪ If necessary cancel leave of all st ▪ Change Traffic rout for safety travel of people. ▪ Clearance of roads and other means of transportation ▪ Traffic management and patrolling of all highways and other access roads to disaster sites ▪ Making sure that discipline is maintained ▪ Assistance to district authorities for taking necessary action against hoarders, black marketers and those found manipulating relief material ▪ Co-ordination with fire personnel. ▪ Provision of security in transit camps/feeding centers/relief camps/cattle camps/cooperative food stores and distribution centers ▪ Safe guarding of belongings of evacuee ▪ Making arrangement for Post Mortem Report preparation and documentation work ▪ Opening of help line <p>Distribution of Relief:</p> <ul style="list-style-type: none"> ▪ Maintaining laws and order at the Shelters and the relief camps ▪ Coordination with military service personnel in the area ▪ Deploying officers/ police personnel to record death cases ▪ Assisting the community in organizing emergency transport ▪ Assisting the District officials/NGOs in distribution of relief materials. ▪ Providing escorts in transit of relief materials to the relief camps/affected areas.

Post-Disaster	<ul style="list-style-type: none"> ▪ FIR of the disasters, the damages and the death cases. ▪ Assisting in collection of damage statistics of private properties. ▪ Maintaining law and order ▪ Close Coordination with district administration and local/external NGOs in reconstruction and rehabilitation process ▪ Assisting the District authority whenever the need arises ▪ Periodical visits to the affected areas to ensure law and order
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5. Roles and Responsibilities of the District Emergency Officer

PHASE	ACTIVITIES
Pre-Disaster	<ul style="list-style-type: none"> ▪ Making sure that everything stays at place in the control room. ▪ Seeing to it that the DDMP and the contingency plan for flood/hazard prone reach all the line departments. ▪ Receiving the Warning from SRC/OSDMA and crosschecking them with IMD and in websites for authenticity ▪ Disseminating the warning to the block/Tahasil offices and asking them to disseminate further to reach each and every household. ▪ Deploying the staff of the control room for round the clock alertness. ▪ Making sure that all the shelters receive enough water and food stocks in advance ▪ Establishing contact with all the line depts. Over phone, email, wireless, sat phone and VHF ▪ Procuring all the required resources from all the possible sources. ▪ Regularly updating the information received from the blocks
During-Disaster	<ul style="list-style-type: none"> ▪ Coordinating with all the line departments for rescue and evacuation. ▪ Checking the stocks with the DCR and asking for more if needed. ▪ Distributing the relief materials to all the places. ▪ Checking every bit of receipt and dispatch of relief items ▪ Establishing round the clock contact with all the depts., BDOs and Tahasildars and with the shelters.
Post-Disaster	<ul style="list-style-type: none"> ▪ Receiving the list of beneficiaries from different Tahasils/blocks and GPs ▪ Crosschecking the list of beneficiaries to avoid fabrication

6. Roles and Responsibilities of the BDOs and Tahasildars

PHASE	ACTIVITIES
<i>Pre Disaster</i>	<p>Preparedness:</p> <ul style="list-style-type: none"> ▪ Providing authentic information required by the District Emergency Operation Center. ▪ Preparing a record of previous disasters in the locality and analyzing the effects ▪ Preparing hazard maps of the Block./Tahasil & the GPs in minute details

	<ul style="list-style-type: none"> ▪ Mapping the cut off areas with alternate route map. ▪ Identification of shelter places in the maps ▪ Keeping a List of storage Points & facilities available, dealers of foodstuffs. ▪ Keeping a list of vulnerable people and area and weak points on embankments (if applicable) ▪ Creating a Control Room at the respective level and assignment of duties to the staff. ▪ Pre-positioning of staff for site operation centers. ▪ Uninterrupted communication with the District Emergency Operation Center. ▪ Arrangement of alternative communication/generator sets, etc ▪ Formation of GP/village level disaster committees and task forces ▪ Arrangement of boats on hire available locally. ▪ Deployment of Boat in the most vulnerable areas. ▪ Organizing awareness camps at GP/village levels <p>Dissemination of Warning:</p> <ul style="list-style-type: none"> ▪ Crosschecking with the DCR for the authenticity of the warnings ▪ Arrangement or requisition of Jeeps/Trekkers/ Auto Rickshaw to disseminate received warning information's to the population of vulnerable / weak places ▪ Dissemination of warning/ coordination with District control room. ▪ Warning the people about probable affected areas ▪ Mobilizing the people to leave for identified shelters with their domestic animals and personnel belongings.
During Disasters	<p>Rescue and Evacuation:</p> <ul style="list-style-type: none"> ▪ Deployment of Police/Fire Brigade for search and rescue. ▪ Co-ordination with civil defense/NCC/NSS/ ODRAF for rescue operation. ▪ Ensuring availability of rescue materials. ▪ Guiding the evacuees in the identified shelter places and arranging all common needs for them. ▪ Provision of rescue kits. ▪ Clearance of roads and water logging for restoring communication to affected GPs/Villages. ▪ Assisting the District Team in every possible ways ▪ Coordinating with the NGOs/CBOs for rescue work ▪ Mobilizing the local youth to help the rescue team <p>Distribution of Relief:</p> <ul style="list-style-type: none"> ▪ Keeping the record of everything at the shelters ▪ Arrangement of free kitchen in the shelter camps./worst affected areas. ▪ Deploying staff for proper distribution of relief materials ▪ Arrangement of communication system in the worst cut off areas. ▪ Ensuring supply of safe drinking water & health facilities in the effected areas/shelter camps. ▪ Coordination with NGOs/Other voluntary organizations

<i>Post-Disaster</i>	<p>Restoration and Reconstruction:</p> <ul style="list-style-type: none"> ▪ Collection of damage statistics of PR department properties /ICDS/school buildings etc. ▪ Ensuring just distribution of HB grants and other financial assistance ▪ Provision of temporary income generation activities for the worst affected people ▪ Supervision of Relief operation and restoration work in the affected areas. ▪ Restoring the transportation and educational institutions on high priority ▪ Helping the local economic activities to come back to normalcy ▪ Provision of grants/loans for the local traders and shop-keepers ▪ Keeping liaison with District administration and other line departments ▪ Ensuring coordination with the RI and G.P/Village committee. ▪ .Co-ordination with NGOs/Civil society organization etc.
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7. Responsibilities of other Line Departments:

DESIGNATION OF THE OFFICER	DUTIES TO BE PERFORMED IN NORMAL TIME.
Asst. Engineer, Electrical (WESCO)	<ul style="list-style-type: none"> • He should see that the field staff checks the electrical line and replace old materials used in the power supply. • He should see that all had wiring in service connections are rectified. • He should enumerate the diesel sale available and his jurisdiction and keep it available. • He should see that the report regarding hazard prone warning should be reported to other subordinate offices. • He should see that trees, branches etc. fall on electrical lines are out and removed. • The field staff should see that electrical supply in the places where hazard prone may be serve is cut off. • The field staff should be in touch with local Tahasildars and inform the situation at frequent intervals. • To provide Diesel generators to hospital water works. Control Room Collector's office in case of failure of powers.
Executive Engineer Irrigation.	<ul style="list-style-type: none"> • The branches to canal drain bandha to be closed. • The Embankments should be check and strengthened. • It should be checked whether the passage bridge and channels are in good condition. • The obstruction in the canals if any should be got removed immediately to be enabling free flow of water. • The bocks and shutters of the canals are to be checked and satisfied that they are in good condition. • The instruments and materials etc. required attending to immediate repairs breach of closures etc. should be stacked at places where they may be required

	<p>locating such places early.</p> <ul style="list-style-type: none"> ● Navigation in the canal should be stopped. ● Water supply in to canals should be out off by closing the sluices. ● The canals and drains should be free from constructing and they should be made available for free discharge of drain water.
Fire officers	<ul style="list-style-type: none"> ● The Fire Engineers should alert and other vehicles should be kept in good working condition. ● Materials required for use in emergency should be indented for and kept in reserve ● Message received from public on disaster for help should be immediately attended. ● Keep in touch with each of the other fire stations in the district.
Executive Engineer, R&B	<ul style="list-style-type: none"> ● Govt. buildings should be inspected and necessary repairs to be got executed to withstanding hazards affected. ● Script for slides, pamphlets, and cultural programmers should be got prepared immediately. ● Arrangements should be made to obtain poster and films by addressing the Director through the Collectors. ● Public addresses equipment should be obtained kept ready. ● The community Radio sets available in the coastal villages should be ascertained ● The names of Hamlets where they are not available to be reported. ● The public should be fully educated regarding the precautionary measures & after hazard prone through available media. ● Specific duties should be assigned to the field staff. ● The field staff should proceed to the place of work allotted and be ready to attend to hazard prone duty.
Regional Transport Officer Motor Vehicle Inspector Divisional Manager Tel.	<ul style="list-style-type: none"> ● List of vehicles running condition to be requisitioned kept ready. ● The MVI/Asst. MVI will report before A.D.M. (Relief) ● The Asst. Engineer & Jr. Engineers will remain alert. ● Based on the experience on the previous hazard prone sufficient no. of trucks should be procured and kept in District head quarters. ● To contact all Block Control Room and Collector's Office.
DAO	<p>Pre- disaster</p> <ul style="list-style-type: none"> ● Prepare the contingency plan ● Making coordination with Sub divisional and block level staff ● Take precautionary measure to avoid any untoward situation ● Take assess the condition of agricultural equipment ● Take stock of fertiliser/ insecticide ● Making advance requisition for seed/ fertiliser/ equipment ● Planning for surveillance of pest attack and crop condition and role and

	<p>responsibilities of officers to be fixed</p> <ul style="list-style-type: none"> • Awareness of people about dept. Scheme and benefit- programme at different level for information sharing <p>During – disaster</p> <ul style="list-style-type: none"> • Calling emergency meeting • Cancellation of leave of staff • Make necessary arrangement for loss assessment of crop/ soil/ irrigation system etc. • Assessment of additional requirement of seed/ fertiliser/ insecticide and equipment • Giving support to extension officer <p>Post – disaster</p> <ul style="list-style-type: none"> • Coordinate with all dept. • Coordination with soil and water testing centre • Make arrangement for marketing of agricultural produce through MARKFED and lifting of paddy • Opening of Information centre • Information to farmers regarding availability of certified seeds and fertiliser. • Capacity building /Arrangement for taking loan to agricultural farmers
<p>CDVO</p>	<p>Pre- Disaster</p> <ul style="list-style-type: none"> • Prepared the contingency plan as per HVRC analysis. • Ensure the presence of all staff and if necessary cancel the leave of staff. • Capacity building of staff on disaster management • Prepare the list of water borne and other diseases which is cure through vaccination • For Animal Camp and Fodder Centre- give necessary help to revenue staff. • Make necessary arrangement of emergency kit and medicine for disaster situation <p>During – Disaster</p> <ul style="list-style-type: none"> • Information dissemination to all staff and call for emergency meeting • Deploy of staff • Ready all the Surgical equipment • Identification of type of wound/ pain and amount of medicine require for curing these • Keep Ready -emergency Generator • Priority basis- vaccination of animal to be speed up • Vehicle should be keep ready with fuel <p>Post – Disaster</p> <ul style="list-style-type: none"> ❖ Organise Cattle Camp for vaccination and arrange water/food for camp. ❖ Liaison with forest department for fodder or businessmen to purchase livestock

	<p>food.</p> <ul style="list-style-type: none"> ❖ Cleaning of cowshed
Civil Supply	<p>Pre</p> <ul style="list-style-type: none"> • Preparation of Check list regarding stock • Staff to be deployed • Identification of flood prone areas • Identification of in accessible pocket • Identification of dealer/ wholesaler/ stockist • Strict watch on PDS distribution and stockist • List of petrol pump owner, Kerosene dealer and gas agency <p>During</p> <ul style="list-style-type: none"> • Call for emergency meeting • Information dissemination to all marketing inspector of Block • Check market and stockist position to avoid black marketing and unnatural scarcity of food products. • Deploy mobile van to give ration article • See the packaging and sanitation in the food cooking centre open for relief. • Take the help of Police for security of Godown and at distribution centre <p>Post</p> <ul style="list-style-type: none"> • Helpline for public • Take the help of SHG and Gram Panchayat for distribution of PDS • Make coordination with other department
Forest	<p>Pre</p> <ul style="list-style-type: none"> • Make Departmental Disaster Management Plan according to HVRC analysis • Identification of Fodder site, which can be opened during disaster period. • Collection of adequate amount of Wood for Dead body rites and Bamboo and Wood Pillar for temporary construction of Tent. • Plantation in massive scale <p>During and Post</p> <ul style="list-style-type: none"> • Call for a meeting to meet the emergency situation • Forest land should be developed into Fodder land – in case of urgency fodder from this land should provided • Forest product should be accessible to nearby villagers and villagers live inside the forest area. • Deploy more staff for security of forest area to check smuggler



It lies between 83° 32' to 85°22' East longitude and between 21° 35' to 22°32' North latitude.

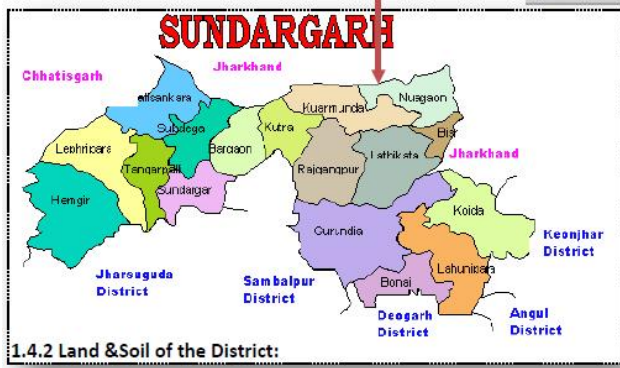
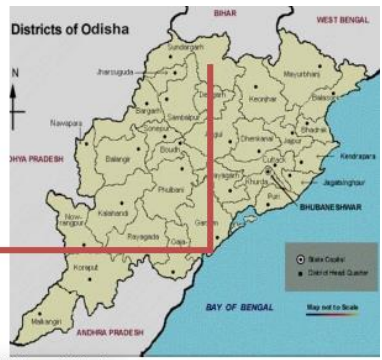
Administrative Setup:

The Collector and District Magistrate is the administrative head of the district. For smooth running of administration, he is assisted by Additional District Magistrate, Sub-Collector, Block Development Officers, Tahasildars, Deputy Collectors, and other Officers. Sundargarh consists of three Sub-Divisions viz. Sundargarh, Panposh and Banei. One Sub-Collector is in charge of each Sub-Division. For the convenience of revenue administration, the district is divided into 18 tahasils namely Sundargarh, Hemgiri, Lephripara, Balisankara, Rajagangapur, Biramitrapur, Panposh, Raurkela, Banei, Tangarpali, Subdega, Baragaon, Kutra, Lathikata, Bisra, Koida, Gurundia and Lahunipara with one Tahasildar in charge of each tahasil. The district is divided into 17 Community Development Blocks with one Block Development Officer in charge of each Block. 17 nos. of Blocks are namely Kuarmunda, Nuagaon, Bisra, Lathikata, Hemgiri, Rajgangpur, Lephripara, Kutra, Sundargarh, Bargaon, Subdega, Balisankara, Tangarpalli, Lahunipada, Koida, Bonaigarh, Gurundia. There are six Statutory Towns in the district i.e., Raurkela Municipality, Sundargarh Municipality, Rajagangapur Municipality, Biramitrapur Municipality, Raurkela Industrial Township (ITS) and O.C.L. Industrial Township (ITS). In order to look after the developmental activities in the urban areas of the district, one Executive Officer for each of the town has been appointed.

The present administrative units of this district comprises 3 Sub-Divisions, 18 Tahasils, 17 Blocks, 4 Municipalities, 279 Gram Panchayats, 126 Revenue Circle and 3623 villages out of which 41 villages are uninhabited.

Climate & Rain fall:

The climate condition of the district is generally hot with high humidity during July to September and cold during December to January. The monsoon generally breaks during the month of June; Normal Rainfall of the district was 1422.4mm.

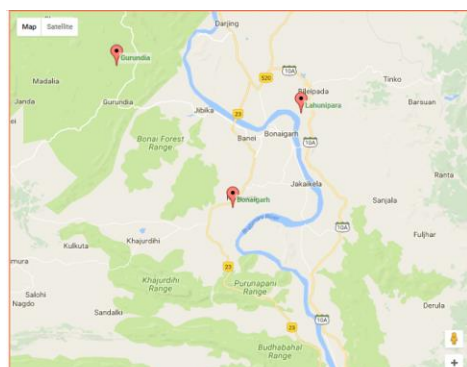


1.4.2 Land & Soil of the District:

Geography:

The district is surrounded by the State of Jharkhand in the north and Chhattisgarh on the North West. The other boundaries of the district are bounded by Jharsuguda, Sambalpur and Deogarh districts on the South and Keonjhar & Angul district on the east. The district is located between 21°35' N and 22°32' N

Brahmani, Sankh, Koel and ib are the major *rivers* flowing though this *District*.

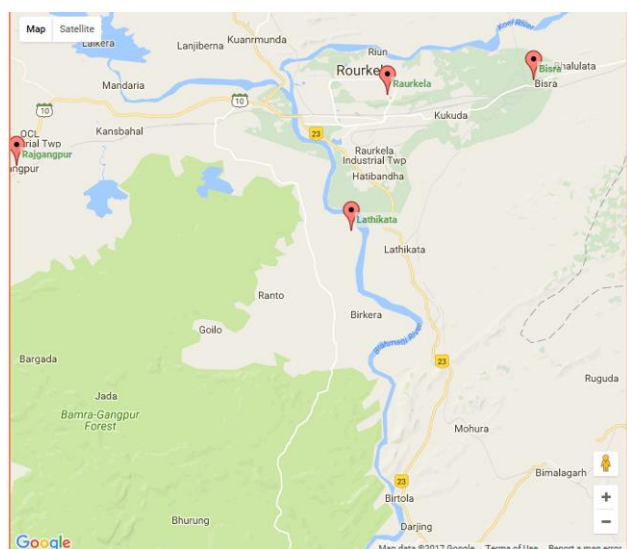


Brahmani River

The Brahmani is a major seasonal river in the Odisha state of Eastern India. The Brahmani is formed by the confluence of the Sankh and South Koel rivers, and flows through the districts of Sundargarh, Deogarh, Angul, Dhenkanal, Cuttack and Jajapur.^[1] Together with the rivers Mahanadi and Baitarani, it forms a large delta before emptying into the Bay of Bengal at Dhamra. The Brahmani is formed by the confluence of the rivers South Koel and Sankh near the major industrial town of Rourkela at 22° 15'N and 84° 47' E. The Sankh has its origins near the Jharkhand-Chhattisgarh border, not far from the Natarhat Plateau. The South Koel too arises in Jharkhand, near Lohardaga, on the other side of a watershed that also gives rise to the Damodar River. Both of these sources are in the Chota Nagpur Plateau. After assuming the name of Brahmani, the river crosses the Tamra and Jharbera forests, skirting along National Highway 23. It then passes the town of Bonaigarh in Sundargarh district before being dammed at Rengali in Deogarh district.

Sankh and Koel River

The Sankh River flows across Jharkhand, Chhattisgarh and Odisha states in India. The river flows for 240 kilometres (150 mi) before it meets the Koel River in Odisha. The river starts 1,000 metres (3,300 ft) above sea level in Lupungpat village in Gumla district in Jharkhand and flows 67.5 kilometres (41.9 mi) in the state before entering Chhattisgarh. It runs a distance of about 50 kilometres (31 mi) in Chhattisgarh and enters Jharkhand again to flow for another 78 kilometres (48 mi). The river finally enters Odisha and travels another 45 kilometres (28 mi) before merging with the Koel. The South Koel enters Orissa and joins the Sankh River at Vedavyas near Rourkela from where it is called the Brahmani (22° 14'45"N 84° 47'02"E 22.2458800°N 84.7837500°E).



South Koel River (Odia: ଦକ୍ଷିଣ କୋଏଲ ନଦୀ;) runs across Jharkhand and Odisha states in India. It originates on the Ranchi plateau a few miles east of Ranchi, and conjoins the Belsingar and Singbhum Rivers. The Koel is fed by three streams in Jharkhand, namely the North Karo, South Karo and Koina. The South Koel enters Odisha and joins with Sankh River at Vedavyas near Rourkela from where it is named as Brahmani.

IB

IB River is a tributary of Mahanadi river in North-Eastern Central India. It joins Mahanadi river flowing directly into the Hirakud Reservoir. The river originates in hills near Pandrapet at an elevation of 762 metres (2,500 ft). It passes through Raigarh district and Jashpur district of Chhattisgarh and Jharsuguda and Sundargarh District of Odisha and finally meets Mahanadi at Hirakud Dam in the state. IB river valley is famous for its rich coal belt, IB Valley Coalfield. Major portions of Mahanadi Coalfields are situated on the banks of IB. Many industries have flourished on the banks of the river IB. The IB valley areas are counted as one of the most important industrial zones of Eastern India. The river runs for a distance of about 252 kilometres (157 mi) and drains an area of 12,447 square kilometres (4,806 sq mi).

Demography:

According to the 2011 census the total population of the district was 20, 93,437 which constitutes 4.99% of the total population of the State. The population spread is across 1764 villages and 4 urban areas. The ST and SC population of the district is approximately 50% and 9% respectively. Important tribes in this district are Munda, Kharia, Kisan, Bhuyan, Oram and Gond. The rural and urban population of this district is 13, 55,340 and 7, 38,097 (2011) respectively. The ratio of population of this district between rural and urban areas is 2:1. Urban settlements are fast increasing in this district and this district has a high percentage (35.26%) of people living in urban areas against a state average of 16.69%. The complete demographic profile including the scenario of the rural and urban population is given in the following tables. Different religious groups are stay in this district. Out of all religions, Hindues are major part (78.21%) and very negligible are Budhist (0.01%).

According to the census 2011, percentage of district population to state population has increased from 4.97% to 4.99%. While in terms of geographical area, the district is ranked 2nd at the state level with the geographical area of 9712 sq km (6.24% of the state geography), the district is ranked 6th at the state level in population parameter retaining its position of 2001. The decadal growth rate of district population marked declining during 2011 (-1.99) in comparison to 2001 status. From 1991 to 2001, the decadal population growth rate was 16.34% which declined to 14.35% during the period 2001 to 2011. One of the attributes of declining rate of population growth is out-migration of a sizeable population from the district for various purposes like labour and employment, education etc. Child population of the district in the age group of 0-6 years is 2, 63,160 with a male child population of 1, 35,204 (51.38% of the total child population) and female child population of 1,27,956 (48.62% of total child population). The proportion of child population to the total population of the district shows a declining trend when compared to the 2011 figure with 2001. The proportion of child population to the total district population during 2011 is 12.57 while during 2001, it was 14.47. In both male and female child category, the district records a reduction in proportion of children in the age group of 0-6 years. During 2001, the proportion of male child to the total population was 14.38% which have reduced to 12.74% during 2011. Similarly, proportion of female child to the population was 14.57 which declined drastically to 12.40 during 2011. Looking at the proportion figures of male & female child, during 2001, the situation was quite favourable for girl child with higher proportion to the population in comparison to male child. But during 2011, proportion of male child in comparison to female child to the population is in a favorable situation which has affected the sex ratio of the district at 0-6 age group.

2.1 Households and its distribution:

Sl. No	Total Number of Families/HH	Category		Category			Category	
		Rural	Urban	SC	ST	OTHERS	BPL	APL
1	479109	312497	166612	46312	235685	197112	1655593	212684
				SC	ST	OTHERS		
		Rural		29168	201145	82184		
		Urban		17144	34540	114928		

2.2 Population and its composition:

Sl. No	Population			SC		ST		OTHERS	
	T	M	F	M	F	M	F	M	F
1	2093437	1061147	1032290	96465	95195	526856	535493	437826	401602

Demographic Characteristics			
	Male	Female	Average
Infant mortality	53	59	56
Crude Death Rate	7.9	6.7	7.3
Under 5 Mortality Rate	77	74	75.5
Life Expectancy at birth	60.05	59.07	59.56
Average family size			5
Total Family			479109

- Population density of the district and decadal growth of population-

Sl. No.	Particulars	2001	2011
1	Total Population	1830673	2093437
2	Male Population	935601	1061147
3	Female Population	895072	1032290
4	Female per 1000 population	957	973
5	Scheduled Caste population	157745	191660
6	Scheduled Tribe population	918903	1062349

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7	Density of population per sq km	188	216
8	Rural Population	1201479	1355340
9	Urban population	629194	738097
10	Decennial growth rate	16.34%	14.35%
11	Population in the working age group	804095	873227

2.3 Religion wise distribution of Population:

Population	Hindu	Muslim	Christian	Sikh	Buddhist	Jain	Other Religions	Not Stated
20,93,437	73.20%	3.41%	18.39%	0.27%	0.03%	0.03%	4.30%	0.36%

2.4 Age Group

Sl.No	Total Population	0-6 years	6-14 years	15-59 years	60 years and above
	2093437	263160			

2.5 Sex Ratio:

1	Sex Ratio (Females per 1000 males):	973
2	Sex Ration(0-6 Years):	946

2.6 Literacy Rate:

Sundargarh	Total	Male	Female
Literacy Rate 73.34%	1342322	750147 (81.01%)	592175 (65.48%)

The literacy rate of the district remains at 73.34% (2011) can well be compared with the State percentage of 72.87% (2011).

[Details are at Table No. of Volume II of the DDMP] or [page no.36 of Census 2011.](#)

2.7 Socio-Economic profile:

Agriculture, the principal means of livelihoods is rain-fed. It has mixed demographic profile with STs and SCs constituting roughly 50.75 and 9.16 percent of population respectively.

2.7. A.Workforce participation-

Sl. No.	Total Workers	Main workers	Marginal workers	
			3 to 6 months	less than 3 months
1	873227	535112	266709	71406

Sl. No.	Total Workers	Workers			
		Cultivators	Agril. Labourers	Workers in Household industry	Other workers
1	873227	184273	253327	26970	408657

2.7. B. Workforce participation rate-

Sl. No.	Total Workers (Main + Marginal)			Workers participation Rate		
	Total	Rural	Urban	Total	Rural	Urban
1	873227	625502	247725	41.7	46.2	33.6

2.7. c. Land Holding Pattern:

Total No. of Blocks	Landless (HHs)	Share Cropper	Marginal Farmers (<1.0 Ha.)	Small Farmers (1.0 < 2.0 Ha.)	Semi Medium Farmers (2.0 < 4.0 Ha.)	Medium Farmers (4.0 < 10.0 Ha.)	Large Farmers (10.0 Ha. and above)
Hemgir	3358	2220	3441	5161	930	990	105
Lepripara	2907	693	9830	7119	495	495	157
Tangarpali	3148	1536	6957	7560	524	179	61
Sundargarh	3425	325	7090	11047	1473	109	38
Subdega	5224	2915	6625	4365	1421	3495	140
Balisankara	893	479	9369	8109	1198	273	61
Bargaon	1232	358	5673	8741	2104	84	33
Kutra	871	245	6225	5058	1041	0	0
Rajgangpur	832	1126	4940	6182	3308	1618	47
Lathikata	2369	155	5888	5060	150	220	50
Kuarmunda	1088	257	9271	11589	2285	32	0
Nuagon	650	1285	8726	10915	1474	1031	442
Bisra	1728	950	5523	2543	1235	643	102
Bonai	1166	1102	10388	2449	360	110	0
Lahunipara	2220	1780	7120	5313	1130	710	18

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Koida	1380	540	9730	1250	268	18	0
Gurundia	1533	1077	10651	4514	606	114	27

2.7.d. Land Utilization pattern

Area in Hact.

District	Forest	Land put to non agriculture use	Barren and non cultivable land	Permanent pastures and other grazing land	Land under misc. tree, crop and groves not included net area sown	Total
Sundargarh	152013	72033	63222	34230	2206	323704

2.7.e. Agriculture and Irrigation (Ayacut figure in Hact.)

Medium		MIP		LIP (Govt.)		Micro RL Project		LIP (Comm.)		LIP (Pvt.)		Bore well		Dug wells		Others	Total
Nos.	Ayacut	Nos.	Ayacut	Nos.	Ayacut	Nos.	Ayacut	Nos.	Ayacut	Nos.	Ayacut	Nos.	Ayacut	Nos.	Ayacut		
4	12122	96	18262.8	685	15467	41	196	371	7646	552	1571	4084	8168	18024	8030.4	19700	91163

2.7. Employment and livelihood

Total HH provided with employment = 133541

HH getting 100 days of employment= 4231

Land reform beneficiary / IAY= 5660

SC	ST	OC	TOTAL	WOMEN
602204	4170450	1263357	6036011	2543950

2.8 Industries and mining

Sl.No	Head	Unit	Particulars
1	Registered Industrial Unit	No.	4182
2	Total Industrial Unit	No.	11171
3	Registered Medium & Large Unit	No.	75
4	Estimated no. of daily worker employed in Small Scale	No.	81229

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	Industries		
5	Employment in large and medium industries	No.	49558
6	No. of Industrial Area	No.	6

No. of Small Scale units	No. of Cottage industries	Handloom Industries
504	10	60

2.9 Mines and Employment:

Mines	No.	Employment
Iron Ore	29	7957
Manganese Ore	17	1053
Lime Stone	16	2541
Dolomite	18	1419
Silika Sand	2	
Coal	2	1405
Total	84	14375

Education

2.10- Availability of Educational Facilities:

Sundargarh	No. of Villages	No. of Villages having Primary School within the village	No. of Villages having Access to ME/ High School within 5 Km.
Total	1812	1812	1812

2.11- Enrolment Status of Children (6-15 years):

Sundargarh	Total No. of Children Enrolled	No. of Children Dropped Out	No. of Children Never Enrolled
Total	342777	599	1901

2.12 Health

Sundargarh	PHCs	UPHCs	CHCs	Dispensaries	No of Doctors	Not in position	No. of Medical Staff	Not in position

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Sadar sub division	5	2	3	36	117	12	1094	154
Bonai sub division	9		4	1	27	10	138	41
Panposh sub division	9		3	9	37	11	101	26
Total	23	2	10	46	181	33	1333	221

Sub Divison	No. of Block/ Municipality	No. of Health Center	No of Sub Centre	PHC (N)	Total PHC(N)	Other Hospital/ Institution	D.H.H. / S.D.H.	Sector
3	21	20	390	56	56	4	4	54

Sub Division	Name of the Block	No of GP	No of Revenue Villages	No of AWC	Total Population	GKS	ASHA
3	17	262	1794	2922	2208090	1656	2429

SI No.	Block	Child Mortality Rate	Maternal Mortality Rate	Institutional Delivery in Percentage	Immunization status of Children below 5 Yrs in percentage	Any Other
1	17	75/1000	629/100000	99%	76%	

2.13 Incidence of Major Disease during last 5 Years :

SI No.	Name of the Disease	Incidents/ Cases Treated	No. of Death due to disease
1	Malaria	9876	43
2	Jaundice	59	Nil
3	Pneumonia	2909	813
4	Diarrhoea	22096	4
5	TB	16238	881
6	COVID -19	99511	699

2.14. Housing

Owned houses	Rented houses	No. houses	Households having 1 Room	Households having 2 Rooms	Households having 3 Rooms	More than 3 Rooms	Kuchha	Pucca
326867	15014	5865	114054	158511	46512	27574	248948	98801

2.15 Electrification:

SI No.	Total inhabited villages	Total villages electrified	Balance no. of un electrified villages
Sundargarh	1723	1723	0

All Category	Rourkela	Rajgangpur	Sundargarh
Total	562.646	1438.58	97.664

2.16 Drinking Water and Sanitation

- Opening of control room: Control rooms are opened at RWSS Sundargarh & Rourkela for receiving complaints and take necessary action for restoration of drinking water supply systems.
- Tubewell spare parts & water supply materials are available in each block. If required motor pump, cable, penal boards will be procured and keep for emergency purposes.
- The damaged solar dual pumps will be repaired as and when required by the agencies after the approval from the higher authority.
- Sufficient bleaching powder and alum are kept at block level for chlorination of drinking water.
- Water tankers are ready with backup at low line areas where monsoon may affect.

SI.No	Name of the Block	Total No. of Tubewells	Total No. Of PWS	Total No. of Solar Dual Pump	No. of Mobile Van engaged for repair of TW/PWS with	No. of TW/PWS for chlorination	
						TW	PWS

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					chlorination		
1	Balisankara	1837	19	174	1	1837	19
2	Bargaon	1942	27	89	1	1942	27
3	Bisra	1830	41	166	1	1830	41
4	Bonai	1537	34	205	1	1537	34
5	Gurundia	1899	16	252	1	1899	16
6	Hemgir	1575	08	110	1	1575	08
7	Koira	1485	10	178	1	1485	10
8	Kutra	1625	25	116	1	1625	25
9	Kuarmunda	2278	19	261	1	2278	19
10	Lahunipara	2060	21	334	1	2060	21
11	Lephipara	1744	29	119	1	1744	29
12	Lathikata	2095	30	196	1	2095	30
13	Nuagaon	1976	23	195	1	1976	23
14	Rajgangpur	1605	19	145	1	1605	19
15	Subdega	1473	21	85	1	1473	21
16	Sundargarh	1764	34	92	1	1764	34
17	Tangarpali	1518	30	89	1	1518	30

Migration

2.17--Migration: (at least one member of the household migrating outside the district/ state for a period of more than 4 months in search of work during the year)

Trend and duration of Migration:

▣ **Destinations of Migration:**

Sl. No.	Block	No. of Migrating HHs	Migrating Population			Children (0-6 Years)		Children (7-14 years)	
			Male	Female	Total	M	F	M	F
	Total=								

Not Available.

2.18. Food security

Sundargarh District	HHs covered under NFSA	Total No. of Beneficiaries	Consumption in qtls.		Total No. of PDS outlets
			Rice	Wheat	
Total	409644	1506607	68309.18	12135.92	456

2.19. Social Security

Total ICDS Project	MBPY	IGNOAP	IGNWP	IGNDP	Total
21	105506	58580	25219	3869	193174

2.20 Critical infrastructure
Anganwadi centres

District	No of ICDS Project	Total AWC	No. of AWC having own pucca building	Children enrol 6month to 3years	Children enrol 3Year to 6years	Pregnant Women	Lactating Mothers
Sundargarh	21	3918	2575	61718	60479	10394	14333

2.21. Schools and other Educational Institutions

2.21.1.-Educational Infrastructure and other Facilities:

Sl. No.	Name of the Block	No. of Primary Schools	No. ME Schools	No. of High Schools	No. of Teachers	Teacher Pupil Ratio	No. of Colleges	No. of ITI/ Polytechnic/ Vocational Training Institutes
1	Balisankra	91	53	20	662	20	4	0
2	Bargaon	73	34	14	571	19	4	1
3	Bisra	113	106	77	3668	26	36	13
4	Bonai	62	35	22	743	20	6	2
5	Gurundia	78	58	15	639	19	5	0
6	Hemgir	79	51	23	737	19	6	1
7	Koira	103	51	18	715	28	4	1
8	Kuarmunda	109	52	32	1100	25	7	2
9	Kutra	58	41	24	628	25	4	3
10	Lahunipara	104	65	24	943	21	5	2
11	Lathikata	91	70	20	1170	23	8	8

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12	Lephripara	76	47	23	637	22	7	0
13	Nuagaon	98	39	18	777	21	4	2
14	Rajgangpur	101	48	26	1116	24	10	3
15	Subdega	64	27	20	552	19	3	1
16	Sundargarh	65	59	30	1176	21	13	1
17	Tangarpali	58	31	19	579	18	5	0
	Total	1423	867	425	16413	23	131	40

Besides this 4 diploma college
5 technical colleges exist as per district statistical information.

2.22. Hospitals and Health Centers

Total no of Block	No.of MHU's functioning (SS)	No.of MHU's functioning (MHT)
17	17	50

❖ **List of Ambulance service of the district:-**

Place of Ambulance	Number of Ambulance
Nuagaon	1
Tangarpali	1
Lathikata	1
Bargaon	1
Lahunipara	1
Laphripara	1
Bisra	1
Hemgir	1
Sadar	1
Gurundia	1
Kutra	1
Bonai	1
Rajgangpur	1
Balisankara	1
Koira	1
Kuarmunda	1
Subdega	1
Total	17

Beside this 21 nos of 108&102 Ambulances are running around the clock.

.List of Blood Bank.

1. Sundargarh Head Quarter
2. RGH,Rourkella
3. Bonai CHC

❖ **Blood Bank storage center:-**

1. Rajgangpur CHC

2.23. Veterinary Hospitals

2.23.1 Health Infastructure

Sl.No	Block	No. of VH	No. of VD	No of LAC Centres
1	Sundargarh	1	2	10
2	Tangarpali	0	1	7
3	Lephripara	0	2	12
4	Rajgangpur	0	2	7
5	Hemgir	0	2	8
6	Kutra	0	1	6
7	Bargaon	0	1	9
8	Balisankara	0	2	11
9	Subdega	0	1	10
10	Rourkela	1	0	4
11	Bisra	0	1	8
12	Lathikata	0	2	9
13	Kuarmunda	0	2	10
	Hatibari	0	1	7
14	Bonai	0	2	7
15	Lahunipara	0	2	10
16	Gurundia	0	3	9
17	Koira	0	1	7
	Total	2	28	151

2.23.2. Human Resource

ABSTRACT		LAC	GMC	ILDC	BVO	SDVO	CDVO	AVAS	VAS
1	SDVO Sundargarh	60	44	16	1 DD + 9 BVO	1	1	9	6
2	SDVO Panposh	26	17	9	4	1		4	2
3	SDVO Bonai	25	20	5	4	1		4	4
4	LBDF Kuarmunda	1	Nil	1					

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5	OIC RPF Sng	1	Nil	1					
Total	113		81	32	Vacant BVO				

2.24. Police and Fire Stations

No Police Outpost and Beat House	Response Force	Driver
14	81	5

2.24.1- Police Services:

Sl. No.	Name of the Block/ ULB	No of Police Stations	No. of Police Personal
1	17/3	14	329

No of the Police Stations	Response Force
14	311

2.25. Fire:

Fire Officer Sundargarh	Fire Officer , Rourkela
8 station, Sundargarh, Lephripara, Balisankara, Tangarpali, Subdega, Kutra,Hemgir, Bargaon	9 station, Rourkela, Panposh, Kuarmunda, Nuagaon, Bonai, Gurundia, Lahunipara, Lathikata, Koida

2.26. Cooperative Societies

Sl. No.	Societies Type	No.	No. of Farmers	Total amount of Seed distributed during last year (in Qtls.)	Total No. of Fertilizer distribution during last year (in Qtls.)	Total amount of Loan distributed (amount in Lakhs.)	Total amount of Paddy procured during previous season (K +R) amount in Qtls.
1	No. of PACs	44	253855	11428.00	93132.90	104733.00	2126604.37

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2	CARD	2	28498	-	-	-	-
3	Cental cooperative Bank	15	10941	-	-	27843.11	-
4	Primary house buliiding cooperative societies	8	496	-	-	-	-
5	Sub divisional level HBC	3	2951	-	-	-	-
	Non Agriculture			-	-	-	-
6	Urban cooperatiave Bank	1	14548			5007.17	
	Consumer cooperative societies			-	-	-	-
7	Whole sale consumer store	2	1346	-	-	-	-
8	Primary consumer store	23	13812	-	-	-	-
9	Employee Consumer store	59	23955	-	-	-	-
	Marketing Someties			-	-	-	-
10	Regional cooperative marketing societies	3	1051	280.00	4828.50	-	88462.39
11	Multipurpose Cooperative Societies	1	3842	180.00	184.00	-	69429.71
	Total=	161	355295	11888.00	98145.40	137583.28	2284496.47

2.27. Banks and Post offices

Bank	Total
Total Public Sector Bank	158
Total Private Sector Bank	32
Regional Rural Bank	19
Cooperative Bank	16
Total	225

No. of Post offices			Total	No. of post offices having services	
Head Post Office	Sub Post Office	Branch Post Office		Speed Post Service	Instant Money Order
3	81	318	402	84	80

2.28. Road and Railway network:

Road:

1. National Highway 168.01 k.m.
2. State Highway 211.99 k.m.
3. Major District Roads 307 k.m.
4. Other District Roads 524.20 k.m.
5. Forest Roads 687.55 k.m.
6. Gram Panchayats Roads 7682 k.m.
7. P.S. Roads 3067 k.m.
8. Village Roads 1251 k.m.

Railway:

1. Broad Gauge 153.88 km. (single line)
 2. Broad Gauge 108.12 km (double line)
- Total = 262.00 km.

No. Of Station = 18

Station Name:

Rourkela	Rajgangpur	Bisra
Bondomunda	Hemgir	Kansbahal
Panposh	Jamga	Bhalulata
Chandiposh	Kalunga	Kuarmunda
Tangarmunda	Bimlagarh	Kuarmunda
Biramitrapur	Daghora	Lathikata

2.29. Hazard prone and Flood Shelters

Nil

2.30 .Rain gauge and Automatic Weather Stations

Rain gauge stations are installed in every 17 nos. Of Block headquarter and one in Rourkela Municipal Corporation.



Chapter- 3

Hazard, Vulnerability and Risk Assessment

[A brief description of disasters that the district has faced during last 10 years and hazard vulnerability of the district to be mentioned in the first paragraph followed by tables mentioned below.]

Sundargarh district falls in Zone II of Odisha Seismic zoning that is, moderate risk zone. Sundargarh is also experiencing drought since 2001, 2015. Fifteen years ago Earthquake occurred in Sundargarh district with an intensity of 4.8 with depth of Epic Center in 33km. depth. This is at Bonaigarh–Talchir area, located along the EGMB – Singhbhum craton contact zone (fig.-3). An earthquake of magnitude ML 5.0 rocked Bonaigarh on Mar. 27, 1995 causing moderate damage in the area. Another earthquake of magnitude ML 4.8 occurred in the same area after about three months, on June 22, 1995. The area has experienced two or more earthquakes of ML 5.2 in the past, in 1958 and 1962, respectively. Alongwith Earthquake the district Sundargarh also face flood in the year 1971, 1994, 1997, 2001 as per Water Resource Department, Govt. of Odisha.

Further the district is also highly prone to Lightning, Heat Wave, Drowning and Snakebite, Hailstorm like natural and man made disaster . From 2001 the district is also experiencing Flood and in the year 2011 the district faces both flood and drought and again in 2017 in some villages of Kuarmunda and Bonai Flood occur due to back water of reservoir in Kuarmunda and due to heavy rain in Bonai Block.

Moreover the Ground water level is going down rapidly due to excessive use for irrigation especially in rain fed Sundargarh districts. Thousands of deep bore wells are being operated by well-off farmers and also by the Odisha Lift Irrigation Corporation (OLIC). The Rural Water Supply and Sanitation (RWSS) also operate piped water projects using tube wells and deep bore wells. Many water bodies have dried up and many have been built over.

Presently the district is progress on rapid mines and industrial development, so industrial hazard and fire related hazard cannot be avoided, for which necessary preparedness measure and awareness among the community is required. Degradation of natural forest is also one of the major factors behind heat wave in the district.

3.1 Major Disasters/ Incidents during 2009-2025

A brief profile of major disasters/ incidents occurred in the district during last 15 years (2009 to 2025):

Table-3.1

Sl. No.	Disaster/ Incident	No. of incidents during (2006-2023)	No. of Deaths	Affected Population	Livestock Loss	Houses Damaged	Damage to Infrastructure				Damage and loss of Crop Area (in Hectares)
							School/ AWC Buildings	Hospitals	Road in Km.	Other Critical Infrastructure	
Disasters as approved under SDRF/ NDRF Guidelines.							NIL	NIL			NIL
1	Fire	2006=1, 2011=6, 2012=3	1	3		6					
	2006	Badmal (Sundargarh Sadar)	1	1							
	2011	Budabahal (Sundargarh Sadar)		1		1					
	2011	Gopalpur(Hemgir)		2		2					
	2011	Hemgir(Hemgir)		2		2					
	2011	Samara (Hemgir)		4		4					
	2011	Mundalkhet(Hemgir)		1		1					
	2011	Duduka (Hemgir)		1		1					
	2012	Baragad (Sundargarh Sadar)		1		1					
	2012	Kosingha (Sundargarh Sadar)		1		1					
	2012	Taparia (Hemgir)		1		1					
	2017	Rourkela		1		1					
	2018	Rourkela		2 reported.							
	2019	Sadar		3							
		Lahunipara		1							
		Balisankara		1							

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		Koira		1						
	2020	Rourkela		5						
	2020	Sadar		3						
		Balisankara		2						
		Bargaon		1						
		Kutra		1						
		Tangarpali		1						
		Hemgir		1						
		2021	Sadar		3					
	Balisankara			3						
	Hemgir			1						
	Tangarpali			1						
	Subdega			1						
		Koira		1						
	2022									
		Hailstrom								
2	2010	Bisra	2	2						
		Cyclone	Nil	Nil						
		Earthquake	Nil	Nil						
		Tsunami	Nil	Nil						
		Landslide	2013=1, Hemgiri, MCL, Balinga, Basundhara Coal Mine	13	13					
		Avalanche	Nil	Nil						
		Cloud Burst	Nil	Nil						
		Pest Attack	2017	2	206 hact area affected.					2 Blocks, 3 GP and 4 Villages affected in an area of 206

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												Hact.
	Cold Wave/ Frost	Nil	Nil	Nil								
State Specific Disasters as per Notification No.1936 Dt. 01.06.2015												
11	Lightning	205	205									
12	Heat wave	36	36									
13	Whirlwind											
14	Tornado											
15	Heavy Rain	Nil										
16	Boat Accidents (Other than during Flood)	2013=1 Tangarpali Block vill- Lemlema	1	1								
17	Animal Menace		Nil	Nil								
	2009	Tiger	2									
	2010	Elephant	2									
	2011	Elephant	2									
18	Building Collapse	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
19	Stampede	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

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					Nil	Nil	Nil	Nil	Nil	Nil	Nil
20	Epidemics	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
21	Industrial/ Chemical Accidents	Nil	Nil	Nil							
22	Road Accidents	Accident	Death	Injured							
	2009	1111	454	1315	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2010	722	409	1129	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2011	653	364	995	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2012	296	156	378	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2013	369	221	507	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2014	362	199	471	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2015	359	222	404	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2016	318	199	372	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2017	354	234	367	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2018	310	199	342	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2019	383	259	364	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2020	317	219	285	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2021	274	168	220	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2022	258	177	287	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	2023	265	205	190	Nil	Nil	Nil	Nil	Nil	Nil	Nil
23	Railway Accidents	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
24	Hooch Incidents	Nil	NIL	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
25	Communal Riot	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

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26	Dam Break/ Spill Way related flood.	Nil	NIL	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
27	Soil/ Coastal erosion	Nil	NIL	NIL	Nil	Nil	Nil	Nil	Nil	Nil	Nil

3.2 Major Disasters/ Incidents in the District during 2018 – 2025(upto June) :

Sl. No.	Disaster/ Incident	Year	No. of incidents during	No. of Deaths	Affected Population	Livestock Loss	Houses Damaged	Damage to Infrastructure				Damage and loss of Crop Area (in Hectares)
								AWC/ School Buildings	Hospitals	Road in Km.	Other Critical Infrastructure	
1	Lightening	2018	14	14	14	0	0	0	0	0	0	0
		2019	4	4	4	0	0	0	0	0	0	0
		2020	16	16	16	0	0	0	0	0	0	0
		2021	10	10	10	0	0	0	0	0	0	0
		2022	0	0	0	0	0	0	0	0	0	0
		2023	05	0	05	0	0	0	0	0	0	0
		2024	01	0	01	0	0	0	0	0	0	0
		2025										
2	Drowning	2018	13	13	13	0	0	0	0	0	0	0
		2019	20	20	20	0	0	0	0	0	0	0

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		2020	84	84	84	0	0	0	0	0	0	0
		2021	79	79	79	0	0	0	0	0	0	0
		2022	11	11	11	0	0	0	0	0	0	0
		2023										
		2024	17									
		2025										
3	Snakebite	2018	24	24	24	0	0	0	0	0	0	0
		2019	11	11	11	0	0	0	0	0	0	0
		2020	72	72	72	0	0	0	0	0	0	0
		2021	55	55	55	0	0	0	0	0	0	0
		2022	01	01	01	0	0	0	0	0	0	0
		2023	47	47	47	0	0	0	0	0	0	0
		2024	05	05	05	0	0	0	0	0	0	0
		2025										
4	Drought Report submitted		946 Villages and 14 Wards affected in 197 GP and 3 ULB	nil	81924 nos. of farmers affected							67540 hact. Area crop loss occur
9	Fire	2018	2	2	2	0	0	0	0	0	0	0
		2019	8	8	8	0	0	0	0	0	0	0
		2020	14	14	14	0	0	0	0	0	0	0

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		2021	10	10	10	0	0	0	0	0	0	0
		2022	2	2	2	0	0	0	0	0	0	0
		2023	36	36	36	0	0	0	0	0	0	0
		2024	1	1	1	0	0	0	0	0	0	0
		2025										
10	Heat Wave	2018	0	0	0	0	0	0	0	0	0	0
		2019	0	0	0	0	0	0	0	0	0	0
		2020	1	1	1	0	0	0	0	0	0	0
		2021	1	1	1	0	0	0	0	0	0	0
		2022	1	1	1	0	0	0	0	0	0	0
		2023	6	6	6	0	0	0	0	0	0	0
		2024	4	4	4	0	0	0	0	0	0	0
		2025										

Vulnerability and Risk Assessment related to disasters:

[Note: The Hazards towards which the district is more vulnerable to be discussed in detail]

1. Hazard prone:

[Brief description about the tropical hazard prones, type and the vulnerability of the district to be discussed followed by the table]

3.3: Hazard prone vulnerable areas of the district.

Sl. No.	Name of the Block/ ULB	No. of susceptible Gram Panchayats	No. of susceptible Villages/ Wards	Vulnerable Population in Nos.	Milch and Draught animals	Houses	Vulnerable Infrastructure			
							School/ AWC Buildings	Hospitals	Roads (in Km)	Other Critical Infrastruct

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										ure
1	Hemgir	19	139	all		all				
2	Lepheripara	13	44							
3	Tangarpali	4	5							
4	Sundargarh	14	74							
5	Balisankara	16	86							
6	Subdega	14	54							
7	Kutra	17	54							
8	Rajgangpur	12	59							
9	Bargaon	12	69							
10	Bonai	12	108							
11	Koira	12	89							
12	Kuarmunda	20	106							
13	Bisra	14	70							
14	Nuagaon	20	119							
15	Lathikata	19	71							
16	Lahunipara	17	211							
17	Gurundia	13	136							

[Note: Based on historical data the table to be filled up. Only concerned Blocks/ ULBs to be mentioned.]

(Detailed list of vulnerable Villages/Wards is at table No. 3.2 of Volume II of the DDMP.)

Electrical Infrastructure:

Table No. 3.4

Sl. No.	Name of the Block/ ULB	No. of Grid Stations	No. of 33/11 KV Substations	No. of Distributing Transformers			Conductor/ Electrical lines- 11 KV or less (length in Kms.)	No. of Poles	No. of High Tension Towers	High Tension lines above 11 KV (length in Kms.)
				11 KV or Less	11 KV < and <60KV	60 KV and above				
1	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

Table No.3.5: Drinking water facility in the Hazard prone areas:

Sl. No.	Name of the Block/ ULB	Total No. of Tube Wells	No. of GP	No. of Village	Source of Flood	No. of Over Head tanks	No. of Stand Points	Other Drinking Water Sources If any
1	Sadar, Sundargarh	77	5	12	IB and Safai		21	
2	Tangarpali	116	7	16	IB and Ichha		0	
3	Subdega	29	3	6	IB		31	
4	Balisankara	95	5	9	IB		0	
5	Lephripara	115	6	10	Ichha		14	
6	Kutra	48	2	6	Sankha		0	
7	Kuarmunda	97	5	10	Sankha, Koel		0	
8	Nuagaon	49	4	10	Koel, Deo		0	
9	Bisra	31	2	6	Deo		0	
10	Lathikata	130	2	6	Brahmani		0	
11	Bonai	42	4	4	Brahmani		0	
12	Lahunipara	35	3	10	Brahmani		0	
13	Gurundia	45	4	7	Badijharan Nallah, Kharla Nallah		0	
14	Koira	39	3	6	Koira Nalah, Kuradhi Nallah, Sayamba Nallah		0	
	Total	948	55	117			66	

3.6Tsunami:

[Brief description on the Tsunami vulnerability of the district and past incidents if any.]

Table No. 3.6 : Tsunami vulnerable areas of the district:

Sl. No.	Name of the Block/ ULB	No. of susceptible Gram Panchayats	No. of susceptible Villages/ Wards	Vulnerable Population in Nos.	Milch and Draught animals	Houses	Vulnerable Infrastructure			
							School Buildings/ Anganwadis	Hospitals	Roads (in Km)	Other critical Infrastructure
Not Related to Sundargarh District.										

[Note: all villages within 1.5 Km. of the coastline to be include and based on information available tables to be filled up. Only concerned blocks to be mentioned.]

(Detailed list of vulnerable Villages/Wards is at table No. 3.2 Of Volume II of the DDMP.)

3.7 Flood:

[Brief description on the flood vulnerability of the district and past incidents to be discussed.]

Table No. : Flood vulnerable areas of the district in general.

Sl. No	Name of the Block/ ULB	No. of susceptible Gram Panchayats	No. of susceptible villages/ Wards	Population in Nos.	Milch and Draught animals	Houses	Vulnerable Infrastructure			
							School/ AWC Buildings	Hospitals	Roads (in Km)	Other Critical Infrastructure
1	Sadar Sundargarh	3 GP	4 ward and 7 villages							
2	Tangarpali	7 GP	14 villages							
3	Subdega	3GP	5 Villages							
4	Balisankara	5 GP	9 Villages							
5	Lephripara	8 GP	12 Villages							
6	Kutra	1 GP	3 Villages							
7	Kuarmunda	4 GP	14 Villages							
8	Nuagaon	2 GP	7 Villages							
9	Bisra	2 GP 1wardRoukela	7 Villages							
10	Lathikata	8 GP 1 ULB RMC	22 villages 1 Ward							
11	Bonai	6 GP	10Villages							
12	Lahunipara	8 GP	19 Villages							
13	Gurundia	3 GP	4 Villages							
14	Koira	5 GP	11Villages							
15	Lahunipara	2 GP	10 Villages							

[Note: Based on historical data the tables to be filled up. Only relevant blocks to be mentioned.]
(Detailed list of vulnerable Villages/Wards is at table No. 3.2 of Volume II of the DDMP.)

Table No.3.8: List of Hospitals/Health Centers Exposed to Flood :

Sl No	Name & location of the Hospitals/Health Center	No. of Beds	Gram Panchayat Name	Block Name	Flood CausingAgent
1	DHH, Sundargarh	330	Municipality	Sadar	Ib, River
2	SDH, Bonai	55		Bonaigarh	Brahamani River
3	SDH, Panposh	16	Municipal Corporation Roukela		Brahamani River
4	Kuarmunda CHC	16	Salngabahal	Kuarmunda	Sankha River

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			Dalki		
			Dumerjore		
			Padampur		
			Kacharu		Koel River
5	Hatibari CHC	6	Nuagaon	Nuagaon	Sankha River
			Bagdega		Koel River
			Khutgaon		
			Ankurpali		
6	Bisra	16	Sukuda	Bisra	Koel River
7	Birkeri CHC	6	Ramjodi	Lathikata	Brhamani River
			Kalunga		
			Jadakudar		
8	Lahunipara CHC	16	Kenaveta	Lahunipara	Brhamani River
			Kasada		
			Badgugua		
			Boneikela		
			Khutgaon		
			Kuliposh		
9	Gurundia CHC	6	Boneikela	Gurundia	Badjharan Nala
			Jarda		
			Kundubiha		
			Tamperkela		
10	Koira CHC	16	Bimlagarh	Koira	Kuradhi Nala
			Soyamba		
11	Majhapara CHC	16	Lankahuda	Sadar	ib, River
			Kundukela		
			Bhasma		
			Deuli		
12	Mangaspur CHC	16	Nialipali	Tangarpali	Ichha River
			Kiripsira		ib, River
			Jogimal		
			Remunda		
			Mangaspur		
			Remend		
			Ratanpur		
13	Subdega UPHC	30	Hamirpur	Subdega	ib, River
			Karamdihi		
			Kukuridihi		
14	Kinjirkela CHC	16	Ghogar	Balisankara	ib, River
			Telijore		
15	Sargipali CHC	16	Lephripada	Lephripada	Ichha River
			Giringkela		
			Dumabahal,		
			Sarafgarh		
			Chhatenpali		

			Sargipali		
16	Kutra CHC	16	Tarkera	Kutra	Sankha River

Table No. 3.9: Causing agent wise flood vulnerable areas of the district:

Sl. No.	Causing agent-Rivers/ Water bodies/Tidal Wave/ Others	No. of Susceptible Blocks/ ULB	No. of Susceptible GPs	No. of Susceptible Villages/ Wards	Vulnerable Population	Milch and Draught animals	Houses	Vulnerable Infrastructure				
								School / AWC Buildings	Hospitals	Roads (in Km)	Other Critical Infra.	
1	Brahmani	3	10									
2	IB	5	16									
3	Koel	3	5									
4	lccha	2	7									
5	Tidal Wave											
6	Flash Flood	12	38	118								
7	Others											

[Note: Based on historical the tables to be filled up. Only relevant blocks to be mentioned. The causing agents outside district boundary, having vulnerability should also be mentioned]

Table No. 3.10: Agriculture and Flood Vulnerability

Sl. No.	Name of the Block	Cultivable Area (Hectares)		Area susceptible to Flood (Hectares)	
		Paddy	Non Paddy	Paddy	Non Paddy
1	Bonai	12266	5394	12266	5394
2	Lahunipara	15509	5809	15509	5809

Table No. 3.11: Electrical Infrastructure in the Flood Prone Area

Sl. No.	Name of the Block/ ULB	No. of 33/11 KV Substations	No. of Distributing Transformers			Conductor/ Electrical lines-11 KV or less (length in Kms.)	No. of Poles	No. of High Tension Towers	High Tension lines above 11 KV (length in Kms.)
			11 KV or Less	11 KV < and <60KV	60 KV and above				
1		Nil							
2									
3									

Table No.3.12: Drinking water and Flood Vulnerability:

Table No.3.12.1 : Drinking water and Flood Vulnerability:

Sl.	Name of the Block/	Total	No. of	No.	PWS Schemes	Other
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No.	ULB	No. of Tube Wells	Tube Wells with raised platforms	Sanitary Wells	Total No.	Length in Mtrs.	No. of Over Head tanks	No. of Stand Points	Drinking Water Sources If any
1	All blocks and ULB of Sundargarh	13234	0	986	174	0	82	2068	0

3.12.2 No. of flood prone area drinking water under risk

Name of the Block	Name of the GP	Name of the Village	Population	Drinking water Source				
				Source of Flood	Dug well	Tube well	Bore well	Stand Point
Sadar Sundargarh	Municipality Sundargarh	Mahadevpara	1735	River IB	8	1	0	7
		Ranibagicha	2007	River IB	30	1	0	7
		Ghasipara	1235	River IB	5	4	0	3
		Mohantipara	1326	River IB	4	1	0	4
	Lankahuda	Kopsingha	1078	River IB	30	10	0	0
		Semina	875	River IB	30	9	0	0
		Brahmnipali	207	River IB	21	4	0	0
		Lankahuda	1129	River IB	47	14	0	0
	Kundukela	Kaintara	475	River IB	25	5	0	0
		Kainsara	778	River Safai	40	6	0	0
	Bhasma	Bhasma	1279	River Safai	23	17	0	0
	Deuli	Bhalugarh	473	River Safai	23	5	0	0
Tangarpali	Kiripsira	Kiripsira	658	River Ichha	39	11	0	0
		Kepse	813	River Ichha	35	13	0	0
		Khamarbahal	645	River Ichha	19	6	0	0
	Nialipali	Jhimermahul	299	River Ichha	12	2	0	0
		Kurga	1335	River Ichha	103	13	0	0
		Khamarbahal	645	River Ichha	13	6	0	0
	Jogimal	Bileigarh	985	River Ichha	47	10	0	0
		Dambahal	1057	River Ichha	29	7	0	0
	Remunda	Remunda	1073	River Ichha	55	10	0	0
		Abankela	810	River Ichha	32	10	0	0
		Nadisuguda	612	River Ichha	18	6	0	0
	Mangaspur	Renda	358	River IB	8	5	0	0

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	Ratanpur	Ratanpur	716	River IB	21	5	0	0
		Lemlema	711	River IB	16	7	0	0
		Balijori	711	River IB	26	3	0	0
	Ujalpur	Jhariapali	596	River IB	42	2	0	0
Subdega	Hamirpur	Malidihi	434	River Ichha	10	7	0	0
		Bhagapali	422	River IB	1	7	0	0
	Karamdihi	Katangidihi	340	River IB	10	3	0	0
	Rajpur	Dainidihi	385	River IB	4	8	0	0
		Kanika	440	River IB	8	6	0	0
Balisankara	Balisankara	Telijore	1135	River IB	32	15	0	0
		Ghoghar	1302	River IB	14	8	0	0
	Kusammura	Kusammura	2705	River Ib	10	7	0	0
		Kaintara	702	River Ib	13	6	0	0
	Karuabahal	Karuabahal	1242	River Ib	88	13	0	0
	Bandbahal	Kinkibandh	1302	River Ib	28	14	0	0
		Sikajore	2072	River Ib	48	20	0	0
		Bankdihi	206	River Ib	5	2	0	0
Bandega	Kantabahal	1205	River Ib	26	10	0	0	
Lephripara	Lephripara	Lephripara	2778	River Ichha	13	42	6	0
	Giringkela	Satjoria	679	River Ichha	28	28	0	0
	Dumabahal	Beheramal	311	River Ichha	3	3	0	0
	Sarapgarh	Bichhuabahal	296	River Ichha	4	6	3	0
	Chhatenpali	Chhatenpali	903	River Ichha	19	13	2	0
		Surguda	830	River Ichha	6	23	2	0
		Bhurgudapada	690	River Ichha	13	12	1	0
	Sargipali	Sargipali	1560	River Ichha	66	27	11	0
		Banjaribar	417	River Ichha	11	0	0	0
		Dhelsara	735	River Ichha	42	8	2	0
		Diamunda	1034	River Ichha	44	8	2	0
Kutra	Tarkera	Tarkera	1660	River Sankha	2	14	0	0

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		Udurma	964	River Sankha	5	6	0	0
		Sadhumunda	939	River Sankha	13	14	0	0
	Laxmiposh	Laxmiposh	757	River Sankha	9	5	0	0
Kuarmunda	Salangabahal	Kunmendra	931	River Sankha	12	4	0	0
		Vesaalbhadi	811	River Sankha	8	2	0	0
		Sahajbahal	777	River Sankha	8	10	0	0
		Saalangabahal	2635	River Sankha	28	37	0	0
	Dalki	Dalki	1651	River Sankha	13	11	0	0
	Kacharu	Bijubandh	130	River Koel	3	1	0	0
		Riun	1332	River Koel	16	6	0	0
		Sandalki	473	River Koel	6	7	0	0
	Dumerjore	Ushra	1620	River Sankha	45	19	0	0
	Padampur	Padampur	796	River Sankha	9	7	0	0
Nuagaon	Teterkela	Bankotola	495	River Koel	2	4	0	0
		Dalangsira	592	River Koel	7	5	0	0
	Bagdega	Tangarpali	976	River Koel	15	14	0	0
		Kairkera	826	River Koel	2	8	0	0
	Khuntgaon	Koelsuta	613	River Deo	13	3	0	0
		Mitkundri	195	River Koel	1	3	0	0
	Ankurpali	Lahanda	883	River Deo	4	1	0	0
		Chutia	411	River Deo	1	2	0	0
		Kemang	540	River Deo	4	3	0	0
		Semerta	470	River Deo	5	6	0	0
Bisra	Bisra	Sukuda	816	River Deo	7	5	0	0
		Ajaykela	496	River Deo	9	8	0	0
		Thetheiposh	425	River Deo	3	4	0	0
		Sanbambua	745	River Deo	2	4	0	0
		Masurikudar	520	River Deo	3	6	0	0
	Jhirpani	Jhariatola	782	River Deo	5	11	8	0
	Jamsera	Jamsera	683	River Deo	12	15	1	0
	Jareikela	Jareikela Basti	862	River Deo	4	23	5	0
Rourkela	Rourkela Municipality	Luakera	1850	River Deo	12	4	0	0
Lathikata	Ramjodi	Dalakudar	739	River Brahmani	14	18	0	0
		Ramjodi	771	River Brahmani	27	16	0	0
		Matkamjharan	423	River Brahmani	6	6	0	0

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		Manko	388	River Brahmani	7	13	0	0
	Kalanga	Musapali	1130	River Brahmani	45	37	0	0
		Gailo	1203	River Brahmani	9	14	0	0
	Jadakudar	Jadakudar	1078	River Brahmani	14	26	0	0
Bonai	Kenaveta	Kantasara	345	River Brahmani	1	2	0	2
		Falsaghod	325	River Brahmani	2	7	1	6
	Bonaigarh	Bonaigarh	6204	River Brahmani	55	68	123	12
	Jangla	Jangla	1520	River Brahmani	9	11	14	0
	Boneikela	Boneikela	622	River Brahmani	2	5	2	1
		Gilli	634	River Brahmani	2	7	2	1
		Sobara	322	River Brahmani	1	8	0	0
		Badgaon	1063	River Brahmani	6	16	0	1
Lahunipara	Lahunipara	Tumkela	723	River Brahmani	6	10	0	0
		Angrapada	178	River Brahmani	0	4	0	0
		Darjing	724	River Brahmani	1	18	0	0
		Kuljha	357	River Brahmani	1	6	0	0
		Ludhuni	504	River Brahmani	2	6	0	1
		Dhenkiaam	224	River Brahmani	3	3	0	0
		Kenapati	1050	River Brahmani	3	15	0	0
	Kurda	Lalei	408	River Brahmani	3	6	0	0
		Amatpali	356	River Brahmani	3	3	0	0
		Brahmangaon	513	River Brahmani	1	3	0	0
Gurundia	Boneikela	Dumermenda	555	Badjharan Nalla	2	6	0	0
		Jadaloi	822	Badjharan Nalla	7	11	0	0
		Bhurung	216	Badjharan	3	2	0	0

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				Nalla				
		Saplata	771	Badjharan Nalla	6	5	0	0
	Jarda	Burda	342	Kharla Nalla	20	4	0	0
	Kumdeidiha	Kansar	934	Kharla Nalla	30	10	0	0
	Tamperkela	Jalei	555	Kharla Nalla	12	7	0	0
Koira	Koira	Koira	2729	Koira Nalla	27	10	0	0
		Orahury	754	Koira Nalla	11	6	0	0
	Bimlagarh	Fakirmunda	1512	Kuradihi Nalla	3	8	0	0
		Bimlagarh	430	Kuradihi Nalla	4	5	0	0
	Sayamba	Mtuhuman	728	Sayamba Nala	7	7	0	0
		Sayamba	943	Sayamba Nala	5	3	0	0

Events/ Festivals/ Functions organized in the district where mass gathering occurs:

[The events where the strength of population gathering is 5000 or above is to be mentioned in the table]

Sl. No.	Name of the Event/ Festival/ Function	Place (Block & Gram Panchayat)	Duration of the event (in No. of days)	Month (as per English Calendar)	Strength of population gathering (Approx.)	Remarks (other vulnerabilities associated with the place/ event, if any to the mentioned)
1	Rathayatra	All over the district	2 day	June	20000 to 40000	

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2	Ram Navami	All over the district	1 day	March	20000 to 40000	
3	Independence Day and Republic Day	All over the district	1 day	August, and January	10000 to 15000	
4	Dusshera	All over the district	4 days	October	20000 to 40000	
5	New Year Event	All over the district	1 to 3 day	December 31 st st to 2 nd January		Not specified
6	Chirstmas Day Celebration	All over the District	1 to 2 day	December 25 th		

Table No. 3.13

Boat operation points: Table No. 3.14:

S.No	Name of district	Name of the Blocks	Name of Ferry Ghat	Registration No. of Boats	Manual Vs Motorized			Regular Vs Occasional			Operation details		Passenger Capacity
					Manual	Motorized	Total	Regular	Occasional	Total	Plying from	Reaching to	
1	Sundargarh	Kuarmunda	Pasra	OD30C0199		Motorized	1	0	Occasional	1	Pasra	Hamirpur	50
2	Sundargarh	Lathikata	Birual Ghat	OLM-13 - 38		Motorized	1	0	Occasional	1	Birual Ghat	Jalda B Block Ghat	20

Land Slide Vulnerability:

Table No. 3.15

Sl. No.	Land Slide Zone/ Area/ Location	Area in Sq. Km	No. of susceptible Villages/ Wards	Vulnerable Population in Nos.	Houses	Vulnerable Infrastructure			
						School/ AWC Buildings	Hospitals	Roads (in Km)	Other Critical Infrastructure
1	385 working mines of Sundargarh district	17986.2		12479	0	0	0		0

Data as per District Statistical handbook.2011.

Table No. 3.16

Sl. No.	Name of the Block/ ULB	Identifiable incidents of lightning hit in last 5 years	No. of Lightning	No. fatality/ Deaths	Injured Persons
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		No. GPs	No. of Villages/ Wards	events		
1	17/3			140	140	

Major Industrial Establishments/ Chemical & Other hazardous material storage points:

Table No. 3.17-

Sl. No.	Name & location of the Industry/ Storage point	Department/ Ownership	Name of hazardous materials stored	Quantity	Total no. of workers in the establishment	No. of adjacent Villages/ Habitations within 2 Kms. radius	Susceptible Population	House	Vulnerable Infrastructure		
									School Buildings & AWC	Hospitals	Other Critical Infra.
1	M/s Rourkela Steel Plant	SSM	Hydrochloric Acid	25 T & 40 T	348	NA	NA	NA	NA	NA	NA
		SSM	Liquid Ammonia	100 M3 x 2 (80 T x 2)=160 Ton	348	Not in the Range	NA	NA	NA	NA	NA
		TRM	Diesel	113 KL X 2 =226 KL=188T	809	NA	NA	NA	NA	NA	NA
				142 KL X 2 =284 KL=236T		NA	NA	NA	NA	NA	
		Transport	Diesel	20 KL=16T	174	NA	NA	NA	NA	NA	NA
				15 KL=12T		NA	NA	NA	NA	NA	
				Petrol		15 KL=11T	NA	NA	NA	NA	NA

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		HSM	Furnace Oil	1000 KL X 3= 3000 KL=2940T	1465	NA	NA	NA	NA	NA	NA
		Oxygen Plant	Propane	80 KL X 2 =160 KL =80T	232	Not in the Range	NA	NA	NA	NA	NA
		BF	BF Gas	1.50000 M3 (115T)	1490	Currently not in operation	NA	NA	NA	NA	NA
		SMS-II	LD Gas	50,000 M3 (39T)	2220	Not in the Range	NA	NA	NA	NA	NA
		CCD	Sulphuric Acid	375 M3 x 5 = 1875 M3 = 3431T	293	NA	NA	NA	NA	NA	NA
		Oxygen Plant	Liq. Oxygen	1000 M3 x 3= 3000 M3 = 3423T	232	NA	NA	NA	NA	NA	NA
				2000 M3= 2282T		NA	NA	NA	NA	NA	NA
	M/s NTPC-SAIL Power Company (P) Ltd.	O&M CHEMISTRY	HYDROCHLORIC ACID (30%); (STORED IN MSRL TANKs)	34MT	2400 aprox	Darlipali, Raidihi, Kheradega 14 Hamlets	5700 approx	1600	Primary Schools- 8 nos High School -2 Aanganwa	2 nos Health Centers	2400 aprox

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									di - 16		
	NTPC-DARLIPALI/CPUREGE N. AREA	O&M CHEMISTRY	HYDROCHLORIC ACID (30%); (STORED IN MSRL TANKS)	18MT	2400 aprox	Darlipali, Raidihi, Kheradega 14 Hamlets	5700 aprox	1600	Primary Schools- 8 nos High School -2 Aanganwadi - 16	2 nosHealth Centers	2400 aprox
3	NTPC-DARLIPALI/DM PLANT	O&M CHEMISTRY	CAUSTIC SODALYE (48%) (STORED IN MSRL TANKS)	22MT	2400 aprox	Darlipali, Raidihi, Kheradega 14 Hamlets	5700 aprox	1600	Primary Schools- 8 nos High School -2 Aanganwadi - 16	2 nosHealth Centers	2400 aprox
	NTPC-DARLIPALI/CPUREGE N. AREA	O&M CHEMISTRY	CAUSTIC SODA LYE (48%); (STORED IN MSRLTANKS)	15MT	2400 aprox	Darlipali, Raidihi, Kheradega 14 Hamlets	5700 aprox	1600	Primary Schools- 8 nos High	2 nosHealth Centers	2400 aprox

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									School -2 Aanganwa di - 16		
	NTPC- DARLIPALI/ CW TREATME NT AREA	O&M CHEMISTRY	SULPHURIC ACID(98%); (STORED IN MS TANKS)	250MT	2400 aprox	Darlipali, Raidihi, Kheradega 14 Hamlets	5700 approx	1600	Primary Schools- 8 nos High School -2 Aanganwa di - 16	2 nosHealth Centers	2400 aprox
	NTPC- DARLIPALI/ DM PLANT	O&M CHEMISTRY	AMMONIUM HYDROXID E (25%) (STORED IN 25L SEALED JERRICANS)	20KL	2400 aprox	Darlipali, Raidihi, Kheradega 14 Hamlets	5700 approx	1600	Primary Schools- 8 nos High School -2 Aanganwa di - 16	2 nosHealth Centers	2400 aprox
	NTPC- DARLIPALI/ Fuel Oil PumpHous e	O&M Operation	LDO	4000KL	2400 aprox	Darlipali, Raidihi, Kheradega	5700 approx	1600	Primary Schools- 8 nos	2 nosHealth Centers	2400 aprox

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						14 Hamlets			High School -2 Aanganwadi - 16		
3	LINDE IDIA LTD. Near RSP Fertilizer gate,Rourkela Town Unit No.46,Tangarpali,Rourkela,Odisha-769007, India	Process	Liquid Oxygen Liquid Nitrogen Liquid Argon	4,000,000 2,000,000 120,000	69	1/5000	100	75 in 200 meter area	One School in 200 meter area	None	Police Station
4	M/s Adhuniks Metaliks Ltd.		Propane High speed diesel Fumace Oil Transformer Oil HCL (33%) H2SO2 (98%) BF gas Producer Gas Coke Over Gas	37.500T 9.980 T 11.640T 0.178 T 2.000T 2.000T 48000NM/hr 7500 NM/hr 25 NM/hr							
5.	IDL EXPLOSIVE		Ammonium	9120MT	500 nos.	07 nos.	2000	495	01	Nil	Nil

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S LTD. Sunarbat Rourkela-16 Dist - Sundergarh, Odisha PIN-769016		Nitrate Slurry, Emulsion Explosive Diesel Furnace oil Transformer Oil	690MT 22kl 30kl 1.875kl		Sunarbat, Tangarpali, Kharu atoli, Asurchapal, Dharamdihi, Sankar Tola, Jharmunda		nos.				
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(The detail regarding hazardous material, quantity, storage points, and risk is enclosed in separate Chapter -XVI “off site chemical hazard industrial plan.”)

[Detailed vulnerable habitations list and other critical infrastructure is at Table No. of Volume II of the DDMP]

Drought: (attach in separate annexure)

[Table to be filled based on data available at the district level. Information for all the blocks of the district to be given]

Drought

Year	Block Affected	GP	Village
2004	Gurundia	Jarda	Badibahal, Budelbahal, Niktimal, Jarda, Brahmandihi, Kainsbahal, Kelo, Burda, Majurdima, San burda

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	Bonaigarh	Badgogua, S. Bolang, Kenaveta, Pithachor, Bhalupani, Kasada, Jhidapali, Kendrikela, Gobindpur, Jareikela, Bonaigarh, Boneikela, Guguda	114 villages
	Lahunipara	Bhutuda, Daleisara, Fuljhar, Haldikudar, Khuntgaon, Kuliposh, Kudheikela, Kurda, Mahulpada, Talbahali	97 villages
2011	Lephripara	Jhurimal	Jhurimal, Katurma, Jhulendihi, diamunda, Aunlabhal
		Kulabira	Kulabira, Kurumkel
2015	All Block and all village affected	all GP	Village
2018	13 Blocks	197 GPs and 3 ULB	946 Villages and 14 nos of Ward

Flood

1	Flood	2007		Bonai and Lahunipara Block
		2011		Biramitrapur, Bisra, Bonai, Gurundia, Koida, Kuarmunda, Lahunipara, Lathikata, Rourkela (M)
		2017		Kuarmunda, Bonai

(Note In the context of Sundargarh District, there is no significant flooding, but the villages mentioned above are impacted by heavy rainfall)

Ground Water Level and Water Utilisation

Table No. - 3.18

Sl. No.	Name of the Block	Average Annual Rain Fall	Ground Water Level	Paddy/ Non Paddy	
				Rain fed Area	Irrigated area
1	All Block	1422.4 mm	Annual Ground water resource assessed-1668914 ham	15425 Ha Minor irrigation	1358 Ha Minor Irrigation
2			Annual ground water draft (for all uses)-436202 ham	6925 ha Lift Irrigation	2884 Ha Lift Irrigation
3			Balance Ground water resource for irrigation use- 1201460 ham	10277 ha Ground water structures	

Table No. 3.19: Drought Vulnerability.

Sl. No.	Name of the Block	Year- 2021				Year – 2022				Year- 2023				Year- 2024			
		No. of GPs experienced drought	No. of Villages	Agricultural Crop Area lost (in Hectares)		No. of GPs experienced drought	No. of Villages	Agricultural Crop Area lost (in Hectares)		No. of GPs experienced drought	No. of Villages	Agricultural Crop Area lost (in Hectares)		No. of GPs experienced drought	No. of Villages	Agricultural Crop Area lost (in Hectares)	
				Paddy	Non-Paddy			Paddy	Non-Paddy			Paddy	Non-Paddy			Paddy	Non-Paddy

[Information to be given for previous 4 drought years and the relevant blocks are to be mentioned in the table. The detailed list of drought prone Villages is at Table No.3.3 of Volume II of the DDMP]

2. Drinking Water Crisis:

Table No. 3.20:

Sl. No.	Name of the Block/ ULB	Villages/ Wards without proper source of drinking water		Villages/ Wards having crisis of drinking water during summer season		Fluoride Contamination		Others Arsenic/ Saline/ Iron If any
		No. of Villages/ Wards	Population	No. of Villages/ Wards	Population	No. of Villages/ Wards	Population	
1	Koida	nil	nil	10	100	nil	nil	nil
2	Gurundia	nil	nil	2	10	nil	nil	nil
3	Lahunipara	nil	nil	3	20	nil	nil	nil
4	Balisankara	nil	nil	3	15	nil	nil	nil
5	Bargaon	nil	nil	1	7	nil	nil	nil
6	Hemgir	nil	nil	7	40	nil	nil	nil
7	Subdega	nil	nil	7	39	nil	nil	nil
8	Sundargarh	nil	nil	4	28	nil	nil	nil
9	Tangarpali	nil	nil	4	25	nil	nil	nil

[Block wise village list is at Table No. of Volume II of the DDMP]

Railway Line Exposed different Hazards:

[Note: Total length railway line, number of stations and movement of trains to be discussed first followed by the table]

Table No. 3.21 -

Sl. No.	Hazard	Length of Railway line exposed(in Km.)	Location
1	Flood	1.5 km bridge	Brahmani River- near Rourkela
2	Land Slide	NA	NA
3	Storm Surge	NA	NA
4	Tsunami	NA	NA

3. Road Accidents:

[For national and state highways only. The total network of state and national highways in the district to be discussed in detail followed by the table]

Table No- 3.22:

Sl. No.	Stretch of Road (From - to)	Length in Kms.	No. of Traffic Congestion Areas	No. of Accident Prone Areas	No. of villages/ habitations adjacent to accident prone areas
1	Sundargarh to Jhaarsuguda	30 km	From by pass to Jharsuguda Beheramal	10	Kirei, Kandabahal, Bedabahal, Musnikani, Kudurukela, Badabahal, Kainsara, Bhasma,

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			Chowk		Tangarpali Durlaga, Talapatia
2	Sundargarh to Rourkela	120 Km	From Sundargarh to Rourkela	20	Bargaon, Koida, , Kutra, Rajgangpur, Vedvyas Chowk, Saw Mill, Dalmia College, Ranibandh, Panposh Chaawk.
3	Sundargarh to MCL and tikilipada	50 KM	From Sundargarh to Tikilipada,	8	Ujalpur, Suruguda, Duduka, Malinga, Bakibahal,
4	Ujalpur to Darlipali	20 km	From ujalpur to Darlipali	4	Sargipali, Laxanpur Chawk, Zinc Nagar,
5	Sundargarh Municipalities areas	10 KM	Sundargarh Town	6	From Hospital Chowk to Rangadhipa and Rangadhipa to Govt. Science College, Hospital Chowk to Sankara

4. Population Requiring Special Care:

Table No: 3.23-

Sl. No.	Block/ULB	No. of HHs headed by Women	No. of HHs headed by PWD	No. of Persons With Disability		No. of Widow	No. of Children		No. of Orphans		No. of Aged Persons (60 and above)		No. of Pregnant and lactating mothers
				M	F		0-6 Years	6-14 Years	M	F	M	F	
1	17	47714	22271	2939	11747	52523		8808	545	629	58142	58580	27305

[The table is the block wise abstract of population requiring special care. Village wise details are at Table No. 3.16 of Volume II of the DDMP]

3.24 . Child Labour under Risk:

Sl. No.	District	No. of child labour identified								
		Hazardous (H)			Non Hazardous (NH)			Total (H + NH)		
		M	F	T	M	F	T	M	F	T
1	Sundergarh	16	47	63	634	174	808	650	221	871

3.25 National Child Labour Project.

Sl. No.	Name of the N.C.L.P.	Registration No. of the Project Society	No. of schools sanctioned by Govt. of India	No. of Schools in operation	No. of Students enrolled presently	Total No. of children mainstreamed	Remarks
1	Sundargarh	5440-02/2006-07	40	34	1700	1517	
	Total		1030	814	39509	138083	

	Strength						
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5. Earthquake Vulnerability:

As per Earthquake Hazard Zoning Atlas-2016 issued by the National Disaster Management Authority (NDMA) and Building Materials and Technology Promotion Council (BMTPC).

- The Sundargarh District is coming under Zone-II (low damage risk zone)/
- The total District is under Zone- III (Moderate damage risk zone)/
- 10% of the District is coming under Zone- III (Moderate damage risk zone)/
- Hemgir Blocks of the district is coming under Zone- III (Moderate damage risk zone) and the other are under Zone-II (low damage risk zone)/ etc.

N.B. Earthquake Vulnerability Map is in Volume II

14.1 Identified Old and depleted Buildings in the District (if any)

Sl. No.	Block/ ULB	No. of Vulnerable Buildings	Population at Risk (inhabitants and the neighbouring)	Remarks
1	Sadar, Sundargarh and Sundargarh Municipality	Identified and Notice to 41 nos. Detail list is attach in Vol-II of DDMP.	Nil	Data furnish by Fire Officer, Sundargarh vide their letter no.1553/sng FS dt.22.05.2018. Survey still going on.
2	Rourkela Municipal Corporation	One No. of Building at Ward 7. One No. of Building at Ward 11 Two No. of Building at Ward 16 Three BoB Staff quarter, Three UBI Staff Quarter and 30 Houses of A Block in Rourkela steel Plant	100	Data furnish by Rourkela Municipal Corporation

[The list of the buildings to be given in Volume II]

6. Forest Fire:

The peak summer lies far ahead but the forested and hilly Sundargarh district has started to bear the brunt of wildfire. During summer, kendu plants are also burnt as fire helps in growth of new shoots and tender leaves. Besides, fires are caused during hunting of small animals including squirrels and stubble burning on forested farmland. Some people set fire mischievously in fringe forest pockets.

6.1. Forest Fire Incidents:

Sl. No.	Name of the Division	Range	No. of Fire Incidents Reported	Area Affected in Ha.	Loss of life/ property if any
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			during 2013-14 to 2021-2024		
1	Sundargarh	Hemgir		130 ha	Nil
		Gopalpur		120 ha	Nil
		Bargaon		69 ha	Nil
		Sundargarh		40 ha	Nil
		Lephripara		13 ha	Nil
2	Bonai	Barsuan, Bonai, Jarda, Koira, Kuliposh, Sole, Tamra	2625	2084.045 ha	Nil
3	Rourkela	Banki, Panposh, Kuarmunda, Rajgangpur	1226	1172.62 ha	Nil

6.2. Forest fire vulnerability:

Sl. No.	Name of the Division	Range	Area (in Sq. Km)	Total Notified Forest Area (in Sq. Km)	High Risk Zone (Area in Sq Km)	No. of Villages / habitations inside/ adjacent to the High Risk Zone	Medium Risk Zone (Area in Sq. Km)	No. of Villages / habitations inside/ adjacent to the Medium Risk Zone	Low Risk Zones (Area in Sq. Km)	No. of Villages / habitations inside/ adjacent to the Low Risk Zone
1	Sundargarh	Hemgir, Gopalpur, Bargaon, Lephripara, Ujalpur, Sundargarh			90 sq km	22 villages	42 sq km	8 villages	62.0078 sqkm	30 villages
2	Bonai	Barsuan, Bonai, Jarda, Koira, Kuliposh, Sole, Tamra	2934.21 sq km	2032.689 sq km	909.131 sq km	130 nos. villages	325.935 sq km	84 villages	204.927 sq km	77 villages
3	Rourkela	Rajgangpur, Kuarmunda, Panposh,	1081.23 sq km	674.6 sq km	448.258 sqkm	84 nos of villages	160.83 sq km	33 no of villages	86.	

		Biramitra pur, Bisra, Banki							
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N.B. The name of the vulnerable villages along with population details under different risk zones is in Volume II.

7. Human Animal Conflict:

i. Loss of Human Lives and Property due to animal attack- Sundargarh Division

Sl. No.	Year	Vulnerable Place (Village/ Panchayat etc.)	Causing Agent/Animal (Elephant, Bear, Crocodile etc.)	Number of Human Lives lost during last 5 years	Damage to House and Property during last 5 years	Crops Damaged
1	2013-14	Dalkijharan/ Aindriamunda/ Jharmunda/ Ujalpur/ Badkhaman/ Bargaon/ Jhulenbar/ Hemgir	Elephant	4	130	40.535
2	2014-15	Klurumkela/ Lephripara/ Gurabasa(Kusapada)/ Sadar Madhupur/ Rajpur/ Dalkijharan/Aindramunda	Elephant	2	255	108.576
3	2015-16	Kankerjora (kulapada)/ Kinjirkela/ Katangijharia/ Sankraposh/ Bargaon/ Hemgir/ Kurumkel/ Lephripara, Mahuljore/ Bhasma, Sikajore, Maubathan, Kinjrikela	Elephant	7	267	653.60
4	2016-17	Lahandabud, Salangabud, Udarama (Khaipada), Bargaon, Bhalugad, Bhasma, Amasdegi, Dharadihim Thuthipipal (Bichhutungri) Kinjrikela, Tiklipada (Barpani) Bargaon	Elephant	7	170	417.099
5	2017-18	Pamra/ Bargaon/ Deobhubanpur/ Kinjirkela	Elephant	8	464	528.96
6	2018-19		Elephant	3	84	
7	2019-20		Elephant	10	384	
8	2020-21		Elephant	1	328	
9	2021-22		Elephant	7	61	
10	2022-23					
11	2023-24					

ii. Loss of Animal Lives due to man-made causes- Sundargarh Division

Sl. No	Vulnerable Place/ Location	Causing Agent (Railway line/ Electric transmission lines etc.)	No. of Incidents	Number of Animal Lives lost
1	2013-17	Nil		
2	2017-18 During July,2017 one elephant dead in between Jamgaon to Daghora Station (near Khurshi Nalla) of Hemgir Range	Railway line	1	1

i. Loss of Human Lives and Property due to animal attack- Rourkela Division

Sl. No	Year	Vulnerable Place (Village/ Panchayat etc.)	Causing Agent/Animal (Elephant, Bear, Crocodile etc.)	Number of Human Lives lost during last 5 years	Damage to House and Property during last 5 years	Crops Damaged
1	2013-14 to 2017-18	Kuarmunda Range – (Kacharu, Dalki, Chainpur, Bijubandh, Rion Rampur, Kalosiria, Jharbeda, Tangrani, Lahanda, Chutia, Luamual, Simerta, Khemga, Ankurpali, Chutia, Musapali,Rutukup endi, Fikudchundi, Patua, Leta, Gamardihi, Rangamati, Badmaren, Jhardaben, Sandalakudar, Gotidhar) Biramitrapur Range – (Pataha,Anthuagada, Bemta, Lalikhaman,	Elephant/ Bear	7	64 nos./ rs.2.27.000/-	785.73 ha
2	2014-15		Elephant/ Bear	10	437 nos. Rs.16,26,000/-	639.45 ha
3	2015-16		Elephant/ Bear	12	Rs. 80 nos.Rs.504000 /-	599.72 ha
4	2016-17		Elephant/ Bear	4	Rs.125 nos. Rs.450,000/-	399.71 ha
5	2017-18		Elephant/ Bear	15	Rs.181 nos. Rs.9,88,000/-	456.9 ha

	<p>Ghoria, Taenda, Kadopani, Kepta, pumapani, Gotitanagar) Rajgangpur Range – (Bhagartola, Ranipla, Dudi, Malidhi, Sonakhan, Baragada, Binodhokhaman, Dubku, Chinimohal, Sunakhandi, Faudapada, Ludhabala, Dhengurpani, Bodhakhman, Bhoutoli) Bisra Range- (Khairtola, Relaposh, Garda, Tangarpali, Bagdega, Mahipani, Teterkera, Jambena, Mondap, Dalongbira, Sukuda, Ajekela, Arla, San Bambua, Bad bambua, Bimgaguda, Kumdaposh, Kopsinghm, Darekela, Dhakidihi, San Birenga, Bad Bambua,) Panposh Range- (Jabaghat, Jabapanposh, R.S. Colony, Bartoli, Dumerta, Barkani, Badupparbahal, Gungjhar, Mundajore,</p>				
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		Budhikudar, Nuatoli, Dalakudar, Potobeda, Ramjodi, Getijharan, Matkumjharan, Monko, Suidihi, Kanarsuan, Kansar) Banki Range- (Mahura, Dhanghar, Angarpada, Jamardihi, Kamarposh, Patsahi, Chidikudar, Sarsposh, Jharbeda)				
6	2018-19		Elephant	9	230	
7	2019-20		Elephant	4	109	
8	2020-21		Elephant	9	90	
9	2021-22		Elephant	6	134	

ii. Loss of Animal Lives due to man-made causes- Rourkela Division

Sl. No.	Vulnerable Place/ Location	Causing Agent (Railway line/ Electric transmission lines etc.)	No. of Incidents	Number of Animal Lives lost
1	Kuarmunda Range – (Kacharu, Dalki, Chainpur, Bijubandh, Rion Rampur, Kalosiria, Jharbeda, Tangrani, Lahanda, Chutia, Luamual, Simerta, Khemga, Ankurpali, Chutia, Musapali, Rutukupendi, Fikudchundi, Patua, Leta, Gamardihi, Rangamati, Badmaren, Jhardaben, Sandalakudar, Gotidhar) Biramitrapur Range – (Pataha, Anthuagada, Bemta, Lalikhaman, Ghoria, Taenda, Kadopani, Kepta, pumapani, Gotitanagar)	Railway Line/ Electric transmission lines	Electrocution= 06, Train Hit = 02, Poaching = 01, Unnatural = 06, Natural = 06	21 nos of live lost

<p>Rajgangpur Range – (Bhagartola, Ranipla, Dudi, Malidhi, Sonakhan, Baragada, Binodhokhaman, Dubku, Chinimohal, Sunakhandi, Faudapada, Ludhabala, Dhengurpani, Bodhakhaman, Bhoutoli)</p> <p>Bisra Range- (Khairtola, Relaposh, Garda, Tangarpali, Bagdega, Mahipani, Teterkera, Jamberna, Mondap, Dalongbira, Sukuda, Ajekela, Arla, San Bambua, Bad bambua, Bimgaguda, Kumdaposh, Kopsinghm, Darekela, Dhakidihi, San Birenga, Bad Bambua,)</p> <p>Panposh Range- (Jabaghat, Jabapanposh, R.S. Colony, Bartoli, Dumerta, Barkani, Badupparbahal, Gungjhar, Mundajore, Budhikudar, Nuatoli, Dalakudar, Potobeda, Ramjodi, Getijharan, Matkumjharan, Monko, Suidihi, Kanarsuan, Kansar)</p> <p>Banki Range- (Mahura, Dhanghar, Angarpada, Jamardihi, Kamarposh, Patsahi, Chidikudar, Sarsposh, Jharbeda)</p>		
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i. Loss of Human Lives and Property due to animal attack- Bonai Division

Sl. No.	Year	Vulnerable Place (Village/ Panchayat etc.)	Causing Agent/Animal (Elephant, Bear, Crocodile etc.)	Number of Human Lives lost during last 5 years	Damage to House and Property during last 5 years	Crops Damaged
1	2013-14 to 2017-18	Kusumdihi, Sabara, Kenedra, Bandhabhuinm,	Elephant	2	14	230.180
2	2014-15	Gaganaposh,	Elephant	2	25	261.538

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3	2015-16	Kulkuta, Bad Gogua, Kendra, Choradhara, Kiyakudar, Kamanda	Elephant	3	11	219.660
4	2016-17		Elephant	1	12	434.680
5	2017-18		Elephant	3	18	213.770
	2018-19		Elephant	3	22	
	2019-20		Elephant	3	137	
	2020-21		Elephant	1	77	
	2021-22		Elephant	9	119	

ii. Loss of Animal Lives due to man-made causes- Bonai Division

Sl. No.	Vulnerable Place/ Location	Causing Agent (Railway Electric transmission lines etc.)	No. of Incidents	Number of Animal Lives lost
1	Nil	Nil	Nil	Nil

8. Fire and Life Safety of High Rise Buildings (buildings having a height of more than 15 meter)

Table- No. 1

Sl. No.	Name of the ULB/ Block	No. of High Rise Buildings	No. of High Rise Buildings where Fire & Life Safety Audit has been carried out in last 2 years.	Remarks
1	Sundargarh, Hemgir, Tangarpali, Lephripara, Subdega, Balisankara, Rajgangpur, Kutra, Bargaon	Nil	Nil	nil

Table-No. 2

Sl. No.	Name of the High Rise Building	Location/ Area	Name, Address, Contact Details of the Owner	Whether Fire & Life Safety Audit Under Taken (Yes/ No.)	If Yes then the Year and the Name of the Agency	Vulnerable Population
1						

(As per National Building Code -2016 Para E-7 of Annexure E)

9. Embankments:

Irrigation Division Wise Embankments in the District:

Sl. No.	Division	Name of the Embankment	Type (Capital Embankment/ Other Agricultural/ Test Relief/ Saline)	Length (in Km.)	Remarks
1	Sundargarh Irrigation Division, Sundargarh	FPE on right bank of river Ichha near village Suruguda.RD 00 to 345 mtr. Lat-22.1052/ Ing-83.8431	Test Relief	0.345	No deficiency detected till date
2		FPE on right bank of river Ichha near Tahasil office of Lephripara.RD 00 to 300 mtr. Lat-22.1180/ Ing-83.8056	Test Relief	0.300	No deficiency detected till date
3		FPE on right bank of river Ichha near village Chhatenpali.RD 00 to 176 mtr. Lat-22.0938/ Ing-83.8803	Test Relief	0.176	No deficiency detected till date
4		FPE on left bank of river Ichha near village Jhariapali.RD 00 to 120 mtr. Lat-22.0832/ Ing-83.8858	Test Relief	0.120	No deficiency detected till date

Division wise list of Vulnerable Points: Rivers of Sundargarh

Sl. No.	Name of the Division	Name of the Embankment/ River	Normal Level	Danger Level	Location of the Vulnerable Point	Affected Length (in Mtr.)	Name of the Block	Name of the Villages to be affected	Remarks
1	Sundargarh Irrigation Division, Sundargarh	Left Bank of River IB	217.80 mtr.	222.30 mtr.	Mahatia pada	300 mtr.	Sundargarh Municipality	Mahatia pada & Ghasia pada	Length of River IB in Sundargarh District = 63.75 Km, CWC Gauge Station at Sundargarh near bridge (Govt. College, Sundargarh)
		Left Bank of River IB	217.80 mtr.	222.30 mtr.	Near Siba Mandir Mahadev pada	200 mtr.	Sundargarh Municipality	Mahadev pada	
		Left Bank of River IB	217.80 mtr.	222.30 mtr.	Near PHD Pump House	300 mtr.	Sundargarh Municipality	Ranibagicha	
		Left Bank of River IB	217.80 mtr.	222.30 mtr.	Darbarghat	200 mtr.	Sundargarh Municipality	Demul Muhan	
		Left Bank of River Brahmani	172.00 mtr.	178.420 mtr.	Balughat	300 mtr.	Rourkela Maha Nagar Nigam	Balughat new Basti	Length of River Brahmani in

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2		Right Bank of River Brahmani	172.00 mtr.	178.420 mtr.	Dandiyapalli near Guala Khatal	700 mtr.	Rourkela Maha Nagar Nigam	Dandiyapalli	Sundargarh District = 100.625 Km, CWC Gauge Station at Panposh bridge
3		River Koel		194.000 mtr.	Not yet detected		Rourkela Maha Nagar Nigam		Bed Level = 185.00 mtr. HFL = 194.630 mtr. on dt.24.09.2011, Length of River Koel in Sundargarh District = 38.750 Km, CWC Gauge Station at Jareikela, Sundargarh District, Border of Bihar
4		River Sankha			Not yet detected		Rourkela Maha Nagar Nigam		Bed Level = 372.00 mtr. HFL = 194.630 mtr. on dt.24.09.2011, Length of River Sankha in Sundargarh District = 48.750 Km, CWC Gauge Station at Tilika, Jharkhand

10. Dam- Burst Scenario: (For large Dams) (i)

Sl . No.	Name of the Dam	Location & Water body	Type (Major / Medium/ Minor)	Storage Capacity	Full Reservoir Level (FRL)	Maximum Water Level (MWL)	Dam Break Model / Risk Map for Dam break develo	Pre and Post Monsoon Inspection of Structural	No. of Villages to be affected/ needs to be evacuated in case of a possible scenario(Di	Remarks
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							ped ? (Yes/No)	Measures done ? (Yes/No)	strict & Block Wise)	
.1	Pitamahal Dam	Near Village Balanda River-Pitamahal Nallah	Medium	2362 Ham	243.84 mtr	246.88 mtr	No	Yes	20 nos.	
2.	Talsara Dam	Near Village Talsara, River-Badjore Nallah	Medium	1985 Ham	296.30	296.30	No	Yes	11 nos.	
3	Saraphgarh Dam	Near Village Saraphgarh River-Ichha Nallah	Medium	1375 Ham	307.50 mtr	307.50 mtr	No	Yes	10 nos.	
4	Kansbahal Dam	Near Village Kadambahal River Badjore Nallah	Medium	4041.50 Ham	2281.00 mtr	228.00 mtr	No.	Yes	10 nos.	

Contingency Planning for Dam bursts scenario:

1. Pitamahal Dam

Sl. No.	District	Block	Name of the Village	Evacuation Route for the village/s	No. of HHs	Population	Safe Shelter Identified	Vulnerable village in case of heavy rain/flood
1	Sundargarh	Lathikata	Balanda	Rourkela, Kalunga Vedvyas			Block Office, GP office, College, High School, Anganwadi Center	Balanda, Kalunga, Kilinga, Sagjore (part), Kadaldhipa, Nuagaon(part), Mallikpalli(part), Sarala (part), Chiktamati(part), Beldihi

2. Talsara Dam

Sl. No.	District	Block	Name of the Village	Evacuation Route for the village/s	No. of HHs	Population	Safe Shelter Identified	Vulnerable village in case of heavy rain/flood
1	Sundargarh	Balisankara	Rengali	Subdega, Ballisankara, Rengali			Block Office, GP office, High School, Anganwadi Center	Sabdagar, Tumulia(part), Fataimunda, Simdega, Lathdega, Jalsor, Jamuna

3. Saraphgarh Dam

Sl. No.	District	Block	Name of the Village	Evacuation Route for the village/s	No. of HHs	Population	Safe Shelter Identified	Vulnerable village in case of heavy rain/flood
1	Sundargarh	Lephripara	Badhunjharia	Lephripara, Badhunjharia			Block Office, GP office, High School, Anganwadi Center	Lephripara, Surguda, Chhatenpali, Jhariapali, Sargipali, Telipali, Surda

4. Kansbahal Dam

Sl. No.	District	Block	Name of the Village	Evacuation Route for the village/s	No. of HHs	Population	Safe Shelter Identified	Vulnerable village in case of heavy rain/flood
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1	Sundargarh	Rajgangpur	Kadambahal	Kansbahal, Rajgangpur, Laing			Block Office, GP office, College, High School, Anganwadi Center	Kadambaha l(part), Ghoghar(pa rt), Bileigarh, Laing, Gosainpada (part), Laxmimal(p art), Badnuagao n(part)
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iii. Formation and Subsequent Bursting of Landslide Dams:

Sl. No.	Land Slide Area/ Location Vulnerable for formation of land slide Dams	No. of Villages likely to be affected	Population to be affected
1	Not yet located.		

11. Cultural Heritage Sites and Precincts:

Sl. No.	Cultural heritage Sites and Precincts	Location and Address	Category/ Controlling body	Name & Contact details of the controlling authority	Hazards & Vulnerability of the Place	Remarks (if Any)(Average Foot Fall and Days/ Period during which the place receives highest Foot Fall)
1	Jamsergarh	Jamsergarh	State protected			
2	Ramjee Temple	Sundargarh	State protected			
3	Jagannath Temrple	Sundargarh	Unprotected			
4	Samleswari Temple	Sundargarh	do			
5	Khambakhhol	Sundargarh	do			
6	Bauripura	Sundargarh	do			
7	Jhinkamada	Sundargarh	do			
8	Jagannath Temrple	Rahuldega, Balisankara	do			

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9	Siva Temple	Deuli Sidheswer	do			
10	Siva Temple	Belsaragarh	do			
11	Devi Temple	Balichua	do			
12	Radha Krishna Temple	Sundargarh	do			
13	Baneswara Temple	Bonaigarh	do			
14	Kumari Devi Temple	Bonaigarh	do			
15	Manikamada	Kanika	do			cave
16	Lekhamoda	Kanika	do			cave
17	Imlikmada No.1	Kanika	do			cave
18	Imlikmada No.1	Kanika	do			cave
19	Tonga	Kanika	do			cave
20	Jobli	Kanika	do			cave
21	Lekhamoda no.4	Sargikhol	do			cave
22	Lekhamoda no.6	Chicherakhol, Lephripa	do			cave
23	Usha Kothi No.1	Gopalpur, Lephripa	do			cave
24	Usha Kothi No.2	Rishikonda, Lephripa	do			cave
25	Usha Kothi No. 1	Swargagumpha , Lephripa	do			cave
26	Lekhamoda no.8	Babaji Matha, Lephripa	do	Joronda, Alekha Matha, Dhekanal		Alekha Matha
27	Lekhamoda no.10	Phuldunguri, Lephripa	do			Cave
28	Lekhamoda No.11 &12	Kendukhol, Lephripa	do			Cave
29	Usakothi	Koromapahad, Lephripa	do			Cave

12. Museums:

Sl . No.	Name of the Museum	Location and Address	Type	Category/ Controlling Body (ASI/ Central Government/ State Government/ Private/ Public Trust/	Name & Contact details of the Controlling Authority/ Owner	Hazard & Vulnerability	Average Foot Fall and Days/ Period during which highest Foot Fall is received)	Remarks (if any)

				Privately Managed/ University/ College)				
Not applicable to our district. No Museums in Sundargarh district.								

13. Library

Sl. No.	Name of the Library	Location and Address	Category/ Controlling body	Name & Contact details of the controlling authority	Remarks (if any)
1	ICRR, I &PR At- Adjacent to Stadium Po/Dist- Sundargarh	Sundargarh Stadium	State Govt.	DI & PRO, Sundargarh	
2	ICRR, I &PR At/PO- Rourkela Dist- Sundargarh	Rourkela	State Govt.	DI & PRO, Rourkela	
3	ICRR, I &PR At/PO- Bonai Dist- Sundargarh	Child Welfare building, Bonai	State Govt.	SDI & PRO, Bonai	
4	SEWAK	SEWAK complex at- Rangiamunda po- Tangarpali Dist- Sundargarh	NGO	Amiya Kanta Naik, 9437083288	
5	Singha Bahini Youth Club (SBYC)	At/PO- Dharuadihi Dist- Sundargarh	NGO	Basanti Panda 9437115906	
6	Gandhi Memorial Youth club	At- Patermunda Block- Balisankara Dist- Sundargarh	NGO	K.M. Lakra 9937851685	
7	Banajyoti Yubak Sangha	At/PO- Panrkadihi PO- Bonaigarh Dist- Sundargarh		Harihar Singh 8763760273	
8	Chhend Welfare Committee	At- Chhend Housling Colony PO- Rourkela Dist- Sundargarh		Bijaya Barla 8895502278	
9	Ganesh Yubak Sangha	At- KesharJama PO- Rohini Block- Hemgir Dist- Sundargarh			

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10	Anchali Seva Samiti, Raichuan	At- Raichuan PO- Rohini Dist- Sundargarh		Rama Ch. Kishan 9437757767	
11	Vir Virsa Munda Youth Club	At- Suanjore- PO- Hurmel Block - Lephripara Dist- Sundargarh		Piter Tirkey 8456071121	
12	Jiban Jyoti Youth club	At- Tileikani Via- Balisankara Dist- Sundargarh		Gajendra Barla	
13	Kala Bikash Parishad	At/PO- Bargaon Dist- Sundargarh		Chakradhar Pruseth 9937558868	
14	SAFAL	At/PO- Kutra Dist- Sundargarh		Budhram Lakra 9438717088	
15	Anwesana	Dakhin Rourkela Dist- Sundargarh		Sachala Panda 9437408120	
16	Utkalmani Gopabandhu Welfare Trust (UGWT)	Lathikata Block		Arun Ku. Parida 9438515313	
17	PAST	Rourkela		Pramod Jagdev 9937433991	
18	YAVRAD	At- Lahunipara, Dist- Sundargarh		Ajay Ku. Mahanta 9438142338	
19	Vikash Pratisthan	At- Deogaon Po- Bonaigarh Dist- Sundargarh		Ramakanta Bhanja 9437117226	
20	Priya Darsani Mahila Samiti	At/PO - Jhirpani, Block- Bisra Dist- Sundargarh		Prema Das 9437049679	
21	Indira Mahila Kalyan Parishad (IMKP)	At/PO- Subdega Dist- Sundargarh		Laxmi Bagh 9556285670	
22	Lok Vikash Parishad	at/PO- Koida		Kanhu Charan Mohanty 9437631422	
23	Pragati Utkal Sangha	Plot no.9899 Madhumandap Sec-7 Rourkela			
24	Basanti Pathagar	At- Basanti Colony Qrs No.-B/L 21 Rourkela			
25	Karmabira Gourisankar Library	At- Cultural Academy Sec-5 Rourkela			
26	Basudevpur Janakalya Library	Qr. No. FL/34, Basanti Nagar, Rourkela			

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27	Subarnarekha	A.M.86,Basanti Nagar & Vyasa Bhawan PO-Rourkela			
28	District Library	Sundargarh, Stadium	State Govt.	Library Asst. Sundargarh	



CHAPTER – 4

INSTITUTIONAL ARRANGEMENT

4.1 National Disaster Management Authority (NDMA)

The National Disaster Management Authority (NDMA) was constituted under the Sub-section (1) of Section (3) of National Disaster Management Act 2005. NDMA is the apex body for Disaster Management in the country headed by the Hon'ble Prime Minister of India to lay down policies, plans and guidelines to manage disaster and coordinating their enforcement and implementation for ensuring timely and effective response to disaster.

The Chairperson of the NDMA is the Hon'ble Prime Minister of India (*ex-officio*) and others members not exceeding than nine may be nominated by him. The Chairperson may designate one of the members to be the Vice-Chairperson.

4.2 National Executive Committee (NEC)

The central government has constituted a National Executive Committee (NEC) under sub-section (1) of Section (8) of DM Act-2005 to assist the National Disaster Management Authority in the discharge of its function and also ensure compliance of the directions issued by the central government.

The Union Home Secretary is the Chairpersons (*ex-officio*) of NEC. The Secretaries to the Government of India in the ministries/departments having administrative control of the agriculture, defense, drinking water supply, environment and forests, finance (expenditure), health, power, rural development, science and technology, space, telecommunication, urban development, water resources and chief of the integrated defence staff of the chief of staffs are other members of NEC.

4.3 State Disaster Management Authority (SDMA)

The State Disaster Management Authorities (SDMA) has to be constituted by every state government under the sub-section (1) & (2) of section 14 of Disaster Management Act 2005. The Hon'ble Chief Ministers of the state are the Chairpersons (*ex-officio*) of SDMA and other members not exceeding than eight may be nominated by the Chairpersons. The Chairman of the State Executive Committee (SEC), Chief Secretary of the State is a member and Chief Executive Officer (*ex-officio*) of SDMA.

The State Disaster Management Authority shall:-

- Lays down policies and plans for disaster management in the state.
- Approves the state plan in accordance with the guidelines laid down by NDMA
- Coordinates the implementation of the State Plan, recommend provision of funds for mitigation and preparedness measures.

- Review the developmental plans of different departments of the State to ensure the integration of prevention, preparedness and mitigation measures.
- Lay down guidelines to be followed by the departments of the State Government for the purpose of integration of measures for prevention of disasters and mitigation in their development plans and projects and provide necessary technical assistance there for.
- Review the measures being taken for mitigation, capacity building and preparedness by the departments of the Government & issue such guidelines as may be necessary.
- Lay down detailed guidelines for providing standards of relief (Not less than the minimum standard of relief in the guidelines of NDMA) to persons affected by disaster in the State.

4.4 State Executive Committee (SEC)

The State Executive Committee (SEC) has been constituted by the State Governments under sub-section (1) & (2) of section (20) to assist the State Disaster Management Authority (SDMA) in the performance of its function and to coordinate action in accordance with the guidelines laid down by the SDMA and ensure the compliances of directions issued by the State Government under the DM act. The Chief Secretaries of the States are the Chairman of SEC (ex-officio). Four Secretaries of State Government are the other member's ex-officio. The Chairperson of SEC use powers delegated by SDMAs and state Governments.

The State Executive Committee shall-:

- a) Coordinate and monitor the implementation of the National Policy, National Plan and State Plan.
- b) Examine the vulnerability of different parts of the State to different forms of disaster and specify measures to be taken for their prevention and mitigation.
- c) Lay down guidelines for preparation of disaster management plans by the departments of the Government of the State and the District authorities and monitor the implementation of the plans.
- d) Evaluate preparedness at all government and non-government levels to respond to any threatening disaster situation or disaster and give all directions where necessary for enhancing such preparedness.

(Please refer Figure__of Volume –II (Page no.) for Odisha Government Notification on constitution of SEC)

4.5 Revenue and Disaster Management Department:

The Revenue and Disaster Management Department is responsible for providing immediate relief to the people affected by various calamities like floods, droughts, hazard prone, hailstorms, earthquakes, fire accidents, etc. It also takes initiatives for relief, rescue, rehabilitation and restoration work. The Department is headed by the Principal Secretary/Addl. Chief Secretary, Revenue and Disaster Management Department who exercises all administrative and financial powers.

4.6 Special Relief Organization:

The Special Relief Organisation was established under the Board of Revenue in 1965-66 for carrying out relief and rescue operation during and after various disasters. Since its inception, the scope of Relief Organisation has been diversified. Now it deals with disaster management i.e. response, relief and rehabilitation. It coordinates with districts/departments for quick relief and rescue operation, reconstruction and rehabilitation work. It also promotes disaster preparedness at all levels in the State with the assistance of Odisha State Disaster Management Authority (OSDMA). Quick response in the natural calamities is the hall-mark of Special Relief Organisation.

4.7 Odisha State Disaster Management Authority (OSDMA):

Odisha State Disaster Mitigation Authority (OSDMA) was established by the Government of Odisha as an autonomous organization vide Finance Department Resolution No. IFC- 74/99-51779/F dated the 28th December 1999 (in the intermediate aftermath of the Super-hazard prone in 1999). It was registered under the Societies Registration Act, 1860 on 29.12.1999 as a non-profit making & charitable institution for the interest of the people of Odisha, with its headquarters at Bhubaneswar and jurisdiction over the whole State.

The Authority has the mandate not only to take up the mitigation activities but also the relief, restoration, reconstruction and other measures. These activities cover the entire gamut of disaster management including preparedness activities and also include:

- Coordination with the line departments involved in reconstruction,
- Coordination with bilateral and multi-lateral aid agencies,
- Coordination with UN Agencies, International, National and State-level NGOs,
- Networking with similar and relevant organizations for disaster management.

4.8 State Level Committee on Natural Calamity (SLCNC)

A State Level Committee on Natural Calamity (SLCNC) has been constituted under the Chairmanship of the Hon'ble Chief Minister to oversee disaster preparedness and response activities.

The Function of the SLCNC is -:

- a) To advise the State Government regarding precautionary measures to be taken in respect of flood, drought and other natural calamities.
- b) To assess the situations arising out of the calamities.
- c) To recommend to Government the nature and quantum of relief; and
- d) To recommend to Government the Policy to be adopted in giving such relief in areas affected by such calamities.

4.9 District Disaster Management Authority (DDMA)

Under the sub-section (1) of section 14 of DM act 2005. District Disaster Management Authority has been constituted by the State Government. The District Disaster Management Authority (DDMA) consists of the Chairperson and such number of the other members, not exceeding seven, as may be prescribed by the State Government, and unless the rules otherwise provide, it shall consist of the following namely:-

District Disaster Management Plan -2024

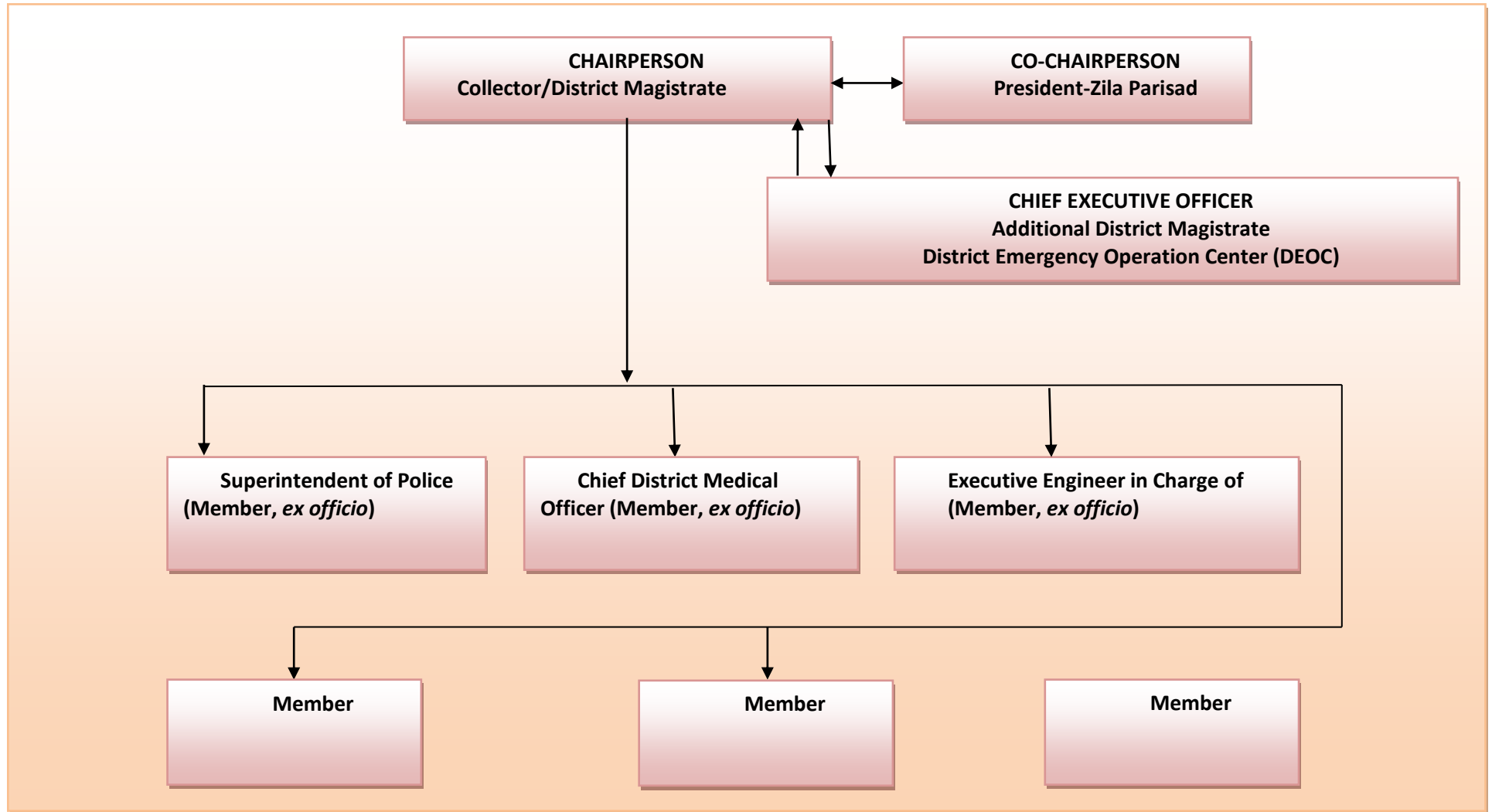
- a) The Collector or District Magistrate or Deputy Commissioner of the District is the Chairperson (*ex-officio*) of DDMA.
- b) The elected representative of local authority is the Co-chairperson (*ex-officio*) of DDMA. Provided that in the Tribal Areas, as referred to in the Sixth Schedule to the Constitutions, the Chief Executive Member of the district council of autonomous district, shall be the co-Chairperson, *ex officio*
- c) The Chief Executive of the District Authority ,*ex officio*;
- d) The Superintendent of Police, *ex officio*;
- e) The Chief Medical Officer of the district, *ex officio*;
- f) Not exceeding two other district level officers, to be appointed by the State Government
- The State Government appoints an officer not below the rank of Additional Collector or Additional District Magistrate or Additional Deputy Commissioner, as the case may be of the District to be Chief Executive Officer of DDMA.

Table_4.1: Structure of District Disaster Management Authority

SI No.	Name of the Officer	Designation	Position in DDMA	Contact No.
1	Shri Manoj Satyawar Mahajan, IAS	Collector	Chairperson - exofficio	9861079543
2	Shri	CDO-Cum-EO, Zilla Parishad	Chairperson - exofficio	
3	Shri Pratyush Diwakar, IPS	SP, Sundargarh	Member ex-officio	9438916650 9337511729
4	Shri , Brijesh Kumar Rai, IPS	SP, Rourkela	Member ex-officio	
5	Sri Rabi Narayan Sahu, OAS(S)	ADM, Sundargarh	Chief Executive Officer	9438257340
7	Dr. Prashant Kumar Mohapatra	CDMO	Member ex-officio	9439993000
8	Shri Manoj Baraik	SE, Irrigation	Member ex-officio	9937651391
9	Shri Ashirbad Panda	SE, RWD	Member	9437255313 8763494625
10	Sri Bhairab Singh Patel, OAS (S)	Project Director, DRDA	Member	9437192643
11	Sri Bijay Pradhan, DAO	DAO, Sundargarh	Member	9437124105

(Note: The above table should be District Specific)

Figure 4.1: Organogram of District Disaster Management Authority



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The DDMA acts as the district planning; coordinating and implementing body for disaster management and take all measures for the purpose of disaster management in the district in accordance with the guidelines laid down by the NDMA and SDMA.

The District Disaster Management Authority (DDMA) shall:-

- a) Prepare Disaster Management Plan including District Response Plan of the District.
- b) Coordinate and Monitor the implementation of the National DM Policy, State DM Policy, State DM Plan and District DM Plan.
- c) Ensure that vulnerable areas of the districts are identified and prevention and mitigation measures are being undertaken by the departments of the Government both at district level and at local level.
- d) Ensure that guidelines for Prevention and Mitigation measures, Preparedness and Response as lay down by NDMA and SDMA are being followed by all departments of Government both at district and local level.
- e) Monitor the implementation of Disaster Management Plan prepared by the departments of the Government at the district levels.
- f) Lay down guidelines to be followed by different Government departments both at district level and local level for integrating disaster prevention and mitigation measures in their development plans and projects and provides necessary technical assistance therefor;
- g) Review the state of capability for responding to any disaster or threatening disaster like situation in the district and give directions to the relevant departments or authorities at the district level for their up gradation.
- h) Review the preparedness measures and give directions to the concerned departments at the district level for bringing the preparedness measures to the levels required for responding effectively to any disaster.
- i) Organize, coordinate and facilitate specialized training programmes and awareness programmes for different level of officers, employees, voluntary rescue workers and community members for prevention and mitigation of disaster with support of governmental and non-governmental organization and local authorities.
- j) Set up, maintain, review and upgrade mechanism for early warning and dissemination of proper information to public.
- k) Review development plans prepared by the departments of the government at the district level, statutory authorities with a view to make necessary provisions therein for prevention of disaster or mitigation.
- l) Examine construction in any area in the district and ensure standards for prevention of disaster or mitigation laid down for such construction to be followed by the concerned departments and authorities.
- m) Identify buildings and places which could be used as relief centers or camps in the event of any disaster or disaster like situation and make arrangements for water supply and sanitation in such buildings and places.
- n) Establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at short notice;

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- o) Encourage the involvement of Non Government Organization and Voluntary social –welfare institutions working at the grass root level in the district for disaster management.
- p) Ensure communication systems are in order and disaster management drills are carried out periodically.
- q) Perform such other functions as the State Government or State Authority may assign to.

Specific task assigned to members of DDMA by the Chairperson

Collector and District Magistrate:

- Overall supervision of preparedness and response activities
- Monitoring the activities at different level and departments

Superintended of Police:

- Ensure 24*7 Control Room Operation
- Ensure the law-and-order situation in the district at the time of emergency.
- Ensure necessary protection for the supply of relief materials.

CEO cum EO, Zilla Parishad:

- Ensure 24*7 control room operation at different blocks
- Ensure all the block staff will be in readiness
- Ensure timely preparedness and response activities at the block level
- Ensure and monitor timely evacuation if required from the low-lying areas

CDM&PHO:

- CDM&PHO to ensure the necessary medical arrangement at the Dist. / PHC / CHC level.
- Ensure that necessary medicines with anti snake venoms are piled at different health units.
- Mobile health unit needs to be in readiness.

Executive Engineer, Irrigation:

- Ensure the status of weak embankments and safe guarding of the same
- Liaison with the Deputy Collector and report the status of the embankments
- Stock piling of the flood fighting materials
- Preparation of flood contingency plan
- Monitoring the control room and close watch on the situation

Chief District Agriculture Officer, CDAO:

- Flood contingency planning and monitoring
- Drought management planning
- Capacity building of the farmers as and when required for alternative cropping

Executive Engineer, RW:

- Ensure safe drinking water supply at the water scarcity areas
- Ensure development works in rural areas
- Ensure restoration of roads aftermath of the flood in the flood prone areas

4.10 District Level Committee on Natural Calamity (DLCNC)

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The Codal provision of Odisha Relief Code envisages the constitutions of District Level Committee on Natural Calamity (DLCNC) which is the apex committee at the district to monitor preparedness and suggests improvement in the response mechanism and finalizes the district disaster management plans. The members of DLCNC are as follows:

Table4.2 _: Structure of District Level Committee on Natural Calamity APPENDIX- III of ORC
Paragraph (Rule) 19 (i) (b) No.21317-IVF (m)/3/74-R Govt. of Orissa Revenue Department
Resolution Dt. 16th April 1974

The provision of Odisha Relief Code envisages the constitution of District Level Committee on Natural Calamity (DLCNC) which is the apex committee at the district to monitor preparedness and suggests improvement in the response mechanism and finalizes the district disaster management plans. The members of DLCNC are as follows:

SL.No	Designation of the Officer/Representative	Post	Contact Number
1	Collector of the District	Chairman	9861079543
2	Member of Parliament	Member	
3	Member of Legislative Assembly, Talsara	Member	8018921993
4	Member of Legislative Assembly, Sundargarh	Member	9438246652
5	Member of Legislative Assembly, Birmitrapur	Member	9658383399
6	Member of Legislative Assembly, Raghunathpali	Member	9439781689
7	Member of Legislative Assembly, Rourkela	Member	9437045711
8	Member of Legislative Assembly, Rajgangpur	Member	8018098792
9	Member of Legislative Assembly, Bonai	Member	9437246600
10	CDMO	Member	9439993000
11	CDVO	Member	9937244821
12	SE, Irrigation	Member	9439315330
13	Sub-Collectors of the District	Member	9348856606
14	District Emergency Officer	Member Secretary	9668144841

The Chairman may invite District level officers of various departments, Chairman Panchayat Samitis, Block Development Officers and Tahasildars of lthe district to attend the meetings whenever considered necessary.

The Ministers, Ministers of State, Deputy Ministers, Speaker and Deputy Speaker may nominate any person from their constituency to represent them in the District Committee on Natural Calamities in case he is unable to attend any meeting of the committee.

Role and Responsibility:

- To advise on the precautionary measures to be taken in respect of flood, drought and other natural calamities,
- To access the situation arising out of such calamities
- To advise on appropriate relief measures and location of relief works.

4.11 National Disaster Response Force (NDRF)

The Disaster Management Act 2005 has made the statutory provisions for the constitution of the National Disaster Response Force (NDRF) for the purpose of specialized response to natural and man-made disasters. The NDRF comprises of 12 units of Central Paramilitary Forces (CPMF) that includes 3 units each from Central Reserve Police Forces (CRPF) and Boarder Security Forces (BSF) and 2 Unit each from Central Industrial Security Forces (CISF), Indian Tibbet Boarder Police (ITBP) and Sahastra Seema Bal (SSB). Each battalion has 18 self-contained specialists Search and Rescue teams of 45 personnel. The NDRF team includes Chemical, Biological and Radiological Disaster (CBRN) emergency responders, S&A element, engineers, technicians, electricians, dog squads and paramedics. The NDRF battalions are strategically located at 8 different locations in the country based on the vulnerability profile to cut down response time for their deployment. During the threatening proactive deployment of NDRF is being carried out by NDMA in consultation with the State Governments.

Table 4.3: Location of National Disaster Response Forces

SI No.	Battalion, Location	State	Man power drawn from	Contact Person	Contact No.
1	01 Bn, NDRF, Guwahati	Assam	BSF	Sh. S. K. Shastri	9401307887 0361-2840284
2	02 Bn, NDRF, Kolkata	West Bengal	BSF	Sh. Nitish Upadhyay	9434742836 033-25875032
3	03 Bn, NDRF, Munduli	Odisha	CISF	Sh. Jacob Kispotta	9437581614 0671-2879710
4	04 Bn, NDRF, Arakkonam	Tamil Nadu	CISF	Ms. Rekha Nambiyar	9442105169 04177-246269
5	05 Bn, NDRF, Pune	Maharashtra	CRPF	Sh. Anupam Srivastava	9423506765 02114-247010
6	06 Bn, NDRF,	Gujrat	CRPF	Sh.R.S Joon	9428826445

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	Gandhinagar				079-23202540
7	07 Bn, NDRF, Ghaziabad	Uttar Pradesh	ITBP	Sh. P.K.Srivastava	9968610014 0120-2766013
8	08 Bn, NDRF, Bhatinda	Punjab	ITBP	Sh. Ravi Kumar Pandita	9417802032 0164-2246193
9	09,Bn,NDRF, Patna	Bihar	BSF	Shri Vijay Sinha	7762884444 06115-253942
10	10 Bn, NDRF, Vijayawada	Andhra Pradesh	CRPF		0863-2293178
11	11Bn,NDRF, Varanasi	Uttar Pradesh	SSB	Sh. A.K.Singh	9455511107 0542-2501201
12	12 Bn, NDRF, Itanagar	Arunachal Pradesh	SSB	Sh. Angom Kiran Chand Singh	9485236141 03621-242940

4.12 Odisha Disaster Rapid Action Force (ODRAF)

The Government of Odisha formed Odisha Disaster Rapid Action Force (ODRAF) vide notification no.939/CD dated 07.06.2001. ODRAF is a multi-disciplinary, multi-skilled, high-tech force for all types of disasters. ODRAF aims at reducing casualties, clearance of communication channels, quick deployment of personnel and equipments and minimize expenditure and time lag and support institutional arrangement. In 3 phases, ten units of ODRAF have been set up. The ODRAF units are strategically located throughout Orissa. Locations of these units are identified on the basis of vulnerability profile to cut down the response time for their deployment. The ODRAF Units do not have any geographical /territorial restrictions in terms of area of operation.

10 new units of ODRAF have been proposed to set up at different locations like Sambalur, Boudh, Kalahandi, Nawarangpur, Gajapati, Berhampur, Puri, Khorda, Kendrapada and Jajpur

Table4.4: Location of Odisha Disaster Rapid Action Force with contact details

Sl. No.	ODRAF Bn.	Raised in the Year	Location (District)	No. of Persons in each BN.	Contact Details (Commandant)
1	OSAP 6th Battalion, Cuttack	2001-2002	Cuttack	49	Phone:0671-2442148 (O), 2442442 (R) Fax: 0671- 2442148 comdt6thbn.odpol@nic.in
2	OSAP 2nd Battalion, Jharsuguda	2001-2002	Jharsuguda	48	Phone: 06645-270096 (O),270038 (R)

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					Fax: 06654 -220370 comdt2ndbn.odpol@nic.in
3	OSAP 3rd Bn. Koraput	2001-2002	Koraput	38	Phone: 06852-251344 (O), 151335(R) Fax: 06852- 251344 comdt3rdbn.odpol@nic.in
4	APR Balasore District	2003-2004	Balasore	41	Phone: 06782-262004 (O), 262005 (R) Fax: 06782 -262584 spbls.odpol@nic.in
5	OSAP 8th Battalion, Chhatrapur	2003-2004	Ganjam	40	Phone: 06811-260375 (O) Fax: 06811 -254011 comdt8thbn.odpol@nic.in
6	APR Jagatsinghpur District	2008-2009	Jagatsinghpur	48	Phone: 06724-220115 (O),220015 (R),Fax: 06724-220370,spjps.odpol@nic.in
7	OSAP 7th Battalion, Bhubaneswar	2008-2009	Khurdha	44	Phone: 0674-2301055 (O),2303426 (R),Fax: 0674 -2301055 comdt7thbn.odpol@nic.in
8	OSAP 5th Battalion, Baripada	2008-2009	Mayurbhanj	40	Phone: 06792-278232 (O),254402 (R) Fax: 06792- 278232 comdt5thbn.odpol@nic.in
9	APR Bolangir District	2008-2009	Balangir	43	Phone: 06652-232020 (O) -133063 (R) Fax: 06652- 232375 spbgr.odpol@nic.in
10	OSAP 4th Battalion, Rourkela	2008-2009	Sundergarh	46	Pho : 0661 -2600980 (O),-2600434 (R) Fax: 0661 -2600980 comdt4thbn.odpol@nic.in
11	IR Battalion, Boudh	2015-2016	Boudh	47	Phone: 06841-222238 7684872156 (M) 9437232275 (M) comdt5thirbn.odpol@nic.in
12	4th IR Battalion, Deogarh	2015-2016	Deogarh	52	Phone: 0664-3242130 (O),comdt4thirbn.odpol@nic.in
13	OSAP 1st Battalion, Dhenkanal	2015-2016	Dhenkanal	46	Phone: 06762- 226229 (O)

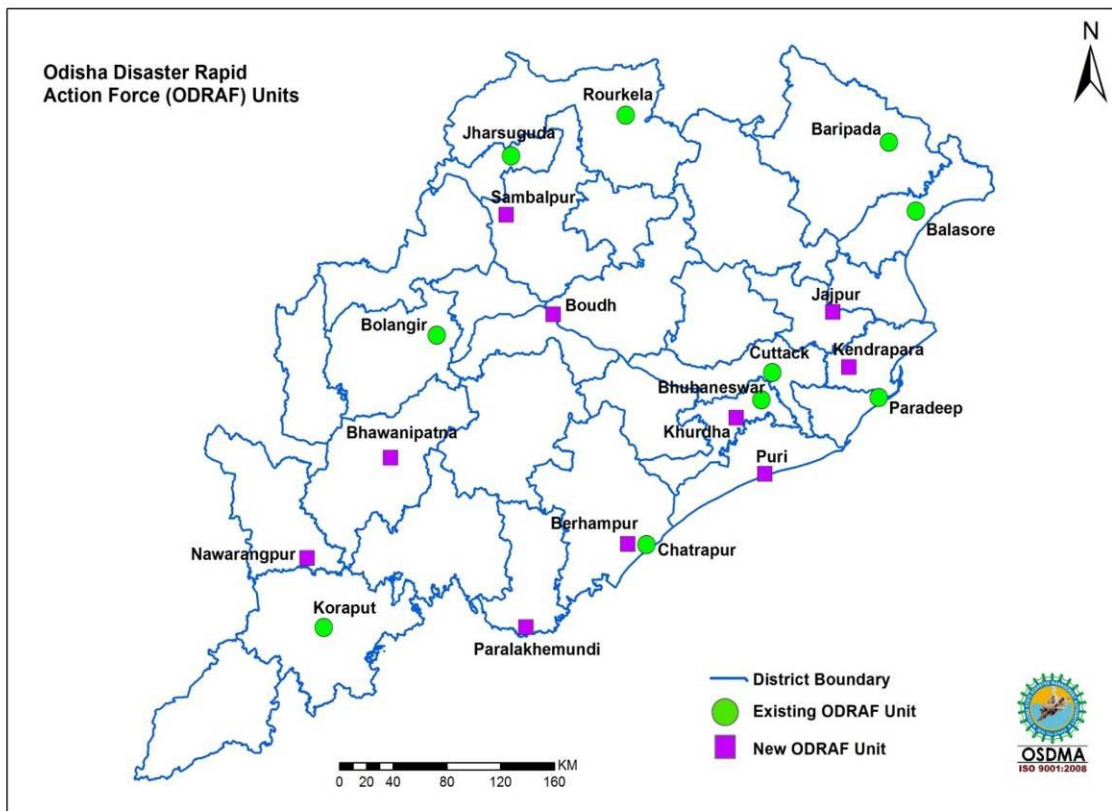
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						06762- 226291 (CR) Fax: 06762-226291 comdt1stbn.odpol@nic.in
14	OSAP 8th Battalion, Chhatrapur	2015- 2016	Ganjam	48		Phone: 06811-260375 (O) Fax: 06811- 254011 comdt8thbn.odpol@nic.in
15	3rd IR Battalion, Kalinganagar	2015- 2016	Jajpur	49		Phone: 0672-6244602 (O)0672- 6244610 (CR) Fax: 0672- 6244610 comdt3rdirbn.odpol@nic.i n
16	8th Special IR Battalion, Kandhamal	2015- 2016	Kandhamal	43		Phone: 06842-2533017 (O),8763616282 (M) comdt8thsplirbn.odpol@n ic.in
17	6th IR Battalion, Khurda	2015- 2016	Khurdha	50		8895856633 (M) comdt6thirbn.odpol@nic.i n
18	1st IR Battalion, Upper Kolab, Koraput	2015- 2016	Koraput	43		Phone: 06852-252167 (O) 06852-211320 (CR) comdt1stirbn.odpol@nic.i n
19	7th Special IR Battalion, Upper Kolab, Koraput	2015- 2016	Koraput	44		Phone: 06852- 251067(O): 06852-229007 (CR) comdt7thsplirbn.odpol@n ic.in
20	2nd IR Battalion, Rayagada, Gunupur	2015- 2016	Rayagada	48		Phone: 0658-725110 (O),Fax: 0685- 725110 (CR),comdt2ndirbn.odpol @nic.in

4.5 Details of ODRAF unit of Sundargarh District.

1	Rourkela	OSAP 4 th Bn, Rourkela	Shri Purusottam Sahu, OPS, Commandant	94372-74800 (M) 0661-2600060 (O) Fax: 0661 –2600980	S.K. Rahim Tula	7008025568
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Map__ : Location of ODRAF Units



4.12 Other Disaster Response Teams in the district

Table 4.6: List of other Disaster Response Teams in the District

Sl. No.	Name of the Institutions	Name of the Chief Coordinator of the Organization	Designation	Contact Number	Alternate Contact Number	Number of Volunteers
1	Civil Defence	Arjun Ch. Majhi	Commandant	9437433116		
2	Home Guards	Gurbari Hemrum	Incharge	9437444558		
3	National Service Scheme (NSS)					
4	National Cadet Corps (NCC)	Rourkela office		0661-2642117		
5	Nehru Yuva Kendra (NYK)					

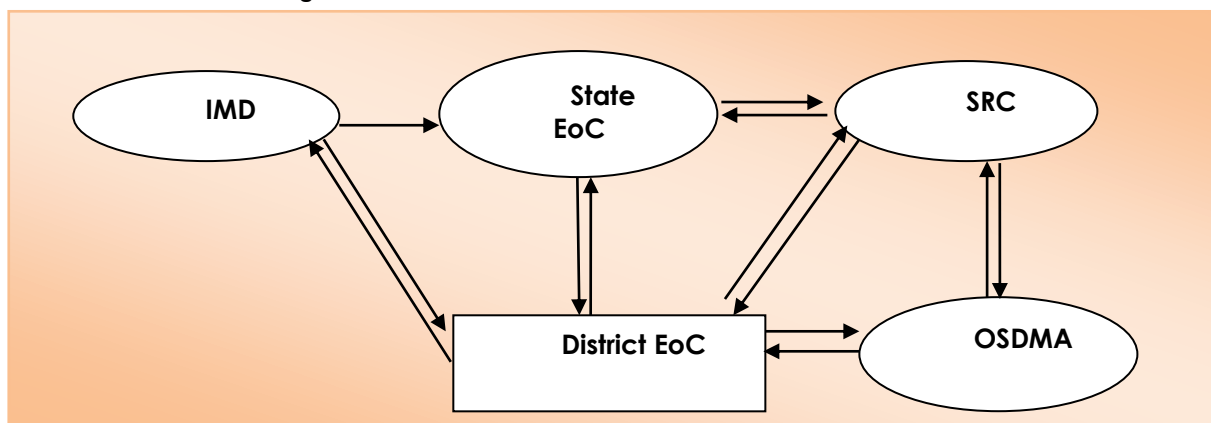
6	Red Cross	Smrutisoumya Dash	Hon. Secretary	8895372842	06622-272233	
7	NGOs					
8	VOs					

4.13 Emergency Communication System

4.13.1 State Emergency Operation Center (SEOC)

The State Emergency Operation Centre has been made operational at Rajiv Bhawan, Bhubaneswar with state of art communication net-work. The State EOC functions round the clock throughout the year. The Organisation is headed by the Special Relief Commissioner (SRC) who exercises all administrative and financial powers. He is assisted by a group of experienced officers and staff. During any natural disaster, the office functions round the clock in an emergency mode.

Figure 4.2__ : Information flow chart from SEOC to Districts



- **Structure and Function of District Emergency Operation Center.**
- ❖ District Emergency Operation Centre DEOC will assist the commissioner in performing the roles assigned to him by DDMA.
- ❖ District control room would be the nerve center for the disaster management;
- ❖ To monitor, coordinate and implement the actions for disaster management;
- ❖ Activate the ESF (Emergency Support Function) in the event of a disaster and coordinate the actions of various departments/ agencies;
- ❖ Ensure that all warning, communication systems and instruments are in working conditions;
- ❖ Receive information on a routine basis from the district departments on the vulnerability of the various places and villages (parts of the districts);

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- ❖ Receive reports on the preparedness of the district level departments and the resources at their disposal to arrange and meet their requirements;
- ❖ Upgrade the Disaster Management Action Plan according to the changing scenario;
- ❖ Maintain a web-based inventory of all resources through the India Disaster Resource Network (IDRN);
- ❖ Provide information to the Relief Commissioner' Office of the disaster/ emergencies/ accidents taking place in the district regularly and maintain a data base of disasters and losses caused by them;
- ❖ Monitor preparedness measures and training activities;
- ❖ Providing information at district level, local level and to disaster prone areas through appropriate media;
- ❖ Brief the media of the situations and prepare day to day reports during the disasters;
- ❖ To report the actual scenario and the action taken by the District Administration;
- ❖ Maintain a data base of trained personnel and volunteers who could be contacted at any time;
- ❖ Lease with on-site operation center, State EOC and other emergency services.
- ❖ The Additional District Magistrate shall be the Nodal Officer for Disaster Management and would be in-charge of the DEOC. The design, layout, equipment and operation of the DEOC would be as per the EOC Manual prepared at the State level.

Table: 4.7 Equipments provided to DEOC and their operational status

SI No.	Equipments	Unit	Status		Remarks
			Operational	Non-Operational	
1	Desktop Computer	4	4	0	
2	Laser Printer	2	1	1	
3	UPS	3	3	0	
4	Scanner	2	0	1	
5	Fax	1	0	1	
6	Ink Jet Printer	0			
7	Multi Utility Machine (Printer, Scanner, Fax, copy)	0			
8	Laptop	0			
10	LCD Projector	0			
11	Photocopier	0			
12	GPS Unit	1		1	

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13	Satellite Phone	1	1	0	
14	VHF Sets	0			
15	VHF Mobile Station	0			
16	Walkie-Talkie (VHF hand Set)	0			
17	Portable Diesel Generator	0			
18	Inverter with Battery	1		1	
19	Inflatable Tower Light	1	1	0	
20	Power Saw	2	2	0	
21	Life Jacket	1	1		
22	Life Buoy	1	1		
23	Aluminum Ladder	0			
24	Fire Extinguisher	2			
25	Siren	1	1		
26	Megaphone	1	1		
27	Colour TV/Stand	1		1	damaged
28	Mobile Phone	0			
29	Display Board	1			damaged
30	White Broad	1			damaged
31	Computer Table/Chair	0			
32	Rack	0			
33	Book Case	0			
34	GI Trunk	2			
35	Commando Search Light	1			
36	Steel Almirah	4			

DISASTER EQUIPMENT OF FIRE STATION: ROURKELA CIRCLE

Sl. No.	Station Name	Cutter	Wadia Pump	Portable Pump
1	Rourkela Fire Station	2	1	1
2	Panposh Fire Station	2	1	1
3	Gurundia Fire Station	2	1	1
4	Lahunipara Fire Station	2	1	1
5	Kuarmunda Fire Station	2	1	1
6	Nuagaon Fire Station	1	1	1
7	Bonai Fire Station	1	1	1

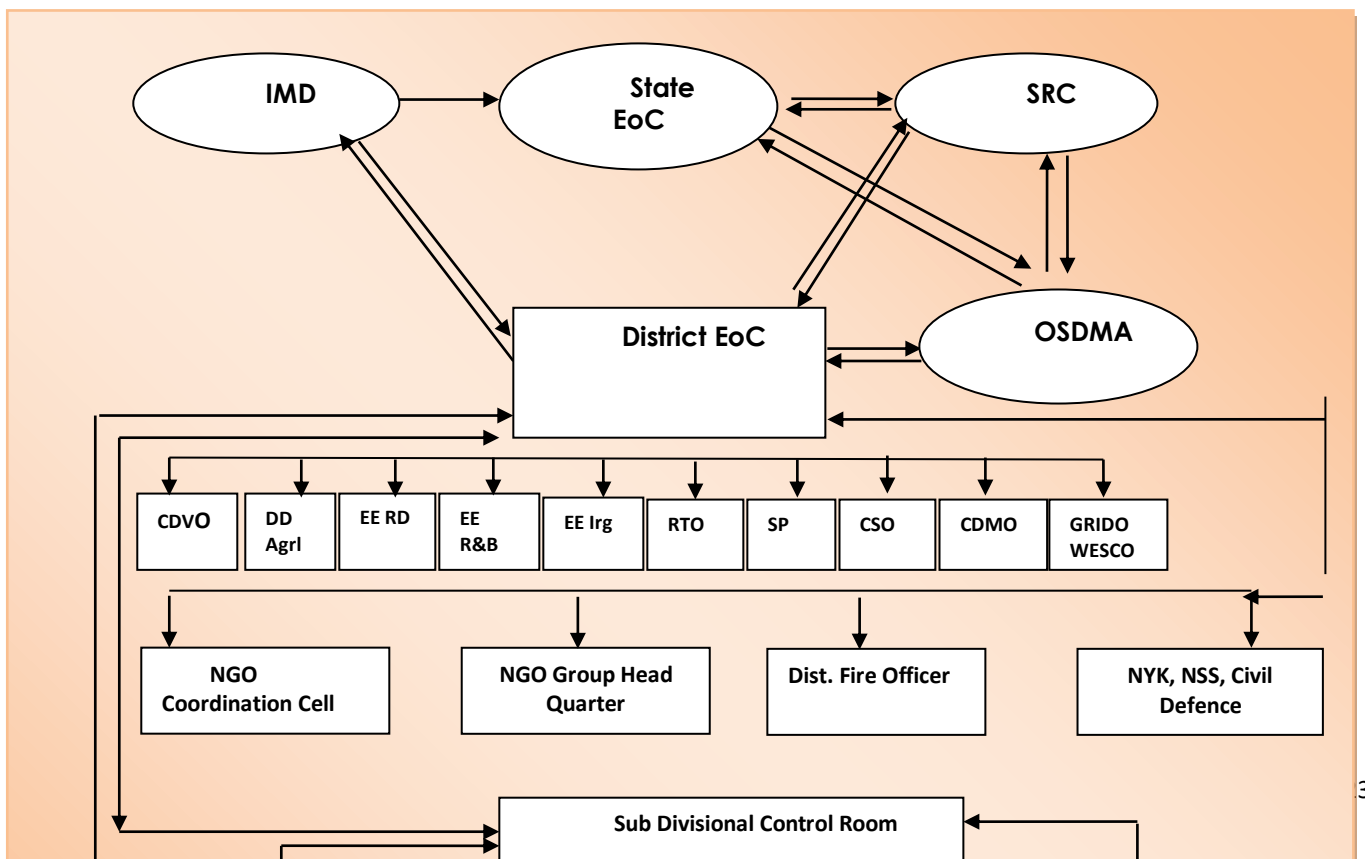
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8	Koira Fire Station	3	1	1
9	Bisra Fire Station	1	1	1

DISASTER EQUIPMENT OF FIRE STATION: SUNDARGARH CIRCLE

Sl. No.	Station Name	Cutter	Wadia Pump	Portable Pump
1	Sundargarh Fire Station	2	1	1
2	Kutra Fire Station	2	1	1
3	Rajgangpur Fire Station	1	1	1
4	Bargaon Fire Station	2	1	1
5	Balisankara Fire Station	2	1	1
6	Subdega Fire Station	3	1	1
7	Hemgir Fire Station	2	1	1
8	Lephripara Fire Station	2	1	1
9	Tangarpali Fire Station	2	1	1

Figure_4.3_: Information flow chart from District Emergency Operation Center (DEoC) to Villages with early warning



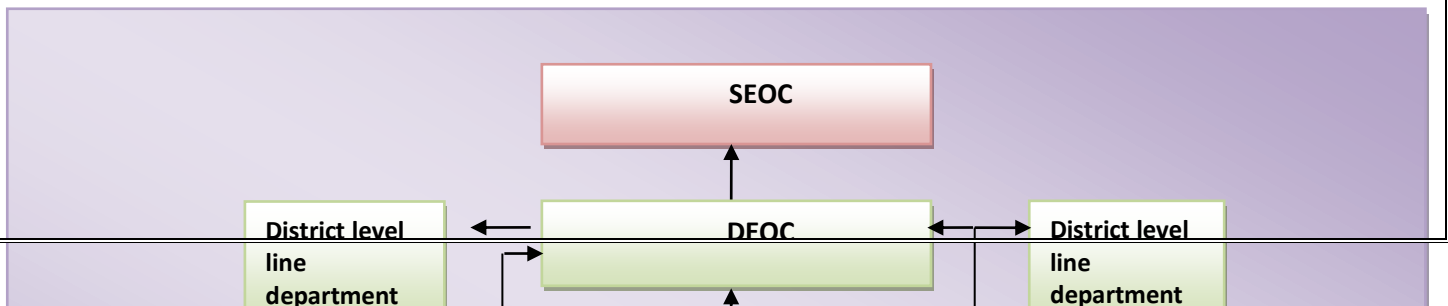
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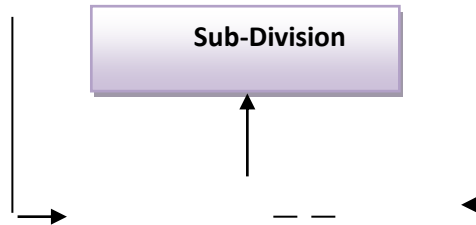
Coordination structure at the District level and down the line

Table__ Important Line Departments at the District.

SI No.	Department	Head of the Department at District	Name of the Nodal Officer	Contact No.
1	Health	CDMO		Attach in Annexure
2	Police	SP		
3	RWD	EE		
4	R&B	EE		

Information flow chart from Villages to District Emergency Operation Center (DEoC) without early warning

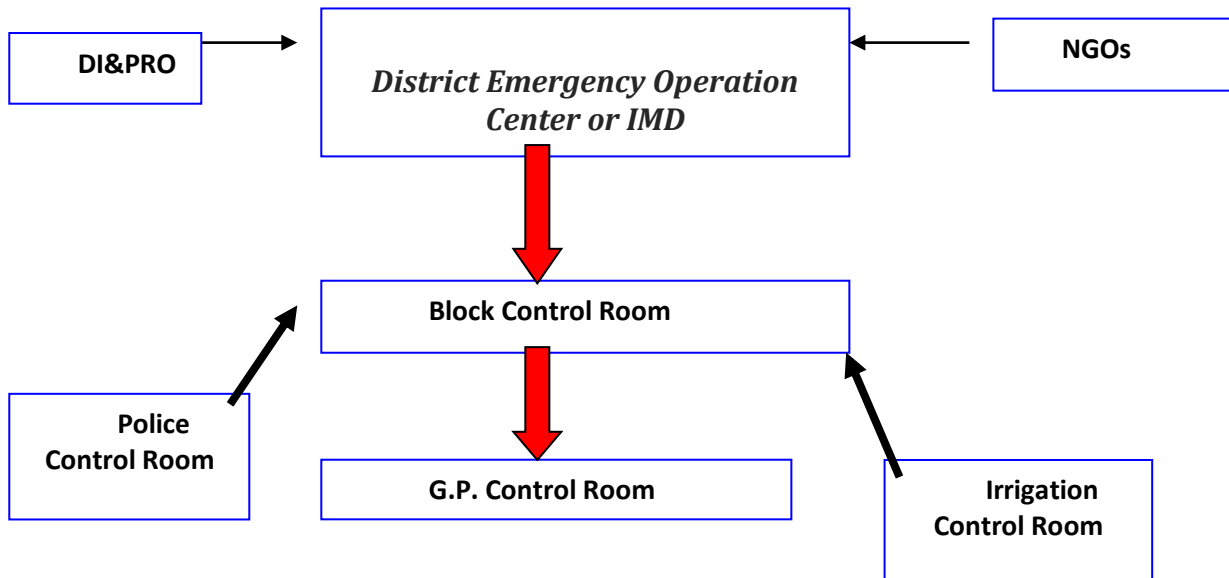




Block Emergency Operation Center (BEoC)

(Note: BEOC of the District to be elaborated Structure and Function)

Information flow chart of BEoC.





Village Task Force

There will be disaster management committees at the Block, ULB and GP levels. The GPs in rural areas and the ULBs in urban areas would be the first responders to disasters along with local communities.

The Block level Disaster Management Committee shall be formed under the Chairmanship of the Chairman, Panchayat Samiti, Local MLAs, Sarpanches, PS Members, Block Nodal person, Line department officials, NGOs etc.

The GP level Disaster Management Committee will function under the Chairmanship of Sarpanch with ward members, local field functionaries such as the ANM, AWW, School Teachers, ASHA, School Teachers, CBOs, etc.

Aim and Objective of Block Emergency Operation Center:

- Collect information about the vulnerable areas and documented in Block Disaster management Plan and Block Vulnerable Profile Map.
- Sharing of data related to disaster with all the line departments and other organization
- Assessment of damage in disaster prone areas and
- Collect all the related information of different Government schemes for smooth management of BEOC during emergency and also normal period

The primary objective of the committee is to have proper coordination among all the line departments.

The Block Disaster Management Committee exists to assist in

- Reviewing the threats of disaster
- Analyzing the vulnerability of the Block to such disasters
- Evaluating the preparedness strategies of different department
- Close monitoring of the response measures
- Considering suggestions for the improvement of the Block Disaster Management Plan and to link with the normal development plan.

Desk Management:

For easy coordination and reporting to the state/ district EOC manager, all the major activities will be distributed among different Govt. officials to ensure accountability, proper information, assimilation and record keeping.

Operation Desk:

- Ensure adequate supplies of food and water
- Proper function of transits and feeding centers
- Transport of medical aid to the needy
- Monitor search and rescue operation
- Coordination with NGOs, civil society members and district EOC
- Dissemination of information and maintenance of records
- Requisition of accommodation, transport and other necessary equipments for the relief group
- Regular updates to the District Authority.

Communication and Information Desk:

- Monitoring the weather reports and sharing the information
- Keep the contingency plan along with all necessary maps in hand
- Maintenance of important telephone numbers, database on available resources, list of key persons
 - Send and receive message in their respective records
 - Maintain information of damage, materials sent and ongoing activities for immediate sharing with District EOC

Logistic Desk:

- Assess the need in terms of manpower and resources and ensure regular supply
- Ensure proper storage and transport facilities for relief materials
- Maintain adequate supply of necessary transport and equipments
- Coordinate with private transport associations and boat owners for emergency requirements
- Organize transportation for rescue party, evacuated people, medical teams and injured and sick people

Health Desk:

- Organize treatment of injured and sick
- Take measures for preventive medicines and anti-epidemic
- Maintain record of all activities
- Assess and ensure setting up medical relief camps
- Maintain adequate supply of medicines, equipments and personnel
- Monitor maintenance of health measures in all camps and provision of safe drinking water

Service Desk:

- Assessing the relief, search and rescue and cash compensation requirements
- Organize and coordinate setting up of transit, relief and cattle camp
- Ensure adequate supplies to these camps
- Maintain law and order
- Coordinate identified NGO activities to ensure community participation
- Reporting the procurement and disbursement of relief material received from all sources
- Organize temporary repair of communication facilities, power supply and water supply
- Construction of temporary shelters, school buildings, medical facilities etc.

Resource Desk:

- Maintenance of cash and disbursements receipts, issue of relief materials, personnel, T.A. and D.A. of relief duty staff, daily wages, cash and credit vouchers, Gratuitous and compensation paid etc.
- Issuing of all cash and material receipts
- Reimbursement of all expenses approved
- Issue of cash vouchers for petrol and diesel

Table__ Important Line Departments at the Block

SI No.	Department	Head of the Department at Block	Name of the Nodal Officer	Contact No.
1	Revenue	Tahasildar		
2	Health	MO, CHC		
3	Home	OIC,Police Station		
4	Animal Husbandry	Block Vertinary Officer		
5	Agriculture	Agriculture		
6	Horticulture	Horticulture		
7	Panchayati Raj and Water Supply	Rural Water and Sanitation		
9	Civil Supply	Civil Supply		
10	Fire	OIC, Fire		

Responsibilities of the committee

- To prepare the sector wise preparedness, response and mitigation plan to reduce the impact of disaster
- To ensure the smooth implementation of the plan before, during and after the disaster
- To define the roles and responsibilities of different DMTs and to coordinate with them during disaster.
- To organize training program for the different DMTs and identify suitable resource person.
- To sensitize various stakeholders on Disaster risk management.

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- To educate the public on different hazards and what protective steps should be taken
- To make arrangements for emergency action
- To review the plan and to make necessary modification/updating
- Finally to approve the financial arrangement and monitor the program

4.15 Any other Alternative Emergency Operation Center in the district

4.16 State Crisis Group (SCG)

The State Government has constituted a State Crisis Group for Management of chemical accidents as per provision of the chemical accidents (emergency planning, preparedness and response) rules 1996 on 1st August 1996

- The State Crisis Group shall meet at least once in three months and follow such procedure for transaction of business as it deems fit.
- Notwithstanding anything contained in sub-rule (2), the State Crisis Group may co-opt any person whose assistance or advice is considered useful in performing any of its functions, to participate in the deliberation of any of its meetings.

4.16.1 Composition of the State Crisis Group

The State Crisis Group comprising of the following members in pursuance of the Rule-6 of the chemical accident (Emergency Planning, Preparedness and Response) Rules, 1996.

Table_ Composition of State Crisis Group

SI No.	Members	Designation
1.	Chief Secretary, Odisha	Chairman
2.	D,C-cum-A.C.S & Chairman, SPCB	Member
3..	Secretary to Government, Labour & ESI Department	Member Secretary
4.	Secretary to Government, Home Department	Member
5.	Secretary to Government, Forest & Environment Department	Member
6.	Secretary to Government, Health & FW Department	Member
7.	Secretary to Government, Industries Department	Member
8.	Secretary to Government, H&UD Department (PH Engineering)	Member
9.	Special Relief Commissioner, Odisha	Member
10.	Secretary to Government, Transport Department	Member

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11.	Labour Commissioner	Member
12.	D.G.Police, Odisha	Member
13.	D.G. of Police, Fire Services	Member
14.	Director of Factories and Boilers	Member
15.	Head, NDRF, Odisha, Bhubaneswar	Member
16.	Head, Tata Steel Ltd. Kalinga Nagar	Member
17.	Head (safety), IOCL, Paradeep	Member
18.	Prof. G.K.Roy, Ex-Director and HOD (Chemical Engg.), NIT, Rourkela	Member
19.	Director, RLI, (Directorate General of Factory Advice , Kolkata, Gol	Member
20.	Regional Director, Mines Safety (DGMS, Bhubaneswar, Gol	Member

4.16.2 Functions of the State Crisis Group

The State Crisis Group is the apex body in the State to deal with major chemical accidents and to provide expert guidance for handling major chemical accidents. Without prejudice to the functions specified under sub-rule (1), the State Crisis Group shall,

1. Assist the State Government in managing chemical accidents at a site;
2. Review all district off-site emergency plans in the State with a view to examine its adequacy in accordance with the Manufacture, Storage and Import of Hazardous Chemicals, Rules and forward a report to the Central Crisis Group once in three months;
3. Assist the State Government in the planning, preparedness and mitigation of major chemical accidents at a site in the State;
4. Continuously monitor the post accident situation arising out of a major chemical accident in the State and forward a report to the Central Crisis group
5. Review the progress report submitted by the District Crisis groups;
6. Respond to queries addressed to it by the District Crisis groups;
7. Publish a list of experts and officials in the State who are concerned with the management of chemical accidents.

4.17 District Crisis Group

As prescribed in the chemical accidents (emergency planning, preparedness, and response) rules, 1996, the District Crisis Group has to be constituted. The District Crisis Group is the apex body in the district to deal with major chemical accidents and to provide expert guidance for handling chemical accidents. Without prejudice to the functions specified under sub-rule (1) the District Crisis Group shall,-

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1. Assist in the preparation of the district off-site emergency plan;
2. Assist the district administration in the management of chemical;
3. Continuously monitor every chemical accident;
4. Review all the on-site emergency plans prepared by the occupier of Major Accident Hazards installation for the preparation of the district off-site emergency plan;
5. Ensure continuous information flow from the district to the Central and State Crisis Group regarding accident situation and mitigation efforts;
6. Forward a report of the chemical accident within fifteen days to the State Crisis Group;
7. Conduct at least one full-scale mock-drill of a chemical accident at a site each year and forward a report of the strength and the weakness of the plan to the State Crisis Group.

4.17.1 Composition of the District Crisis Group vide Notification no.2050 dt.09-12-2015 of Collectorate, Sundargarh

Table ___ Composition of District Crisis Group

SI No.	Member	Designation
1	Chairman	Collector, Sundargarh
2	Member Secretary	Asst. Director of Factories and Boilder, Rourkela Zone-1
3	Member	ADM, Sundargarh, Rourkela
4	Member	SP, Sundargarh, Rourkela
5	Member	DSP, Sundargarh, Rourkela
6	Member	Commadant, ODRAF, Rourkela
7	Member	District Emergency Officer
8	Member	DIPRO
9	Member	District Fire Officer
10	Member	CDMO, Sundargarh
11	Member	DDA, Sundargarh
12	Member	Sup, Engineer, Eletrical , WESCO, Rourkela
13	Member	Controller of Explosives
14	Member	Regional Officer, Pollution Control Board, Rourkela
15	Member	Chairperson of Municipalities, Sundargarh, Rajgangpur, Biramitrapur, Rourkela
16	Member	EE, RWSS, Sundargarh and Rourkela
17	Member	RTO, Sundargarh and Rourkela
18	Member	Civil Defence Officer, Rourkela
19	Member	Asst. Director Factories and Boiler, Rourkela Zone-Ii
20	Member	Asst. Director Factories and Boiler, Rourkela Zone-III
21	Member	CEO,Rourkela Steel Plant
22	Member	Secretary, National Secretary Council, Odisha Chapter

23	Member	GM & BUH, NTPC, Power Company P Ltd. Rourkela
24	Member	Plant Manager, Linde India, Ltd. Rourkela
25	Member	CEO, Adhunik Metaliks Ltd, Kuarmunda
26	Member	Occupier, Darlipali, NTPC, Thermal power Project
27	Member	Occupier, IDL, Explosives, Rourkela
28	Member	Senior Operation Manager, IOCL, Jharsuguda

4.18 Local Crisis Group

The Local Crisis Group shall be the body in the industrial pocket to deal with chemical accidents and coordinate efforts in planning, preparedness and mitigation of a chemical accident. Without prejudice to the functions specified under sub-rule (1), the Local Crisis Group shall,

1. Prepare local emergency plan for the industrial pocket;
2. Train personnel involved in chemical accident management;
3. Ensure dovetailing of the local emergency plan with the district off-site emergency plan;
4. Educate the population likely to be affected in a chemical accident about the remedies and existing preparedness in the area;
5. Conduct at least one full scale mock-drill of a chemical accident at a site every six months forward a report to the District Crisis Group;
6. Respond to all public inquiries on the subject.

4.18.1 Composition of the Local Crisis Group- constituted for the Panposh industrial pocket and communicated by Memo no.1109 dt.23.05.2017 of office of the Dy. Director of Factories and Boilers, Rourkela Division

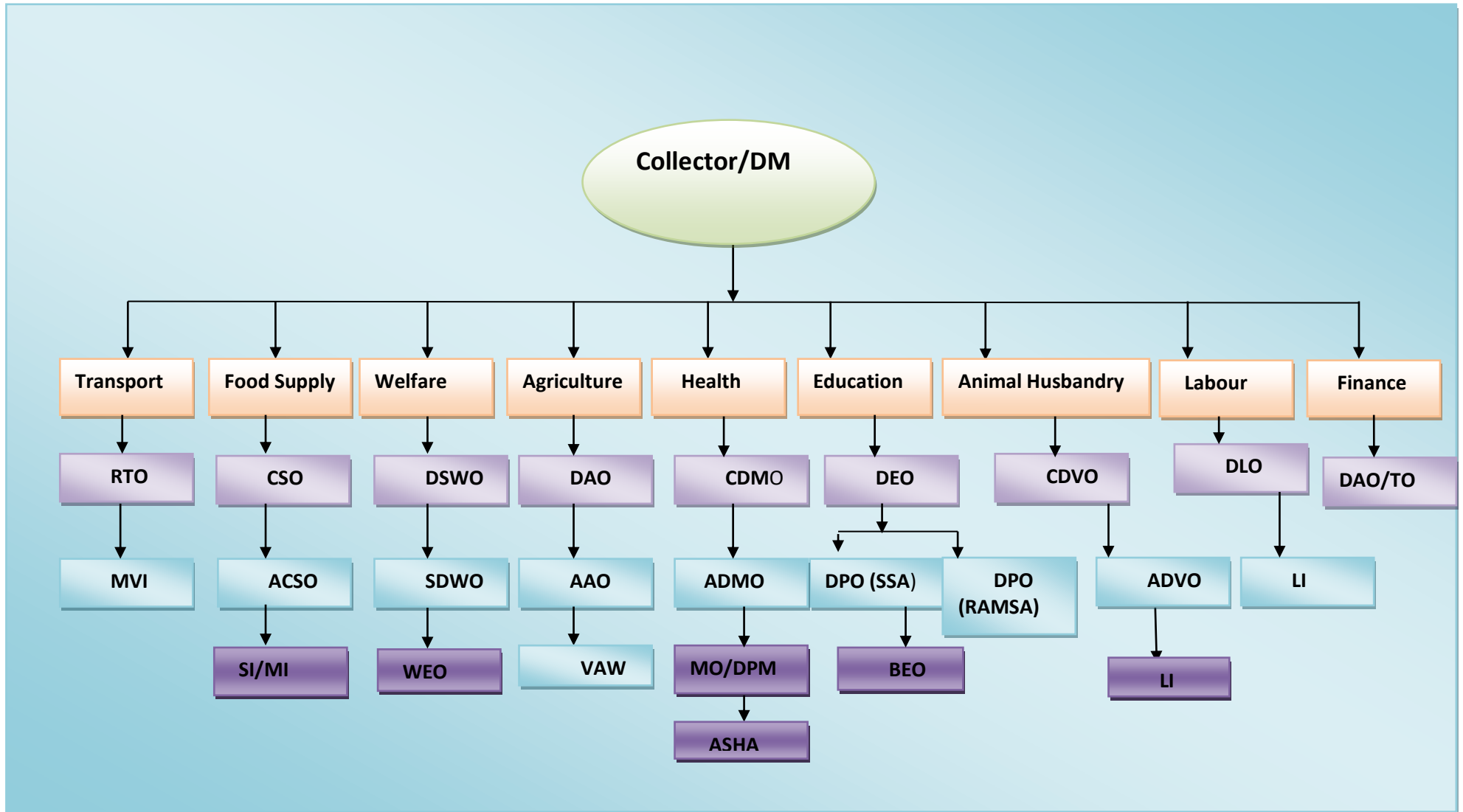
Table___ Composition of Local Crisis Group

Sl. No.	Member	Designation
1	Sub-Collector, Panposh	Chairperson
2	Asst. Director of Factories and Boilers, Rourkela Zone-I	Member Secretary
3	Asst. Director of Factories and Boilers, Rourkela Zone-II	Member
4	Transporters of Hazardous Chemicals (2 numbers) nominated by Chairperson	Member
5	Fire Officer, Rourkela	Member
6	Sub-divisional Police Officer, Panposh	Member
7	Civil Defence Officer, Rourkela	Member
8	Addl. District Medical Officer, Rourkela	Member
9	Community leader/ Sarpanch/ Village Pradhan nominated by Chairperson	Member
10	One representative of Non-Government Organisation to be nominated by the Chairperson	Member
11	Two doctors eminent in the local area , to be nomated	Member

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	by Chairperson	
12	Two social workers to be nominated by the Chairperson	Member
13	Head of safety (DGM safety) Rourkela Steel Plant	Member
14	GM. & BUH, NTPC-SAIL power company (p) ltd, Rourkela	Member
15	Manager, Linde India ltd. Rourkela	Member
16	Chief Executive Officer, Adhunik Metaliks Itdd Kuarmunda	Member
17	The occupier, Shri Mahavir Ferro Alloys (p) ltd, Kuarmunda	Member
18	The occupier, Shree Ganesh Metaliks ltd, Kuarmunda	Member
19	Factory Manager, IDL, Explosives ltd. Kalunga	Member
20	Factory Manager, IFGL, Fefractories ltd. Kalunga	Member

Coordination structure at the District level and down the line



4.19 GO-NGO Coordination before and after disaster in the district (1 page)
(Note: Elaborate on GO-NGO coordination cell in the district, if any)

In pursuance of the Letter no.8358/ R&DM (DM) dt.30/12/2019 of the Special Relief Commissioner & Principal Secretary to Government, Disaster Management, R&DM, Odisha, Bhubaneswar, the District Level NGO Co-Ordination Committee (DLNCC), is constituted to develop an Institutional Mechanism for Coordination with Non-Governmental Organisations (NGOs) for their useful participation in Disaster Management and will function under the Disaster Management Authority, Sundargarh. The meeting of the DLNCC will be held monthly basis and members of the DLNCC are as follows:

Sl. No.	Designation/ Name of NGO	Chairman/ Convener/ Member
1	Collector, Sundargarh	Chairman
2	Additional District Magistrate, Sundargarh	Co-Chairman
3	PD, DRDA, Sundargarh	Co-Chairman
4	District Emergency Officer, Sundargarh	Member, Convener
5	DFO, Sundargarh/ Panposh/ Bonai	Co-opted member
6	Addl. Superintendent of Police, Sundargarh/ Rourkela	Co-opted member
7	Commandant, ODRAF, Rourkela	Co-opted member
8	All Sub-Collectors, Sundargarh district	Co-opted member
9	CDM &PHO, Sundargarh	Co-opted member
10	CDVO, Sundargarh	Co-opted member
11	Deputy Director Agriculture, Sundargarh	Co-opted member
12	Deputy Director Horticulture, Sundargarh	Co-opted member
13	District Fisheries Officer, Sundargarh	Co-opted member
14	DSSO, Sundargarh	Co-opted member
15	DSWO, Sundargarh	Co-opted member
16	Executive Engineer, RWS&S, Sundargarh	Co-opted member
17	Executive Engineer, Irrigation, Sundargarh	Co-opted member
18	DPO, OSDMA, Sundargarh	Co-opted member
19	List of NGOs at "Annexure-A"	Member

4.20 Role of Corporate Sector in the district relating to Disaster Management (1 page)

Disaster management is an all-encompassing, multi-disciplinary activity that spans across all sectors of development. Coordinated action with all stakeholders, including the corporate sector, is essential to overcome vulnerabilities and minimize risks. This collaboration will not only help pool resources but also facilitate the exchange of information and expertise across sectors, enabling learning from each other's experiences and best practices.

In the realm of CSR activities related to disaster management, there is a prevailing tendency to focus primarily on response and recovery efforts rather than on mitigation and preparedness. To date, private sector involvement in natural disaster reduction through CSR initiatives has been minimal. CSR efforts typically emphasize rescuing people, meeting immediate needs, coordinating sanitation and health relief efforts, repairing infrastructure, and making financial contributions. However, discussions about CSR have largely overlooked the importance of mitigation and preparedness activities in disaster management

4.21 Public Private Partnership: Public & Private Emergency service facilities available in the district. (1/2 Page)

- **Resource Sharing:** Pooling resources such as medical supplies, vehicles, and personnel for a more efficient response.
- **Expertise and Training:** Leveraging the expertise of private sector professionals and providing joint training programs.
- **Infrastructure Support:** Utilizing private sector infrastructure for relief operations and sheltering displaced individuals.
- **Financial Contributions:** Accessing funding from private companies for emergency response and long-term recovery projects.
- **Innovation and Technology:** Implementing advanced technologies and innovative solutions from the private sector to enhance disaster management capabilities.

(Note: Brief description on Public and Private emergency service facilities in the district may be given)

Table__ Contact Details of Private emergency services

Sl. No.	Name of the Contact Person	Contact No.

4.22 Multi Purpose Hazard prone Shelters (MCS) in the district

- a) (GIS Maps for location of MCS may be incorporated)
- b) (Details of Hazard prone Shelter Management and Maintenance Committee (CSMMC) may be incorporated)

Table__ : Details of CSMMC

SI No.	Name of the MCS	Location	Name of President	Contact No.	Name of Secretary	Contact No.
NOT APPLICABLE FOR SUNDARGARH DISTRICT						

c) Equipments provided to the MCS

Table : Details of equipments provided to MCS

SI No.	Name of the MCS	Location	Equipments Provided	Status		Remarks
				Operational	Non Operational	
NOT APPLICABLE FOR SUNDARGARH DISTRICT						

4.22.1 Flood Shelters (FS) in the District

- a) *(GIS Maps for location of FS may be incorporated)*
b) *(Details of Flood Shelter Management and Maintenance Committee (FSMMC) may be incorporated)*

Details of FSMMC

SI No.	Name of the FS	Location	Name of President	Contact No.	Name of Secretary	Contact No.
NOT APPLICABLE FOR SUNDARGARH DISTRICT						

c) *(Equipments provided to the FS)*

Details of equipments provided to FS

SI No.	Name of the MCS	Location	Equipments Provided	Status		Remarks
				Operational	Non Operational	
NOT APPLICABLE FOR SUNDARGARH DISTRICT						

4.23 Other identified Safe temporary shelters in the district

Table : Identified Safe temporary shelters

SI No	Block	GP	Village	Name of the Institutions/Buildings	Type of Roof	No. of Rooms (Size)	No. of Toilets (M/F)	Availability of Kitchen	Total useable area
1	Rourkela Municipality			Plant site road	Pucca Building				
				Power House road	Pucca Building				
				New Bus stand	Pucca Building				
				Rkl Govt. Hospital	Pucca Building				

				Campus					
2	Sundargarh Municipality			Ashraya	Pucca Building				
3	Birmitrapur Municipality			Town Hall	Pucca Building				
4	Rajgangpur Municipality			Biju Kalyan Mandap	Pucca Building				

4.24 Other Safe Sites for temporary shelter for Flood/ Tsunami etc.

Sl. No.	Block Name	GP Name	No. of Mounts	No. of High Bridges

Chapter - 5 Forest Fire Management

5.1 INTRODUCTION:

The forest area of the district fulfils the objective of national Forest policy for having more than one third of the geographical area under forest cover. The geographical area of the district is 9,712 km². The district spreads from 21°36'N to 22°32'N and from 83°32'E to 85°22'E. Sundargarh district is bounded by Chhattisgarh in the west, Jashpur district of Chhattisgarh in the North-West, Simdega district of Jharkhand in the North, West Singhbhum district of Jharkhand and Keonjhar district of Odisha in the east and Jharsuguda, Sambalpur, Deogarh and Angul districts of Odisha in the South. Sundargarh District having Three Divisions- Sundargarh ,Rourkela and Bonai Forest Division and covers a geographical area of 3982.69sq km, 2995.40 sq km, 2748.34 sq km respectively. The District comes under peninsular Sal and Dry deciduous mixed forest types. Sal the dominant species fully established and abundant in these forests varying from a fairly pure to a mixed crop and occurs throughout the area. There are 4 types of forest found in this Division, i.e. Tropical Dry deciduous Forest and Northern Tropical Dry deciduous Forests, Dry Peninsular Sal Forests, Northern Dry Mixed Deciduous Forests.



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5.2 Forest Distribution & Status of Sundargarh, Bonai and Rourkela Division-

SI No	Name of the Division	Reserve Forest		Proposed Reserved Forest		Demarcated Protected Forests		UDPF	Village Forest		Un-classed Forest	Land Having Forest growth	Revenue Forest		Protected Forest	
		No	Area in Ha.	No	Area in Ha.	No	Area in Ha.		No	Area in Ha.			No	Area in Ha.	No	Area in Ha.
1	Sundargarh	94	101186.87	26	5580.8	92	14876.8	14876.84	146	1048.10	80.43	3939.15	406	37291.83	27	566.707
2	Bonai	45	102894.567	41	34105.9	25	5849.793	-	32	166.79	61.73	-	-	-	-	-
3	Rourkela	83	65087.63	14	2143.199	38	3858.42	15929.713	35	229.176	29.869	-	-	-	-	-

The three Divisions comprise of 19 Nos. of Ranges, 70Nos. of Sections and 270 Nos. of Beats which are as follows:

SI. No.	Division	Range	Section	No. of Beats
1	Sundargarh	6	25	114
2	Bonai	7	25	95
3	Rourkela	6	20	61
Total:		19	70	270

5.3 SITUATION ANALYSIS:

Sundargarh District is a tribal populated area and most of the people resides adjacent to the fringe areas of forest. People usually enter forest area frequently to graze cattle, collect fuel wood, timber and other minor forest produce. It has been estimated that 90% of forest fires in forest floor of Sundargarh district are man-made. Some of the reasons are listed below:

- I. **The local people, residence of the adjacent villages of the forest area towards collection of Minor Forest Produce (NTFP) particularly for collection of Mahua Flowers during summer season for their socio economic aspect set fire in forest floor.**
- II. At some instances, the poachers set fire for illegal hunting of wild animals.
- III. Intentional fire in forest areas set by miscreants to harass Forest Staff.

5.4 Forest Fire alerts in the last 3 years as per FSI reports of Sundargarh District across three divisions.

Year	Sundargarh	Bonai	Rourkela	Total
2019	682	220	27	929
2020	45	291	38	374
2021	2128	1965	833	4926
2022	980	439	372	135

Anticipated Zonation of Forest Area (Red, Orange, Pink, Yellow, Green zones).

The forests of South Western part i.e. Sundargarh Division & north part dry deciduous forest areas of Sundargarh are more vulnerable to forest fires as compared to other parts of this division. This is because of hot summer months when the leaf shedding of deciduous forests occurs from February to June. The occurrence of forest fire is recorded on beat jurisdiction basis. It is observed that forest fire is repeated in many places during a particular year due to continuous leaf fall in the forests. The intensity of forest fire depends on the quantum of dry leaves on the forest floor, wind flow in the fire affected area, etc. As per records available in this division as MODIS (Moderate Resolution Imaging Spectroradiometer) sensor data, a vulnerability map has been prepared with respect to frequency and area affected in different beats in reference to Forest Fire Season 2021 and depicted for each Circle as Very High Risk (Red), High Risk (Orange), Moderate Risk (Pink), Low Risk Zone (Yellow) Very Low Risk (Green) Zone.

Action Plan for 2024 in Sundargarh Division

A) Preventive Measures

Forest fires are usually seasonal. They usually start in the dry season and can be prevented by adequate precautions. "Forest Fire line". Principal fire lines of 10 m width can be maintained along boundary, compartment boundaries and along principal roads. The subsidiary fire lines of 5 m width can be developed along bridle paths. The watchtower staff can use walkie-talkies to communicate with other ground staff and contact with other watchtower after locating fire or smoke. These Fire tracing is to be completed before 15th of January and un-burnt patches along the roads have to be re-burnt before 15th February of next year. Preventive measure plays vital role in any kind of disaster preparedness; the same applies to forest fire also. Prevention is more effective and it provides a long term solution to the focused issue. Several preventive methodologies have been proposed under this plan; which will follow vigorous monitoring in which responsibility has been fixed on personnel for effective implementation of the plan.

- To dispose accumulating dry leaf litter, watchers are going to be engaged during fire season on daily wage basis to clear/ sweep leaf litter, cut coarse tall dry grass, shrub and burn dry fallen branches in patches. The major fire lines are always in a constant supervision by the forest staffs and maintained on a regular basis and the Range wise details are given below.

a. Indirect preventive measures

I. Fire danger Rating

It is forecasting the likelihood of occurrence of forest fire during a particular period of time. It is presented in the form of classes with each class having different colour codes like yellow, pink, green, orange, red which is already prepared by Sundargarh Forest Division in map form and they are already circulated to all Ranges, Sections and Beats for their constant supervision in those areas. This is an effective measure to prevent the occurrence of forest fire and to take control in case of an outbreak.

II. Maintenance of principal fire lines and subsidiary fire lines

Meanwhile during the Fire Season 2021, Sundargarh Forest Division has already created and maintained 500 RKM Fire Line in the most Fire Sensitive areas and further steps have already initiated regarding maintenance of Fire Line well before the Fire Season 2023 in order to create sufficient Fire Breaks.

III. Prevention of fire by burning and cutting plan

Alternate cutting and burning should be followed instead of regular burning in order to prevent senescence in grass patches. In a dry deciduous forest, it is better to retain fire resistant trees sparsely distributed on the fire line. Sweeping dry leaves and burning them by accumulating on the fire line has to be done whenever required by the firewatchers, but strictly under the supervision of trained

staff. This entire provision of supplementary action is going to be ensured throughout the entire fire season.

IV. Provision of Vehicle for patrolling

For each Section of Range Offices are need to be equipped with a vehicle around a clock for improving mobility of fire fighting team

V. Awareness about bad impacts of Podu Cultivation

It is proposed to create awareness on the bad impacts of podu cultivation among villagers & cultivators. Regular foot patrolling in Podu prone areas is to be done in order to create fear among the violators. All the NGO members including local representatives are to be involved in awareness creation. More employments are to be created in these areas by taking the forest development works such as soil moisture conservation works.

VI. Control burning near Mahua trees:-

For addressing the issue of forest fire out of Mahua flower collection; it is required to control burn bushes under the Mahua trees in the threat areas for making Mahua flower collection easy. Mahua trees growing area in the Range areas have been identified in this regard. Awareness among the local tree owners to be conducted.

VII. Promotion of sustainable practices for NTFP collection

Forbidding, unscientific collection of Mahul & other NTFP items, rather making them technically sound for collection of Mahul & other NTFP and simultaneously make them aware about their usufructs rights

VIII. Cool Season burning

This is going to be completed after seed fall when there is moisture available in the soil preferably between 1st fortnights of December to 3rd fortnight of December.

IX. Creating awareness to public

Public, students and youths should know about the cause of fire and their civil affects both long and short term. This is possible only through social media, Print and Electronic media, posters, film shows, lectures, etc. Sundargarh Forest Division is going to execute this wide publicity at different levels of administration units to convince people. Different VSS areas have been selected to coordinate and to give assistance during the fire hazards at VSS areas adjacent to forest areas.

X. Denial of benefits which accrue from forest fires

Villagers set fire to the grassy area in order to get new flushes of leaves to graze. Sundargarh Forest Division is going to organize rallies, Posters, Videos, village oath taking program, street dance, act ,song ,Wall painting in vulnerable areas also circulate the notices prohibiting kindling and carrying fire in all conspicuous places and also along the roads of villages and Forests which will completely executed by the end of the December of this year.

XI. Publicity & Awareness measures:

Since majority of Forest fire is man-made, preventive measures should be devoted to influence people's behavior and change their mind set of good will towards forests, which can be achieved through following measures:

- a. **Awareness meetings** will be organized at different levels with an aim to reduce forest fire incidences and to reduce the impacts of forest fire on the environment. Detailed of plan of awareness measures have got provided in **Annexure-X**.
 - b. **Rallies, Padayatras, Posters and videos** es at different level starting from village level to block level by involving villagers, VSS members, SHG members, PRI members etc. can be arranged.
 - c. **Signage, posters, booklets etc** illustrating impact of forest fire to the environment and the punishments imposed to the offenders as per existing Acts and rules need to be publicised.
 - d. **Street Dance, Act and vernacular song:** It is proposed to organize the dance groups, compose songs on the impacts of forest fire in local languages from local areas in order to perform the dance in the public places such as in weekly hats, public gathering places etc. Apart from these vernacular songs will be played in vehicles with loud speakers to aware people.
 - e. **Dos and Don'ts list in Odia languages:** Signage's of Do's, Don'ts and other awareness messages will be displayed in the prominent places of villages in vernacular languages.
- i. **Involvement of VSSs:** VSSs formed in the fire prone villages shall be approached; the members shall be made aware about the need of reducing forest fire incidents in their area. VSS members shall be trained to make aware other persons about ill effects of fire. VSS members shall be a part of awareness team. Number of Awareness program on Forest Fire requirement to be conducted during 2023-24.
- ii. **Action against dereliction of duty and rewards for preventing fires**
- (a) The work done by the staff to prevent fire should be supervised to take action on those who neglect or to reward those who do since rework.
 - (b) Youth Clubs to help prevent fire, that can be rewarded
 - (c) People's participation, by way of institution should help in fighting fire. Joint Forest Management or Forest Protection Committees is found to show good results.
 - (d) It can develop into a people's movement when the involved persons are given their wages in addition to rewards.

b. Direct Preventive Measures

Direct preventive measures directly affect the factors of fire environment and the causes (actual or artificial) of fire and help to prevent fires. Prevention is a must. Otherwise the whole atmosphere gets heated up to increase the global warming which in turn increases the number of fires.

1. Management Actions

Topography plays a major role in mitigation of Fire risk in the Sundargarh Division. Normally the Fire fighting squads are well equipped along with Fire extinguisher and Fire Fighting vehicles at the foot hills which are very easy to approach. But in the terrain and high steep topography some places are in accessible in nature for which the squads are well trained to compete against the Fire by Fire Blowers, Fire beating brooms and Fire crackers etc.

2. Prescribed burning in different zones

It is better to manipulate woody debris in the managed forests. Management goals of retaining snags and fallen logs require knowledge regarding fire ecology to reduce wild fire hazards. In core zone the interior and inaccessible areas should retain high number of fallen logs. The areas and routes which are mostly used for movement of people and cattle are going to be cleared from fuel debris. In recuperative zone and tourism zone which are having high human intensity the areas should contain lesser debris and fallen trees.

B) Mitigation Measures

i) Administrative arrangements

- Mobile Numbers of all Range Officers of this Division have already been registered in FSI Website for receiving of SMS regarding forest fire occurrence in their range jurisdiction upto Forest Block level for field inspection by ground staff.
- Teams will be constituted in Range Level comprising of front line Field staff and Fire Fighting Squad members with necessary equipments. The team will be in readiness 24X7 for quick response to the occurrence of any Forest Fire Incidence.
- The occurrence, damage caused if any and action taken due to forest fire with geo-coordinates shall be recorded on daily basis at Range Level in the prescribed proforma.
- Division and Range Level Control Room will function for 24X7 to receive the information on fire incidence, maintenance of the Fire Register and communication of message to the lower quarter for prevention and mitigation of forest fire actively.
- All the Range Officers have been instructed to upload the day to day report on Forest Fire in Forest Fire Info of Forestry Apps.

- Adequate quantity of Blowers has already been supplied to Fire Prone Ranges i.e Range.



Chapter – 6: Prevention & Mitigation Measures

6.1 Ways & Means to prevent or reduce the impact of various disasters:

Prevention, mitigation, and preparedness play crucial roles in reducing the impact of natural disasters. Prevention involves activities to avoid hazards' adverse effects, such as strategic planning to avoid building homes in disaster-prone areas. Investing in preventive measures is justified where feasible socially, technically, and economically, especially in frequently affected regions. Mitigation encompasses proactive measures taken before disasters to lessen their impact on society and the environment. Examples include developing robust building codes and reinforcing critical infrastructure like hospitals.

6.2 Structural Measures:

Effective disaster management can only be achieved through prevention and mitigation activities. There is now a paradigm shift in disaster management from a focus on relief and rehabilitation to one emphasizing prevention and mitigation.

Structural prevention and mitigation measures typically involve physical constructions, such as engineering solutions and the development of hazard-resistant and protective infrastructures.

Non-structural measures encompass awareness and education, practice, training, and capacity development.

Preventive measures must be specific to each hazard and should include both structural and non-structural approaches. Districts should ensure their preparedness by considering and cross-checking the following preventive measures:

- Implementation of engineering measures and construction of hazard-resistant infrastructure.
- Development of protective infrastructures to mitigate risks.
- Enhancing community awareness and education about disaster risks and preparedness.
- Conducting regular training and capacity development programs for all stakeholders.
- Practicing disaster response drills and simulations to ensure readiness.

Hazard	Structural Measures	Non-Structural Measures
Drought	<ul style="list-style-type: none"> • Maintain flood control structures such as embankments, levees, and diversion channels to prevent water loss during floods and enhance water storage. • Maintain and upgrade existing reservoirs and dams to maximize their storage capacity and efficiency. 	<ul style="list-style-type: none"> • Install rainwater harvesting systems in urban and rural areas to capture and store rainwater. • Promote the use of rooftop rainwater harvesting in homes, schools, and public buildings. • Involve local communities in

	<ul style="list-style-type: none"> • Encourage the cultivation of drought-resistant and water-efficient crop varieties. • Construct and maintain pipelines and distribution networks to transport water from surplus areas to drought-prone regions. 	<p>the planning and implementation of drought management measures.</p>
Drowning	<ul style="list-style-type: none"> • Install fences around swimming pools, ponds, and other water bodies to prevent unauthorized or unsupervised access. • Placing of clear and visible warning signs around water bodies, especially in areas known for strong currents, deep water, or other hazards. 	<ul style="list-style-type: none"> • Conduct awareness campaigns through schools, community centers, and media to educate the public on the risks of drowning and preventive measures. • First aid training to community members, particularly those living near water bodies. • Conduct regular drills and simulations to prepare for potential drowning emergencies and improve response times.
Lightning	<ul style="list-style-type: none"> • Trimming of trees near power lines, buildings, and other structures to prevent branches from causing damage or falling during thunderstorms. • Use poles designed to withstand high winds and equipped with lightning protection. • Ensure proper grounding of electrical systems and equipment to safely dissipate the electrical energy from lightning strikes. 	<ul style="list-style-type: none"> • Conduct public awareness campaigns to educate communities about the dangers of lightning and thunderstorms and safety measures they can take. • Conduct regular drills and training exercises to ensure communities are prepared to respond to thunderstorms and lightning.
Industrial Hazard	<ul style="list-style-type: none"> • Fire protection system • Hazardous Material Storage • Machinery and Equipment Safety 	<ul style="list-style-type: none"> • Implement a rigorous maintenance schedule to ensure all machinery and equipment are in good working condition. • Conduct thorough hazard identification and risk assessments to understand potential industrial hazards. • Perform regular safety audits

		<p>and inspections to ensure compliance with safety standards and identify potential risks.</p> <ul style="list-style-type: none"> • Conduct regular safety drills and simulations to prepare employees for various emergency scenarios. • Establish clear communication channels for reporting hazards and emergencies.
<p>Heat Wave</p>	<ul style="list-style-type: none"> • Health care facility system • Public Cooling Centres • Mobile Health Units • Water Distribution Points 	<ul style="list-style-type: none"> • Campaigns to educate the public on heat wave risks, symptoms of heat-related illnesses, and prevention strategies. • A comprehensive heat wave response plan that includes activation of cooling centers, deployment of mobile units, and public communication strategies. • Conduct workshops and seminars in communities to provide information and resources on heat wave preparedness

6.2.1 Construction and restoration works on the line of vulnerability of the area and laid principles towards execution.

1. Conducting thorough inspections of existing roads, embankments, and buildings is crucial to assess their condition and vulnerability to heavy water flow. This process involves several steps and methodologies to ensure comprehensive evaluation and accurate identification of risks and necessary interventions
2. Identify critical infrastructure that requires immediate attention or reinforcement.
3. City Management Plan with proper designing of roads with adequate drainage systems to manage heavy water flow and prevent accumulation.
4. To ensure the safety, sustainability, and serviceability of public works, it is imperative that all relevant authorities and line departments in the district adhere to certain principles during the

execution of their projects. This involves incorporating safety norms, sustainable practices, and standards designed to enhance endurance against recurring natural calamities.

5. Develop and implement preventive maintenance schedules for all repaired and restored infrastructure. Regularly inspect and maintain structures to identify and address minor issues before they escalate.

6.3 Non-structural Measures:

Sl. No.	Name of the Department/ Office	Activity/ Project	Starting date	Date of Completion	Cost	Funding Source.
1	DEOC Sundargarh & OSDMA	Preparation and updation of Disaster Management Plan at District/ Block/ GP/ Village/ ULB level	Ongoing			OSDMA
2	DEOC Sundargarh & OSDMA	Training on preparation of School Safety Plans	Ongoing			OSDMA
3	DEOC Sundargarh & OSDMA	Training for stakeholders, line departments on Disaster Management	Ongoing			OSDMA
4	DEOC Sundargarh & OSDMA	Training on Lightning and Thunderstorm Program for community members, SHGs, schools, Farmer Producer Organization	Ongoing			OSDMA
5	DEOC Sundargarh & OSDMA	Awareness Campaign on Snakebite	Ongoing			OSDMA
6	DEOC Sundargarh & OSDMA	Coordination meeting with NGOs on implementation of DRR.	Ongoing			OSDMA

6.4 Scope for integrating different schemes for Disaster Risk Reduction (DRR) Activities.

Sl. No.	Scheme	Possible activities for DRR
1	Mission Shakti	Institution building Capacity building for risk reduction
2	Integrated Child Protection Scheme (ICPS)	To provide a safe and secure environment for overall development of the children Protection of child rights

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3	Pradhan Mantri Fasal Bima Yojana (PMFBY)	Crop insurance Firming risk coverage in natural calamities
4	PradhanMantriAwasYojana (PMAY)	Construct disaster resilient houses Vulnerable infrastructure risk reduction
5	Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)	Construction of roads in remote areas Construction of multi-hazard shelters Plantation Activities Permanent Livelihood Activities
6	National Health Mission (NHM)	Emergency Medical Response Ambulances Service Mobile Health Facility in Remote Areas
7	PradhanMantri Gram SadakYojana (PMGSY)	Rural Road connectivity to remote and unconnected villages
8	Sarva Shiksha Abhiyan (SSA)	Construction of new disaster resilient school buildings Retrofitting in existing school buildings Disaster preparedness and planning at school
9	Swachh Bharat Mission (SBM)	For clean and hygienic environment Protection health
10	Pradhan Mantri Ujjwala Yojana (PMUY)	Smoke and pollution free environment Protection of women health by smoke free cooking
11	Prime Minister Employment Generation Programme	To generate employment opportunities in rural as well as urban areas of the country through setting up of new self-employment ventures/projects/micro enterprises.
12	Biju Swasthya Kalyan Yojna	Free health care facilities for the vulnerable population

Planning outlay by DPC, Sundargarh for the year 2022-23 and 2023-24

Sl. No.	Department	Head	Scheme
1	Agriculture	Horticulture	Establishment / Revival of block level nursery cum sale centre
	Agriculture	Rastriya Krishi vikas yojana (RKVY)	Rastriya Krishi vikas yojana (RKVY)
2	Cooperation	Agricultural Marketing	Development of Market Yards
3	Energy	Power (Govt. Scheme)	Biju Gram Jyoti Yojana
	Energy	Power (Govt. Scheme)	Biju Saharanchal Vidyutikaran Yojana
	Energy	Power (Govt. Scheme)	Dindayal Upadhaya Gramin Bidyutikaran Yojana
4	F & ARD	Animal Husbandary	Fodder development
	F & ARD	Animal Husbandary	Poultry Development
5	F & E	Forests	Increasing the Green Cover in the state excluding Economic Plantation
6	H & FW	Primary health Care	Sanitation programme

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			0	
7	H & UD	Other Urban Development Schemes	1	National Urban livelihood Mission (NULM)
	H & UD	Other Urban Development Schemes	2	Development of Parks, Greenery and Afforestation
	H & UD	Other Urban Development Schemes	3	Protection, Conservation and Development of water bodies
	H & UD	Other Urban Development Schemes	4	Solid Waste Management
	H & UD	Urban sewerage and sanitation	5	Execution of other swerage and sanitation work
	H & UD	Urban sewerage and sanitation	6	Urban Sewerage Scheme
8	HT & H	Handicrafts and cottage industries	7	Promotion/ Marketing of Handicrafts Industries/ Enterprises
	HT & H	Textile/ Handlooms	8	Promotin of Handloom industries
	HT & H	Textile/ Handlooms	9	Promotion of Rural Craft
	HT & H	Textile/ Handlooms	0	Promotion of Sericulture industries
9	MS & ME	Small Scale industries	1	Biju Atma Nijukti Yojana (BANY)
	MS & ME	Small Scale industries	2	Promotion of Coir industries, coir cluser, enterprises development programme
	MS & ME	Small Scale industries	3	Promotion of K & VI
10	P & C	Other Special Areas Programme	4	
	P & C	Other Special Areas Programme	5	Biju KBK Yojana
	P & C	Other General Economic Services	6	MLA LAD
	P & C	Other General Economic Services	7	Special Development Programme
11	PR	Rural Employment	8	MG National Rural Employment Gurantee Act (MGNREGA)
	PR	Rural Employment	9	National Rural Livelihood Mission (NRLM)
	PR	Housing	0	Biju Pucca Ghar
	PR	Housing	1	Indira Awas Yojana (IAY)
	PR	Other Special Areas Programme	2	Gopabandhu Gramin Yojana (GGY)

12	RD	Rural Sanitation	3	Total Sanitation Campaign (TSC)/ Swachha Bharat Abhiyan (NBA)
	RD	Rural Water Supply	4	National Rural Drinking Water Programme (NRDWP)
	RD	Roads and Bridges	5	Construction / improvement of Roads and Bridges
13	SC and ST	Development of SCs and STs	6	Construction / Renovation of Educational Institutions
14	W & CD	Child Welfare	7	Construction of Anganwadi Center
	W & CD	Child Welfare	8	ICDS
	W & CD	Child Welfare	9	Other Child Welfare Schemes-pre school education
	W & CD	Women Welfare	0	Women Self Help Group
15	R &B	Roads and Bridges	1	Construction / improvement of Roads and Bridges
16	WR	Minor irrigation-flow irrigation	2	Canal lining and system rehabilitation programme
	WR	Minor irrigation-flow irrigation	3	Construction of Check dams
	WR	Minor irrigation-flow irrigation	4	Minor irrigation projects
	WR	Minor irrigation-flow irrigation	5	Revival of defunct lift irrigation projects
	WR	Minor irrigation- lift irrigation	6	Biju Krushak Vikash Yojana



Chapter – 7

Climate Change Adaptation & Mitigation

Weather and climate are the results of complex interactions between anthropogenic and natural factors. Evidence of global climate change include higher average temperatures, changes in precipitation, ocean warming, ocean acidification, sea level rise, decreasing sea ice, and changes in physical and biological systems. Observed climate change can be linked with the increase of green house gas concentrations in the atmosphere since the industrial revolution. Global surface temperature change for the end of the 21st century is likely to reach 4°C if no drastic mitigation actions are taken. Various sources of climate data exist that can support planning for climate change.

Greenhouse gases (GHGs) are trace gases in the atmosphere that absorb and emit long wave radiation. They naturally blanket the earth and keep it at about 33° C warmer than it would be without these gases in the atmosphere. The table features the seven most important greenhouse gases as regulated under the Kyoto Protocol. The seven gases each have a different capacity to trap heat in the atmosphere, or a so-called “*global warming potential*” (GWP). They all belong to the group of long-lived greenhouse gases (LLGHGs), because they are chemically stable and persist in the atmosphere over time scales of a decade to centuries or longer, so that their emission has a long-term influence on climate. Some of the GHGs occur naturally (e.g. CO₂, CH₄ and N₂O) but increases in their atmospheric concentrations over the last 250 years are due largely to human activities. Other greenhouse gases are entirely the result of human activities (e.g. HFCs, PFCs, SF₆ and NF₃).

Table : 7.1

Greenhouse Gas	Global Warming Potential (GWP) (over 100 years)	% of Total Anthropogenic GHG Emissions (2010)
Carbon dioxide (CO ₂)	1	76%
Methane (CH ₄)	25	16%
Nitrous oxide (N ₂ O)	298	6%
Hydrofluorocarbons (HFCs)	124-14,800	< 2%
Perfluorocarbons (PFCs)	7,390-12,200	< 2%
Sulphur hexafluoride (SF ₆)	22,800	< 2%
Nitrogen trifluoride (NF ₃)	17,200	< 2%

7.1 Important Greenhouse Gases: Carbon Dioxide (Co₂)

Most important greenhouse gas (contributes ~64% to total radiative forcing by long-lived GHGs). Half of CO₂ emitted by human activities is being absorbed in the biosphere and in the oceans. Rest remains in the atmosphere for hundreds to thousands of years

The most important anthropogenic GHG is carbon dioxide (CO₂). It accounts for around 64% of total radiative forcing due to LLGHGs. Carbon dioxide does not have a specific lifetime because it is continuously cycled between the atmosphere, oceans and land biosphere and its net removal from the

atmosphere involves a range of processes with different time scales. CO₂ is primarily emitted as a result of burning of fossil fuels, deforestation and forest degradation and iron and steel production. Oceans and forests are the main sequestrers of carbon i.e. sinks that can absorb CO₂ from the atmosphere. Carbon dioxide is the gas to which all other gases are compared when speaking of Global Warming Potential. Emissions of other greenhouse gases can be converted into *CO₂ equivalent emissions*.

Table: 7.2

Sl No	Name of the Industry/Plant/Firm	Location	Quantity of Co2 emission (PPM)	Ranking as per CO2 Emission (in the district)	Other major pollutants emitted (PPM)	Action taken for cutting down émission
1	Tunmura-Jharbeda L/D mines	Jharbeda	Nil	Nil	SO ₂ , NO _x , Co, SPM	Plantation, water sprinkling and Hazardous waste management
2	Tunmura L/D mines	Tunmura	Nil	Nil	SO ₂ , NO _x , Co, SPM	Plantation, water sprinkling and Hazardous waste management
3	M/s Surendra Mining Industries (p) ltd.	Bonaigarh, Dist- Sundargarh	920 kg of CO ₂ / MWh	NA	SO ₂ , NO _x	Using less & Good Quality resource / raw materials & implemtaing proper advanced process/ production techniques and Adoting energy saving provision, mthods and practices

7.2 Important Greenhouse Gases: Methane (CH₄)

Second most significant greenhouse gas (contributes ~18% to total radiative forcing by long-lived GHGs). Approximately 40% of methane is emitted into the atmosphere by natural sources. About 60% comes from human activities & Stays in the atmosphere for approximately 12 years.

The second most significant anthropogenic GHG is methane (CH₄) which contributes to approximately 18% of total radiative forcing due to LLGHGs. Approximately 40% of methane is emitted into the atmosphere by natural sources (e.g. wetlands and termites). About 60% comes from human activities (e.g. cattle breeding, rice agriculture, fossil fuel exploitation, landfills and biomass burning). Methane is mostly removed from the atmosphere by chemical reactions, persisting for about 12 years. Thus although methane is an important greenhouse gas, its effect is relatively short-lived.

Table : 7.3

Sl No	Name of the Block	Major Sources	Annual émission (In PPM)	Ranking as per CH4 Emission (PPM)	Action taken for cutting down émission

7.3 Important Greenhouse Gases: Nitrous Oxide(N2O)

The third most significant greenhouse gas (contributes ~6% to total radiative forcing by long-lived GHGs). Stays in the atmosphere for approximately 114 years. Nitrous oxide is emitted into the atmosphere from both natural (about 60%) and anthropogenic sources (approximately 40%).

Nitrous oxide is the third most significant GHG, contributing to about 6% of radiative forcing due to LLGHGs. The primary human sources of N₂O are fertilizer production and use in agriculture and various industrial processes. It is estimated that N₂O stays in the atmosphere for an estimated 114 years. Its impact on climate, over a 100-year period, is 298 times greater than equal emissions of carbon dioxide. It also plays an important role in the destruction of the stratospheric ozone layer which protects us from the harmful ultraviolet rays of the sun.

Table: 7.4

Sl No	Name of the Block	Fertiliser /Industrial processes	Annual Usage (In tonnes)	Ranking as per N2O Emission (PPM)	Other major pollutants emitted (PPM)	Action taken for cutting down émission

7.4 Important Greenhouse Gases: Fluorinated Gases

Global warming effect up to 23,000 times greater than carbon dioxide. Stay in the atmosphere up to 50,000 years. Three main groups: hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Mainly developed as substitutes for ozone-depleting substances

Fluorinated gases are a family of man-made gases used in a range of industrial applications. Sources include refrigerants, air-conditioning, solvents, aluminium and magnesium production, etc. Many fluorinated gases have very high global warming potentials (GWPs) relative to other greenhouse gases. That means small atmospheric concentrations can have large effects on global temperatures. They can also have long atmospheric lifetimes, in some cases, lasting thousands of years. Fluorinated gases are removed from the atmosphere only when they are destroyed by sunlight in the far upper atmosphere. In general, fluorinated gases are the most potent and longest lasting type of greenhouse gases emitted by human activities. There are three main categories of fluorinated gases: hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).

- **Hydrofluorocarbons (HFCs)** are the most common group of F-gases. They are used in various sectors and applications, such as refrigerants in refrigeration, air-conditioning and heat pump equipment; as blowing agents for foams; as solvents; and in fire extinguishers and aerosol sprays.

- **Perfluorocarbons (PFCs)** are typically used in the electronics sector (for example for plasma cleaning of silicon wafers) as well as in the cosmetic and pharmaceutical industry. In the past PFCs were also used in fire extinguishers and can still be found in older fire protection systems.
- **Sulphur hexafluoride (SF₆)** is used mainly as an insulating gas, in high voltage switchgear and in the production of magnesium and aluminium.

SI No	Name of the Industry/Firm/Plant	location	Annual émission (In PPM)	Ranking as per flourinated gas Emission (PPM)	Action taken for cutting down émission
1	M/s Surendra Mining Industries (p) Ltd.	Bonaigarh, Dist- Sundargarh	NA	NA	NA

7.5 **Important Green House Gases: chlorofluorocarbons (CFCs)**

Chlorofluorocarbons (CFCs) an important Green House Gas contribute about 12% to radiative forcing by long-lived GHGs has not been included in the Kyoto Protocol because they are already regulated under the Montreal Protocol on Substances that Deplete the Ozone Layer which entered into force in 1989. The Montreal Protocol includes, for example, chlorofluorocarbons (CFCs) which contribute about 12% to total radiative forcing by LLGHGs. CFCs can stay in the atmosphere for more than 1,000 years. CFCs have a global warming potential (GWP) that ranges between 4,750 and 14,400 (over 100 years time span). CFCs are used in the manufacture of aerosol sprays, blowing agents for foams and packing materials, as solvents, and as refrigerants.

SI No	Name of the Industry/Firm/Plant	location	Annual émission (In PPM)	Ranking as per flourinated gas Emission (PPM)	Action taken for cutting down émission
1	M/s Surendra Mining Industries (p) Ltd.	Bonaigarh, Dist- Sundargarh	Minimal/ Minimum	NA	Using selective equipments / machines/ electronics which are free from mission of CFCs, avoiding using of products that are being found to be a source of CFC's emission.

Ref.: IPCC (2007). Fourth Assessment Report, Technical Summary – Changes in Human and Natural Drivers of Climate & UNEP (2012). Emissions Gap Report; WMO (2013). Greenhouse Gas Bulletin

7.6 Green House Gas Sequestration

In order to prevent dangerous anthropogenic interference with the climate system, actions need to be taken to stabilize greenhouse gas concentrations in the atmosphere. Such actions are referred to as “climate change mitigation”. More specifically, climate Change mitigation involves:

- reducing GHG emissions, e.g. by making older equipment more energy efficient;
- preventing new GHG emissions to be released in the atmosphere, e.g. by avoiding the construction of new emission-intensive factories;
- Preserving and enhancing sinks and reservoirs of GHGs, e.g. by protecting natural carbon sinks like forests and oceans, or creating new sinks (“carbon sequestration”).

Source: UNFCCC (2009). Fact Sheet: The Need for Mitigation

Major Greenhouse Gases Contributors (Anthropogenic) to Climate Change

Greenhouse Gas	Human Source (Examples)	% of Total Global GHG Emissions (2010)
Carbon dioxide (CO ₂)	Fossil fuel combustion, land use changes, cement production, etc	76%
Methane (CH ₄)	Fossil fuel mining/distribution, livestock, rice agriculture, landfills, etc	16%
Nitrous oxide (N ₂ O)	Agriculture (fertilisers) and associated land use change, etc	6%
Hydrofluorocarbons (e.g. HFCs)	Liquid coolants, etc	< 2%
Perfluorocarbons (e.g. PFCs)	Refrigerant, electronics industry and aluminium industry, etc	< 2%
Sulphur hexafluoride (SF ₆)	Insulator in electronics and magnesium industry, etc	< 2%
Nitrogen trifluoride (NF ₃)	Electronics and photovoltaic industries, etc	< 2%

Source: Reproduced from IPCC 2007, UNEP 2012, and FERN

The global community has committed itself to hold warming below 2°C (compared to pre-industrial temperatures) to prevent dangerous climate change. The 2013 IPCC report on the physical science basis of climate change provides a “budget approach” to this goal, looking at total allowable CO₂ emissions level to meet the 2°C target. The report states that in order to have a greater than two in three chance of keeping *global warming* below 2°C, cumulative emissions of CO₂ cannot exceed 1,000 Gigatonnes of carbon (GtC). As of 2011, more than half this amount, or over 500 GtC, has already been emitted since 1861-1880. When the effects of other greenhouse gases are included, even less CO₂ could be emitted to keep below a 2°C warming.

Current annual emission levels are at 9.5 GtC and are likely to grow every year due to population growth and economic development patterns. If annual emissions continue to grow as in past years (“business as usual” scenario) the carbon budget will be exhausted in the next three decades.

Source: IPCC (2013) Climate Change 2013 – The Physical Science Basis, Summary for Policymakers.

Details of forest as a major Carbon sink (District)

Reserved Forest / Protected Forest (in Sq. KM)	Revenue / Village Forest (in Sq. KM)	Private owned Forests (in Sq. KM)	Others (If any) (in Sq. KM)	Total (in Sq. KM)
2815 sq km	1333	Nil	Nil	4148 sq km.

7.7 Sectors with High Mitigation Potential

SI No	Sectors	Mitigation Options
1	Energy	<ul style="list-style-type: none"> • Use of renewable heat and power (hydropower, solar, wind, geothermal and bio-energy) • Improved supply and distribution efficiency • Carbon capture storage (CCS) • Combined heat and power
2	Transport	<ul style="list-style-type: none"> • More fuel efficient vehicles • Use of alternative energy sources (biofuels, cleaner diesel, etc.) • Better land-use and transport planning • Shift from individual transport to public transport systems • More efficient driving practices • Non-motorized transport (cycling, walking)
3	Industry	<ul style="list-style-type: none"> • Process-specific technologies that improve efficiency and reduce emissions • Material recycling and substitution • Heat and power recovery/cogeneration • Control of greenhouse gas emissions
4	Agriculture	<ul style="list-style-type: none"> • Manure and livestock management to reduce CH₄ emissions • Improved fertilizer application techniques to reduce N₂O emissions • Improved crop and grazing land management to increase soil carbon storage • Restoration of cultivated peaty soils and degraded lands • Agro-forestry practices
5	Forestry	<ul style="list-style-type: none"> • Reduced deforestation • Afforestation/reforestation • Forest management

		<ul style="list-style-type: none">• Tree species improvement to increase biomass productivity and carbon sequestration
6	Waste	<ul style="list-style-type: none">• Landfill methane recovery• Waste incineration with energy recovery• Composting of organic waste• Controlled wastewater treatment• Recycling and waste minimization• Biocovers and biofilters to optimize CH₄ oxidation

Chapter – 8

Safety of Schools and Child Care Institutions

Implementation of School Safety Policy Guidelines 2016 (SSP-2016 Guidelines)

8.1 Orders on WP(C) 483/2004 of Hon'ble Supreme Court

The Hon'ble Supreme Court vide orders of dated 14.08.2017 in WP (C) 483/2004, directs vide letter no 2437/2004/SC/PIL/(WRIT) dt. 23.08.2017 that the School Safety Policy (SSP) 2016 guidelines issued by NDMA are statutory in nature and shall be implemented in letter and spirit by all concerned authorities for all schools. The direction of the Supreme Court in Implementation of the School Safety Policy Guidelines Inter-alia postulates as follow:

- Time bound implementation of the Guidelines
- District Disaster Management Authority to ensure and monitor compliance of the said Guidelines
- District Education Officer of each District to be a "Nodal officer" with responsibility, liability and obligation as well as powers and functions to ensure strict compliance with the Guidelines within the district of his jurisdiction.
- Joint Monitoring Committee consisting of representations of both Department of School Education & Literacy, Ministry of HRD and NDMA
- Quarterly compliance reports from the Chief Secretary to MHRD and NDMA on the actions taken.

Hon'ble Supreme Court has also defined few actions at different levels to ensure school safety

State & District Level	School Level:
<ul style="list-style-type: none"> • Policy for safety audits in all schools 	<ul style="list-style-type: none"> • Schools must take appropriate safety measures and an emergency response plan that delineates staff responsibilities, communication modes, and training and updating procedures for all members of the faculty, staff and students.
<ul style="list-style-type: none"> • 'Stability certificate' by Government-certified engineer 	<ul style="list-style-type: none"> • Fire insurance coverage should be made mandatory for all schools.
<ul style="list-style-type: none"> • Manual for fire safety procedures and other safety precautions 	<ul style="list-style-type: none"> • Ensuring that the kitchen in the precincts of the school has adequate safety mechanisms
<ul style="list-style-type: none"> • The National Building Code of India, 2005, to construct fire-safe buildings. (Revised 2016). 	

Ref. : Fire Safety Measures in School s(Section 3.1 p-23) / Training of School Teachers & Other Staff (Section 3.1 p-25) /School Building Specifications (Section 3.1 p-27) Clearance & Certificates (Section 3.1 p-29) SC. **Judgement on WP(C) 483/2004**

8.2 Guidelines on School Safety Policy, 2016- NDMA

The School Safety encompasses “the creation of safe environments for children starting from their homes to their schools and back.” This as well includes safety from large-scale natural hazards, human made risks, pandemics, violence as well as more frequent and smaller-scale fires, transportation and other related emergencies and environmental threats that can adversely affect the lives of children.

Vision:

- The Guidelines stand for a vision of India where all children and their teachers, and other stakeholders in the school community are safe from any kind of preventable risks that may threaten their well being during the pursuit of education.
- Educational continuity is maintained/ resumed even in the immediate aftermath of a disaster so that Children are physically, mentally and emotionally secure within their schools.

Approach and Objectives

- All hazard approach.
- All schools; all stakeholders 2. Strengthening existing policy provisions to make schools safer
- School Safety as an indicator of quality for continued planning, execution and monitoring
- Primary objective is to ensure the creation of safe learning environment for children.
- Also seek to highlight specific actions towards school safety that can be undertaken by different stakeholders within the existing framework of delivery of education.

Applicability

- The National School Safety Policy Guidelines apply to all schools in the country- whether government, aided or private, irrespective of their location in rural or urban areas.
- They apply to all stakeholders involved in delivery of education to Children in India

All hazard approach

- School Safety efforts needs to take cognizance of all kinds of hazards that may affect the wellbeing of children.
- Hazards include structural and non-structural factors.
- Structural factors include dilapidated buildings, poorly designed structures, faulty construction, poorly maintained infrastructure, loose building elements, etc.
- Non Structural factors include loosely placed heavy objects such as almirahs, infestation of the campus by snakes and any other pests, broken or no boundary walls, uneven flooring, blocked evacuation routes, poorly designed and placed furniture that may cause accidents and injury, inadequate sanitation facilities, etc.

Right to Education Act 2009

- The Act sets minimum norms and standards with regard to location and quality of schools and in Clause 19, lays down that no school shall be established, or recognized unless it fulfills the norms and standards specified in the schedule.
- One of the key standards is in relation to access to “all weather buildings”; in “areas with difficult terrain, risk of landslides, floods, lack of roads and in general, danger for young children in the approach...
- the State Government / Local Authority shall locate the school in such a manner as to avoid such dangers”.
- The Act lays down the formation of the School Management Committee for planning of infrastructure and other requirements with respect to operational functioning of schools.

- The School Development Plan, as laid out by the Act, spells out the physical requirements of additional infrastructure and equipments to meet the norms spelt out in the schedule (in relation to all weather buildings).

Key Action Areas

1. Institutional strengthening at the State & District levels

- Co-opting senior officials of the Department of Education in SDMA and DDMA.
- Nomination of School Safety Focal Point Teacher & Sensitization of School Management Committee on DM.

2. Planning for Safety

- Structural Measures (including siting, design and detailing for structural safety).
- Non structural Measures.
- Preparation & implementation of School Disaster Management Plan.
- Leveraging existing flagship programmes to make school campus safer.

3. Capacity building for safe schools

- Training for students and school staff
- Specialized training and skill building of Education officers, representatives of SCERT and DIET, SDMA, DDMA, etc on school safety
- Mock Drills

4. Disaster Management in Core Curriculum

5. Regular monitoring of risk and revision of School Safety Plans (including Safety Audits & Availability of Emergency Equipment).

8.3 Category & type of schools

Sl No.	Name of the Block	Government Schools				Government Aided schools/BF		Private Schools	
		Elementary		Secondary		Elementary	Secondary	Elementary	Secondary
		Rural	Urban	Rural	Urban				
1	Balisankara	6118	-	1675	-	-	579	590	-
2	Bargaon	4171	-	1695	-	-	203	490	300
3	Biramitrapur MPL	-	1714		700	-	-	146	2780
4	Bisra	4745	-	1060	-	-	1193	3300	1042
5	Bonai	6064	-	1775	-	27	1050	1584	-
6	Gurundia	5253	-	1281	-	115	642	146	85
7	Hemgir	4774	-	1766	-	-	548	722	51
8	Koira	8294	-	1291	-	-	581	1069	203
9	Kuarmunda	5828	-	2020	-	317	1300	1024	1898
10	Kutra	4727	--	1371	-	-	1506	420	1287
11	Lahunipara	7564	-	1432	-	254	660	1797	144

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12	Lathikata	8125	-	2170	-	393	805	7377	85
13	Lephipara	5200	-	1713	-	-	1920	445	416
14	Nuagaon	6490	-	1956	-	-	849	1106	664
15	Rajgangpur	4080	-	1558	-	20	1657	1377	165
16	Rajgangpur MPL	-	1786	-	845	-	996	3586	711
17	Rourkela MPL	-	8913	-	5157	1294	2596	30737	8320
18	Subdega	3680	-	1155	-	-	1075	761	52
19	Sundargarh	3867	-	1440	-	84	1023	874	-
20	Sundargarh MPL		1729	-	601	-	1112	2292	2791
21	Tangarpali	4022		1185	-	-	584	603	-
	Total	93002	14142	26543	7303	2504	20879	60446	20994

8.5 School Safety Advisory Committee (District)

1. Date of Formation – Notification No.553 dt.16-04-2018 of Collectorate, Sundargarh (enclosed in DDMP Vol- II)
2. Institutional Architecture

SI No	Name & Designation	Contact No.	Email ID	Remarks
1	Collector and District Magistrate	9861079543	dmsng@ori.nic.in	Chairperson
2	SP, Sundargarh	06622-273324	spsng.orpol@nic.in	Co-Chairperson
	SP, Rourkela	0661-2500020	sprkl.orpol@nic.in	Co-Chairperson
3	District Fire Officer, Sundargarh	8917416994	afosng-ofs@gov.in	Member
4	District Welfare Officer, Sundargarh	8763006256	dwsundargarh@nic.in	Member
5	District Social Welfare Officer, Sundargarh	9937207897	dswosundargarh@nic.in	Member
6	CDMO, Sundargarh	9437075229 9439993000	sngcdmo@gmail.com	Member
7	SE, RWSS, Sundargarh	9439430797	eerwsng1@nic.in	Member
	SE, RWSS, Rourkela	9938554324	eerwssrkl@gmail.com	Member
8	EE R&B (PWD), Sundargarh	9437255313 9437139151	pwd_sng@yahoo.co.in	Member
	SE R&B (PWD), Rourkela	9938554324	eepwrkl@gmail.com	Member
9	Deputy Collector, Emergency, Sundargarh	8895372842	deoc.sundargarh@gmail.com	Member
10	District Panchayat Officer, Sundargarh	9937304639	ori-dsundargarh@nic.in	Member
11	Block Education Officer, Sadar,	8895986646	deosundergarh30@gmail.com	Member

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	Sundargarh			
12	Distict Project Coordinator, SSA, Sundargarh	9437151875	dpcsndgssa.opepa@nic.in	Member
13	District Education Officer, Sundargarh	9437151875	deosundergarh30@gmail.com	Nodal Officer, and Member Convener

8.6 Details of School Safety in the district

SI No	Activity	Total School	Achieved																
			Balisanra	Bargaon	Bisra	Bonai	Gurundia	Hemgir	Koira	Kuarmunda	Kutra	Lahunipara	Lathikata	Lephripara	Nuagaon	Rajgangpur	Subdega	Sundargarh	Tangarpali
1	Schools having School Safety Advisory Committee (Number)	356	18	13	66	18	16	18	12	25	18	21	16	18	19	21	17	27	13
2	Schools having School Disaster management Plan (Number)																		
3	Schools having conducted Safety Audits (Structural) (Number)																		
b	Safety Audits (Non-Structural) (Number)																		
4	Schools having conducted Annual Mock Drills (Number)																		
5	Schools Having Fire Extinguisher (Number)																		
6	Schools Adhering to safety norms in storing inflammable & Toxic Material (Number)	356	18	13	66	18	16	18	12	25	18	21	16	18	19	21	17	27	13
7	Schools confirming safety standards as per local building bye-laws (Latest) (Number)																		
8	Schools having issued Recognition																		

	certificate under sub Rule(4)-Rule 15 of RTE rules 2010 (only to schools that comply with Structural safety norms) (Number)																	
9	where students & undergo regular training Safety & Disaster class (Number)																	
10	Schools where disaster management is being taught as part of the curriculum (Number)																	

7.1 Disaster management Education (School Safety and School Disaster Preparedness):

[Disaster management education should include organizing awareness generation programmes in schools and colleges and conducting basic mock drills for fire and other disasters. For the purpose, in the first phase district level high schools and colleges (both govt. and private) may be taken into consideration.]

To implement disaster management education programs in district-level high schools and colleges effectively, a structured plan that includes awareness generation and mock drills can be created. Here's a comprehensive approach:

Sl. No.	Name of the Programme	No. of Schools, Colleges and Other Educational institutions to be covered during the year	Time Line	Remarks
1	One day orientation programme of District Education Officer and other stakeholders in the planning process of school safety plan	2 Teachers from each school	August 2023	Funds to be arranged by OSDMA, Bhubaneswar
2	Awareness generation and mock drills for fire/ earth quake etc.	170 nos. 10 from each block	July 2024 to September 2024	Funds under FAMEX to be arranged by OSDMA, Bhubaneswar
3	Preparation of School disaster management plan	170 nos. 10 from each block	June 2024 to December 2024	Funds to be arranged by OSDMA, Bhubaneswar
4	One day school level programme HM & Teachers and Non Teaching staffs in Identified school	6 Schools	2023 to April 2024	Funds to be arranged by OSDMA, Bhubaneswar
5	One Wall painting in each identified school	6 Schools	Sept 2023 to December 2024	Funds to be arranged by OSDMA, Bhubaneswar

District Disaster Management Plan -2024

6	Development and fixing of Evacuation Maps and Signages	6 Schools	December 2024	Concerned Schools in support of DDMA.
7	School Level training programme on Earthquake safety and evacuation in practice	6 Schools	January 2025	Concerned Schools in support of DDMA.
8	School Level Mock Drill Exercise on Earthquake	6 Schools	November 2024	Concerned Schools in support of DDMA.
9	Updating of School Disaster Management Plan (as per the Mock Drill)	6 Schools	January 2025	Concerned Schools
10	School Level Training on Fire Safety and Evacuation Practice(Fire)	6 Schools	December 2024	DDMA with support of concerned stakeholders
11	School Level Mock Drill Exercise on Fire Evacuation	6 Schools	January 2025	DDMA with support of concerned stakeholders
12	Development of 2 numbers of instructional videos on the process of conducting Mock drills	2 Numbers	January 2025	In support of OSDMA
13	Training of school students on First Aid and Emergency methods of rescue	6 Schools	April 2024	Funds to be arranged by OSDMA, Bhubaneswar

Details of Child Care Institutions

Sl. No.	Name of the District	Name and address of the organisation	Total No. of Children staying in the CClS	No. of Boys	No. of Girls	Name & Contact Details of the shift-in-charge	Fire Safety Equipments (Fire Extinguisher , Alarm)	Staff Training on Fire Safety Equipment	Near by open space for evacuation	Alternative Shelters
1	Sundargarh	Rourkela Sishu Bhavan, Rourkela At/po- Quarry sidling Pradhanpali, Rourkela PIN-769015 Dist- Sundargarh	40	40	0	Prasanna Senapati Mo-9437042960 mail- prasan.ks@gmail.com	1	No	play ground	Vocational training building
2	Sundargarh	Jay Sankar Sevashram, At/po- Belsera, Via- Ujjalpur, dist- Sundargarh - 770011	67	31	36	Bharati Nahak mo-9438867211, mail- Jssbelsara108@gmail.com	Nil	No	play ground	Shiv Mandir Dharmasala
3	Sundargarh	Banabasi Vidya Sabha, Vedvyas, Rourkela At-Vedvyas, Rourkela dist- Sundargarh	61	61	0	Dhaneswar Behera mo.9438331227 mail- gurukulvedicashram@gmail.com	7	No	play ground	Mandir Trust Dharmasala
4	Sundargarh	Sishu Seva Ashram, At/PO- Deobhubanpur, via-Balisankara, Dist- Sundargarh, PIN- 770015	29	29	0	Ratha Xalxo mo- 9438490371 mail- Sisuasa@gmail.com	Nil	No	play ground	Primay school building

5	Sundargarh	SOS children's Village of India Rourkela At/Po- Add, Ring Road, Rourkela, PO- Laukera Dist-Sundargarh PIN-769009	158	40	118	Tapan Suna Mo-9437484718 mail-tapan.suna@soscvinda.org	15	No	play ground	other building of CCIs
6	Sundargarh	Service to Humanity Foundation, Jagda,Rourkela, At-, Manab Seva Marg, Jagda, Rourkela, dist-Sundargarh, PIN-769042	27	14	13	Hemata Tandia mo-8763235365 mail-manabseva@gmail.com	2	No	play ground	other building of CCIs
7	Sundargarh	Manaba Seva Pratishthan At-Tukuda, PO-Sole, via- Kesaibahal, tukuda, Rourkela, dist-Sundargarh	20	14	6	Dinabandhu Naik, mo-8658344300 / 9439584654 mail-manabseva@gmail.com	Nil	No	play ground	School building
8	Sundargarh	Nirmal Munda Vidya Pitha, Rourkela, At-street line, Govt, ITI, Rourkela-4, Dist-Sundargarh	35	12	23	Bibhudatta Rout mo-7205415828 mail-nirmalmundavidhapitha@gmail.com	Nil	No	children park	no
9	Sundargarh	Ekalavya, Hemgir, At-Rangiadhupa, PO-Hemgir, Dist-Sundargarh	21	7	14	Biseswar Ray mo-9556433588 mail-ekalavyasevashram@gmail.com	Nil	No	open space available	School building
10	Sundargarh	Adruta Sundargarh, At-Nabarangpur, Subalaya Road, Dist-Sundargarh	19	19	0	Prakash Sahoo mo-9437149823 mail-adrutchldrenhome.sng@gmail.com	Nil	No	play ground	other building of CCIs

11	Sundargarh	Uttie Orchard Vivid for Ecstasy, Kutra, At-Sevashram, Gopabandhupali, Ward No-4, Po-4, Rourkerla, Dist- Sundargarh	36	24	12	Fransisca Bilung mo-9178306177 mail-love_org2002@rediffmail.com	1	No	open space available	Anganwadi Center
12	Sundargarh	Sarbabhouthiuk Anath Ashram, Rourkela, At-Malgodown Road, Basanti Colony, Rourkela, Dist-Sundargarh	37	22	15	Miniketan Bala- Mo-7381132916	Nil	No	open space available	Meeting hall of CCIs
13	Sundargarh	Sahyog, Biramitrapur, at- Back site of Tahasil office, Biramitrapur, Dist- Sundargarh	38	16	22	Fumani Surein, mo-7894676734 mail-sahyogvillagebrmp@gmail.com	Nil	No	play ground	other building of CCIs
14	Sundargarh	DISHA (open shelter) at- Ashyani Colony, Bisra, Rourkela, Dist-Sundargarh	9	5	4	Abul Kalam Azad, mo-9437049329 mail-disharkl@yahoo.co.in	Nil	No	play ground	Training hall of CCIs
15	Sundargarh	DISHA (SAA) at- Ashyani Colony, Bisra, Rourkela, Dist-Sundargarh	27	12	15	Amber Alam, mo-9437567098 mail-dishasaa@gmail.com	2	No	play ground	other building of CCIs
16	Sundargarh	Observation Home, Rourkela, at-jail campus, industrial estate, po-Panposh, Ward no.6, rourkela municipal corporation, dist-Sundargarh	127	127	0	Makara Behera mo-94382050582 mail-observationhomerourkela@gmail.com	2	No	open space available	Training hall of CCI

17	Sundargarh	Special Home, Rourkela, at-jail campus, industrial estate, po-Panposh, Ward no.6, rourkela municipal corporation, dist-Sundargarh	2	2	0	Makara Behera mo-94382050582 mail-observationhomerourkela@gmail.com	2	No	open space available	Training hall of CCI
Total			753	475	278					

Chapter – 9

Chemical (Industrial), Nuclear and Radiological Disaster)

9.1 Chemical (Industrial) Disaster

The growth of chemical industries has led to an increase in the risk of occurrence of incidents associated with hazardous chemicals (HAZCHEM). A chemical industry that incorporates the best principles of safety, can largely prevent such incidents. Common causes for chemical accidents are deficiencies in safety management systems and human errors, or they may occur as a consequence of natural calamities or sabotage activities. Chemical accidents result in fire, explosion and/or toxic release. The nature of chemical agents and their concentration during exposure ultimately decides the toxicity and damaging effects on living organisms in the form of symptoms and signs like irreversible pain, suffering, and death. Meteorological conditions such as wind speed, wind direction, height of inversion layer, stability class, etc., also play an important role by affecting the dispersion pattern of toxic gas clouds. The Bhopal Gas tragedy of 1984—the worst chemical disaster in history, where over 2000 people died due to the accidental release of the toxic gas Methyl Isocyanate, is still fresh in our memories. Such accidents are significant in terms of injuries, pain, suffering, loss of lives, damage to property and environment. A small accident occurring at the local level may be a prior warning signal for an impending disaster. Chemical disasters, though low in frequency, have the potential to cause significant immediate or long-term damage.

A critical analysis of the lessons learnt from major chemical accidents exhibited various deficiencies. Laxity towards safety measures, no conformation to techno-legal regimes and a low level of public consultation are a few such shortcomings. The scenario called for concerted and sustained efforts for effective risk reduction strategies and capacity development under a national authority to decrease the occurrence of such incidents and lessen their impact. Although tremendous efforts have been made to minimise such accidents and to improve emergency preparedness at all levels, substantial efforts are still required to predict the occurrence of disasters, assess the damage potential, issue warnings, and to take other precautionary measures to mitigate their effects. Another pressing need is to properly assess the potential of chemical emergencies and develop tools for emergency planning and response to minimise the damage in case of any eventuality.

9.2 Status of Chemical Disaster Risk in India

India has witnessed the world's worst chemical (industrial) disaster “Bhopal Gas Tragedy” in the year 1984. The Bhopal Gas tragedy was most devastating chemical accident in history, where over thousands of people died due to accidental release of toxic gas Methyl Iso Cyanate (MIC). Such accidents are significant in terms of injuries, pain, suffering, loss of lives, damage to property and environment. India continued to witness a series of chemical accidents even after Bhopal had demonstrated the vulnerability of the country. Only in last decade, 130 significant chemical accidents reported in India, which resulted into 259 deaths and 563 number of major injured.

There are about 8161 Major Accident Hazard (MAH) units, spread across 301 districts and 25 states & 3 Union Territories, in all zones of country. Besides, there are thousands of registered and hazardous

factories (below MAH criteria) and un-organized sectors dealing with numerous range of hazardous material posing serious and complex levels of disaster risks.

9.3 Safety initiatives taken in India to address chemical risk

The comprehensive legal/ institutional framework exists in our country. A number of regulations covering the safety in transportation, liability, insurance and compensations have been enacted.

Following are the relevant provisions on chemical disaster management, prevailing in country:-

Explosives Act 8814	Environment Protection Act 1986
Petroleum Act 1934	Motor Vehicles Act 1988
Factories Act 1948	Public Liability Insurance Act 1991
Insecticides Act 1968	Disaster Management Act 2005

Government of India has further reinforced the legal framework on chemical safety and management of chemical accidents by enacting new rules such as MSIHC Rules, EPPR Rules, SMPV Rules, CMV Rules, Gas Cylinder Rules, Hazardous Waste Rules, Dock Workers Rules and by way of amendments to them. The National Disaster Management Authority (NDMA) of India had come out with very specific guidelines on Chemical Disaster Management. The guidelines have been prepared to provide the directions to ministries, departments and state authorities for the preparation of their detailed disaster management plans. These guidelines call for a proactive, participatory, multidisciplinary and multi-sectoral approach at various levels for chemical disaster preparedness and response. Further, NDMA has provided specific inputs to the GOM for avoidance of future chemical disasters in the country, along with suggested amendments on the existing framework. NDMA is also working on revamping of CIFs (Chief Inspectorate of Factories) to strengthen chemical safety in India. In addition, the National Action Plan on Chemical Industrial Disaster Management (NAP-CIDM), has been finalized which will act as the roadmap for chemical disaster management in India.

9.4 Factories or Storage Unit Details of the District

Name of the Factory	Type (Large/Medium/Small/Micro)	Manufacturing process and capacity	Address	Lat/Long	Site Operator Head Name	Site Operator Head Designation	Site Operator Head Email	Site Operator Head Mobile Number
IDL Explosives Limited	Large	Slurry/Emulsion Class-2 Explosives-44500MT SME Class-2 Explosives-24900MT	Sonaparbat (P.O.), Rourkela, Dist.Sundargarh, Odisha, PIN - 769016.	22°11'07"N 84°53'33"E	Mr. Rasala Rakesh	Dy. General Manager (RW)	rakeshrasala@idlind.com	6372803638
NTPC- Darlipali/DM PLANT	Large	POWER GENERATION	Darlipali Super Thermal Power Project, NTPC Limited, At/PO: Darlipali, Via: Zinc Nagar, PS: Bhasma,Dist.: Sundargarh, Pin:770072 Web site-www.ntpc.co.in Telephone No.- 06622-262627, Telefax No.- 06622 262627	21.961412° 83.891726°	Harsha Nath Chakraborty	GM (HEAD OF PROJECT)	HENCHAKRA BARTY@NTPC.CO.IN	9434151709

LINDE IDIA LTD. Near RSP Fertilizer gate,Rourkela Town Unit No.46,Tangarpali,Rourkela,Odisha-769007, India	Large	Industrial gases. Liquid oxygen – 300TPD, Liquid Nitrogen-120TPD, Liquid Argon – 73 TPD	Near RSP Fertilizer gate,Rourkela Town Unit No.46,Tangarpali,Rourkela,Odisha-769007,	22.202755/84.8641289	Mr. Rajib Ghosh	Factory Manager	Rajib.ghosh@linde.com	8404802241
SAIL,Rourkela Steel Plant, Rourkela,769011	Large	4.5 MT Hot Metal/Year	Rourkela Steel Plant, Rourkela, Sundargarh, Odisha	22°14' North/ 84°52' East	Sri S R Suryawanshi	ED(W)	edw.rsp@sail.in	0661-2510025

9.5 Hazardous Chemical storage Details

Name of the Industry	Hazardous Chemicals/ Substances Name	Hazardous Chemicals Type (Flammable/ Reactive/ Explosive/ Toxic)	Hazardous Chemicals Quantity (Volumetric Capacity/ Max Qty can be Stored/ Inventory)	Type of Storage (Under Ground/ Submerged/ On the Ground/ Above Ground)	Type of Container (Spherical/ Box Type/Cylindrical)	Type of Alignment (Horizontal/Vertical)	Hazard Anticipated (Fire/Explosion/ Toxic release)	MSDS (Material Safety Data Sheet) of the Chemicals	Vulnerable Zone in case of Emergency (Radius in Km/Meter)	Down wind Distance	Total Number of People in the Vulnerability Zone
IDL EXPLOSIVE	Ammonium Nitrate	Explosive	9120 MT	Above Ground	Bag		Fire/Explosion	Yes Available			

S LTD.Sunapar bat Rourkela- 16 Dist- Sundergarh, Odisha	(Storage / Use)										
	Slurry / Emulsion Explosive (Manufactur ed/Storage/ Handling)	Explosive	690 MT	Above Ground	Box Type		Fire/Explosion	Yes Available			
	Diesel Oil (Storage / Use)	Flammable	22 KL	Under Ground	Cylindrical		Fire/Explosion	Yes Available			
	Furnace Oil (Storage /Use)	Flammable	30 KL	Under Ground	Cylindrical		Fire	Yes Available			
	Transforme r Oil(Storage / Use)	Flammable	1.875 KL	Drum Above Ground	Cylindrical		Fire	Yes Available			
Darlipali Super Thermal Power Plant, NTPC	HYDROCH LORIC ACID (30% Solution in liquid form)	Toxic	34MT	Above Ground	Cylindrical Tank	Horizontal	Toxic release	Yes	5-10 Meter, Catch pit and neutraliz	5-10 M,	0

LIMITED									ation pit available near the tank.		
Darlipali Super Thermal Power Plant, NTPC LIMITED	HYDROCHLORIC ACID (30% solution in liquid form)	Toxic	18MT	Above Ground	Cylindrical Tank	Horizontal	Toxic release	Yes	5-10 Meter, Catch pit and neutralization pit available near the tank.	5-10 M,	0
Darlipali Super Thermal Power Plant, NTPC LIMITED	CAUSTIC SODA LYE (48% solution in liquid form)	Reactive	22 MT	Above Ground	Cylindrical Tank	Horizontal	Toxic release	Yes	5-10 Meter, Catch pit and neutralization pit available near the tank.	0 M, No fumes	0
Darlipali Super Thermal Power Plant, NTPC LIMITED	CAUSTIC SODA LYE (48% solution in liquid form)	Reactive	15 MT	Above Ground	Cylindrical Tank	Horizontal	Toxic release	Yes	5-10 Meter, Catch pit and neutralization pit available near	0 M, No fumes	0

									the tank.		
Darlipali Super Thermal Power Plant, NTPC LIMITED	SULPHURIC ACID (98% solution in liquid form)	Toxic	250 MT	Above Ground	Cylindrical Tank	Horizontal	Toxic release	Yes	5-10 Meter, Catch pit and neutralization pit available near the tank.	0 M, No fumes	0
Darlipali Super Thermal Power Plant, NTPC LIMITED	AMMONIUM HYDROXIDE (25% solution in liquid form)	Toxic	20KL	Above Ground	Stored In 25l Sealed Jerricans	Vertical	Toxic release	Yes	5-10Meter	5-10M	0
LINDE IDIA LTD. Near RSP Fertilizer gate, Rourkela Town Unit No.46, Tangarpali, Rourkela, Odisha-769007, India	Liquid Oxygen	oxidation	5400 Ts	On the ground	Low pressure flat bottom tank with top dish end	Vertical	Fire	Yes Available	200 M	200 M	100 M
	Liquid Nitrogen		2400 Ts	On the ground	Low pressure flat bottom tank with top dish end	Vertical	Asphyxiation	Yes Available	200 M	200 M	100 M

	Liquid Argon		450 Ts	On the ground	Low pressure flat bottom tank with top dish end	Vertical	Asphyxiation	Yes Available	200 M	200 M	100 M
SAIL, Rourkela Steel Plant, Rourkela, 769011	Hydrochloric Acid	Toxic	65 T	Above ground.	Cylindrical	Vertical	Toxic release	Annexure attached.		10m	01
	Liquid Ammonia	Toxic/Flammable	160 Ton	Above ground	Cylindrical	Horizontal	Fire/Explosion/Toxic release	Annexure attached.		686m	25
	Diesel	Flammable	452 T	Above ground,	Cylindrical	vertical	Fire/Explosion	Annexure attached.	46m		02
	Petrol	Flammable	11 T	Under ground	Box Type	horizontal	Fire/Explosion	Annexure attached.	46m		02
	Propane	Flammable	140 T	Over ground	cylindrical	horizontal	Fire	Annexure attached.	105m		02
	BF Gas	Flammable	115 T	Over ground	cylindrical	vertical	Fire/Explosion/Toxic release	Annexure attached.		338m	4
	LD Gas	Flammable	39 T	Over ground	cylindrical	vertical	Fire/Explosion/Toxic release	Annexure attached.		338m	10
	Sulphuric Acid	Toxic	3431 T	Over ground	cylindrical	Vertical	Toxic release	Annexure attached.		08m	Nil

9.6 Critical Facilities/Infrastructure situated within close proximity of the Factories/Industries or chemical storage units

Factories /Industries Name	Name Critical Facilities (Within Close proximity)	Facility Type (School, AWC Hospitals etc)	Location Address	Lat-Long	Facility in-charge Name	Facility in charge email	Facility in charge mobile number	Total Population in the Close Proximity
IDL EXPLOSIVES LTD.Sunaparbat Rourkela-16 Dist-Sundergarh,Odisha		School and Villages	Sunaparbat, Tangarpali, Kharuatoli, Asurchapal, Dharamdihi, sankartoli, jharmunda		Rahul Singh	rahulsingh@idlind.com	9337895100	2000
LINDE IDIA LTD. Near RSP Fertilizer gate,Rourkela Town Unit No.46, Tangarpali,Rourkela,Odisha-769007, India	100 HHs & 1 School (200 Metre)	School, Police Station & Households	Rourkela Town Unit No.46, Tangarpali,Rourkela		Rajib Ghosh	rajib.ghosh@linde.com	8404802241	1000
NTPC- Darlipali/ DM PLANT	Buildings	School, Aganwadi, Health Centres and Households	Darlipali, Raidihi, Kheradega		Harsh Nath Chakraborty	hinchakraborty@ntpc.co.in	9434151709	6000
SAIL,Rourkela Steel Plant, Rourkela,769011	NA	NA	NA	NA	Abakasa Behera	abakasa.behera@sail.com	8895500245	

9.7 Nearest Hospital Details of the Factories/ Industrial Units

Organisation Name	Nearest Hospitals (Govt/Private) Name	Hospital Address	District Name	City	Pin Code	Lat/Long	Chief Medical Officer / Hospital Superintendent Name	Chief Medical Officer / Hospital Superintendent Mobile Number	Chief Medical Officer / Hospital Superintendent Email	Infra structural Facilities
IDL EXPLOSIVES LTD.Sunaparbat Rourkela-16 Dist-Sundergarh,Odisha	Fertilizer Hospital	Fertilizer Township, Rourkela	Sundargarh	Rourkela	769007	22°11'22.7" N 84°51'46.4" E				
LINDE IDIA LTD. Near RSP Fertilizer gate,Rourkela Town Unit No.46,Tangarpali,Rourkela,Odisha-769007, India	Ispat General Hospital	Ispat General Hospital, Sector-18, Rourkela	Sundargarh	Rourkela	770039	22°16'00.9"N 84°51'31.4"E				
NTPC- Darlipali/ DM PLANT	Nirmaya Hospital	NTPC-Darlipali/ DM PLANT	Sundargarh	Sundargarh	770025	21°55'00 N 83°53'35 S	Dr. Aparajita Mishra (CMO)	9434077908	amishra@ntpc.co.in	
SAIL,Rourkela Steel Plant, Rourkela,769011	Ispat General Hospital	Ispat General Hospital, Sector-18,	Sundargarh	Rourkela	770039	22°16'00.9" N 84°51'31.4" E				

		Rourkela								
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9.8 Nearest Fire Station of the Factories/Industries

Organisation Name	Area fire station name	Address	District Name	City	Pin Code	Lat/Long	Name of the Fire Officer	Fire Officer Mobile Number	Email ID	Facilities Available
IDL EXPLOSIVES LTD.Sunaparat Rourkela-16 Dist-Sundergarh,Odisha	Panposh Fire Station	Panposh Fire Station	Sundargarh	Rourkela		22.237577/ 84.80334	Kurtibas Sahu	6371099599	sopanpo.ofs@odisha.gov.in	
LINDE IDIA LTD. Near RSP Fertilizer gate,Rourkela Town Unit No.46,Tangarpali,Rourkela,Odisha-769007, India	Panposh Fire Station	Panposh Fire Station	Sundargarh	Rourkela		22.237577/ 84.80334	Kurtibas Sahu	6371099599	sopanpo.ofs@odisha.gov.in	
NTPC- Darlipali/ DM PLANT	Tangarpali Fire Station	Tangarpali Fire Station	Sundargarh	Sundargarh		22.099785/ 83.959439	Sankirtan Dhan	9556270332	sotang.ofs@odisha.gov.in	
SAIL,Rourkela Steel Plant, Rourkela,769011	Panposh Fire Station	Panposh Fire Station	Sundargarh	Rourkela		22.237577/ 84.80334	Kurtibas Sahu	6371099599	sopanpo.ofs@odisha.gov.in	

B. Nuclear & Radiological Disaster

Due to its large population density, fast growing urbanization and rapid industrialization and also because of the poor economic conditions of the people in general, the vulnerability to any type of disaster is high in India. Natural disasters have been recurring phenomena in India, leading to extensive loss of life, livelihood and property. Of late, it has become equally vulnerable to various man-made disasters which can also lead to extensive loss of life, livelihood and property. Nuclear and radiological emergency/disaster is one facet of the man-made emergencies/disasters

Despite the absence of major nuclear or radiological facilities or power plants in the State of Odisha, it is crucial for districts to be prepared for potential emergencies. Emphasis should be placed on medical preparedness and the capacity building of response forces. Regular mock exercises on nuclear and radiological disasters or emergencies are essential. Districts should maintain and update the following information annually to minimize the risk of a nuclear or radiological disaster:



Chapter - 10 Capacity Building Measures:

10.1 Approach

Ensuring the success and sustainability of a Disaster Risk Management Plan (DRMP) relies heavily on more than just technical expertise or institutional frameworks. It necessitates active engagement and empowerment of stakeholders and communities at the grassroots level. While developing institutional capacity is crucial, integrating the local community into the planning process is equally vital.

By reframing the approach to disaster management, we shift the focus from mere technical solutions to a more holistic and inclusive strategy. Engaging stakeholders and communities fosters a sense of ownership and responsibility, ensuring that mitigation measures are not only implemented but also maintained over time.

Capacity building among government and non-government officials is essential, but it must be complemented by raising awareness and empowering local communities. When stakeholders and communities are actively involved in the planning and decision-making processes, they become partners in disaster resilience. Their knowledge, experiences, and resources can significantly enhance the effectiveness and sustainability of the DRMP.

Furthermore, community involvement fosters a culture of resilience where individuals are not merely recipients of aid but active participants in their own safety and well-being. It encourages the development of local solutions tailored to the specific needs and vulnerabilities of each community, ultimately leading to more resilient and sustainable disaster management practices.

Therefore, while institutional capacity building remains crucial, it must be coupled with community engagement and empowerment to ensure the development of a successful and sustainable DRMP. Only through a collaborative approach involving all stakeholders can we achieve comprehensive disaster resilience that stands the test of time.

10.2 Capacity Building of Govt. Officials, PRI Members etc.:

[Note: a training strategy should be formulated for training of major government and non-governmental cadres in the district who can aid in disaster management. Programmes to be finalized by the district based on need and requirement.]

Districts to first utilize the funds available under different schemes at the district level, for capacity building activities. Besides, funds are also available under State Disaster Response Fund (SDRF). District Administration to prepare the Capacity Building plan for the district and send the same with detailed budget to SDMA for necessary funding.

Sl. No.	Name of the Course/ Training Programme	Participants	Duration of the Training Programme	Level of training	To be Organized/Facilitated by	Tentative Budget
1	Orientation training programme on disaster management	ADM, Sub-Collector All BDOs, Tahasildars, Head of line departments, Police & Fire Dept. etc.	1/2 day	District	DDMA/ Collector	16000

2	Training programme on heat wave preparedness	All BDOs/ EE RWS &S, CDMO, CDVO, NGOs, etc.	1 day	District	DDMA/ Collector	16000
3	Hospital preparedness and mass causality management including hospital management plan	Doctors and Hospital Administrators	2 day	District	CDMO	54500
4	Training programme on treating heat wave related health issues	Doctors and Paramedical Staff/ ANMs	1 day	District	CDMO	16000
5	Mass Casualty Management.	Para Medics/Police/ RPF/Home Guard/Fire and Civil Defense/ Railway Officials	1 day	District	CDMO/ DDMA	16000
6	Earth quake resistant construction	Asst. Engineers & JEs	1 day	District	OSDMA	16000
7	Post disaster damage assessment	AEs of all Blocks and line departments	1 day	District	DDMA	16000
8	GIS mapping of Utilities	Block Computer Programmers, Line Department MIS officials	1 day	District	OSDMA	16000
9	Public health in emergencies- safe drinking water and sanitation	All BDOs, Block and district level officials of PHED/ RWS & S Dept.	1 day	District	CDMO	16000
10	Training of teachers on school safety including DM plan and conduct of Mock Drills	Principal/ Head Masters of all Govt. & Private Institutions	1 day	District	DEO	16000
11	Role of PRIs and ULBs in disaster management.	Members of ZP and ULBs, Chairman &	1 day	District	DDMA/ Collector	16000

		Vice Chairman of PS.				
12	Block level training programmes on role of PRIs in disaster management	Sarapanchas & PS members	1 day	Block	BDO	263500
13	Role of NGOs/VOs/CBOs in disaster management.	District and block level NGOs/ VOs involved with district administration in disaster management	1 day	District/Block	DDMA/ Collector	343500
14	Training of GKS and VSS members on basics of disaster management and creating community level awareness for dos and don'ts related to common disasters.	GKS and VSS members	1 day	Block	District Culture Officer/ DIPRO	263500
15	Search & rescue and safe evacuation./ First Aid	Civil Defence Volunteers, NSS, NYK Volunteers, NCC	4 days	Block	SP/ Asst. Commandant of the nearest ODRAF unit.	97200
16	Training of Masons on earthquake resistant construction.	masons, skill labourer	3 day	Block	OSDMA	656200
17	Role of Media in Disaster Management	Media Personal	1 day	District	DIPRO	16000
18	Training of PRI members at Block level	PRI members	1 day	Block	DDMA	263500
19	Training of officials and PRI fonctionnaries on Block Disaster Management Plan	PRI/ Officials/ NGO s members/ VDMC members	2 day	Block	DDMA	620500

	and Village Disaster Management Plan					
20	Training of Village disaster management Team member on Rescue	Village volunteers	2 day	Village	DDMA	680000
21	Training of Village disaster management Team member on First Aid	Village volunteers	3 day	Village	DDMA	1650000
22	School level preparedness Training	Principal/ Head Masters of all Govt. & Private Institutions	1 day	District	DDMA	16000
23	School Safety Programme	Members of selected programme	As per programme	District/ Block	DEO, DDMA	650000
24	Mock Drill in Major Chemical and Hazardardous Industry	Industry Security staff of industry labour	1 day	Industry level in 4 major industry location.	Asst. Director Factories and Boiler/ OSDMA/ ODRAF/ NDRAF and Civil Defence	52800
	Total					

10.3 Tabletop Exercises

Tabletop exercises (TTXs) are conducted every year at District & Block level among line departments on disaster preparedness for several key reasons:

1. It helps in updating new plan and incorporates new information, lessons learned from past events, changes in infrastructure, and evolving best practices.
2. Regular exercises keep disaster response teams and stakeholders in a state of readiness. They help maintain the skills and knowledge necessary for effective disaster response, ensuring that personnel are always prepared to act swiftly and efficiently.
3. Regular TTX strengthen these inter-agency relationships and communication channels, ensuring a cohesive and coordinated response during actual disasters.
4. Each exercise provides valuable feedback and lessons that can be used to improve plans and procedures. This continuous learning process helps build a more robust and effective disaster management framework.
5. It helps to identify availability of resources, such as personnel, equipment, and supplies. This helps identify any gaps or shortages that need to be addressed.

Overall, the annual tabletop exercises conducted by OSDMA are crucial for maintaining a high level of disaster preparedness, improving response capabilities, and ensuring the safety and resilience of the communities they serve.

10.4 District/ Block level Mock Drills:

Sl.No	Type of Mockdrill	Officials/Institutions to be involved	Month/Date	Remarks
1	Flood	All district & Block level officials, Line Departments, PRI Members, Shelter Management, NGO/CBO and Volunteers	19 th June	
2	Fire Accidents	All district & Block level officials, Line Departments, PRI Members, Shelter Management, NGO/CBO and Schools/Colleges	19 th June & 29 th October	
3	Drowning	All district & Block level officials, Line Departments, PRI Members, Shelter Management, NGO/CBO and Schools/Colleges	19 th June & 29 th October	
4	Industrial Accidents	Govt. officials, community members, task force, PRI members and Industrial employees.	As per scheduled by the Industry	

10.5 Community Capacity Building and Community Based Disaster Management:

[District to chalk out detailed plan for community capacity building for disaster management which includes formation of village disaster management committees and task forces, their orientation and preparation of village disaster management plans. The villages having multi hazard vulnerability or having more vulnerability towards flood, cyclone and tsunami may be selected in the first phase i.e. for financial year 2024-25]

Sl. No.	Block Name	No. of vulnerable villages to be covered during 2024-25	No. of VDMC and task force member to be oriented	No. NGOs to be involved in the process	Time line	Remarks
1	Sadar	13	780	1	Jan-July	
2	Tangarpali	17	935		Jan-July	
3	Subdega	17	1020	1	Jan-July	
4	Balisankara	07	420		Jan-July	
5	Lephripara	04	220		Jan-July	
6	Kuarmunda	02	120		Jan-July	
7	Kuarmunda	30	1780	1	Jan-July	
8	Lahunipara	12	710	1	Jan-July	
9	Bonai	03	180		Jan-July	
10	Nuagaon	15	825		Jan-July	
	Total		7017			

10.6 Capacity building of Cyclone and Flood Shelter Maintenance & Management Committee and Task Force members:

[Note: the districts having Cyclone and Flood Shelter constructed by OSDMA, to draw detailed action plan for formation of CSMMC & FSMMC and training of task forces.]

Sl. No.	Name of the Training Programme	Total No. of Persons to be trained	No. of Training Programmes to be organized	Time Line	Remarks if any
1	Orientation of CSMMC and FSMMC	Not in Sundargarh district			
2	Training of task force members on Search & Rescue and First Aid				

Shelter level mock drills:

Sl. No.	Type	No. of Cyclone/ Flood Shelters to be covered	No. of villages to be covered.	Month/ Date
1	Cyclone Mock drill	Not in Sundargarh district		
2	Tsunami Mock drill			
3	Flood Mock drill			



Chapter – 11 Preparedness

The ultimate goal of the DDMP concerning various hazards is to ensure that, when these hazards occur, there is minimal or no loss of life, few injuries, and non-critical damage to property and infrastructure. Each component of this Sub-plan plays a vital role in creating a safer District. These elements address distinct yet interconnected areas of concern. The plan is based on the belief that clearly defined strategies, goals, and targets, along with identified roles and responsibilities, are crucial for the successful implementation of any project.

The strategies for reducing hazard losses aim to minimize damage in the event of future hazards. Preparedness involves creating plans to respond to disaster threats or occurrences, estimating emergency needs, and identifying resources to meet those needs. It also includes developing comprehensive plans for post-disaster response and familiarizing stakeholders, particularly communities, through training and simulation exercises. The primary objective of preparedness is to reduce the disaster's impact through appropriate actions and to improve the capacity of the most vulnerable groups (such as the marginalized, poor, handicapped, women, and children) to benefit from relief efforts. The secondary objective is to ensure ongoing development enhances the capacities and capabilities of the system, thereby strengthening community-level preparedness efforts. Lastly, preparedness efforts aim to guide reconstruction in a way that reduces vulnerability. Examples of preparedness activities include developing local warning systems and community evacuation plans, educating communities, creating local response structures like Community-based Disaster Management Teams (DMT), and administrative preparedness through stockpiling supplies and developing emergency rescue and relief plans.

11.1 Relief Lines : District to Blocks

Sl. No.	Block	Location from District HQ (Length in Km.)	Rural Roads (Length in Km.)	Other Roads (PMGSY)
1	Hemgiri	62	40	139.19
2	Lephripara	27	103.75	152.55
3	Tangarpali	13	76.5	107.11
4	Sundargarh	0	60.9	141.35
5	Subdega	29	21.8	71.54
6	Balisankara	46	97.5	125.62
7	Bargaon	29	31.35	93.6
8	Kutra	53	55.6	70.17
9	Rajgangpur	69	43.35	117.11
10	Lathikata	119	102	
11	Kuarmunda	121	93	
12	Nuagaon	156		
13	Bisra	125		

14	Bonai	182		
15	Lahunipara	171		
16	Koida	232		
17	Gurundia	232		
	MAIN HATS			
1	Gamlai	178		
2	Sargipali	18		
3	Subdega	24		
4	Bileimunda	63		
	TOURIST PLACES			
1	Pitamahul Dam	91		
2	Mandira Dam	75		
3	Ghoghar	80		
4	Usha Kothi	47		
5	Rourkela	110		
6	Junagarh	66		
7	Vedvyas	95		
8	Khandadhar	211		
9	Deodarah	163		
10	Darjeeing	165		
11	Mirikhoj	211		
12	Chaitrihil	55		
13	Tensa	217		

11.2 Category of Road.

SI No.	Name of the Road	Category	Length in Km.	Remarks
1	2	3	4	5
1	Sambalpur-Rourkela road (Including Town Portion-Sundergarh, Bargaon & Rajgangpur)	S.H-10	104.11	Biju Express Roadways
2	Karamdihi Talsara Lulkidihi road.	S.H-24	52	
3	Gariamal Bamra road.	S.H-24	13.67	
4	Sundargarh Lephripada road.	MDR-27	27.34	
5	Suruguda - Balichuan-Balinga - Benijharia - Hemgir- Kanika - Belpahar - road	MDR-29	46	
6	Kirei Bamra road.	MDR-31	35	

7	Talsara Luhakera road.	MDR-30	13	
8	Kukurbhuka Laxmiposh Bihar Border road.	MDR-28	17.7	
9	Duduka Gopalpur Taparia road.	ODR	28.96	
10	Bandhapali-Kinjirkela road	ODR	26.7	
11	Subdega-Lanjibarana road	ODR	59	
12	Lephripa-Balisankara road	ODR	58	
13	Ujalapur-Darlipali,via-Sargipali road	ODR	16	
14	Bhasma-Abenkela-Remanda road	ODR	4	
15	Lalei (SH-10A) o Khandadhar Water fall	ODR	15	
16	Khutagaon (SH-10A) to Keonjhar Boarder via Phuljhar.	ODR	12.5	
17	Subdega to Rajpur	ODR	17	
18	Road from Rajmunda (NH-23) to Lahangapada via Lahunipada Town i.e. old NH-215	ODR	3.5	Tr. From R.D. Deptt. Vide W/D notification No.4007 dt. 03.03.2014
19	Balingabahal - Sahajbahal - Nuadihi Podmundi (connected to Jharsugada Boarder, Gandhi Chhak)	ODR	11.5	
20	Bargaon to Sahajabahal road	ODR	9	
21	Sahajabahal to Ekma road via Pamra	ODR	9.2	
22	Bargaon Fulbari - Chamunda - Kureibaga - Bhoipali SH-10 road	ODR	14	
23	Bihabandh to Ramabahal road via Kesramal	ODR	11.5	
24	Rajgangpur - Kutunia Dubka road	ODR	17.5	
25	Telighana - Karlakhman - Garposh road a) Telighana - Karlakhman - 7.00km b) Karlakhman - Garposh road - 6.00km	ODR	13	
26	Liploi Bridge to weekly market siding Chhak	ODR	2.8	Tr. From H&UD Deptt. Vide W/D notification No.4007

				dt. 03.03.2014
27	Banadurga Mandir to Sankara bypass via R.W Office, Sport Hostel, Central School	ODR	3.8	Tr. From R.D.Deptt. Vide W/D notification No.7353 dt. 12.06.2014
28	Rangadhipa to Patrapalli, via Sunaripada B.S High School, Sub-Collector Res, Block Colony, Womens College & LIC office	ODR	4	Tr. From H&UD Deptt. Vide W/D notification No.7353 dt. 12.06.2014
29	State Bank Chhak to Bus Stand via Jagannath Mandir, Sai Mandir, Telephone Bhawan, Civic Centre	ODR	2.2	
30	Saranghi Petrol Pump to Nua Amlipali via Ssankara	ODR	2.3	
	Total		650.28	
ABSTRACT				
	State Highway	S.H	169.78	
	Major District Road	M.D.R	139.04	
	Other District Road	O.D.R	341.46	
	TOTAL		650.28	

11.3 Block to Panchayat Road

Sl. No.	Block	Panchayat Roads(Length in Km.)	Other Roads (PMGSY)
1	BALISANKARA	97.5	125.62
2	BARGAON	31.35	93.6
3	BISRA		
4	BONAI		
5	GURUNDIA		
6	HEMGIRI	40	139.19

7	KOIRA		
8	KUARMUNDA		
9	KUTRA	55.6	70.17
10	LAHUNIPARA		
11	LATHIKATA		
12	LEPHRIPARA	103.75	152.55
13	NUAGAON		
14	RAJGANGPUR	43.35	117.11
15	SUBDEGA	21.8	71.54
16	SUNDARGARH	60.9	141.35
17	TANGARPALI	76.5	107.11
Total		530.75	1018.2

11.4 Vulnerability of Road

Sl. No	Name of the Road	From	To	Type of Road & Length	Vulnerability of the Route (Description of the Vulnerability)	Coverage (Blocks.)
1	Sambalpur-Rourkela Road	63/890 Km	160/00 Km	S.H -10 104.110	Old bridge near Rourkela over River Brahmani	5
2	Karamdihi - Talsara - Lulkidihi Road	0/0 Km	52/0 Km	S.H-24 52.00		2
3	Gariamal-Bamra Road	0/0 Km	13/670 Km	S.H-24 13.670		2
4	Kirei-Bamra Road	0/0 Km	35/0 Km	M.D.R- 31 35.00		2
5	Talsara-Luhakera Road	0/0 Km	13/0 Km	M.D.R- 30 13.00		1
6	Surguda-Balichuan-Balinga - Benjharia - Hemgir-Kanika-Belpahar Road	0/0 Km	46/0 Km	M.D.R- 29 46.00	Open cast Coal Mines Road- Heavy Traffic and chances of road to be sliding into mines	2
7	Kukurbhukha-Laxmiposh-Bihar-Border Road	0/0 Km	17/700 Km	M.D.R- 28 17.700		3
8	Sundargarh-Lephripara	0/0 Km	27/340 Km	M.D.R- 27 27.340		3
9	Duduka-Gopalpur-Taparia Road	0/0 Km	28/960 Km	M.D.R 28.960	Open cast Coal Mines Road- Heavy Traffic and	1

					chances of road to be sliding into mines	
10	Subdega-Lanjiberna Road	0/0 Km	59/0 Km	<u>O.D.R</u> 59.00		3
11	Lephripara-Balisankara Road	0/0 Km	58/0 Km	<u>O.D.R</u> 58.00		2
12	Ujalpur-Darlipali Road	0/0 Km	16/0 Km	<u>O.D.R</u> 16.00		2
13	Bandhapali-Kinjirkela Road	0/0 Km	26/700 Km	<u>O.D.R</u> 26.700		2
14	Bhasma - Abankela -Road	0/0 Km	4/00 Km	<u>O.D.R</u> 4.00		2
15	Sundargarh-Gadiajore road	0/0 Km	1/750 Km	<u>O.D.R</u> 1.750		1
16	Subdega to Rajpur	0/0 Km	17/0 Km	<u>ODR</u> 17.00		1
17	Balingabahal - Sahajbahal - Nuadihi Podmundi (connected to Jharsugada Boarder, Gandhi Chhak)	0/0 Km	11/500Km	<u>ODR</u> 11.500		1
18	Bargaon to Sahajabahal road	0/0 Km	9/0 Km	<u>ODR</u> 9.00		1
19	Sahajabahal to Ekma road via Pamra	0/0 Km	9/200 Km	<u>ODR</u> 9.200		1
20	Bargaon Fulbari - Chamunda - Kureibaga - Bhoipali SH-10 road	0/0 Km	14/000 Km	<u>ODR</u> 14.00		1
21	Bihabandh to Ramabahal road via Kesramal	0/0 Km	11/500 Km	<u>ODR</u> 11.500		1
22	Rajgangpur - Kutunia Dubku road	0/0 Km	17/500 Km	<u>ODR</u> 17.500		1
23	Telighana - Karlakhman - Garposh road a) Telighana - Karlakhman - 7.00km	0/0 Km	7/000 Km	<u>ODR</u> 7.000		1
24	Liploi Bridge to weekly market siding Chhak	0/0 Km	2/800 Km	<u>ODR</u> 2.800		1
25	Banadurga Mandir to Sankara bye-pass via R.W Office, Sport Hostel, Central School	0/0 Km	3/800 Km	<u>ODR</u> 3.800		1
26	Rangadhipa to Patrapalli, via Sunaripada B.S High School, Sub-Collector Res, Block Colony, Womens College & LIC office	0/0 Km	4/000 Km	<u>ODR</u> 4.000		1

27	State Bank Chhak to Bus Stand via Jagannath Mandir, Sai Mandir, Telephone Bhawan, Civic Centre	0/0 Km	2/200 Km	<u>ODR</u> 2.200		1
28	Sarangi Petrol Pump to Nua Amlipali via Ssankara	0/0 Km	2/300 Km	<u>ODR</u> 2.300		1
29	Duduka-Kanaktora Road.	0/0 Km	25/00 Km	<u>ODR</u> 25.00		2
30	SH-10 to Kutra Chowk to Kalapani viua Khatkurbahal, Ramabahal	0/0 Km	16/00Km	<u>ODR</u> 25.00		1

Other Road and detail summary.


Sl. No	Block	State Highways (Length in Km)	District Roads (Length in Km) (MDR)	Other Roads (Length in Km) (ODR)
1	BALISANKARA	30.000	13.000	30.200
2	BARGAON	29.500	---	44.200
3	BISRA	---	---	---
4	BONAI	---	---	---
5	GURUNDIA	---	---	---
6	HEMGIRI	---	69.960	22.000
7	KOIRA	---	---	---
8	KUARMUNDA	---	4.700	---
9	KUTRA	16.000	4.000	47.800
10	LAHUNIPARA	---	---	---
11	LATHIKATA	---	---	---
12	LEPHRIPARA	---	15.340	60.500
13	NUAGAON	---	---	---
14	RAJGANGPUR	26.000	9.000	29.000
15	SUBDEGA	34.000	---	42.000
16	SUNDARGARH	27.110	33.700	14.550
17	TANGARPALI	---	14.000	25.000
	TOTAL	162.610	163.700	315.250

11.5 Resources available : Response force & Volunteers

Sl. No	Response Force/	Capacity (In Nos.)	No. of trained person			Name of Nodal Person	Contact Details (Mobile/Phone)
			Search /Rescue	First Aid	Relief line Clearance		
1	NDRF						
2	ODRAF	46	46	46	46	Purusottam Sahu, OSAP 4 th Battalion , Rourkela	
3	Police	329	Training required	Training required	Training required	SP, Sundargarh	

						SP, Rourkela	
4	Home Guards	311	Need refresher training	Need refresher training	Nil	Pradip Pattnaik, Asst. Commandant, HG, Sundargarh	9437088797
5	Civil Defense	258	73 Refresher training needed	56 Refresher training needed	47 Refresher training needed	Arbind ch. Majhi	0661-2500817 M-9437433116

11.6 PROCEDURE FOR USING INMARSAT ISAT PHONE 2

1. Stand outside with a clear view to the sky with the phone antenna pointing upwards.
2. There must be a clear line of sight between the phone’s antenna and the satellite.
3. Point the antenna towards **South-East** direction.
4. Switch on the phone by pressing the Red power button of the phone for few seconds. Until the screen lights up.
5. Align the antenna for getting the maximum satellite signal strength (minimum two bars) 
6. The screen will show “searching for satellite” “registering with network”.
7. The screen will show “ready for service”. Inmarsat name will come in top right corner.
8. Then the phone is ready to operate
9. Simply dial the desired no:
 - i. From satellite to landline : Dial **00** + Country code 91+ **STD code (without 0)** + desired **Telephone No**
 - ii. From **Satellite to mobile** : Dial 00 + 91+ Mobile Number
 - iii. From **Satellite to satellite**: 00+ satellite phone number
 - iv. From **Landline** (should have ISD facility) to **satellite** : 00 + satellite phone number
 - v. From **Prepaid mobile** (should have ISD facility with sufficient balance) to **satellite** : 00 + satellite phone number
10. To end the call Press ‘red’ button

NOTE:

- A delay in microseconds will be observed so the user is advised to listen to one end and then speak.
- The user is also advised to SPEAK SOFTLY to get better voice quality at the other end.
- Check the Battery. (Display will show a rectangular block that will be filled according to the charge in the battery). Always charge the battery till it gets charged 100%.

For more detail information please follow the **User Guide document**.

Alloted Satellite Phone Numbers

SI	Districts	Calling Numbers	SI	Districts	Calling Numbers
1	Collector Angul	870776146926	27	Collector Rayagada	870776146919
2	Collector Balasore	870776146936	28	Collector Sambalpur	870776146920
3	Collector Bargarh	870776146928	29	Collector Subarnapur	870776146951
4	Collector Bhadrak	870776146927	30	Collector Sundargarh	870776146952
5	Collector Bolangir	870776146930	31	DRAF Cuttack, OASP 6th Battalion	870776146961
6	Collector Boudh	870776146929	32		870776146962
7	Collector Cuttack	870776146932	33	ODRAF	870776146959

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8	Collector Deogarh	870776146931	34	Bhubaneswar, OSAP 7th Battalion	870776146960
9	Collector Dhenkanal	870776146934	35	ODRAF Baripada, OSAP 5th Battalion	870776146957
10	Collector Gajapati	870776146933	36		870776146958
11	Collector Ganjam	870776146949	37	ODRAF Rourkela, OSAP 4th Battalion	870776146955
12	Collector Jagatsinghpur	8707761p46950	38		870776146956
13	Collector Jajpur	870776146947	39	ODRAF Koraput, OSAP 3rd Battalion	870776146953
14	Collector Jharsuguda	870776146948	40		870776146954
15	Collector Kalahandi	870776146945	41	ODRAF Jharsuguda, OSAP 2nd Battalion	870776146908
16	Collector Kandhamal	870776146946	42		870776146909
17	Collector Kendrapada	870776146943	43	ODRAF Chatrapur, OSAP 8th Battalion	870776146906
18	Collector Keonjhar	870776146944	44		870776146907
19	Collector Khorda	870776146935	45	ODRAF Balasore	870776146904
20	Collector Koraput	870776146942	46		870776146905
21	Collector Malkangiri	870776146918	47	ODRAF Bolangir	870776146902
22	Collector Mayurbhanj	870776146925	48		870776146903
23	Collector Nabarangpur	870776146924	49	ODRAF Jagatsinghpur	870776146963
24	Collector Nayagarh	870776146923	50		870776146964
25	Collector Nuapada	870776146921	51	Special Relief Commissioner (SEOC)	870776146917
26	Collector Puri	870776146922	52	Managing Director, OSDMA	870776146916

11.7 Preparedness at District level: (The list is Indicative & may be extended further as per need & requirement)

Task	Activity
District Emergency operation Centre (DEOC)	<ul style="list-style-type: none"> • Test Checkup of all communication Interfaces in regular interval • Proper manning of the Control Room as per Para-10 of the Odisha Relief Code • A dedicated vehicle must be earmarked for Control Room
Upward & Downward Communication	<ul style="list-style-type: none"> • Have a list of Nodal person with contact details • Establish regular linkages with all important stakeholders • Contact SEOC regularly
Meeting of DDMA (Heads of the department &	<ul style="list-style-type: none"> • DDMA must meet twice every year & before any disaster • Fix time & venue for regular Preparedness meeting to Assess preparedness of District /Department /Civil Society /Block Community /Family /Individual level

stakeholder)	<p>regularly</p> <ul style="list-style-type: none"> • Circulate the minutes of the meeting with clear-cut role & responsibility
Capacity Building	<ul style="list-style-type: none"> • Identifying & designating Nodal Officer for different Dept. • Capacity building & skill upgradation of ODRAF/Fire services/ Police/Home Guard • Identify Volunteer like Civil Defense/Hazard prone shelter Task Force/NCC/NSS/Scout & Guide & train them on Search & Rescue, First aid, evacuation etc. • Take stake of required materials for search & rescue, first aid, casualty management, evacuation, relief etc. & update IDRN portal regularly • Assess preparedness through Mock drill at District, Block & Community level
Shelter Management	<ul style="list-style-type: none"> • Take necessary steps for operation & maintenance of shelters • Test Check of various Equipment at shelter level & repair of the defective ones • Ensure regular meeting of Shelter committee • Assess Shelter level preparedness through Mock drill I
Planning & Reporting	<ul style="list-style-type: none"> • Collect & transmit Rain fall data regularly • Collect & transmit weather report regularly • Ensure preparation of Disaster Management Plans & Safety plans at all levels • Capacity building of all Stake holders • Integrate the District plan with block & Village disaster management Plans • Develop healthy media partnership

11.8 Preparedness at Community Level

Task	Activity
Early Warning Dissemination	<ul style="list-style-type: none"> • Build regular linkages with BEOC & DEOC • Test Check of various Equipment at shelter level & repair of the defective ones • Keep updates from BEOC/DEOC • Monitor & Transmit updates to BEOC • Supply required information to BEOC & DEOC
Ensuring Preparedness	<ul style="list-style-type: none"> • Have a list of Nodal person deployed in the village with contact details • Identification of safer routes & shelters • Identify possible ways to reach persons like Farmers/Fisherman/NTFP collectors etc. who ventures into fields, sea & forest respectively • Build teams from among the task force on Search & Rescue, First aid, Damage & loss assessment • Assess preparedness at Family/Individual level • Test Check-up of equipment's
	<ul style="list-style-type: none"> • Understand Local dynamics exposed & vulnerable to different disaster • local Social Economic & weather conditions • Develop Village DM plan • List of emergency Contact Nos. & display it in Centre places. • Participate in the activities of Preparing village Disaster Management, developing Safety plans, Capacity building Programmes & Mock Drills

11.9 Preparedness at Family Level (The list is Indicative & may be extended further as per need & requirement)

Task	Activity
Warning Communication	<ul style="list-style-type: none"> List the minimum Important requirements Keep all the important Documents in a water proof polythene Record the Safe & alternative routes to shelter Keep News update in Radio/TV
Preparedness	<ul style="list-style-type: none"> Always keep in readiness a “Ready to go Emergency Kit” containing Dry food (for 72 hours x Family member), Drinking water (2ltr/per person per day), Hand wash/soap, Important Documents/Valuables, Whistle/match box/lighter/ torch/battery/ umbrella, Mobile & charger / radio Family must have a “Ready to go First Aid Kit” containing Iodine/ Band aids/ Cotton/ Medicines/ ORS/ ointments/ scissor/ halogens etc. Assess preparedness on a regular basis by checking Radio/Mobile/ Emergency Kit/First Aid Kit/Fuels & Kerosene (as per need) Replace the damaged outdated or expired materials with new ones.
Capacity Building	<ul style="list-style-type: none"> Participate & involve in the activities of village disaster Management plan, preparation of Safety plans, participate in Capacity building Programmes & involve in Mock Drills

11.10 Preparedness at Individual Level (The list is Indicative & may be extended further as per need & requirement)

Task	Activity
Early Warning Dissemination	<ul style="list-style-type: none"> List & keep a ready to go minimum Important requirements Record the Safe & alternative routes to shelter Keep News update in Radio/TV
Ensuring Preparedness	<ul style="list-style-type: none"> Every individual/children must have a Personal Identity information like a copy of Aadhar card/ Voter ID / School Identity Card & Contact numbers of Preferably two who can be contacted in time of emergency Family members especially kids must be sensitized about family gathering point during disaster & crowded places Assess preparedness on a regular basis by checking Radio/Mobile/ Emergency Kit/First Aid Kit/Fuels & Kerosene (as per need)
Capacity development	<ul style="list-style-type: none"> Participate & involve in the activities of Disaster Management Safety plans

- Capacity building Programmes
- Mock Drills & FAMEX

11.11 Preparedness of Departments(The list is Indicative & may be extended as per need & requirement)

Name of the Department	Normal Time
Collector/ ADM / Emergency Officer	<ul style="list-style-type: none"> • Ensure regular meetings of District Disaster Management Authority • Develop & update Disaster Management Plan, carry out Hazard analysis in the district • Identify safe alternate routes to hazard prone shelters. • Keep a list of Contacts of EoCs, Nodal officer of different departments, Important stake holders, Village leaders, shelters • List of Relief lines & storage places • List & maintenance of SAR equipment • Capacity building of stakeholders & volunteers • Asses preparedness through Mock Drills for different disasters at district department, block & community level • Adopt sustainable mitigation measures • Integrate DM & DISASTER RISK REDUCTION features in development programmes
CDMO	<ul style="list-style-type: none"> ○ Formation of Disaster Management Cell and manning the same with senior personnel drawn from key sections of the depts. ○ Formulation of Disaster Management Plan for each of the Hospitals, that is , District Hospitals & Health Centres. ○ Formulation of policies and programmes to make Emergency and First-Aid Services available up-to Gram Panchayat level. ○ Orientation and training of medical service rendering staff members in disaster response and rendering health services in „non-lab“ situations. ○ Disaster-proofing of all Hospitals and other health facilities. ○ Networking with local private hospitals and nursing homes for support services during emergencies ○ Networking with national level specialized medical services and research centres for guidance and support during epidemics. ○ Enlisting and safekeeping of disaster-wise medicines at the district level and sufficient stock at the state level. ○ Facilitating the creation of Trauma Centre, Mobile as well as floating Medical Service Vans, Air Ambulances etc. ○ Formulating Standard Operating Procedure for Mass Casualty Management, for Tagging and tapping, for Medicines Supply Management, and Emergency Admission Procedure with adequate record keeping. ○ Identifications of sources for bulk supplies of medicines during emergencies.

	<ul style="list-style-type: none"> ○ Review and updating of protection of equipment, safe-keeping of medicines. ○ Orientation and training of Hospital staff in disaster response plan and procedures. ○ Emergency communication network with DEOC, Hospitals and Private hospitals ○ Checklist for the stocking of drugs and other services and facilities required in emergencies at the District Hospitals. ○ To strengthen Bio-Medical Waste Management to check its adverse impact on human and cattle health. ○ Development of Air-Ambulance landing sites in Medical Hospitals ○ Preparation of Triage Protocol (Tagging, Tapping etc.) ○ The dept. shall get the medical teams trained to respond quickly in medical emergencies. Department of Disaster Management may provide support for the training. ●
<p>Superintendent of Police (SP)</p>	<ul style="list-style-type: none"> ❖ Orientation and training of district-wise selected team of Police, Home Guard, Special Task Force and Fire departments in search and rescue, providing security in emergencies and being available where support services are required e.g. carrying of the injured, identification of the dead, keeping record of the same and handing over of the dead bodies to relatives etc. ❖ Training and mock drills related programmes for the selected team of police, STF, Fire, Citizen Council and Home Guard personnel. ❖ Co-ordination with Urban Development Department on fire safety measures in buildings and about certification of the same by Fire Department. ❖ Formulating policies for the creation of Fire Safety Centers and taking fire safety related measures with community level accessibility in mind and implementation of the same in focus. ❖ Organizing inspection of the building by the Fire Department and sending inspection report with recommendations to the party concerned and with a copy to BSDMA & DMD. ❖ Pressing teams of Home Guard to monitor the observance of building code, fire safety, disaster preparedness & provide support in the same. ❖ Enforcement of fire related measures in the existing buildings, specifically Govt., multistoried and other strategic ones. ❖ Purchase and distribution of Fire Safety related equipment and machinery and organize orientation and training to promote self-help and mutual help in making use of them. ❖ Reviewing the functioning of Disaster Management Cell and monitoring the participation of those manning the Cell in the orientation and training programmes and bringing their leanings into practice. ❖ To let the team of trained personnel manning the Cell continue for as long a period as possible.

<p>EE- RWSS</p>	<ul style="list-style-type: none"> • Formation of DM Cell and manning the same with senior personnel drawn from key sections of the department. • Advising elected representatives Zila Parishad, Panchayat Samiti, Gram Panchayat level to provide support in the implementation of Disaster Management related programme and activities • Getting them oriented in supervision and monitoring of programme implementation. • Advising them to make use of Gram Sabha to spread awareness about hazard and the need to get prepared and remain alert: • Orientation of the elected representatives in galvanizing larger community participation in disaster management • As provided in the Panchayati Raj Act getting Disaster Management related Statutory Committee formed and activated.
<p>EE- Irrigation</p>	<ul style="list-style-type: none"> ❖ Formation of Disaster Management Cell and man the same with senior personnel drawn from key sections of the Department. ❖ GIS mapping of the flood prone areas and condition of embankments and other structural flood prevention and mitigation measures ❖ Developing Early Warning System to disseminate timely information regarding impending floods to the people of the area likely to be inundated ❖ Developing Flood Management Information System for all river basins of Sundargarh District. ❖ In view of the findings, formulation of further prevention, mitigation & preparedness related programme and activities along with budget for integration with those of other departments ❖ Co-ordination with DMD for the finalization of programme and activities and for implementation of the same ❖ Providing support in the implementation of the programme and activities ❖ Supervision and monitoring of the implementation of flood prevention/mitigation/preparedness schemes ❖ Working out long-term remedial measures for intensively flood prone areas in consultation with Special Relief Commissioner and OSDMA . ❖ Keeping in view drought prone areas in its purview so that intensively flood-prone areas and intensively drought prone areas may become mutually supportive in the long run ❖ While giving due weightage to anti-erosion, spur protection and embankment strengthening, non-structural measures related specifically to siltation prevention and clearing shall also be kept in focus and given priority. ❖ While giving effective implementation of prescribed rules and regulation it shall be

	<p>kept in mind that the Rules have to include the development needs of the area, on the one hand, and the water needs of the drought prone areas, on the other</p> <ul style="list-style-type: none"> ❖ Installation of required number of rain gauge stations along the inundating rivers ❖ Systematizing Multi-Channel communication networking to support disaster management ❖ Form a team of trouble shooters drawn from key sections of the department for deployment during emergencies. The team may include, if needed, competent retired persons of the department. ❖ Since Flood is a calendar bound incident, the planning and execution of the flood related disaster management shall be done in four distinct phases : ❖ From mid-October to November end field visit to formalize and finalize anti-erosion schemes for implementation. <ul style="list-style-type: none"> ▣From November and to December end inviting bids and awarding contracts for the implementation of the schemes. ▣From January beginning to May end completion of the contracts awarded. ▣From Mid June to Mid October depending upon factors beyond control, flood-fighting in particular and disaster management in general begins and ends. ❖ Flood Fighting Force (FFF) consisting of engineers & support staff shall be constituted and placed in vulnerable areas to prevent/mitigate major disaster ❖ Number of rain gauges shall be increased to cover all the major rivers causing inundation. ❖ Establishment of dedicated communication system for flood management.
<p>DAO- Agriculture</p>	<ul style="list-style-type: none"> ❖ Formation of DM Cell and manning the same by drawing personnel for key sections of the Department. ❖ Facilitating the identification of drought prone areas through GIS mapping, rainfall estimation etc. ❖ Survey and study of identified drought prone areas ❖ Formulation of prevention, mitigation & preparedness measures along with budget allocations in association with Water Resources, Minor Irrigation and PHED departments ❖ In consultation with PHED, Minor Irrigations & Rural Development Department formulation implementation and monitoring of rainwater harvesting policies and programmes and activities ❖ Formulation of agricultural product policy for the area, working out contingency crop

	<p>plan in case of delay in monsoon and strategizing the storage and supply of needs, fertilizers and pesticides in order to promote compatible agriculture practices in the area</p> <ul style="list-style-type: none"> ❖ In association with the Department of Forest and Environment workout programme and activities for the ecological betterment of the area. ❖ In association with the departments of Water Resources and Minor Irrigation plan for providing irrigation facilities during drought. ❖ Formation of Damage Assessment Team
<p>EE- RD EE – R &B</p>	<ul style="list-style-type: none"> • Formation of DM Cell and manning with senior personnel drawn from key sections of the Department. • Get the GIS mapping of roads and bridges in vulnerable areas done. • Work out the requirement of materials and machinery for the restoration of roads and have them stored in strategic places in district. • In association with Water Resources revisit the roads in the vulnerable areas keeping in view terrain heights with reference to danger level at different stretches and make preparations accordingly. • High flood level be kept in view for major road bridges construction in future. • Road construction with prescribed indicators for safe driving etc. and properly marked lanes be done, maintained and monitored. • Install Technology oriented latest signs and indicators and caution notes. • Undertake inspection of bridges to assess their vulnerability. This shall be done in association with Water Resources Department during November-January every year. • Undertake repair and maintenance of vulnerable bridge during February-May. • Prepare detailed road map of the state including village roads and bypass and other connecting roads so that at the time of disaster shortest possible route to reach the site may be worked out.
<p>DTO-Telecom</p>	<ul style="list-style-type: none"> ❖ Telecommunication equipment should be installed at suitable locations in disaster prone areas to be able to withstand impacts of any disaster. e. g. in flood prone areas location of exchanges/ critical equipment to be preferably at higher altitude area to avoid inundation of water. The plinth should be kept high. ❖ Wherever feasible, critical equipment should not be concentrated in one building. ❖ All buildings, towers and equipment sites should be equipped with adequate fire protection measures like detection and extinguishing systems etc. ❖ All buildings, towers and equipment site structure should comply with building bylaws prescribed for earthquake resistant building depending upon seismic zones. ❖ As far as possible, communication cables should be buried underground in ducts to reduce their vulnerability (it is also advisable to have all disaster management centers

	connected through underground cables).
CDVO	<ul style="list-style-type: none"> • Formation of DM Cell and manning with senior personnel drawn from key sections of the department. • Training of staff on SDRF norms and management of disaster during different phases. • Storage of feed and fodder at safe places in flood and drought prone areas and making arrangements for its promotion and supply. • Prepare for the vaccination as well as treatment of livestock through Veterinary Department. • Formation of a team for Emergency Support Services to livestock like creation of shelter, storage and distribution of fodder, vaccination and medicines during disaster days.
RTO/MVI	<ul style="list-style-type: none"> • Formation of Disaster Management Cell and manning with senior personnel drawn from key sections of the department. • Taking road and boat accident prevention and control measures by giving due thrust on <p>Education:</p> <ul style="list-style-type: none"> ☐ Creating awareness about road safety measures among the drivers, pedestrians and school children. ☐ Lessons on road safety be included in school curriculum. <p>Enforcement :</p> <ul style="list-style-type: none"> ☐ Organized checking of vehicles and boats, drivers licenses, drinking of alcohol, repair and maintenance, certification by pollution control board etc. <p>Engineering :</p> <ul style="list-style-type: none"> ☐ Road construction with prescribed indicators for safe driving etc and properly marked lanes be done and monitored and maintained. ☐ Vehicles plying on roads and boats ferrying shall be regularly inspected on the basis of standard checking procedure laid and approved. <ul style="list-style-type: none"> • Getting GIS mapping of roads and rivers done in flood prone areas so that appropriate driving/sailing instructions be prepared and given to drivers driving on that route. <p>Emergency First Aid</p> <ul style="list-style-type: none"> • Checking First Aid facilities be kept in each vehicle and drivers and conductors be given training in providing First-Aid support services.

	<ul style="list-style-type: none"> • The mobile number of mobile medical care unit be written in bold letters in front of the driver and above the back view panel. • As road accidents call for specialised rescue and medical relief operation, department may consider creating a separate “Road Safety Fund” to create facilities to attend to the relief etc. needs of road & boat accident victims. <p>Odisha Boat Rules, 2004 should be enforced.</p> <ul style="list-style-type: none"> • Orientation and training programme shall be organized for Drivers and boatmen to inculcate in them safe driving and safe sailing habits. • A programme shall be organized to impart training to boat surveyors, MVIs and Master trainers for making travelling by road and sailing by river safe. •
DFO-	<ul style="list-style-type: none"> • Formation of DM Cell and manning with senior personnel drawn from key sections of the department • Preparation of strategic plan in consultation with associated departments. • Regular checking of emissions produced by industries, chemical effluents and vehicles. • Regular checking of water pollution both surface and ground. • Implementation of social forestry scheme in mission mode. • Preparation of wild life protection programme and activities during various disaster related crisis. • Preparation of Emergency Plan for wild life housed in Sanjay Gandhi Biological Park. • Preparation of Emergency Plan for each Industrial Estate after having studied the kind of units located there in. • Training of the field level officers and personnel of the department in view of the above. •
Railway	<p>During Normal time the following resources are available for preparedness to promptly and effectively respond to any threatening Disaster:</p> <p>On trains carrying Passengers following Resources are available:</p> <ul style="list-style-type: none"> (i) First Aid Box available with the Guard. (ii) First Aid Box available with Train Superintendent and in the Pantry Car. (iii) Portable Telephones, Fire Extinguishers in Brake Van. (iv) Portable Telephones in Locomotives. (v) Walkie-Talkie with Guard and Driver. (vi) Cell Phones/Mobile communications with Passengers. (vii) Information collected by Train Superintendent/Traveling Ticket Examiner about Medical Practitioner traveling on the train.

(viii) Information collected by TS/TTE about Railway Officers traveling on the train.

(ix) Railway staff traveling on the train-either on duty or on leave as passengers.

(x) Passengers traveling on the train who volunteer their help for rescue and relief work.

(b) Non-railway resources available nearby:

I. Volunteers from nearby villages and town.

II. Transport facilities available at site or passing through nearby LC Gates.

III. Tractors with trolleys from nearby villages both for transport purposes and for lighting up the accident site.

IV. Station staff and local railway administration should requisition help from non railway sources before railway own rescue team arrives.

V. Such local networks are most effective in rushing assistance immediately, especially with regard to :

- Medical succor,

- Additional manpower,

- rescue equipment,

- lighting arrangements,

- transport services,

- Fire fighting tools etc.

(c) Railway resources available nearby:

(vi) Engineering gangs.

(vii) OHE staff and Signal staff available.

(viii) Other resources such as medical facilities, communication facilities

(d) At adjoining Stations:

-
Disaster Management Plan

a. Staff available at adjoining or nearby stations.

b. Railway resources as given in respective Divisional DM Plans.

c. Non-railway resources as given in respective Divisional DM Plans.

d. Resources should be mobilized to send medical team at short notice as given in the respective Divisional DM Plans.

GEOGRAPHICAL INFORMATION SYSTEM (GIS)

Data Bank is available in the Rourkela Station, GIS in the computer of Disaster Management Room. All the necessary information such as the phone numbers of all stations of Rourkela Station including the numbers of Police station, SP, Collector, Hospitals, Blood Banks, Airport/Helipad, NGOs etc. to effectively respond to the disaster or any train accident within fraction a minute by click the mouse.

Disaster Management Mock Drills:

Each division should conduct one full scale Disaster Management exercise once in a year similar to such exercise conducted by armed forces. Every possibility to improve State/District/Local Authorities, Armed Forces units and NDRF Battalion pertaining to the area may be ensured while conducting such exercises. A joint may also be submitted to all concerned highlighting the achievements as well as the shortages noticed during the exercise.

Accident Mock Drills :

The period between two consecutive turnouts of any Relief Train/ Accident Equipment

	<p>should not exceed three months. If, therefore, relief train/ accident medical equipment has not been called out in the normal course during a period of three months, a practice drill should immediately be arranged.</p> <p>Disaster Management Plan</p> <p>It is further clarified that whenever there is an accident during the three months period need not be conducted instead the details of preparedness viz. turning of response team, turning up of doctors/staff, restoration process etc. can be tabulated and taken as a mock drills for the purpose of statistics. In a financial year, quarter ending is on 30th June, 30th Sep, 31st Dec and 31st March.</p>
EE- Electricity	<ul style="list-style-type: none"> • Formation of DM Cell and manning with senior personnel drawn from key sections of the Department. • In association with Urban Development Department work out preparedness and restoration of power supply measures in case of Heat Wave/ Earthquake/Drought/ Flood. • In association with Water Resources Department prepare for emergency power supply in flood prone areas. • In association with Labour and Industry Departments work out safety measures in Industrial Estate. • Make necessary arrangement for lightening proofing of Power Sub- Station
EE - PHED	<ul style="list-style-type: none"> • Formation of Disaster Management Cell and manning with senior personnel drawn from key sections of the dept. • Formulation of Public Health Engineering related programme and activities by intonating them with hazard specific preventive and mitigation measures. • Creation of stocks of installation materials at the district level for use in emergencies. • Orientation and training of a team of technicians to do installation as quickly as possible. • Strategizing the installation of hand-pumps etc. with hazard profile of the area in mind. • In consultation with the Department of Education and DMD, provision of additional sanitation and drinking water facilities in schools and relief shelters where people take refuge during flood. • In consultation with the Department of Disaster Management making special arrangements for the supply of drinking water in drought prone areas. • Planning for repair and maintenance of the facilities created as a part of the programme and activities. • Keeping a track of groundwater level and having a fresh look at the facilities created accordingly. • Organizing interaction with Gram Panchayats for having proper sanitation facilities,

	<p>and providing them support and guidance in planning, implementation and maintenance of the same.</p> <ul style="list-style-type: none"> • Procurement, upkeep and maintenance of sanitation equipment for use in emergencies.
<p>DEO- School & Mass Education</p>	<ul style="list-style-type: none"> • Formation of Disaster Management Cell in every school and involving parents and local leading people. • Incorporating costs for preventive and mitigation measures for earthquake, flood, fire and cyclonic storm prone areas to construct disaster resistant school buildings. • In association with Fire Dept. getting fire extinguishers installed in schools and teachers identified and trained in operating them. • Awareness Generation Programmes about Hazard, the kind of preparedness required and how to act at the time of disaster shall be organized in schools on monthly basis. • Disaster Management shall be made a part of the school curriculum. • The Department shall get quality films made on hazard wise disaster preparedness and organize their viewing by children and their parents. • The Department shall in association with Nehru Yuva Kendra organize locality based youth clubs and get them groomed in escort services, relief work and taking care of children, women, old and sick. • Making adequate arrangements for getting hand pumps installed, storage facilities created, toilet and bathrooms built in those schools where communities do take shelter during flood. Concerned departments shall either make the arrangements or make funds available for the same. DMD shall coordinate.
<p>DEO - Higher Secondary Education</p>	<ul style="list-style-type: none"> • Formation of Disaster Management Cell in every colleges/ institution and involving NCC cadets/ NSS volunteers/ Red Cross Volunteers. • Incorporating costs for preventive and mitigation measures for earthquake, flood, fire and cyclonic storm prone areas to construct disaster resistant colleges/ institution buildings. • In association with Fire Dept. getting fire extinguishers installed in colleges/ institutions and person /staff identified and trained in operating them. • Awareness Generation Programmes about Hazard, the kind of preparedness required and how to act at the time of disaster shall be organized in colleges/ institutions on monthly basis. • Disaster Management shall be made a part of the colleges/ institution curriculum. • The Department shall get quality films made on hazard wise disaster preparedness and organize their viewing by children and their parents. • The Department shall in association with Nehru Yuva Kendra organize locality based youth clubs and get them groomed in escort services, relief work and taking care of children, women, old and sick.

- Making adequate arrangements for getting hand pumps installed, storage facilities created, toilet and bathrooms built in those colleges/ institutions where communities do take shelter during flood. Concerned departments shall either make the arrangements or make funds available for the same. DMD shall coordinate.

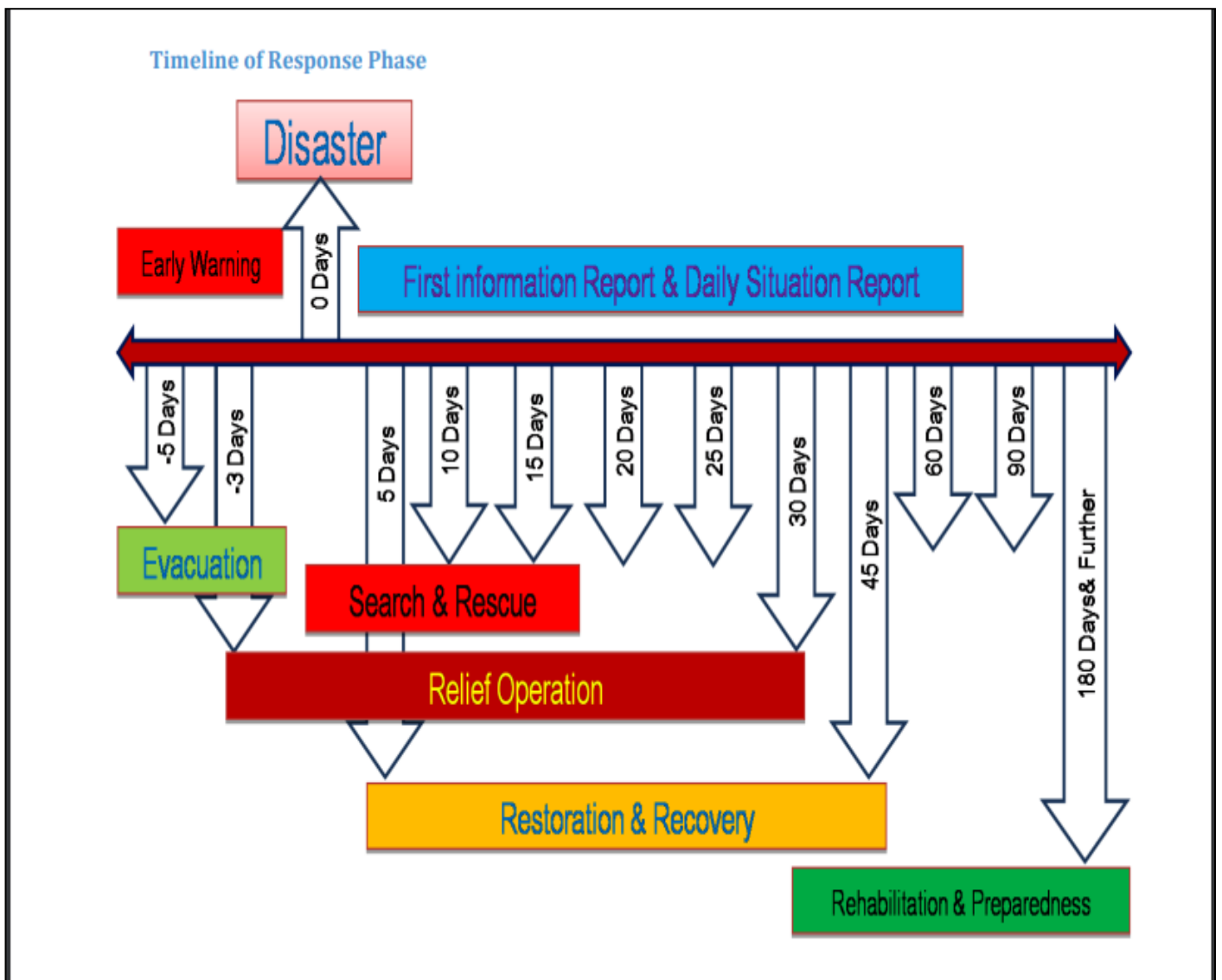
SOP for the Departments to be done accordingly



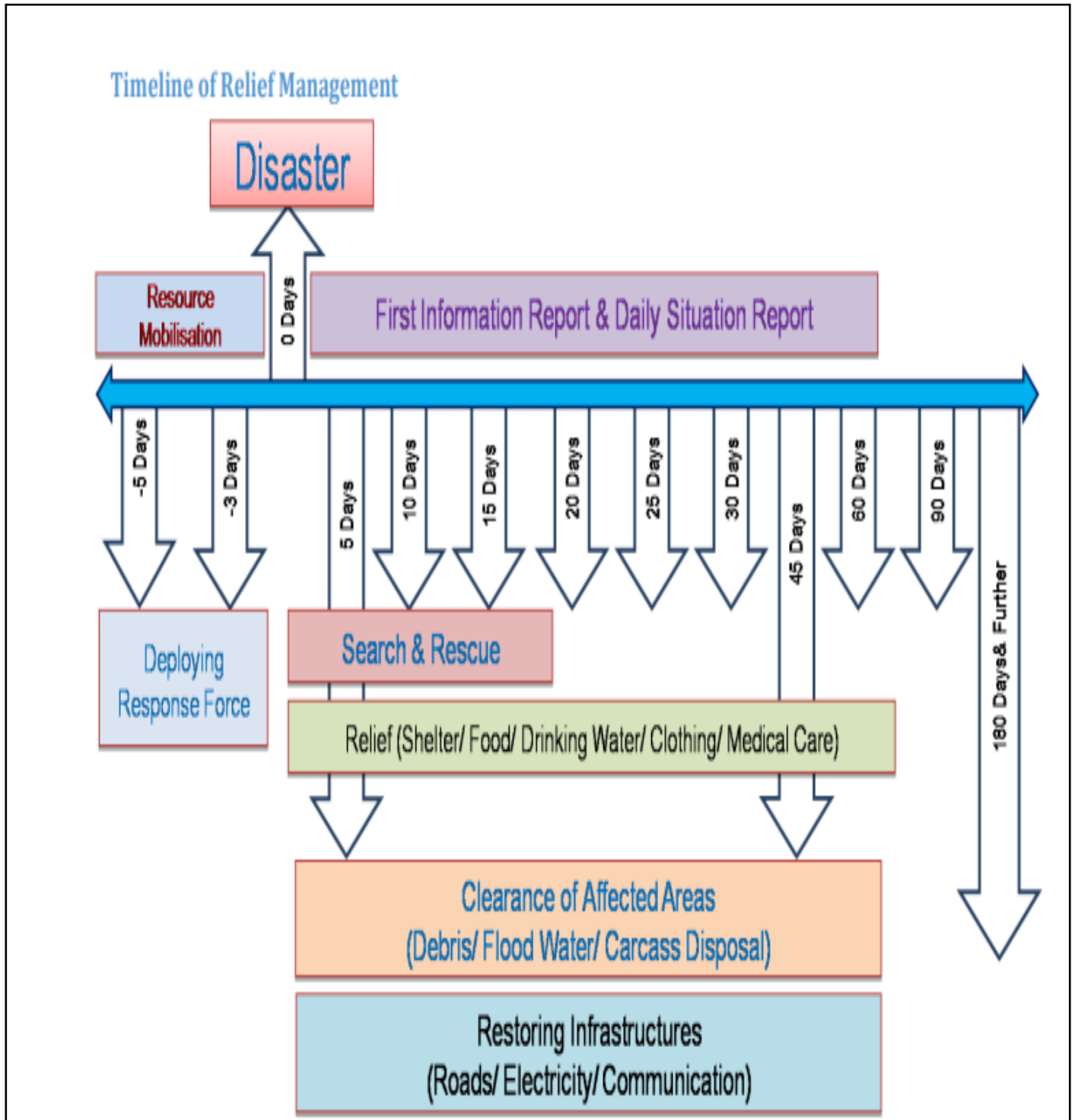
Chapter-12 Response

Response refers to activities done for handling disaster to bring the situation to normalcy not exceeding fifteen days from the abatement of disaster. The onset of an emergency creates the need for time sensitive actions to save life and property, reduce hardships and suffering, and restore essential life support and community systems, to mitigate further damage or loss and provide the foundation for subsequent recovery. Effective response planning requires realistic identification of likely response functions, assignment of specific tasks to individual response agencies, identification of equipment, supplies and personnel required by the response agencies for performing the assigned tasks. A response plan essentially outlines the strategy and resources needed for search and rescue, evacuation, etc.

12.1 Phases of Response



12.2 Relief Management



12.3 Response: District

Task	Activity
Warning Communication	<ul style="list-style-type: none"> • Warning dissemination to the list of Nodal person & concerned BDOs • Recording the receipt of information & regular Status update • Transmitting updates to SEOC in regular interval as instructed
Meeting of DDMA (Heads of the department & stakeholder)	<ul style="list-style-type: none"> • Collector to take up a department coordination meeting & distribute works among all the Departments • Collector issues circular to keep Govt. offices open cancelling all holidays. • A fixed time to be finalized every day for reporting at all level. • A nodal officer is identified for media management • Circulate the minutes of the meeting with clear-cut role & responsibility
Pre-positioning of staff, resources & Evacuation	<ul style="list-style-type: none"> • Identifying & designating Nodal Officer for different stages of disaster & affected areas. • Positioning of ODRAF/NDRF/Fire services/ Police/Home Guard in the affected areas • Pooling Volunteer services (Civil Defense/Task Force/NCC/NSS/Scout & Guide) • Take stake of required materials for search & rescue, first aid, casualty management, evacuation, relief etc. • Make necessary arrangements of shelters for evacuation • Constitute a special team for special care to vulnerable section like Specially abled, Sr. Citizen, Pregnant & lactating women, Infants & children etc.
Response	<ul style="list-style-type: none"> • EOCs to Ensure back up (Power/Fuel/internet/ Communication at Dist/Dept. & Block levels • Response force under guidance of Nodal officers ensure complete Evacuation (Human/ Animal), carry out Search & Rescue, clear relief lines, • Collector to submit requisition of vehicle/boat/ helicopters & list of support from state & Centre to all concerned authorities • CSO to store required relief materials (Chhuda. Gur, Dry Foods) in the nearby storage points • CDVO to store, transport & distribute required fodders for animals to the affected areas • Cyclone shelter committee & Village Disaster management committee to organize free kitchen in the shelters with help of revenue dept • EE- RWSS & CDMO to ensure supply of drinking water, disinfection of water & maintain health & hygiene in the shelters. • CDM&PHO to carry out first aid & casualty management. • Collector to collect & transmit First Information Report (FIR) & Daily Situation Report as per requirement.

12.4 Response: Community Level

Activity
<ul style="list-style-type: none"> • DEOC to disseminate warning communication to BEOC & Community • Response force to ensure Power/Fuel/internet/ Communication at Shelters back up • Supply Inspectors & Marketing Inspectors to distribute relief materials with response force, Task force & volunteers • Response force to carry out Search & Rescue measures, Emergent relief operation, Relief line clearance, distribution of relief • Doctors to carry out First aid & casualty management, Carcass disposal & sufficient mortuary facility in the affected areas

12.5 Response: Family & Individual Level

Task	Activity
Response	<ul style="list-style-type: none"> • Listen to the instruction of the response force & warnings • Economic use of “Ready to go Emergency Kit” Ready to go First Aid Kit • Cooperate the response force/officers & Render volunteer service if asked for • Maintain cleanliness & hygiene at shelter

12.6 Response: Standard Operating Procedures for Departments

Name of the Department	On Receiving Warning	Response time	Post Disaster
Collector/ADM / Emergency Officer	<ul style="list-style-type: none"> • Review the situation in DDMC • Activate EOC & Early Warning • Work distribution for operation • Circular to keep offices open • Arrange vehicle & activate Evacuation (Normal/Forceful) 	<ul style="list-style-type: none"> • Activate Search & Rescue • Arrange temporary shelters • Arrange logistics in shelters • Workout financial estimates (evacuation / relief /recovery) 	<ul style="list-style-type: none"> • Activate relief line clearance • Proper relief Distribution • Start damage assesment • Facilitate Ex-gratia & Compensation • Start primary damage estimate • Pool resources for SAR/shifting of critical patients
CDMO	<ul style="list-style-type: none"> • Disseminate the alert to all concerned (Staff list) • Arrangement of medicine, First aid kits & teams • Mobile Health units for inaccessible pockets • Identifying & shifting patients requiring intensive care to safer places 	<ul style="list-style-type: none"> • Mass Casualty Management units & Triage • First Aid Centers • Medical surgical teams • Adequate mortuary facility 	<ul style="list-style-type: none"> • Psycho-Social Counseling • Post Disaster Disease surveillance system • Special attention to vulnerable section • Networking with &

	<ul style="list-style-type: none"> • Supply of medicines & pre-positioning of medical teams to vulnerable areas • Vaccination for prevention of communicable diseases • Measures to dis –infect drinking water • Availability of Blood Banks/Ambulance • Determine earthquake risk • Identify items that could fall, slide, or topple and injure people or break • Anchor and brace those items to reduce risk • Prioritize actions to reduce risk according to your hospitals needs and budget. 	<ul style="list-style-type: none"> • Measures to shift patients requiring intensive care • Pool of Blood donors (Preferably each group) • Additional laboratories • Carcass disposal team & units 	<p>promote treatment in Private Hospitals</p> <ul style="list-style-type: none"> • Carcass Management & Issuance of Death Certificate
<p>Superintendent of Police (SP)</p>	<ul style="list-style-type: none"> • <i>Preparedness and Dissemination of Warning</i> <ul style="list-style-type: none"> ▪ Reception of Warning from the DCR ▪ Communication establishment with Control rooms within the division. ▪ Alerting the APR force for deployment at the time of calamity • To issue directive to police field functionaries to co-operate with Revenue Personnel in management of Relief operation 	<ul style="list-style-type: none"> ▪ Clearance of roads and other means of transportation ▪ Traffic management and patrolling of all highways and other access roads to disaster sites ▪ Making sure that discipline is maintained ▪ Assistance to district authorities for taking necessary action against hoarders, black marketers and those found manipulating relief material ▪ Co-ordination with fire personnel. ▪ Provision of security in transit camps/feeding centers/relief camps/cattle camps/cooperative food stores and distribution centers ▪ Safe guarding of belongings of evacuees <p>Distribution of Relief:</p>	<ul style="list-style-type: none"> ▪ FIR of the disasters, the damages and the death cases. ▪ Assisting in collection of damage statistics of private properties and distribution of assistance such as HB grant/ sand-cast subsidies. ▪ Maintaining law and order ▪ Close Coordination with district administration and local/external NGOs in reconstruction and rehabilitation process ▪ Assisting the District authority whenever the need arises. ▪ Periodical visits to the affected areas to ensure law and order

		<ul style="list-style-type: none"> ▪ Maintaining laws and order at the Shelters and the relief camps ▪ Coordination with military service personnel in the area ▪ Deploying officers/ police personnel to record death cases ▪ Assisting the community in organizing emergency transport ▪ Assisting the District officials/NGOs in distribution of relief materials. • Providing escorts in transit of relief materials to the relief camps/affected areas 	
<p>EE- RWSS</p>	<ul style="list-style-type: none"> • Deploy teams with required materials to purify water / supply pure water through tankers etc. • Attend to the requirement of shelter in buildings. • Attend public grievances. • Attend complain received from water scarcity areas. • Opening of Emergency Control room round the clock. 	<ul style="list-style-type: none"> • Introduce water budgeting in all water bodies to regulate water use (Drinking water should get precedence over agriculture/irrigation) • Encourage local traditional drinking water structures (temporary water bodies in the sandy nala/river bed to utilize the sub surface water) • Provisions of drinking water in tanker/lorries/bullock carts/ tractor for areas facing acute water shortage • Awareness generation on safe drinking water and sanitation to prevent the outbreak of epidemics. 	<ul style="list-style-type: none"> • Repair of defunct tube wells in a war foot basis. • Cleaning and disinfestations of the drinking water sources. • Repair and raising of the platform of tube wells and sanitary wells in the flood prone areas. • Promote improved sanitation and hygiene practices among people. • Document and disseminate good practices in use of safe drinking water , sanitation and hygiene

<p>EE- Irrigation</p>	<ul style="list-style-type: none"> • The branches to canal drain bandha to be closed. • The Embankments should be strengthened. • It should be checked whether the passage bridge and channels are in good condition. • The obstruction in the canals if any should be got removed immediately to be enabling free flow of water. • The bocks and shutters of the canals are to be checked and satisfied that they are in good condition. • The instruments and materials etc. required attending to immediate repairs breach of closures etc. should be stacked at places where they may be required locating such places early. • Navigation in the canal should be stopped. • Water supply in to canals should be out off by closing the sluices. • The canals and drains should be free from constructing and they should be made available for free discharge of drain water. 	<ul style="list-style-type: none"> • Assessing the damage to small check dams. • Survey of blocked water ways. • Opening up alternate channels for releasing excess of water. • Periodic monitoring of water levels check dams. • Providing irrigation to the drought affected lands for sowing and saving the standing crops. 	<ul style="list-style-type: none"> • Creation of new irrigation and rain water harvesting schemes. • Promotion of research in water conservation and management in the drought affected areas. <p>Flood</p> <ul style="list-style-type: none"> • In association with Water Resource Department work out ways and means of conserving the surplus water and utilization of the same in drought prone areas. <p>Drought</p> <ul style="list-style-type: none"> • Identification of drought prone areas, availability of water resource in the area, level of ground water in the area. • Formulation of prevention, mitigation and preparedness measures. • Strategesing the cropping pattern in association with Department of Agriculture and Creation of Irrigation facilities accordingly. • Monitoring and supervision of the watershed and rain water harvesting
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			facilities in the drought prone areas.
<p>DDA- Agriculture/ DDH- Horticulture/ PD- Watershed</p>	<ul style="list-style-type: none"> • Proper Agricultural planning as per the soil and climatic condition, local preference and market potential and socio economic condition of the farmer (Crop diversification, Varietal substitution, Intensive agriculture etc.) • Suitable Alternate land use planning, based on the land suitability to reduce the impact of drought, by avoiding risky arable crop production system (Agri-horticulture, Agri-silviculture, Silviculture etc.) • Practice of Conservation and Regeneration Agriculture through the promotion of Organic farming, green manuring, application of bio fertilizers, crop residue management, mulching etc. • Integrated Intensive Farming System Approach to meet the multiple requirement of small and marginal farmer. • Encourage the formation of social institution to increase their access to credit, market, insurance etc. like Producers/Growers association, Cooperatives, Societies, Farmers club etc. • Capacity building of farmers and grass root extension workers on the modern agriculture practices, dynamic contingency crop planning, IPM, INM, alternate land use etc on <ul style="list-style-type: none"> • Popularization of Seed Village scheme and promotion of Community managed Seed Bank. • Increase the access of farmers to appropriate agro information, market, credit etc. • Promotion of the cultivation of vegetables, spices, tuber crops, mushroom etc through on field demonstration and minikit distribution program. 	<ul style="list-style-type: none"> • Crop damage assessment • Working out alternative cropping for the drought as well as flood affected areas and organizing all the inputs required for the same 	<ul style="list-style-type: none"> • Providing support in the implementation of alternative cropping programme in drought as well as flood affected area • On the basis of crop damage assessment organize payment of input subsidy in accordance with State Disaster Response Fund norms in association with SRC. <p align="center">Disaster Wise</p> <p>Earthquake :</p> <ul style="list-style-type: none"> • Crop damage assessment Payment of Agriculture Input subsidy • Working out crop contingency plan <p>Floods :</p> <ul style="list-style-type: none"> • Crop damage assessment • Payment of Agriculture Input subsidy • Working out crop contingency plan <p>Drought :</p>

	<ul style="list-style-type: none"> • Construction of low cost storage structures for the perishable agro/hort. Products. • Training of the SHGs, vegetable growers etc. on the package of practice, proper storage, processing and value addition of the hort. Products. • Treatment of arable and non-arable lands through various mechanical and vegetative measures to prevent further their degradation and increase productivity 		<ul style="list-style-type: none"> • Identification of drought prone areas through GIS mapping, rainfall estimation etc. • Survey and study of identified drought prone areas • Formulation of prevention, mitigation and preparedness measures along with budget allocations • Formulation of policy and strategizing the implementation of rain harvesting programme & activities • Working out Crop Contingency Plan • Providing Agriculture Input subsidy • Strategizing the storage and supply of seeds, fertilizers and pesticides • Working out ecological betterment of the areas • Organizing the irrigation facilities • Working out alternative cropping programme and activities
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			<p>Fire :</p> <ul style="list-style-type: none"> • Crop Damage Assessment Providing Agriculture Input subsidy • Supply of Seeds and Fertilizers
<p>EE- RD</p> <p>EE, NH</p>	<ul style="list-style-type: none"> • Open Emergency Control Room • Deployment of staff and equipment like earth moving and clearing vehicles / equipments (available with Govt. Departments, PSUs, and private contractors, etc.) and formulate a plan to mobilise those at the earliest. • Inspection and emergency repair of roads/ bridges, public utilities and buildings. 	<ul style="list-style-type: none"> • Activate departmental disaster management plan • Clearing of roads and establish connectivity. • Restore roads, bridges and where necessary make alternate arrangements to open the roads to traffic at the earliest. • Mobilisation of community assistance for clearing blocked roads. • Facilitate movement of heavy vehicles carrying equipments and materials. • Identification and notification of alternative routes to strategic locations. • Filling of ditches, disposal of debris, and cutting of uprooted trees along the road. • Arrangement of emergency tool kit for every section at the divisional levels for activities like clearance (power saws), debris 	<ul style="list-style-type: none"> • Strengthening and restoration of infrastructure with an objective to eliminate the factor(s) which caused the damage. • Review and documentation. • Sharing of experiences and lessons learnt. • Training to staff. • Development of checklists and • Contingency plans. <p>Repair and maintenance of the damaged roads, bridges and culverts.</p> <p>– Construction of roads, bridges and culverts to connect the rehabilitation site.</p> <p>Earthquake</p> <p>– GIS mapping of the damaged area and reconstruction of roads, bridges & culverts.</p> <p>Flood</p> <p>– GIS mapping of the damaged area and reconstruction of roads, bridges & culverts</p> <p>High Speed Wind</p>

		<p>clearance (fork lifter) and other tools for repair and maintenance of all disaster</p> <ul style="list-style-type: none"> • Response equipments. 	<p>– Gathering information about the damages caused and undertaking reconstruction work accordingly.</p>
<p>EE- R &B</p>	<ul style="list-style-type: none"> • Control room to be open. • Public addresses equipment should be obtain kept ready. • The communication line between villages should be ascertained • The names of villages which is disaster prone to be kept in ready. • The public should be fully educated regarding the precautionary measures & after disaster through available media. • Specific duties should be assigned to the field staff. • The field staff should proceed to the place of work allotted and be ready to attend to emergency relief duty. 	<ul style="list-style-type: none"> • Ensure that connectivity is restored at the earliest. • Prompt identification of alternative routes, in case the road/ bridge is washed away/ breached. 	<ul style="list-style-type: none"> • Govt. buildings should be inspected and necessary repairs to be got executed to withstanding hazards affected. • Script for slides, pamphlets, and cultural programmers should be got prepared immediately. • Arrangements should be made to obtain poster and films by addressing the Director I & PR through the Collectors.
<p>DTO-Telecom</p>	<p>Control Room shall be fully activated for managing the incident.</p> <ul style="list-style-type: none"> • Satellite terminal (e.g. DSPT etc.) • Satellite based Emergency Communication Terminals • Portable/ air-transportable BTSs and satellite equipment for connecting to BSC/MSC • OFC cable with restoration kit • Tool kit • Portable gen-sets/spare batteries etc. • TSPs shall inform their customers via SMS / Cell Broadcast or recorded voice messages as per instructions of Government in the affected areas. • TSPs shall keep all the required 	<ul style="list-style-type: none"> • Receive and process disaster alerts and warnings from nodal agencies and other sources and communicate the same to all designated authorities. <ul style="list-style-type: none"> ▪ Monitor emergency operations ▪ Facilitate Coordination among Ministries/Dep artments/Agencies. 	<p>☞ Where Disaster strikes with/ without early warning signals, TSPs shall immediately assess damage to their network and deploy Rapid Damage assessment Team & Disaster Response Task Force Teams (DRTF) with required inventory to provide emergency communication to priority callers like District Emergency Operation Centers (EOCs), Police, NDRF, Fire, Medical, Civil</p>

	<p>inventory and personnel in readiness.</p> <ul style="list-style-type: none"> TSPs shall take all pre-emptive measures (based on the nature of warning) as mentioned in this SOP or in any specific instructions/ orders issued by Government and report the same to SDTCC. SDTCC shall compile the details of such measures and report to NDTCC. 	<ul style="list-style-type: none"> Requisitioning additional resources during the disaster phase Issuing disaster/incident specific information and instructions to all concerned; Consolidation, analysis, and dissemination of damage, loss and assessment data; Forwarding of consolidated reports to all designated authorities. The State and National Control Room shall be informed. First Information Report shall be submitted to National Control Room. DRTF and RDAT teams shall be deployed by TSPs. 	<p>Defense, Red Cross, Army, Financial Institutions, NGOs, all officers and staffs engaged in restoration of telecommunication services, etc.</p> <ul style="list-style-type: none"> If required portable / vehicle mounted / air-transportable BTSs / BSCs with backhaul on satellite media may be installed by TSPs. Nodal officer of TSPs of affected telecom circle level shall report to their respective authority. TERM units of DOT shall be the single nodal point in the disaster region where representatives of TSPs shall also be present to coordinate and oversee communication Restoration efforts. A control room will be setup at the state HQ / nearest to affected area, as the case may be, and made operational under control of TERM
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			<p>cell of affected area.</p> <ul style="list-style-type: none">☞ The DDG of concerned TERM cell shall act as interface between all TSPs and other support agencies including State Government for any coordination related issues.☞ TSPs shall make helpline numbers operational where the last location of the survivors or missing persons can be intimated to the relatives.☞ Providing information through helpline numbers about the last location details or sharing of CDRs of the subscribers, in the disaster affected areas, with the state/central agencies requires special regulatory permission. However, in case of occurrence of disaster, these permissions would be deemed automatically permitted for duration of 2 weeks.☞ TSPs shall share
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			<p>specialized resources and allow Intra-circle roaming as per MoU for provisioning of services to priority user groups and general public during disaster period.</p> <p>☞ TSPs shall broadcast messages at regular intervals, in consultation with STDCC/NTDCC, to all the subscribers in the affected areas through SMSs / Cell broadcast giving details about:</p> <p>(i) Details of TSPs helpline numbers.</p> <p>(ii) Details about rescue and relief activities of state government such as tentative schedule of food / water distribution / nearest Shelter/ shelter camp etc. as per need of DDMA.</p> <p>☞ TSPs shall open sufficient number of PCOs, preferably free of cost, for use of general public in affected area.</p> <p>☞ TSPs shall also ensure that in the disaster affected areas, no subscriber shall be denied access to</p>
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			<p>voice / SMS communication due to any commercial consideration, whatsoever, including non-payment / insufficient balance/recharge etc.</p> <p>This facility shall continue for at least 15 days.</p> <p>☞ Disaster management Cell shall submit the status report in respect of overall telecom facilities In affected area to DoT, HQ on daily basis or as sought by DoT, HQ.</p>
<p>CDVO</p>	<ul style="list-style-type: none"> • Opening of Control Room. • Deployment of Staff. • Popularization of the livestock farming as one of the viable alternative livelihood option in the normal year in particular and in drought year in general through awareness generation, attractive schemes etc. • Improvement of the quality and productivity of local livestock through Artificial Insemination and other breeding process. • Strengthening of the dispensaries/Livestock Aid centers with staffs, medicines, and equipments to proper health care of the animal. • Capacity building of the grass root extension workers/Para worker/farmers on animal health care and hygiene, AI/breeding, birth care etc. • Popularization of the cultivation of nutritious fodder grasses or trees in the home stead/field bunds of farmers/village pasture lands etc. through demonstration unit, mini kit 	<ul style="list-style-type: none"> • Organize animal health camp for necessary treatment of sick animal • Arrange for the immediate sale of livestock, livestock product • Harvest and market the dairy based product through OMFED. • 	<ul style="list-style-type: none"> • Thorough checking of livestock before handing over to the owners. • Assessment of Damage • Facilitate claim settlement of victims in coordination with SRC / District Administration.

	<p>distribution etc.</p> <ul style="list-style-type: none"> • Storage, Processing, Market linkage, Price fixation of the livestock products • Promotion of the development of Institutions like Milk Cooperatives, Goat grower association etc.for better access to market, credit etc. • To aware the community to collect and store feed /fodder /crop residues • Stalk piling of essential medicines in the dispensaries/Livestock Aid center. • Construction of VATs in front of the tube well for the drinking of domestic animals 		
RTO/MVI	<ul style="list-style-type: none"> • List of vehicles running condition to be requisitioned kept ready. • The MVI/Asst. MVI will report before A.D.M. (Relief) • The Asst. Engineer & Jr. Engineers will remain alert. • Based on the experience on the previous hazard prone sufficient no. of trucks should be procured and kept in District head quarters. • To contact all Block Control Room and Collector's Office. 	<ul style="list-style-type: none"> • Arrange and organize the transport for the movement of the emergency support functions teams. • Organize and facilitate the supply of the essential commodities and evacuation of the affected people. • Organize transportation for the supply of relief material to the affected areas 	<ul style="list-style-type: none"> • To assist in the transportation of the reconstruction materials. • Deployment of different vehicles to assist in reconstruction works
DFO- Forest & Environment	<ul style="list-style-type: none"> • Improvement of the Vegetation coverage and Biomass production to meet the multiple community need like food, fuel wood, fodder etc. through three-tier plantation • Regeneration of degraded village Common Property Resources like village forest, waste land through the gap filling and block plantation of multi purpose tree species. • Prevention of indiscriminate forest felling through strict introduction of rules and regulation and massive awareness generation. • Strengthening of the community based organizations like VSS through various training, exposure, orientation, and sensitization and ensures the 	<ul style="list-style-type: none"> • Regulate the collection of NTFPs, fodder, and firewood from the forest • Contact suitable market place for fair and, NTFP etc. • Take preventive measures to control Forest Fire 	<ul style="list-style-type: none"> • Assessment of the damage. • Participate in the recovery and reconstruction of the affected areas. • Ensure plantation of the fodder and other trees in the affected areas

	<p>involvement of the local community in forest management (regeneration, protection etc.)</p> <ul style="list-style-type: none"> • Fair Collection and marketing of the NTFP products • Restrict grazing of the cattle herd in the forest area is to be ensured to protect the Dnatural regeneration of the forest ecosystem. 		
<p>Railway</p>	<ul style="list-style-type: none"> • Communication of Information or Alarm to the Control Room. <ul style="list-style-type: none"> • Information immediately to adjacent stations for local help to injured. • Render definite medical care within Golden Hour. • Information to adjacent Medical for Medical and Ambulance aid • Opening of Help line 	<ul style="list-style-type: none"> • Reconnaissance and rescue will be start immediately and controlled by the regional traffic control centre (dispatching centre) of the railways or by the nearest station. • The rescue plan or red alert for rail disasters can be activated by higher authorities. • Should the damage warrant it, the local authorities can take control of the initial intervention (first aid) by co-ordinating the action of the means available (police, fire brigade, civil defence, health services) in close collaboration with the specialist services of the company involved. • The rescue plan or red alert for rail disasters can be activated by higher political authorities. <ul style="list-style-type: none"> • Stop bleeding and restore blood pressure within one hour. • Person under shock shall be 	<ul style="list-style-type: none"> • Route clearance and bringing normalcy of travel • Hand over of dead bodies to kin relative. • Compensation to victims as per norm. • Investigation of accident. • Damage assessment • Protection, research, rescue and assistance measures will depend upon the intervention tactics dictated by the accident and the means available.

		<p>immediately relieved of shock.</p> <ul style="list-style-type: none"> • Transport the casualties to the nearest hospital. 	
EE- Electricity	<ul style="list-style-type: none"> • He should see that the field staff checks the electrical line and replace old materials used in the power supply. • He should see that all had wiring in service connections are rectified. • He should enumerate the diesel sale available and his jurisdiction and keep it available. • He should see that the report regarding hazard prone warning should be reported to other subordinate offices. • He should see that trees, branches etc. fall on electrical lines are out and removed. • The field staff should see that electrical supply in the places where hazard prone may be serve is cut off. • The field staff should be in touch with local Tahasildars and inform the situation at frequent intervals. • To provide Diesel generators to hospital water works. Control Room Collector's office in case of failure of powers. 	<ul style="list-style-type: none"> • Restoration of power supply. • Making proper lighting arrangements. • Providing dedicated power supply to the rural areas during drought-like situations as per decision of the State Government. 	<ul style="list-style-type: none"> • Power supply and lighting arrangements in rehabilitation areas.
EE - PHED	<ul style="list-style-type: none"> • Repair of defunct tube wells in a war foot basis. • Cleaning and disinfestations of the drinking water sources. • Repair and raising of the platform of tube wells and sanitary wells in the flood prone / low line areas to prevent 	<ul style="list-style-type: none"> • Introduce water budgeting in all water bodies to regulate water use (Drinking water should get precedence over 	<ul style="list-style-type: none"> •

	<p>decontamination with drain water or flood water.</p> <ul style="list-style-type: none"> • Awareness generation on safe drinking water to prevent the outbreak of epidemics. 	<p>agriculture/irrigation)</p> <ul style="list-style-type: none"> • Encourage local traditional drinking water structures (temporary water bodies in the sandy nala/river bed to utilize the sub surface water) • Provisions of drinking water in tanker/tractor for areas facing acute water shortage • Dissemination of alert message and warning to prevent the outbreak of epidemics. 	
<p>DEO- School & Mass Education</p>	<ul style="list-style-type: none"> • Formation of Disaster Management Cell and deploy adequate staff, if require cancel leave and calling staff from nearby block. • Incorporating costs for preventive and mitigation measures for earthquake, flood, fire and cyclonic storm prone areas to construct disaster resistant school buildings. • In association with Fire Dept. getting fire extinguishers installed in schools and teachers identified and trained in operating them. • Awareness Generation Programmes about Hazard, the kind of preparedness required and how to act at the time of disaster shall be organized in schools on monthly basis. • Disaster Management shall be made a part of the school curriculum. • The Department shall get quality films made on hazard wise disaster preparedness and organize their viewing by children and their parents. • The Department shall in association with Nehru Yuva Kendra organize 	<ul style="list-style-type: none"> • Safekeeping of infrastructure of schools converted into shelters. 	<ul style="list-style-type: none"> • Getting the school vacated as soon as normalcy is restored. • Resumption of teaching work at the earliest.

	<p>locality based youth clubs and get them groomed in escort services, relief work and taking care of children, women, old and sick.</p> <ul style="list-style-type: none"> • Making adequate arrangements for getting hand pumps installed, storage facilities created, toilet and bathrooms built in those schools where communities do take shelter during flood. Concerned departments shall either make the arrangements or make funds available for the same. DMD shall coordinate. • 		
DEO - Higher Secondary Education	<ul style="list-style-type: none"> • -do- 	<ul style="list-style-type: none"> • Safekeeping of infrastructure of colleges/ institution converted into shelters 	<ul style="list-style-type: none"> • Getting the colleges/ institution vacated as soon as normalcy is restored. • Resumption of teaching work at the earliest.
Civil Supply District Social Welfare Office	<ul style="list-style-type: none"> • Identification of the vulnerable families of the village • Awareness generation about different food and social security initiatives of Govt. • Stock piling of food and other essential commodities in PDS outlets, ICDS center, village shop etc. • Storing of food, dried food and other essential commodities in Pucca godown with higher plinth in the flood prone areas 	<ul style="list-style-type: none"> • Ensure the availability of food to the identified most vulnerable groups (Govt./Non Govt / Community initiative) • Provide income-generating opportunities to the affected population (FFW, Alternate livelihood) • Monitor the price of food, fodder & other essential commodities regularly for price stabilization • Fair distribution of the food and other materials to the target group during the flood situation 	<ul style="list-style-type: none"> •

Sop for the Departments to be done accordingly.

12.7 Format for First Information Report (FIR)

On occurrence of natural calamity

(To be sent to Special Relief Commissioner, Orissa within maximum of 18 hours of occurrence of calamity)

From: District - _____ Date of Report: - _____

To

Special Relief Commissioner, Orissa
State Emergency Operation Centre (SEOC),
Rajiv Bhawan, Ground Floor, Unit-5, Bhubaneswar
Fax No: 0674-2534176, E-mail: relief_sr@yahoo.com/src@ori.nic.in

- a. Nature of Calamity
- b. Date and time of occurrence
- c. Affected area (number and name of affected Blocks)
- d. Population affected(approx.)
- e. Number of Persons
 - Dead
 - Missing
 - Injured
- f. Animals
 - Affected
 - Lost
- g. Crops affected and area(approx. in hect.)
- h. Number of houses damaged
- i. Damage to public property
- j. Relief measures undertaken in brief
- k. Immediate response & relief assistance required and the best logistical means of delivering that relief from State/National
- l. Forecast of possible future developments including new risks
- m. Any other relevant information

Authorised Signatory
District Emergency Operation Centre (DEOC)
District:-_____

NB: The Districts will submit a detailed report on each of the above points as soon as possible after submission of the above First Information Report (FIR).

12.8 Daily Status Report on Relief/ Restoration Measures Undertaken By Departments

1. Health Department.

- ❖ Medical Relief Centres Opened
- ❖ Mobile teams deployed
- ❖ Wells disinfected
- ❖ ORS distributed
- ❖ Halogen Tablets distributed
- ❖ Minor Ailment Treated

2. R.D. Department.

- ❖ Road Submerged
- ❖ Area having flash flooding
- ❖ Officials deployed for restoration.
- ❖ Materials supplied and additional assistance required for restoration.
- ❖ Issue repeated alerts to people residing in / close to river plains / water courses
- ❖ Raising awareness to public with regards to vacating dangerous buildings, remaining away from electric wires and avoids swimming during rain especially in underpasses.
- ❖ Advising vulnerable population not to venture into nullahs / flash flooding routes.
- ❖ Officials to remain vigilant in restoring road linkages.
- ❖ Vulnerable communities along reaches of Rivers IB, Brahmani, Iccha, Sankha, Koel and their tributaries / Nullahs to be sensitized for requisite measures.

3. FS & CW Department

Sundargarh division there are 8 PDS centres. At present rice has been supplied in all the GPs for the month of April, May and June. In the Month of June the sufficient availability of rice will be lifted for more 3 Months. It has been ensured that availability of essential commodities like puffed rice Jaggery and Kerosene oil at particular village for any flood type situation occurred Movement has been placed to all GPs to ensure access of food as when required during floods. (Qty .in quintals)

4. Fisheries and ARD Department

- ❖ Animals Vaccinated
- ❖ Animals Treated



Chapter – 13

Rehabilitation & Restoration

The District hasn't experienced any major catastrophic disasters recently, sparing it from the necessity of extensive post-disaster reconstruction efforts. However, it regularly contends with numerous minor disasters throughout the year. The affected people are being provided humanitarian relief as per the norms of the State Disaster Response Fund. These norms cater to the immediate needs for subsistence but hardly meet the requirements of long term recovery and reconstruction. Therefore the needs of post-disaster reconstruction remain largely unfulfilled even for minor disasters. In case of disasters the needs for large scale reconstructions would be much more compelling.

Rehabilitation and restoration comes under recovery phase immediately after relief and rescue operation of the disaster. This post disaster phase continues until the life of the affected people comes to normal. This phase mainly covers damage assessment, disposal of debris, disbursement of assistance for houses, formulation of assistance packages, monitoring and review, cases of non-starters, rejected cases, non-occupancy of houses, relocation, town planning and development plans, awareness and capacity building, housing insurance, grievance redress and social rehabilitation etc.

The district is the primary level with requisite resources to respond to any natural calamity, through the issue of essential commodities, group assistance to the affected people, damage assessment and administrating appropriate rehabilitation and restoration measures.

The District Disaster management Authority reviews the relief measures submit financial requisition to the state Govt. under SDRF & NDRF. The requisition must reach the SDMA & SRC office in the prescribed format as detailed below for smooth & quick processing.

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11.1 Standard Operating Procedure : Restoration & Rehabilitation

Name of the Department	Normal Time
<p>Collector/ADM / Emergency Officer</p>	<ul style="list-style-type: none"> • Restoration of Critical Infrastructures to bring situation to normalcy • Ensure Restoration of roads & channels, Communication network, Electricity & Energy • Ensure adequate health safety measures are taken in the affected areas • Adopt sustainable mitigation measures in the restoration activities
<p>CDMO</p>	<ul style="list-style-type: none"> • Carry out Disease surveillance measures to check epidemic prone diseases • Dis-infection of drinking water & measures for health & hygiene • Rehabilitation of deprived & destitute • Carry out Trauma & Psycho-social counseling <p>Disaster Wise:</p> <p>Earthquake</p> <ul style="list-style-type: none"> - The preparations shall be made keeping in mind injuries caused by falling off and from buildings, heavy structures-specifically bone injuries etc. - Since roads shall either be breached or obstructed the setting up of medical camp etc. shall have to be flown. As such kits etc. have to be kept ready for that kind of carrying. - Since other supplies etc. shall be disrupted, the food and drinking arrangements for the medical staff shall be part of the baggage. <p>Flood</p> <ul style="list-style-type: none"> - Getting ready medical mobile boats and Air Ambulances. - Getting ready with Floating Hospitals. - Getting SOP ready for Response during flood. - Preparation of checklist of medicines and equipment etc. for hospitals and Medical Service Providers, Medical Camps etc. - Having its own transport arrangements to move in emergencies. - Pooling and positioning of ambulances in strategic places. <p>Drought – Medical camps in affected areas.</p> <ul style="list-style-type: none"> - Checklist of medicines and medicals facilities to have in the camps. - Arrangements for the running of the camps on long term basis

- Arrangement of provisions for the medical staff manning the camps
- Making arrangements for community centered medical services rather than camp centered services.

Fire – Checklist of onsite First Aid Services

- Creation of special team for rescue and carrying of fire-victims.
- Creation of special ward in Hospitals to treat the patients.
- Check list of medicines and treatments required by the victims at the camp level and at the Hospital level.
- Health Dept. shall create a special ward for fire patients in Medical College and Hospitals, District Hospitals and equip them with qualified and competent medical staff and appropriate facilities and medicines.
- Dept shall have tie-ups with fire patients treating specialized sector at the state and national level with clearly spelt out support and services they shall provide in emergencies.

High Speed Wind

- As the disastrous impact of cyclonic storms is more or less spread and scattered over a vast area, mobile medical van equipped to provide treatments for injuries inflicted by cyclonic storms.
- Enlisting the kind of injuries and victim's cyclonic storms render and directing medical colleges and hospitals, district hospitals and other medical service center to prepare accordingly.

Epidemics

- The Department of Health shall get a study of epidemic prone areas and period of outbreak and remedial measures required. Based on the findings solicit guidance and support from the specialized institutions at the national and international level.
- Based on the epidemic calendar the dept. shall workout a set of programme, activities and SOPs for Pre, during and Post epidemic period and give directions to Civil Surgeons to implement and follow the same religiously .
- The Dept. through its DM Cell shall supervise and monitor the implementation of programme and activities.
- The Dept. shall keep ready team of doctors and support staff to press in service if reinforcement needed.

**Transport Accidents
Railway/Road & Boat**

- Making use of the mobile medical vans to provide on the spot medical aid
- Tagging and flapping of victims before getting transported to the

	<p>nearest hospital.</p> <ul style="list-style-type: none"> - Organizing postmortem of the deceased. <p>Industrial Accidents:</p> <ul style="list-style-type: none"> - For Industrial Accidents, the Dept. shall prepare hazard profile of the industrial areas in the State in consultation with the Dept. of Industries and Labour. - The Department shall also gather information about the kind of medical preparedness required for chemical industrial hazard and get trained a team of doctors and support staff. - The dept. shall get the medical teams trained to respond quickly in medical emergencies. Department of Disaster Management may provide support for the training.
Superintendent of Police (SP)	<ul style="list-style-type: none"> • Managing security, safe-keeping of victims. • Coordination with support organizations through District Administration. • Providing security during visits of the incident site by authorities and VIPs • Monitoring restoration of communication and transport services • Providing escort services to the victims • Identifying & maintaining records of the deceased • Manning Enquiry Counter • Maintaining law & order
EE- RWSS	<ul style="list-style-type: none"> • Immediate restoration of the drinking water. • Monitoring of water quality and determination of the chlorine residual in public water supplies
EE- Irrigation	<ul style="list-style-type: none"> • Survey and study of the source of flooding for taking long-term preventive measures • Providing for the upkeep and maintenance of the same
DAO- Agriculture	<ul style="list-style-type: none"> • Providing support in the implementation of alternative cropping programme in drought as well as flood affected area • On the basis of crop damage assessment organize payment of input subsidy in accordance with State Disaster Fund norms in association with Disaster Management Department <p>In case of Floods :</p> <ul style="list-style-type: none"> ☞ Crop damage assessment ☞ Payment of Agriculture Input subsidy ☞ Working out crop contingency plan <p>In case of Drought :</p> <ul style="list-style-type: none"> ☞ Identification of drought prone areas through GIS mapping, rainfall estimation etc. ☞ Survey and study of identified drought prone areas ☞ Formulation of prevention, mitigation and preparedness measures along with budget allocations ☞ Formulation of policy and strategizing the implementation of rain

	<p>harvesting programme & activities</p> <ul style="list-style-type: none"> ☞ Working out Crop Contingency Plan ☞ Providing Agriculture Input subsidy ☞ Strategizing the storage and supply of seeds, fertilizers and pesticides ☞ Working out ecological betterment of the areas ☞ Organizing the irrigation facilities ☞ Working out alternative cropping programme and activities <p>In case of Fire :</p> <ul style="list-style-type: none"> ☞ Crop Damage Assessment ☞ Providing Agriculture Input subsidy ☞ Supply of Seeds and Fertilizers
<p>EE- RD / EE R&B</p>	<ul style="list-style-type: none"> • Clearance of debris. • Making of approach road to resettlement site. • Repair and maintenance of the damaged roads, bridges and culverts. • Construction of roads, bridges and culverts to connect the rehabilitation site. <p>Earthquake</p> <ul style="list-style-type: none"> - GIS mapping of the damaged area and reconstruction of roads, bridges & culverts. <p>Flood</p> <ul style="list-style-type: none"> - GIS mapping of the damaged area and reconstruction of roads, bridges & culverts <p>High Speed Wind</p> <ul style="list-style-type: none"> • Gathering information about the damages caused and undertaking reconstruction work accordingly.
<p>DTO-Telecom</p>	<ul style="list-style-type: none"> • Quick assessment of damages to communication network. • Immediate restoration of temporary communication facilities. • Adopt sustainable measures to protect telecom infrastructure in the damage prone areas. • Bring normalcy in the affected area and development of capacities.
<p>CDVO</p>	<ul style="list-style-type: none"> • Administering vaccination etc. to prevent outbreak of any disease. • Making arrangements for the sale of milk of disaster affected cattle owners or value addition of the same. • Arrangements for removal of dead cattle. • Thorough checking of livestock before handing over to the owners. • In the event of owners not coming forward to claim the livestock, the department shall take decision in consultation with the District Administration.
<p>RTO/MVI</p>	<ul style="list-style-type: none"> • Providing transportation facilities for the relief operations. • Providing boats for evacuation operation. • Resumption of road transportation as soon as the road

	connectivity is restored.
DFO-	<ul style="list-style-type: none"> • Determining of protocol during various kinds o disaster. - Distribution of roles and responsibilities to officers of personnel of the department. • Survey and study of the disaster affected areas and strategize and prepare an action plan for the kind of plantation which shall bring about ecological balance & betterment. • Determining of long term strategy so that disaster impact could be minimized. • Preparation of plan from deep ecology point of view.
EE- Electricity	<ul style="list-style-type: none"> • Restoration of power supply. • Making proper lighting arrangements. • Providing dedicated power supply to the rural areas during drought-like situations as per decision of the State Government. • Power supply and lighting arrangements in rehabilitation areas.
EE – PHED	<ul style="list-style-type: none"> • To create sanitation & drinking water facilities in relief camps. • To create sanitation & drinking water facilities in shelter for livestocks. • Organize repair & maintenance of the same • Survey & Study of the area for the rehabilitation of victims. • Working out layout plan for sanitation & drinking water supply in consultation with agency involved in construction of houses. • Implementation of the contingency plan and making arrangements for the repair and maintenance of the same. <p>Hazard wise SOP</p> <p>Earthquake</p> <ul style="list-style-type: none"> ➤ To create sanitation & drinking water facilities in relief camps. ➤ To create sanitation & drinking water facilities in shelter for livestocks. ➤ Organize repair & maintenance of the same <p>Floods</p> <ul style="list-style-type: none"> ➤ To create sanitation & drinking water facilities in relief camps. ➤ To create sanitation & drinking water facilities in shelter for livestocks. ➤ Organize repair & maintenance of the same <p>Drought</p> <ul style="list-style-type: none"> ➤ Installation of extra hand pumps to sustain the supply of drinking water ➤ Formulating rain harvesting practices and promoting the same in vulnerable areas. <p>Fire</p>

	<ul style="list-style-type: none"> ➤ Create facility for drinking water on immediate basis where the victims have temporarily taken refuge. ➤ Make arrangements for the sanitation facilities.
DEO- School & Mass Education	<ul style="list-style-type: none"> • Safekeeping of infrastructure of schools converted into shelters • Getting the school vacated as soon as normalcy is restored. • Resumption of teaching work at the earliest.
Civil Supply	<p>Maintain the supply of food grains till the rehabilitation is complete</p> <p>Earthquake :</p> <ul style="list-style-type: none"> ❖ Packaging of food for aerial dropping and keep ready of additional quantity have to be kept in readiness for bulk as well as in small packets. ❖ Organize security of the godown and provide escort services to the supplies. ❖ Coordinate procurement of goods and supplies required for the relief distribution. <p>Floods:</p> <ul style="list-style-type: none"> ❖ Make arrangements for the supply of food grains at the incident site, relief camps. ❖ In consultation with DDMA plan and systematize the distribution of relief materials. <p>Drought:</p> <ul style="list-style-type: none"> ❖ In consultation with DDMA, set-up centres for supply of food grains on subsidized rates or free, as decided. <p>Fire:</p> <ul style="list-style-type: none"> ❖ In consultation with DDMA organize distribution of food grains to the victims for a period specified.
DIPRO	<ul style="list-style-type: none"> • Setting up of a control room to provide information to people about the disaster, affected area etc. • Press briefing on daily basis at a given time to provide official updation of information. • Feedback to authorities about media report and murmurings at the indent site. • Manning of Information Centre at the relief Camp site and responding to queries. • Informing people on day to day basis the kind of assistance provided to victims an measures being taken to control the situation. • Information dissemination about the rehabilitation and reconstruction measures being taken by the State.
Planning & Monitoring	<ul style="list-style-type: none"> • Setting-up of DM Cell and manning the same with personnel

	<p>drawn from key sections.</p> <ul style="list-style-type: none"> ● In association with DMD & Hazard wise lead and support departments work out the scheme wise funds available for prevention, mitigation and preparedness measures. And also suggest, from where the fund could be made available. ● In association with DMD, formulation of scheme for the rehabilitation and resettlement of the displaced people, workout funding requirements, organize and monitor the implementation of the same.
<p>Minor Irrigation</p>	<ul style="list-style-type: none"> ● Assessing the damage to small check dams. ● Survey of blocked water ways. ● Opening up alternate channels for releasing excess of water. ● Periodic monitoring of water levels check dams. ● Providing irrigation to the drought affected lands for sowing and saving the standing crops. ● Creation of new irrigation and rain water harvesting schemes. ● Promotion of research in water conservation and management in the drought affected areas.

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11.3 Damage Loss Assessment

Sector	Damage in Physical terms	Requirement of funds for repair of immediate nature	Out of (3) amount available from annual budget	Out of (3) amount available from related schemes/ programmes / other sources	Out of (3) amount proposed* to be met from SDRF/NDRF as per the list of works indicated in the revised items & norms
1	2	3	4	5	6
Roads & Bridges					
Drinking water Supply works (Rural)					
Drinking water Supply works (Urban)					
Irrigation					
**Power					
Primary Health Centres					
Community assets in social sectors covered by Panchayats					

11.4 Calculation of assistance for agricultural input subsidy-SMF (Rs. In lakh)

Sl.	Name of the Block	Area held by SMF (in Hectares)	Total Agricultural area Affected [in Hect.]	Total agricultural area where croploss is > 50%	Crop loss 33% & above			Expenditure incurred			Total
					Irrigated [in hect.]	Rainfed [in hect.]	Perennial	Irrigated @Rs.13,500/- per hectare	Rainfed @Rs.6800/- per hectare	Perennial @ Rs.18000/ per Hect.	
1											
2											
3											
Total											

District Disaster Management Plan -2024

11.5 Agricultural input subsidy- Farmers other than SMF
Farmers affected first year (Rs. In lakh)

Sl.	Name of the Block	Area held by farmers other than SMF (in hectares)	Crop loss > 33%							
			No of Farmers	Irrigated area in hect	Amount spent @ Rs.13, 500/- per hect.	Rainfed Area in hect.	Amount spent @ Rs.6800/- per hect.	Perennial Area in hect	Amount Spent @ Rs.18000/ per Hect.	Total Amount Spent
1										
2										
3										
Total										

11.7 Animal Husbandry (Replacement of Animals)

YEAR	Name of the Block	No of Livestock / Birds lost			No of animals qualifying for relief grant (i.e., subject to ceiling of 3 large milch animal or 30 small milch animals or 3 large draught animal or 6 small draught animal per household			Expenditure incurred (Milch animals @ Rs.30,000 for large animal , Rs.3000 for small animals & Draught animals @ Rs 25000 for large animal, Rs. 16,000 for small animals)		Poultry @ 50/- per bird subject to a ceiling of assistance of Rs.5000/- per beneficiary household.	Total expenditure (11+12+13+14 +15)
		Milch Animal	Draught	Poultry	Milch Animal	Draught	Milch Animal	Draught Animal			

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		Animal				Birds	Animal									
		Buffalo/ Cow	Sheep/ Goat	Camel/ Horse/ Bullock	Calf/ Donkey/ Pony		Buffalo/ Cow	Sheep/ Goat	Camel/ Horse/ Bullock	Calf/ Donkey/ Pony						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
2018-19	Subdega	3		2	1											
2020-21	Hemgir			2									2			
	Gurundia			4									4			
	Kutra	3	12	3								3	12	3		
	Kuarmunda		1	1				1	1							
	Sadar	2		2	3		2		2	3						
	Subdega	4					4									
2021-22	Lahunipara			1					1				1			

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11.8 Assistance sought for repair /restoration of damaged houses

(Rs. In Lakh)

Block	Fully		Severely		Total fully/Severely		Partially damaged				Hut damaged		Total		Cow shed damaged		Total
	Pucca House	Kutch a House	Pucca House	Kutch a House	No. of house damage	Fund@95 100 or Rs 101900/- per house	Pucca house	Funds require d @5200	Kutch a House	Funds require d @3200	No.of hut	Funds requir ed 4100 per hut	No. of house dama ged	Funds require d	Cow shed	Damg ed @rs 2100 per cow shed	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Subdega					0	0	0	0	72	230400	0	0	72	230400	0	0	230400
Elisra					0				15	48000	0	0	15	48000	0	0	48000
Lathikata					0				24	76800			24	76800	0	0	76800
Kuarmunda					0	0	0	0	34	108800	0	0	34	108800	0	0	108800
Birmitrapur	0	0	0	5	5	475500	0	0	96	307200	0	0	101	782700	0	0	782700
Sadar	0	0	0	0	0	0	0	0	121	387200	0	0	121	387200	0	0	387200
Bonai	0	0	0	0	0	0	2	10400	9	28800	0	0	11	39200	2	4200	43400
Gurundia	0	2	0	0	2	190200	0	0	21	67200	0	0	23	257400	1	2100	259500
Lhunipara	0	0	0	1	1	95100	0	0	41	131200	0	0	42	226300	21	44100	270400
Rajgangpur	0	3	0	4	7	665700	6	31200	33	105600	0	0	42	802500	2	4200	806700
Tangarpali	0	0	0	11	11	1046100	0	0	119	380800	0	0	130	1426900	15	31500	1458400
Elisankara	0	0	0	0	0	0	0	0	54	172800	0	0	0	172800	10	21000	193800
Lephripara	0	3	0	21	24	2282400	0	0	288	921600	0	0	0	3204000	17	35700	3239700
Kutra	0	0	0	0	0	0	2	10400	85	272000	0	0	87	282400	25	52500	334900

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Eargaon	0	0	0	1	1	95100	0	0	59	188800	0	0	60	283900	9	18900	302800
Hemgir	0	2	0	3	5	475500	0	0	52	166400	0	0	57	641900	1	2100	644000
Total	0	10	0	46	56	5325600	10	52000	1123	3593600	0	0	823	8971200	103	216300	9187500

11.10 Extent of damage due to natural calamities

Dist : _____ Nature and period of natural calamity : _____

Sl.	Item	Details
1	Total number of Blocks in the district	
2	Number and names of Blocks affected	
3	Number of villages affected	
4	Population affected (in lakh)	
5	Total land area affected (in lakh ha.)	
6	Cropped area affected (in lakh ha)	
	i) Total cropped area affected	
	ii) Estimated loss to crops (Rs. in lakh)	
	iii) Area where cropped damage was more than 33%	
7	Percentage of area held by SMF	
	i) In the State as a whole	
	ii) In the affected districts	
8	House damaged	
	a) No. of houses damaged	
	i) Fully damaged pucca houses	
	ii) Fully damaged kutch houses	
	iii) Severely damaged pucca houses	
	iv) Severely damaged kutcha houses	
	v) Partly damaged houses (pucca + kutcha)	
	vi) No. of huts damaged	
b) Estimated value of damage to houses (Rs. in lakh)		
9	No. of human lives lost	
	No. of persons with grievous injuries	
	No. of persons with minor injuries	
10.	Animal lost	
	a) No. of big animals lost	
	b) No. of small animals lost	
	c) No. of poultry (birds) lost	
11.	Damage to public properties	
	a) In physical terms (sector wise details should be given – e.g. length of State roads damaged, length of districts roads damaged, length of village roads damaged, No. of bridges damaged, No. of culverts damaged, No. of school buildings damaged etc.)	
	b) Estimated value of the damage to public properties	
	Estimated total damage to houses, crops and public properties	

11.11 Format for working out the requirements under the head of repair of damaged infrastructure of immediate nature

(Rs. In lakh)

Sector		Damage in physical terms	Requirement of funds for repair of immediate nature	Out of (3), amount available from annual maintenance budget	Out of (3), amount available from related schemes/ programs/ other sources	Out of (3), amount proposed to be met from CRF/NCCF in accordance with list of works indicated in the Appendix to the revised items and norms
Roads & Bridges	PWD Roads	No. of breaches- Length of Road damaged – No. of culverts damaged – No. of culverts washed away –				
	Rural Roads	No. of Roads damaged – Length of Road damaged – No. of breaches – No. of CD/Bridge damaged– No. of CD/Bridge washed away –				
	Urban Roads	Length of drain damaged – Length of Road damaged No. of culverts damaged –				
	Panchayat Roads	No. of Roads damaged – Length of breaches –				

		Length of Road damaged – No. of culverts damaged – No of culverts washed away				
	River/Canal Embankment Roads	No of Roads damaged in river embankments– Length of Road damaged in river embankments – No of Roads damaged in canal embankments – Length of Road damaged in canal embankments –				
Drinking Water Supply	Rural Water Supply	No of Tube wells damaged – No of platforms damaged – No. of Rural pipe water supply system damaged -				
	Urban Water Supply					
Irrigation	River Embankment	No of breaches – Length of breach in Km – No of partial damage -				
	Canal Embankments	No of breaches – Length of breach in Km – No of partial damage -				
	M I projects	No of Minor Irrigation projects damaged –				
	Clearance of Drainage channels	Length of drainage channels				

		congested with vegetative materials –				
Primary Education	Primary School Buildings	No of Primary School buildings damaged -				
PHCs	PHCs	No of Primary Health Centres damaged -				
Community assets owned by Panchayats	Community Halls	No of Panchayat Ghar/Community Hall damaged -				
	AWW Centres	No of Anganwadi Centres damaged -				
Power	Electrical lines	No of Primary sub-stations damaged – 33 KV lines damaged – 11 KV lines damaged – Distribution Transformers damaged – LT lines damaged –				
Total						



Chapter-12

Recovery:

A series of long term activities framed to improve upon the repaired activities in the Reconstruction & rehabilitation phase are covered under Recovery phase. Recovery includes all aspects of mitigation and also incorporates the continuation of the enabling process, which assists the affected persons and their families not only to overcome their losses, but also to achieve a proper and effective way to continue various functions of their lives. The Recovery process is therefore a long-term process in which everyone has a role – the Government including the PRI members, NGOs and especially the affected people, their families and the community.

- Preparation of Recovery plan for displaced population, vulnerable groups, environment, livelihoods
- Organise initial and subsequent technical assessments of disaster affected areas and determine the extent of recovery works necessitated in addition to reconstruction & rehabilitation works.
- Evaluate the extent of works under SDRF/NDRF & other sources(damaged infrastructures)
- Explore opportunities for external aids like (International Agencies / Civil Society / Corporate Sector)
- Allocate funds for the stabilisation of the repaired & reconstructed infrastructure.
- Integrate Climate change & Disaster Risk Reduction features in the recovery programmes

The DM & Collector will be the co-ordinator of all Recovery activities in the District. The role of the DM & Collector will be to:

- Generally monitor the management of the recovery process;
- Ensure implementation of the recovery plan by line departments, blocks
- Effective service delivery minimising overlap and duplication;



Chapter- 13

Financial Arrangement

13.1 National Disaster Response Fund (NDRF)

The National Disaster Response Fund (NDRF) has been constituted by the Government of India as per the sub-sections (1) of section (46) of Disaster Management Act, 2005 and recommendation of the 13th Finance Commission. NDRF has been constituted by replacing the National Calamity Contingency Fund (NCCF). It is administered by the National Executive Committee (NEC).

In the event of a calamity of a severe nature when the State Disaster Response Fund (SDRF) is insufficient to meet the relief requirements, additional central assistance is provided from NDRF, after following the laid down procedure. The State Government is required to submit a memorandum indicating the sector-wise damage and requirement of funds. On receipt of memorandum from the State,

- An Inter-Ministerial Central Team is constituted and deputed for an on the spot assessment of damage and requirement of funds for relief operations, as per the extant items ad norms.
- The report of the Central Team is considered by the Inter-Ministerial Group (IMG) / A Sub-committee NEC constituted under section 8 of DM act, 2005, headed by the Home Secretary.
- Thereafter, the High Level Committee (HLC) comprising of the Finance Minister, the Agriculture Minister, the Home Minister and the Deputy Chairman, Niti Ayog considers the request of the State Government based on the report of the Central Team recommendation of the IMG thereon, extant norms of assistance and approves the quantum of assistance form NDRF.
- This is, however, subject to the adjustment of 75% of the balance available in the State's SDRF for the instant Calamity.

(Please refer page no. ___ of Volume-II for NDRF Items and Norms)

13.2 State Disaster Response Fund (SDRF)

As per the provisions of Disaster Management Act, 2005 sub-section (1)(a) of Section (48) and based on the recommendation of the 13th Finance Commission, the Government of Odisha has constituted the State Disaster Response Fund (SDRF) replacing the Calamity Relief Fund (CRF). The amount of corpus of the SDRF determined by the 13th Finance Commission for each year the Finance Commission period 2010-15 has been approved by the Central Government. The Central Government contributes 75% of the said fund. The balance 25% matching share of contribution is given by the State Government. The share of the Central Government in SDRF is released to the State in 2 installments in June and December respectively in each financial year. Likewise, the State Government transfers its contribution of 25% to the SDRF in two installments in June and December of the same year.

Ministry of Home Affairs, upon being satisfied that exigencies of a particular calamity so warrant, may recommend an earlier release of the Central share up to 25% of the funds due to the State in the following year. This release will be adjusted against the installments of the subsequent year.

As per the Guidelines on Constitution and Administration of the State Disaster Response Fund (SDRF) laid down by the Ministry of Home Affairs, Government of India, the SDRF shall be used only for meeting the expenditure for providing immediate relief to the victims of cyclone, drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanche, cloud burst and pest attack. The State Executive Committee (SEC) headed by the Chief Secretary SEC decides on all matters connected with the financing of the relief expenditure of immediate nature from SDRF.

(Please refer page no.____of Volume-II for SDRF Items and Norms)

13.4 Chief Minister Relief Fund (CMRF)

Chief Minister's Relief Fund aims to provide assistance to calamities and in distress condition, to indigent persons suffering from critical ailments and to undertake charitable activities for public welfare.

13.4.1 Cases Eligible for Assistance under CMRF

13.4.1.1 Poor and persons in distress: Relief to the poor, including grant and aid (financial or otherwise) to persons in distress.

13.4.1.2 Aged, differently able, orphans, AIDS affected : Assistance for the relief and rehabilitation of the aged, 'differently able' orphans, HIV/AIDS affected persons/families and those otherwise differently able or incapable of earning their livelihood, by grant and aid (financial and otherwise) and / or maintenance, establishment and support of institutions and homes for the benefit of such persons.

13.4.1.3 Persons affected by calamities or violence: Assistance for relief & rehabilitation of persons affected by natural or man-made calamities, communal violence', naxal violence or public disorder of a serious nature or any other calamity' affecting a family or a community, which deserves extreme compassion and not covered under any existing assistance scheme of State/central Government.

13.4.1.4 Assistance for Rural Development: Financial assistance out of CMRF may also be considered to undertake, promote, aid or otherwise support rural development including any programme for promoting the social and economic welfare of the public in any rural area either directly or through an independent agency following due procedure.

To assist more number of deserving person and for better utilisation of the Chief Minister's Relief Fund, the State Government have delegated powers to the Collectors for sanction of assistance out of CMRF so as to extend such assistance to the deserving persons immediately at the time of their need.

13.5 Release of Funds to Departments and Districts:

Funds required towards pure relief to affected persons / families for natural calamities in shape of emergency assistance, organizing relief camp / free kitchen / cattle camp, agriculture input subsidy and other assistances to affected farmers, ex-gratia as assistance for death cases, grievous injury, house building assistance, assistance to fisherman / fish seed farmers / sericulture farmers, assistance for repair / restoration of dwelling houses damaged due to natural calamities are administered through the respective collectors.

Part funds towards repair / restoration of immediate nature of the damaged public infrastructure are released to the Departments concerned. On receipt of requisition from the Collectors / Departments

concerned, funds are released after obtaining approval / sanction of S.E.C. However, funds towards pure relief are released under orders of Special Relief Commissioner / Chief Secretary and the same is placed before the State Executive Committee in its next meeting for approval. To save time, Collectors have been instructed to disburse the ex-gratia assistance from the available cash and record the same on receipt of fund from Special Relief Commissioner.

13.6 Damage Assessments and Report after Flood/Cyclone

Private properties and properties of Government under different Departments are damaged by high floods and cyclones. As per para-75 of Orissa Relief Code, the Collector shall undertake assessment of damages to private properties as well as properties of Government. This assessment shall be done quickly soon after the abatement of flood in the prescribed formats prescribed in Appendix- X of Orissa Relief Code.

13.6.1 Submission of preliminary damage report (Para-76 of ORC)

- 1) The Collector as well as the district level officers under each Department of Government shall immediately after assessment of flood damage forward a copy of their report to their immediate Head of Department. The district level officers may also supply reports to the Collector.
- 2) The Heads of Departments after necessary scrutiny shall forward their reports to their respective Departments of Government with copy to Special Relief Commissioner, not later than two weeks from the date of abatement of flood.
- 3) The Special Relief Commissioner shall compile the State report and shall furnish the consolidated preliminary report to the Revenue Department within a week of the receipt of the reports from the Heads of Department.
- 4) The preliminary flood damage report should be prepared as accurately as possible, as the relief measures, if any, are to be based on the merit and statistical data of that report.

13.6.2 Submission of final flood damage report (Para-77 of ORC)

The concerned Heads of Departments as well as the Collector shall take immediate steps to compile the final report on flood/cyclone damage in the formats prescribed in Appendix- X soon after submission of the preliminary report.

Accidental errors, clerical mistakes, shortcomings, if any, noticed should be rectified in the final report. The final report shall be made available to Special Relief Commissioner as soon as possible and not later than one month from the date of abatement of flood.

On receipt of the reports from the different sources, Special Relief Commissioner shall forthwith compile the State report and furnish the same to the Revenue Department.

13.7 Central and State Government programmes and Schemes on Natural Calamities

Mainstreaming Disaster Management in development planning is the most critical component to mitigate disaster risks. That's why it's important to make note of financial resources which are used in the implementation of such programmes and schemes which can lessen the risk from disasters by reducing vulnerability. It is also crucial to build communities resilience to deal with them. Moreover, as mandated by Ministry of Finance & Ministry of Home Affairs on 01st and 03rd June, 2014 respectively, 10 % flexi-fund within the centrally sponsored schemes (CSS) to be utilised, inter alia for mitigation / restoration activities in the event of natural calamities in the sector covered by CSS. Thus, relevant

Central Government and State Government funded schemes are identified which are crucial to build over resilience of communities in the context of the district.

Table __: Different State and Central Government Schemes and Programms

Sl No.	Name of the Scheme	Sector	Nodal Department	Objective of the Scheme
1	National Agriculture Insurance Scheme (NAIS)/ Rastriya Krishi Bima Yojna (RKBY)	Crop Insurance	Agriculture Insurance Company of India (AICI)	To protect the farmers against the losses suffered by them due to crop failures on account of natural calamities, such as droughts, floods, hailstorm, storms, animal depredation, etc.
2	Janashree Vima Yojna	Life Insurance	Life Insurance Corporation Of India	The objective of the scheme is to provide life insurance protection to the rural and urban poor persons below poverty line and marginally above the poverty line.
3	Madhubabu Aain Sahayata Yojana Four days a month, Saturdays or Sundays.	Legal Help	Panchayati Raj Department	The objective of the schme is free legal aid to poor and needy. Priority to women, children, senior citizens, ST & ST, and weaker sections of the society.
4	Biju Sishu Suraksha Yojana	Child Protection	W & CD	The scheme aims to protect children who are without biological or adoptive parents, legal guardians, affected/infected with HIV and found to be most vulnerable.
5	Biju Krushak Kalyan Yojana	Health Insurance	Health and Agriculture and Insurance company	This scheme is a health insurance scheme for the farmers in the state of Odisha. This scheme provides financial support to the people of Odisha through health and accident insurance. There are many hospitals, community health centers in the each district of Odisha under this scheme to provide people health care with low cost.
6	Nirman Shramik Pension Yojana	Social Security	Labour and Employment	The scheme would provide monthly pension to nearly 25 Lakh construction workers in the state of Odisha. Widows of the workers and differently – abled will also be included under the scheme
7	Baristha Bunakar Sahayata Yojana	Social Security	Handloom and Textile	The scheme is aimed at providing financial assistance to the elderly weavers in the state. The weavers above the age of 60 years will get an allowance of Rs. 500 per month while weavers above 80 years of age will get Rs. 700 per month allowance.
8	Adolescent Anaemia Control	Welfare programme	W & CD	To control anaemia in adolescent girls through a comprehensive approach by

	Programme Adolescent Girls of age group (10-19 years)			providing weekly IFA supplements, biannual de worming and improving dietary practices.
9	Madhu Babu Pension Yojana	Social Security	Panchyati Raj, and Dept. Of Social Security	The scheme is for the people who are either physically challenged or above the age of 60 years. Widows are also the beneficiaries of the scheme. The beneficiaries of age group of 60 to 79 years would get Rs 300 per month and those above of 80 years and above would get Rs. 3000 per month as pension.
10	Biju Gadi Chalak Bima Yojana	Govt. And Life insurance	Labor & Employees' State Insurance (ESI) Department and Transport Dept.	The scheme will provide insurance cover to all the vehicle drivers in case of death in accidents or medical treatment in case of injury sustained in road accidents. The insurance scheme is still not finalized, the government is working on deciding the premium amount and several other aspects
11	Jan Dhan Account holder -insurance cover of up to Rs. 2 Lakh for three years.	Social Security	Central Govt. And LiC	The main objective of the new insurance scheme for Jan Dhan Account holders is to push the social security net for the poor
12	Pradhan Mantri Suraksha Bima Yojana (PMSBY)	Social Security	Central Govt.	Suraksha Bima Yojana is for the people who are not covered under any kind of insurance scheme, especially in the rural areas of the country.
13	Pradhan Mantri Jeevan Jyoti Bima Yojana	Social Security	Central Govt. And insurance companies	The scheme offers a life cover of Rs. 2 Lakh in case of loss of life due to any reason up to the age of 55 years.
14	Atal Pension Yojana	Social Security	Central Govt.	Any Indian citizen between the age of 18 to 40 year is eligible to participate in the scheme. The scheme requires any individual to contribute for minimum of 20 years before reaping the pension benefits.
15	National Rural Drinking Water Programme (NRDWP)	Safe Drinking Water	Ministry of Drinking Water & Sanitation	The goal of the National Rural Drinking Water Programme (NRDWP) is to ensure that every rural individual has access to sufficient and safe water for drinking, cooking, and other essential domestic purposes on a sustainable basis. This includes maintaining a minimum water quality standard that is easily accessible at all times and under all conditions.
16	Pradhan Mantri UJJWALA Yojana (PMUY) – LPG	Women Empowerment	Ministry of Petroleum and Natural Gas	Pradhan Mantri Ujjwala Yojana (PMUY) aims to safeguard the health of women & children by providing them with a clean

	connection to BPL families			cooking fuel – LPG, so that they don't have to compromise their health in smoky kitchens or wander in unsafe areas collecting firewood.
17	Integrated Child Development Scheme (ICDS)	Women and Child	Ministry of Women and Child Development	To improve the nutritional and health status of children in the age-group 0-6 years; To lay the foundation for proper psychological, physical and social development of the child; To reduce the incidence of mortality, morbidity, malnutrition and school dropout; To achieve effective co-ordination of policy and implementation amongst the various departments to promote child development; and To enhance the capability of the mother to look after the normal health and nutritional needs of the child through proper nutrition and health education.
18	Self Employment training & bank Linkage (SKILL DEVELOPMENT)	RUDSET Institute, Bhubaneswar	Odisha Livelihood Mission, Panchayati Raj Department	The objective of the programme is to provide Self employment/Skill development training to rural youths within the age group of 18-35 & bank linkage them for their economic development with free of cost.
19	Pradhan Mantri Awaas Yojana(Grameen) Earlier - Indira Awaas Yojana (IAY)	Rural Housing	Ministry of Housing and Urban Affairs (MoHUA	The Pradhan Mantri Awas Yojana (PMAY) aims to provide affordable housing to both rural and urban areas in India. Launched in 2015, it identifies eligible beneficiaries through surveys and offers homes based on specific criteria. By focusing on both urban and rural areas, PMAY supports the government's goal of ensuring housing for all citizens.
20	Mid-Day Meal scheme	Primary Education	Ministry of Human Resource Development, Department of School Education, Literacy, GO	To provide wholesome food having requisite calorie & protein content to school children of Primary, Upper Primary & NCLP Schools (Govt., Govt.-Aided, Local body, Madrasa & NCLP schools). To increase enrolment and retention and also to curb dropouts To reduce cast prejudices, class inequality & gender gap (in-education) Thrust on right to life & right to food to disadvantaged section of the society. To provide nutritional support to the school children in drought affected areas during summer vacation.

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13.8 Roles of District Planning committee on financial outlay on mainstreaming Disaster Risk Reduction (DRR) in development programmes.

Note: Roles and jurisdiction of District Planning Committee to be elaborated

The 74th Constitutional Amendment Act mandated the establishment of District Planning Committees (DPCs) for consolidating plans prepared by Panchayats and Municipalities in the district into the Draft District Plan. The District Planning Committee is the nodal agency for the district level planning and related tasks, including those relating to Central Plan schemes; need to be routed through DPCs.

Role of District Planning Committee are:

- ❖ Create awareness of the need to mainstream of Disaster Risk Reduction (DRR) and Climate Change adaptation(CCA) in district level planning
- ❖ To develop basic understanding of disaster risks associated with developmental planning
- ❖ To facilitate Block/ULB planners in mainstreaming DRR and CCA
- ❖ To examine the plans/projects formulated at Block/ULB level from DRR perspectives
- ❖ To ensure incorporation of disaster mitigation measures in the developmental plan/projects
- ❖ To ensure incorporation of appropriate adaptive strategies in various sectors in view of the climate change and global warming challenges, and
- ❖ To take steps for enhancing resilience at individual, community and institutional level.

Responsibilities

- ❖ Include DRR in the development projects
- ❖ Ensure risk sensitive and informed development projects
- ❖ Consider vulnerabilities and needs of the community
- ❖ Sensitise and build capacity of the key stakeholders
- ❖ Facilitate integration and inter departmental linkages

Jurisdiction:

- ❖ There is no clear government orders issued to planning department and to all line department for inclusion of DRR in development planning
- ❖ Inadequate Budget
- ❖ Absence of skill dedicated personnel
- ❖ Lack of capacity development of staff
- ❖ Lack of monitoring framework for mainstreaming of DRR and climate change planning
- ❖ Need of interdepartmental coordination, fund should be placed to the all line departments including three tier system after approval of plan at District Planning Committee level.

13.9 Fund provision for disaster preparedness & capacity building

Note: Provision of funds for different capacity building programmes and preparedness measures to be elaborated

The detailed Capacity building programmes and preparedness has been elaborated in Chapter - 9



Chapter – 14 **Crowd Management Plan**

14.1 Introduction

Celebrations and festivals play a pivotal role in India's cultural tapestry, showcasing its rich religious diversity and heritage. With India being the second most populous country globally, these festivals are celebrated on a grand scale, spanning national, regional, and state levels. They serve as vibrant expressions of communal joy and unity, bringing together people from diverse backgrounds to partake in shared festivities and collective remembrance of significant events.

Mass gatherings during religious festivals are a common sight, drawing crowds with varying physical and behavioral traits. These gatherings serve as focal points for social interaction and cultural exchange, fostering a sense of camaraderie and belonging among attendees.

In sundargarh District, festivals like Shiv Ratri, Dussehra, Ganesh Chaturthi, Rath Festivals, Christmas and Chhath Pooja are celebrated with great fervor, each reflecting unique traditions and customs. These celebrations not only serve as occasions for spiritual devotion but also as opportunities for communities to come together in celebration and solidarity.

By uniting people in shared festivities, these festivals contribute to the social fabric of the nation, promoting understanding, tolerance, and mutual respect among different religious groups. They serve as reminders of India's pluralistic ethos and its age-old tradition of celebrating diversity. In essence, festivals in India are more than just occasions for merriment; they are integral to the country's cultural identity, serving as symbols of unity, resilience, and collective joy.

14.2 Crowd Disasters at Religious/Cultural and Political Events

Stampedes, recognized as significant hazards during mass gatherings worldwide, pose a particular risk, where large crowds often converge for religious, cultural, and political events. The research findings highlight religious gatherings and pilgrimages as the primary settings for stampedes, accounting for a staggering 79% of incidents in India. These occurrences have been documented across 15 Indian states, with certain locations experiencing recurrent stampedes over time.

Despite the gravity of the situation, risk management strategies aimed at mitigating stampedes during religious festivals remain inadequate and have consistently fallen short in India. The challenges are exacerbated by the sheer size of the crowds and the expansive nature of event venues. This underscores the urgent need for enhanced measures to address the specific risks associated with mass gatherings, particularly in religious contexts.

In summary, stampedes during mass gatherings represent a critical concern, particularly in religious settings, necessitating a concerted effort to develop and implement more effective risk management strategies to ensure public safety and prevent avoidable tragedies.

14.3 Risk Assessment

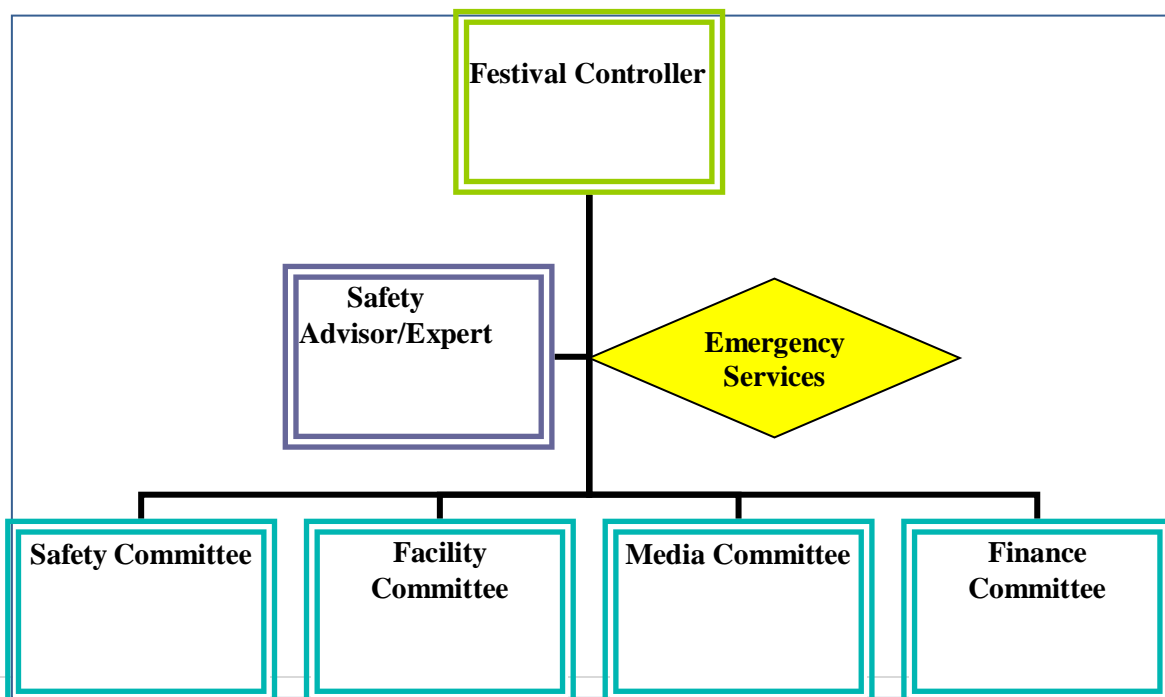
Holding a mass gathering event involves significant risk. The severity of a crowd disaster depends on the level of disaster preparedness and mitigation measures which depends on risk assessment. The risk involved in the mass gathering must be identified, estimated necessary measures to be adopted for risk reduction. The components of the risk assessment are given below

- a) Identify and list the possible hazards that have the potential to develop as a crowd disaster. Ex. bottle necks in entry and exit, extreme weather events.
- b) Identify the potential safety problems that could arise from the identified hazards.
- c) Prioritize the hazards based on the likelihood
- d) Risk Reduction measures to eliminate the risk or mitigate the risk.

The mass gathering organizer has to submit a risk assessment statement and venue lay out map along with the event proposal form. The venue lay out map should contain services and utilities proposed and arranged at the venue, fire hydrant points, police control room, emergency operation centre, medical facilities, crowd flow pattern, crowd management facilities etc. The organizer must acknowledge in undertaking/agreement that they would execute the mitigation measures for the identified risks and also the preparedness measures recommended by the competent authorities.

14.4 Festival Management Committee

Apart from the management entity of the religious institution, a festival management committee may be constituted. The head of the festival management committee will coordinate the facilities, utilities and safety preparations. A possible structure is given below.



Expanding the proposed structure to incorporate members from emergency service departments is recommended for festivals expecting crowds of twenty-five thousand or more. Some festivals are managed by committees representing distinct geographical areas, each responsible for specific festivities and processions. In such cases, establishing a centralized coordination committee is crucial to ensure efficient coordination of safety and disaster preparedness efforts. The responsibilities of various committees and the pre-event safety arrangements required are detailed below:

1. **Centralized Coordination Committee:** This committee oversees overall safety and disaster preparedness coordination. Responsibilities include:
 - ✚ Facilitating communication and collaboration among different committees and emergency service departments.
 - ✚ Developing and implementing a comprehensive safety plan.
 - ✚ Coordinating crowd management strategies and ensuring compliance with safety regulations.
 - ✚ Liaising with local authorities and emergency responders.
2. **Geographical Area Committees:** These committees organize specific festivities and processions within their respective areas. Their responsibilities include:
 - ✚ Ensuring the safety and security of participants and spectators during their events.
 - ✚ Implementing crowd control measures and maintaining order.
 - ✚ Coordinating with the centralized coordination committee and emergency service departments as required.
 - ✚ Conducting risk assessments and implementing appropriate safety measures for their events.
3. **Emergency Service Departments:** These departments play a vital role in providing emergency response and support during the festival. Responsibilities include:
 - ✚ Deploying personnel and resources to manage emergencies and provide medical assistance.
 - ✚ Planning and coordinating with festival organizers and other relevant agencies before the event.
 - ✚ Offering crowd management expertise and assisting with evacuation procedures if necessary.
 - ✚ Collaborating with the centralized coordination committee to ensure a unified response to any incidents or emergencies.

Establishing a structured framework with clearly defined roles and responsibilities enhances the festival's ability to manage safety and disaster preparedness effectively. Collaboration between different committees and emergency service departments is essential to ensure the safety and well-being of all participants and attendees.



Chapter -15

Lessons learnt and Documentation:

1. *Note: In this chapter lessons learnt from past disaster in the district should be elaborated. Emphasis should be given on what went wrong and what were the best practices during managing any past disaster.*

Documentation process of any past disaster should be elaborated.

2. Analysis of deaths due to different disasters like Lightning, Drowning, Snake Bite etc. to be mentioned here.

Death due to Sunstroke		Death due to Snakebite		Death due to Drowning		Death due to Lightning	
Year	No.	Year	No	Year	No	Year	No
2006	0	2015	7	2015	3	2006	6
2007	5	2016	19	2016	6	2007	7
2008	4	2017	28	2017	17	2008	17
2009	3	2018	24	2018	14	2009	13
2010	12	2019	11	2019	20	2010	14
2011	0	2020	72	2020	84	2011	19
2012	7	2021	55	2021	79	2012	17
2013	1	2022	1	2022	11	2013	20
2014	0	2023	2	2023	2	2014	13
2015	0	2024	47	2024	79	2015	20
2016	1	2025	0	2025	3	2016	8
2017	3					2017	22
2018	2					2018	24
2019	0					2019	4
2020	1					2020	16
2021	1					2021	10
2022	1					2022	0
2023	3					2023	1
2024	3					2024	5
2025	1					2025	0

Lightning Vulnerability Assessment

Sl. No	Name of the Block	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1	Hemgir	2	2	1	0	1	1	2	0	0	0	0	0	0	0	0
2	Tangarpali	0	1	0	0	0	2	2	1	0	0	0	2	0	0	0
3	Lephripara	2	3	2	2	0	0	1	0	0	1	0	0	0	0	0
4	Sadar, Sundargarh	3	1	1	0	2	0	5	0	0	3	1	0	0	0	0
5	Subdega	1	1	1	0	3	0	1	2	0	0	0	0	0	0	0
6	Balisankara	1	0	4	2	2	0	2	4	0	0	2	2	0	0	0
7	Kutra	1	0	0	0	1	0	2	0	0	0	0	0	1	0	0
8	Bargaon	1	0	0	0	2	0	0	0	0	0	0	1	0	0	0
9	Rajgangpur	0	1	0	2	1	1	0	0	0	0	0	1	0	0	0
10	Kuarmunda	0	0	1	0	0	2	0	1	0	2	1	1	0	0	0
11	Nuagaon	4	2	3	1	3	0	0	0	0	0	0	0	0	3	0
12	Bisra	0	1	0	0	2	0	0	0	1	0	0	0	1	0	0
13	Lathikata	0	2	1	1	1	0	1	2	0	3	0	1	0	0	0
14	Lahunipara	2	2	4	2	1	1	4	0	0	1	1	0	0	0	0
15	Gurundia	0	1	0	0	0	0	1	0	0	1	1	3	0	0	0
16	Koira	1	0	2	1	0		0	2	0	3	0	0	0	0	0
17	Bonai	1	0	0	2	1	1	1	2	0	0	0	2	1	2	0
	Total	19	17	20	13	20	8	22	14	1	14	6	13	3	5	0

Contact Details

1	2	3	4	5	6	7
Sl. No.	Name of the Officer	Designation	Mobile No.	Office Landline	Res.	Email. ID
1	Sri Manoj Satyawan Mahajan, IAS	Collector& District Magistrate	9861079543	06622-272265	06622-272225	dm-sundargarh@nic.in
2	Sri Suranjan Sahoo, OAS, (S)	CDO-cum-EO Zilla Parishad	8895587616	06622-283873	06622-273872	ori.dsundargarh@gramsat.nic.in
4	Sri Abimanyu Majhi, OAS(S)	ADM, Sundargarh (Rev)	9437092240 9827616538	06622-273889	06622-273257	
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14	Sri S.K. Biswal, OPS	DSP, (DIB)Sundargarh	9437516432			
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20	Sangram Hansda	Deputy Fire Officer, Rourkela	9437786343			aforkl-ofs@gov.in
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22	Ajay Barada Sadar	Sadar, Fire Officer	8917416994	6622-272301	6622-272301	afosng-ofs@gov.in
23	Narayan Majhi, Station Officer	Bargaon, Fire Station	9937980757	9937980757	9937980757	sobdga.ofs@odisha.gov.in
24	Gunakar Nayak, Station Officer	Kutra Fire Station	9438385640	9438385640	9438385640	sokutr.ofs@odisha.gov.in
25	Sankirtan Dhan, Station Officer	Tangarpali, Fire Station	9556270332	06622237140	06622237140	sotang.ofs@odisha.gov.in
26	Pradeep Kumar Pradhan, Station Officer	Lephipada Fire Station	6370559069	6370559069	6370559069	soleph.ofs@odisha.gov.in
27	Rajat Kumar Bhengra, Station Officer	Subdega, Fire Station	9938399048	9938399048	9938399048	sosubd.ofs@odisha.gov.in
28	Baneswar Pradhan, Station Officer	Hemgiri, Fire Station	9438294107	9438294107	9438294107	sohemg.ofs@odisha.gov.in
29	Laxman Chandra Kisan, Station Officer	Balisankara, Fire Station	8763408849	8763408849	8763408849	sobalis.ofs@odisha.gov.in
30	Deepak Kumar Jena, AFO	Rourkela Fire Station Officer	9938143175	0661-2510095, 0661-2501201	0661-2510095, 0661-2501201	aforkl-ofs@gov.in
31	Kurtibas Sahu, SO	Panposh, Fire Station	6371099599	6371099599	6371099599	sopanpo.ofs@odisha.gov.in
32	Rabindra Kumar Behera	Kuarmunda, Fire Station	9777876957	9777876957	9777876957	sokuanr.ofs@odisha.gov.in
33	Sarat Mallick, Station Officer	Nuagaon, Fire Station	9861104026	9861104026	9861104026	sonuagrk.ofs@odisha.gov.in
34	Bijay Ku. Samal, S.O	Bonai, Fire Station	0661-2453562	0661-2453562	0661-2453562	sobanei.ofs@odisha.gov.in
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36	H. B. Singh, Station Officer	Gurundia, Fire Station	7653049201	7653049201	7653049201	soguru.ofs@odisha.gov.in
37	Tripura Sahu, S.O	Koira, Fire Station	9938446293	9938446293	9938446293	sokoid.ofs@odisha.gov.in
38	Maheswar Sahoo, S.O	Rajgangpur Fire Station	6372070875	6372070875	6372070875	sorajga.ofs@odisha.gov.in
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133	Police Block Area wise	Police Station	CUG No.			
134	Sadar Block	Town P.S.	9438916665			
135	Sadar / Subdega / Tangarpali Block	Sadar P.S.	9438916663			
136	Sadar Block	Dharuadihi P.S.	9438916858			
137	Sadar / Tangarpali Block	Bhasma P.S.	9438916652			
138	Hemgir P.S.	Hemgir P.S.	9438916657			
139	Balisankara / Subdega Block	Talsara P.S.	9438916664			
140	Lephripara / Tangarpali Block	Lephripara P.S.	9438916660			

141	Balisankara / Tangarpali Block	Kinjirkela P.S.	9438916658		
142	Bargaon Block	Bargaon P.S.	9438916651		
143	Kutra Block	Kutra p.S.	9438916659		
144	Rajgangpur Block	Rajgangpur P.S.	9438916662		
145	Kuanmunda Block	Biramitrapur P.S.	9438916653		
146	Nuagaon Block	Hatibari P.S.	9438916656		
147	Kuanmunda Block	Raiboga P.S.	9438916661		
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