



**DISTRICT DISASTER MANAGEMENT AUTHORITY
DHENKANAL.**

**DISTRICT DISASTER MANAGEMENT PLAN – 2023-24,
DHENKANAL.**

Submitted to:

**Managing Director, OSDMA, Odisha
Bhubaneswar.**





Foreword

It gives me immense pleasure that, like last years, the District Disaster Management Authority (DDMA), Dhenkanal has taken pro-activeness to prepare the District Disaster Management Plan (DDMP)-2023-24 by updating DDMP-2022-23 with value additions and in conformity with the Disaster Management Act-2005 & Odisha Disaster Management Rule-2010 as well as guidance of OSDMA, Odisha, in a convergence, synergetic efforts following the holistic and bottom to top approach. It was challenging to prepare this plan amid COVID-19 pandemic. The DDMP-2023-24 was approved by DDMA, Dhenkanal, on **09.05.2023**.

While formulating the District Disaster Management Plan, instruction of Special Relief Commissioner & Managing Director, OSDMA, Odisha, priorities and targets of Sendai Framework for Disaster Risk Reduction (SFDRR) 2015-2030 & SDG-2015-2030 and also valuable suggestions of Members of the District Level Committee on Natural Calamity Committee and DDMA, Dhenkanal, have been taken into account.

The District Disaster Management Plan (DDMP) will definitely help DDMA/ District Administration to bring together the information relating to equipments, skilled manpower and critical supplies available in the district and to know the Standard Operating Procedures (SOP) of various departments at the time of disaster and to mitigate any unexpected disaster effectively and to prevent the loss of human lives and property through preparedness, prevention & mitigation of disasters.

The Hazard Risk and Vulnerability Assessment (HRVA), DRR and SWOT analysis were exercised as per the prospective notified disasters in the district. The target fixed for reduction of toll due to notified disasters for next three years and 30 nos of strategies adopted and incorporated in the DDMP-2023-24.

The plan is based on two parts i.e Volume-I which contains DDMP having seventeen chapters & Volume-II deals with relevant statistical figures and annexure. It will certainly help a lot to manage the various disasters effectively & Disaster Risk Reduction (DRR).

Sd/-

**Sri.Saroj Kumar Sethi, IAS
Collector-Cum-Chairperson, DDMA,
Dhenkanal.**



Acknowledgement

The Disaster Management Act 2005 mandates 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. The impact and incidence could be reduced through proper and effective mitigative plan for Disaster Management in the different phases of disaster like pre disaster, during disaster and post disaster phase.

Section 31 of Disaster Management Act 2005 (DM Act) makes it mandatory to have a disaster management plan for the district. The District Disaster Management Plan (DDMP)-2023-24 includes 17 chapters.

This year DDMP-2023-24 will definitely help for over all Disaster Management in the district with special focus on eight nos. of State Specific Disasters. It is prepared in conformity with the Disaster Management Act-2005 & Odisha Disaster Management Rule-2010 as well as guidance of OSDMA, priorities and targets of Sendai Framework on Disaster Risk Reduction (SFDRR) 2015-2030 & SDG-2015-2030 and also valuable suggestions of Members of the District Level Committee on Natural Calamity Committee and DDMA, Dhenkanal, have been taken into account and based on information of all related line departments and stakeholders.

I would like to express my special thanks to Sri. Saroj Kumar Sethi, IAS, Collector-cum-Chairperson, DDMA, Dhenkanal, for his constant guidance and support to accomplish the said plan. I express my thankfulness to President ZP -Cum-Co-chairperson, DDMA, Dhenkanal, all members of DDMA, Dhenkanal, Deputy Collector Emergency, District Level Officers, all BDOs and Tahasildars, Dhenkanal, for their co-operation in preparation of the DDMP -2023-24.

Sd/-

**Addl. District Magistrate-Cum-CEO,
DDMA, Dhenkanal**

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Abbreviation

DDMA	:	District Disaster Management Authority
DDMP	:	District Disaster Management Plan
BDMP	:	Block Disaster Management Plan
HRVA	:	Hazard Risk and Vulnerability Assessment
SWOT Analysis	:	Strength Weakness Opportunity and Threat
DEOC	:	District Emergency Operation Centre
ADM	:	Additional District Magistrate
AWC	:	Anganwadi Centre
BDO	:	Block Development officer
BCR	:	Block Control Room
CCA	:	Climate Change Adaptation
CDM&PHO	:	Chief District Medical &Public Health Officer
CDPO	:	Child Development Project Officer
CMRF	:	Chief Ministers Relief Fund
DCR	:	District Control Room
DDM	:	District Disaster Manager
DEOC	:	District Emergency Operation Centre
SEOC	:	State Emergency Operation Centre
DRDA	:	District Rural Development Agency

DSWO	:	District Social Welfare Officer
DRR	:	Disaster Risk Reduction
GoI	:	Government of India
GP	:	Gram Panchayat
HRVA	:	Hazard Risk and Vulnerability Assessment
IAY	:	Indira AawasYojana
MO	:	Medical Officer
NGO	:	Non-granted Organisation
OSDMA	:	Odisha State Disaster Management Authority
OIC	:	Officer In charge
PDS	:	Public Distribution System
PHC	:	Primary Health Centre
PWD	:	Public Works Department
RD	:	Route Distance
SP	:	Superintendent of Police
VSO	:	Veterinary Stock officer
W&CD	:	Women & Child Development
UNDP	:	United Nations Development Programme
NIDM	:	National Institute of Disaster Management
CDKN	:	Climate & Development Knowledge Network
GEAG	:	Gorakhpur Environmental Action Group
ISET	:	Institute for Social and Environmental Transitions

SLD	:	Shared Learning Dialogue
RTO	:	Regional Transport Officer
MVI	:	Motor Vehicle Inspector
CSO	:	Civil Supply Officer
ACSO	:	Assistant Civil Supply Officer
SI	:	Supply Inspector
MI	:	Marketing Inspector
DSWO	:	District Social Welfare Officer
SDWO	:	Sub-divisional Welfare Officer
DAO	:	District Agriculture Officer
AAO	:	Assistant Agriculture Officer
VAW	:	Village Agriculture Worker
ADMO	:	Additional District Medical Officer
Block MO I/C	:	Block Medical Officer In-charge.
ASHA	:	Accredited Social Health Activist
DEO	:	District Education Officer
BEO	:	Block Education Officer
CDVO	:	Chief District Veterinary Officer
ADVO	:	Additional District Veterinary Officer
LI	:	Life stock Inspector
DLO	:	District Labour Officer
LI	:	Labour Inspector

RRB	:	Regional Rural Bank.
ATM	:	All Time Money
VDMC	:	Village Disaster Management Committee.
VDMP	:	Village Disaster Management Plan.
WKS	:	Ward Kalyan Samiti
MAS	:	Mahila Arogya Samiti
GKS	:	Gaon Kalyan Samiti
SFDRR	:	Sendai Framework for Disaster Risk Reduction.
FAMEX &CAP	:	Familiarization Exercise and Community Awareness Programme.
COVID 19	:	Corona Virus Disease 19
GPDP	:	Gram Panchayat Development Plan

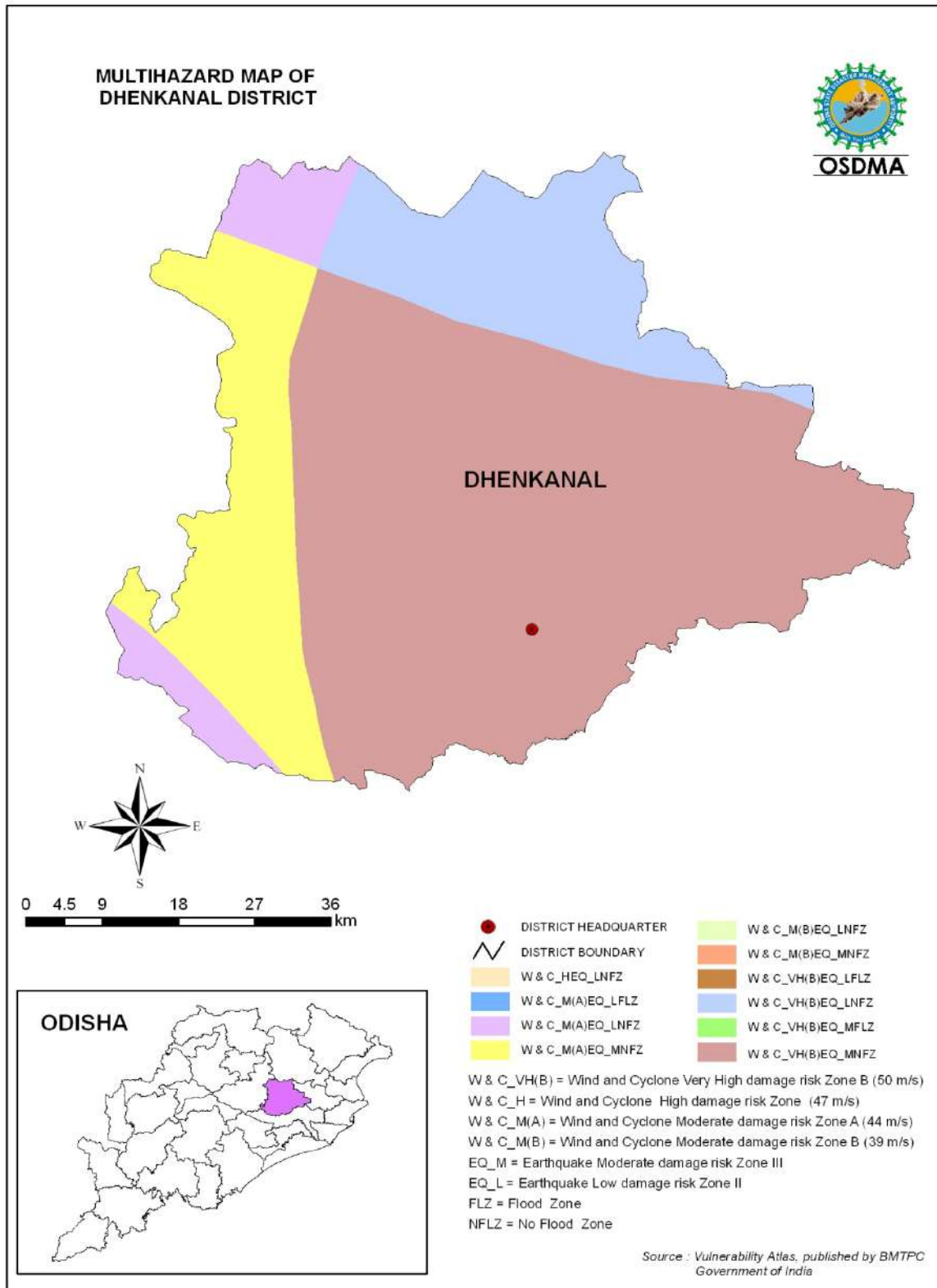
Chapter – 1: Introduction

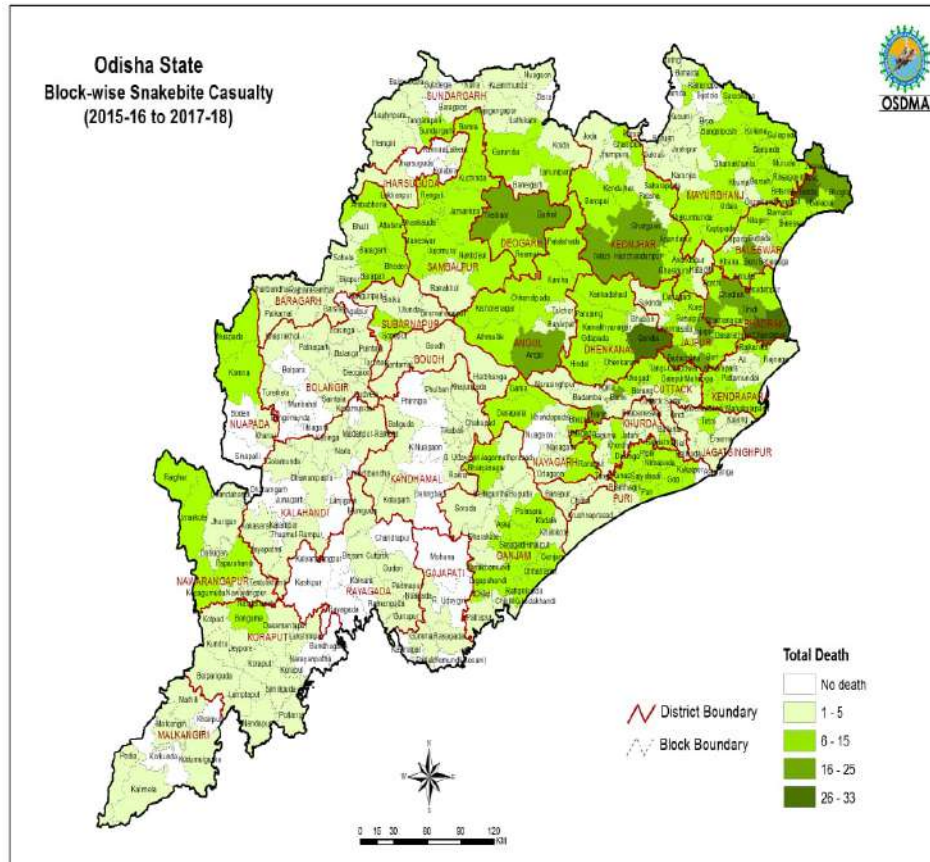
As per the **Disaster Management Act-2005**, under section 2(d) of chapter-1, **Disaster** means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or manmade causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.

There are 12 nos. of Nationally Declared Disasters in India and there are also 9 nos. State Specific Disasters in Odisha (as per the notification of the Govt. of Odisha), the list of disasters is mentioned below, however, the Corona Virus Disease (COVID)-19 which was notified as disaster vide order no.1706/R&DM(DM) Dt.13.03.2020 is denotified as disaster by Govt. of Odisha as per the the Order No.1975/R&DM(DM) Dt.28.03.2022 of the Chief Secretary.

Sl No.	Nationally Declared Disasters	Sl No.	State Specific Disasters
1	Drought	1	Lightning
2	Flood	2	Heat Wave
3	Fire	3	Whirlwind
4	Hailstorm	4	Tornado
5	Cyclone	5	Heavy Rain
6	Earthquake	6	Boat Accidents (other than during flood)
7	Tsunami	7	Drowning (other than during flood)
8	Landslide	8	Snakebite (other than during flood)
9	Avalanche	9	Corona Virus Disease (COVID) 19 is denotified on 28.03.2022
10	Cloud Burst		
11	Pest Attack		
12	Cold Wave/ Frost		

The Multihazard Map of Dhenkanal district as follows,





The above Snakebite vulnerability Map represents that Gondia block is most vulnerable block in the district so far as death due to State specific disaster i.e Snakebite concerned and other blocks except Bhubaneswar are also highly vulnerable. The detail analysis is illustrated as follows.

The trends and analysis of death due to various disasters in last four years & pending cases due to different reasons as follows,

Sl.No	Name of Disaster	2018-19	2019-20	2020-21	2021-22	Total	Pending Cases 2021-22	Pending cases 2018-19 to 2020-21	Total Pending Cases
1	Snakebite	32	31	48	32	143	24	2	26
2	Drowning	45	47	75	25	192	39	19	58
3	Lightning	15	17	13	8	53	4	1	5
4	Sunstroke	3	6	2	1	12	0	2	2
5	Fire Accident	4	8	7	0	19	1	2	3
6	Boat Accident	0	4	0	0	4	0	0	0
	Total	99	113	145	66	423	68	26	94

If confirmed and alleged death are taken into account, total death due to different disasters in 2021-22 will be 134 which will be slightly declining to 2020-21. 95.5 % death occurred due to State Specific Disasters in last 4 years,

Tahasil wise death due to various notified Disasters from 2018-19 to 2022-23, Dhenkanal.

Sl.No.	Tahasil/ Block	Death due to Disasters from 2018-19 to 2022-23						Total
		Snakebite	Drowning	Lightning	Sunstroke	Fire Accident	Boat Accident	
1	Dhenkanal	22	22	8	1	1	0	54
2	Hindol	19	22	2	3	0	0	46
3	Kamakhyanagar	12	41	8	1	4	0	66
4	Parjang	21	49	9	1	2	4	86
5	Odapada	12	12	1	1	5	0	31
6	Bhuban	5	13	9	0	4	0	31
7	Gondia	32	19	7	4	2	0	64
8	Kankadahad	20	14	9	1	1	0	45
Total		143	192	53	12	19	4	423

The highest no. of death (86) has occurred in Parjang block and lowest no. of death occurred in Odapada & bhuban block (31 each). Where as 66 nos. of death was in Kamakhyanagar block and 64 nos. of death was in Gondia block relatively higher than rest three blocks. The graphical representation is as follows,

Sendai Framework on Disaster Risk Reduction (SFDRR) 2015-2030: DDMA, Dhenkanal.

- Building on the Hyogo Framework for Action, the present framework aims to achieve the following outcome over the next 15 years:
- The substantial reduction of disaster risk and losses in lives, livelihoods, health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.
- 4 priorities & 7 Global targets.
- DDMA, Dhenkanal will put forth 100% effort at par with India's commitment in the Sendai Conference as per the guideline of the SDMA/OSDMA.

SFDRR has 4 Priorities:

1. Understanding Disaster Risk
2. Strengthening Disaster risk Governance to Manage Disaster Risk
3. Investing in Disaster Risk Reduction for Resilience
4. Enhancing Disaster Preparedness for effective Response, and to "Build Back Better" in recovery, rehabilitation and reconstruction

1.1 Aims and Objectives of the DDMP:

- The District Disaster Management Plan (DDMP) helps district administration to bring together the information related to equipments, skilled manpower and critical supplies available in the district.

- ▶ It helps to know the standard operating procedures of various departments at the time of disaster. The role and responsibility of each and every line department as well as the officers can be detected at the time of disaster.
- ▶ It helps the district administration to assess its own capacity in terms of available resources and get ready to mitigate any unexpected disaster effectively and to prevent the loss of human lives and property through preparedness, prevention & mitigation of disasters.

The main objectives of the DDMP are as follows:

- 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.
- vii. To develop the standardized mechanism to respond to disaster situation to manage the disaster efficiently.
- viii. 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.
- ix. 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.
- x. To make the use of media in disaster management.
- xi. 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 and others.

PROBABILITY PERIOD / SEASONALITY OF DISASTERS												
Name of Disaster	Month											
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Flood						←————→						
Cyclone				←————→						←————→		
Drought						←————→						
Heat stroke			←————→									
Fire Accident	←————→											
Earthquake	←————→											
Industrial/ Chemical	←————→											

History of past disasters in the district

Disaster	Year of Occurrences
Flood	1982, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1998, 1999, 2001, 2003, 2004, 2005, 2006, 2010, 2011, 2019, 2020, 2021
Cyclone	1972, 1990, 1999, 2013, 2014, 2017, 2018, 2019, 2020, 2021
Heavy Rain	2020, 2021
Drought	1998, 1999, 2002, 2009, 2010, 2011, 2015, 2017
Fire Accidents	Almost every year/ It's recurrent in Dhenkanal
Hailstorm	2013
Earthquake	May-2014, April-2015
Tsunami	NA
Landslide	Nil
Avalanche	NA
Lightning	Every year (Mostly in Pre-Monsoon & during Monsoon)
Heat Wave	Every year
Whirlwind	Every year
Boat Accidents (other than during flood)	2016, 2019
Drowning (other than during flood)	Every Year
Snakebite (other than during flood)	Every Year
Industrial/ Chemical	Bhusan Tragedy occurred in 2013

1.2 Preparation and Approval of DDMP-2023-24:

As per the Section 30 of Disaster Management Act 2005, the DDMA, Dhenkanal, 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 Disaster Management Authority (DDMA), Dhenkanal, decided to update District Disaster Management Plan (DDMP)-2023-24 as per the guidelines and formats of the OSDMA. The Executive Director (Admn), OSDMA, Odisha, Bhubaneswar, communicated to update DDMP-2023-24.

All concerned District/Block and Line Deptt. Officers were intimated to submit information as per the last year formats & chapters. The District Project Officer (DPO), OSDMA, Dhenkanal, was assigned to prepare the DDMP-2023-24. The District Disaster Management Plan (DDMP-2021-22) will be reviewed and updated annually.

The DDMA, Dhenkanal will send soft copy of this plan to the State Disaster Management Authority (SDMA) & OSDMA, Odisha, Bhubaneswar, by 25.04.2022 for necessary feedback.

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

- ❖ District Disaster Management Authority (DDMA), Dhenkanal has been preparing the DDMP every year with the technical support of OSDMA to tackle the various types of disasters in the district.
- ❖ The District Project Officer (DPO), OSDMA, Dhenkanal was entrusted to update the DDMP-2023-24.
- ❖ Moreover, recent development in Sendai Framework for Disaster Risk Reduction (2015-2030) and Sustainable Development Goal (SDG) focused in mainstreaming of DRR in development planning and programme were taken into account.
- ❖ This year DDMA has given special efforts to bridge the gaps in the preparation of the DDMP-2021-22 and make standardisation in preparing DDMP as per norms. The formats & templates developed by the OSDMA/DDMA in last years is referred to update the existing DDMP-2021-22 as per the Chapter-13 of the Disaster Management Act-2005. As such, the DDMP-2023-24, Dhenkanal has two parts **(1)-Volume I** which contains the DDMP and **(2)-Volume II** covers relevant statistical figures and annexure. Adhering to the past and prospecting disasters, DDMA, Dhenkanal updates DDMP-2021-22 as per the provision laid down under **Chapter –IV, Section 31 of the Disaster Management Act 2005**.
- ❖ The Hazard Risk and Vulnerability Assessment (HRVA) was exercised as per the prospective disasters in consultation with district and block line department Officers/ Staff, all BDOs and all Tahasildars. The different preparative, mitigative and awareness activities are planned to implement in community and facility level.
- ❖ The preparation of the DDMP was done following bottom to top approach and in a convergence manner and more focus is given to bottom of the pyramid.
- ❖ Besides, the district adopted key processes like SWOT Analysis, Review, Situation Analysis Hazard Analysis, Vulnerability Assessment and Opportunity Analysis.
- ❖ The information submitted by all concerned line departments was compiled and drafted by the District District Project Officer (DPO), OSDMA, Dhenkanal under the close supervision of the Dy. Collector Emdrgency, Addl. District Magistrate-cum-CEO, DDMA and approved by the Collector-cum-Chairman, DDMA, Dhenkanal. After the necessary modification, the revised draft plan was finalised. The DDMP, 2021-22 will be approved by **DDMA, Dhenkanal, in its next quarterly meeting.**

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 Officers at district HQ are responsible to deal with all phases (Pre and Post) of disaster management within district.
- ❖ PRI members, technical institutions, community at large, local self-governments, NGOs etc. are also stakeholders of the District Disaster Management Plan. Framing of a Comprehensive District Disaster Management Plan is to combat the effects of disasters and minimize loss of life and property. The role and responsibilities of different stakeholders involved in disaster management such as Government officials, Public, NGO sector, Civil Defence, Interest groups, CBOs, and the community in disaster mitigation during different stages of the disaster are included in the Plan.

Pre Disaster Period (Preparedness)

1. Formation of District Disaster Management Committee.
2. Preparation of District Disaster or impending Disaster Management Plan.
3. Hazard Analysis & Resource Inventory.
4. Allocation of responsibilities to the individual actors/ Groups/ Institutions/ Organizations.
5. Evacuation
6. Broadly defining the responsibilities and operational jurisdiction.
7. IEC activities.
8. Training and capacity building.
9. Logistic arrangement – Cyclone/ Flood shelters, Food items like Rice, Chuda & Guda, Drinking water, Medical facilities, clothing, other essential commodities, communication network like wireless system etc.

During Disasters

1. Functioning of District Control Room & other Block/ Tahasil/ Line Departmental Control Rooms.
2. Dissemination of warning/ information.
3. Evacuation as per the requirement and Management of Relief Camp as per NDMA norms.
4. Coordination meeting with officials at District Control Room in each 12 hours interval to take stock of the situation.
5. Alert Line Deptt. and support functionaries.
6. Immediate freezing of reasonable POL/DOL stock with different Petrol Pumps.
7. Rescue Operation / Evacuation teams (already identified) providing infrastructure facility and movement to rescue centres.
8. Management of Rescue shelters.
9. Administration of Relief.
10. Preparation of the Daily situation report.
11. Daily stock taking of the situation by Collector & District Magistrate and Addl. District Magistrate.

Post Disaster.

1. Evacuation as per the requirement and Management of Relief Camp as per NDMA norms.
2. Assessment & enumeration of damage.
3. Distribution of Relief/ Emergent Relief as per the provisions of ORC.
4. Monitoring Relief Operation organized by outside agencies/ UN Agencies/ Red Cross/ NGOs/ PSUs other states etc through District Administration.
5. Restoration of Communication – Roads & Railways.
6. Restoration of Electronic communication system.
7. Immediate arrangement of free kitchen in the cut off/ shelter camps and inaccessible areas.
8. Ensuring transportation of Relief Materials to affected pockets.
9. Ensuring safeguarding of belongings of the evacuees.
10. Maintenance of Law & Order.
11. Ensuring safe availability of Drinking water.

12. Provision of Medical facilities and Minimum sanitation.
13. Removal of debris and disposal of carcasses.
14. Helping the evacuees to return to their homes.
15. Special care to children, Lactating Mothers, Old & infants.
16. Documentation of the entire events.
17. Keeping liaison with field and state Govt. & interaction.
18. Augmenting of the Rehabilitation, Reconstruction and Recovery activities.

The duties of the Collector & DM, Dhenkanal:

- 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 DRR 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, DDMA, Collector & DM or such other person entrusted with or engaged in disaster management whenever demanded generally for the purpose of disaster management in the district.

1.5 Plan for review and updating: Periodicity

Dissemination of the plan: The plan should be disseminated at different administrative levels in the district and with the stakeholders for updating, better implementation and value addition, others. The process should be dynamic one to tackle the situation as per the needs and impending disasters.

Revise and Maintain: The core team of DDMA establishes a process for reviewing and revising the plan. Review of this plan is a recurring activity. It should be mandatory to consider reviewing and updating the plan after the following events:

- i. A major happening of incident/disaster.
- 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 of Disaster Management Act-2005
- vii. Others.

The DDMA, Dhenkanal, decided that the DDMP shall be internally reviewed if so required it will be updated annually. The updates or reaffirmance document shall be used to summarize the accomplishments of the past year and help the administration to prioritize mitigation goals for the next year and same updating to be submitted to OSDMA for approval.

Chapter-2 District Profile

History & Location:

BRIEF HISTORY OF THE DISTRICT

Centrally located on the Geo-political map of Odisha Dhenkanal district owes its name to its headquarters town. It is commonly believed that Dhenkanal town has been named after the Savar chief named Dhenka who formerly ruled over this tract. A district with unique history of its own, Dhenkanal has been popular as a famous religious site for a period of over 100 years. With flourishing economy and rich socio-cultural parameters the district is considered to be one among the few developed districts of Odisha. The district touches the boundary of Kendujhar on its north, Cuttack on South, Jajpur on its east and Anugul on its west. The district is constituted of two ex-princely states Dhenkanal and Hindol, so the history of the district is synonymous to these ex-states. The early history of the district Dhenkanal remains obscure due to paucity of reliable materials. Very little is known about its history, during the period before Christ. One Nasik inscription reveals that the territory round about the Malaya Mountain was included in the empire of the Satavahan king Goutami Putra Satkarni, who ruled in the Second Century A.D. if the mount Malaya be identified with Malyagiri in Dhenkanal district, this district may be taken to a part of empire of Goutami Putra Satkarni.

The history of the district can however be properly studied from the time of the ascendancy of the Bhoumakaras in 736 A.D. The Bhouma Empire extended from the modern district of Midnapur (W.B) in the North to that of Ganjam in the South and up to Bouda-Khandmals in the west. In the eighth century A.D a branch of Bhanja kings was ruling over the western parts of the district with the headquarters at Angulokapattana identified with old Anugul now called Purunagarh. The Bhanjas were ousted by the Sulki who ruled over an extensive territory known as Kodalakamandala. The headquarters of the Sulki king was at Kodalaka identified with modern Kaulo. The earliest Sulki king was Kanchanastambha whose son Kullastambha-I enlarged the territory subduing the Savar Chief named Dhekata after which he assumed the title of Vikramaditya. It is said that Dhekata is the same as the legendary Savar king Dhenka after whose name the place has been called Dhenkanal. The Sulki Dynasty became the absolute authority of Dhenkanal district and continued to rule till 9th Century. As the history of Dhenkanal contemplates the authority of Dhenkanal, has been passed under the various kings and chiefs belonging to various dynasties. In 1568 A.D the Afghans occupied Orissa. During the rule of Suryavamsis and Bhois some feudal states developed in this region and were known by the names of Dhenkanal, Bhimanagari, Handapa, Hindol, Pallahada and Anugul. The state of Dhenkanal was under the rule of the kings of Bhoi dynasty. The district of Dhenkanal had political awakening long before the creation of the district. In the thirties of the twentieth century Prajamandal was formed in different states to agitate against the reactionary feudal rule. The agitation in Dhenkanal became very serious in 1938-39 and

several people were killed by police firing. The people's agitation in Dhenkanal spread over to other neighbouring states and a 'no rent' campaign started there. Batches of volunteers came from Cuttack and offered Satyagraha against the Dhenkanal Durbar in support of the Prajamandal. The Indian National Congress and All India States People's Conference supported his struggle. The political Department, advised the rulers to adopt conciliatory attitude and constitutional reforms were proclaimed by the chiefs in their respective states.

The ruling family of Hindol belonged to solar dynasty and hailed from the Khemidi region of Ganjam. The earliest king was Chakradev Jenamani who is supposed to have started his rule in 1553 A.D. Raja Nandadev who ruled from 1623 A.D to 1640 A.D was a notable ruler of this Family and he obtained the title of "Maharatha" from the Raja of Khordha. RadhamaniSingh who came to Gadi in 1770 A.D obtained the title of "Mardraj Jagadev" and the succeeding ruler of Hindol continued to bear this title. Raja Krushna Chandra who ruled from 1786 A.D to 1829 A.D obtained the official sanction for the hereditary title of Raja from the British. Raja Janardan Singh who ruled from 1876 A.D to 1906 A.D was an enlightened ruler and he worked hard to improve the material condition of his state. The district played an important role in the movement of August 1942. After independence of India the question of merger of the princely states was taken up by the Government and on 1st January 1948, the states of Dhenkanal, Hindol, Talcher, Pallahada and Athmallik merged with Orissa. These ex-states together with Anugul and ex-states of Rairakhhol constituted the district of Dhenkanal on that date. Later on Rairakhhol was transferred to Sambalpur district with effect from 26th October 1949. Dhenkanal and Anugul were two separate districts with one composite office located at Dhenkanal. The collector of Dhenkanal was the ex-officio Collector of Anugul. The status of Anugul as a district was changed to that of a Sub-division of Dhenkanal district since 15th September 1967 by the Anugul laws Regulation (Repeal) Act, 1967. Again on 02.10.1992 the Government of Odisha divided the erstwhile Dhenkanal district into two districts viz. Dhenkanal and Anugul vide Govt. of Odisha notification No.DRC-44/93-14218/R dated 27.03.1993. Dhenkanal district had been marked by many freedom fighters who lost their lives during the India's struggle for freedom. One of those fighters was Baji Rout, who was in charge of country boat in the Nilakanthapur Ghat of Baitarani River. On 11th October 1938, when asked by the British police to make them cross the river Baji Rout denied. On this act police force became revengeful and fired Baji Rout brutally along with Laxman Mallick and Fagu Sahoo. Baji Rout was the youngest freedom fighter who lost his life at an early age of 12. Dhenkanal district has a moderate climate with high humidity during summer and cold during winter months. Dhenkanal district is situated in mid central agro climatic zone at 20⁰.3' to 21⁰.16' North Latitude and 84⁰.6' to 86⁰.6' East Longitude with 300 mtrs., above mean sea level

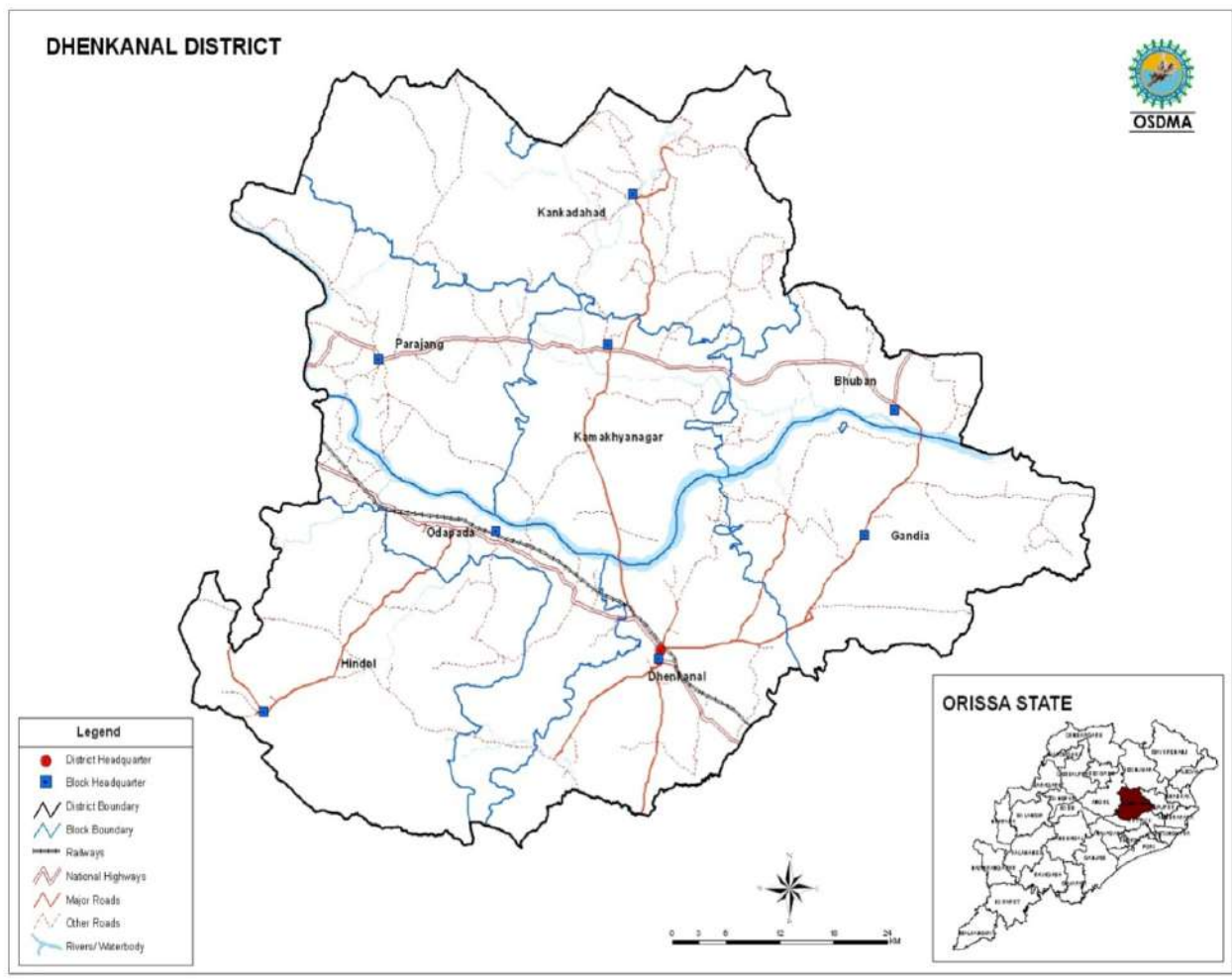
Administrative Setup:

The Collector and District Magistrate is the administrative head of the district. For smooth running of administration he is assisted by Additional District Magistrates, Deputy/Assistant Collectors, Sub-Collectors, Block Development Officers and Tahasildars. In addition to this there are

District level officers of other departments. Though they are under the administrative control of their respective departmental heads but the Collector as the administrative head of the district exercises general supervision over them. The district consists of 3 sub-divisions namely Dhenkanal, Hindol & Kamakshyanagar and each sub-division is under the administrative control of a Sub-Collector. For smooth running of revenue administration, the district is divided into 8 Tahasils viz. Bhuban, Kamakshyanagar, Parjang, Dhenkanal, Hindol, Gondia, Kankadahad and Odapada and each Tahasil is kept in charge of a Tahasildar. Similarly, for carrying out the developmental activities smoothly the district is divided into 8 C D Blocks and each C D Block is under the administrative control of a Block Development Officer.

There are 14 nos of Police Stations, 12nos of Outpost in the district. It may be mentioned here that a portion of Bhusan Steel Ltd. P.S is also lying in Anugul district. Similarly, for looking after development of urban areas, there are 4 nosULBs namely Dhenkanal (M), Kamakshyanagar (NAC) and Bhuban (NAC),Hindol (NAC) and each town is under the administrative control of an Executive Officer. Apart from these, two villages namely Saranga and Indipur having urban characteristics have been declared as non-statutory towns i.e. Census towns during 2011 census. The abstract of different units are as follows.

Sl. No	Name of Sub-Division.	Name of the Tahasil	R.I Circle	Total Number of Revenue Village.	Name of the Block	No. of GP.	Ward.	Total No. of Inhabited Village.	ULB(Urban Local Body)
1	Dhenkanal.	Sadar	10	177	Sadar	30	399	164	Dhenkanal (Municipality)
2		Gandia	10	193	Gandia	29	426	195	
3		Odapada	9	150	Odapada	28	419	150	
4	Hindol.	Hindal	12	189	Hindal	35	446	186	Hindol (NAC)
5	Kamakshyanagar.	Parjang	10	97	Parjang	29	361	98	
6		Kamakshyanagar	7	176	Kamakshyanagar	22	296	152	Kamakshyanagar(NAC)
7		Kankadahada	7	126	Kankadahada	21	276	130	
8		Bhuban	6	131	Bhuban	18	258	135	Bhuban(NAC)
	Total	8	71	1239	8	212	2881	1210	4



Climate & Rain fall:

Climate of the district is generally of high humidity. May is usually the hottest month. Occurrence of large number of fire accidents is a regular feature of the district during the summer months i.e. April to May. December is the coolest month of the year. The average minimum and maximum temperatures are 19.6° C and 33.3°C respectively. The humidity is generally high varying from 31 to 88%. Dhenkanal District has a moderate climate. The District experiences heat with high humidity during April and May and becomes cold during the winter months, i.e. December and January. December is usually the coldest month of the year with the mean daily minimum temperature of 13.9°C.

Monsoon generally commences from 14th June every year. **Average rainfall of the district is 1428.8 mm.** The rainfall during **June to December** constitutes at least **75% of the annual rainfall of the district.** There are averages 73 rainy days in a year in the district. Normal and actual rainfall of Dhenkanal district for the last 30 years is as follows

SL.NO.	YEAR	NORMAL RAINFALL (IN MM.)	ACTUAL RAINFALL (IN MM.)	DEVIATION FROM NORMAL
1.	1993	1421.1	1549.3	+9.02
2.	1994	1421.1	1696.39	+19.37
3.	1995	1421.1	1752.4	+23.31
4.	1996	1421.1	1021.7	-28.11
5.	1997	1421.1	1617.7	+13.83
6.	1998	1421.1	1344.1	-5.42
7.	1999	1495.0	1541.0	+3.07
8.	2000	1495.0	1018.0	-31.91
9.	2001	1495.0	1625.0	+8.69
10.	2002	1495.0	1017.68	-31.93
11.	2003	1495.0	1632.7	+9.21
12.	2004	1495.0	1045.5	-30.07
13.	2005	1495.0	1745.7	+16.76
14.	2006	1495.0	1384.57	-7.39
15.	2007	1451.3	1300.48	-10.4
16.	2008	1451.3	1428.66	-15.6
17.	2009	1428.8	1471.5	+2.98
18.	2010	1428.8	1127.38	-21.1
19.	2011	1428.8	1489.18	+4.2
20.	2012	1428.8	1477.5	+3.8
21.	2013	1428.8	1639.64	+14.7
22.	2014	1428.8	1429.76	+0.07
23.	2015	1428.8	1021.25	-28.5
24.	2016	1428.8	1207.77	-15.47
25.	2017	1428.80	1132.59	-20.72
26.	2018	1428.80	1620.08	+191.28
27.	2019	1428.80	1463.88	+35.08
28.	2020	1428.80	1644.93	+216.13
29.	2021	1428.80	1477.38	+48
30.	2022	1428.80	1470.80	+42

Geography:

Dhenkanal is a land-locked district with a total geographical coverage of 4452 Sq.Km. Dhenkanal district is one of the centrally located district in Odisha. It lies between Longitude: 85° 58' to 86° 2' East and Latitude : 20° 29' to 21° 11' North.

Neighbouring Districts: Dhenkanal District is situated on the Cuttack Sambalpur Road (NH 55) and the Cuttack Sambalpur East Coast Railway line. It is bounded by the Keonjhar District in north, Cuttack district in south, Jajpur in the east and Angul in the west.

The climate of this district is generally hot with high humidity during April and May and cold during December and January. The monsoon generally breaks during the month of June.

Most part of this district is covered with dense forest and a long range of hills. Total forest area coverage is **1737.62 Sq.kms**. The River **Brahmani, Sapua, Ramiala** are the main rivers of the district. This district has mainly five varieties of soil.

- | | |
|-----------------------|----------------------------------|
| 1. Alluvial soil | - Available in river valley. |
| 2. Red leam soil | - Available in high Land. |
| 3. Sandy loan soil | - Found in Patches. |
| 4. Gravelly soil | - Found in hill slopes. |
| 5. Cleaving loan soil | - Found throughout the district. |

Probable Geological Disasters:

Dhenkanal district comes within Mahanandi Grabben. The two major faults i.e. North Odisha Boundary Fault (NOBF) and Mahanandi Shear constituting Mahanandi Grabben are not active at present. Since Mahanandi Grabben falls under zone III of seismic map of India, the district may experience mild to moderate tremor with intensity of 3 to 5 in the Richter scale. If those two faults will be reactivated, otherwise, the people of Dhenkanal district should not be scared of any major geological disaster.

Topography:

For practical purpose, this district can be divided in to three natural divisions.

1. Southern hilly region.
2. The river Valley with tributaries.
3. The northern hilly region.

The district head quarter, Dhenkanal is 87 Kms from the State Capital, Bhubaneswar.

River System:**Main Rivers and their Tributaries.**

The River Bramhani is the life line of Dhenkanal District. It originates from Chhotnagpur plateau of Jharkhand in the names of **Koel and Sankh**. Both the rivers join together at Panposh in Sundargarh District and the downstream is named Bramhani till it meets the Bay of Bengal in Kendrapada District. The river Bramhani touches Dhenkanal District at extreme western end near **Jaka** of **Kamakhyanagar Sub-Division** and flows in the middle of the district up to border of Dhenkanal and Jajpur District near Nihalprasad. On its way in Dhenkanal District it is supplemented with the runoff from the catchments of both sides. The following are tributaries and feeders of Bramhani. There is also a tributary of Mahanadi.

Ramial- It is the biggest tributary of river Bramhani originating from Benamunda Reserve Forest of Keonjhar District. Flowing through Kamakhyanagar, Kankadahad Bhuban Block it meets “Bramhani” at Bhuban.

Ragadinala- This nala is a feeder of Ramial originating from Ranjagada Reserve Forest & meets Ramial near Ranjagarh.

Pichhuli- This is a feeder of Ramial. It originates from Rebena Forest Block of Keonjhar District and joins Ramial near Ranjagarh.

Dolijajora- This is a feeder of Ramial. It originates from Keonjhar and joins river Ramial near Anantpur RF.

Lingarajora- This is a feeder of Bramhani on its right. It originates from Similipathar of Angul District and flowing through Hindol Sub-Division meets Bramhani at Meramundali.

Badajora- This is a feeder of Bramhani. It originates from forest area of Kantapal of Hindol Sub-Division and joins rivers Bramhani at Bangurisingha.

Daunsinala- This is a feeder of river Bramhani. It originates from Aswakhola Forest Block, flowing through Matiasahi it joins Bramhani at Kathapal.

Deulinala- This is a feeder of river Bramhani. It originates from Kapilash Forest Block. Passing through Ramai Forest Block it joins Bramhani at Joranda, Kathapal.

Karchamulanala- This nala originates from Ranjagarh Forest Block of Dhenkanal District and Daitary Forest Block of Keonjhar District. Passing through eastern and Southeastern direction on the border of above two Districts it meets Bramhani at Damsalnala.

Sapua- This is a tributary of river Mahanadi. It originates from Kandhara Forest Block of Hindol Sub-Division. Flowing through Kandhara Forest Block it touches Cuttack District near Sankarpur and finally meets Mahanadi at Mugapatna of Cuttack District.

Waterfalls- There are a few waterfalls in the Kapilash hill three miles (5Km.) to the west of the village Deogan. These falls have an average height of about 30 ft. and are not perennial. Even during the rainy season the volume of water is not considerable.

Springs- A spring at Kapilash near the Chandrasekhar Temple and another at Saptasajya are the two springs where water oozes out of the mountain surface at a high level. The spring near Chandrasekhar Temple passes through different constructions and has attained religious sanctity. The Temple Inspection Bungalow and the vicinity are served by the spring water. The spring ultimately flows down as a small stream besides which is built a flight of steps to reach the Temple from foot hill.

The detail information about these rivers is given below:

- River Brahmani:

Gauge point	:	Rajghat
Warning Level	:	9.45 metre/12.00ft
Danger Level	:	10.36 metre/15.00ft
Highest Level	:	20.80ft (16.10.85) and 12.20 Meters (7.8.98)

The river Brahmani originates from Chhotnagpur hill of Bihar State and enters Dhenkanal district near Olma

Demography:

Households and its distribution: As per Census 2011 & BPL Survey 1997.

Sl. No	Total Number of Families/HH	Category		Category				Category	
		Rural	Urban	SC	ST	OBC	GEN	BPL	APL
1	279364	252373	26991	NA	NA	NA		127159	75873

Population and its composition:

Sl. No	Population			SC		ST		OBC	
	T	M	F	M	F	M	F	M	F
1	1192811	612593	580218	118755	113324	80878	81178	NA	NA

Population density of the district and decadal growth of population:

- Population Density of the district: **268 /SKm. Odisha-270 SKm. As per the Census 2011**
- Decadal Growth of population: **11.80%, Nos: 125933. As per the Census 2011.**

Religion wise distribution of Population:

Sl. No.	Total Population	Category				
		Hindu	Muslim	Christian	Sikh	Others
1	1192811	1185542	4805	757	124	1208

Age Group

Sl. No.	Total Population	0-5 years	6-14 years	15-59 years	60 years and above
1	1192811	139096	NA	NA	NA

Sex Ratio:

1	Sex Ratio (Females per 1000 males):	947
2	Sex Ration(0-6 Years):	877

Literacy Rate:

	Total	Male	Female
Literacy Rate	78.76%	86.18%	71%

[Details are at Volume II of the DDMP]

Socio-Economic profile:

Workforce participation- The workers participation ratio in Dhenkanal district at 36.5% is much lower than the 41.8% at the state level a per 2011 census. The work participation rate in rural and urban is 37% and 31.6% respectively. The share of marginal workers in the total workforce increased substantially from 33.42% in 2001 to 36.5% in 2011, while the share of main workers to total workers has declined from 73.5% in 2001 to 63.7% in 2011. Total Worker is **435533**, **Main Workers is 277338** and Marginal Workers is **158195 as per Census 2011.**

Workforce participation rate- Male/ Female: Economic development is closely interrelated with the work participation rate of population. However, in a developing traditional society modernization

leading to increase in the income level of population initially shows low level work participation because of withdrawal of women and children from the less prestigious and low paying work. Needless to say, a district like Dhenkanal which is at the developing stage, agriculture is the mainstay of the economy and more than three-fourths of its workforce are found to be earning their livelihood by pursuing traditional primary sector occupations such as agriculture and allied activities including mining and quarries. The total workers in the district are 435533 out of that Male Worker:340552, Female Workers:94981. The workers participation ratio in Dhenkanal district is 36.5% as per the Census 2011.

Land Holding Pattern:

The Land Hold Pattern in Dhenkanal district is as follows, total land holding in nos. 108337 and land holding area 139888 Ha. The average land holding is 1.16 Ha. The detail is mentioned below.

Sl No.	Class	Total	
		No.	Area (Ha.)
1	Marginal <1 Ha.	50726	26487
2	Small 1-2 Ha.	39823	54139
3	Semi Medium 2-4 Ha.	14678	38910
4	Medium 4-10 Ha.	2873	15772
5	Large >10Ha	237	4580
Total		108337	139888

Source: Comprehensive District Annual Plan-2014-15 (Dy. Director, P&S)

Agriculture and Irrigation:

(A)-Agriculture:

Agriculture is an ancient practice, laid the foundation of civilization. The image of history reflects the amazing changes in Agriculture which contributes in economy growth of individuals. Ever since, the sector has contributed enormously to the transformation of the nomad to a modern man. Agriculture which started to be practices for sustenance until recent past undergone a sea change with the advent of modern technology. It is no more considered an activity for sustenance rather a means not only to earn livelihood but also a business proposition in the world over. Agriculture is the largest sector in Dhenkanal district. 80% of the population depends on agriculture. The River Brahmani and Sapua is the main river of the district. The Climate of the district is fairly humid with dry and hot summer followed by wet and humid monsoon with mild winter having average normal rainfall of 1428.8 mm. The soil of the district is mostly Red Lateritic, Sandy Loam and Alluvial in nature. An agricultural district like Dhenkanal gains much from forests which plays an important role in the economy of the district. The principal forest products are Timber, Bamboo, Fire wood and Kendu leaf. The minor forest products are Lac, Honey, Kenduli Gum, Wax, Mahua flower, Sunari fark, Siali Leaves, Catechus, Tassar Cocoons and other raw materials used for medicine.

(B) Minor Irrigation:

Minor Irrigation (Flow) takes care of construction, maintenance and management of Irrigation projects of Cultural Command Area (CCA) ranging between 40 ha. to 2000 ha. utilizing the surface flow through canal and field to field irrigation. The main source of irrigation are either tanks or other Minor Irrigation Projects constructed diverting or storing water of hill streams named as Diversion Weir and Reservoirs respectively.

Agriculture depends mainly on rainfall. As the District is very much susceptible to drought conditions on account of untimely rainfall or failure of monsoon, the Minor Irrigation sources (i.e. diversion of hill streams, tanks and reservoirs) have proved as a stand-by for Khariff irrigation. But these are not adequate to provide water during Rabi crops in all projects in all parts of the District.

Under Minor Irrigation Division, Dhenkanal there are 166 nos. of Minor Irrigation Projects having designed ayacut of 25731 ha. in Khariff and 4326 ha. in Rabi out of which, 83 nos. of Projects are completed and operational projects, 12 nos. are Partly derelict projects and others are Completely derelict and On-going (New) projects. The Certified ayacut under this Division at present is 16361 ha. in Khariff and 250 ha. in Rabi.

The main implementing schemes are RIDF (Rural Infrastructure Development Fund) under NABARD Assistance. Under RIDF scheme 9 nos. of new projects have been taken-up with an estimated cost of Rs.1396.02 lakh and designed potential of 2481 ha. in Khariff.

Besides this, Minor Irrigation is also executing the “In-stream storage structures” or “Check Dams” with the multi disciplinary benefits like ground water recharge, domestic use or for Lift irrigation purpose. Under this scheme 569 nos. of Check Dams have been taken-up with an estimated cost of Rs.15203.07 lakh to irrigate 12672.50 ha. of ayacut in Rabi crops out of which 393 nos. of Check Dams have been completed creating 7780 ha. of potential by end of March-2017.

(C)-Lift Irrigation:

The block wise number of Lift Irrigation points (River& Deep Bore Wells) along with Ayacut Area is mentioned below.

Sl. No.	Block	Lift Irrigation Point(River)		LI points (Deep bore wells)	
		No.	Ayacut Area Ha.	No.	Aayacut area
1	Dhenkanal	93	2172	399	1995
2	Odapada	105	2796	162	810
3	Gondia	124	2940	82	410
4	Hindol	114	2428	178	890
5	Kamakhyanager	99	2892	26	130

6	Bhuban	158	3638	59	295
7	Parjang	52	2220	128	640
8	Kankadahad	37	1328	14	70
	Total	782	20414	1048	5240

Employment and livelihood:

Industries and mining:

Large & Medium Scale Industries of Mineral based and Power sector have come-up in the District. At present 19. Nos of Large & Medium Industries are functioning and adding revenue to the state exchequer and providing Employment opportunity directly and indirectly to the local youths. (List given in statement-I) Gradually the Engineering Work Shop and Construction activities like Stone Crusher, Fly Ash Bricks and Agro based Industries like Rice Mill, Rice Huller & Cashew Processing units have come –up in this district. List of such Industrial. Activities in the district is given below

1.	Engineering Work Shop...	...	55
2.	Fly Ash Bricks.	...	65
3.	Rice Mill	...	12
4.	Cashew Processing	...	25
5.	Stone Crusher	...	60
6.	Saw Mill	...	04

Basing on the rich mineral resources in Odisha like Iron ore,Coal,Chromite and Manganiese. A mega Steel Plant namely M/s Bhusan Steel Ltd has been set up in Narendrapur of Odapada Block where in Rs. 1318300 Lakhs has been invested providing employment to 12336persons.directly and indirectly . A sister concern unit namely M/s Bhusan Engg. Ltd. For manufacturing of 300 M.W of power for utilization in the Plant and for supply to State Greed. M/s MGM Minerals Pvt. Ltd. A Sponge Iron Plant with Captive Power Plant of 10 M.W of power has been set up basing on the mineral resources in the district. M/s GMR Kamalang Power Pvt. Ltd has been set up in village Kamalang of Odapada Block for generation of power 1050.M.W. M/s Naba Bharat Ventures Pvt. Ltd is functioning in Odapada Block for manufacturing of Ferro Alloys with capacity 750 MT, Investment of Rs.77 .Crores and generating employment 83 5persons.. M/s Naba Bharat Ventures Pvt. Ltd has also generating 158 M.W powers by using coal available in the State. M/s BRG Iron & Steel Pvt. Ltd an integrated Steel Plant is functioning in Kurunti village of Odapada Block. Basing on the large and Medium Scale Industries.Ancillary and Down Stem Industries have been set up in Engineering and Construction related activities. More than 60 Fly Ash Brick making units are functioning by using fly ash generated by the mega power plants in and around in Dhenkanal district .Well equipped Engg. Workshops have also developed in the district which caters to the needs of mega projects.

Source- General Manager, Regional Industries Centre, Dhenkanal.**Education:**

School & Mass Education Deptt. Govt. of Odisha under which the total Primary, Upper Primary Secondary Schools & now the Sr. Secondary schools are being managed. Different Directorates like Elementary Education, Secondary Education, OPEPA, RMSA, all these Heads of Deptt. Give necessary instructions regarding different policy matters formulated by the Deptt. for implementation in District level. At the Dist. Level, there is one District Education Office & one Dist. Project Co-ordinator, SSA office in which one District Education Officer & one Addl. Dist. Education Officer has been posted respectively for supervision of different education activities. There are 1509 nos of Govt. Primary, ME & High schools are in the district out of that 817 nos of Primary Schools, 544 nos of ME School and 148 nos of High School. Total 160286 nos of students get enrolled their name for the year 2017-18. There are 46 nos of Colleges and 3 nos of Polytechnic/ITI colleges in the district. The details are annexed in the Volume-11.

Health:

The District has been considered as a high risk Pocket for different Communicable diseases. The Most Commonly occurring diseases in the district are Malaria, Acute Diarrhoeal Diseases, Bacillary Dysentery, Acute Respiratory Infection etc. Due to the dense forest and Tropical Climate Condition the incidence of Malaria is high inside the district. The yearly graph of the district in respect to Malaria is on downtrend but not under control. The district is also a Vulnerable Pocket for Dengue due to rapid industrialization. Blocks like Sriramchandrapur, Parjang, Khajuriakata shows high incidence rate of Malaria. Acute Diarrhoeal diseases are commonly seen in different Pockets of the district like Parjang, Kamakhyanagar, Kankadahad & Hindol. Due to lack of awareness these diseases are Prone in Tribal Communities. The district is endemic in ADD but case fatality gradually decreased and since last couple of years it is Zero. The Public Health Wing under District Health administration is looking after the disinfection of Dug Wells and ensuring Safe Drinking Water for Dug Well users. *The Biju Swathya Kalyan Yojana has been implementing since long for universal health coverage & cash less treatments.*

Implementation of Routine Immunization/Mission Indradhanush:-

RI targets to vaccinate all new born each year with all primary doses and *children of 1-5 year age* with *booster doses of UIP vaccines*. In addition pregnant mothers are targeted for TT vaccination each year. To achieve this, *immunization sessions* are conducted, majority of these are *at village levels*. Vaccination is provided through *outreach sessions held at AWC, Sub Centres. ASHA & AWW support ANM by mobilizing eligible children to session site* to ensure that no child is missed / left behind. *ASHA* is also provided an *incentive of Rs. 150/- session for this activity*. To ensure potent and safe vaccines are delivered to children, a network of *37 nos. of vaccine storage points (ILR points)* are functional in Dhenkanal District where vaccines are stored at *recommended temperature (+2 to +8 deg. Cen.)*. For these points *dedicated manpower is*

provided to maintain the temp. of the ILR & DF twice daily and maintenance of updated stock position of the vaccines & logistics.

In 2016, four new additions have been made namely Rubella, Japanese Encephalitis, Inject able Polio Vaccine Bivalent and Rotavirus .

List of Hospitals / Sub-Centres.

Sl. No.	Block	DHH	SDH	Community Health Center	Area Hospital(OH)	Primary Health Centre (New)	Nos of Sub-Center
1	Sadar			1. Beltikiri CHC	1.Bhapur OH	1. Dhirapatana	23
						2. Banasingh	
						3. Sankarpur	
						4. Tarabha	
						5. Baladiabandha	
2	Odapada			2. Odapada CHC	2.Meramandali OH	6.Balarampur	21
						7. Nimidha	
						8. Kalanga	
3	Gondia			3. S.C. Pur CHC		9. Joranda	23
						10. Karamul	
						11. Deogan	
						12. Kundupada	
						13.Pingua	
4	K. Nagar		1.K. Nagar SDH	4. Analaberini CHC		15. Guneibil	21
						16.Kantiokateni	
						17. Sirimula	
5	Parjang			5. Parjang CHC		18.Dadarghati	21
						19. Kumusi	
						20. Muktapasi	
						21. Patrapada	
6	Kankadahad			6. Birasal CHC	3.Kankadahada OH	23. Kantapal	16
					4.Mahabir-Road OH	24. Pangatira	
7	Bhuban			7. M.K. Gola CHC		25. Marthapur	15
				8. Jiral CHC		26. Mahulapal	
				9. Bhuban		27. Baruan	
8	Hindol		2. Hindol SDH	10. K. Kata CHC		28. Odisa	27
						29. Rasola	
						30. Paika Puruna Kota	
						31. Hatura	
9	Dhenkanal Municipality	DHH				32. Bedapada	
						33.Dudurakot	
Total		1	2	10	4	33	167

Source- Chief District Medical officer, Dhenkanal

Other Health Institutions in the District.	
First Referral Unit (FRU)	4 (DHH,Dhenkanal, Kamakhya Nagar SDH, Hindola SDH, Bhuban CHC)
Blood Bank	1 (Red Cross Blood Bank,Dhenkanal)
Blood Storage Unit	3 (SDH Kamakhya Nagar, SDH Hindol, CHC Bhuban
Emergency Medical Ambulance Service (108)	12 (9 Ambulances with Basic Life Support System & 3 Ambulances with advance life support system)
Free Referral Transportation (102)	14 (All Pregnant Women & sick neonates upto 1 year)
P.M. centre	5 (Dhenkanal, Kamakhya Nagar, Hindol, Parjang, Bhuban, Ainlabereni)
Nutrition Rehabilitation Centre (NRC)	10 beded separate paediatric ward for SAM children at SDH Kamakhya Nagar & SDH Hindol

Source- Chief District Medical officer, Dhenkanal.

Nos of sanctioned beds in different Hospitals of Dhenkanal district:-

Sl No	Name of the hospital	No of sanctioned beds
1	DHH Dhenkanal	300
2	CHC Beltikri	6
3	AH Bhapur	6
4	CHC Odapada	6
5	AH Meramunduli	6
6	CHC Sriramchandrapur	16
7	SDH Kamakhya Nagar	43
8	CHC Ainlabereni	16
9	CHC Parjang	16
10	CHC Birasal	6
11	AH Kankadahad	6
12	AH Mahabirod	6
13	CHC Bhuban	35
14	CHC Jiral	16
15	CHC Mathakargola	16
16	SDH Hindol	30
17	CHC Khajuriakata	6
	Total	536

Source- Chief District Medical officer, Dhenkanal.

Housing:

Housing is one of the basic requirements for roofing the physique of the person but also is inevitable for shaping one's social identity. Owning a house provides significant social economic

security and social status in society for shelter less person. Rural habitant is approximately half of Indian population. In India a substantial proportion of households either don't own house or have inadequate housing. Lower growth rate of rural housing is related to creation of wealth, productivity in rural sector & welfare too. The Indira Awaas Yojana (IAY) the biggest rural housing programme ever taken up in India started in the year 1985-86 and implementation started from 1.1.96. The scheme aims at providing a new house to a shelter less BPL household. Indira Awaas Yojana has been restructured into Pradhan Mantri Awaas Yojana (PMAY-G) w.e.f. 1st April, 2016 in India. As Government of India committed to provide "Housing for all" by 2022, the scheme aims to provide 1 Crore houses in rural areas in 3 years from 2016-17 to 2018-19. Similarly, Biju Pucca Ghar Yojana (BPGY) is the state sponsored scheme for rural housing in Odisha. Started in the year 2008-09 as Mo-Kudia Yojana but in the year 2014-15 it was restructured into Biju Pucca Ghar Yojana (BPGY) It aims at providing a new house to a shelter less households those genuine cases who could not be covered under PMAY.

Electrification:

Under CESU two Electrical Divisions i.e DED, Dhenkanal & TED, Chainpal are working with adequate potential to distribute electricity in Dhenkanal District, though a vast electrical net work. All the HT network have been operated and maintained by CESU, and the LT network is maintained by Distribution Franchisee at present. Under DED, Dhenkanal 4nos Sub-Divisions & 16nos Electrical Sections have been operated covering seven blocks, one Municipality & 3nos NACs. All the Section is active with at least one 33/11KV Sub-Station to provide required electricity to the benevolent consumers of the District. Similarly under TED, Chainpal 2nos Sub-Divisions & 4nos. electrical Sections have been operated covering Parjang block & some portions of Kankadahad, Odapada & Hindol Block. Schemes such as DDUGJY, IPDS, R-APDRP are under implementation at present for strengthening of electrical network in the district. **The details are annexed in the Volume-ii.**

Drinking water and sanitation:

The Rural Development Department was created on 11st July 1990 to deal with Minor Irrigation, Lift Irrigation, Rural Road, Rural Water Supply & Sanitation Sectors. Later in 1996 the Department was restructured and Minor Irrigation and Lift Irrigation were transferred to Water Resources Department. At present, the Rural Development Department has two Organization i.e (I) Rural Works (II) Rural Water Supply & Sanitation. Recently, Rural Water Supply & Sanitation (RWSS) wing of RD, Department has been merged with Department of Panchayat Raj, Govt. of Odisha. Rural Water Supply & Sanitation Organization implements rural drinking water supply programme by utilizing the outlay under National Rural Drinking water supply programme (NRDWP). It also implements rural sanitation programme under the centrally sponsored Swachha Bharat Abhijana (SBM G) previously known as Total Sanitation Campaign (TSC) & Nirmal Bharat Abhijana.

Sanitation:-

To realize Gandhiji's dream of a clean India, Govt. of India lunched "Swachh Bharat Mission" with effect from 2nd Oct. 2014. It aims to achieve Swachh Bharat by 2019 as fitting tribute to the 150th Birth Anniversary of Mahatma Gandhi. The National flag ship programme of Govt. of India for Sanitation i.e Nirmal Bharat Abhiyan has been restructured and named as Swachh Bharat Mission (Gramin). The concept of Swachh Bharat encompasses ways to access every person with sanitation facilities including Toilet, Solid & Liquid waste disposal system, village cleanliness and provision of adequate drinking water. Govt. of Odisha has also taken strong initiatives & strives to make Odisha Open Defecation Free (ODF) by 2019 by ensuring construction and use of Individual House Hold Latrine. Odisha State Water and Sanitation Mission, a registered society under Rural Development Department was constituted and established vide Resolution No. 9990/RD date 05.05.2002 of Govt. of Odisha

Features

1. The unit cost of IHHL is Rs. 12000.00 so as to provide water availability, including storing hand washing and cleaning of Toilet.
2. The entire funding for incentive of IHHL will be met from SBM (G) with share of both Gov. of India & Govt. of Odisha.
3. The responsibility of construction of all School Toilet and Anganwadi Toilet which was rendered to Rural Development Department is transferred to School & Mass Education and Women & Child Development Department respectively.
4. The Strategy of implementation of the Sanitation programme will focus on behavior change with regard to toilet construction as well as its use.
5. Community Sanitary Complex with an estimated cost of Rs.2.00 lakh with 10% Public contribution.
6. Emphasis on SLWM for an amount of Rs,7.00 lakh to 20.00 lakh as per House hold (150 – more than 500 House Hold).

District Fishery:

The district has vast water resources for Pisciculture comprising of rivers, canals, reservoirs, MIPs, ponds and tanks. The soil texture in the district is mostly alluvial sandy loam with undulated topography. The rain water is mostly discharged through the major river Brahmani which passes through 6 blocks of the district. Apart from this there are seven nos. small reservoirs of 1097 ha water spread area and 57 nos. of MIPs with 511 ha water spread area. The rainfall of the district is at an average of 1421.10 mm with maximum temperature of 45.50 degree Celsius and minimum of 9.20 degree Celsius. The block wise water resource available in the district is annexed at Annexure-I

The average productivity of the reservoirs was around 10 kg/ha. against the national average of 15 kg/ha. After implementation of the State Reservoir Fishery Policy & stocking of advanced fingerlings in the reservoir the production level has gone up to 200kg/ha per annum. The average productivity of tank fisheries is around 3 MT/ha which will be augmented to 5 MTs/ha.

Migration:

Dhenkanal is a district having a key industrial belt of the State, which houses major industries like Bhushan Steels Ltd., Dhenkanal, GMR Kamalanga Energy Ltd., and LANCO Babandha Power Project. Hence out-migration is less due to existence of these labour intensive industries and consequent job opportunities created in the district itself. In the aforesaid industries in particular and in the district in general in-migration is observed. Workers of varied skills and categories from different States migrate to this district in search of jobs. However, there are some pockets, namely Santhapur, Santhasara, etc. villages of Gondia Block and Badajhara, Saruali, Jharada, etc. villages of Pargang Block, Anantapur, Rupapada, Kanthagala, Kamakhyanagar, Gadapalasiun, villages of Kamakhyanagar Block from where workmen migrate to work at Granite, Fish & Sea Food Industries, etc. in Andhra Pradesh and Maharashtra, etc. As per the reports of the District Labour Officer (DLO), total 120 HHs of the Gandia block are migrating outside the district in search of the livelihood.

Food security:

NATIONAL FOOD SECURITY ACT-2013

After due approval by the Parliament of India the National Food Security became the Act. in 2013. The State Govt. started to implement the said Act during 2014-15 after adopting a series of process through digitization of database with proper advertisement and creating awareness among the public for selection and finalization of beneficiaries under NFSA, 2013. The selection was made basing upon the 2011 census and the Social & Economical Survey made by the Govt. during the same year. However the motto of the Act is to provide food security to each eligible person of the state to avoid starvation. Practically distribution of Food grain @ Re.1.00 per kg and 5 kg per head per month was started from December, 2015 in Dhenkanal District under NFSA, 2013. Out of total population of the District 242901 House Hold having 837436 members in PHH and 35688 House Hold having 107379 members in AAY are included in this scheme. The beneficiaries are getting their legitimate from the FPS every month properly. The Govt. is implementing various new systems like online facilities by providing various electronics devices to bring transparency in the Public Distribution System.

STATE FOOD SECURITY SCHEME:

The Govt. of Odisha have implemented state food security scheme'2018 to provide food security to the left out families not included in NFSA. The detail procedures for selection of beneficiaries have been made as per Govt. norms. Total 10234 nos. of families having 32522 members are selected in the district under the scheme to get 5 kg. of rice per head per month @ Re.1/- per kg. Distribution of rice under SFSS has inaugurated in the District on 2nd October'2018 in the 150th birthday celebration of Mahatma Gandhi, the father of the nation. The detail block/ULB wise list of household and beneficiaries, quantity of rice allotted has been given separately.

PRADHAN MANTRI GARIB KALYAN ANNA YOJNA (PMGKAY):

PMGKAY allows each NFSA beneficiary to get an additional 5 kg rice and 1 Kg of pulses for free in addition to his/her original quota during Covid-19 Pandemic.

ONE NATION ONE RATION CARD(ONORC):

In order to tackle the food security problem of especially migrant workers after two deadly Covid waves and to ONORC has been introduced under which a beneficiary can avail his/her ration at anywhere irrespective of places where the ration card is registered.

Social Security:

The National Social Assistance Programmes (**NSAP**) which came into effect from **15th August, 1995** represents a significant step towards the fulfilment of the (**Directive Principles Article 41**) of the Constitution of India. NSAP at present comprises of,

IGNOAP	: Indira Gandhi National Old Age Pension Scheme.
IGNWP	: Indira Gandhi National Widow Pension Scheme .
IGNDP	: Indira Gandhi National Disability Pension Scheme.
NFBS	: National Family Benefit Scheme.

In January 2008, State Government merged two old schemes, namely, Revised Old Age Pension Rules-1989, Disability Pension Rules-1985 and introduced the Madhu Babu Pension Yojana Rules, 2008. In Dhenkanal district the following nos of beneficiaries are covered under the NSAP&MBPY,

Sl. No.	Block	No. of Persons covered under Old Age Pension Schemes		No. of Persons Covered under Widow Pension	No. of Persons covered under Disability Pension	
		Male	Female		Male	Female
1	Dhenkanal Sadar	6220	4888	5115	967	683
2	Odapada	5911	4645	3374	1515	1058
3	Gondia	5660	4447	6256	840	576
4	Kamakhyanagar	5341	4197	3640	783	337
5	Bhuban	4106	3227	3048	733	373
6	Parjang	6067	4767	4119	1341	500
7	Kankadahad	4262	3349	3434	480	320
8	Hindol	7485	5881	4646	820	618
9	Dhenkanal Municipality	1709	1342	1230	313	147
10	Bhuban NAC	1129	887	598	32	17
11	Knagar NAC	760	598	436	123	84
12	Hindol NAC	754	593	195	60	45
	Total	49404	38821	36091	8007	4758

Critical infrastructure

Angan Wadi Centres:

Total nos. of AWC in the district is 2220 and 1949 AWC have own pucca building. Total preschool enrolment in the AWCs is 88702 nos. Total 97 nos. of malnourished child identified and referred for treatment. Total 18582 nos. of pregnant and lactating women are being provided nutritional and maternal health services by AWCs in the district.

Sl. No.	Name of the Block	Total No. of Anganwadi Centers	No. of AWC having own pucca building	No. of Enrolled Children	No. of Severely Malnourished Children Referred during the year.	No. of Pregnant/lactating mothers
1	Bhuban	270	216	11533	4	2026
2	Dhenkanal Sadar	281	246	14424	3	3231
3	Gondia	270	253	13127	45	2284
4	Hindol	423	377	13257	6	2731
5	Kamakhyanagar	247	234	11412	6	1969
6	Kankadahad	222	187	5821	19	1992
7	Odapada	298	293	13271	10	2209
8	Parjang	214	186	5857	4	2140
	Total	2225	1992	88702	97	18582

Schools and other Educational Institutions:

There are total 1509 nos of Govt. Primary, ME & High schools are in the district out of that 817 nos of Primary Schools, 544 nos of ME School and 148 nos of High School. Total 160286 nos of students get enrolled their name for the year 2017-18. There are 46 nos of Colleges and 3 nos of Polytechnic/ITI colleges in the district. The details are annexed in the Volume-11.

Hospitals and Health Centres:

The detail status of the health institutions are as follows,

HEALTH INSTITUTIONS IN THE DISTRICT	
District Head Quater Hospital (DHH)	1
Sub-Divisional Hospital (SDH)	2 (Kamakhya Nagar, Hindol)
Community Health Centre (CHC)	10 (A.Bereni CHC, S.C.Pur CHC, M.Karagola CHC, Parjang CHC, Beltikiri CHC, Odapada CHC, Birasal CHC, Khajuriakata CHC, Jiral CHC)
Primary Health Centre PHC (N)/HWC	33
First Referral Unit (FRU)	3 (DHH, Dhenkanal, Kamakhya Nagar SDH, Hindola SDH.)
Area Hospital (AH)	4 (Meramundali, Mohabiroad, Bhapur, Kankadahad,)

Sub-Centre (SC)/HWC	167
Blood Bank	1 (Red Cross Blood Bank,Dhenkanal)
Blood Storage Unit	3 (SDH Kamakhya Nagar, SDH Hindol, CHC Bhuban
P.M. centre	5 (Dhenkanal, Kamakhya Nagar, Hindol, Parjang, Bhuban, Ainlabereni)
Nutrition Rehabilitation Centre (NRC)	10 bedded separate paediatric ward for SAM children at SDH Kamakhya Nagar & SDH Hindol



Veterinary Hospitals:

Mobile Veterinary Unit is being operated under RKVY Scheme in the 8 blocks of the District to render rural health service to the live stock & birds in inaccessible areas. 8 no's of Retired Veterinary Doctors & Live stock inspectors & 8 No's of Attendants are working under this projects. 8nos of Bolero Vehicles are being used for this purpose

There are 18 Nos. of Veterinary hospitals in the district out of that one number is Hospital and 17 Nos. of Dispensaries are in the district.

No. of Veterinary Dispensary	18
No. of Livestock Aid Center (LAC)	96
No. of A.I Centers	151
No. of Gomitra in position	53

Police and Fire Stations:

There are three Police Sub-Divisions in the district Dhenkanal. The Sub-Divisions are Sadar Sub-Division, Kamakhyanagar Sub-Division and Hindol Sub-Division. One DSP has been posted at each Sub-Division as SDPOs. There are 15 Nos. police stations, 12 Nos. Out Post and 10 numbers of Fire Stations in the district.

Cooperative Societies:

Under the Directorate of the Registrar of Cooperative Societies, Dhenkanal Cooperative Division has 3 nos. of ARCS Circle offices under its jurisdiction which are functioning at Dhenkanal, Kamakhyanagar, and Hindol having 8 nos. of Blocks, one municipality and 3 nos. of NACs. This Division is entrusted with the responsibility of implementation of policies and programmes of the Central and State Governments for the benefit of farmers and other economically weaker sections through cooperatives and for strengthening the cooperative movement. To achieve these objectives, the Division looks after administration, supervision, monitoring and regulation of the cooperative societies functioning in the District. At present 138 nos. of Primary C.S, 80 nos PACS, 2 nos. of central C.S & 6 nos. of branches of A.U.C.Bank Ltd., Angul are functioning in this Division/District. Total 10222 nos of farmers are members of the PACS. Besides, 3 nos. of Regulated Market Committees and one cooperative audit circle headed by Assistant Auditor General Cooperative Societies are working under the Directorate of Agricultural Markets and Auditor general of Cooperative Societies respectively.

Banks and Post offices:

Total 247 nos of Post Offices are operating in the district, the block and urban area wise Sub-Post Offices and Branch Post Offices are mentioned below.

Post Offices in Dhenkanal District

Sl No	Name of Block	Number of Post offices			Total
		Head Post office	Sub Post Office	Branch Office	
01	Dhenkanal Sadar	01 (ATM 01)	05	31	37
02	Odapada		03	35	38
03	Gondia		02	29	31
04	Hindol		03	22	25
05	Kamakhyanagar		03	30	33
06	Bhuban		03	23	26
07	Parjang		03	18	21

08	Kankadahad		01	23	24
Total		01	23	211	235
Urban Area (including above post offices)					
01	Bhuban		01	-	01
02	Dhenkanal	01	03	01	04
03	Kamakhyanagar		01	-	01
Total			05	01	06

The detail of bank branches in the Dhenkanal District is as follows,

Sl No.	Commercial Bank	RRB	Cooperative	ATM
	89	31	11	115

Road and Railway network

This Division only deals with one National Highway i.e, the NH-55 passing through Angul and Dhenkanal district from Chainage 153.000 km to 234.811 km and is responsible for upkeep of the National Highway and takes all measures to maintain the road in a good trafficable condition. The NH-55 in Dhenkanal District starts from Chainage 176.311 km at Angul-Dhenkanal border entering in odapada block and leaves the Dhenkanal District at chainage 234.811 km at Dhenkanal-Cuttack border. On its way, it passes through Odapada block, Dhenkanal Municipality and Dhenkanal block.

Two National Highways i.e NH-53 (old-200) & NH 55 (old-42) are running through the district. The details of these roads are given below-

Item	Passing through Sub-Division	Passing through Block
NH-53 (Old NH-200) Km 321.002 to 391.269Km= 70.267Km	Kamakhyanagar	Parjang, Kamakhyanagar, Bhuban
NH-55(Old NH-42) Km 176.311 to 234.811Km= 58.500Km	Dhenkanal,	Dhenkanal, Odapada

Public Works Department (R&B) wing maintains three categories of roads i.e State Highways, Major District Roads and Other District Roads. During premerger period most of these roads were in poor condition. But now the surface of all these roads are black topped and these are all weather road.

The following table shows total length of the State High Ways, Major District Roads and Other District Roads in the district.

Category of Roads

Length in KM

State High Ways	13.815 KM
Major District Roads	101.55 KM

Other District Roads	441.689 KM
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There are 20Nos of Forest Roads, covering a distance of 272.28KM under management of Forest Department. These roads are fair weather roads used mostly for management of Forests and Wild Life.

The district is connected with RD, PMGSY roads, maintained by RWD, Dhenkanal & Kamakhyanagar. Total RD road in the district is 815.986 Km. Total 1065.81 KM of Pachayat Samiti (PS)Road and 2403.5 KM of Grampanchayat Road(GP) are connecting villages and GPs with important roads in the district.

Cyclone and Flood Shelters:

Total 19 numbers schools identified as Flood/Cyclone shelter in the District, **the detail list block wise is enclosed in the Chapter-4.** OSDMA provided funds for construction of 8 nos of Multipurpose Flood Shelter in the District, the construction works executed by EE-RWD (Dhenkanal and Kamakhyanagar). The Sarpanch of the concerned GP is the president of the Multipurpose Flood Shelter Management and Maintenance Committee. **The block wise said list is available in the Chapter-4 and Volume-II.**

Rain gauge and Automatic Weather Stations:

Total **eight numbers** of manual rain gauges are installed and operating in each Block Office. One rain gauge is installed and operated in the Sub-Collector Office, Dhenkanal in lieu of Sadar block, Dhenkanal. The head clerk of each block is the in charge of the rain gauge and sends rainfall status to the District Emergency Operation Centre (DEOC), Dhenkanal as per the happening of rain in their blocks. The details of the rain fall information is monitored by District Emergency Office, Dhenkanal and recorded information manually as well as electronically and updated in the Odisha Rain fall Monitoring System regularly. As per the instruction of the **SRC, Odisha vide his Letter No.1727/R&DM (DM)**, each Sub-Collector is required to inspect all the rain gauges in the Sub-division at least once in a year and the Collector & DM shall inspect at least 20% of the rain gauges in each Sub-Division and such inspection needs to be done before onset of Monsoon and corrective measures taken up for proper functioning of the said instrument..

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 is mentioned below.

A. Major Disasters/ Incidents during 2011-2022

A brief profile of major disasters/ incidents occurred in the district during last 12 years:

TableNo. : 1

Sl. No.	Disaster/ Incident	No. of incidents during (2008-2022)	No. of Deaths	Affected Population	Livestock Loss	House s 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.											
1	Flood	3	0	66	NA	NA	NA	NA	NA	NA	NA
2	Drought	3	0	55243	NA	NA	NA	NA	NA	NA	10325
3	Fire	1033	3	7022	NA	1271	NA	NA	NA	NA	NA
4	Hail Storm	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5	Cyclone	3	3	7844	8	2209	NA	NA	NA	NA	6069
6	Earth Quake	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
7	Tsunami	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8	Landslide	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9	Avalanche	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10	Cloud Burst	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11	Pest Attack	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12	Cold Wave/ Frost	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
State Specific Disasters as per Notification No.1936 Dt. 01.06.2015											

13	Lightning	65	71	108	19						
14	Heat wave	11	10	NA	NA	NA	NA	NA	NA	NA	
15	Whirlwind	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
16	Tornado	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
17	Heavy Rain	2	NA	1301							
18	Boat Accidents (Other than during Flood)	2	12	54	NA	NA	NA	NA	NA	NA	NA
19	Drowning (Other than during Flood)	29	8	8	NA	NA	NA	NA	NA	NA	NA
20	Snake Bite(Other than during Flood)	48	16	NA	NA	NA	NA	NA	NA	NA	NA
Other Disasters											
21	Animal Menace	13	17	NA	8	NA	NA	NA	NA	NA	NA
22	Building Collapse	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
23	Stampede	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24	Epidemics(Diarrhoea)	5	8	831	NA	NA	NA	NA	NA	NA	NA
25	Industrial/ Chemical Accidents	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
26	Road Accidents	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
27	Railway Accidents	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
28	Hooch Incidents	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
29	Communal Riot	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
30	Dam Break/ Spill Way related flood.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
31	Soil/ Coastal erosion	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

[Year wise details of each disaster occurred during the last 10 years is at Table No. 3.1 of Volume II of DDMP]

B. Major Disasters/ Incidents in the District during 2000-23 :

Table: 02

Sl. No.	Disaster/ Incident	No. of incidents during 2022-23	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	8	8	8	3	Nil	Nil	Nil	Nil	Nil	Nil
2	Snake bite	31	31	31	Nil	Nil	Nil	Nil	Nil	Nil	Nil
3	Drowning	25	25	25	Nil	Nil	Nil	Nil	Nil	Nil	Nil
4	Electric	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
5	Fire accident	47	Nil	165	3	85	Nil	Nil	Nil	Nil	Nil
6	Heat wave	1	1	1Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
7	Flood	Nil	Nil	100459	11	299	7	Nil	93	15 Primary School	906
	Total	65	65	100459	17	299	07	Nil	93	15	906

C. Vulnerability and Risk Assessment related to disasters:

1. Cyclone:

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

The **Bay of Bengal**, located in the northeast of the Indian Ocean, is responsible for the formation of some of the strongest and deadliest **tropical cyclones** in the world. The strongest storm in the **bay** was the 1999 **Super Cyclone**. The 1999 Super Cyclone is the strongest storm to hit the Indian coast as well as Odisha coast, as well as the strongest in the basin till date, with a minimum central pressure of 912 mbar (26.93 inHg). The **Philin** and **Hudhud** hit Odisha in 2013 and 2014 respectively. The impact and incidence was beyond the coping capacity of the district administration, Dhenkanal. As per the mapping of OSDMA, the district is coming under high vulnerability zone.

Table No. 03: Cyclone 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 including SC.	Roads (in Km)	Other Critical Infrastructure
1	Odapada	28	150	143482	-	-	498	28	33.25	Nil
2	Bhuban	18	135	102087	-	-	175/169	22		Nil
3	Dhenkanal Sadar	30	177	152932	82201	36405	316/169	30	778	Nil
4	Kamakhyanagar	22	176	113985	-	26274	198/81	26		Nil
5	Gandia	29	193	152180	-	-	246/270	30	31.73	Nil
6	Parjang	29	97	134074			216/202	26		Nil
7	Kankadaha da	21	126	110126	53374	49144	216/209	21	504.23	52
8	Hindol	36	162	164918	-	-	225	34	81.45	

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

Electrical Infrastructure and cyclone Vulnerability:

Table No. 04

Sl. No.	Name of the Sub-Division	No. of Grid Stations	No. of 33/11 KV Sub-Station	No. of Distributing Transformer			Conductor / Electrical lines - 11KV or less (length in Kms)	No. of Electrical Poles	No. of High Tension Towers	High Tension lines above 11KV (length in Kms)
				11KV or Less	11KV < and < 60KV	60KV and above				
1	Dhenkanal	1	4	978	15	NA	1426.015	26264		33.1
2	Hindol Road	1	3	826	11	NA	1240.425	22714		59
3	Gondia		3	771	11	NA	844.325	17197		78
4	K.Nagar	2	9	1370	24	NA	1884.285	36142	35	118.7
5	Parjang	1	3	833	6	NA	1074.2	19530		26.07
6	Chainapl	1	1	271	2	NA	237	4310	2	0

Table No.05: **Drinking water facility in the Cyclone prone areas:**

Sl No.	Name of the Block	Total No. of Tube wells	No. of Sanitary Wells	PWS Schemes				Other Drinking Water Sources If any
				Total No.	Length in km.	No. of Over Head Tanks	No. of Stand Points	
1	Bhuban	1222	16	65	154.56	65	940	Solar Based W/S - 27 Nos.
2	Sadar	1725	46	50	172.91	46	931	Solar Based W/S - 27 Nos.
3	Gondia	1614	31	53	165.93	44	962	Solar Based W/S - 51 Nos.
4	Hindol	2032	31	49	168.99	40	897	Solar Based W/S - 96 Nos.
5	K.Nagar	1506	18	74	194.65	73	1137	Solar Based W/S - 34 Nos.
6	K.Had	1620	14	62	165.72	67	868	Solar Based W/S - 71 Nos.
7	Odapada	1369	31	40	124.74	33	605	Solar Based W/S - 31 Nos.
8	Parjang	1583	11	62	165.11	80	1040	Solar Based W/S - 54 Nos.
	Total	12671	198	455	1312.61	448	7380	

2. Tsunami: Not Applicable.Table No. 06 : Tsunami vulnerable areas of the district: **Not Applicable.**

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 Building s/ Anganwadi	Hospitals	Roads (in Km)	Other critical Infrastructure
1										

3. Flood:

Table No. 07: Flood vulnerable areas of the district in general.

In the year 2005, 2006, 2010 and 2011 district faced the impact of the Flood and affected in sporadic manner in 4 to 5 blocks. Mostly, the river Brahmani, Ramial, Sapua and Rangamatia are the main Flood causing agents in the District. The details of the vulnerabilities are mentioned below,

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	Odapada	13	25	18750	3000	2250	25	Nil	18.75	NA
2	Kankadahad	5	12	6551	3511	2179	20/13	1	30.73	5
3	Parjang	12	20	41259	NA	NA	8	NA	NA	NA
4	Bhuban	9	53	56660	0	29600	53/92	0	117	NA
5	Gondia	5	18	10456	-	2456	8	NA	NA	NA
6	Kamakhyanagar	14	20	11809	Nil	2765	24	Nil	18	NA
7	Sadar	5	6	1805	2878	532	4/3	0	8.5	NA

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

Table No. 08: 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	Odapada	11	23	18400	2850	2200	22	Nil	17.25	NA
2	Sapua	odapada	02	02	350	150	50	03	Nil	1.5	NA
3	River Brahmani	Parjang	6	7	13103	-	-	-	-	14	
4	Ramial	Kankadahad	3	8	4989	2340	1289	12/09	1	18.43	4
5	Dolia Nal	Kankadahad	2	4	1562	1171	890	08/05		12.3	1
6	Brahmani	Bhuban	5	29	33735		16900	66		30.96	
7	Ramial	Bhuban	3	16	17756		9200	37		17.84	3
8	Rangamatia	Bhuban	1	10	6394		3500	14	Nil	5.12	
9	Brahmani/Sapua	1	5	6	1805	2878	532	4/3	0	8.5	Nil

Table No. 09: 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	Dhenkanal	15695	14575	607	10
2	Odapada	11740	9782	841	34
3	Gondia	15198	7723	2164	24
4	Hindol	15875	15669	-	-
5	kamakhyanagar	9854	9159	1904	464
6	Bhuban	9110	10388	1922	476
7	parjang	10560	9835	1250	260
8	Kankadahad	7342	11336	-	-
Total		95374	88467	8688	1268

No. 10: Electrical Infrastructure in the Flood Prone Area

Sl. No.	Name of the Sub-Division	No. of Grid Stations	No. of 33/11KV Sub-Station	No. of Distributing Transformer			Conductor / Electrical lines - 11KV or less (length in Kms)	No. of Electric al Poles	No. of High Tension Towers	High Tension lines above 11KV (length in Kms)
				11KV or Less	11KV < and <60 KV	60KV and above				
1	Dhenkanal			3			1.25	32		
2	Hindol Road			5			3	12		
3	Gondia			6			5	30		
4	Kamakhyana gar			41			48.3	980		
5	Parjang			12			32	658		
6	Chainapl			5			5	65		

Table No. 11 :- Drinking water and Flood Vulnerability:

Sl No.	Name of the Block / ULB	Total No. of Tube wells	No. of Tube wells with raised platforms	No. of Sanitary wells	PWS Schemes				Other Drinking Water Sources If any
					Total No.	Length in Mtrs.	No. of Over Head Tanks	No. of Stand Points	
1	Bhuban	75	8	6	5	10.76	5	60	
2	Sadar	31	3	3	4	9.40	4	50	
3	Gondia	19	8	0	5	3.90	5	46	
4	Hindol	0	0	0	0	0.00	0	0	

5	K.Nagar	29	4	2	5	4.28	5	45	
6	K.Had	0	0	0	0	0.00	0	0	
7	Odapada	73	0	6	4	9.12	4	42	
8	Parjang	48	10	8	5	13.68	5	80	
	Total	275	33	25	28	51.14	28	323	

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

[The events where the strength of population gathering is 5000 or above is mentioned in the table]
Table No. 12.

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	Makara Jatra	Odapada, Vill-Nadhara.	3 days	January	10,000	NA
2	Kamaleswar	Odapada, Kamalanga	2 day	January	5,000	NA
3	Dasahara	Odapada, Siminai	4 day	October	12,000	NA
4	Laxmi Puja	Odapada, Indipur	7 day	October	15,000	NA
5	Mahasibaratri	Parjang /Kualo	01	February/ March	5000 & above	NA
6	Dasahara	Kamakhyana gar NAC	4	October	20000	NA
7	Panchu Dola	Kandarsinga	5	March	5000	NA
8	Panasankranti	Kankadahad Kantapal	4 Days	April	6000	NA
9	Dolapurnima	Kankadahad Mahabirod	2 days	March	5000	NA
10	Maa Mangala Yatra	Kankadahad Garhpalasuni	7 days	November	7000	NA
11	Car Festival & Return Car Festival	Hindol Sub-Division Head quarter	2 days	June & July	5000 & above	NA
12	Mahasiva Ratri	Kapilash, Gondia	1 days	February	More than 2 lakhs	NA

13	Magha Mela	Joranda,Gon dia.	3 days	February	More than 2 lakhs	NA
14	Kaudi Jatra	Kapilas,Gond ia.	1 Month	July-Aug	More than 5 lakh	NA
15	Laxmi Puja	Municipality	11 days	October	More than 2 Lakh	NA
16	Rath Yatra	Municipality	9 days	June/July	More than 1 Lakh	NA

5. Boat operation points:

Table No. 13:

Sl. No.	Name of the Block	Name of the ghat/ boat operation point	Name of the water body	No. of Panchayat s/ villages connected	Daily to and fro movement of people in Nos. (Approx.)	Type of boats operating in Nos.	
						Mechanised	Non-Mechanised
1	Odapada	Nuagaon Kamalanga Brahmani Nadi Ghat	Brahmani	Kamalanga	100	NA	Non-Mechanised
2	Odapada	Kamalanga dampal Brahmani Nadi ghat	Brahmani	Kamalanga	120	NA	Non-Mechanised
3	Odapada	Kuspanga Brahmani Nadi ghat	Brahmani	Kuspanga	60	NA	Non-Mechanised
4	Odapada	Kunjabiharipur Nadi ghat	Brahmani	Kunjabiharipur	20	NA	Non-Mechanised
5	Odapada	Kharagprasad Brahmani Nadi ghat	Brahmani	Kharagprasad	80	NA	Non-Mechanised
6	Odapada	Bido Nadi ghat	Brahmani	Bido	30	NA	Non-Mechanised
7	Odapada	Brahmani Nadighat Ekagharia	Brahmani	Ekagharia	Nil	NA	Non-Mechanised
8	Odapada	Gunadei Nadighat	Brahmani	Gunadei	Nil	NA	Non-Mechanised
9	Odapada	Belapada Nadighat	Brahmani	Belapada	Nil	NA	Non-Mechanised
10	Odapada	Odapada Nadighat	Brahmani	Odapada	Nil	NA	Non-Mechanised
11	Parjang	Sarkishorepal , Chandapur , Roda, Renthapat, Lodhani, Damol	Brahmani	NA	220	-	Non Mechanised.
12	Bhuban	Prachandapur ferry ghat	Brahmani	NA	Nil	Nil	Non Mechanised.
13	Bhuban	Bandalo ferry ghat	Brahmani	NA	500	Nil	Non Mechanised.

14	Bhuban	chandipal ferry ghat	Brahmani	NA	500	Nil	Non Mechanised.
15	Bhuban	Kaloria ferry ghat	Brahmani	NA	700	Nil	Non Mechanised.
16	Bhuban	Malapura ferry ghat	Brahmani	NA	50	Nil	Non Mechanised.
17	Bhuban	Goradapal ferry ghat	Brahmani	NA	50	Nil	Non Mechanised.

6. Land Slide Vulnerability: Not Applicable

Table No. 14

Sl. No.	Land Slide Zone/ Area/ Location	Area in Sq. Km	No. of susceptible Villages/ Wards	Vulnerab le Populatio n in Nos.	Houses	Vulnerable Infrastructure			
						School / AWC Buildin gs	Hospitals	Roads (in Km)	Other Critical Infrastruc ture
1									

7. Lightning:

Table No. 15

Sl. No.	Name of the Block/ ULB	Identifiable incidents of lightning hit in last 5 years		No. of Lightning events	No. fatality/ Deaths	Injured Persons
		No. GPs	No. of Villages/ Wards			
1	Odapada	4	8	9	9	10
2	Kankadahada	5	22	64	20	7
3	K. Nagar	5	5	9	9	0
4	Parjang	29	361	18	18	0
5	Gondia	29	36	36	36	
6	Hindol	9	10	10	10	Nil
7	Bhuban	3	12	15	15	Nil

[List of villages is at Table No. 3.2 of Volume II of the DDMP]

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

Table No. 16-

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	Suscept ible Populat ion	Hous e	Vulnerable Infrastructure		
									Schoo l Buildin gs & AWC	Hospit als	ther Critic al Infra.
1	Tata BSL Ltd.					27	45694		55	2	1

[Detailed vulnerable habitations list and other critical infrastructure is at Table No. 3.2 of Volume II of the DDMP]

9. Drought: Source-DDA,Dhenkanal.

Table No. - 17

Rain fall information mentioned as per the Actual 2016 (January to December). Normal Rainfall of the District is 1428.80 MM.

Sl. No.	Name of the Block	Average Annual Rain Fall (MM)	Ground Water Level	Cultivated Area (In Hectares)			
				Paddy		Non- Paddy	
				Rain fed Area	Irrigated area	Rain fed Area	Irrigated area
1	Dhenkanal	1418.16		13635	2060	11447	3128
2	Gondia	1179.75		11546	3652	5745	1978
3	Odapada	1205.72		9443	2297	7756	2026
4	Hindol	1601.7		7884	7991	13326	2343
5	K.Nagar	1208.78		2	9852	1593	7566
6	Bhuban	1341.6		2221	6889	7232	3156
7	Parjang	1114.78		508	10052	3365	6470
8	Kankadahad	21549.75		741	6601	6511	4825
9	District	1327.53		45980	49394	56975	31492

- Normal Rainfall of the District 1428.80 MM.

Table No. 18: Drought Vulnerability. (Source-DDA, Dhenkanal)

Sl. No.	Name of the Block	Year- 2017				Year – 2015				Year-2016				Year- 2014			
		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
1	Dhenkanal	30+1	141	1693	-	23	73	1204	-	NA	NA	NA	NA	NA	NA	NA	NA
2	Odapada	28	134	4418	-	25	115	1138	-	NA	NA	NA	NA	NA	NA	NA	NA
3	Gondia	29	187	8070	-	4	35	1289	-	NA	NA	NA	NA	NA	NA	NA	NA
4	Hindol	15	57	1659	-	35+1	170	1177	-	NA	NA	NA	NA	NA	NA	NA	NA
5	K.Nagar	19	58	1714.08	-	15	41	931	-	NA	NA	NA	NA	NA	NA	NA	NA
6	Bhuban	4	10	112	-	12+1	70	1226	-	NA	NA	NA	NA	NA	NA	NA	NA
7	Parjang	29	86	4827.29	-	26	79	1086	-	NA	NA	NA	NA	NA	NA	NA	NA
8	Kankadahad	11	43	2010.8	-	20	81	741	--	NA	NA	NA	NA	NA	NA	NA	NA
9	Total	165+1	716	24504.7	-	160+2	664	8792	-	NA	NA	NA	NA	NA	NA	NA	NA
10										NA	NA	NA	NA	NA	NA	NA	NA

The detailed list of drought prone Villages is at Table No.3.3 of Volume II of the DDMP.

10. Drinking Water Crisis:

Table No. 19:

[Block wise village list is at Table No. 3.2 of Volume II of the DDMP]

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	Bhuban	0	0	7	883	0	0	0
2	Sadar	0	0	10	5527	0	0	0
3	Gondia	0	0	6	1826	0	0	0
4	Hindol	0	0	20	1716	9 (8 Nos are covered by PWS & 1 No to be covered by Mega PWS and people of 01 No of habitation are using drinking water from near by Tube well.	160	0
5	K.Nagar	0	0	4	926	0	0	0
6	K.Had	0	0	8	1625	0	0	0
7	Odapada	0	0	3	1242	6 (5 Nos are covered by PWS & 1 No to be covered by Mega PWS and people of 01 No of habitation are using drinking water from near by Tube well.	165	0

8	Parjang	0	0	9	1580	0	0	0
	Total	0	0	67	15325	0	325	0

[Block wise village list is at Table No. 3.2 of Volume II of the DDMP]

11. Railway Line Exposed different Hazards: Source-DRM, East Coast Railway.

As per the report of the DRM, East Coast Railway, Khurda, total length of Railway line and nos. of Railway stations in Dhenkanal District are as follows,

SI No.	Single Line (Length in Km.)	Double Line (Length in Km.)	Total no. of Railway stations in the district
1	15.64	72.76	13

Table No. 20

Sl. No.	Hazard	Length of Railway line exposed(in Km.)	Location
1	Flood	NA	NA
2	Land Slide	NA	NA
3	Storm Surge	NA	NA
4	Tsunami	NA	NA

12. 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)

This Division only deals with one National Highway i.e, the NH-55 passing through Angul and Dhenkanal district from Chainage 153.000 km to 234.811 km and is responsible for upkeep of the National Highway and takes all measures to maintain the road in a good trafficable condition. The NH-55 in Dhenkanal District starts from Chainage 176.311 km at Angul-Dhenkanal border entering in Odapada block and leaves the Dhenkanal District at chainage 234.811 km at Dhenkanal-Cuttack border. On its way, it passes through Odapada block, Dhenkanal Municipality and Dhenkanal block.

There is another National Highway in the district i.e, NH-53, which has been handed over to NHAI since 2011 for its improvement to 4 lining.

Two National Highways i.e NH-53 (old-200) & NH 55 (old-42) are running through the district. The details of these roads are given below:

Item	Passing through Sub-Division	Passing through Block
NH-53 (Old NH-200) Km 321.002 to 391.269Km= 70.267Km	Kamakhyanagar	Parjang, Kamakhyanagar, Bhuban
NH-55(Old NH-42) Km 176.311 to 234.811Km= 58.500Km	Dhenkanal,	Dhenkanal, Odapada

Public Works Department (R&B) wing maintains State Highways. During premerger period most of these roads were in poor condition. But now the surface of all these roads are black topped and these are all weather road.

The following table shows total length of the State High Ways, in the district.

<u>Category of Roads</u>	<u>Length in KM</u>
State High Ways	13.815 KM

As per the report of the EE-NH, Dhenkanal.

Sl.No	Stretch of Road			Length in Kms	No.of Traffic Congestion Areas	No.of Accident Prone Areas	No.of Villages/ Habitations adjacent to accident prone areas
	From		To				
1	179.000	to	180.000	1.000	NA	1	One Habitation
2	181.000	to	182.000	1.000	NA	1	Nil
3	184.000	to	185.000	1.000	NA	1	One Habitation
4	186.000	to	187.000	1.000	NA	1	One Habitation
5	188.000	to	189.000	1.000	NA	1	One Habitation
6	192.000	to	193.000	1.000	NA	1	One Habitation
7	194.385	to	195.615	1.230	NA	1	One Habitation
8	197.000	to	198.000	1.000	NA	1	Nil
9	202.000	to	203.000	1.000	NA	1	One Habitation
10	213.000	to	214.000	1.000	NA	1	One Habitation
11	229.400	to	229.800	0.400	NA	1	One Village
12	230.000	to	231.000	1.000	NA	1	One Village

13. Population Requiring Special Care: Source-DSWO/DSSO, Dhenkanal.

Table No: 22

Sl. No.	Block/ULB	No. of HHs headed by Women	No. of HHs headed by PWD	No. of Persons With Disability		No. of Widows	No. of Children		No. of Orphans		No. of Aged Persons (60 and above)		No. of Pregnant and lactating mothers
				M	F		0-5 Years	6-14 Years	M	F	M	F	
1	Bhuban	3483	540	973	611	4886	9815	14976	148	172	9579	8815	2026
2	Dhenkanal Sadar	11165	653	1052	592	7344	14195	20291	153	128	10824	9568	2954
3	Gondia	2829	376	1109	650	6837	14806	15751	143	53	11235	9171	2543
4	Hindol	2310	25	232	125	2310	110	205	42	61	9732	7340	21
5	Kamakhyanagar	3854	377	779	464	5185	11001	15750	57	41	7069	6053	1969
6	Kankadahad	3242	517	433	335	3242	11411	12397	225	198	4809	4882	1992
7	Odapada	4961	768	1065	568	6307	10609	16446	310	291	8564	7968	2104
8	Parjang	4042	406	1258	669	5950	10113	14840	62	40	9256	8758	2140
10		35886	3662	6901	4014	42061	82060	110656	1140	984	71068	62555	15749

[Village wise details are at Table No. 3.16 of Volume II of the DDMP]

14. 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 Dhenkanal District is coming under Zone-III (Moderate damage risk zone)/
- The total District is under Zone- III (Moderate damage risk zone)/
- 80 % of the District is coming under Zone- III (Moderate damage risk zone)/
- Sadar,Gandia,Hindol, Odapada,Parjang,Kamakhyanagar Blocks of the district is coming under Zone- III (Moderate damage risk zone) and the most part of other two blocks Bhuban & Kankadahad are under Zone-II (low damage risk zone)/
- The Earthquake vulnerability Map is enclosed for reference.

N.B. Earthquake Vulnerability Map is placed in Volume II.

14.1 Identified Old and depleted Buildings in the District (if any) as per report of RWD, Dhenkanal Division.

Sl. No.	Block/ULB	No. of Vulnerable Building	Population at Risk (inhabitant and the neighbouring)	Remarks
1		11 nos. class rooms	405	

Details as follows,

Sl.No.	Block/ULB	Name of Vulnerable Building	Address	Remarks
1	Odapada	Ghatipiri H.S.	Ghatipiri	1 no. depleted room
2	Odapada	Indipur H.S.	Indipur	1 no. depleted room
3	Odapada	S.P.H.S. at Sadashivpur	Sadashivpur	2 nos. depleted room
4	Odapada	Kamalanga H.S.	Kamalanga	1 no. depleted room
5	Gondia	Anchalika H.S. Bidharpur	Bidharpur	1 no. depleted room
6	Dhenkanal	K.P.H.S. at Govindpur	Govindpur	3 nos. depleted room
7	Gondia	Badajena Bidyapitha at Kabera Madhapur	Kabera Madhapur	2 nos. depleted room

14.1 Identified Old and delapidated Building in the Block

Sl No	Block/ULB	No of Vulnerable Building	Population at risk	Remarks
1	Kankadahad	14(AWC)		temporarily pupils are shifted to nearer safe building

The list of the building as follows.

Sl no	Block/ULB	name of the Vulnerable building	Address	Remarks
1	Kankadahad	Bandania AWC	At-Bandania, Po-Birasal, PS-Kankadahad, Dhenkanal	
2	Kankadahad	Sendhesar AWC	At-Sendhesar, Po-Maruabil, PS-Kankadahad, Dist-Dhenkanal	
3	Kankadahad	Kampulei AWC	At-Kampulei, Po-Maruabil, PS-Kankadahad, Dist-Dhenkanal	
4	Kankadahad	Nuakampulei AWC	At-Nuakampulei, Po-maruabil, PS-Kankadahad, Dist-Dhenkanal	

5	Kankadahad	Doratota AWC	At-Doratota, Po-Raibol, PS-kamakhyanagar, Dist-Dhenkanal
6	Kankadahad	Raibol AWC	At/Po-Raibol PS-kamakhyanagar, Dist-Dhenkanal
7	Kankadahad	Kairatangar AWC	At-Kairatangar, Po-Batagaon, PS-Kankadahad, Dist-Dhenkanal
8	Kankadahad	Tandimunda AWC	At-Tandimunda, Po-Batagaon, PS-Kankadahad, Dist-Dhenkanal
9	Kankadahad	Khateibereni AWC	At-Khateibereni, Po-balikuma, PS-Kankadahad, Dist-Dhenkanal
10	Kankadahad	Kathapurasahi AWC	At-Koi, Po-Balikuma, PS-Kankadahad, Dist-Dhenkanal
11	Kankadahad	Kendumunda AWC	At-Kendumunda, Po-Pangatira, PS-Kankadahad, Dist-Dhenkanal
12	Kankadahad	Dhubulipathar Harijanasahi AWC	At-Dhubulipathar harijan sahi, Po-Mahabirod, PS-Parjang, Dist-Dhenkanal
13	Kankadahad	Toradanali AWC	At-Toradanali, Po-Jhilli, PS-Parjang, Dist-Dhenkanal
14	Kankadahad	Karagola AWC	At/Po-Karagola, PS-Kankadahad, Dist-Dhenkanal

15. Forest Fire:

Details of Forest Fire Incidents in the District

Sl. No.	Name of the Division	Range	No. of Fire Incidents Reported during last 5years	Area Affected in Ha.	Loss of life/ property if any
2016-17					
1	Dhenkanal	Dhenkanal	4	2.8	The Damaging effect of this. Affected the value of the ground flora, medicine herbs, sapling, regenerated naturally habitat for small animals as well as Micro-organism accelerate soil erosion of the said area. The damaging effect of fire is irreparable
2		Hindol	6	5.4	
3		Sadangi	7	8.09	
4		Kapilash	1	3.2	
5		K.Nagar East	47	53.4	
6		K.Nagar West	47	57.4	
7		Mahabirod	97	54.9	
8		Bhuban	3	4.02	
		Total	212	189.21	
2017-18					

9		Dhenkanal	39	3.728	
10		Hindol	77	9.875	
11		Sadangi	9	1.505	
12		Kapilash	8	0.622	
13		K.Nagar East	92	11.48	
14		K.Nagar West	96	20.96	
15		Mahabirod	237	42.215	
16		Bhuban	6	1.81	
		Total	564	92.195	
2018-19					
17		Dhenkanal	9	0.78	-do-
18		Hindol	33	7.7	
19		Sadangi	8	6.1	
20		Kapilash	1	2.4	
21		K.Nagar East	26	7.5	
22		K.Nagar West	41	3.18	
23		Mahabirod	66	11.83	
24		Bhuban	3	1.1	
		Total	187	40.59	
2019-20					
25		Dhenkanal	9	6.281	The Damaging effect of this. Affected the value of the ground flora, medicine herbs, sapling, regenerated naturally habitat for small animals as well as Micro-organism accelerate soil erosion of the said area. The damaging effect of fire is irreparable
26		Hindol	13	3.1	
27		Sadangi	2	4	
28		Kapilash	8	5.5	
29		K.Nagar East	22	1.87	
30		K.Nagar West	8	0.00857	
31		Mahabirod	36	17.5	
32		Bhuban	2	0.05	
		Total	100	38.30957	
2020-21					
33		Dhenkanal	126	29.117	-do-
34		Hindol	251	50.8864	
35		Sadangi	23	7.047	
36		Kapilash	54	34.168	
37		K.Nagar East	181	55.851	

38		K.Nagar West	173	116.7746	
39		Mahabirod	267	229.744	
40		Bhuban	24	8.4566	
		Total	1099	532.0446	

Table-3.27-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	Dhenkanal	Dhenkanal	810.53	135.72	135.72	5	54.3958	7	55.06	17
		Hindol	789.52	189.0554	189.0554	3	27.58	6	21.16	8
		Sadangi	532.13	131.4497	131.4497	6	94.89	12	119.34	12
		K.Nagar East	440.14	206.5126	206.5126	3	180.87	15	25.63	8
		K.Nagar West	717.809	207.95	207.95	4	177.42	17	11.92	6
		Mahabirod	733.52	139.58	139.58	6	97.86	13	23.95	4
		Kapilash	224.5574	112.4277	112.4277	5	91	4	18.77	3
		Bhuban	350.9454	40.28	40.28	2	12.95	10	27.33	7
		Total	4599.1518	1162.9754	1162.9754	34	736.9658	84	303.16	65

Forest fire vulnerability:

Sl. No.	Name of the Division	Range	Forest Out post at Forester Level	Name of Vulnerable Village	Total Notified Forest Area (in Sq. Km)	Type of Risk Zone (High/Medium/Low)	Total Population
1	Dhenkanal	Dhenkanal	Bhapur	Ranipal	0.377	Low	1140
2			Badagila	Badagila	5.04	Low	407
3			Ghatibir	Karadamada	0.2006	Medium	501
4			Bhapur	Kalanga	0.4876	Medium	2226

5			Dhenkana l	Mudisingh	1	Low	485
6			Dhenkana l	Kusupada	1	Low	459
7			Dhenkana l	Sarakhia	0.75	Low	838
8		Hindol	Bompa	Ganjara	0.04	Low	786
9			Bompa	Bramhanipal	12.03	Low	1467
10			Bompa	Patalu	4.04	Low	2207
11			Hindol	Tanti Sahi	0.46	Medium	315
12			Hindol	Ambithi	1	Medium	1386
13			Hindol	Karabira	1.8	Medium	309
14			Hindol	Pada	1	Low	2257
15			Hindol	Badagola	0.25	Low	407
16			Rasol	Lahada	2	Low	781
17			Rasol	Madhapur	1.6	Medium	1369
18			Rasol	Kukupangi	1	Medium	289
19			Bimbori	Kalipoei	0.7	Low	450
20			Rasol	Passasingh	1	Low	263
21			Rasol		1.25	Medium	1766
22		Sadangi	Sadangi	Baniapada	1.8	Medium	1923
23			Khankira	Chhotatentuli	2	Medium	693
24			Khankira	Khankira	2	Low	1948
25			Sadangi	Podukhoja	0.6	Low	1446
26			Sadangi	Majhipal	2	Low	585
27			Sadangi	Jharada	1.63	Low	939
28			Sadangi	Digamberpur	1.5	Low	1235
29			Sadangi	Hatibari	1.5	Low	568
30			Sadangi	Mathatentuli	2	Low	1813
31			Joranda	Bainsia	2	Low	2151
32			Joranda	Atinda	1	Low	1188
33			Joranda	Singha	1.9	Low	567
34		K.Nagar East	K.Nagar East	Tulasipasi	1.59	High	381
35			Kankadah ad	Batagon	1.25	High	2499
36			Birasal	Baghabasa	1	Low	485
37			Kankadah ad	Kalda	2	Medium	1722
38			Kandar	Maruabili	1.44	Medium	2400
39			Kandar	Sarian	91	Medium	823
40			Childa	Childa	2	Medium	856
41			Childa	Tareniapsi	0.85	Medium	853
42			Childa	Rodanga	2	Low	151
43			Birasal	Hadagiri	1.6	Low	528
44			Birasal	Birasal	0.65	Medium	2207
45			Birasal	Kharakhari	1.54	Medium	1166
46			Birasal	Koi	1.44	Medium	731
47			Birasal	Khatakhura	0.5	Medium	1855
48			Kankadha d	Bhalumunda	1.04	High	297
49			Kandar	Kampulei	2	Medium	1062
50			Kandar	Kandar	2	Medium	557
51			Kankadah ad	Kerojoli	1.96	Medium	1912

52		K.Nagar West	K.Nagar	Sahal	1.25	High	711
53			Analabereni	Udayagiri	1.85	High	416
54			Anlabereni	Siarimalia	0.28	High	925
55			Muktapasi	Kamarada	2.8	High	2025
56			K.Nagar	Karnapur	2	Medium	1752
57			Kirtanpur	Kandhara	2	Medium	2755
58			Muktapasi	Muktapasi	2	Low	3633
59			Muktapasi	Baghamunda	2	Low	891
60			K.Nagar	Markata	1.8614	Medium	283
61			Kirtanpur	Phuljhara	2	Low	209
62			Anlabereni	Pandua	0.4	Low	362
63			K.Nagar	Bampu	0.39	Low	409
64			K.Nagar	Mota	2	Low	1403
65		Kapilash	Kapilash	Biradia	1.92	Low	1500
66			Sorisiapada	Ramei	1.04	Low	500
67			Chatighara	Kolha	1.52	Low	219
68			Sorisiapada	Baniapada	2	Low	709
69			Deogaon	Tangarasahi	0.96	Low	800
70			Deogaon	Deogaon	1.9	Low	167
71			Deogaon	Rampa	1.18	Low	309
72			Deogaon	Dahimal	1	Low	421
73			Sorisiapada	Balipur	1.9	Low	315
74			Sorisiapada	Similia	1.5	Low	384
75			Deogaon	Ambanali	0.27	Low	1686
76			Biradia	Nagipasi	1.92	Low	900
77		Mahabirod	Mahabirod	Sundarmondi	1	High	328
78			Dighi	Basulei	2	High	5189
79			Mahabirod	Jhilli	2	High	1525
80			Mahabirod	Tipeijharan	1.71	High	481
81			Mahabirod	Kuturia	1.49	High	1634
82			Dihadol	Khalapa	1.6	High	2563
83			Dadarghati	Kulei	0.12	Low	2696
84			Dihadol	Pitiri	0.74	Low	1296
85			Dihadol	Kalda	1.04	Low	1722
86			Dihadol	Patrapada	1.8	Low	3312
87			Dihadol	Anlakata	1.2	High	926
88			Dihadol	Kumusi	1.75	High	2772
89			Dihadol	Nuakualo	0.129	High	4543

90			Mahabirod	Manikamara	2	High	2082
91			Dadarghati	Jaka	0.75	Medium	1361
92			Mahabirod	Toradanali	2	Medium	1941
93			Dadarghati	Kadapada	1.26	High	1707
94			Mahabirod	Madarangamunda	0.842	High	312
95			Pangatira	Gurujanguli	0.5498	High	1592
96	Dhenkanal	Bhuban	Jiral	Rankia	2	High	1201
97			Bhuban	Jamunkot	1.8	Medium	3306
98			Bhuban	Badamuktapsi	0.64	Low	497
99			Bhuban	Kumursingha	0.6	Low	588
100			Jiral	Syamala	1.5	Low	608
101			Jiral	Kamachia	1.1	Low	1212
102			Jiral	Budhibili	2	Low	1501
103			Bhuban	Keshrapur	2	Low	568
104			Bhuban	Matharagola	2	Low	4598

Details of forest as a major Carbon sink (District) (Table : 6.8)

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)
1141018200	13789672	0	633398021	1788205893

15. 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	Dhenkanal Municipality	1	NA	New DHH building

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
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1	New DHH building	Dhenkanal Municipality	CDMO&PHO	Yes	2020	-
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(As per National Building Code -2016 Para E-7 of Annexure E)

16. Embankments:

Irrigation Division Wise Embankments in the District:

Sl No	Name of Division	Name of the embankments	Type (Capital Embankment/ Other Agricultural/ Test Relief/ Saline)	Total length of embankment in Km
1	2	3	4	5
1	Angul Irrigation Division	MF.E from saradhapur to Badabilla on Ramial left.	CE	1.50
2		MF.E from Alutuma to Rekula on Ramial left.	CE	3.90
3		MF.E from Rekula to Tentulisinga on Ramial left.	CE	2.70
4		MF.E from Tentulisinga to Baligorada & Baligorada to Mahapatiajore on Ramial left.	CE	6.70
5		MF.E from Arasahi to Origoan on Ramial left.	CE	1.30
6		MF.E from Origoan to Khantakhhol on Ramial left.	CE	4.40
7		MF.E from Khantakhhol to Krushnapur on Ramial left.	CE	4.30
8		MF.E from Kadua to Saruali on Ramial Right.	CE	4.00
9		MF.E from Jagannathpur to Badura on Ramial Right.	CE	1.50
10		MF.E from Sanaberhmpur to Badaberhmpur on Ramial Right.	CE	3.24
11		MF.E from Arkhapal to Jeneilo on Ramial Right.	CE	0.60
12		MF.E from at Jeneilo on Ramial Right.	CE	0.70
13		MF.E from Jeneilo to Orhana on Ramial Right.	CE	2.12
14		MF.E from Kantio to Kotagara on Brahmani Right.	CE	2.50

15	MF.E from Kotagara to Kamagara on Brahmani Right.	CE	3.90
16	M.F.E at Kamagara. On Brahmani right.	CE	0.20
17	MF.E from Kamagara to Jhagadapada on Brahmani Right.	CE	3.90
18	MF.E from Jhagadapada to Kateni on Brahmani Right.	CE	2.35
19	MF.E from Kateni to Budhibil on Brahmani Right.	CE	4.00
20	M.F.E at Rankia on Brahmani right.	CE	3.00
21	MF.E from Rankia to Dighi on Brahmani Right.	CE	3.90
22	MF.E from Chandipal to Mahulpal on Brahmani Right.	CE	4.27
23	M.F.E at Mahulpal on Brahmani right.	CE	1.15
24	T.R.E at Kurunti on Brahmani right.	T.R.E	1.00
25	T.R.E at Kharagprasad on Brahmani right.	T.R.E	1.00
26	T.R.E at Bido on Brahmani right.	T.R.E	1.00
27	T.R.E at Kulai on Brahmani left.	T.R.E	0.10
28	T.R.E at Tumugula on Brahmani right.	T.R.E	0.16
29	T.R.E at Jhadiamba on Brahmani right.	T.R.E	0.12
30	O.A.E at Damola on Brahmani left.	O.A.E	0.28
31	O.A.E at Panigengutia on Brahmani left.	O.A.E	0.45
32	O.A.E at Batasingha on Brahmani left.	O.A.E	0.75
33	O.A.E at Chandapur on Brahmani left.	O.A.E	1.11
34	O.A.E at Baulapur on Brahmani right..	O.A.E	1.00
35	O.A.E at Sadashibpur on Brahmani right..	O.A.E	1.00
36	O.A.E at Bangursingha on Brahmani right..	O.A.E	0.50
37	O.A.E at Latadeipur on Brahmani right..	O.A.E	1.00
38	O.A.E at Sankulai on Brahmani right..	O.A.E	2.00

39	O.A.E at Hanumantiaghai on Brahmani right..	O.A.E	0.52
40	O.A.E at Khargaprasad on Brahmani right..	O.A.E	0.30
41	O.A.E at Kurunti on Brahmani right..	O.A.E	0.50
42	O.A.E at Dhalpur on Brahmani right..	O.A.E	2.20
43	O.A.E at Chanchhaghai on Brahmani right..	O.A.E	2.50
44	MF.E from Sankulai to Nagenahill on Brahmani Right.	O.A.E	5.03
45	MF.E from Nagenahill to Badajoremouth on Brahmani Right.	O.A.E	7.052
46	O.A.E at Balisahi on Ramial left..	O.A.E	0.90
47	T.R.E at Rendapatena.	T.R.E	2.00
48	T.R.E along Kalabilla nallah near village Kusia.	T.R.E	0.85
49	T.R.E nearvillage Odhana.	T.R.E	0.50
		Total	99.95

Division wise list of Vulnerable Points:

Sl No.	Name of Division	Name of Embankment/River	Location of Vulnerable Points	Affected length (in Meter)	Name of Block	Name of village to be affected
1	2	3	4	5	6	7
1	Angul Irrigation Division	Chandipal to Mahulpal/Brahmani	At Bhusal	50M	Bhuban	Bhusal, Kirtanpur, Bhuban
2	Angul Irrigation Division	Rankia to Dighi/Brahmani	At Rankia	30M	Kamakshyana gar	Rankia, Balichaturi, Balipada

17. 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 developed ? (Yes/No)	Pre and Post Monsoon Inspection of Structural Measures done ?(Yes/No)	No. of Villages to be affected/ needs to be evacuated in case of a possible scenario (District & Block Wise)	Remarks
1.										

Contingency Planning for Dam bursts scenario:1. For Dam – A: **Not Applicable**

Sl. No.	District	Block	Name of the Village	Evacuation Route for the village/s	No. of HHs	Population	Safe Shelter Identified	Remarks

2. For Dam – B: **Not Applicable**

Sl. No.	District	Block	Name of the Village	Evacuation Route for the village/s	No. of HHs	Population	Safe Shelter Identified	Remarks

ii. Formation and Subsequent Bursting of Landslide Dams: **Not Applicable**

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			
2			

18. Cultural Heritage Sites and Precincts

Sl. No.	Cultural Heritage site / precinct	Address / Location	Category (Centrally protected Monuments / State protected / UNES CO World Heritage Site / Unprotected Monument)	Name and Contact details of the controlling / Supervising Authority at the District level	Hazards & Vulnerability of the place	Remarks (if any) (Average Football and Days / Period during which the place receives highest football)
1	SARANG (Sleeping Image of Lord Vishnu)	At/P.O.- Saranga Dist.-	ASI	Tourist Officer, Dhenkanal Mob.- 9937165927 Ph. : 06762-	Due to dashing or river water during rainy season the image is	44647 (During December, January,

		Dhenkanal		226631	degrading day by day. Needs Repairing & Restoration.	February) receive highest football
2.	KUALO (Religious Place)	At/P.O.- Kualo P.S.- Parjang Dist.- Dhenkanal	ASI	Executive Officer, Debottar, Dhenkanal	Dilapidated Condition. Needs Repairing & Restoration	36773 (During Siva Ratri) receive highest football
3.	ARNNAKOTISWAR (Religious Place)	At- Lateadeipur P.O.- Radhadeipur P.S.-Gondia Dist.- Dhenkanal.	ASI	Executive Officer, Debottar, Dhenkanal	The Present Mandap is remaining under dilapidated condition. Needs Repairing & Restoration	35662 (During Siva Ratri) receive highest football
4.	GODESS STHAMBESWAR I (Religious Place)	At/P.O.- Chitalpur Via- Balimi, P.S.-Rasol Dist.- Dhenkanal	ASI	Executive Officer, Debottar, Dhenkanal	Jagamohan Mandap is remaining under dilapidated condition. Needs Repairing & Restoration	30512 (During Dola Purnima) receive highest football
5.	YAYNESVARTE MPLE (Religious Place)	At/P.O.- Khadagaprasad P.S.-Motonga Dist.- Dhenkanal	ASI	Executive Officer, Debottar, Dhenkanal	Dilapidated condition. Needs Repairing & Restoration	30220 (During Srabana) receive highest football

6.	NADARA RAMACHANDI (Religious Place)	At/P.O.- Nadara P.S.-Motonga Dist.- Dhenkanal	ASI	Executive Officer, Debottar, Dhenkanal	Due to non-availability of infrastructure development visitors are facing problem. Needs to Repairing & Restoration	325320 (During Makara Yatra) receive highest football
7.	NAGANATHESW ARTEMPLE (Religious Place)	At/P.O.- Nagena P.S.-Sadar Dist.- Dhenkanal	ASI	Executive Officer, Debottar, Dhenkanal	God submersed by rain water during rainy season. Office, store room are under dilapidated condition. Needs Repairing & Restoration	37551 (During Siva Ratri) receive highest football
8.	KAPILASHTEMP LE (Religious Place)	At/P.O.- Deogan P.S.-Gondia Dist.- Dhenkanal	ASI	Executive Officer, Debottar, Dhenkanal	Remaining under unhealthy atmosphere. Garbage system urgently needing. Badadanda needs to be widening	665244 (During Siva Ratri) receive highest football
9.	KAPILESWARM AHADEVTEMPL E (Religious Temple)	At- Hatuari P.O.- Badasuanlo Via- Kamakhyanagar Dist.- Dhenkanal	ASI	Executive Officer, Debottar, Dhenkanal	Devotees are facing problem as it is situated in between Ramial river a small bridge is required.	45322 (During Siva Ratri) receive highest football
10.	PASCHIMESWAR	At-	ASI	Executive	These group	423347 (During Siva

	GROUP OF TEMPLES (Siddheswar & Somanath) (Religious Temple)	Gangadhar Prasad P.O.- Kamadhenukote P.S.-Sadar, Dist. - Dhenkanal		Officer, Debottar, Dhenkanal	of temples are standing in the open air for which boundary wall and needs minor repair & Restoration	Ratri & Marriage Ceremony) receive highest football
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19. Museum/Library:

Sl No	Name of the Museum/Library	Location & Address	Type	Category/Controlling Body (A.S,I/Central Govt./ State Govt/ Privat/ Public/ Privately Managed/ University College	Name & Contract details of controlling authority /owner	Hazard & Vulnerability	Average Foot, Fall & days/ Period during which highest foot fall is received	Remark (If any)
01	Branch Museum, Dhenkanal	Art & Craft Centre, Near Bhagirathi Sagar, Near Tahahsil, Dhenkanal Post/Dist-Dhenkanal	Branch Museum	District Category, Supt. State Museum, Bhubaneswar/ Collector & District Magistrate State Government	District Culture Officer, Dhenkanal	Nil	Per day-35 New Years Day-1000	
2	Fakir Mohan District Library	At-Ganesh Bazar, Near Head Post Office, Post/Dist-Dhenkanal	District Library	District Category, Director of Culture, Odisha, Bhubaneswar State Government	District Culture Officer, Dhenkanal	It is the old Asbestos house as protected monuments of Fakir Mohan Senapati	Per day-30 New Years Day-1500	It should be renovated to save the old monuments and old house.

19. Human Animal Conflict:

i. Loss of Human Lives and Property due to Animal Attack- Table-3.38

Sl No.	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 05 years	Crop damaged

2017-18					
1	Mahadia	Elephant	1	196	5938
2	Kaunriapal	Elephant	1		
3	Nimidha	Elephant	1		
4	Malibido	Elephant	1		
5	Gengutia	Elephant	1		
6	Khankira	Elephant	1		
7	Atinda	Elephant	1		
8	Nathua	Elephant	1		
9	Ichhabatipur	Elephant	1		
10	Ichhabatipur	Elephant	1		
11	Baruan	Elephant	1		
12	Jaka	Elephant	1		
13	Kankadasoda	Elephant	1		
14	Dadaraghati	Elephant	1		
15	Ambapalas	Elephant	1		
16	Gatarei	Elephant	1		
17	Kandarasingh	Elephant	1		
18	Guagaria	Elephant	1		
19	Paikapurunakote	Elephant	1		
20	Babandha	Elephant	1		
21	Surapratapur	Elephant	1		
2018-19					
1	Baulapur	Elephant	1	332	3887
2	Chaulia	Elephant	1		
3	Gaudakateni	Elephant	1		
4	Bangursingh	Elephant	1		
5	Kaunriapal	Elephant	1		
6	Gengutia	Elephant	1		
7	Bhaliabolakateni	Elephant	1		
8	Artasantarakateni	Elephant	1		
9	Chaulia	Elephant	1		
10	Rameikhamar	Elephant	1		
11	Damodamali	Elephant	1		

12	Sadangi	Elephant	1		
13	Parikheda	Elephant	1		
14	Kankili	Elephant	1		
15	Basoi	Bear	1		
16	Kadalipal	Elephant	1		
17	Andharikhola	Elephant	1		
18	Barihapur	Elephant	1		
19	Palasahi	Elephant	1		
20	Kandarasingh	Elephant	1		
21	Kandarasingh	Elephant	1		
22	Baiginia	Elephant	1		
23	Gailo	Elephant	1		
24	Brahmapur	Elephant	1		
25	Chitalpur	Elephant	1		
26	Tarakabeda	Elephant	1		
27	Bedapada	Elephant	1		
28	Chilataila	Elephant	1		
29	Chakapal	Elephant	1		
2019-20					
1	Benudhara Nayak At-Ostapal	Elephant	1	497	5253
2	Mangaraja Patra At-Gunadei	Elephant	1		
3	Surendra Parida At-Balarampur	Elephant	1		
4	Golap Sahoo At-Gunadei	Elephant	1		
5	Urmila Nayak At-Kaunriapal	Elephant	1		
6	Gauranga Pingua At-Chatighar	Elephant	1		
7	Jasobanta Tarai At-Nayakateni	Elephant	1		
8	Hrudanda Mallik At-Godarbili	Elephant	1		
9	Naratam Dehuri	Elephant	1		

	At-Sanda				
10	Prasanna Barma At-Khalpal	Elephant	1		
11	Santanu Samala At-Damol	Elephant	1		
12	Dulana Sahoo At-Nageswar	Elephant	1		
13	Krushna Ch. Sahoo At-Basoi	Elephant	1		
14	Jhari Sahoo At-Jatia	Elephant	1		
15	Dushasan Das At-Katabahal	Elephant	1		
16	Naran Naik At-Gadapalasuni	Elephant	1		
17	Srikanta Muduli At-Roda	Elephant	1		
18	Budhei Behera At-Damol	Elephant	1		
19	Ptrafulla Naik At-Kaduamada	Elephant	1		
20	Dherani Dhara Panda At-Benipathara	Elephant	1		
21	Bhaskara Behera At-Bampa	Elephant	1		
22	Sajani Padhan At-Babandha	Elephant	1		
2020-21					
1	Gailo	Elephant	1	382	7332
2	Gailo	Elephant	1		
3	Pasasingh	Elephant	1		
4	Chataka Budheibereni	Elephant	1		
5	Ramesh Ch sahou At-Gahamkhunti	Elephant	1		
6	Gobindpur	Elephant	1		
7	Tamanda	Elephant	1		
8	Deogaon	Elephant	1		
9	Sorisiapada	Elephant	1		

10	Sananagena	Jackal	1		
11	Madhabolua	Elephant	1		
12	Mugapada	Elephant	1		
13	Kaluria	Elephant	1		
14	Majhikamana	Elephant	1		
15	Julanga	Elephant	1		
16	Khatuahata	Elephant	1		
17	Kantiokateni	Elephant	1		
18	Brahmania	Elephant	1		
19	Barihapur	Elephant	1		
20	Panigengutia	Elephant	1		
21	Majhika	Elephant	1		
22	Panigengutia	Elephant	1		
23	Dihadol	Elephant	1		
24	Gobindpur	Elephant	1		
25	Khardali	Elephant	1		
26	Jamuchakada	Elephant	1		
27	Gopalpur	Elephant	1		
28	Meramandali	Elephant	1		
29	Balikiari	Elephant	1		
30	Bedapada	Elephant	1		
31	Jagannathpur	Elephant	1		
32	Ganjara	Elephant	1		
33	Khajuriakata	Elephant	1		
34	Dandiri	Elephant	1		
35	Surapratapur	Elephant	1		
2021-22					
1	Kottam	Elephant	1	302	2246
2	Jaripal	Elephant	1		
3	Illirisinga	elephant	1		
4	Badapokhari(Alusingh)	elephant	1		
5	Brahmania	Bear	1		
6	Charanpur	Elephant	1		
7	Khandualmunda	Elephant	1		

8	Suravi	elephant	1		
9	Damol	Elephant	1		
10	Ghodadian	Elephant	1		
11	Neulapoi	Elephant	1		
12	Gopalpur	Elephant	1		
13	Dandeibereni	Elephant	1		
14	Mohanpasi	Elephant	1		
15	Mahuladagar	Elephant	1		
16	Baisinga	Boar	1		
17	Solagadia	Boar	1		
18	Kathagada	Elephant	1		
19	Nimidha	Elephant	1		
20	Kadla	Elephant	1		

ii. Loss of Animal Lives due to Man-Made Causes
Table -3.39

Sl No	Vulnerable Place/ Location	Causing Agent (Railway line/ Electric Lines etc.)	No. of Incidents	No of Animal Lives lost
2017-18				
1	Near village Borapada	Electrocution	01	03
2018-19				
1	Near village Ichhapur	Electrocution	01	01
2	Near village4 Jharbeda	Electrocution	01	01
3	Near village Kamalanga	Electrocution	01	07
4	Near Dandimal Railway Level Crossing	Train Hit	01	01
2019-20				
1	Pasasingh Railway Level	Train Hit	01	01

	Crossing			
2	Near village Dihadol	Electrocution	01	01
3	Near village Gurilo	Electrocution	01	01
4	Near village Podapada NH- 55	Truck Hit	01	01
2020-21				
1	Near village Pathara Khamba	Electrocution	01	01
2	Near village Benipathara	Electrocution	01	01
3	Inside Kandhara RF	Poaching	01	01
2021-22				
1	Near village Govindaprasad inside a mango orchard	Electrocution	01	01
2	Near village Kantamila	Electrocution	01	01

21. Human Animal Conflict-

i. LOSS OF HUMAN LIVES AND PROPERTY DUE TO ANIMAL ATTACK

Sl No.	Year of Depredation	Vulnerable place	Causing Agent/ Animal (Elephant, Bear, Boar Crocodile etc.)	No of Human lives lost during 5 years	Damage to house and property during last 05 years	Crop Damaged
1	2014-15	Dhenkanal Range	Elephant	14	37	1297.4921
2	2015-16	Mahabirod Range	Elephant, Boar	14	100	1696.6387
3	2016-17	Dhenkanal Range	Elephant, Boar	17	105	1432.4166
4	2017-18	Hindol & Dhenkanal Range	Elephant	21	196	733.7293
5	2018-19	Hindol, Mahabirod & Dhenkanal Range	Elephant, Bear, Boar	29	332	1359.4708

03	2015-16	Elephant	Sudhadihakateni	Sadasivpur	Dhenkana 1	03	36	653.726 3
		Elephant	Pasasingh	Sadasivpur				
		Elephant	Sudhadihakateni	Sadasivpur				
		Boar	Jandapasi	Deogaon	Kapilash	01	-	76.0909
		Elephant	Chhatia	Joranda	Sadangi	04	-	179.048
		Elephant	Kanka	Bainsia				
		Elephant	Mankundapur	Keramal				
		Elephant	Kabera	Kabera				
		Elephant	Kangeilo	Jagannathpur	Bhuban	02	-	147.27
		Elephant	Darjani	Dhalapada				
					Hindol	-	13	126.710 9
					K.Nagar East	-	06	27.1479
		Elephant	Jamujhara	Baruan	K.Nagar West	02	05	204.31
		Elephant	Tumusinga	Tumusinga				
		Elephant	Akhuapal	Akhuapal	Mahabiro d	02	40	648.641 8
		Elephant	Balisahi	Sanda				
			Total	14	100	2062.94 6		
04	2016-17	Elephant	Chaulia	Chaulia	Dhenkana 1	02	65	615.173 3
		Elephant	Bachhuriabank	Bangursingh				
		Elephant	Mahulakholi	Deogaon	Kapilash	01	-	57.3889
		Elephant	Parikheda	Sogarapasi	Sadangi	03	01	222.631
		Elephant	Radhadeipur	Bandhasihan				
		Boar	Ambapada	Karamul				
					Bhuban	-	03	162.22
		Boar	Sanahindol	Rajagol	Hindol	02	10	68.1093
		Elephant	Kantioputasahi	Kantioputasahi	K.Nagar East	03	04	26.652
		Elephant	Malapura	Baisinga				
		Elephant	Pallisantarpur	Kanpura				
		Elephant	Bindhania	Birasal				
		Elephant	Kankili	Basoi	K.Nagar West	04	-	75.426
		Elephant	Rahaberena	Basoi				
		Elephant	Kantio	Kantioputasahi				
		Elephant	Jamujhara	Baruan	Mahabiro d	01	22	294.624 9
Elephant	Gadapalasuni	Bhusala						
			Total	16	105	1522.22 5		
05	2017-18	Elephant	Mahadia	Odapada	Dhenkana 1	05	99	177.826 05
		Elephant	Belapada	Odapada				
		Elephant	Nimidha	Nimidha				
		Elephant	Malibido	Bido				
		Elephant	Gengutia	Gengutia				
			-	-	Kapilash	-	-	42.861
		Elephant	Khankira	Khankira	Sadangi	03	02	54.552
		Elephant	Atinda	Joranda				
		Elephant	Nathua	Chaulia	Bhuban	01	05	42.03
		Elephant	Srirampur	Surapratapur				

	Elephant	Guagara	Babandha	Hindol	03	69	77.7432
	Elephant	Paikapurunakote	Paikapurunakote				
	Elephant	Babandha	Babandha				

2017-18		-	-	K.Nagar East	-	-	20.23
	Elephant	Ichhabatipur	Ichhabatipur	K.Nagar West	04	-	39.44
	Elephant	Ichhabatipur	Ichhabatipur				
	Elephant	Baruan	Baruan				
	Elephant	Jaka	Kantioputasahi	Mahabirod	05	21	263.2936
	Elephant	Kankadasoda	Kankadasoda				
	Elephant	Kulei	Gengutia				
	Elephant	Ambapalasa	Ambapalasa				
	Elephant	Patrapada	Patrapada				
Elephant	Kandarasingh	Kandarasingh					
				Total	21	196	717.9759

i. Loss of Animal Lives due to man-made causes.

Sl No.	Year of Depredation	Causing Agent (Railway line/ Electric transmission line)	Vulnerable place/ Location	No of incidents	No of Animal lives lost
01	2014-15	Due to Electrocutation	In paddy field village Malpura of K.Nagar East Range	01	01
		Due to Electrocutation	Near Kandhara RF of Hindol Range	01	01
		Due to Electrocutation	Near Bampa RF of Hindol Range	01	01
			Total:-	03	03
02	2015-16	Due to Electrocutation	Near village Gunadei of Dhenkanl Range	01	02
		Due to Electrocutation	Kathapal Village of Sadangi Range	01	01
		Due to Electrocutation	Karamul Village near Aswakhola R.F of Sadangi Range	01	01
			Total:-	03	03
03	2016-17	Due to Electrocutation	Near village Giridhari Prasad of Hindol Range	01	01
		Electrocutation (Deliberate)	Near village Bharatkata adjacent to Sundarakhola R.F of K.Nagar West Range	01	01
			Total:-	02	02
04	2017-18	Due to Electrocutation	Near Borapada Village	01	03

			of Dhenkanal Range		
05	2018-19	Train Hit	Near village Sorat of Hindol Range	01	01
		Due to Electrocutio	Near village Ichhapur Baulasahi of Dhenkanal Range	01	01
		Due to Electrocutio	Near village Jharbeda of Hindol Range	01	01
		Due to Electrocutio	Near village Kamalanga	01	07
		Train Hit	Near Dandimal Railway Level crossing	01	01
		Total		05	11

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:-

- a) Lays down policies and plans for disaster management in the State.
- b) Approves the State Plan in accordance with the guidelines laid down by the NDMA,
- c) Coordinates the implementation of the State Plan, recommend provision of funds for mitigation and preparedness measures.
- d) Review the developmental plans of different departments of the State to ensure the integration of prevention, preparedness and mitigation measures.
- e) 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.
- f) Review the measures being taken for mitigation, capacity building and preparedness by the departments of the Government & issue such guidelines as may be necessary.

- g) 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.

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, cyclones, 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-cyclone 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:-

- 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

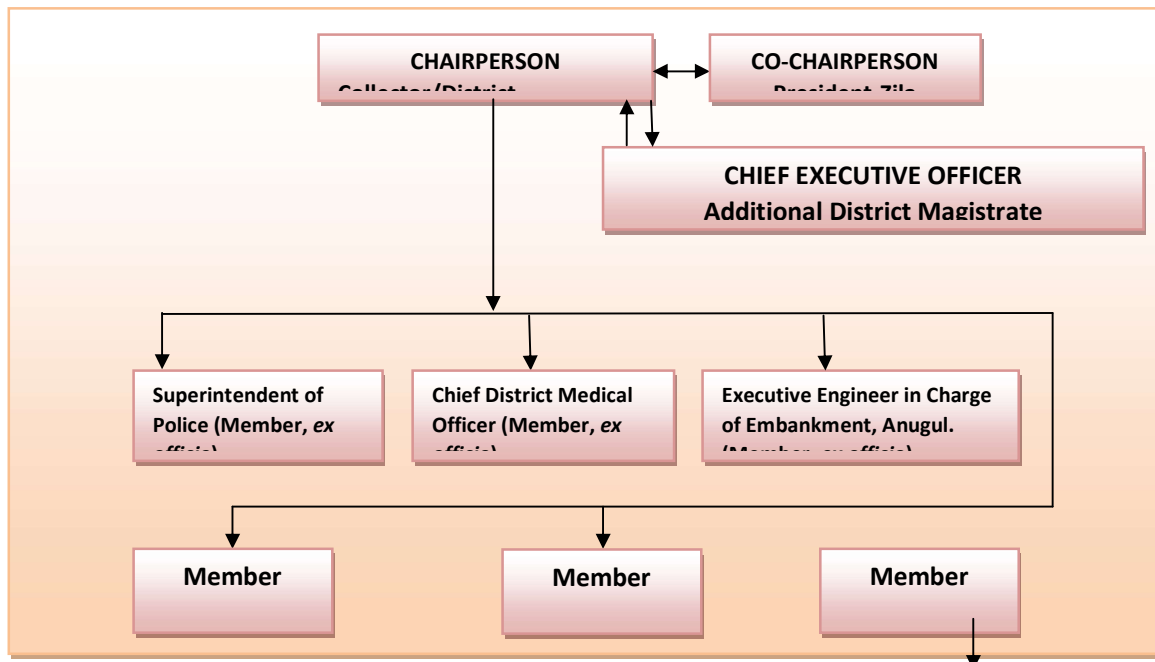
The State Government appoints an officer not below the rank of Additional Collector or Additional District Magistrate or Additional Deputy Commissioner, as the case may be of the District to be Chief Executive Officer of DDMA.

Odisha Government Notification No.IVF-(OSDMA)-24/10-46176/R&DM on constitution of DDMA,Dhenkanal.

Structure of District Disaster Management Authority(DDMA),Dhenkanal.

Sl No.	Name of the Officer	Designation	Position in DDMA	Contact No.
1	Saroj Ku. Sethi, IAS	Collector & District Magistrate	Chairperson, Ex-Officio	06762-225717/ 9437174051
2	Mrs.Archana Puhan	President, Zilla Parishad,Dhenkanal	Co-Chairperson, Ex-Officio	9777866821
3	Shri Gyana Ranjan Mohapatra	Superintendent of Police	Member, Ex-Officio	06762-225777
4	Shri Ramesh Chandra Sethy	Additional District Magistrate.	Chief Executive Officer, Ex-Officio	7008255221
5	Dr.Ashok Kumar Dash	Chief District Medical & Public Health Officer.	Member, Ex-Officio	9439981081
6	Er. Sanatana Patra.	Executive Engineer in Charge of embankments, Angul.	Member, Ex-Officio.	9437159543
7	Shri Tanmay Darwan	Project Director, DRDA	Member	9437461947/ 06762-224506
8	Er. Debendra Nath Patnaik	Executive Engineer, Rural Development,Dhenkanal	Member	9437255309
9	Shri Sarat Tosh	Deputy Director, Agriculture/CDAO	Member	7008784258/ 06762-224662

Organogram of District Disaster Management Authority (DDMA).



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 Plans 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 an 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;
- 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,Dhenkanal by the Chairperson.

Superintended of Police:

- Ensure the law and order situation in the district at the time of emergency.
- Ensure necessary protection for the supply of relief materials.
- Prohibitory and detention measures if so required.
- Ensure 24*7 Control Room Operations.

Additional District Magistrate:

- Overall supervision of preparedness and response activities
- Monitoring the activities at different level and departments.
- Timely release of Input Subsidy to farmers during Drought declaration.
- Timely release of ex-gratia assistance to beneficiaries/ NoKs as per the NDRF/SDRF guideline after happening of specified Disasters..
- Co-ordination among ODRAF/NDRAF/Fire/local police and executive magistrates.
- Ensure Provision of minimum standard norms of relief in the relief camp as per the NDMA norms in the pre and post disaster period.
- Co-ordination of all district level departments for synergetic efforts to tackle the impending situations.

Project Director, DRDA:

- 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.
- Ensure Provision of minimum standard norms of relief in the relief camp as per the NDMA norms in the pre and post disaster period.

CDM&PHO:

- CDM&PHO to ensure the necessary medical arrangement at the DHH/SDH / CHC/PHC/SC level.
- Ensure 24*7 control room operation at DHH/SDH / CHC level.
- Ensure that necessary medicines with anti snake venoms are piled at different health units.
- Mobile health unit needs to be in readiness.
- Operational of MRC as per the requirements.
- Provision of Medical treatments in the Relief Camp.
- Strengthening DSU, Rapid Action Team to control disease outbreak during Disasters.
- Take appropriate action for safe transportation of expected mothers whose EDD 5days before striking of disaster especially, Cyclone to nearest Delivery Points.
- Keep ready the Sunstroke Room in the DHH/SDH/CHC/PHC level as per the portfolio.
- Awareness generation and capacity building of Doctors/Paramedical Staff/RKS members/ASHAs/ GKS/WKS/MAS members to mitigate impact and incidence of different disasters along with entitlement of ex-gratia assistance to beneficiaries and

NoKs as per the NDRF/SDRF norms. It is already approved by DDMA for its implementation and letter had already communicated.

- Proper Implementation of BKKY/BSKY and treatment provision /delivery to beneficiaries.
- All measures to do provisioning of treatment & medical services during post disaster phases.

Executive Engineer in Charge of Embankments, Anugul.

- Ensure the status of weak embankments and safe guarding of the same.
- Liaison with the Collector, ADM, Department 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.

Deputy Director Agriculture (DDA):

- Flood contingency planning and monitoring.
- Drought /Pest Attack/Unseasonal rainfall management planning & implementation.
- Capacity building of the farmers as and when required for alternative cropping.
- Proper implementation and Monitoring of assessment process for Input Subsidy to farmers, other related activities. And Liaison with Revenue & DM, Department, Agriculture and Farmer Empowerment and Planning & Co-ordination Department during Drought situation as per the notification. Timely release of Input Subsidy.
- Proper implementation of PMFBY, KAALIA and BKKY, other schemes in favor of farmers in the district.

Executive Engineer, Rural Works Department:

- Timely & proper assessment all Govt. infrastructures in rural area.
- Relief line clearance, Road clearance, other response activities etc.
- Ensure development works in rural areas in the post disaster period time bound manner.
- Ensure restoration of roads and other infrastructure aftermath of the flood in the flood prone areas and other Disasters.
- Proper implementation of restoration and recovery projects.
- Assessment of Govt. buildings/infrastructures for declaration of abandonment/unsafe and timely repair and renovation works.
- Construction of Road & building resilient to Earthquake, Cyclone.
- Others.

Block Level Disaster Management Committee (BDMC) and GP Level Disaster Management Committee:

In pursuance of the decision of the District Disaster Management Authority (DDMA), Dhenkanal, on Dt. 07.10.2021, the Block Level Disaster Management Committee (BLDMC) and GP Level Disaster Management Committee (GPLDMC) have been constituted as follows,

Block Level Disaster Management Committee (BLDMC):

BDO	Chairman,
Tahasildar	Co-Chairman

GPEO	Member Convenor,
Members-	Addl. Tahasildar, ABDO, Block AEE, Block MO I/c, AAO, AHO, AFO, BVO, CDPO, BEO, BSSO, Marketing Inspector(MI), Station Fire Officer, JE-RWSS, and three NGOs Member of Block Level NGO Coordination Committee(BLNCC)

Gram Panchayat Level Disaster Management Committee (BLDMC):

Sarpanch	Chairman,
PEO	Member Convenor,
Members-	JE, ANM, GPTA, GRS, Village Agriculture/Horticulture Worker, two Head Masters, two ASHAs, two AWWs, two President/Secretary of VDMC, President & Secretary GPLF(WSHG) Mission Shakti, local NGO/CSO.

Both the committees are functioning under the command & control of the DDMA, Dhenkanal. The Disaster Management Committee at Block and GP level will take measures for effective Planning, Preparedness, Response & Relief measures, Rehabilitation & Reconstruction, Mitigation & Prevention, Post Disaster Need Assessment (PDNA) etc. in coordination with concerned Line Deptt. and will assist District Disaster Management Authority (DDMA), Dhenkanal, for effective Disaster Management in the district. The committee will also, monitor implementation of Disaster Management Activities in different phases of Disaster in the Block/GP.

4.10 District Level Committee on Natural Calamity (DLNCC)

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:

Structure of District Level Committee on Natural Calamity, Dhenkanal.

Sl No.	Name of the Member	Designation	Contact No.
1.	Sri Saroj Kumar Sethi, IAS	Collector, Dhenkanal. (Chairman)	06762-225717/ 9437174051
2.	Sri. Prafulla Mallick	Hon'ble Minister, Steel & Mines, Works, Govt. of Odisha, Hon'ble MLA, Kamakhyanagar	9437292498
3.	Sri. Mahesh Sahu	Hon'ble M.P., Loksabha, Dhenkanal.	NA
4.	Dr. Nrusingha Sahoo	Hon'ble MLA, Parjang,	9437143935
5.	Ms. Seemarani Nayak	Hon'ble MLA, Hindol.	9668182255
6.	Sri. Sudhir Kumar Samal	Hon'ble MLA, Dhenkanal.	9437058254
7.	Mrs. Archana Puhon	President, Zilla Parishad, Dhenkanal	9777866821

8.	Sri Gyana Ranjan Mohapatra, IPS	SP, Dhenkanal	06762-225777
9.	Sri Ramesh Ch Sethi,OAS(SAG).	ADM, Dhenkanal	7008255221
10.	Sri Tanmay Darwan,OAS(S)	PD, DRDA, Dhenkanal	9437461947
11.	Ms Snigdha Dhal,OAS(S)	Sub-Collector, Dhenkanal	9437507938/ (06762) 224625
12.	Sri Uday Kumar Mohapatra,OAS(S)	ADM, Dhenkanal	9437529295/(06732) 251221
13.	Sri Jyoti Shankar Sahoo,OAS(S)	Sub-Collector,Kamakhyanagar	9337793687
14.	Ms Lopamudra Rath,ORS	Deputy Collector Emergency	8895230403
15.	Dr.Ashok Kumar Dash	CDM&PHO, Dhenkanal	9439981081
16.	Dr.Jagannath Nanda,	CDVO, Dhenkanal	9439779848/06762-226565
17.	Anshuman Patnaik	CDAO, Dhenkanal & Project Director, ATMA	7008784258,06762-224662
18.	P.K Mohanty	DLO, Dhenkanal	9437354018
19.	Mr.Saroj Kumar Sethi	Deputy Director Planning &Statistics, Dhenkanal.	9437240866
20.	Mr.Digambara Panda	Deputy Director Horticulture, Dhenkanal.	9437043872
21.	Sri. Nirod Ranjan Das	Civil Supply Officer, Dhenkanal	9437068432
22.	Sudhir Kumar Nayak	B.D.O.Dhenkanal	8249099734/224485(06762),
23.	Dr. Asish Ranjan Sahoo	BDO,Gondia.	9439044896 /231124
24.	Dasarathi Jena	B.D.O.Odapada	9438298087 /256035(06732)
25.	Khirabdhi Tanaya Sahoo	BDO Hindol	9348859479 /251242(06732),
26.	Bikash Ku. Mohanty	B.D.O.K.Nagar	9818594213 /270446(06769)
27.	Ashirbad Parida	BDO, Bhuban	9937720828 /272024(06769)
28.	Bulbul Behera	B.D.O.Kankadahad	264022(06768), 9437542142
29.	Ramesh Chandra Behera	B.D.O Parjang	9437663463 /261021(06768)
30.	Anupama Murmu	Tahasildar,Dhenkanal	06762-226508, 7008223851
31.	Dr. Asish Ranjan Sahoo	Tahasildar, Gondia	06762-231324/9439044896
32.	Susant Kumar Mishra	Tahasildar, Hindol	06732-251241, 9437332298
33.	Bani Nibedita Swain.	Tahasildar,Odapada	9178262608/06732-256555
34.	Bikash Ku. Mohanty	Tahasildar,K.Nagar	9818594213/06769-270445
35.	Khageswar Patra	Tahasildar, Parjang	9437120815/06768-261098
36.	Ramesh Kumar Jena	Tahasildar,K.Had	06768-264121, 9439109887
37.	Rosalin Behera	Tahasildars, Bhuban	06769-272025, 8018127772
38.	Saradaprasad Mohanty	DIPRO, Dhenkanal	9437143002
39.	Sangram Keshari Rout	I/c DRCS Dhenkanal	8249020136/221626
40.	Er.Jamini Kanta Das	EE, Minor Irrigation, Dhenkanal.	9437079590
41.	Er. P.K Patnaik	EE, Lift Irrigation	9437292435
42.	Debendra Nath Patnaik	EE, RW, Division, Dhenkanal.	9437255309
43.	Hrudananda Panda	EE,RW,Division, Kamakhyanagar	9437255308
44.	Er. N.C. Pattanaik,	SE, CESU, Dhenkanal	9437011297
45.	Er. Bismay Das,	Divisional Manager,TPCODL	6371640660,06762-243626
46.	Er. S. K. Sahoo	EE, CESU,Chainpal	9437094262
47.	Subrat Kumar Nayak.	Executive Engineer, Embankment, Irrigation, Angul.	9437159543
48.	Er.B. Sahoo	EE, RWSS,Dhenkanal	9438420171
49.	Atanu Ku.Samant	Executive Officer, Dhenkanal Municipality.	9438256399
50.	Mr. Braja Prasad Ratha	EO, Kamakhyanagar, NAC	9437332012

51.	Amiyaranjan Das	EO, Hindol NAC	9438710154
52.	Pramod Ku.Baral	EO, Bhuban, NAC	9437395961
53.	Umakanta Nayak	Asst. Fire Officer	9437269491

Structure and roles and responsibilities of District Level Committee on Natural Calamities (DLNCC) Dhenkanal district is elaborated as below.

Department Related.	Statutory /Administrative	Provision under which Constituted.	Role of the Collector &DM.	Role of the Committee.	Period of Meeting.
Revenue &DM, Govt. of Odisha.	Statutory	Odisha Relief Code.	The Collector&DM shall keep themselves, at all times informed of the agricultural condition in every part of their District and to enforce the observance of all Rules let down for collection of Agricultural statistics.	The committee sits in May not only review the ongoing relief measures, if any, but it may suggest the list of relief works to be undertaken, advise on precautionary measures to be taken, for Floods and for stocking of food articles in strategic or key points and such other matters.The Committee which sits in November may similarly make a review of the immediate post situation on Crop conditions, relief measures, if any and also suggest on the immediate future relief activities.	Twice (May & November) in a year.

- 1- Convening a meeting of the District Level Committee on Natural Calamities (DLNCC) in the month of May is to review the precautionary measures taken or contemplated to be taken against the possible flood, stocking of food stuff in advance in interior, vulnerable, strategic & key areas and review of other programmes or work in progress, if any.
2. Closure of past breaches in river & canal embankments and guarding of weak points.
3. Arrangements of keeping the drainage systems clear for free flow of flood water.
4. Assigning the change of Flood Circles.
5. Rain recording and submission of rainfall reports as per the provision under Appendix-IV ensuring Inspection of Rain Gauge Stations & taking steps to rectify the defects, if any.

6. Activating the Control Rooms with adequately trained personnel & necessary communication equipment in order and arrangements of training for those who are deployed in the control room.
7. Submission of daily situation report on rainfall & flood from 1st June to 15th October.
8. Dissemination of weather reports/ warnings and flood bulletins issued by the Meteorological Centre & Central Flood Forecasting Division, Bhubaneswar and communication of gauge-recordings.
9. Installation of temporary Police Wireless Stations & temporary telephones in flood prone areas (Collectors may indicate their requirement by 20.05.2017 for installation of temporary wireless stations only at such places where the telephone/ mobile connectivity is not available for communicating flood related matters).
10. Arrangements for keeping telephone lines in order.
11. Deployment of boats at strategic points including enumeration of private boats with names & contact details of the owners & boatmen, execution of pre-contract with boat owners and advance planning for deployment of such boats.
12. Storage of food in interior, vulnerable strategic & key area.
13. Pre-contract on arrangements of dry food stuff & other necessities of life.
14. Arrangements for supply of safe drinking water during crisis period.
15. Health, Sanitation, Veterinary & Agricultural measures.
16. Identification of flood shelters including drinking water & sanitation arrangements at such shelters. Advance planning for making these arrangements for sheltering the people in case of high flood
17. Evacuation plan including identification of low-lying areas likely to be inundated/ marooned, identification of evacuation route and means of transportation.
18. Advance planning & arrangements including logistics for deployment of ODRAF/ NDRF/ Defence Forces.
19. Listing of helipads/ airstrips available in the district with correct geographical co-ordinates (Latitude & Longitude).
20. Organization of relief parties & training to those to be deployed in flood relief work.

21. Arrangements for immediate restoration of essential services like power, telecommunication, roads, etc.
22. Coordination with Line Department officials.
23. Coordination with civil society organizations, SHGs, CBOs and members of Panchayati Raj Institutions for their participation & help in rescue and relief work.
24. Arrangement for Rapid Damage Assessment.
25. Organization of training/ refresher training for the officials to be engaged in damage assessment work to orient them about the provisions & procedure.
26. Review of pre-flood arrangement by the Collector.
27. In addition to the above, the following actions will be taken: - National Disaster Management Authority (NDMA) in exercise of its powers u/s 12 of the Disaster Management Act, 2005 has recommended certain guidelines for the basic minimum standards of relief to be provided to persons affected by disaster relating to shelter, food, water, sanitation & medical cover in relief camps & relief for widows & orphans. In this matter, this office letter No. 672/Dt. 21.03.2016 may be referred to. Necessary prior arrangements may please be made in this regard and ensure that the said guidelines are meticulously followed.
28. In disaster situation, it may be required to regulate the flow of traffic/ people to disaster affected areas. This is more relevant in case of tourist/ religious places. Based on forecasts, it may be required to regulate the tourists/ pilgrims. Besides, plan for evacuation from tourist/ religious places including alternative routes in the event of an imminent disaster should be made in advance. The District Authorities must have their plan included in their DM Plan to deal with such situations. If not, appropriate provisions may be included in the DM Plan of the district & various functions in this regard including the regulatory function should be entrusted to specific officials/ agencies.
29. You have been separately requested to indicate your requirement of shelter materials (i.e. Polythene Sheets) to be stocked at different levels in the district for distribution to families whose houses are damaged due to any calamity. Please intimate the same, if not already done, and ensure that sufficient stock is available in the district.
30. Instructions were issued in the past to close the bridges/ roads submerged or over topped with flood/ rain water by constructing temporary barricades on both sides and erect

hoardings. The respective authorities in charge of the concerned roads will be responsible for the same.

4.11 (Other existing committees for Disaster Management at District/ Block/ level.)

District Crisis Group:

In accordance with Rule – 8 of Chemical Accidents (Emergency Planning, Preparedness and Response) Rule 1996, the District Crisis Group (DCG) has been formed in Dhenkanal district. The District Crisis Group is the apex body in the district to deal with measures to prevent Chemical Accidents.

Role & Responsibility:

- Responsible to provide guidance for handling the Chemical Accidents.
- Prepare and update the Dist. Off-Site Emergency Plan
- Review all the on-site Emergency plans prepared by MAH installations for the preparation of the District off-site Plan.
- Assist the District Administration in the management of Chemical accidents.
- Monitor every chemical accident.
- Ensure continuous information flow from the dist. to State and Central Crisis Group regarding accident situation and mitigation efforts as and when required.
- Forward report of the Chemical accident within 15 days to the SCG.
- Conduct at least one full scale mock drill of a chemical accident as a site each year and forward a report on the strength and weakness of the plan to the SCG.
- Educate the population likely to be affected in a chemical accident about the remedies and existing preparedness on the subject. Respond to all the public enquires on the subject.

Heat Wave Management: CDM&PHO,Dhenkanal.

District Task Force, Health.

Sl No.	Name	Designation	Contact No	Remarks
1	Dr. Mrutunjaya Mohapatra	Addl. District Public Health Officer(PH)	9439980550	
2	Dr. Kallola Das	Epidemiologist	8908157050	
3	Bramhananada Nayak	MPHS(M)	9438107951	
4	Sisira Sahoo	Driver	9778595597	

The District Health Task Force is solely responsible to attend the emergency heat stress disorder patients as and when required. Similarly, the following are the control rooms opened at the Block CHCs to tackle the heat wave situation at the block level.

Sl No.	Name of the Block CHC	Name of the Block	Control Room Nos	Name of the Block MO I/C.	Contact Nos
1	Beltikiri	Dhenkanal	06762285311	Dr. J.N. Nanda	9439981204

2	Odapada	Odapada	06762256336	Dr. A.K.Roul	9439991416
3	Sriramchandrapur	Gondia	06762231330	Dr. Snehashree Samal	9439980555
4	Khajuriakata	Hindol	06732254435	Dr. P. Mohapatra	9437302947
5	Analabereni	kamakhyana gar	9439980633 9439980610	Dr. Deepak Dehury	9439980610
6	Mathakaragola	Bhuban	9439980700	Dr. B. Majhi	9439980700
7	Parjang	Parjang	06768261301	Dr. NCD Behera	9439980543
8	Birasal	kankadahad	0678205041	Dr. P .K. Jena	9439981166

The Above mentioned control rooms will be functional till 15th june 2017 from 8 AM to 8 PM and provide emergency service

Flood and Epidemic Management: CDM&PHO.

District rapid response Team (DRRT):

An emergency Rapid Response Team consists of the following officers and paramedical staff:

Sl No.	Name	Designation	Contact No	Remarks
1	Dr. Mrutunjaya Mohapatra	Addl. District Public Health Officer(PH)	9439980550	
2	Dr. Kallola Das	Epidemiologist	8908157050	
3	Bramhananada Nayak	MPHS(M)	9438107951	
4	Sisira Sahoo	Driver	9778595597	
5	Ganesh Chandra Mohapatra	Pharmacist	8763033068	
6	Sujit Biswal	MPHW(M)	7504470473	

4.12 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 Tippet 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.

Location of National Disaster Response Forces (NDRF).

Sl No.	Battalion, Location	State	Man power drawn from	Contact Person	Contact No.
1	01 Bn, NDRF, Guwahati	Assam	BSF		
2	02 Bn, NDRF, Kolkata	West Bengal	BSF		
3	03 Bn, NDRF, Munduli	Odisha	CISF	Sri. Jacob Kispotta (Commandant)	9437964571
				Sri A.K Patnaik(Ass t.Commandant)	9437964570
4	04 Bn, NDRF, Arakkonam	Tamil Nadu	CISF		
5	05 Bn, NDRF, Pune	Maharashtra	CRPF		
6	06 Bn, NDRF, Gandhinagar	Gujrat	CRPF		
7	07 Bn, NDRF, Ghaziabad	Uttar Pradesh	ITBP		
8	08 Bn, NDRF, Bhatinda	Punjab	ITBP		
9	09,Bn,NDRF, Patna	Bihar	BSF		
10	10 Bn, NDRF, Vijayawada	Andhra Pradesh	CRPF		
11	11Bn,NDRF, Varanasi	Uttar Pradesh	SSB		
12	12 Bn, NDRF, Itanagar	Arunachal Pradesh	SSB		

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

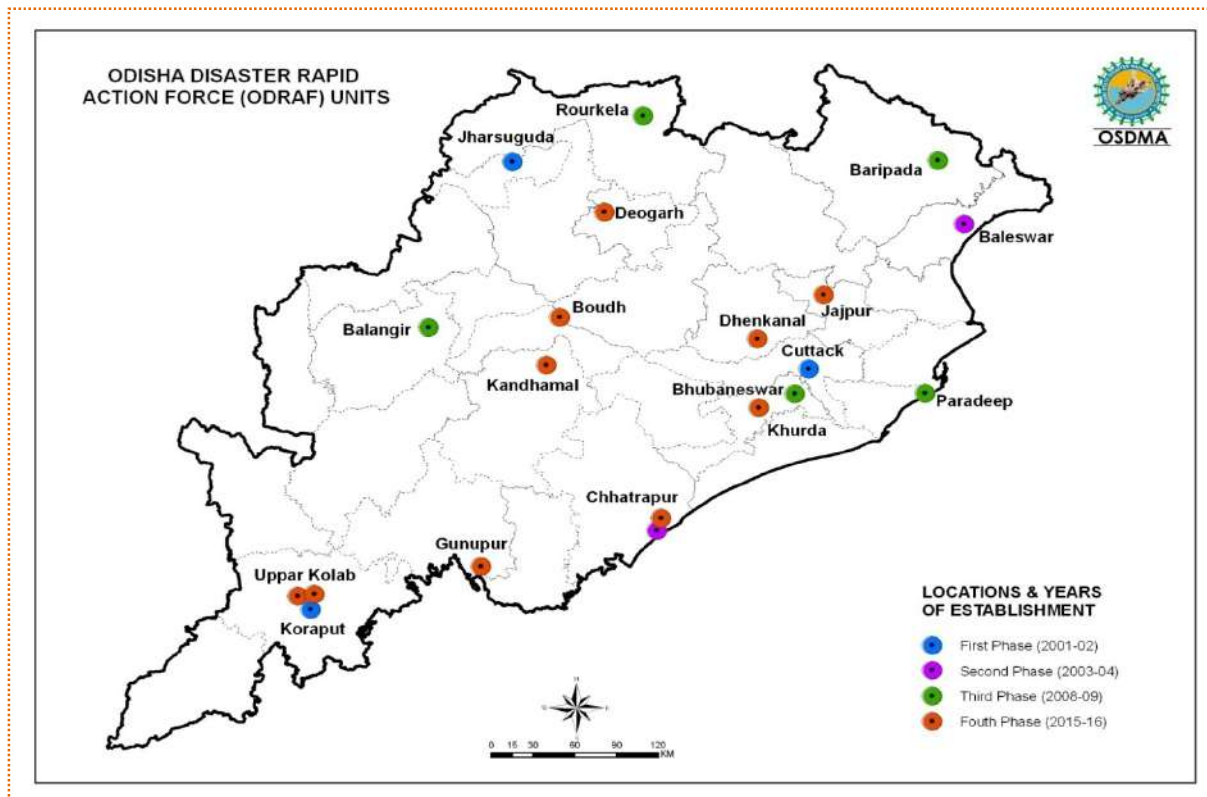
locations like Sambalur, Boudh, Kalahandi, Nawarangpur, Gajapati, Berhampur, Puri, Khorda, Kendrapada and Jajpur

Table : 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 6 th Battalion, Cuttack	2001-2002	Cuttack	49	Phone:0671-2442148 (O), 2442442 ® Fax: 0671- 2442148 comdt6thbn.odpol@nic.in
2	OSAP 2 nd Battalion, Jharsuguda	2001-2002	Jharsuguda	48	Phone: 06645-270096 (O),270038 ® Fax: 06654 -220370 comdt2ndbn.odpol@nic.in
3	OSAP 3 rd Bn. Koraput	2001-2002	Koraput	38	Phone: 06852-251344 (O), 151335® Fax: 06852- 251344 comdt3rdbn.odpol@nic.in
4	APR Balasore District	2003-2004	Balasore	41	Phone: 06782-262004 (O), 262005 ® Fax: 06782 -262584 spbls.odpol@nic.in
5	OSAP 8 th 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 ®,Fax: 06724-220370,spjso.odpol@nic.in
7	OSAP 7 th Battalion, Bhubaneswar	2008-2009	Khurdha	44	Phone: 0674-2301055 (O),2303426 ®,Fax: 0674-2301055 comdt7thbn.odpol@nic.in
8	OSAP 5 th Battalion, Baripada	2008-2009	Mayurbhanj	40	Phone: 06792-278232 (O),254402 ® Fax: 06792- 278232 comdt5thbn.odpol@nic.in
9	APR Bolangir District	2008-2009	Balangir	43	Phone: 06652-232020 (O) -133063 ® Fax: 06652- 232375 spbgr.odpol@nic.in
10	OSAP 4 th Battalion, Rourkela	2008-2009	Sundergarh	46	Pho : 0661 -2600980 (O),-2600434 ® 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	4 th IR Battalion, Deogarh	2015-2016	Deogarh	52	Phone: 0664-3242130 (O),comdt4thirbn.odpol@nic.in
13	OSAP 1 st Battalion, Dhenkanal	2015-2016	Dhenkanal	46	Phone: 06762- 226229 (O) 06762- 226291 (CR) Fax: 06762-226291 comdt1stbn.odpol@nic.in

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

Map: Location of ODRAF Units.



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 Defense	Mr. Umakanta Nayak	Dy Controller-cum-Assistant Fire Officer.	9437269491	101	255
2	Home Guards	Sri. B. Bage.	RI,HGs,Dhenkanal	9437752369	-	428
3	National Service Scheme (NSS)	Mr. P.K. Pattnaik	Regional Director, NSS,Bhubaneswar.	8116696353	nssbbsr@gmail.com	
4	National Cadet Crops (NCC)	Lt Col SGS Shekhar, (SM)	Dhenkanal	06762-223336	9471007299	1000
5	Nehru Yuva Kendra (NYK)	Mrs. Rita Shanti Dungdung	District Youth coordinator (DYC)	8763362088	06762-226590 (O)	17
6	Red Cross	Mr.Biranchi Narayan Pany	Vice-Chairman,DRCB,Dhenkanal	9437026006	9692019029	30
7	NGOs	The detail list is mentioned below.				
8	Vos					

The detail Information of NGOs and Volunteer Organisation of the District (As per the previous DDMP-2023).

Sl. No.	Name of the Organisation	Block	Address	Contact person	Telephone No.
1	AIRA (Arun Institute of Rural affairs)	Kankadahad	Aswakhola, Karamul, Mahimagadi, Dhenkanal-759014	Suresh Kumar Panda, Director	9938582607
2	ISSARA (Institute of social Service and Rural Art	Bhuban	At: Balijhati, Po: ramakrushnapur, Via: Bhuban, Dist: Dhenkanal	Santosh ku. Jena, Director	9437426534
3	JMSS (Jana mangal Seva sangha	Bhuban	At: Kesharpur, Po: Balibo, Via: Bhuban Dhenkanal-759017	Kamal Kumar Baral, Director	06769-279145 9937117145
4	AHINSA	Gondia	At: Kokeida, Po: Raitala, Via: Mahimagadi	Ashok Kumar Roul	9438235599

			Dhenkanal		
5	Village Development Organization	Odapada	At: Lunee, Indipur, Dhenkanal	Arun Mohapatra	9937829132
6	SOVA (Social Organization For Voluntary Action)	Sadar	At: Ranapasi, Po: Gengutia Dhenkanal	Udayendu Mishra, Director	9437361026
7	BIBARTAN (Bipin Institute for Benevolent Action and Rural Transition)	Parjang	At/Po: Damol, Via: Parjang Dhenkanal- 759120	Aswini Ku. Nayak, General Secretary	9938913465
8	Ganeswar Club	Hindol	At: Bankitia, Po: Rasol Dhenkanal-759021	Rajendra Kumar Pal,	06732- 253322 9437865585
9	Pallivikash	Dhenkanal, Sadar	G.M Road, Dhenkanal	Padma Charan Dash, Secretary	9937073030
10	ISWO	Dhenkanal, Sadar	Kunjakanta, Chandiasahi, Dhenkanal	Puspanjali Jena	9437728952
11	AHWHAN	Dhenkanal, Sadar	Chaulia Khamar, Chaulia, Dhenkanal	Bikash kumar Rath, Secretary	9437663537
12	RUPA (Rural Union for participatory Action)	Dhenkanal, Sadar	At/Po: Manipur, Dhenkanal	Srinibas Sahoo, Secretary	06762- 243214 9238995858
13	SHARE	Dhenkanal, Sadar	Anandanagar, Dhenkanal	L.Khan, Director	9438107665
14	ISWAR	Gondia	Chirulei, Mahimagadi, Dhenkanal-759014	Amarandra Malla, Director	9583998814
15	New India	Gondia	At/Po: Santhapur, Dhenkanal: 759016	Seshadev Rout, Secretary	06762- 231303 9438394477
16	PRIA	Gondia	At/po: Lauloi, Via: Gondia, Dhenkanal- 759016	Tankadhar Barik, Director	9937300982
17	RRUBI (Ratnakar Rural And Urban Bikash Institution)	Gondia	At: Kabera, Po: kabera Madhapur, Via: Mahimagadi, Dhenkanal- 759014	Manoranjan Mohanty, Secretary	06762- 239407 9437361004
18	VARR (Voluntary Action for Rural Reconstruction)	Kamakhya Nagar	At/Po: Anlaberani, Dhenkanal- 759026	Pradipta Ch. Dash, Executive Director	9437226287
19	The SLIPICA (The Socio Cultural Institute for Luminous Promotion of Infirm Culture and Arts)	Kamakhya Nagar	At/Po: Kamakhya Nagar, Dhenkanal-759018	Debiprasad Dash, Director	06769- 271100

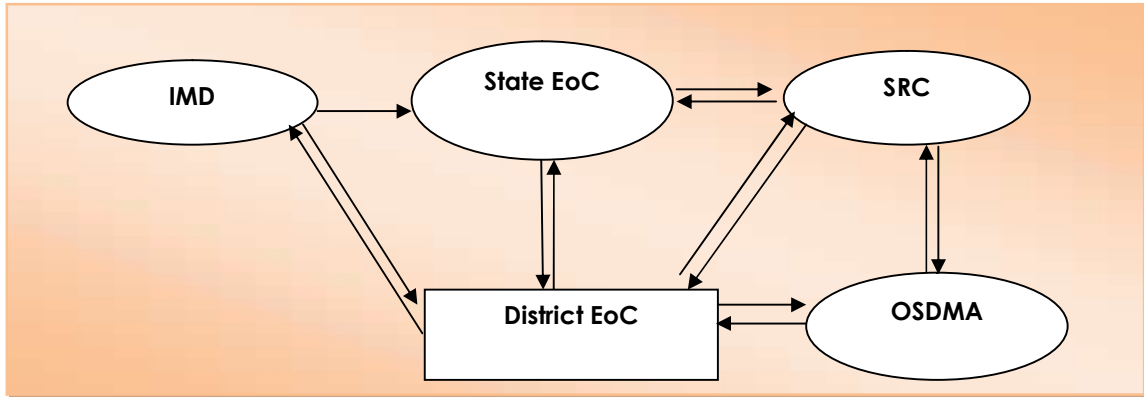
4.15 Emergency Communication System

4.15.1 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 ___: Information flow chart from SEOC to Districts



6770 DistrictEmergency Operation Centers (DEOC), of the District to be elaborated) Structure and Function

- It is functioning in the Emergency Section, Collectorate, Dhenkanal.
- Co-ordinate all activities inconnection to Disaster Management.
- Co-ordination of Line departments at district, Sub-division and block level.
- Co-ordinate with SEOC and All BEOCs.
- Warning message dissemination to different level.
- Organising DDMA meeting quarterly basis and DLNCC meeting twice in a year.
- Operating control room 24x7 basis.
- Assist DDMA, Dhenkanal in planning, implementation and overall Disaster Management in the District.

SEOC/DEOC Control Room Phone No:

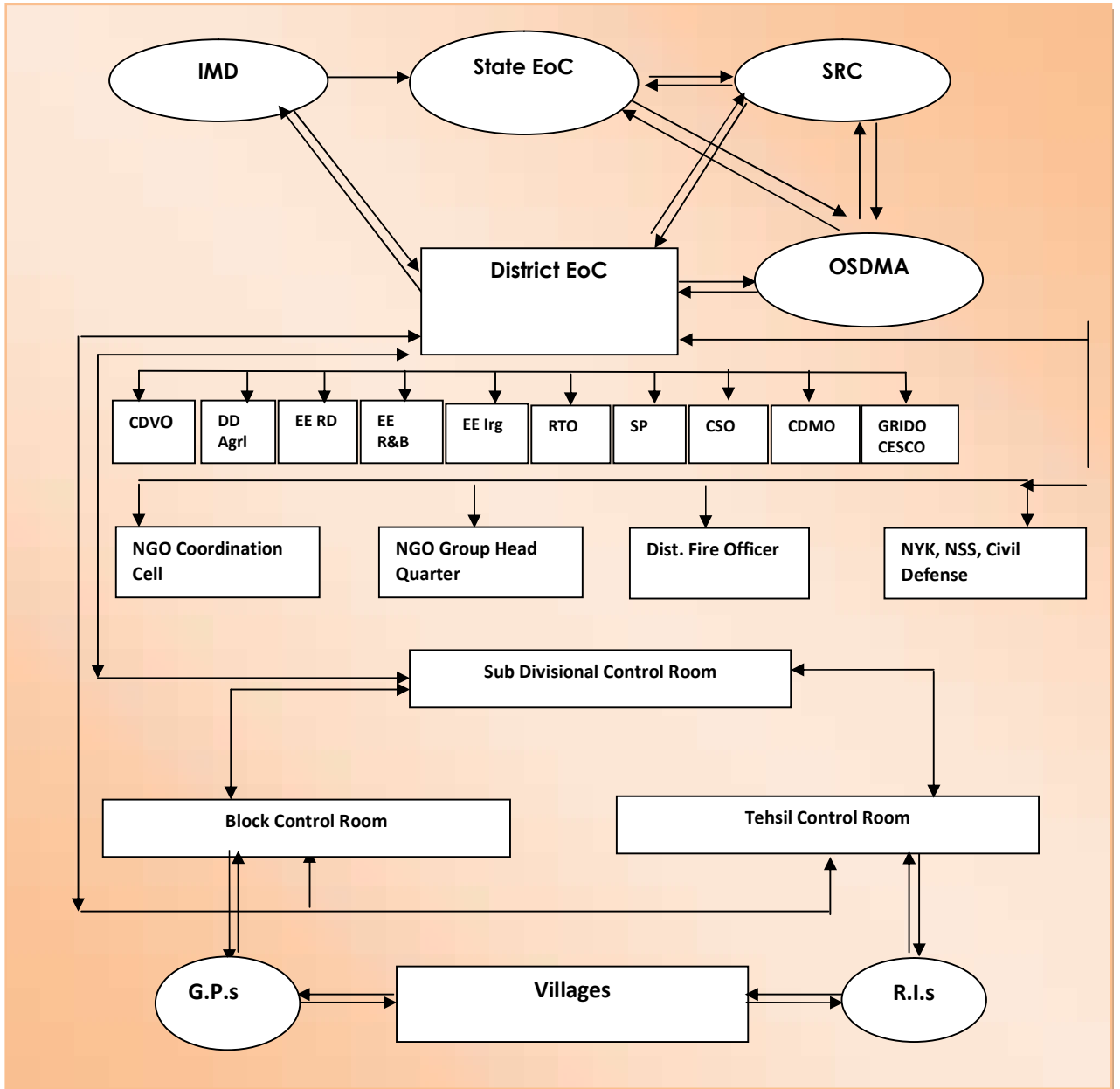
DEOC:

- Land Line No: 06762-221376
- Toll Free No : 1077

SEOC:

- Toll Free No : 1070

Figure: Information flow chart from District Emergency Operation Center (DeoC) to Villages with early warning



Equipments available at DEOC, Dhenkanal.

SI No.	Equipments	Unit	Status		Remarks
			Operational	Non-Operational	
1	Desktop Computer	2	Yes	-	One Number required. Approved by DDMA and recommended to SDMA.
2	Laser Printer	1	Yes		
3	UPS	2	Yes		
4	Scanner	1	Yes		
5	Fax	1	No	Yes	
6	Ink Jet Printer	0			
7	Multi Utility Machine (Printer, Scanner, Fax, copy)	1	Yes		
8	Laptop	0	NA	NA	
10	LCD Projector	0			One Number required. Approved by DDMA and recommended to SDMA.
11	Photocopier	0			
12	GPS Unit	0			
13	Satellite Phone	1	Yes		
14	VHF Sets	1	Yes		Out of Order
15	VHF Mobile Station	0			Out of Order
16	Walkie-Talkie (VHF hand Set)	1	Yes		Out of Order
17	Portable Diesel Generator	1	Yes		
18	Inverter with Battery	2	Yes		
19	Inflatable Tower Light				
20	Power Saw	2	Yes		
21	Life Jacket	5	Yes		
22	Life Buoy	5	Yes		
23	Aluminum Ladder	0	No	Yes	
24	Fire Extinguisher				
25	Siren	1	Yes		
26	Megaphone				
27	Colour TV/Stand	1	Yes		
28	Mobile Phone	0			
29	Display Board	0			
30	White Broad	0			
31	Computer Table/Chair	2			
32	Rack	1	Yes		
33	Book Case	Nil			
34	GI Trunk	1	Yes		
35	Commando Search Light	1	Yes		
36	Steel Almirah	1	Yes		

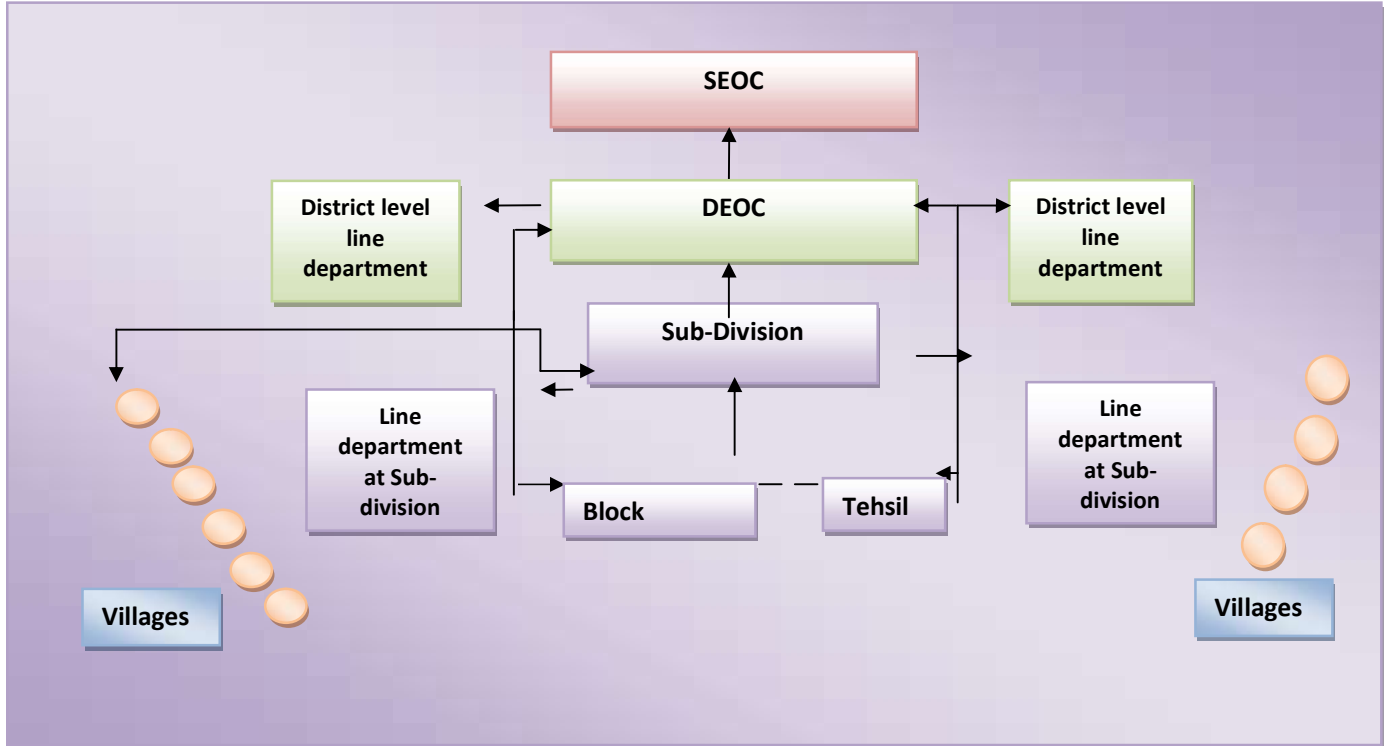
Coordination structure at the District level and down the line

Important Line Departments at the District.

Sl No.	Department	Head of the Department at District	Designation of the Nodal Officer
1.	Revenue and Disaster Management	Collector & District Magistrate	Additional District Magistrate.
2.	Home	Superintendent of Police	Superintendent of Police
3.	Social Security & Empowerment of Persons with Disabilities.	District Social Security Officer.	District Social Security Officer.
4.	Commerce & Transport	Regional Transport Officer.	Regional Transport Officer.
5.	Panchayati Raj & Drinking Water.	Project Director, DRDA	Project Director, DRDA
6.	Housing & Urban Development	Executive Officer Municipality/NAC.	Project Director, DRDA
7.	Planning & Convergence.	Deputy Director Planning & Statistics.	Project Director, DRDA
8.	Excise	Superintendent of Excise.	Superintendent of Excise.
9.	Home	Superintendent of Police	Superintendent of Police
10.	Health & Family Welfare.	Chief District Medical Officer	Chief District Medical Officer
11.	Fisheries & Animal Resource Development.	Chief District Veterinary Officer	Chief District Veterinary Officer
12.	Agriculture & Farmers' Empowerment.	Deputy Director, Agriculture	Deputy Director, Agriculture
13.	Water Resources	Executive Engineer, Irrigation,	Executive Engineer, Irrigation,
14.	Water Resources	Executive Engineer, Irrigation,	Executive Engineer, Irrigation,
15.	Water Resources	Executive Engineer, Irrigation,	Executive Engineer, Irrigation,
16.	Fisheries & Animal Resource Development Department	District Fishery Officer	District Fishery Officer
17.	Labor & Employees' State Insurance. Chemical (Industrial) Disaster Management (Directorate of Factories and Boilers)	Asst. Director, Factories & Boilers	Asst. Director, Factories & Boilers
18.	Labor & Employees' State Insurance.	District Labour Officer.	District Labour Officer.
19.	SC & ST Development, Minorities & Backward	District Welfare Officer	District Welfare Officer

	Classes Welfare.		
20.	Works	Executive Engineer, PWD (R&B)	Executive Engineer, PWD (R&B)
21.	Cooperation	DRCS	DRCS
22.	Industries	GM, DIC	GM, DIC
23.	Finance	CTO	CTO
24.	Works	Executive Engineer, PHED Anugul, AEE, PHED,Dhenkanal	Executive Engineer, PHED Anugul, AEE, PHED,Dhenkanal
25.	Energy Department	Superintendent Engineer, CESU, Khordha	Superintendent Engineer, CESU, Khordha
26.	Energy Department	Executive Engineer, CESU, Dhenkanal Division	Executive Engineer, CESU, Dhenkanal Division
27.	Energy Department	Executive Engineer, CESU, Chainpal Division	Executive Engineer, CESU, Chainpal Division
28.	Electronics & Information Technology	District Informatics Officer, NIC	District Informatics Officer, NIC
29.	Rural Development	Executive Engineer, RD	Executive Engineer, RD
30.	Handlooms, Textiles & Handicrafts.	Asst. Director, Textiles, Handloom & Handicrafts	Asst. Director, Textiles, Handloom & Handicrafts
31.	Women & Child Development & Mission Shakti.	District Social Welfare Officer. District Child Protection Officer.	District Social Welfare Officer. District Child Protection Officer.
32.	Food supplies & Consumer Welfare.	Civil Supplies Officer	Civil Supplies Officer
33.	School & Mass Education	District Education Officer	District Education Officer
34.	School & Mass Education	DPC, SSA	DPC, SSA
35.	Forest & Environment	Divisional Forest Officer.	Divisional Forest Officer.
36.	Culture	District Culture Officer	District Culture Officer
37.	Tourism	District Tourist Officer	Tourist Officer
38.	Home	Asst. Fire Officer	Asst. Fire Officer
39.	Agriculture & Farmers Empowerment	Project Director, Watershed	Project Director, Watershed
40.	Agriculture & Farmers Empowerment	Deputy Director, Horticulture.	Deputy Director, Horticulture.
41.	Steel & Mines	Deputy Director, Mines	Deputy Director, Mines
42.	Rural Development	Executive Engineer, RWSS	Executive Engineer, RWSS

Figure: Information flow chart from Villages to District Emergency Operation Center (DeoC) without early warning



6771 Block Emergency Operation Center (BeoC)

(Structure and Function)

- It is functioning in the Block Office.
- Co-ordinate all activities inconnection to Disaster Management.
- Co-ordination of Line departments at district, Sub-division and block level on Disaster Management.
- Co-ordinate with DEOC and MFSs.
- Warning message dissemination to different level.
- Operating control room 24x7 basis.
- Assist DDMA, Dhenkanal in planning, implementation and overall Disaster Management in the District.

As per the standing instruction of Dist. Administration the Control rooms at Block Office shall operate from the month of April and continued up-to November. Control room operates from April & May for Heat wave condition where as from June to November for Flood like situation. The staff assigned for the control room duty to look after the situation and report compliance if required. Similarly control room operates in Tahasil offices too. There is no institutional arrangement for BEOC at the block level, only control room and report returns done by the existing staff of the Blocks.

Important Line Departments at the Block.
The phone no is available in in the Chapter-4 of Volume-II .

Sl No.	Department	Head of the Department at Block	Name/Designation of the Nodal Officer.
1.	Revenue and Disaster Management	Tahasildar	Sub-Collectors
2.	Home	IIC,Police	SDPO
3.	Panchayati Raj & Drinking Water.	BDO	PD-DRDA
4.	Industries	IPO	GM-RIC
5.	Women & Child Development&Mission Shakti	CDPO	DSWO
6.	Rural Development	JE,RWSS	EE-RWSS
7.	Agriculture & Farmers Empowerment	BAO	DDA
8.	Food supplies & Consumer Welfare.	SI	CSO
9.	SC & ST Development, Minorities & Backward Classes	WEO	DWO
10.	School & Mass Education	BEO	DEO/DPC(SS)
11.	Health & Family Welfare.	Block MOI/C	ADMO(PH/FW)
12.	Fisheries & Animal Resource Development	FEO	District Fishery Officer.

Any other Alternative Emergency Operation Center in the district

- Not Available

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.

- a. The State Crisis Group shall meet at least once in three months and follow such procedure for transaction of business as it deems fit.
- b. 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.

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

Sl 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
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, GoI	Member
20.	Regional Director, Mines Safety (DGMS, Bhubaneswar, GoI	Member

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,-

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.

6772 Composition of the District Crisis Group

Composition of District CrisisGroup

Sl No.	Member	Designation
1	Collector & DM	Chairperson
2	SP,Dhenkanal	Member
3	DIPRO,Dhenkanal	Member
4	Chief Civil Defence	Member
5	District Fire Officer	Member
6	CDMO&PHO	Member
7	EE-RWSS	Member
8	AEE-PHED	Member
9	RTO	Member
10	Executive Officer,Dhenkanal Municipality	Member
11	District Agriculture Officer	Member
12	IIC Bhusan Steel Police Station	Member
13	Regional Officer,SPCB,Angul	Member
14	Dy. Chief Controller of Explosives,Rourkela	Member
15	President Recognised workers Union Bhusan Steel Plant,Meramundulli	Member
16	Occupier, M/s Bhuvée Protiles & Stainless, Kurunti, Meramundulli,Dhenkanal	Member
17	Occupier of M/s Navabharat Ventures Ltd,Dhenkanal	Member
18	Occupier, M/s Bhushan Steel , Meramundulli,Dhenkanal	Member
19	Deputy Collector,Emergency	Member
20	GM,DIC,Dhenkanal	Member
21	Sub-Collector,Hindol	Member
22	Occupier of M/s MGM Steel Ltd. Dhenkanal	Co-Opted Member

23	Occupier of M/s Shakti Sugar Ltd, Dhenkanal	Co-Opted Member
24	Occupier M/s Narveram Power & Steel Pvt. Ltd	Co-Opted Member
25	Site Head of M/s Ipistee Ltd,Dhenkanal	Co-Opted Member
26	Occupier of M/s GMR Kamalanga Energy Ltd, Dhenkanal.	Co-Opted Member
27	Occupier M/s Lanco Babandh Power Ltd,Kurunti, Dhenkanal	Co-Opted Member
28	Occupier of M/s Rungta Mines Ltd(Dhenkanal Steel Plant Dhenkanal)	Co-Opted Member
29	Tahasildar,Dhenkanal	Co-Opted Member
30	Tahasildar,Odapada	Co-Opted Member
31	Sri Sreetam Das, Secretary ,SWAPNA, Cuttack	Co-Opted Member
32	Sri. Biranchi Narayan Pani,Dhenkanal	Co-Opted Member
33	Sri. Subodh Sahoo, Head Safety of M/s LANCO Babandh Power Ltd,Kurunti,Dhenkanal	Co-Opted Member
34	Asst. Director of Factories &Boilers,Dhenkanal	Member Secretary

6773 Local Crisis Group

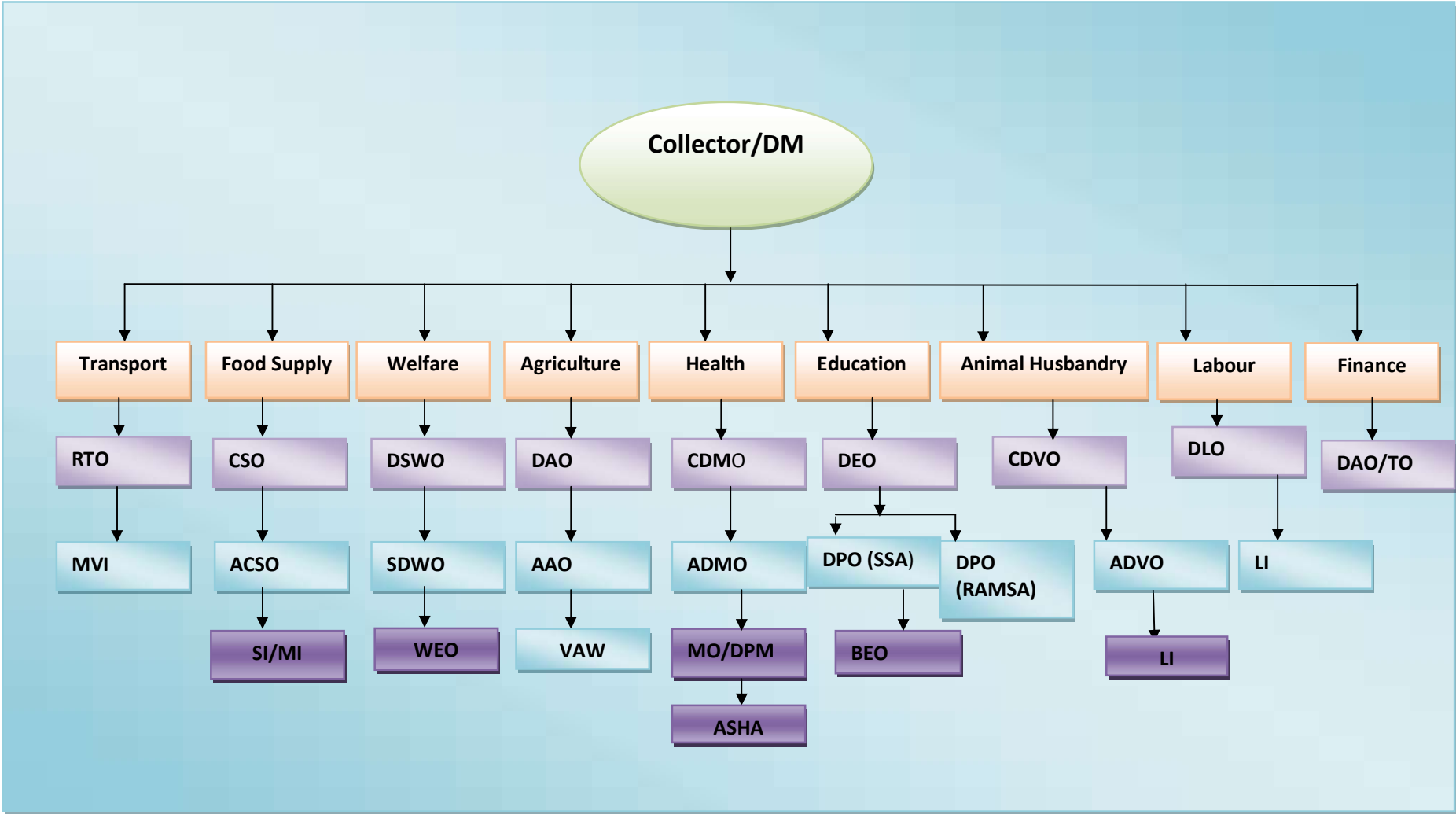
The Local Crisis Group shall be the body in the industrial pocket to deal with chemical accidents and coordinate efforts in planning, preparedness and mitigation of a chemical accident. Without prejudice to the functions specified under sub-rule (1), the Local Crisis Group shall,

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.

Composition of the Local Crisis Group:

As per the report of the Asst. Director of Factories & Boilers, Dhenkanal, the Local Crisis Group is not constituted yet, however he is instructed to comply immediately.

Coordination structure at the District level and down the line



GO-NGO Coordination before and after disaster in the district

Presently there is no active Go-NGO coordination cell exists in the district. The same will be reformed and the cell has to be reestablished under the umbrella of DDMA. The following list of NGOs of the district included for volunteering works for disaster Management as per the last year DDMP-2016.

Sl. No.	Name of the Organisation	Block	Address	Contact person	Telephone No.
1	AIRA (Arun Institute of Rural affairs)	Kankadahad	Aswakhola, Karamul, Mahimagadi, Dhenkanal-759014	Suresh Kumar Panda, Director	9938582607
2	ISSARA (Institute of social Service and Rural Art)	Bhuban	At: Balijhati, Po: ramakrushnapur, Via: Bhuban, Dist: Dhenkanal	Santosh ku. Jena, Director	9437426534
3	JMSS (Jana mangal Seva sangha)	Bhuban	At: Kesharpur, Po: Balibo, Via: Bhuban Dhenkanal-759017	Kamal Kumar Baral, Director	06769-279145 9937117145
4	AHINSA	Gondia	At: Kokeida, Po: Raitala, Via: Mahimagadi Dhenkanal	Ashok Kumar Roul	9438235599
5	Village Development Organization	Odapada	At: Lunee, Indipur, Dhenkanal	Arun Mohapatra	9937829132
6	SOVA (Social Organization For Voluntary Action)	Sadar	At: Ranapasi, Po: Gengutia Dhenkanal	Udayendu Mishra, Director	9437361026
7	BIBARTAN (Bipin Institute for Benevolent Action and Rural Transition)	Parjang	At/Po: Damol, Via: Parjang Dhenkanal- 759120	Aswini Ku. Nayak, General Secretary	9938913465
8	Ganeswar Club	Hindol	At: Bankitia, Po: Rasol Dhenkanal-759021	Rajendra Kumar Pal,	06732-253322 9437865585
9	Pallivikash	Dhenkanal, Sadar	G.M Road, Dhenkanal	Padma Charan Dash, Secretary	9937073030
10	ISWO	Dhenkanal, Sadar	Kunjakanta, Chandiasahi, Dhenkanal	Puspanjali Jena	9437728952

11	AHWHAN	Dhenkanal, Sadar	Chaulia Khamar, Chaulia, Dhenkanal	Bikash kumar Rath, Secretary	9437663537
12	RUPA (Rural Union for participatory Action)	Dhenkanal, Sadar	At/Po: Manipur, Dhenkanal	Srinibas Sahoo, Secretary	06762- 243214 9238995858
13	SHARE	Dhenkanal, Sadar	Anandanagar, Dhenkanal	L.Khan, Director	9438107665
14	ISWAR	Gondia	Chirulei, Mahimagadi, Dhenkanal-759014	Amarandra Malla, Director	9583998814
15	New India	Gondia	At/Po: Santhapur, Dhenkanal: 759016	Seshadev Rout, Secretary	06762- 231303 9438394477
16	PRIA	Gondia	At/po: Lauloi, Via: Gondia, Dhenkanal- 759016	Tankadhar Barik, Director	9937300982
17	RRUBI (Ratnakar Rural And Urban Bikash Institution)	Gondia	At: Kabera, Po: kabera Madhapur, Via: Mahimagadi, Dhenkanal- 759014	Manoranjan Mohanty, Secretary	06762- 239407 9437361004
18	VARR (Voluntary Action for Rural Reconstruction)	Kamakhya Nagar	At/Po: Anlaberani, Dhenkanal- 759026	Pradipta Ch. Dash, Executive Director	9437226287
19	The SLIPICA (The Socio Cultural Institute for Luminous Promotion of Infirm Culture and Arts)	Kamakhya Nagar	At/Po: Kamakhya Nagar, Dhenkanal-759018	Debiprasad Dash, Director	06769- 271100
20	NAMM	Gopndia	Chirulei, Gondia	Secretary	Binay Kumar Sahoo

4.18 Role of Corporate Sector in the district relating to Disaster Management

The recent major disasters have clearly indicated that there is a need for interweaving of disaster risk reduction and management concerns in order to minimize the losses— live, livelihood and properties. This emphasizes the necessity of involvement of all stakeholders, from the Government, corporate sector and NGOs.

Role of Corporate Sector in Disaster Management:

- As the Disasters being unforeseen events that cause great damage, destruction and human suffering require immediate coordinated and effective response by Govt. / Organisations/ UN Agencies, Other Agencies, including Private and Corporate Sector.
- As per the DM Act, 2005, Disaster Management is a continuous and integrated process of planning, organizing, coordinating and implementing measures for prevention of damage or threat of any disaster mitigation or reduction of risk capacity building — preparedness — prompt response — evacuation, rescue and relief — rehabilitation and reconstruction.
- As per Companies Act, 2013, large profit making Corporate bodies have to earmark at least two percent of the average net profits of the company made during the three immediately preceding financial years, in pursuance of its Corporate Social Responsibility Policy and make projects and programmes accordingly.
- The contribution of the Corporate Sector has been notable especially in the aftermath of the devastating SuperCyclone Odisha in 1999, Bhuj Earthquake in 2001 and Tamilnadu, Tsunami in 2004.
- During Kosi Floods and Andhra Pradesh & Karnataka Floods in 2008 & 2009 respectively, the Corporate Sector came forward in providing relief in a big way
- Corporate Sector played a significant role in the aftermath of 16-17 June disaster in Uttarakhand — Major corporate houses especially Tatas and Organizations such as CII/ FICCI, CSOs and NGOs like Rotary International are contributing substantially to the rebuilding effort.
- Corporate sectors can play a vital role both in response as well as in preparedness phase. **(Pre and Post Disaster Phases)**

Role of corporate sector in Disaster Preparedness/ Prevention:

Corporate sectors can be a part of the following:

- ✚ Awareness generation among the stakeholders like, Community, PRIs, Students, Teachers, SHGs, Youth Clubs etc.
- ✚ Capacity building training programmes for the first responders
- ✚ Mock drills (both on-site & off-Site) /
- ✚ Demonstration of rescue techniques in periphery villages with the local available resources
- ✚ Development of on-site and off-site DM plans
- ✚ Preparation of inventory of resources
- ✚ Sensitization programmes in periphery villages or adopted villages
- ✚ Organisation of annual events to aware the local community on various aspects of disaster management
- ✚ Promotion of Alternative livelihood programmes for the affected populace
- ✚ Working in collaboration with the government and community to develop skills and give effective response to the disasters in both short term and long term.

- ✚ Join hands with government, NGOS, other small and large organizations in the area for response and reconstruction initiatives and have preventive measures in place ahead of time.

In addition to the above, Corporate Sector can play a pivotal role in development and enforcement of an appropriate techno legal regime which involves examining and reviewing the existing building by-laws and codes/ rules. Further Corporate Sector can support a techno-financial regime whereby financial institutions insist on adoption of disaster resistant construction as a pre-condition for providing loans/ grants.

Role of corporate sector in Rehabilitation/Reconstruction:

- ❖ Donation of cash, food, medicines and other resources.
- ❖ Support the administration with skilled HR.
- ❖ Participation in the recovery activities.
- ❖ Using the technical and managerial expertise for coordination, recovery and logistical support in the aftermath of disasters.
- ❖ Participation in the rehabilitation of affected individuals, employees and society as a whole.

4.19 Public Private Partnership: Public & Private Emergency service (National Ambulance Service) facilities available in the district.

The Emergency Ambulance Service (EAS)/108 Ambulance Service is operational in the district in the PPP mode with H&FW, Department, Govt. of Odisha and Ziqitza Health Care Ltd. The 108 Ambulances are two types' i.e BLS (Basic Life Support)/ALS (Advance Life Support) under National Ambulance Service. For better management of the 108 Ambulances & 102 Ambulances, one committee headed by Collector & DM, Dhenkanal is looking after it and other members are as follows,

- 1- Superintendent of Police
- 2- Chief District Medical Officer.
- 3- .Additional District Magistrate.
- 4- ADMO(Med)
- 5- District Emergency Officer.
- 6- District Programme Manager, NHM
- 7- Regional Transport Officer.

Such Ambulances are providing emergency services 24*7 basis for the people of Dhenkanal. There is a centrally operating call centre in Bhubaneswar, the needy patient /Attendant simply calls 108 number, the staff will instruct to nearby 108 Ambulances to reach the pickup point and transport the patient to the 108 referral Hospital in the District or tertiary health centre with free of cost. The District Co-Ordinator, Ziqitza Health Care Pvt. Ltd is co-coordinating said activities in the district. During the emergency time this Ambulance Service will be main protagonist to carry patients to nearby hospitals for treatment as per the standard response time fixed for rural/urban area. As per the WHO norms, one Ambulance is sanctioned to cater service 100000 population. The strategic position of 108 Ambulances are as follows.

Sl No.	Name of Block/ULB	Positioning Place	No of Ambulance	Co-ordinators staff
1	Kamakhyanagar	Kamakhyanagar PS	OALSDHE150-1	Driver-1, Pharmacist-1 ,W/A-1
2	Kamakhyanagar	Kamakhyanagar PS	OBLSDHE403-1	Driver-1, Pharmacist-1 ,W/A-1
3	Hindol	Hindol PS	OBLSDHE404-1	Driver-1, Pharmacist-1 ,W/A-1
4	Hindol	Rasol PS	OALSDHE152-1	Driver-1, Pharmacist-1 ,W/A-1
5	Dhenkanal	Sadar PS	OBLSDHE591-1	Driver-1, Pharmacist-1 ,W/A-1
6	Dhenkanal	Town PS	OALSDHE151-1	Driver-1, Pharmacist-1 ,W/A-1
7	Dhenkanal	Town PS	OBLSDHE402-1	Driver-1, Pharmacist-1 ,W/A-1
8	Dhenkanal	Bhapur Panchyat office	OBLSDHE590-1	Driver-1, Pharmacist-1 ,W/A-1
9	Odapada	Odapada Block	OBLSDHE406-1	Driver-1, Pharmacist-1 ,W/A-1
10	Odapada	Motanga PS	OBLSDHE405-1	Driver-1, Pharmacist-1 ,W/A-1
11	Bhuban	Bhuban PS Head Quarter	OBLSDHE409-1	Driver-1, Pharmacist-1 ,W/A-1
12	Gondia	Gondia PS	OBLSDHE410-1	Driver-1, Pharmacist-1 ,W/A-1
13	Gondia	Joranda PS	OBLSDHE589-1	Driver-1, Pharmacist-1 ,W/A-1
14	Kankadahada	Kankadahada PS	OBLSDHE408-1	Driver-1, Pharmacist-1 ,W/A-1
15	Parjang	Parjang PS	OBLSDHE407-1	Driver-1, Pharmacist-1 ,W/A-1

Therefore, in order to maximize the benefit in accordance with the Janani Sishu Surakhya Karyakram (JSSK) mandate, Government of Odisha has decided to outsource the task to an external agency (service provider) selected through competitive bidding process for operation & management of Centralized **Call Centre '102'**, so as to ensuring the provision of round the clock free referral transportation services under '**National Ambulance Services**' to all eligible beneficiaries under JSSK. Accordingly, one agency namely Ziqitza Health Care

Ltd. were selected through national competitive bidding process to manage the 102 Ambulance Services.

Objective of 102 Services:

The objective of this service is to provide timely assured round the clock transportation services to pregnant women & sick infants of the State in free of cost.

During the emergency time, this Ambulance Service will be main protagonist to carry pregnant women (up to postpartum period) and infants to nearby Govt. Delivery Points (hospitals/Sub Centres) for treatment.

Availability of other Govt. Ambulances:

Sl. No.	Name of the Institution	Ambulance No.	Name of Driver	Mobile No
1	CHC Bhuban	OR-06-D-3102	Sri Udayanath Rout	9556841541 / 8599837293
2	SDH Hindol	OR-06-C-1598	Sri Purna Chandra Mishra	9437415271
3	SDH Kamakhyanagar	OR-06-H-1075	Sri Jaleswar Nayak	8457870499
4	DHH Dhenkanal	OR-06-H-1076	Sri Sadhu Charan Gochhayat	9439674192
			Sri Santosh Kumar Sahoo	9938381636
			Sri Aditya Kumar Parida	9778550106

4.20 Multi Purpose Cyclone Shelters (MCS) in the district

a) (GIS Maps for location of MCS may be incorporated):

Details of Cyclone Shelter Management and Maintenance Committee (FSMMC):

Sl No	Name of the Block/UL B	Name of the cyclone/flood shelter	Name of The President of MFS/MCS (Sarpanch)	Team In Charge of MFS (2 Male Persons & 1 female) Name, Designation, Mobile No			Latitudde Longitude
1	Gondia	Lahada MFS, Kashipur G.P	Chanchala Barik 9337582126	Krushna Charan Sahoo, Panchayat Executive Officer, Kashipur 8327795998, 9439140200	Bipin Bihari Dash, JE 993739935	Jayanti Bai, GRS 7008436264	Latitudde-20.821177 Longitude=85.906717 Elevation-32.08+8m

2	Gondia	Khandab andha MFS, Khandab andha	Malay Kumar Majhi 9776906021	Santosh Kumar Sahoo, PEO, Khandab andha 9439189 521	Sandip Pahi, GRS 977803 1120	Minati Prusty, AWC 7873978 318	Latitudde- 20.815858 Longitude=85. 929639 Elevation- 41.92+12m
3	Kamakhya nagar	Budhibili Cyclone shelter	Sasmita Kumari Sahoo, 9439256209 kumarisasmita@g mail.com	Pratap chandra Das - Panchaya t Executive Officer, Budhibil GP, 9556643 925	Soumen dra Behera- PET teacher, Budhibil HS.	Jayasmit a swain - GRS Budhibil GP,	Latitudde :- 20.809297 Longitude:- 85.722024
4	Odapada	Kharagap rasad MFS	Sabitri Dalei 8260424239	Rajkishor e Dalei, PEO 9938676 008	Kabiraj Sahoo, GRS 993741 9065	Susamar ani Nayak, AWW 7609963 105	Latitudde- 20.822602 Longitude=85. 31105
5	Odapada	Kusupang a MFS	Anita Nayak 9348801117	Parshura m Nayak, PEO 9337541 057	Asmin Kumar Bhanja, GRS 988687 3174	Shobhan gini Rout, AWW 9938562 424	Latitudde- 20.846824 Longitude=85. 291579
6	Parjang	Panigeng utia	Mamali Jena 7325854239	Bhagaban Hembra m - Panchaya t Executive Officer, Renthapa t, GP 9556431 080	Bachan Bhutia- GRS, Renthap at, GP 993740 3376	Binati Dalei, Asha Karmi, Panigen gutia, Renthap at, GP 8280418 760	Latitudde- 20.807307 Longitude=85. 321523
7	Kankadah ad	MFS, Kankadah ad	Anusaya Sahoo 8018032835	Dinesh Chandra Mishra, GPEO 7008794 701	AjaY Kumar Sahoo, BLC 993770 8859	Dipanjali Singh , AWW 7326852 311	Latitudde- 21.070769 Longitude=85. 57192 Elevation- 83.78+14m

8	Bhuban	Asurabandha	Tuni Mallick 7978325064	Madhusudan Kar - Panchayat Executive Officer 7750806 900	Ajay Kumar Sathpathy, GRS 985369 3036	Ritanjali Malik, AWW 6372728 928	Latitude :- 20.889297 Longitude:- 85.782024
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The District Administration identified 19 nos. of School buildings which will be used as shelters during Exigencies like Flood and Cyclone. The List is mentioned below.

LIST OF CYCLONE / FLOOD SHELTERS

Sl.No	Name of the Block	G.P.	Village	Name of the School
1.	Bhuban	Balibo	Balibo	BaliboHigh School
2.	Bhuban	Dhalpada	Joragadia	BalunkeswarHigh School
3.	Dhenkanal	Mangalpur	Mangalpur	SatyabadiHigh School
4.	Dhenkanal	Talabarakote	Talabarkote	TalabarkoteHigh School
5.	Dhenkanal	Banasingh	Radhadeipur	RadhadeipurHigh School
6.	Gondia	Kabera	Chirulei	SudarsanHigh School
7.	Gondia	Ratanpur	Chandia	RaisingaprasadHigh School
8.	Hindol	Dudurakote	Dudurakote	JanatarajHigh School
9.	Hindol	Rasol	Rasol	RasolHigh School
10.	Hindol	Nizigarh	Nizigarh	Govt.GirlsHigh School
11.	Kamakhyanager	Sogar	Sogar	Sogareswar Bidyapitha
12.	Kamakhyanager	Badasuanlo	Badasuanlo	BadasuanloHigh School
13.	Kamakhyanager	Budhibili	Budhibili	Budhibili High School
14.	Kankadahad	Mahabirroad	Mahabirroad	JanapravaHigh School
15.	Kankadahad	Marubili	Marubili	PanchayatHigh School
16.	Odapada	Odapada	Odapada	OdapadaHigh School
17.	Odapada	Gadasila	Mahendrapur	DandimalHigh School
18.	Parjang	Badajhara	Badajhara	SatyanarayanHigh School
19.	Parjang	Sanda	Sanda	SandaHigh School

b) Equipments provided to the MCS:

Location of the equipment (Shelter/ DEOC.)	Equipment available				
	Inflatable Tower Light	Gen Set	Power cutter	Lifebuoy	Life jacket
Lahada MFS,Kashipur G.P	2	1	2	2	5
Khandabandha MFS, Khandabandha	2	1	2	2	5
Budhibili Cyclone shelter	2	1	2	2	5
Kharagaprasad MFS	2	1	2	2	5
Kusupanga MFS	2	1	2	2	5
Panigengutia	2	1	2	2	5
MFS, Kankadahad	2	1	2	2	5
Asurabandha	2	1	2	2	5
TOTAL	16	8	16	16	40

4.21 Flood Shelters (FS) in the District:

Total 8 nos of Multipurpose Flood Shelter (MFS) constructed in the district by Rural Works Division, Dhenkanal and Kamakhyanagar, OSDMA provided funds to RWDs..The completed Multipurpose Cyclone Shelters is handed over to the community-based Flood Shelter Management and Maintenance Committees (FSMMC).

Composition:

The FSMMC is constituted in a Special Meeting convened by the local Sarpanch/Executive Officer in the shelter village including served villages. The FSMMC will have around 21-25 members as detailed bellow. The Sarpanch of the concerned Gram Panchayat/Executive Officer of concerned ULB will function as the **President** of the FSMMC. One representative of the vulnerable community, selected by General Body or in case of urgency nominated by the President, will function as the **Secretary** of the FSMMC.

Official Members		
1.	Sarpanch/Executive Officer	President
2.	Local Tahasildar	Member
3.	Local Medical Officer (CHC/PHC)	Member
4.	Asst. Engineer/Jr. Engineer of Local Block and/or Engineer/Jr. Engineer of RD dept	Member(s)
5.	Local Revenue Inspector	Member
6.	Executive officer of the Gram Panchayat / Councilor (Ward Member) of ULB	Member
7.	Headmaster/Principal of the school/college closer to which the MCS has been constructed	Member
8.	Local ANM	Member
9.	Local Anganwadi worker	Member
PRI representatives		
10.	Concerned ward member of the MCS village	Member
11.	Concerned ward members of hamlets of served villages which the MCS serves	Member (1-3)
Community representatives		
12.	One community volunteer to be selected as	Secretary
13.	Representative of Local N.G.O./village club	Member
14.	Women representative	Member
15.	SC/ST representative	Member
16.	Shelter village/ hamlet representatives	Member (1-4)
17.	Representative of Persons with Disability	Member

Registration:

The FSMMC will be registered under the Societies Registration Act, 1860. The FSMMC will have joint bank account in the name of Secretary and President. A standard Bye-Law is yet to be provided by OSDMA.

The procedures and conditions laid down in the bye-law will be standard guidelines for functioning of the FSMMC.

Training and capacity building:

The FSMMCs will be provided with different types of training on awareness, search & rescue and disaster management equipment from time to time and the committee will be responsible for safe custody and maintenance of the building as well as the equipment.

FSMMC members will be trained on disaster management & shelter management skills and record keeping procedures. Selected task force members of shelter village will be imparted training on first-aid and search & rescue skills.

Use, Management and Maintenance of the building:

The Cyclone shelter buildings will be used for class room purposes of the school or college during normal time. During disaster time, the same will be used for shelter purposes of the vulnerable people. Besides the building can be used for community purposes like as community halls, anganwadi centres, marriage mandaps, training centres, for organizing social functions, etc. under permission of FSMMC. The FSMMC may decide to put the building for temporary economic use and collect user fees from the user at a rate decided by the FSMMC

through resolution. User fees so collected will be kept in the joint account and be used for day-to-day maintenance on proper resolution and accounting. The shelter building cannot be given on rent for residential or other private uses.

The FSMMC will be responsible for day-to-day maintenance of the shelter building and its use during normal time, disaster time and post-disaster time.

Procedure for formation of FSMMC:

As per Project requirement, the FSMMC will be constituted during the execution of works so that the committee will be acquainted with the process of execution which will ultimately help in smooth handing over the completed Flood shelters. Besides, constitution of the committee at this stage will help in social auditing of the works.

The Constitution of FSMMC involves a social process in different levels and social mobilization is required for educating the vulnerable community before identifying the members of the FSMMC and task force members. Coordination with the Block administration, concerned local officials, PRI members like Sarpanch and Ward Member and community members and local NGO/ volunteers and widespread discussion on disaster management and shelter management activities are required. For coordination and wide circulation of the meeting notice, services of local nodal NGO/ volunteers will be utilized. Since the village community and other Government, PRI and community members will be present in the Special Meeting.

OSDMA has identified nodal NGOs for the Blocks to coordinate shelter related activities at the block and village levels. The services of nodal NGOs are being utilized for day-to-day shelter management, mock drill, disaster management and training purposes in our existing shelters. The list of the Multi Purpose Flood Shelter(MFS) are as follows,

Sl. No.	District	Block	GP	Village	MCS/ MFS	Under Scheme
1	Dhenkanal	Gondia	Khandabandha	Khandabandha	MFS	CMRF (By RD dept-post Phailin)
2	Dhenkanal	Gondia	Kashipur	Nahada	MFS	CMRF (By RD dept-post Phailin)
3	Dhenkanal	Kamakhyanager	Budhibili	Budhibili	MFS	CMRF (By RD dept-post Phailin)
4	Dhenkanal	Bhuban	Bhusal	Asurabandha	MFS	CMRF (By RD dept-post Phailin)
5	Dhenkanal	Odapada	Kuspanga	Kuspanga	MFS	CMRF (By RD dept-post Phailin)
6	Dhenkanal	Odapada	Khadagprasad	Khadagprasad	MFS	CMRF (By RD dept-post Phailin)
7	Dhenkanal	Parjang	Rentapat	Panigengutia	MFS	CMRF (By RD dept-post Phailin)
8	Dhenkanal	Kankadahad	Kankadahad	Kankadahad	MFS	CMRF (By RD dept-post Phailin)

Contact details of President/secretary of MFS.

Sl No.	Block	Name of GP	Name of the Multipurpose Flood Shelters (MFS.	Name of the Sarpanch with Contact No.	Name of the Secretary with Contact No.
1	Gondia	Khandabandha	Khandabandha	Malay Kumar Majhi Mob.No.9776906021	Rabi Narayan Nayak
2	Gondia	Kashipur	Nahada	Chanchala Barik Mob.No.9348123981	Ramesh Ch.Maharana
3	Kamakhyanagar	Budhibili	Budhibili	Sasmita Kumari Sahoo. Mobile No-9439256209	Mr.Nrusingha Ch. Behera
4	Bhuban	Bhusal	Asurabandha	Tuni Mallik Contact No. 7978325064	Sri Pratap Kumar Mishra
5	Odapada	Kuspanga	Kuspanga	Anita Nayak, 9348801117	Chitta Ranjan Nath
6	Odapada	Khadagprasad	Khadagprasad	Sabitri Dalei, 8260424239	Sanjay Bhoi
7	Parjang	Rentapat	Panigengutia	Prasanta Kumar Nayak, Mob. - 8917511445	Krishna ch Panda
8	Kankadahad	Kankadahad	Kankadahad	Anusaya Sahoo Mob.No-8018032835	Sukadeb Sahoo

Table 8: Details of equipments provided to FS:

Location of the equipment (Shelter/ DEOC.)	Equipment available				
	Inflatable Tower Light	Gen Set	Power cutter	Lifebuoy	Life jacket

Lahada MFS,Kashipur G.P	2	1	2	2	5
Khandabandha MFS, Khandabandha	2	1	2	2	5
Budhibili Cyclone shelter	2	1	2	2	5
Kharagaprasad MFS	2	1	2	2	5
Kusupanga MFS	2	1	2	2	5
Panigengutia	2	1	2	2	5
MFS, Kankadahad	2	1	2	2	5
Asurabandha	2	1	2	2	5
TOTAL	16	8	16	16	40

4.22 Other identified Safe temporary shelters in the district:

Table: Identified Safe temporary shelters

<i>Sl No.</i>	<i>Block</i>	<i>GP</i>	<i>Village</i>	<i>Name of the Institutions/Buildings</i>	<i>Type of Roof</i>	<i>No. of Rooms (Size)</i>	<i>No. of Toilets (M/F)</i>	<i>Availability of Kitchen</i>
1.	Bhuban	Balibo	Balibo	BaliboHigh School	Cemented roof	8 10 X 14	4	Yes
2.	Bhuban	Dhalpada	Joragadia	BalunkeswarHigh School	Cemented roof	6 8 X 10	4	Yes
3.	Dhenkanal	Mangalpur	Mangalpur	SatyabadiHigh School	Cemented roof	5 10 X 10	4	Yes
4.	Dhenkanal	Talabarakote	Talabarkote	TalabarkoteHigh School	Cemented roof	8 10 X 12	4	Yes
5.	Dhenkanal	Banasingh	Radhadeipur	RadhadeipurHigh School	Cemented roof	8 10 X 8	4	Yes

6.	Gondia	Kabera	Chirulei	SudarsanHigh School	Cemented roof	6 8 X 8	4	Yes
7.	Gondia	Ratanpur	Chandia	RaisingaprasadHigh School	Cemented roof	8 10 X 20	4	Yes
8.	Hindol	Dudurakote	Dudurakote	JanatarajHigh School	Cemented roof	5 10 X 12	4	Yes
9.	Hindol	Rasol	Rasol	RasolHigh School	Cemented roof	6 10 X 22	4	Yes
10.	Hindol	Nizigarh	Nizigarh	Govt.GirlsHigh School	Cemented roof	8 10 X 10	4	Yes
11.	Kamakhyanagar	Sogar	Sogar	Sogareswar Bidyapitha	Cemented roof	7 10 X 6	4	Yes
12.	Kamakhyanagar	Badasuanlo	Badasuanlo	BadasuanloHigh School	Cemented roof	5 10 X 8	4	Yes
13.	Kamakhyanagar	Budhibili	Budhibili	Budhibili High School	Cemented roof	5 10 X 10	4	Yes
14.	Kankadahad	Mahabirroad	Mahabirroad	JanapravaHigh School	Cemented roof	8 10 X 8	4	Yes
15.	Kankadahad	Maruabili	Marubili	PanchayatHigh School	Cemented roof	5 10 X 10	4	Yes
16.	Odapada	Odapada	Odapada	OdapadaHigh School	Cemented roof	4 10 X 12	4	Yes
17.	Odapada	Gadasila	Mahendrapur	DandimalHigh School	Cemented roof	8 10 X 8	4	Yes
18.	Parjang	Badajhara	Badajhara	SatyanarayanHigh School	Cemented roof	6 10 X 12	4	Yes
19.	Parjang	Sanda	Sanda	SandaHigh School	Cemented roof	8 10 X 10	4	Yes

Chapter- 5:

Prevention & Mitigation Measures.

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

Mitigation: It means measures aimed at reducing the risk, impact or effects of a disaster or threatening disaster situation.

Prevention: Activities designed to provide permanent protection from the disaster.

The prevention and Mitigation measures for different Disasters are as follows,

(A)Flood:

Measures as per the Odisha Relief Code.

(i) Functioning of Control Room (Para 10 & 47 of ORC)

Control Room is functioning in District Office with telephone No.06762-221376 round the clock with the effect from **1st May to 30th November** Control Rooms are also functioning in the Offices of the Sub-Collectors/Tahasildars/Block Development Officers and in other District Level Officers. The case of any natural calamities viz – flood or cyclone etc immediately after the occurrence it will be the responsibility of village level workers to inform the facts to the nearest RI who will pass on the information to the nearest Police Station for transmission of the message to the Sub-Collector and Collector's Control Room also keep the concerned zone officer and Tahasildar informed. Revenue Inspector's are trained at Tahasils level for the purpose.

(ii) Wireless station (Para 55 OF O.R.C)

All the Police Station and Out-posts in the District are equipped with VHF/HF for transmission of the flood /cyclone messages. Special Relief Commissioner has been moved for installation of temporary V.H.F. Centers at the following places to facilitate transmission of flood/cyclone messages.

(iii) Rain recording and submission of rainfall reports (Para 49 of O.R.C.)

Rain recording stations are available in all the blocks of this district. The Head Clerks of the Blocks are acting as Rain Recording Officers under the supervision of the respective Block Development Officers. The rainfall reports from each rain recording station shall be transmitted to the District Control Room daily through V.H.F./ Telephone/ Messenger.

(iv) Gauge reading (Para 50 of O.R.C.)

The gauge reading stations of different rivers are available at different places in the district as shown. The gauge readings will be transmitted by the flood control cell to the District Control Room every hour when the gauge reading is near or above danger level. When the gauge reading is fairly below the danger level, the same will be transmitted once a day by 5 P.M., Gauge readings at the above Gauge stations shall be communicated to the Revenue Control Room through phone/Fax from the District Control Room.

(v) Dissemination of weather reports, flood bulletin etc. (Para 52 of O.R.C.)

Immediately on receipt of weather warnings and bulletin above high flood from the Metrological Center of the Government of India at Bhubaneshwar or from the Revenue Department/ Special Relief Commissioner, the same shall be communicated to the superintendent of Police. Executive Engineers of the Water Resources Department, the Sub-Collectors, Executive Officers of U.L.Bs., Tahasildars and Block Development Officer who shall, without delay of time, disseminate the messages among the people through their respective agencies and caution them so that they will be in readiness to shift to flood shelters or other safer places in the event of high floods. The people will also be asked to refer to the special weather/flood bulletin of T.V./Radio during such periods.

(vi) Storage of foodstuff in interior areas (Para 57 of O.R.C.)

To ensure that food grains/food-stuff are available in the interior areas which are likely to become inaccessible during flood, Civil Supplies Officer, Dhenkanal, has been reported to store adequate amount of rice and also to keep stock of Kerosene. Other dry foods like chuda, mudhi, guda, bread and other necessities like candle, match box etc, will be arranged immediately for distribution among the marooned people in the event of high flood.

(vii) Selection of flood shelters (Para 60 of O.R.C.)

In or about the flood prone areas, suitable buildings belonging to Government, Panchayat Samities, Gram Panchayats, Educational Institutions, Mahila Samitis, Recreation Centres or other Institutions of public nature may be selected for providing emergent shelter to the people on evacuation from the flood affected areas. In case no such buildings could be found, temporary structures with bullahs, bamboos, talais and tarpaulins should be raised on high mounds or embankments for such shelters. The

Collectors of flood prone districts shall arrange for quick availability of bamboos, bullahs, ropes, talais, tarpaulins, etc. for construction of such shelters.

(viii) Organisation of relief parties for rescue and relief operation (Para 60 of O.R.C.)

In the event of high flood it will be necessary to rescue the marooned people and to distribute emergent relief to the people affected by the calamity. For smooth management of rescue and relief operation, the Sub-Collector have been instructed to constitute Relief Parties in advance indicating their area of jurisdiction. The employees of the local Government offices shall be included in such relief parties. NGOs will also be involved in the programmed.

(ix) Arrangements for army assistance (para 61 & 69 of O.R.C.)

In case of severe and wide spread calamity, the assistance of army personnel may be sought for relief and rescue operation. In such contingency, necessary arrangements shall be made to requisition the army to assist the civil authorities through Special Relief Commissioner / Government following the procedure laid down under paragraph 61 and 69 of the Orissa Relief Code

(x) Daily reporting of flood situation (Para 71 of O.R.C)

As per para 71 of Orissa Relief Code instructions have been separately issued for submission of daily situation report by the Block Development Officer /Tahasildars in the prescribed format through wireless message from the date of occurrence of the flood till after 3 days of the abatement of flood. The required flood information will be collected by the V.L.Ws and Extension Officers who will furnish the same to the Block Office by 2 P.M. every day. Besides, other line department officers will also pass on the information relating to their department officers who will also pass on the information relating to their department to the respective Block Development Officers. The Block Development Officers will compile and transmit the information as per the format of the daily situation report through the nearest police wireless by 3 P.M. to District Control Room.

(xi) Transport.

In the event of any Natural Calamity, vehicles may be required for sending the relief parties and relief materials including foodstuff to the affected areas. The Regional Transport Officer will make requisition and provide such vehicles with the help of his enforcement staff as per the requirement.

(xii) Disposal of dead bodies (Para 73 of ORC)

The dead bodies of human beings, if any, found in the flood-affected areas in case of high flood, shall ordinarily be made over to their relatives and friends, if available, for cremation or burial. When there are no claimants for dead bodies, those shall be cremated/buried at the Govt. cost i.e. Health Department. Chief District Medical Officer, Khordha will issue necessary instructions to their officer and staff in the field in this regard. Similarly, carcasses of cattle and other animals shall be buried by the Animal Resources Development Department. Chief District Veterinary Officer will issue necessary instruction in this regard.

(xiii) Assessment of damage (Para 74 to 77 of O.R.C)

Damages caused by the Natural Calamity to the private and public properties and loss of life are assessed by the Revenue Agency. The Tahasildars are to collect such information with the help of his staff through the local enquiry. The Block Development Officers and the Extension Officers in this work if necessary will assist them and officers may be specially deputed by the Collector to assist the Tahasildars in this work where there is large-scale damage. This report of damages would be submitted without delay. The other departments will similarly assess their losses and submit reports within the stipulated time.

(xiv) Restoration of communication and power supply (Para 86 of ORC)

In case of high flood, the communication and power supply to the affected areas are usually cut off. The respective departments will take immediate steps for restoration of the communication as well as power supply after abatement of flood.

(xv) Law and order.

In case of occurrence of any Natural Calamity, there is change of law and order problems. Transportation and distribution of relief materials may require police protection. The Superintendent of Police will issue necessary instruction to all Inspector officer/officer officers in the District in the direction of maintenance of law and order in such eventuality and to render necessary assistance to the District/Sub-Divisional authorities for smooth management of relief and rescue operation.

(xvi) Other Measures:

Total 8 nos of Multipurpose Flood Shelter (MCS) constructed in the district by Rural Works Division, Dhenkanal and Kamakhyanagar, OSDMA provided funds to RWDs.. The completed Multipurpose Flood Shelters constructed by OSDMA is handed

over to the community based Flood Shelter Management and Maintenance Committees (CFMMC) in the district.

(B)-Cyclone.

1. Apart from this, total 18 numbers of Govt. school buildings are identified as multipurpose Cyclone /Flood Shelters which will be used by community during the menace of cyclonic storm.
2. Community Awareness through different community organisation like, Gaon Kalyan Samiti, NGOs, community volunteers (NCC, NSS, BNV, others), PRI members.
3. Organising of Mock drill (ODRAF/NDRF) on Cyclone Management involving different state holders for public awareness.

(C)Heat Wave:

1. Heat Wave is defined as a condition of increased atmospheric temperature that leads to physiological stress, which sometimes can claim human life. Quantitatively Heat Wave can be defined as any increase from the normal temperature. Again, depending on the upper deviation from the normal temperature it can be moderate Heat Wave or Severe Heat Wave. If the maximum temperature of any place continues to be 45° C for consecutive two days, it is called as Heat Wave condition. Physiologically human body can tolerate environmental temperature of 37° C.
2. The district Dhenkanal is also experiencing strong Heat wave situation every year from March-June. The sunstroke is one of the prominent disasters of the district DDMA, Dhenkanal must have focal point on proper Heat Wave Management every year.
3. The precautionary measures (HAP) as prescribed by OSDMA from year to year should be implemented apparently in a meticulous manner. The DDMA shall take appropriate action for convergence of all line departments along with synergetic effort for its implementation as per responsibility fixed and timely monitoring and Supervision.
4. Organising of Mock drill (ODRAF/NDRF) on heat Management involving different state holders for public awareness.
5. Community Awareness/Capacity building activities through, Gaon Kalyan Samiti, NGOs, community volunteers (NCC, NSS, BNV, others), PRI members and print or electronic media on Heat Wave Management.
6. Organisation of District/Block level Orientation meeting in advance to sensitise Govt. officials and other stake holders on Heat Wave Management.
7. Other measures as decided by DDMA, Dhenkanal.

(D) Drought:

1. The coverage of Pradhanmantri Phasal Bima Yojana to be enhanced so that more farmers get benefit, if drought occurred in the district. The intervention from Govt. and Insurance Company is essential. IEC activities on the above insurance scheme should be done at all level for the interest of Farmers. This scheme provides financial assistance to Farmers for crop loss. In case of non commercial Crops and commercial crops, the maximum premium rate is 2% and 5% respectively. It is implemented in convergence with the Revenue & DM, Agriculture and farmer empowerment, Planning & Convergence Department and implementing Insurance Company.
2. The lift Irrigation, Minor Irrigation, Major Irrigation projects should be properly managed and ready in advance before the cultivation started. The Canal irrigation and flow of water also be streamlined in advance as per the prediction of the current year rain fall by the IMD. The SE, EEs, AEs should take proactive and appropriate action for the said purpose.
3. District level Committee on Natural Calamity meeting should be held twice in a year (May/November), all preventive and mitigation measures to be taken in advance fixing responsibility of concerned line departments with proper monitoring & Supervision.
4. Preparation of GP level Drought mitigation plan and its integration with MGNREGS, Water shed/MP and MLALAD) other related Schemes.
5. Construction of firm pond, check Dam, other structural measures through MGNREGS, Watershed projects to mitigate impact of the Drought in the District.
6. The Farmers will be made aware about the input subsidy provision and other preventive/mitigation Measures.

5.2 Structural Measures:

Sl. No.	Name of the Department/ Office	Activity/ Project	Starting date	Date of completion	Cost(Rs in lakh)	Funding source
1	R.W.Division,Dhenkanal	Cyclone Shelter at Khandabandha	16.10.2014	31.05.2016	62.87	CMRF (By RD dept-post Phailin)
2	R.W.Division,Dhenkanal	Cyclone Shelter at Lahada	04.05.2015	31.05.2016	64.72	CMRF (By RD dept-post Phailin)
3	R.W.Division,Dhenkanal	Cyclone Shelter at	19.09.2014	31.10.2016	62.28	CMRF (By RD

		Khadagprasad				dept-post Phailin)
4	R.W.Division,Dhenkanal	Cyclone Shelter at Kuspanga	05.08.2015	31.10.2016	65.22	CMRF (By RD dept-post Phailin)
5	RD Department/ R.W Division Kamakhyanagar	Constn. Of Cyclone / Flood shelter at Asurabandha in Bhuban Block	27.08.14	26.11.15	71.00	CMRF (By RD dept-post Phailin)
6	RD Department/ R.W Division Kamakhyanagar	Constn. Of Cyclone / Flood shelter at Budhibili	24.09.14	23.12.15	73.50	CMRF (By RD dept-post Phailin)
7	RD Department/ R.W Division Kamakhyanagar	Constn. Of Cyclone / Flood shelter at Panigengutia in Parjang Block	08.10.14	07.01.16	71.36	CMRF (By RD dept-post Phailin)
8	RD Department/ R.W Division Kamakhyanagar	Constn. Of Cyclone / Flood shelter at Kankadahad	08.10.14	07.01.16	72.00	CMRF (By RD dept-post Phailin)

5.3 Non-structural Measures: Initiative of DDMA,Dhenkanal.

Sl. No.	Name of the Department/ Office	Activity/ Project	Starting date	Date of Completion	Cost Rs.	Funding Source
1	Revenue &DM/ Collectorate, Dhenkanal.	Mock Drill at District/Block/ MFS level	17.06.2021	19.06.2021	89200/-	OSDMA
2	Revenue &DM/ Collectorate, Dhenkanal.	FAMEX&CAP by ODRAF/Fire/NDRF	2021		-	OSDMA &DDMA,Dhenkanal

NB: Other details mentioned in the **Chapter: Capacity Building Measures.**

Chapter – 6

Climate Change Adaptation: -

6.1 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: 6.1

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%

6.2 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 sequesters 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: 6.2

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	M/s Tata Steel BSL Ltd.	Meramandali, Dhenkanal	11615546 MT/ (during 2020-21)	--	Particulate matter <50 mg/Nm ³	Installed Electrostatic Precipitator , bag filters
2	GMR Kamalanga Energy Limited	AT/Post Kamalanga, Block- Odapada N. Dist. Dhenkanal (Odisha)	0.0006621 65 (5171512 tCO ₂)	--	Annual average emission : - Particulate Matter (PM) - 28mg/Nm ³ Sulphur-Di-Oxide (SO ₂) - 433.91ppm Nitrogen Oxides (NO _x)- 135.61ppm Total Mercury (Hg)-0.01mg/Nm ³	<ol style="list-style-type: none"> PAT Schème (Cycle - V) Implemented since 2018-2019 Plantation done - 388797 Nos. Energy Conservation Management System (EnMS 50001 ISO) implemented & Certified by BVI Reduction of Auxilary power consumption (APC) High Efficient Hybrid ESP installed for control of Particulate Mater. FGD is Under Installation for Control of SO₂. Low NO_x burner & Over Air Fire (OAF) System installed.

6.3 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: 6.3

Sl No	Name of the Block	Major Sources	Annual emission (In PPM)	Ranking as per CH ₄ Emission (PPM)	Action taken for cutting down emission
	Odapada N	GMR Kamalanga Energy Limited	1184.18 tCO ₂ ^{eq.}		

6.4 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: 6.4

Sl No	Name of the Block	Fertiliser /Industrial processes	Annual Usage (In tonnes)	Ranking as per N ₂ O Emission	Other major pollutants emitted	Action taken for cutting
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				(PPM)	(PPM)	down émission
	Odapada N	GMR Kamalanga Energy Limited	144.3 tCO ₂ ^{eq.}			

6.5 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.

Table: 6.5

Sl No	Name of the Industry/ Firm/Plant	Location	Annual émission (In PPM)	Ranking as per flourinated gas Emission (PPM)
	GMR Kamalanga Energy Limited	AT/Post Kamalanga, Block- Odapanda	<ul style="list-style-type: none"> • HCFC22- 788.48 tCO₂^{eq.} • HCFC134- 16.8tCO₂^{eq.} 	

		N. Dist. Dhenkanal (Odisha)		
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6.6 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.

Table: 6.6(Information Not available)

Sl 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

6.7 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”).

Major Greenhouse Gases Contributors (Anthrpogenic) to Climate Change

Table: 6.7

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

6.8 Details of forest as a major Carbon sink (District)

Table: 6.8

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)
1141018200	13789672	0	633398021	1788205893

6.9 Sectors with High Mitigation Potential

Table : 6.9

Sl 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 • 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

6.10 Sector Specific Climate Change mitigation Projects :**Table : 6.10**

SI No	Sector	Project Title	Period		Mitigation Targets
			From	To	
	Steel (Tata Steel BSL)	Increase of scrap charge up to 15%	2021	2025	0.16 tco2/tcs
		Installation of CDQ-1	2022	2023	0.01 tco2/tcs
		2nd PCI System in Blast Furnace # 2	2021	2022	0.01 tco2/tcs
		Reduction in BF fuel rate to BDP levels	Continuous		0.02 tco2/tcs
		Increase of hot blast temperature in BF#2	2021	2022	0.03 tco2/tcs
		BOF gas holder	2021	2021	0.02 tco2/tcs

(N.B.: Please fill in the above table with Project undertaken exclusively for Climate Change Mitigation)

Chapter 7

Inclusive Disaster Risk Reduction: -

7.1 Background: A need to include Persons with Disabilities

Different populations may face similar risks of exposure to the negative effects of environmental and man-made disasters, but their actual vulnerability is dependent on their socio-economic conditions, civic and social empowerment, and access to mitigation and relief resources. Individuals with disabilities are disproportionately affected in disaster, emergency, and conflict situations due to inaccessible evacuation, response (including shelters, camps, and food distribution), and recovery efforts.

Besides psychological impact of disasters, this population does not have adequate access to food, water, shelter and health services. There has been inadequate access to their specific needs including assistive devices, rehabilitation and interpreters. Disabled populations face discrimination and exclusion and therefore are confronted with considerable challenges in accessing the same opportunities as the rest of the population in disaster situations.

Common experience reveals that persons with disabilities are more likely to be left behind or abandoned during evacuation in disasters and conflicts due to a lack of preparation and planning, as well as inaccessible facilities and services and transportation systems. Most shelters and refugee camps are not accessible and people with disabilities are many times even turned away from shelters and refugees camps due to a perception that they need “complex medical” services.

Furthermore, the needs of persons with disabilities continue to be excluded over the more long-term recovery and reconstruction efforts, thus missing another opportunity to ensure that cities are accessible and inclusively resilient to future disasters. Thus it is important that the Indian Disaster management system includes the needs of persons with disability faced in disaster risk management.

7.2 Legal framework to support the inclusion of persons with disabilities

The United Nations Convention on the Rights of Persons with Disabilities was adopted in December 2006. The Convention marks a “paradigm shift” in attitudes and approaches to persons with disabilities. Article 11 on Situations of risk and humanitarian emergencies, pays particular attention to the obligation of States parties to undertake “all necessary measures to ensure the protection and safety of persons with disabilities in situations of risk, including situations of armed conflict, humanitarian emergencies and the occurrence of natural disasters.” Furthermore, Article 4.1, states that “States Parties undertake to ensure and promote the full realization of all human rights and fundamental freedoms for all persons with disabilities without discrimination of any kind on the basis of disability” and Article 32, recognizes the importance of international cooperation to address the limited capacities of some States to respond to situations of risk and humanitarian crises.

The Millennium Development Goals have the potential to make life better for billions of people in the world’s poorest countries. However, disability is currently not included in indicators and targets to help evaluate and monitor the achievement of the MDGs. Furthermore, persons with disabilities are often excluded from international and national poverty reduction

strategies. Environmental dangers and natural disasters can lead to the onset of many types of disabilities, and inaccessible environments prevent persons with disabilities from taking part in economic and social activities. Human and environmental recovery is vital for the achievement of MDG Goal 7, “Ensure Environmental Sustainability”. The MDGs cannot be achieved without the inclusion of all persons in society, including persons with disabilities.

The Rights of persons with Disabilities act (RPWDA) 2016 of India and UNCPRD form the overarching legal framework which identify and protect disability rights in India. The RPWDA mandates the participation of persons with disabilities in the disaster risk management process. In the Act DRM is articulated in the article 8 which stipulates that persons with disabilities shall have equal protection and safety in situations of risk, armed conflict, humanitarian emergencies and natural disasters. The Act refers to the Disaster Management Act 2005 Clause (e) Section 2 for the safety and prevention of persons with disabilities

The District Disaster Management Authorities (DDMA) under Section 25 are specially mentioned to maintain the record of details of persons with disabilities in the district and inform such persons of any such situations of risk so as to enhance disaster preparedness. The authorities are to consult the state Commissioners in accordance with the accessibility requirements of Persons with Disabilities. The rights of Persons with Disabilities Act 2017 elaborate an implementable strategy specifically in accessibility of infrastructure, transport & communication technology which are important aspects in the context of disaster risk reduction

The Government of India approach to disaster management is that development cannot be sustainable unless disaster mitigation is built in to the development process. Built on this approach, the National Disaster Framework covering institutional mechanisms at the national, state & district exist where the disability related structures are also available which could be used to implement inclusive policies

7.3 Responding to the needs of persons with disabilities

Several studies show us that including the needs and voices of persons with disabilities at all stages of the disaster management process, and especially during planning and preparedness, can significantly reduce their vulnerability and increase the effectiveness of Government response and recovery efforts. However, despite an increasing worldwide focus on disaster risk reduction as opposed to mere disaster response, most city and related Government agencies fail to adequately plan for – or include – persons with disabilities in their disaster management activities. This causes severe inequities in access to immediate response, as well as long-term recovery resources for people who have disabilities prior to the disaster and those who acquire a disability as a result of the disaster.

Rehabilitation and reconstruction efforts must not only be inclusive and responsive to the needs of all people, including persons with disabilities, but should include the participation of persons with disabilities, to ensure that their needs and rights are respected. Women with disabilities are a particularly vulnerable group whose needs should be included at all stages of recovery and reconstruction efforts.

Actors involved in Disability inclusive Disaster Risk Reduction (DiDRR) include Government at the different levels, national to local including cities and communities at local level, the UN System, Academic Institutions, Disabled People’s Organizations Private actors, Armed Forces, Civil Society, Media, local community’s Local emergency response organisations.

7.4 Data Collection

Data is essential to understanding the risks that people face during disasters and climate change situations. It is important to give effect to policies and establish norms. The Census in 2011 identifies 2.68 Crore persons with disabilities constituting 2.21% of the country's population.

7.5 Policy, Institutional Mechanisms and Inclusive Standards

Policies and their implementation need to be inclusive. Odisha State Disaster Management Plans has already laid the foundation of an inclusive strategy. OSDMA has set up a cell for persons with disabilities headed by a person with disability. The cell will look into inclusion in EWS, SER, rehabilitation and resettlement. Impart training for response forces ODRAF, Red Cross, Civil Defense and community level task force volunteers. Monitoring accessibility in shelters will also be work of the cell.

The Odisha State Disaster Management Plan 2023-24 takes note of the vulnerability of disabled persons and the specific provision provided is related to inclusive education of children with disabilities during disasters. It also makes special mention of children with disabilities and specifically 'mentally retarded' (Intellectual Disability).

For preparation of the inclusive DDMP the following data at district level are to be collected

Table-7.1-Information on PWD in detail in VDMP-II

Table-7.2-Information on vulnerable women and children in VDMP -II

Table-7.3-Information on people needing special care (Aged and Pregnant Women) in VDMP -II

After compiling the database of the people who need special attention in the wake of a disaster and to make the district disaster management plan more inclusive, the following may be considered during District Disaster Management Plan preparation.

- **Pre-Disaster:** Identification of special needs of physically challenged and mentally challenged persons. Make necessary Planning for evacuation of people with special needs with special care and compassion. The DDMP should outline adequate training and orientation of field level functionaries who are normally engaged as frontline worriers of disaster management at grass roots. Special responsibility may be entrusted with the appropriate officials at block level to ensure the execution of the plan. The district must ensure that the committees and groups created in the district for the disaster management pursuits **has adequate representation from the vulnerable section of the society** as outlined above.
- **During Disaster:** Appropriate Relocation of the people in the shelter with special care, priority in meeting the needs of such population, organizing medical attention if needed.
- **Post disaster:** Ensuring careful & safe return of such people to home, prioritisation during relief distribution, prioritisation of rehabilitation & reconstruction efforts

Chapter – 8 Safety of Schools and Child Care Institutions

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

1.1 Order 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 • ‘Stability certificate’ by Government-certified engineer. • Manual for fire safety procedures and other safety precautions • The National Building Code of India, 2005, to construct fire-safe buildings. (Revised 2016) 	<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. • Fire insurance coverage should be made mandatory for all schools. • Ensuring that the kitchen in the precincts of the school has adequate safety mechanisms.

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).**

6.3 Category & type of schools

Name of the Block	Government Schools				Government Aided schools		Private Schools	
	Elementary		Secondary		Elementary	Secondary	Elementary	Secondary
	Rural	Urban	Rural	Urban				
Bhuban	97		14		5	12	16	
Bhuban NAC		10		3			8	
DKL, Mplty		24		6		1	16	5
DKL, Sadar	137		18		10	14	22	
Gondia	155		21		11	11	14	1
Hindol	161		19		7	21	19	1
Hindol NAC		12		2		1	2	
K.Nagar	115		18		5	11	7	1
K.Nagar NAC		9		3			5	2
K.Had	146		11		17	17	12	2
Odapad	112		21		3	11	17	4

Parjang	130		15		7	10	12	4
Total	1053	55	137	14	65	109	150	20

6.4 Category & type of students:

Category & type of students

Name of the Block	Government Schools				Government Aided schools		Private Schools	
	Elementary		Secondary		Elementary	Secondary	Elementary	Secondary
	Rural	Urban	Rural	Urban				
Bhuban	10763	0	2186	0	460	1235	1854	0
Bhuban NAC	0	1587	0	629	0	0	1511	0
DKL, Mplty	0	4138	0	867	0	90	5053	767
DKL, Sadar	16276	0	2836	0	1032	1568	2742	0
Gondia	17953	0	3027	0	646	1180	1999	89
Hindol	16237	0	2663	0	589	1974	2629	80
Hindol NAC	0	1476	0	377	0	102	327	0
K.Nagar	11840	0	2075	0	625	1286	840	143
K.Nagar NAC	0	1110	0	403	0	0	1474	375
K.Had	14708	0	1803	0	865	1680	1487	74
Odapad	13949	0	2724	0	238	1260	3437	207
Parjang	12088	0	2357	0	867	136	2347	288
Total	113814	8311	19671	2276	5322	11739	25700	2023

6.5 School Safety Advisory Committee (District)

1. Date of Formation :
2. Institutional Architecture: District Level School Safety Advisory Committee (DLSSAC)- Block Level School Safety Advisory Committee (BLSSAC)- School Level School Safety Advisory Committee.

SI No	Name & Designation	Contact No.	Email ID	Remarks
Sl.No	Name of the District.	Status of constitution of SSAC	Name of the DEO & Contact No	Committee Members SSAC
1	DHENKANAL	Constituted	Nibedita Pani,DEO,9437301643	<p>Collector and District Magistrate ,Dhenkanal,Chairperson</p> <p>Superintendent of Police, Dkl, Co-Chairperson</p> <p>Dist. Fire Officer,Dhenkanal,Member</p> <p>Dist. Welfare Officer,Dhenkanal, member</p> <p>DSWO,Dhenkanal,Member</p> <p>CDM&PHO,Dhenkanal,Member</p> <p>Executive Eng. RWSS/PWD Dhenkanal,Member</p> <p>Dist. Emergenvy Officer,Dhenkanal,Member</p> <p>Dist. Panchyat Officer, Dhenkanal,Member</p> <p>Principal, DIET, Dhenkanal,Member</p> <p>Block Education Officer, Dhenkanal,Member</p> <p>Biranchi Narayan Pani, Vice Chaireman ,Redcross, Dkl,Member</p> <p>Suresh Kumar Panda, Director, AIRA,Member</p> <p>District Project Coordinator,SSA, Dkl,Member</p> <p>District Education Dhenkanal, Nodal Officer and Member Convenor.</p>

CONSTITUTION OF SCHOOL SAFETY ADVISORY COMMITTEE AT BLOCK LEVEL				
Sl .No	Name of the Block	Status of constitution of SSAC	Name of the BEO & Contact No	Attach list of Committee Members SSAC Wise
1	Kankadahad	Yes Constituted	Sri Harihar Dehury,9438629955	Smt. Bulbul Behera, OAS(1), BDO, President of the Committee
				Sri Harihar Dehury ,Member Convener
				Pradipta ku. Dash ABEO-cum-BRCC, Member
				Madan Mohan Baral, CRCC, Member
				Prakash Chandra Sahoo, Member
				Dinesh Mishra, GPEO, Member
				Suresh Kumar Panda,I/C WEO, Member
				Mahesh Kumar Behera, NGO, CIED, Karagola G.P, Member
				Sri Debraj Raj, T.C, SS, Member
2	Parjang	Yes, Constituted	Sri Harihar Dehury,9438629955	Sri Binod Behera, OAS(1), BDO, Chairperson
				Sri Harihar Dehury, BEO, Member Convener
				Sri Bilash Ku.Mallik, ABEO- cum-BRCC, Member
				Sri Ranjit Ku. Pany, CRCC, Member
				Sri Bimal Ku. Sathy, CRCC, Member
				Sri Awini Kumar Nayak, NGO,BITARTAN, Member
				Sri Itishree Devi, T.C, SS, Member
				Sri Akshya Sahoo, GPEO, Member
				Smita Shree Jena ,I/CWEO, Member

3	Sadar	Yes, Constituted	Sri. Brahmananda Rout,BEO 9438394329	Sri. Sri Sudhir Ku. Nayak,OAS(1) BDO Sadar, Chairperson
				Sri. Brahmananda Rout,, BEO, Member Convener
				Anita Dash, GPEO, Member
				Suprava Sethy, WEO, Member
				Sri Adwita Kumar Samal, ABEO-cum-BRCC, Member
				Sri Binaya Parida, T.C, SS, Member
				Sir Satchidananda Sahoo, CRCC, Member
				Pravati Behera, CRCC, Member
				Banamali Mallik, Bharat Ratna Dr. Ambedkar Memorial Society, Member
4	Odapada	Yes, Constituted	Sri. Brahmananda Rout,BEO 9438394329	Sri Dasarathi Jena, OAS(1), BDO, Chairperson
				Sri. Brahmananda Rout BEO, Member Convener
				Smt.Sarojini Bargaia, ABEO- cum-BRCC, Member
				Nirmal Behera, CRCC, Member
				Udit Narayan Rout, CRCC, Member
				Parikhita Panigrahi, GPEO, Member
				Sankarsan Sahoo, I/C WEO, Member
				Rabindra Kumar Behera, NGO, ISWAR, Member
				Smt. Mitanjali Das, TC , Odapada
5	Bhuban	Yes, Constituted	Sri Pratap Satapathy,BEO,Bhuban 9861608981	Sri Ashirbad Parida OAS(1), BDO,Chairperson

				Sri. Pratap Satapathy, BEO, Member Convener
				Rajalaxmi Tudu, ABEO- cum-BRCC, member
				Sri Amresh Dash, CRCC, Member
				Sri Satrughna Patra, CRCC, Member
				Santosh Kumar Jena, NGO Activists, Member
				Sri Jaganath Mishra,TC, Bhuban, Member
				Sri Srikant Behera, GPEO, Member
				Sri Sachidananda Prusty, WEO, Member
6	Kamakshyanagar	yes, constituted	Sri Jagabandhu Jena,BEO,Knagar 9238231546	Sri Bikash Ku.Mohanty BDO, K.Nagar, Chairperson
				Sri Krushna Ch. Bhoi,ABEO- Cum-BRCC,K.nagar
				Sri Pradyuman Ku.Mohapatra,CRCC Analaberini,member
				Sri Atulya Dash,CRCC, GP nodal UPS Bhagirathipur
				Prasanta Kumar Das,NGO,Activists, Member
				Mrs. Madhusmita Jena, TC K.nagar, Member
				GP Extension Officer, K.Nagar, member
				Smita Shree Jena,WEO,Knagar,Member
				Sri Jagabandhu Jena, BEO, Member Convener
7	Hindol	Yes, Constituted	Mr. Santanu Ku. Mallick,BEO,Hindol 8658822178	Smt.Khirabdhatanaya Sahoo,BDO,Hindol, C hairperson
				Sri Sanjay Kumar Nayak,ABEO-Cum- BRCC,Member
				Sri Dushmanta Ku. Behera, CRCC, NAC, Hindol,Member

				Sri. Milu Bhoi,CRCC, Nuabag Cluster, Member
				Sri Rajendra Pal,NGO,Member
				Sri Kausik Samal, TC
				Sri Dhaneswar Kisan,GP extension Officer, member
				Sri Jaladhar Singh , I/CWEO,Hindol Block
				Sri,Santanu Ku. Mallik BEO, Hindol, Member Convenor.
8	Gondia	Yes constituted	Smt. Brahmotri Biswal,BEO,Gondia 8455912361	Sri Asish Ranjan Sahoo,BDO,Gondia, Chairperson
				Sansara Bhoi,ABEO-Cum- BRCC, Member
				Sribascha Behera, CRCC,Karamul, Member
				Sri Sudhir Natha, T.C, Gondia, Member
				Abhiram Nayak GPEO, Gondia Block, Member
				,WEO, Gondia Block, Member
				Smt. Brahmotri Biswal,BEO, Gondia , Member Converter
				Trilochan Mallick, CRCC,Member
7.8 (A) CONSTITUTION OF SCHOOL SAFETY ADVISORY COMMITTEE AT DISTRICT LEVEL				
Sl.No	Name of the Block	Status of constitution of SSAC	Name of the DEO & Contact No	Attach list of Committee Members SSAC Wise
1	DHENKANAL	Constituted	Smt. Nibedita Pany,OES1 (SB)(S.T)9437301643	Collector and District Magistrate ,Dhenkanal,Chairperson
				Superintendent of Police, Dkl, Co-Chairperson
				Dist. Fire Officer,Dhenkanal,Member
				Dist. Welfare Officer,Dhenkanal, member
				DSWO,Dhenkanal,Member
				CDMO,Dhenkanal,Member

				Executive Eng. RWSS/PWD Dhenkanal,Member
				Dist. Emergenvy Officer,Dhenkanal,Member
				Dist. Panchyat Officer, Dhenkanal,Member
				Principal, DIET, Dhenkanal,Member
				Block Education Officer, Dhenkanal,Member
				Biranchi Narayan Pani, Vice Chairman, Redcross, Dkl,Member
				Suresh Kumar Panda, Director, AIRA,Member
				District Project Coordinator,SSA, Dkl,Member
				District Education Dhenkanal,Nodal Officer and Member Convenor.
(B) Constitution of School Safety Committee (SSC) at School level				
Sl.No	Name of the Block	Total target for constitution of SSC	Total No of SSC constituted	Remarks
1	Sadar	250	248	
2	Odapada	168	167	
3	Gondia	212	211	
4	Hindol	242	216	
5	Kamakshyanagar	176	175	
6	Bhuban	165	141	
7	Parjang	177	175	
8	Kankadahad	204	204	
	Total	1594	1537	

6.6 Details of School Safety in the district:

Details of School Safety in the District												
Sl.No	Name of the block	Schools having Safety Advisory committee	No.of Schools which have finalised the school disaster management plan(SDMP)	No.of schools which have conducted safety audits		No. of schools which have conducted annual mock drills	No. of schools where fire extinguisher have been installed	No.of Schools which adhere to safety norms with respect to storage of inflammable and toxic material	No.of schools which confirms to the safety standards as per local building bye-laws(as approved by local authorities)	No.of schools which have been issued Recognition Certificate under sub-rule(4)-Rule 15 of RTE rules 2010(only to schools that comply with structural safety norms)	No. of schools where students and teachers undergo regular training in school safety and disaster preparedness	No. of schools where disaster management is being taught as part of the curriculum
				Structural	Non Structural							
1	Sadar	248	248	224	226	224	242	242	243	9	228	89
2	Gondia	211	211	211	211	85	211	211	211	2	211	157
3	Odapada	167	167	100	80	62	150	167	135	4	133	120
4	Hindol	216	216	224	241	92	240	241	201	3	216	160
5	k.nagar	175	175	175	175	160	160	175	175	8	175	125
6	Bhuban	141	141	141	141	0	137	141	0	10	141	116
7	Kankadaha d	204	204	204	204	31	204	204	110	5	204	139
8	Parjang	175	175	175	175	110	175	175	165	3	175	120
		1537	1537	1454	1453	764	1519	1556	1240	44	1483	1026

Sl No	Activity	Total School	Achieved					Bhuban	Parjang	K.Had	Total
			Sadar	Odapada	Gondia	Hindol	K.Nagar				
1	Schools having School Safety Advisory Committee(Number)	1840	256	183	223	266	195	175	195	225	1718
2	Schools having School Disaster management Plan(Number)	1840	256	183	223	266	195	175	195	225	1718
3	Schools having conducted Safety Audits (Structural)(Number)	1840	256	183	223	266	195	175	195	225	1718
4	Safety Audits (Non-Structural)(Number)	1840	256	183	223	266	195	175	195	225	1718
5	Schools having conducted Annual Mock Drills(Number)	1840	51	51	53	51	51	51	51	51	410
6	Schools Having Fire Extinguisher(Number)	1840	248	219	176	259	190	215	190	167	1664
7	Schools Adhering to safety norms in storing inflammable & Toxic Material(Number)	1840	293	234	197	279	207	230	208	192	1840
8	Schools confirming safety standards as per local building bye-laws (Latest)(Number)	1840	59	60	59	59	59	59	59	62	476
9	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)										40
10	Schools where students & teachers undergo regular training on School Safety & Disaster Preparedness (Number)	1840	50	35	45	30	40	45	50	35	330
11	Schools where disaster management is being taught as part of the curriculum (Number)	801	67	126	114	106	97	103	86	102	801

6.7 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.]

Sl.No	Name of the programme	No.of schools ,Colleges and other educational institutions to be covered during the year	Time lime	Remarks
1	Training to teachers and school Cabinet members on Disaster management at Block point	400(50 schools x8 blocks)	August-September	
2	Different Competitions on disaster like painting Debate,Essay, at block level	800(100 studentsx 8 blocks)	October-November	
3	Awareness programme like street play, meetings, rally etc on causes of Man made and Natural disaster at GP level	212 GP	October-November	

Details of Child Care Institutions:

SI No	Block/ ULB	Name and Address of the Organization	Boys	Girls	Total No of Children	Name and Contact no. of the Shift-in-Charge	Fire Safety Equipment (Fire Extinguisher, Alarm)	Staff Training on Fire Safety Equipment	Nearby open space for evacuation	Alternative Shelter/s Identified
01	Sadar	Children's Home Maharshi Dayananda Service Mission, At-Gobindpur, infront of Kalyani GAS,Dist.Dhenkanal Secretary- Pradeep Ku Sahoo Ph- 9437528709, Mail ID-info@mdsmiddion.org	38	34	72	Sanjaya Kumar Behera Mob:- 9938026650	Available	Yes	Yes	Yes
02	Sadar	Biswa Kuntala Children's Home AT/Po-Mahulpada,PS-Sadar,Dist-Dhenkanal Secretary- Puspanjali Jena Ph- 9937462339 E-mail ID:- puspanjaliiswodkl@gmail.com	11	28	39	Anusuya Nayak 9337932602	Available	Yes	Yes	Yes
03	Sadar	Adruta Children's Home, At/Po- Ichhadeipur, Near Shamacharanpur Railway Station, Dhenkanal. Secretary- Suprity Mohanty Mob- 9438553647 Mail ID: ach.dhenkanal@gmail.com	17	00	17	Nilamani Mohapatra 7008510079	Available	Yes	Yes	Yes
04	Sadar	Open Shelter (MDSM) At- Kathagada, Dist. Dhenkanal Secretary- Pradeep Ku Sahoo	04	04	08	Jasmita Panda Mob:-	Available	Yes	Yes	Yes

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		Ph- 9437528709, Mail ID-info@mdsmiddion.org				9348825152				
05	Sadar	SEPECIALISED ADOPTION AGENCY (MDSM) At- Kathagada, Dist. Dhenkanal Secretary- Pradeep Ku Sahoo Ph- 9437528709, Mail ID-info@mdsmiddion.org	00	01	01	Sailabala Swain Mob:- 8144635607	Available	Yes	Yes	Yes

Chapter- 9

Chemical (Industrial), Nuclear and Radiological Disaster: -

A. 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.

Odisha is also an Industrial State and many Large, Medium and Small-Scale Industries are operating in the state. Many large industries are operating in the districts like Jagatsinghpur, Angul, Jhasrsuguda, Sambalpur and Rayagada and many medium and small industries are operating in other districts of the State. The District administration of the industrial district must be prepared to face any kind of Chemical (Industrial) disasters and always be prepared with the Off-site Emergency Plan of the District. The Off-site emergency plan needs to be updated on regular frequency.

Thus, it is highly essentials to take all the preparedness measures and minimize the risk of any Chemical (Industrial) disasters in the industrial districts of the State.

**M/s Tata Steel BSL Limited,
At- Narendrapur, P.O- Kusupanga, Dist- Dhenkanal**

9.1 Factories or Storage Unit Details of the District

Organisation Name	Type (Large/Medium/Small/Micro)	Manufacturing Process & Capacity	Address	Lat / Long	Site Operator Head Name	Site Operator Head Designation	Site Operator Head Email	Site Operator Head Mobile Number
Tata Steel BSL	Large	Steel Manufacturing	At –Narendrapur I Po – Kusupanga I Via – Meramandali I Dist – Dhenkanal I Pin – 759121 I Odisha		Mr Subodh Pandey	Chief Operation Officer	Subodh.pandey@tatasteelbsl.co.in	923 1065 350

9.2 Hazardous Chemical Storage Details

Hazardous Chemical Storage Points Details											
Organisation Name	Hazardous Chemicals/Substances Name	Hazardous Chemicals Type (Flammable/Reactive/Explosive/Toxic)	Hazardous Chemicals Quantity (Volume/Capacity/Max Qty can be Stored/Inventory)	Type of Storage (Underground/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)	Downwind Distance	Total Number of People in the Vulnerability Zone
TSBSL	BF Gas	All	10000 M3	On the Ground	Cylindrical	Vertical	All	YES	400 meter		
	CO Gas	All	50000 M3	On the Ground	Cylindrical		All	YES	2100 meter		
	LD Gas	All	10000 M3	On the Ground	Cylindrical	Vertical	All	YES	650 meter		
	Liquid Oxyg	Flammable	6020 Ton	On the Ground	Spherical	Vertical	Fire/Explosion	YES	70 meter		

	en										
	H2 Gas	Flammable	54 ton	On the Ground	Spherical	Horizontal	Fire/Explosion	YES	33 meter		
	Propane	Flammable	270 ton	On the Ground	Spherical	Vertical	Fire/Explosion	YES			
	HSD	Flammable	105 ton	On the Ground	Box type	Horizontal	Fire/Explosion	YES			
	HCL	Flammable	17 ton	On the Ground	Cylindrical	Vertical	Fire/Explosion	YES			
	NaOH	Flammable	15 ton	On the Ground	Cylindrical	Vertical	Fire/Explosion	YES			
	H2SO4	Flammable	440 ton	On the Ground	Cylindrical	Vertical	Fire/Explosion	YES			
	BTX	Flammable	1167 ton	On the Ground	Cylindrical	Vertical	Fire/Explosion	YES	56 meter		
	Tar	Flammable	4582 ton	On the Ground	Cylindrical	Vertical	Fire/Explosion	YES			

9.3 Critical Facilities/Infrastructure situated within close proximity of the Factories/Industries or Chemical Storage Points

Table-9.3

Factories/ Industries Name	Critical Facilities (with in Close Proximity) Name	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
Tatasteel BSL	Sarpa							

9.3 Statutory Compliance of the Factories/Industries

Table-9.4

Statutory Compliance			
Organisation Name	Status of licence under different Acts/Rules	Status of Safety & Health Policy	Safety Management System
TSBSL	Factories Act, 1948 & Orissa Factories Rules		Status of Stability Certificate wrt plant & buildings
	Consent under Air Act & Water Act from SPCB, Odisha		Constitution of Safety Committee and regular meetings
	NOC from Fire Department		Deployment of Safety & Welfare Officers
	Notification of Site (Rule 8 of Orissa Factories (C of MAH) Rules, 2001		Safety Report

			Safety Audit
			On Site Emergency Plan
			Risk Assessment Study
			Mock Drills
			Periodical Inspection
			Training & Awareness

Nearest Hospital Details of the Factories/Industrial Units

Table-9.5

Hospital Details										
Organi sation Name	Nearest Hospitals (Govt/Private) Name	Hosp ital Addr ess	Distr ict Nam e	City	Pi n Co de	Lat - lon g	Chief Medic al Office r / Hospit al Superi ntend ent Name	Chief Medic al Office r / Hospit al Superi ntend ent Mobil e Numb er	Chief Medical Officer / Hospital Superintenden t Email	Infrast ructura l Faciliti es
Tata Steel BSL Ltd	SAMAL CARE PRIVATE LIMITED	Bana rpal Angu l	Angu l	An gul	75 91 28	3. 9 K m	Chittar anjan Pattan aik	87890 55858	samalcare@yahoo .com	50 BED S
Tata Steel BSL Ltd	GOVT HOSPITAL DHENKANAL	Dhen kanal	Dhen kanal	Dhen kanal	75 90 13	43. 0 K M	Susha nt Panda	94371 45900	cdmodkl2012@ gmail.com	200 BEDS
Tata Steel BSL Ltd	SURENDRA HOSPITAL, ANGUL	Mish rapar a Angu l	Angu l	Angu l	75 91 22	18. 6 K M	Debi prasad	98611 74776	surendrahospita l@gmail.com	50 BEDS
Tata Steel BSL Ltd	ESIC HOSPITAL	Mera mand ali Dhen kanal	Dhen kanal	Dhen kanal	75 91 21	6.0 K M	Kisku	63714 35247		DISPE NSAR Y
Tata Steel BSL Ltd	ASHWINI HOSPITAL	CDA , Cutta ck	Cutta ck	Cutta ck	75 30 14	82. 8K M	Rikesh	70087 17227	headmkt.ashwi nihospital@gm ail.com	300 BEDS
Tata Steel BSL Ltd	CARE HOSPITAL	Bhub anes war	Bhub anes war	Bhub anes war	75 10 16	109 K M	Loknat h	70777 20400	saktiprasad.das @carefamily.in	200 BEDS
Tata Steel	APOLLO HOSPITAL	Bhub anes	Bhub anes	Bhub anes	75 10	116 K	Basant	80930 60046	info@apollohos pitals.com	300 BEDS

BSL Ltd		war	war	war	05	M				
Tata Steel BSL Ltd	KIIMS HOSPITAL	Bhubaneswar	Bhubaneswar	Bhubaneswar	751024	109KM	Indrajeet	9883338350	Indrajeet.banerjee@kims.ac.in	350 BEDS

9.4 Nearest Fire Station of the Factories/Industries

Table-9.6

Facilities Available											
Organisation Name	Area fire station name	Hospital address	District Name	City	Pin code	Lat - long	Fire Officer Name	Fire Officer Designation	Fire Officer Email-id	Fire Officer Mobile Number	
Tata Steel BSL Ltd	Hindol Road	Hindol Road	Dhenkanal	Dhenkanal	759022	35 KM	Sumant Kr.	Asst. Fire Officer		06732256029438753337	Fire Tender/Capacity
Tata Steel BSL Ltd	Budhapanka	Budhapanka	Dhenkanal	Dhenkanal	759121	8 KM	KarunakarSamal	Asst. Fire Officer		067642293008280881435	Foam Materials
Tata Steel BSL Ltd	GMR	Meramadalil	Dhenkanal	Dhenkanal	759121	5 KM	Dilip Kumar Sethy	Mgr. Fire & Security)		07894420955	Hoods

9.7 Stakeholders to be informed in case of an Industrial Accident

Table-9.7

Designation	Organisation/ Department name	Name	Mobile Number	Office Phone	Email
Nodal Officer, Controlling Officer, Supervising Officer	SRC	Dr. Kamal Lochan Mishra	8763354637	06742-534177/ 1070	srcodishagov@gmail.com
	OSDMA	Malay Ku.Pradhan	9439210915		osdma@osdma.org
	District Administration (Collector, Emergency Officer, ADM)	Sasank Sekhar Dash,ADM	7008255221	1077	dklemgy@gmail.com
	Home department				
	State pollution control board	Dr. Anup Mallick	943700672	06764236389	Rospcb.angul@ospboard.or

			7		g
	RTO	Basanta Kumar Majhi	9437 14957 9		rto_dhenkanal@yahoo.in
Asst. Director of Factories & Boilers, Dhenkanal Zone	Department of Factories and Boiler	Er. Sudhanshu Shekhar Sahoo	8249 40410 2	06762-286619	factblrs.dhenkanal@gmail.com
	CSO	Niroj Ranjan Das	9437 06843 2		cso-dhe@nic.in
	NDRF	Jacob Kispota	9437 96457 1		Ori03-ndrf@nic.in
	ODRAF	Sudhir Ku. Behera	9437 30840 4	06762226291	Comdt1stbn.odpol@nic.in
	NGO	Binay Kumar Sahoo	9078 96174 8		nammindia@gmail.com
	FIRE	Umakanta Naik	7008 94013 1		dklfirestation@gmail.com
	OIL INDUSTRIES (HPCL, BPCL, IOCL)	-	-	-	-

**M/s GMR Kamalanga Energy Ltd,
At/P.O- Kamalanga, Dist- Dhenkanal**

**Factories or Storage Unit Details of the District
Table-9.1**

Organisation Name	Type (Large / Medium / Small / Micro)	Manufacturing Process & Capacity	Address	Lat/ Long	Site Operator Head Name	Site Operator Head Designation	Site Operator Head Email	Site Operator Head Mobile Number
GMR Kamalanga Energy Limited	Large	Thermal Power Plant 3 x 350MW	At/Po – Kamalanga PS – Kantabania. Via - Meraman dali Dist – Dhenkanal Pin - 759121	Latitude: 20° 51' 11.82" N to 20° 52' 33.2" N Longitude: 85° 15' 24.84" E to 85° 16' 29.7" E	Mr. Ramesh R Pai,	Plant Head & COO Occupier	Ramesh.pai@gmrgroup.in	8455975114

9. 2 Hazardous Chemical Storage Details Table-9.2

Hazardous Chemical Storage Points Details											
Organisation Name	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)	MS DS (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
GM R Kamalanga Energy Limited	LDO	Flammable	Volumetric Capacity - 500KL Max Qty can be stored - 400KL	Above Ground	Cylindrical	Vertical	Fire Explosion	YES	7.5 Mtrs.	26 Mtrs.	00
	Hydrogen (H ₂)	Flammable Explosive	Volumetric Capacity – 400x40L =16000 L Max Qty can be stored - 300 x 40L = 12000L	Above Ground	Cylindrical	Vertical	Fire Explosion	YES	<10 Mtr	<10 Mtr	00
	Chlorine Gas	Toxic	Volumetric Capacity – 09tonner x 930Kg = 8370Kg Max Qty can be stored - 06tonner x 930Kg = 5580Kg	Above Ground	Cylindrical	Horizontal	Toxic release	YES	193 Mtrs.	1300 Mtrs.	02
	Diesel	Flammable	Volumetric Capacity – 04 DGs x 1000L = 4000Ltr Fire Diesel Pump – 2 x 500L = 1000L Max Qty can be stored - 3600L (04 DGs x 750L = 3000Ltr Fire Diesel Pump – 2 x 300L = 600L)	Above Ground	Box Type	Horizontal	Fire	YES	8 Mtrs.	23 Mtrs.	00
	Diesel	Flammable	Volumetric Capacity – 22KL	Under Ground	Cylindrical	Horizontal	Fire	YES	8 Mtrs	23 Mtr	02

		e	Max Qty can be stored - 18KL		al	al			.	s.	
	Sulphuric Acid H ₂ SO ₄	Reactive Toxic	Volumetric Capacity – 50 M ³ Max Qty can be stored - 40 M ³	Above Ground	Cylindrical	Horizontal	Toxic release	YES	10 Mtrs.	91 Mtrs.	00
	Hydrochloric Acid (HCl)	Reactive Toxic	Volumetric Capacity – 154 M ³ Max Qty can be stored - 124 M ³	Above Ground	Cylindrical	Horizontal	Toxic release	YES	10 Mtrs.	38 Mtrs.	00
	Caustic Lye (NaOH)	Reactive Toxic	Volumetric Capacity – 154 M ³ Max Qty can be stored - 124 M ³	Above Ground	Cylindrical	Horizontal	Toxic release	YES	10 Mtrs.	38 Mtrs.	00
	Transformer Oil	Flammable	Volumetric Capacity – 503.1 KL Max Qty can be stored - 503.1 KL	Above Ground Inside the Transformers	Box Type	Vertical	Fire	YES	05 Mtrs	17 Mtrs	00
	Coal		Volumetric Capacity – 350000 MT Max Qty can be stored - 300000MT	On the Ground	Open Air	--	Fire	YES	-	-	-

Critical Facilities/Infrastructure situated within close proximity of the Factories/Industries or Chemical Storage Points

Table-9.3

Factories / Industries Name	Critical Facilities (with in Close Proximity) Name	Facility Type (School, AWC Hospital s etc)	Location Address	Lat-Long	Facility in-charge Name	Facility in charge email	Facility in charge mobile number	Total Population in the Close Proximity
GMR kamalanga Energy Limited	GMR Township	1. Surendra Hospital 2. DAV School	At/Po – Kamalanga PS – Kantabania. Via - Meramandali Dist – Dhenkanal Pin - 759121	Lat: 20.531 Long: 85.160	Mr. Ravi Reddy	Ravi.Oruganti@gmrgroup.in	8494900909	850
	Village - Manpur		Pin - 759121	Lat: 20.850, Long: 85.274				4000

9.5 Statutory Compliance of the Factories/Industries

Table-9.4

Statutory Compliance			
Organisation Name	Status of licence under different Acts/Rules	Status of Safety & Health Policy	Safety Management System
GMR Kamalanga Energy Limited	Factories Act, 1948 & Orissa Factories Rules	Available	Status of Stability Certificate wrt plant & buildings - DONE
	Consent under Air Act & Water Act from SPCB, Odisha	Available	Constitution of Safety Committee and regular meetings - DONE
	NOC from Fire Department	Available	Deployment of Safety & Welfare Officers-DONE
	Notification of Site (Rule 8 of Orissa Factories (C of MAH) Rules, 2001	Not Applicable	Safety Report – NOT APPLICABLE
			Safety Audit – NOT APPLICABLE
			On Site Emergency Plan - AVAILABLE
			Risk Assessment Study - DONE
			Mock Drills – DONE (Twice a Year)
			Periodical Inspection - DONE
			Training & Awareness – DONE

9.6 Nearest Hospital Details of the Factories/Industrial Units

Table-9.5

Hospital Details										
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	Infrastructural Facilities
GMR kamalanga Energy Limited	Surendra Hospital (Private)	At/Po – Kamalanga PS – Kantabania	Dhenkanal	Kamalanga	759121	Lat : 20.863, Long: 85.275	Mr.Su-santa Nayak	7325829512	surendrahospital.dkl@gmail.com	AMB ULANCE
	Samal Care	NH –	An	Ba	7	Lat:		0676		AMB

	(Private)	55, Nuahata	Angul	Banarpal	59128	20.841, Long: 85.225		4-229666		ULANCE
	Banarpal Govt. Hospital	Banarpal	Angul	Banarpal	759128	Lat: 20.843, Long: 85.213		06764-229629	Banarpalbpml@gmail.com	
	Angul District Headquarter Hospital (DHH), Angul	Bikrapur, Angul	Angul	Angul	759122	Lat: 20.840, Long: 85.094		06764-232507	Hdtangul@gmail.com	AMBULANCE

9.7 Nearest Fire Station of the Factories/Industries

Table-9.6

Fire Stations Details											
Organisation Name	Area fire station name	Fire Station address	District Name	City	Pin code	Lat-long	Fire Officer Name	Fire Officer Designation	Fire Officer Email-id	Fire Officer Mobile Number	Facilities Available
GMR kamalanga Energy Limited	Fire Station Hindol Road, Dhenkanal	Hindol Road	Dhenkanal	Hindol	759019	Lat: 20.764 Long: 85.418				06732-256022 9937259677	Fire Tender
	District Fire Station, Dhenkanal	College Rd, Dhenkanal	Dhenkanal	Dhenkanal	759001	Lat: 20.653, Long: 85.596				06762-226501 9937419961	Fire Tender
	District Fire Station, Angul	NH55, PTC Chowk	Angul	Angul	759122	Lat: 20.841, Long: 85.106				06764-230 222	Fire Tender

9.7 Stakeholders to be informed in case of an Industrial Accident

Table-9.7

Designation	Organisation/ Department name	Name	Mobile Number	Office Phone	Email
Nodal Officer, Controlling Officer, Supervising Officer	SRC				
	OSDMA				
	District Administration (Collector, Emergency Officer,				

	ADM)				
	Home department				
	State pollution control board				
	RTO				
Asst. Director of Factories & Boilers, Dhenkanal Zone	Department of Factories and Boiler	Er. Sudhanshu Shekhar Sahoo		06762-286619	factblrs.dhenkanal@gmail.com
	CSO				
	NDRF				
	ODRAF				
	NGO				
	FIRE				
	OIL INDUSTRIES (HPCL, BPCL, IOCL)				

**M/s Nava Bharat Ventures Ltd,
At/P.O- Khadagprasad, Dist- Dhenkanal**

9.1

Organisation Name	Type (Large/Medium/Small/Micro)	Manufacturing Process & Capacity	Addresses	Lat/Long	Site Operator Head Name	Site Operator Head Designation	Site Operator Head Email
Nava Bharat Ventures Limited	Large	Ferro Alloys(High Carbon Ferro Chrome) & Generating thermal Power Ferro Alloys-195 MT / 65000 MT(Quantity per Day / Annum) Power-150MW	At-Kharagprasad, Near Meraman dali Rly. Station, Dist.- Dhenkanal-759121(Odisha)		Mr. Yashobanta Pattanaik	VP-Odisha Work	ypattanaik@nbv.in

9.2 Hazardous Chemical Storage Details

Sl. No.	Name of the Chemicals	Number of Containers	Capacity	Maximum Storage Quantity	One Time Storage Quantity	Container Size	Storage Type
1	Chlorine (Cl ₂)	2 Tonners (1 operational & 1 standby)	0.90 MT each	0.90 MT each	0.90 MT each	Dia. - 0.76 Mtr Length - 2.083 Mtr	Under The Shed Cylindrical, Inside Hood
2	LPG	80 Cylinders	3.8 Tons (47.5 KG X 80 Cylinders)	3.8 MT	4.0 MT	Dia. - 375MM Length - 1060MM	Under the shed & manifold connected as per IS 6044 Part I
3	HSD	1 Tank	20 KL	19 KL	18 KL	Int. Dia - 208.8 cm, P1 - 36.25 cm, P2 - 34.5 cm, Length - 623.4 cm	Under Ground Cylindrical, Open Yard
4	Liquefied Oxygen	1 Tank	13 KL	12641 Ltrs	10506 Ltrs	Width - 2116 mm Length - 7121 mm	Above the Ground, Cylindrical, Open Yard (With barricading as per Explosive Authority Guidelines)
5	Sulphuric Acid (H ₂ SO ₄) - Unit 1&2	1 Tank	16 Cub Mtr. in Water Volume	15 Cub Mtr. in Water Volume	15 Cub Mtr. in Water Volume	2.5 Mtr. Dia. 3.3 Mtr. Length	Above Ground Cylindrical, Open

				e			Yard
	Sulphuric Acid (H ₂ SO ₄) - Unit 3	1 Tank	23 Cub Mtr. in Water Volume	22 Cub Mtr. in Water Volume	22 Cub Mtr. in Water Volume	2.7 Mtr. Dia.	Above Ground
6	Hydrochloric Acid (HCl)	2 Tanks	16 Cub Mtr. in Water Volume each	15 Cub Mtr. in Water Volume each	15 Cub Mtr. in Water Volume each	2.5 Mtr. Dia. 3.3 Mtr. Length	Above Ground Cylindrical, Open Yard
7	Sodium Hydroxide (NaOH)	2 Tanks	16 Cub Mtr. in Water Volume each	15 Cub Mtr. in Water Volume each	15 Cub Mtr. in Water Volume each	2.5 Mtr. Dia. 3.3 Mtr. Length	Above Ground Cylindrical, Open Yard
8	Ammonia	3 Tanks	150 KGS (50 kg X 3)	150KGS	100KGS	Dia. – 368MM Length – 1150MM	Under the shed (For dosing in ESP to control PM emission)
9	LDO	3 Tanks	5 KL, 10 KL, 11 KL	26 KL	26 KL	Dia.: 1.5 Mtr, 1.5 Mtr, 1.78 Mtr. Length : 2900 mm, 5700 mm, 4120 mm	Above Ground Cylindrical, Open

Statutory Compliance of the Factories/Industries

Table-9.4

Organisation Name	Status of licence under different Acts/Rules	Compliance Status
Nava Bharat Vent	Factories Act, 1948 & Orissa Factories Rules 1950	DL-69(Valid up to 31.12.2021)

ures Limi ted	Consent under Air Act & Water Act from SPCB, Odisha	Valid Up to 31.03.2022 (Power Plant) Valid Up to 31.03.2023 (Ferro Alloys Plant)
	NOC from Fire Department	As per Odisha Fire Prevention & Fire Safety Rules- 2017 , we had applied in the year, 2018 & 2020 to obtain Fire Safety Certificates for 21 Nos. of buildings and structures constructed at our factory premises.
	Notification of Site (Rule 8 of Orissa Factories (C of MAH) Rules, 2001	We are under 2cb
	Status of Stability Certificate wrt plant & buildings	All plant and buildings Stability certificates submitted to DFB,Odisha before operation of unit.
	Status of Safety & Health Policy	Already drawn, reviewed and submitted to DFB,Odisha on 30.12.2019.
	Constitution of Safety Committee and regular meetings	Constituted and submitted to DFB,Odisha on 30.12.2019
	Deployment of Safety & Welfare Officers	Deployed as per Odisha Factories Rules.1950
	Safety Report	As and when required by Authority.
	Safety Audit	Internal Safety Audit carried out
	On Site Emergency Plan	Already drawn, reviewed and approved by DFB,Odisha on 13.03.2020.
	Risk Assessment Study	Risk assessment study have been conducting in all critical activities of Process.
	Mock Drills	Conducted twice in a Yeart, One mock drill have been witnessed by DCG Members .
	Periodical Inspection	Complied.
	Training & Awareness	Conducting as per Annual Training Plan

**M/s Sakthi Sugars Ltd,
At- Haripur, P.O- Korian, Dist- Dhenkanal**

9 Factories or Storage Unit details of the District.

**Table -
9.1**

Organisati on Name	Type (Larg e/ Medi um/ Small / Micr o)	Manufactur ing Process & capacity		Address	Lat/L ong	Site Operat or Head Name	Site Operat or Head Design	Site Operator Head email	Site Operat or Head Mobile No.
Sakthi Sugars Ltd.	Medi um	White Crystal Sugar	250 MT/da y	At- Haripur,		Mr.S.V elraj	Sr.Ma nager (Distill ery)	dkl@sakthis ugars.com	993709 1077
		Industrial Alcohol	30 KL/Da y	Po-Korian,					
		TVP Soya Chunks	20 MT/da y	Dhenkanal -759013					

9 Hazardous Chemical Storage Details :

**Table
- 9.2**

Organi sation Name	Hazar dous Chem ical Name	Hazardo us Chemica l Type (Flamabl e/ Reactive/ Explosiv e/Toxic)	Hazar dous Chemi cal Qty (Vol Cap/ Max qty can be stored/ invent ory)	Type of Storage (under ground/su bmerged/ on the ground/ above ground)	Type of Contai ner (spher ical/ box type/ cylind rical)	Type of Align ment (Horiz ontal/ verttic al)	Hazar d antici pated (fire/ explos ion/ toxic chemi cals)	MSD S of the Che mical	Vulne rable zone in case of emerg ency	Dow n wind dista nce	Total No of peope in the vulne rable zone
Sakthi Sugars Ltd.	Indust rial Alcoh ol	Flamable	27.28 Lakhs Ltr	On the Ground	Cylin drical	Vertic al	Fire	YES	500 Mtrs		Nil

9 Critical Facilities/Infrastructures situated within close proximity of the Factories/Industries or Chemical storage points.

Table - 9.3

Industries Name	Critical facilities name	Facility type (school, AWC Hospital etc.)	Location address	Lat-Long	Facility Incharge Name	Facility Incharge email	Facility in charge mobile Number	Total Population in the close proximity
Sakthi Sugars Ltd.	-	-	-	-	-	-	-	-

9 Nearest Hospital Details of the Factories/Industrial Units.

Table - 9.5

Hospital Details										
Organisation Name	Nearest Hospital	Hospital Address	District Name	City	Pin Code	Lat - Long	CMO/Hospital Supdt. Name	CMO/Hospital Supdt. Mobile No	Email	Infrastructural facilities
Sakthi Sugars Ltd.	District Head Quarter Hospital	District H.Q Hospital, At/Po-Dhenkanal	Dhenkanal	Dhenkanal-759001	759001					

10 Nearest Fire Station of the Factories/Industries.

Table - 9.6

Fire Station Details											
Organisation Name	Area fire station name	Fire Station address	District name	City	Pin code	Lat - Long	Fire Officer Name	Fire Officer designation	Fire officer email	Fire Officer mobile No	Facilities Available
Sakthi Sugars Ltd.	Dhenkanal	At/Po-Dhenkanal	Dhenkanal	Dhenkanal-759001	759001						

**M/s UAL Odisha,
At/P.O- Korian, Dist- Dhenkanal**

**9.1 Factories or Storage Details
of the District**

Table-9.1

Organisati on Name	Type(Large/Mediu m/Small/Micro)	Manufac turing Process and Capacity	Addr ess	Lat/ Lon g	Site Operator Head Name	Site Operato r Head Designa tion	Site Operator Head Email	Site head Opera tor Mobil e No.
UAL- ODISHA (Prop:UAL Industries Ltd)	Medium	Manufac turer of Fibre Cement Corrugate d Sheets aand Accessori es (1,50,000 M.T Per Annum)	At/Po :Kori an		Khirod Kumar Behera	Works Manager	khirod@ualind.com	94375 76669

**9.2 Hazardous Chemical
Storage Details**

**Table-
9.2**

Organis ation Name	Hazardo us Chemica ls/Substa nces Name	Hazar dous Chemical Type(Flama ble / Reacti ve /Explo sive	Hazar dous Chemical Quanti ty (Volu metric Capaci ty/Ma x Qty can be Stored /Inven tory	Type of Stora ge(under groun d /Subm erged/ On the Groun d /Abov e Groun d)	Type of Container (Sperical/Bo xtype/Cylin drical)	Type of aling ment (Hori zont al/ Verti cal)	Haza rd anti cipated (Fire/ Explo sion / Toxic releas e)	MS DS(mat erial Safe ty Dat a She et) of the Che mic als (Y E S/ N O)	Vol nera ble Zon e in case of Eme rgen cy (Ra dius in KM/ Met er)	Do wn wi nd Dis tan ce	Total Num ber of peop le in the vuln erabi lity Zone .
UAL- ODISH A (Prop:U AL Industri	1) LDO 2) HSD 3) Commer cial HCL Acid	Flamab leFlam able Reactiv e	20 KL 20 KL 1.5 KL	Above groun d Under groun d	Cylindrical Cylindrical 40 ltrs plastic Jeriken	Hori zonta l Hori zonta l	Fire Fire Relea se of acid fume	Yes Yes Yes	15 mtrs		

es Ltd)				On the ground		Vertical				
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9.3 Critical facilities /Infrastructure situated within close proximity of the Factories /Industries or Chemical Storage Points.

Table-9.3
Table 9.3

Organisation Name	Critical Facilities (with in Close Proximity) Name.	Facility Type (school, AWC Hospitals etc)	Location Address	Lat-Long	Facility in-charge Name	Facility incharge email.	Facility incharge mobile number	Total Population in the Close Proximity
UAL-ODISHA (Prop:UAL Industries Ltd)	Nil							

9.4 Statutory Compliance of the factories /Industries

Table 9.4

Organisation Name	Statutory Compliance		
	Status of Licence under different Acts/Rules	Status of safety & Health Policy	Safety management System
UAL-ODISHA (Prop:UAL Industries Ltd)	Factories Act,1948 & Orissa factories Rules		Status of Stability Certifaatewrt plant & buildings
	Consent under Air act & Water Act from SPCB,Odisha		Constitution of safety Committee and regular meeting
	NOC fro Fire Department		Deployment of Safety & Welfare Officers
	Notification of Site(Rule 8 of Orissa Factories (C of MAH) Rules-2001		Safety Report , Mock Drill, Training and Awareness Prog
			Safety Audit
			Onsite Emergency Plan
		Risk Assessment Study	

Table-9.5

Organisation Name	Nearest Hospitals (Govt/Private) Name	District Name	City	Pin Code	Lat-Lon g	Chief Medical Officer/Hospital Superintendent Name	Chief Medical officer/ Hospital Superintendent Mobile Number	Chief Medical Officer/Hospital Superintendent Email.	Infr astru ctu ral facili ties
UAL-ODISH A (Prop:U AL Industri es Ltd)	Dhenkanal Govt. Medical ESI Dispens ary Ratan Bazar Jagganath Hospital	Dhenkanal	Dhenkanal	759013		Sushant Panda BarshaPri yadarshini Bijaya Kumar Sahoo	9437145900 9438470995 9938305723	cdmodk12012@gmail.com esidispdhenkanal@gmail.com shreejagannath_hospital@yahoo.com.in	200 BEDS DISPE NSAR Y 30 BEDS

Table-9.6

Organisation Name	Area fire station name	City	Pin Code	Lat - Lon g	Fire Officer Name	Fire Office r Desig nation	Fire Officer Email-id	Facilit ies Availa ble
UAL-ODISH A (Prop:U AL Industri es Ltd)	Dhenkanal Town Fire Station	Dhenkanal	759001	4.5 K M	Umakanta Naik	Asst. fire Office r	dklfirestation@gmail.com	Fire Tender / Capaci ty Foam Materi als Hoods

9.7 Stakeholders to be informed in case of an Industrial Accident

Table-9.7

Designation	Organisation / Department name	Name	Mobile Number	Office Phone	Email
Nodal Officer, Controlling Officer, Supervising Officer	SRC		DhenkanalDhenkanalDhenkanal	DhenkanalDhenkanalDhenkanal	
	OSDMA				
	District administration (Collector, Emergency Officer, ADM)				
	Home Department				
	State Pollution Control Board				
	RTO				
Asst. Director of Factories & Boilers, Dhenkanal Zone	Department of Factories and Boiler	Er. Sudhanshu Shekhar Sahoo		06762-286619	factblrs.dhenkanal@gmail.com
	CSO				
	NDRF				
	ODRAF				
	NGO				
	FIRE				
	OIL Industries (HPCL, PCL.IOCL)				

B. Nuclear & Radiological Disaster:

India has traditionally been vulnerable to natural disasters on account of its unique geoclimatic conditions and it has, of late, like all other countries in the world, become equally vulnerable to various man-made disasters. Nuclear and Radiological Emergencies as one such facet of man-made disasters is of relevance and concern to us. Any radiation incident resulting in or having a potential to result in exposure and/or contamination of the workers or the public in excess of the respective permissible limits can lead to a Nuclear/Radiological Emergency

For improving the quality of life in society, India has embarked upon a large programme of using nuclear energy for generation of electricity. As on date, India has 17 power reactors and five research reactors in operation along with six power reactors under construction. It is also planned to explore setting up Thorium based reactors to meet its ever-increasing energy needs.

Further, the country utilises radioisotopes in a variety of applications in the non-power sector, viz., in the field of industry, agriculture, medicine, research, etc. Due to the inherent safety culture, the best safety practices and standards followed in these applications and effective regulation by the Atomic Energy Regulatory Board, the radiation dose to which the persons working in nuclear/radiation facilities are exposed to, is well within the permissible limits and the risk of its impact on the public domain is very low.

However, nuclear emergencies can still arise due to factors beyond the control of the operating agencies; e.g., human error, system failure, sabotage, earthquake, cyclone, flood, etc. Such failures, even though of very low probability, may lead to an on-site or off-site emergency. To combat this, proper emergency preparedness plans must be in place so that there is minimum avoidable loss of life, livelihood, property and impact on the environment.

Although, the State of Odisha does not have any major Nuclear/Radiological set up or power plants, still the Districts need to be prepared in case of any Emergencies especially Medical Preparedness and Capacity Building of the Response Forces. Mock Exercises on Nuclear and Radiological Disasters or Emergencies at regular intervals is also highly essential. Districts are required to keep and updated the following information given in the table ever year for minimizing the risk of Nuclear/Radiological Disaster.

Chapter-10

Biological Disaster and Public Health in Emergencies: -

10.1 Biological Disaster Management & Medical Preparedness

Biological disasters, be they natural or man-made, can be prevented or mitigated by proper planning and preparedness. The primary responsibility of managing biological disasters vests with the state government. The central government would support the state in terms of guidance, technical expertise, and with human and material logistic support to develop the policies, plans and guidelines for managing biological disasters in accordance with the national guidelines and those laid down by SDMAs.

The H&FW would be the nodal Department for managing biological disasters in the State. Further, Home department will be the nodal for Bio-terrorism, Bio War, F&ARD Department will be the nodal department for animal health and Agriculture & Farmers Empowerment Department will be the nodal department for agro-terrorism. Besides, the community, medical care, public health and veterinary professionals, etc., must also remain in complete preparedness for such eventualities.

Table 10.1 Nodal Departments for Managing Biological Disaster

Sl No.	Bio Disaster	Nodal Department	Contact person	Contact details (Office/Mobile)
1	Biological	H&FW	CDM&PHO(Dhenkanal)	9439981081

	Disaster	Department		
2	Bio Terrorism/ War	Home Department	SP	06762- 225777
3	Animal Health Disaster	F&ARD Department	CDVO (District)	9439779848
4	Agro - Terrorism	A&FE Department	CDAO	7008784258

10.2 Legal Framework

Stringent Legal frameworks must be drawn & enforced in order to:

- Prevention, mitigation and control of the spread of biological disaster at all level.
- Managing the prevailing and foreseeable public health concerns, threat of biological weapons by adversaries and cross-border issues.
- Notify the affected area, restrict movements or quarantine the affected area, enter any premises to take samples of suspected materials and seal them.
- Establish controls over biological sample transfer, biosecurity and biosafety of materials/laboratories.

10.3 Institutional & Operational Framework

SDMA will coordinate all the disasters including those of biological origin in the state. A multi-sectoral approach must be adopted involving H&FW, Home Department, PR&DW, SSEPD, F&ARD and A&FE.

- The intelligence and deterrence required & the management structure must be identified and strengthened so as to act as one crisis management structure, committees, task forces and technical expert groups preferably within the Nodal department

Table 10.2- Crisis Management Committee

SL	Member	Dept./Instt.	Contact Details
	CDM&PHO, Dhenkanal	H&FW	9439981081
	DPHO, Dhenkanal	H&FW	9439980500
	DPM, NHM	H&FW	9439980663

Table 10.3 Task Force

SL	Member	Dept./Instt.	Contact Details
	DPHO	H&FW	9439980500
	DMO cum MS ,DHH	H&FW	9439981040
	DPM,NHM	H&FW	9439980663

	Hospital Manager, DHH	H&FW	9439981100
	DVLM,NHM	H&FW	9778379190

Table 10.4 Technical Experts

SL	Member	Dept./Instt.	Contact Details
	DPHO	H&FW	9439980500
	ADPHO(DC)	H&FW	8249124695
	Epidemiologist	H&FW	8908157050
	Microbiologist	H&FW	7978652534
	VBD Consultant	H&FW	9439989943

- A public health institution of eminence, matching international standards needs to be created, with following measures:
 - All existing public health institutions providing technical expertise in the area of field epidemiology, surveillance, teaching, training, research, etc., need to be strengthened. The core capacity needs to be developed for surveillance, border control at ports and airports, quarantine facilities, etc.
 - Each District will strengthen its public health infrastructure, including public health institutions which would collect epidemiological intelligence, share information with IDSP, provide for outbreak investigations and manage outbreaks.
 - Hospitals will develop capabilities to attend to mass casualties and public health emergencies with isolation facilities. In the districts, DDMA's will provide the requisite management structure for district DM, factoring in the requirements for managing biological disasters.
- The strategic approach for management of biological disasters must be done with responsible participation of the government, private sector, NGOs and civil society.

10.5 Nodal Public Health Institution

Name of the Institution, Address & Contact details of the contact (Nodal) Person	No. of trained Doctors (Biological Disaster)	No. of trained Paramedical staffs (Biological Disaster)	Facilities available	Equipment's available
DHH Dhenkanal, Dakhinakali Road, DMO(MS)	27	29	Radiological and Haematological Investigation	CBC Ventilator(Not Installed but will be installed soon,)

10.6 Collaborative Institutions

Name of the NGO/CSO/Private Sector	Expertise	Contact Person	Contact Details (Number & Email ID)	Address

10.4 Preventive Measures

Prevention and preparedness shall focus on the assessment of bio-threats, medical and public health consequences, medical countermeasures and long-term strategies for mitigation. The important components of prevention and preparedness would include

- An epidemiological intelligence gathering mechanism to deter a BW/ BT attack;
- A robust surveillance system that can detect early warning signs, decipher the epidemiological clues to determine whether it is an intentional attack;
- Capacity building for surveillance, laboratories, and hospital systems that can support outbreak detection, investigation and management.
- Developing a biological disaster response plan
- Pre-exposure immunisation (preventive, if available any) of first responders against anthrax and smallpox must be done to enable them to help victims' post-exposure.

10.4.1 Pre-Disaster Preventive Measures

- Important buildings and those housing vital installations need to be protected against biological agents wherever deemed necessary through security surveillance.
- Restricting the entry to authorised personnel only by proper screening,
- Installation of High Efficiency Particulate Air (HEPA) filters in the ventilation systems to prevent infectious microbes from entering the circulating air inside critical buildings.
- Those exposed to biological agents may not come to know of it till symptoms manifest because of the varied incubation period of these agents. A high index of suspicion and awareness among the community and health professionals will help in the early detection of diseases.
- Environmental monitoring can help substantially in preventing these outbreaks.
 - Water Supply: A regular survey of all water resources, especially drinking water systems, & proper maintenance of water supply and sewage pipeline will go a long way in the prevention of biological disasters and epidemics of waterborne origin.
 - Personal hygiene: Necessary awareness must be created in the community about the importance of personal hygiene, and measures to achieve this, including provision of washing, cleaning and bathing facilities, and avoiding overcrowding in sleeping quarters, etc. Other activities include making temporary latrines, developing solid waste collection and disposal facilities, and health education.
 - Environmental engineering work and generic integrated vector control measures including.
- Elimination of breeding places by water management, draining of stagnant pools and not allowing water to collect by overturning receptacles, etc.
- Biological vector control measures e.g. Gambusia fish, as an important measure in vector control.
- Outdoor fogging and control of vectors by regular spraying of insecticides.

Table 10.7 Important/Critical Infrastructure

Sl	Infrastructure/ Institution Type	Dept./Instit.	Contact person with contact Details
1	DHH Dhenkanal	Health & FW	ADPHO(VBD) 9438397531 VBD Consultant 9439989943

10.4.2 Post-Disaster Preventive Measures

- When exposure is suspected, the affected persons shall be quarantined and put under observation for any atypical or typical signs and symptoms appearing during the period of observation.
- Health professionals who are associated with such investigations will have adequate protection and adopt recognised universal precautions.
- It often may not be possible to evolve an EWS. However, sensitisation and awareness will ensure early detection.
- Dead bodies resulting from biological disasters increase risk of infection if not disposed off properly. Burial of a large number of dead bodies may cause water contamination. With due consideration to the social, ethnic and religious issues involved, utmost care will be exercised in the disposal of dead bodies.

10.6 Preparedness and Capacity Development

An important aspect of medical preparedness in Biological Disaster Management includes the integration of both government and private sectors. The important components of preparedness include planning, capacity building, well-rehearsed hospital DM plans, training of doctors and paramedics, and upgradation of medical infrastructure at various levels to reduce morbidity and mortality. A biological disaster response plan is to be evolved on the basis of the national guidelines with due participation of health officials, doctors, various private and government hospitals, and the public at the national, state and district levels. The government health departments also need to be equipped with state-of-the-art tools for rapid epidemiological investigation and control of any act of biological threat. The important components of preparedness are.

10.6.1 Establishment of Command, Control and Coordination Functions

The incident command system needs to be encouraged and instituted so that the overall action is brought under the ambit of an incident commander who will be supported by logistics, finance, and technical teams etc. EOCs will be established in all the state health departments with an identified nodal person as Director (Emergency Medical Relief) for coordinating a well-orchestrated response.

- Human Resource Development: The DHO, in consultation with the state epidemiological cell, will develop a simple & informative format for daily data collection, depending upon quantum of information available at each level.
- Control rooms will be nominated/ established at different levels in order to get all the relevant information and transmit it to the concerned official. The addresses and telephone numbers of the district collector, DHO, hospitals, specialists from various medical disciplines like paediatrics, anaesthesia, microbiology etc., and a list of all stakeholders from the private sector will be available in the control room.

- Manning the health Facilities: The shortfall of public health specialists, epidemiologists, clinical microbiologists and virologists will be fulfilled over a stipulated period of time. Teaching/training institutions for these purposes will be established.

10.7 Training & Education

- Necessary training /refresher training must be provided to medical officers, nurses, emergency medical technicians, paramedics, drivers of ambulances, and QRMTs/ MFRs to handle disasters due to natural epidemics/ Bio disaster.
- Structured education and web-based training must be given for greater awareness and networking of knowledge so that they are able to detect early warning signs and report the same to the authorities, treat unusual illnesses, and undertake public health measures in time to contain an epidemic in its early stage.
- Refresher training will be conducted for all stakeholders at regular intervals. An adequate number of specialists will be made available at various levels for the management of cases resulting from an outbreak of any epidemic or due to a biological disaster.
- Standardised training modules for different medical responders /community members for capacity building in the area of disaster management developed by state government or national government should be followed to create adequate training facilities for the same.
- Selected hospitals will develop training modules and standard clinical protocols for specialised care, and will execute these programmes for other hospitals. Table-top exercises using different simulations will be used for training at different levels followed by full-scale mock drills twice a year.
- A district-wise resource list of all the laboratories and handlers who are working on various types of pathogenic organisms and toxins will be prepared.
- BDM related topics will be covered in the various continuing medical education programmes and workshops of educational institutions in the form of symposia, exhibition/demonstrations, medical preparedness weeks, etc.
- Biological disaster related education shall be given in various vernacular languages. Simple exercise models for creating awareness will also be formulated at the district level.
- Biological disaster plans will be rehearsed as a part of training every six months.
- Knowledge of infectious diseases, epidemics and BT activities will be incorporated in the school syllabi and also at the undergraduate level in medical and veterinary colleges.

10.8 Community Preparedness

Community members including public and private health practitioners are usually the first responders, though they are not so effective due to their limited knowledge of BDM. These people will be sensitised regarding the threat and impact of potential biological disasters through public awareness and media campaigns. The areas which need to be emphasised are:

- **Risk communication to the community**
 - Community education/awareness about various disasters and development of Dos and Don'ts.
 - The public will be made aware of the basic need for safe food, water and sanitation. They will also be educated about the importance of washing hands, and basic hygiene and cleanliness. The community will also be given basic information about the approach that health care providers will adopt during biological disasters.

- Toll-free numbers and a reward system for providing vital information about any oncoming Biological disaster by an early responder or the public will be helpful.
- Definition of predisposing existing factors, endemicity of diseases, various morbidity and mortality
- indices. The availability of such data will help in planning and executing response plans.
- **Community participation**
 - Providing support to public health services, preventive measures such as chlorination of water for controlling the possibility of epidemics, sanitation of the area, disposal of the dead, and simple non-pharmacological interventions will be mediated through various resident welfare associations, ASHA /ANM, village sanitation committees, and PRIs.
 - Community level social workers who can help in rebuilding efforts, create counselling groups, define more vulnerable groups, take care of cultural and religious sensitivities, and also act as informers to local medical authorities during a biological disaster phase, will be created after proper training and education.
 - NGOs and Voluntary Organisations (VOs) will be involved in educating and sensitising the community.
 - Supporting activities like street shows, dramas, posters, distribution of reading material, school exhibitions, electronic media, and publicity, etc., will be undertaken.

A legally mandated quarantine in a geographic area, isolation in hospitals, home quarantine of contacts, and isolation management of less severe cases at homes would only be possible with active community participation.

10.9 Medical Preparedness

Medical preparedness will be based on the assessment of bio-threat and the capabilities to handle, detect and characterise the microorganism. Specific preparedness will include pre-immunisation of hospital staff and first responders who may come in contact with those exposed to anthrax, smallpox or other agents. It further relates to activities for management of diseases caused by biological agents, EMR, quick evacuation of casualties, well-rehearsed hospital DM plans, training of doctors and paramedics and upgradation of medical infrastructure at various levels which will reduce morbidity and mortality. Medical preparedness will also entail specialised facilities including chains of laboratories supported by skilled human resource for collection and dispatch of samples. The major aspects of medical preparedness are e.g. Hospital DM Plan

Hospital planning will include both internal hospital planning, and for hospitals being part of the regional plan for managing casualties due to biological disasters. The major features will include the following:

- Hospital disaster planning will consider the possibility & needs to evacuate or quarantine or divert patients to other facilities.
- The plan will be 'all hazard', simple to read and understand, easily adaptable with normal medical practices and flexible enough to tackle different levels and types of disasters.
- The plan will include capacity development, development of infrastructure over a period of time and be able to identify resources for expansion of beds during a crisis.
- The plan will be based on the need assessment analysis of mass casualty incidents. There will be a triage area and emergency treatment facilities for at least 50 patients and critical care management facilities for at least 10 patients.

- The quality of medical treatment of serious/ critical patients will not be compromised. The development plan will aim at the survival and recuperation of as many patients as possible.
- Hospitals will plan to recruit a sufficient number of personnel, including doctors and paramedical staff, to meet the patients' needs for emergency care.
- It is essential that all hospital DM plans have the command structure clearly defined, which can be extrapolated to a disaster scenario, with clear-cut job definitions when an alert is sounded. Emergency services provided must be integrated with other departments of the hospital.
- The hospitals will submit data on their capabilities to the district authorities and on the basis of the data analysis, the surge capacities will be decided by the district administration.
- There is no universal hospital DM plan which can be implemented by all hospitals in all situations. Therefore, on the basis of their specific considerations, each hospital will develop a disaster plan specific to itself. The plan shall be available with the district administration and tested twice a year by mock drills.
- The hospital DM plan will cater to the increased requirement of beds, ambulances, medical officers, paramedics and mobile medical teams during a disaster. The additional requirement of disease related medical equipment, disaster-related stockpiling and inventory of emergency medicines will also be factored into the hospital DM plan. The DM plan must be strengthened by associating the private medical sector.
- Networking between public and private hospitals must be done and hospital DM plans need to be updated at the district/state level through frequent mock drills.
- The registration and accreditation policy must make it mandatory to have a hospital DM plan.
- The existing infectious diseases hospitals will be remodelled to manage diseases with microorganisms that require a high degree of biosafety, security and infection control practices. There will be one such hospital in each state capital. In addition, the district hospitals and medical colleges will have isolation wards to manage such patients. Also, identified hospitals in vulnerable states will be strengthened for managing CBRN disaster victims by putting in place decontamination systems, critical care Intensive Care Units (ICUs) and isolation wards with pressure control and lamellar flow systems. The infectious control practices will include the following:
 - When dealing with biological emergencies, the health workers associated with the investigation of such exposures will have adequate personal protection.
 - Depending upon the risk, the level of protection will be scaled up from use of surgical masks and gloves, to impermeable gowns, N-95 masks or powered air-purifying respirators. They will follow laid down SOPs for use of PPE.
 - Infection control practices will be followed at all health care facilities, including laboratories.
 - Of the potential biological disaster agents, only plague, smallpox and VHFs are spread readily from person to person by aerosols and require more than standard infection control precautions (gowns, masks with eye shields, and gloves).
 - The suspected victims and those who have been in contact with them will be advised to follow simple public health measures such as using masks/ handkerchief tied over the nose and mouth, frequent washing of hands, staying away from other people by at least a metre, etc.
- To handle biological disasters, a hospital DM plan will have the following facilities:

- Medical and paramedical staff: It is important to train medical staff and paramedics properly in universal safety precautions, use of PPE, communication, triage, barrier nursing, and collection and dispatch of biological samples. A team of specialists must be made available to handle infectious diseases affecting various body systems and they will be suitably immunised against agents such as anthrax and smallpox.
- Expansion of casualty area: If the hospital casualty ward is unable to accommodate a large number of casualties, provision will be made to use the patients' waiting hall, duly reoriented, to receive the casualties. Each major hospital will cater to at least 50 additional patients at times of disaster.
- Isolation wards: Adequate number of isolation wards are required to be planned with surge capacity to accommodate a large number of patients of infective disease. If required, side rooms, seminar rooms, other halls can be improvised for this purpose.
- Security arrangements: Hospital security staff will prepare SOPs to prevent overcrowding of hospitals by visitors, relatives, VIPs, and the media at the time of a disaster. Help of the district administration will be sought, if required.
- Identification of patients: The process will start at the time of giving first aid and triage. A system of labelling and identifying patients during spot registration by giving a serial number to the patient and putting an identification tag around the wrist can be done. In mass casualties, it can be supplemented by giving colour coded tags, such as red for serious patients, yellow for moderately serious patients, blue for those in need of observation and black for the dead.
- Brought dead: All those brought in dead and patients who die while receiving resuscitation will be segregated and shifted to the mortuary through a separate route. Temporary mortuary facilities will be created to cater for a mass casualty incidence.
- Diagnostic services: All laboratories and radio diagnostic services will be kept fully operational and utilised as and when required. These services will be available within the emergency treatment areas.
- Communication: Both intra & inter communication facilities will be made available. These can be further augmented by the use of mobile phones.
- Medical supplies: Adequate supply of essential drugs and non-drug items will be made available for at least 50 patients in the emergency complex itself for immediate use. Additionally, hospital medical stores will have adequate buffer stocks.
- Blood bank services: The services will cater for an adequate supply of safe blood and its components. Voluntary blood donations will be encouraged to fulfil the increased demand of blood.
- Other logistic support: Adequate, uninterrupted supply of water and electricity will be ensured for proper management of casualties. The laying down of public health standards for hospitals and strengthening of CHCs across the nation for basic specialities on 24x7 basis under NRHM by GoI are steps in the right direction to strengthen medical care facilities in rural areas. NRHM initiatives will be expedited to reach every nook and corner of the country.

Table 10.9

Sl	Facility	Unit	Existing Capacity	Extensi on Capacit y	Remarks
1	Medical Staff	@3 per 50 patients for 24X7 shifts.	98	-	Can be extended as per the requirement and availability of HR.
2	Paramedical Staff	(Pharmacist=3, SN@3 per 10 patients, Radiographer=1, LT=1)	8	-	
3	Specialists	O&G, Medicine, ENT, Psychiatry, Ortho., Chest & TB, Surgery, Pathology, Paediatrics, Anaesthesia, Nephrology, Community Medicine	O&G=15,Medicine=3,ENT=2,Psychiatry=1, Ortho.=2, Chest & TB=2, Surgery=, Pathology=, Paediatrics=3,Anaesthesia=2, Nephrology=1,Community Medicine=1	-	Can be sourced from the same/other departments or state as per the situation
4	Technical experts	3	3	-	
5	Casualty Section	3	3	-	
6	Isolation wards	3	3	-	in temporary structures
7	Security arrangement	1	1	-	Can be sourced from the agency as per the requirement
8	Diagnosics Services	13	13	-	
9	Medical	1	1	-	One at

	Supplies				each CHC,2 at SDH and 1 at DHH
1 0	Blood Bank Services	3	3	-	
1 1	Mortuary	3	3	-	

- **Public Health Issues**

- Panic is a critical element in a disaster and, therefore, DM plans will address measures to allay public anxiety and fear arising out of Bio Terrorisms.
- Availability of safe food, clean water, and minimum standards of hygiene and sanitation will be ensured. Vulnerable groups such as children, pregnant women, the aged and patients suffering from diseases like HIV/AIDS will be given special attention.
- The routine training of medical undergraduates, nurses and health workers for mental health services is grossly inadequate. There is virtually no emphasis on the mental health aspects of disasters even in the routine postgraduate training in psychiatry. There is a need for coordinated training services and monitoring at the district and state levels.
- Most victims at the scene of a disaster suffer from psycho-social problems. Some people, including relief workers, may develop post-traumatic stress disorders. The plan will involve community level social workers who can help victims of psychosocial problems.
- Complete ban on the press or media is not the right approach in such circumstances. The media is very useful for disseminating proper information and educating the community during a disaster.

- **Emergency Medical Response**

A biological disaster can lead to mass casualty incidences, both intentional or otherwise. The development of infectious diseases depends on various factors such as type of agents, incubation period, immune status of individuals, amount of infectious agent entering the body, etc. However, a large number of cases arising in a short span of time may require prompt establishment of medical posts near the incident site. They would triage the patient, provide basic life-support if required at the site, and transport patients to the nearest identified health facility along with collection and dispatch of biological and environmental samples. If the incident command system is implemented, then the RRT/MFR will be integrated with the ICP and function under the overall directions of the incident commander. Important components of an EMR plan are as follows:

- Pre-hospital care shall be established and operationalised using a trained medical force. EMR at the site will depend upon the quick and efficient response of MFRs.
- MFRs must be trained in the use of PPE and in collection and dispatch of samples from air, water, food and biological materials. The standards for detection and basic life support (airway maintenance, ventilation support, anti-shock treatment and preparation for transportation) will also be developed. EMR will be integrated with ICP and will function under the overall directions of the incident commander

- There will be periodic mock drills for checking response time and reducing it to a minimum. Periodic training and refresher training schedules will also be prepared.
- The medical posts shall provide evacuation services, specialised health care, food, shelter, sanitation, etc. These will coordinate with other functionaries involved in search, rescue, helplines and information dissemination, transport, communication, power and water supply, and law and order.
- SOPs for providing hospital care and a command control centre with the district collector as supreme head, will be laid down and rehearsed using mock exercises.
- The modes of communication will be dovetailed with emergency services of the district. Inter-hospital and inter-services communication will be established at all levels.
- Mechanisms for checking the status of coordination in planning, operations and logistic management will be developed.

10.10 Psycho Social Care

Disasters usually leave a trail of human agonies including loss of human life, livestock, damage to properties, loss of livelihood, and all development works. In any disaster the magnitude of psychosocial and mental health problems is enormous. Apart from logistic and material help, relief and rehabilitation, the sufferings of human beings will require psychosocial and mental health interventions. It has been recognized that most of the disaster affected persons' experience stress and emotional reactions after disaster as a 'normal response to an abnormal situation', and are able to cope well with a little psychosocial support. However, a significant proportion of people are not able to cope effectively with the situation in the absence of appropriate/ adequate support system and they experience significant signs and symptoms requiring psychosocial support and mental health services. The symptoms are directly related to trauma experience. The Greater the trauma, the more severe is the response if other factors are same.

Psychosocial support in the context of disasters refers to comprehensive interventions aimed to help individuals, families and groups to restore social cohesion and infrastructure along with maintaining their independence and dignity in the aftermath of a disaster. Psychosocial support helps in reducing the level of actual and perceived stress that may prevent adverse psychological and social consequences among disaster affected people.

11. Disaster Mental Health Services

The Psycho-Social Support and Mental Health Services (PSSMHS) should be considered as a continuum of the interventions in disaster situations. While psychosocial support will comprise of the general interventions related to the larger issues of relief work needs, social relationships and harmony to promote or protect psychosocial wellbeing, the mental health services will comprise of interventions aimed at prevention or treatment of psychological symptoms or disorders. The experiences of the people subsequent to the disaster have direct relevance to recovery. The more the problems and life difficulties the survivors experience during the recovery phase, the more persistent will be their emotional reactions. This warrants appropriate interventions in accordance with the phase of recovery of the affected population with the diminished social supports being built for speedy recovery.

Table-10.12 Nodal Psycho Social Health Institution

Name of the Institution, Address & Contact details of the contact (Nodal) Person	No. of trained Doctors (Psycho Social)	No. of trained Paramedical staffs (Psycho Social)	Facilities available	Equipment's (If required any) available
DHH Dhenkanal, Near Dakhinakali Road , Dhenkanal. Dr Jyotish Chandra Mohapatara- 9439980500	106	328	1.Counselling 2.Treatment 3.Follow up 4.Door step visit(At community level during pandemic) 5.Referral as and when necessary	Yes

13 Community Based Disaster Psychosocial Care

The psychosocial aspects of disasters on human beings have been acknowledged as an international agenda (WHO, 1992). However, in India, the psychosocial aspects have never been emphasized until very recently after tsunami, 2004. The Bhopal gas tragedy (1984) was the most important disaster to draw the national attention due to its severe impact and the sensitivity of the politico-economic issues involved. The psychosocial impact was studied systematically although intervention programmes were more of psychiatric in nature. Marathawada earthquake (1993), and Andhra Pradesh Super Cyclone (1996) were disasters in which mental health professionals took an active part in terms of providing mental health services and undertaking research to study the psychosocial impact of these disasters.

The ICMR studies over last twenty years have provided strong base for integration of mental health services with general health care services and sensitization of the community members and rescue workers. Further, In the post Tsunami phase in India, the WHO along with the Department of Social Welfare, United Nations Team for (UNTRS), and partners have developed a model for providing sustained, low-cost community-based volunteer provided support systems. Community level workers who are the anchor for this programme are selected from various categories of people, including teachers, health workers, and members of Self-Help Groups etc, who have volunteered for this purpose. However, the finer details of the mechanisms and strategies for integration of mental health services with general health care services still need to be worked out.

Chapter – 11

Capacity Building: -

11.1 Approach

Developing a DDMP without building capacity or raising awareness amongst stake- holders can be detrimental to the development of a successful and sustainable plan. Stakeholders and communities are critical components to a successful, long-term, sustainable disaster management plan. Capacity Building develops and strengthens skills, competencies and abilities of both Government and non-government officials and communities to achieve their desired results during and after disasters, as well as preventing hazardous events from becoming disasters

Developing institutional capacity is very important. At the same time, by making the local community part of the process and solution would help in ensuring that disaster mitigation measures are more likely to be implemented and maintained over time.

11.2 Capacity Building Programmes of Govt. Officials at District and Sub-District Levels and PRI & other stakeholders as follows,

Sl.No.	Name of Capacity Building & Training programme.	Participants	Total Participants	No. of batches.	Duration	Budget (Rs.)	Organised by
Jun-23		Jun-23				0	
1	Post Disaster Needs Assessment(PDNA)	Concerned Line Deptt.Officers, BDOs, Tahasildars &Others	100	2	2Days	100000	DDMA
July-2023		Jul-23					
1	District Level Training programme on Extreme Weather Events &DRR	Concerned Line Deptt.Officers, BDOs, Tahasildars &Others	60	1	1Day	30000	DDMA
3	District Level Training-Cum-Workshop on GO-NGO Initiatives &CBDRM.	Member of DLNCC/BLN CC	80	1	1Day	40000	DDMA
Aug-23		August-2023					

1	District Level workshop on SFDRR Road Map and SDG & PM's 10 Points Agenda on Disaster Management and Implementation	Officials of line Departments/N GOs and key stakeholders	70	1	1 Day	35000	DDMA
2	District Level Training programme on Chemical & Biological Disaster Management	Officers of concerned line deptt., BDO & Tahasildars, and others.	60	1	1 Day	30000	DDMA
3	District level training programme for officials on IDRN & NDMIS and Disaster Management	District level Officials of different departments and stakeholders.	60	1	1 Day	30000	DDMA
Sep-23		Sep-23				0	
1	District level Training on Drought Manual & Drought Management	District, Subdivision, Block level Officials of Agriculture & Horticulture / Revenue dept. and other stakeholders.	60	1	1	30000	DDMA
2	District level workshop on Disaster Medicine and Public Health Management.	Health/Hospital Administrators and Concerned line Deptt. Official & Safety Officers of Major Industries.	70	1	1 Day	35000	DDMA/ CDMO
3	Block level Training on Drought Manual & Drought Management	Block & Panchayat level Officials of Agriculture / Revenue dept.	50	8	1/2 Day	120000	DDMA/ DDA

4	District Level Workshop -Cum- Training on SSP & Disaster Management.	DEO/DPC-SSA & Staff, all BEO & CRCC	50	1	1	25000	DDMA
5	District Level Work Shop on Disaster Management to Orient DPC members & Integration of DRR activities in Development Works/Construction and resilient infrastructure building	District Planning Committee Members & Concerned Officers and stakeholders	50	1	1	35000	DDMA
6	District Level ToT on Disaster Management for NYK & Civil Defence Volunteers.	NYK & Civil Defence Volunteers	60	1	1 Day	30000	DDMA
Oct-23		Oct-23				0	
1	District Level Orientation Workshop on CCDRM.	Representatives of the CCIs, Concerned Line Deptt. Officials & Stakeholders	50	1	1 Day	25000	DDMA
3	Mainstreaming DRR and CCA in Development Planning	All BDOs, Tahasildars, Head of line departments,	60	1	1 Day	30000	DDMA
4	District Level ToT on role of Women & SHG Federation in Disaster Management & DRR.	Staff of ICDS & Mission Shakti & OLM District/Block SHG Federation Members.	150	3	1 Day	90000	DDMA
Nov-23		Nov-23				0	
1	District level Workshop -Cum- Training Programme on Disaster Management &	NSS, NCC, YR C Counselor & Student Volunteers	250	4	1 Day	125000	DDMA

	DRR for NSS &NCC,YRC volunteers.						
2	Block Level Training programme on role of women& SHG Federation in Disaster Management & DRR.	Staff of OLM,ICDS & Block /GP SHG Federation Members and others.	400	8	1Day	120000	DDMA/ BDO/ DSWO
Dec-23		Dec-23				0	
1	Awareness programme on Disaster Management at School Level (Lightning Safety,Cyclone,Drowning, Snakebite,etc)	Teachers,SMC members,Student	2500	25	1/2 Day	125000	DDMA/ DEO/DP C-SS
2	Capacity Building /Training of VDMC members(5Nos/VD MC)	Members of VDMC/Task Force Members	280	4	1 Day	80000	DDMA
3	District Level workshop on IRS &ICS(Basic &Intermediate)	Officials of district level line departments/Fire/ODRAF/CD and all key stakeholders	70	1	1 Day	35000	DDMA
Jan-23		Jan-23				0	
1	Training -Cum-Workshop on Management of Chemical Emergency& Industrial Safety.	DCG Members & Key Line Deptt. Officials and Stakeholders.	60	1	1 Day	30000	DDMA/ AD(F&B)
2	Community Based Disaster Risk Management(CBDRM)	BDO,GPEO,RI,Member of DLNCC &others	50	1	1Day	25000	DDMA

District/ Block level Mock Drills: will be conducted as per schedule

[Periodic mock drills to be organized involving district and block level officials/ institutions to assess the capacity and preparedness to face certain disasters. All recommendations and findings are incorporated in updating of DDMP.]

Sl. No.	Type of Mock Drill	Officials/ Institutions to be involved	Month/ Date	Remarks
1	Tsunami	NA	NA	
2	Flood	Govt. Officials, PRI members, Industrial Unit, NGOs, Fire, Redcross, NYK/ BNV and others	June/2023-24	
3	Cyclone	Govt. Officials, PRI members, Industrial Unit, NGOs, Fire, Redcross, NYK/ BNV and others	June/2023-24	
4	Earthquake	Govt. Officials, PRI members, Industrial Unit, NGOs, Fire, Redcross, NYK/ BNV and others	November/2023-24	
5	Industrial Accidents/ Industry Specific Mock drills	Govt. Officials, Industrial Unit, DCG members NGOs, Fire, and other stakeholders.	2023-24(Onsite as per schedule)	
6	Crowd Management	Govt. Officials, NGO, Fire, PRI members, Redcross, NYK/ BNV and other stakeholders.	December/2023-24	
7	On site Emergency Mock exercise MAH industrial Units.	4nos. MAH Industrial Units	Quarterly Basis in each MAH units.	DCG to take action.

8.4 Community Capacity Building and Community Based Disaster Management:

[As per the guideline of the OSDMA, Odisha, Bhubaneswar, DDMA Dhenkanal chalks out detailed plan for community capacity building for disaster management which includes formation of Village Disaster Management Committees (VDMC) and task forces, their orientation and preparation of Village Disaster Management Plan (VDMP). Total 250 villages having multi hazard vulnerability or having more vulnerability towards flood, cyclone and other prominent disasters of the district like Industrial hazards, Snakebite, Lightning, and Drowning are selected in the first phase i.e. for financial year 2021-22]. The details stated above. The Action Plan is mentioned herewith as follows,

Sl. No.	Block Name	No. of vulnerable villages to be covered during	No. of VDMC members and task force members to be	No. NGOsto be involved in the process	Time line

		2023-24	oriented@4nos.		
1	Sadar	22	88	Four	December-2023 to March-2024.
2	Odapada	44	176		
3	Gondia	42	168		
4	Kamakhyanagar	34	136		
5	Bhuban	26	104		
6	Parjang	24	96		
7	Kankadahad	31	124		
8	Hindol	27	108		
	Total	250	1000		

Shelter level mock drills/Awareness:

Sl. No.	Type	No. of Flood Shelters to be covered	No. of Blocks to be covered.	Month/ Date
1	Cyclone Mock drill	8	8	17 th to 19 th June,2022
2	Tsunami Mock drill	NA	NA	NA
3	Flood Mock drill	8	8	17 th to 19 th June,2022
4	Awareness on Disaster Management	8	8	November,2022

Chapter – 12: Preparedness:

Meaning of Preparedness:

The preparedness means the state of Readiness to deal with a threatening disaster situation or disaster and the effects thereof (Under Section-2(e) (m) of the Disaster management Act-2005. The measures for preparedness on different disasters are as follows,

1-Flood:

- 1- Convening a meeting of the District Level Committee on Natural Calamities (DLNCC) in the month of May to review the precautionary measures taken or contemplated to be taken against the possible flood, stocking of food stuff in advance in interior, vulnerable, strategic & key areas and review of other programmes or work in progress, if any.
2. Closure of past breaches in river & canal embankments and guarding of weak points.
3. Arrangements of keeping the drainage systems clear for free flow of flood water.
4. Assigning the change of Flood Circles.
5. Rain recording and submission of rainfall reports as per the provision under Appendix-IV ensuring Inspection of Rain Gauge Stations & taking steps to rectify the defects, if any.
6. Activating the Control Rooms with adequate trained personnel & necessary communication equipment in order and arrangements of training for those who are deployed in the control room.
7. Submission of daily situation report on rainfall & flood from 1st June to 15th October.
8. Dissemination of weather reports/ warnings and flood bulletins issued by the Meteorological Centre & Central Flood Forecasting Division, Bhubaneswar and communication of gauge-recordings.
9. Installation of temporary Police Wireless Stations & temporary telephones in flood prone areas (Collectors may indicate their requirement by 20.05.2017 for installation of temporary wireless stations only at such places where the telephone/ mobile connectivity is not available for communicating flood related matters).
10. Arrangements for keeping telephone lines in order.
11. Deployment of boats at strategic points including enumeration of private boats with names & contact details of the owners & boatmen, execution of pre-contract with boat owners and advance planning for deployment of such boats.
12. Storage of food in interior, vulnerable strategic & key area.
13. Pre-contract on arrangements of dry food stuff & other necessities of life.
14. Arrangements for supply of safe drinking water during crisis period.
15. Health, Sanitation, Veterinary & Agricultural measures.

16. Identification of flood shelters including drinking water & sanitation arrangements at such shelters. Advance planning for making these arrangements for sheltering the people in case of high flood
17. Evacuation plan including identification of low lying areas likely to be inundated/ marooned, identification of evacuation route and means of transportation.
18. Advance planning & arrangements including logistics for deployment of ODRAF/ NDRF/ Defence Forces.
19. Listing of helipads/ airstrips available in the district with correct geographical co-ordinates (Latitude & Longitude).
20. Organization of relief parties & training to those to be deployed in flood relief work.
21. Arrangements for immediate restoration of essential services like power, telecommunication, roads, etc.
22. Coordination with Line Department officials.
23. Coordination with civil society organizations, SHGs, CBOs and members of Panchayati Raj Institutions for their participation & help in rescue and relief work.
24. Arrangement for Rapid Damage Assessment.
25. Organization of training/ refresher training for the officials to be engaged in damage assessment work to orient them about the provisions & procedure.
26. Review of pre-flood arrangement by the Collector.
27. In addition to the above, the following actions will be taken:- National Disaster Management Authority (NDMA) in exercise of its powers u/s 12 of the Disaster Management Act, 2005 has recommended certain guidelines for the basic minimum standards of relief to be provided to persons affected by disaster relating to shelter, food, water, sanitation & medical cover in relief camps & relief for widows & orphans. In this matter, this office letter No. 672/Dt. 21.03.2016 may be referred to. Necessary prior arrangements may please be made in this regard and ensure that the said guidelines are meticulously followed.
28. In disaster situation, it may be required to regulate the flow of traffic/ people to disaster affected areas. This is more relevant in case of tourist/ religious places. Based on forecasts, it may be required to regulate the tourists/ pilgrims. Besides, plan for evacuation from tourist/ religious places including alternative routes in the event of an imminent disaster should be made in advance. The District Authorities must have their plan included in their DM Plan to deal with such situations. If not, appropriate provisions may be included in the DM Plan of the district & various functions in this regard including the regulatory function should be entrusted to specific officials/ agencies.
30. Instructions will be issued in the past to close the bridges/ roads submerged or over topped with flood/ rain water by constructing temporary barricades on both sides and

erect hoardings. The respective authorities in charge of the concerned roads will be responsible for the same.

2-Heat Wave:

- Heat Wave is defined as a condition of increased atmospheric temperature that leads to physiological stress, which sometimes can claim human life. Quantitatively Heat Wave can be defined as any increase from the normal temperature. Again, depending on the upper deviation from the normal temperature it can be moderate Heat Wave or Severe Heat Wave. If the maximum temperature of any place continues to be 45° C for consecutive two days, it is called as Heat Wave condition. Physiologically human body can tolerate environmental temperature of 37° C.
- Whenever the environmental temperature increases above 37° C., the human body starts gaining heat from the atmosphere. In the case of humidity being high along with high temperature, a person can suffer from heat stress disorders even with the temperature at 37° or 38° C. Higher daily peak temperatures and longer, more intense Heat Waves are becoming increasingly frequent globally due to climate change. Extreme heat events already have a significant impact in Odisha and India.

Table I: IMD Temperature Ranges for Heat Wave Designations

The normal temperature is < 40° C. Any increase from the above normal temperature is called a Heat Wave.

+ (5 or 6) ° C – Moderate Heat Wave or simply Heat Wave Days (HWD).

+7° C or more – Severe Heat Wave Day (SHWD)

Table II -The normal temperature is ≥ 40° C. Any increase from the above normal temperature is called Heat Wave.

+ (3 or 4) ° C – Moderate Heat Wave (or HWD)

+5° C or more – Severe Heat Wave Day (SHWD)

Table III -If the maximum temperature of any place continues to be 45° C consecutively for two days

(40° C for coastal areas), it is also called a Heat Wave condition or HWD.

- The precautionary measures Heat Wave Action Plan (HAP) as prescribed by OSDMA from year to year should be implemented apparently in a meticulous manner. The DDMA shall take appropriate action for convergence of all line departments along with synergetic effort for its implementation as per responsibility fixed and timely monitoring and Supervision.
- The District Level Preparatory Meeting on implementation of HAP is conducted under the chairmanship of Collector-cum-Chairman, Dhenkanal in well advance for heat wave management in the district along with responsibilities of all concerned line departments at district as well as block level.

12.1Relief Lines: District to Blocks.

Sl. No	Name of the Road		Type of Road & Length	Vulnerability of the route (Description of the Vulnerability)	Coverage (Blocks)
	From	To			

1	Dhenkanal	Odapada	NH 55 & 30 KM	Possibility of obstruction by trees existing in road side	1
2	Dhenkanal	Sadar Block	District Road & 1.00 KM	Nil	1
3	Dhenkanal	Parjang	SH 35 Km , NH 25 Km	Nil	1
4	Dhenkanal	Bhuban	NH 53 & 46 KM	Possibility of obstruction by trees existing in road sides	1
5	Dhenkanal	Hindol	Black Topping Road & 60 Kms	NA	1
6	Dhenkanal	Kamakhyan agar	PWD & 35 K.M	Possibility of obstruction by trees existing in road side	1
7	Dhenkanal	Gondia	SH-27 KMs	Possibility of obstruction by trees existing in road side	1
8	Dhenkanal	Kankadahad	MDR-19/PWD=55 KM	Possibility of obstruction by trees existing in road side	1

1.2 Relief Line Channels :*Block to GPs & Villages**1-Block: Odapada.*

Sl. No	Name of the Road		Type of Road & Length	Vulnerability of the route (Description of the Vulnerability)	Coverage (In Nos.)	
	From	To			Village	Population
1	Odapada	Badalo	NH/RD/PS & 10 KM	NII	6	4443
2	Odapada	Bangursingh	PS & .2 KM	NII	5	5551
3	Odapada	Balarampur	NH/ RD & 25 KM	NII	5	7548
4	Odapada	Balaramprasad	NH & 3 KM	NII	6	6055
5	Odapada	Bido	NH/ RD & 20 KM	NII	9	5182
6	Odapada	Gadasila	NH & 15 KM	NII	9	5691
7	Odapada	Gunadei	NH/ RD & 10 KM	NII	5	5987
8	Odapada	Gundichapada	NH/ RD & 26 KM	NII	7	5936
9	Odapada	Ghatipiri	NH/ RD & 50 KM	NII	5	5987
10	Odapada	Gobindaprasad	NH / RD & 60 KM	NII	2	3032
11	Odapada	Indipur	NH/ RD & 30 KM	NII	3	5421
12	Odapada	Kandabindha	NH/ RD & 32 Km	NII	2	821
13	Odapada	Kalanga	NH/ RD & 65 Km	NII	6	6387
14	Odapada	Kottam	NH/ RD & 60 KM	NII	6	3090
15	Odapada	Khuntujhari	NH/ RD & 35 KM	NII	8	2226
16	Odapada	Kharagprasad	NH/ RD & 20 KM	NII	5	10685
17	Odapada	Kuspanga	NH/ RD & 25 KM	NII	5	7959
18	Odapada	Mangalpur	NH/RD & 30 KM	NII	5	8731
19	Odapada	Motanga	NH/ RD & 23 KM	NII	10	5527

20	Odapada	Nadhara	NH/ RD & 7 KM	NII	5	3246
21	Odapada	Nayabhagirathipur	NH/ RD & 8 KM	NII	7	5402
22	Odapada	Nimidha	NH/ RD & 15 Km	NII	2	3747
23	Odapada	Odapada	NH & 1.5 KM	NII	4	4801
24	Odapada	Sadasivpur	NH/ RD & 28 KM	NII	10	8799
25	Odapada	Siminai	NH & 16 KM	NII	10	6377

2-Block: Sadar, Dhenkanal.

Sl. No	Name of the Road		Type of Road & Length	Vulnerability of the route (Description of the Vulnerability)	Coverage (In Nos.)	
	From	To			Village	Population
1	Sadar Block	Baladiabandha, GP	District Road/NH 55 & 7 KM	Nil	7	5383
2	Sadar Block	Balyamba, GP	District Road/State Highway & 20 KM	Nil	1	4069
3	Sadar Block	Banasingh, GP	District Road/RD Road & 20 KM	Nil	7	6177
4	Sadar Block	Barada, GP	District Road/NH 55/State Highway & 14 KM	Nil	7	4486
5	Sadar Block	Beltikiri, GP	District Road/State Highway & 15 KM	Nil	5	6656
6	Sadar Block	B.B.Katani, GP	District Road/State Highway & 11KM	Nil	6	2955
7	Sadar Block	Bhapur, GP	District Road/State Highway & 18	Nil	5	7891

			KM			
8	Sadar Block	C.S.Prasad, GP	District Road/State Highway & 22 KM	Nil	3	6797
9	Sadar Block	Chaulia-GP	District Road/RD Road & 13 KM	Nil	3	6888
10	Sadar Block	Dhirapatna-GP	District Road/State Highway & 23 KM	Nil	4	4838
11	Sadar Block	Gengutia-GP	District Road/NH 55/State Highway & 11 KM	Nil	8	4651
12	Sadar Block	Gobindpur-GP	District Road/NH 55 & 6 KM	Nil	6	6805
13	Sadar Block	Kaimati-GP	District Road/State Highway & 12 KM	Nil	8	5048
14	Sadar Block	Kakudibhag-GP	District Road/State Highway & 18 KM	Nil	3	4975
15	Sadar Block	Kankadahad-GP	District Road/State Highway & 10 KM	Nil	4	4638
16	Sadar Block	Kankadpal-GP	District Road/State Highway & 7 KM	Nil	10	5587
17	Sadar Block	M.S.Patna-GP	District Road/State Highway & 13 KM	Nil	10	4875
18	Sadar Block	Mangalpur-GP	District Road/State Highway & 8	Nil	4	4246

			KM			
19	Sadar Block	Manipur-GP	District Road/NH 55/RD Road & 12 KM	Nil	3	3513
20	Sadar Block	Nadiali-GP	District Road/NH 55 & 12 KM	Nil	4	4503
21	Sadar Block	Nagiaposhi-GP	District Road/State Highway & 15 KM	Nil	4	4732
22	Sadar Block	Sankarpur-GP	District Road/State Highway & 21 KM	Nil	2	6429
23	Sadar Block	Sankulei-GP	District Road/RD Road & 12 KM	Nil	5	3544
24	Sadar Block	Saptaajya-GP	District Road/State Highway & 11 KM	Nil	5	5553
25	Sadar Block	Sogarposi-GP	District Road/RD Road & 15 KM	Nil	5	5812
26	Sadar Block	Talabarkote-GP	District Road/NH 55/RD Road & 10 KM	Nil	2	7260
27	Sadar Block	Tarava-GP	District Road/State Highway & 14 KM	Nil	4	4410
28	Sadar Block	Suakhaikateni-GP	District Road/State Highway & 8 KM	Nil	9	4954
29	Sadar Block	Radhadeipur-GP	District Road/RD Road & 22 KM	Nil	2	2123

30	Sadar Block	Nuagaon-GP	District Road/State Highway & 12 KM	Nil	3	3134
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3-Block: Parjang.

Sl. No	Name of the Road		Type of Road & Length	Vulnerability of the route (Description of the Vulnerability)	Coverage (In Nos.)	
	From	To			Village	Population
1	Parjang	Parjang	GP – 0 Km	NA	06	7485
2	Parjang	Kankadasoda	NH – 02 Km MDR – 7 Km	NA	03	3080
3	Parjang	Kantore	NH – 02 Km MDR – 06 Km	NA	04	4553
4	Parjang	Mundeilo	NH – 03 Km GP – 01 Km	NA	05	3668
5	Parjang	Barihapur	NH – 03 Km	NA	02	5330
6	Parjang	Sarang	NH – 06 Km GP – 01 Km	NA	03	8374
7	Parjang	Damol	RD – 04 Km	NA	02	2303
8	Parjang	Ambapalash	NH – 02 Km MDR – 08 Km	NA	01	3187
9	Parjang	Kualo	NH – 02 Km RD – 06 Km	NA	01	4127
10	Parjang	Kalada	NH – 03 Km RD – 07 Km	NA	06	4818
11	Parjang	Pitiri	NH – 05 Km	NA	03	3884
12	Parjang	Manikamara	NH – 12 Km Irrg. – 13 Km	NA	05	5745
13	Parjang	Basulei	NH – 12 Km Irrg. – 11 Km	NA	01	4682
14	Parjang	Gengutia	NH- 12 Km Irrg. 10 Km	NA	02	3066
15	Parjang	Akhuapal	NH – 16 Km	NA	07	5219
16	Parjang	Chandapur	MDR – 04 Km RD – 14 Km	NA	06	4397

17	Parjang	Sanda	MDR – 04 Km RD – 12 Km	NA	02	7932
18	Parjang	Kumushi	MDR – 04 Km RD – 12 Km	NA	04	4477
19	Parjang	Renthapat	MDR – 04 Km RD – 12 Km	NA	03	2657
20	Parjang	Roda	MDR – 04 Km RD -16 Km	NA	03	3642
21	Parjang	Badajhara	NH – 10 Km	NA	01	3457
22	Parjang	Kankili	NH – 13 Km RD – 06 Km	NA	01	3178
23	Parjang	Basoi	NH – 13 Km RD – 04 Km	NA	04	5223
24	Parjang	Muktapasi	NH – 13 Km	NA	01	3273
25	Parjang	Jayapurakat eni	NH – 15 Km RD – 03 Km	NA	08	4521
26	Parjang	Kandarsing ha	MDR – 4 Km GP- 03 Km	NA	03	5374
27	Parjang	Lodhani	MDR – 06 Km	NA	03	5440
28	Parjang	Patarpada	MDR – 08 Km GP – 04 Km	NA	05	6905
29	Parjang	Patharakha mba	NH - 18 Km	NA	02	3879

4-Block- Hindol.

Sl. No	Name of the Road		Type of Road & Length	Vulnerability of the route (Description of the Vulnerability)	Coverage (In Nos.)	
	From	To			Village	Population
1	Hindol	Asarada G.P.	Black Topping & CC Road and 22 Km	NA	2	3516
2	Hindol	Bampa G.P.	Black Topping & CC Road and 40 Km	NA	7	3857
3	Hindol	Babandha G.P.	Black Topping & CC Road and 30 Km	NA	4	8534
4	Hindol	Baunsapokhari G.P.	Black Topping Road and 6 Km	NA	6	4666
5	Hindol	Buhalipal G.P.	Black Topping & CC Road and 23 Km	NA	5	4271
6	Hindol	Chittalpur G.P.	Black Topping & CC Road and 20 Km	NA	3	4435
7	Hindol	Dandiri G.P.	Black Topping & CC Road and 30 Km	NA	7	3450
8	Hindol	Dudurkote G.P.	Black Topping & CC Road and 15 Km	NA	4	7556
9	Hindol	Galapada G.P.	Black Topping & CC Road and 30 Km	NA	8	6187
10	Hindol	Gandanali G.P.	Black Topping & CC Road and 25 Km	NA	5	5569
11	Hindol	Giridhariprasad G.P.	Black Topping & CC Road and 20 Km	NA	7	7254
12	Hindol	Gulehi G.P.	Black Topping & CC Road and 17 Km	NA	4	3857
13	Hindol	Hatura G.P.	Black Topping & CC Road and 15 Km	NA	8	6366
14	Hindol	Jarada G.P.	Black Topping & CC Road and 25 Km	NA	5	5128
15	Hindol	Kadala G.P.	Black Topping & CC Road and 25 Km	NA	4	3046
16	Hindol	Kalinga G.P.	Black Topping & CC Road and 20 Km	NA	3	2741
17	Hindol	Kansara G.P.	Black Topping & CC Road and 17 Km	NA	4	4022
18	Hindol	Kantamila	Black Topping &	NA	4	4243

		G.P.	CC Road and 12 Km			
19	Hindol	Kantimili G.P.	Black Topping & CC Road and 25 Km	NA	5	5548
20	Hindol	Karanda G.P.	Black Topping & CC Road and 20 Km	NA	1	6778
21	Hindol	Khaliborei G.P.	Black Topping & CC Road and 30 Km	NA	2	3169
22	Hindol	Kukuta G.P.	Black Topping & CC Road and 17 Km	NA	1	2961
23	Hindol	Kunua G.P.	Black Topping & CC Road and 22 Km	NA	5	3589
24	Hindol	Kutunia G.P.	Black Topping & CC Road and 40 Km	NA	5	3235
25	Hindol	Madhapur G.P.	Black Topping & CC Road and 12 Km	NA	7	3519
26	Hindol	Mahalunda G.P.	Black Topping & CC Road and 20 Km	NA	7	4079
27	Hindol	Nabakishor pur G.P.	Black Topping & CC Road and 30 Km	NA	6	3501
28	Hindol	Nuagan G.P.	Black Topping & CC Road and 35 Km	NA	8	4377
29	Hindol	Nuabag G.P.	Black Topping & CC Road and 10 Km	NA	7	5855
30	Hindol	Paika Purunakot G.P.	Black Topping & CC Road and 25 Km	NA	9	3310
31	Hindol	Patala G.P.	Black Topping & CC Road and 22 Km	NA	10	4805
32	Hindol	Ranjagol G.P.	Black Topping & CC Road and 18 Km	NA	3	4455
33	Hindol	Rasol G.P.	Black Topping & CC Road and 18 Km	NA	2	10345
34	Hindol	Sanjapada G.P.	Black Topping & CC Road and 30 Km	NA	5	4857
35	Hindol	Thokar G.P.	Black Topping & CC Road and 20 Km	NA	2	3971

5. Block: Bhuban.

Sl. No	Name of the Road		Type of Road & Length	Vulnerability of the route (Description of the Vulnerability)	Coverage (In Nos.)	
	From	To			Village	Population
1	Bhuban	Arakhapal	R D Road, 25 K.M	Nil	4	4873
2	Bhuban	Balibo	R D Road , 15 K.M	Nil	13	7560
3	Bhuban	Baruan(B)	R D Road , 12 K.M	Nil	7	6416
4	Bhuban	Bhusal	R D Road , 4 K.M	Nil	10	9344
5	Bhuban	Dayanabili	R D Road, 10 K.M	Nil	5	3715
6	Bhuban	Dhalapada	R D Road , 15 K.M	Nil	6	3573
7	Bhuban	Dighi	R D Road , 30 K.M	Nil	6	4669
8	Bhuban	Ekatali	R D Road , 13 K.M	Nil	10	6394
9	Bhuban	G.N.Prasad	R D Road, 9 K.M	Nil	6	5827
10	Bhuban	Jamunakote	R D Road , 20 K.M	Nil	4	3539
11	Bhuban	Jiral	R D Road, 27 K.M	Nil	2	5550
12	Bhuban	Kuninda	R D Road , 15 K.M	Nil	4	3869
13	Bhuban	Mahulpal	R D Road , 15 K.M	Nil	3	4734
14	Bhuban	Marthapur	R D Road , 30 K.M	Nil	10	8119
15	Bhuban	Mathakara gola	R D Road , 20 K.M	Nil	6	6054
16	Bhuban	Mrudanga	R D Road, 15 K.M	Nil	3	5484
17	Bhuban	Surapratapur	R D Road , 13 K.M	Nil	7	8346
18	Bhuban	Odisha	R D Road , 15 K.M	Nil	1	4021

6. Block: Kamakhyanagar.

Sl. No	Name of the Road		Type of Road & Length	Vulnerability of the route (Description of the Vulnerability)	Coverage (In Nos.)	
	From	To			Village	Population
1	Kamakhyanagar	BADASUAN LO	NH	NII	10	6535
2	Kamakhyanagar	BAISINGA	NH	NII	5	5694
3	Kamakhyanagar	BALIGORAD	NH	NII	6	5026
4	Kamakhyanagar	BANKUAL	RD	NII	4	2497
5	Kamakhyanagar	BARUAN (K)	RD	NII	8	5349
6	Kamakhyanagar	BAUNSAPAL	NH	NII	5	5497
7	Kamakhyanagar	BHAIRPUR	RD	NII	5	6445
8	Kamakhyanagar	BUDHIBIL	RD	NII	2	2145
9	Kamakhyanagar	JAGANNATH PUR	RD	NII	10	6835
10	Kamakhyanagar	KADUA	RD	NII	7	6265
11	Kamakhyanagar	KANAPURA	RD	NII	11	7668
12	Kamakhyanagar	KANTAPAL	RD	NII	2	5579
13	Kamakhyanagar	KANTIO KATANI	RD	NII	2	4848
14	Kamakhyanagar	KANTIO PUTASAHU	RD	NII	2	4837
15	Kamakhyanagar	KOTAGARA	RD	NII	8	4233
16	Kamakhyanagar	KUSUMAJODI	RD	NII	5	4790
17	Kamakhyanagar	MAHULPAL	RD	NII	3	3474
18	Kamakhyanagar	RAYNRUSIN GHPUR	RD	NII	6	3739

19	Kamakhyana gar	SOGAR	RD	NII	8	5555
20	Kamakhyana gar	TUMUSINGA	RD	NII	3	6038
21	Kamakhyana gar	ANLABEREN I	RD	NII	4	3723
22	Kamakhyana gar	SARUALI	RD	NII	5	5160

7. Gandia Block.

Sl. No	Name of the Road		Type of Road & Length	Vulnerability of the route (Description of the Vulnerability)	Coverage Village
	From	To			
1	Gondia	Bainsia	PS & 15 KM	Possibility of obstruction by trees existing in road side	11
2	Gondia	Kaluria	PS & 18 KM	Possibility of obstruction by trees existing in road side	11
3	Gondia	Raitala	PS & 10 KM	Possibility of obstruction by trees existing in road side	10
4	Gondia	Sorisiapada	PS & 16 KM	Possibility of obstruction by trees existing in road side	07
5	Gondia	Karamul	PS & 16 KM	Possibility of obstruction by trees existing in road side	15
6	Gondia	Kashipu	/PS & 13 KM	Possibility of obstruction by trees existing in road side	07
7	Gondia	Deogan	SH & 8 KM	Possibility of obstruction by trees existing in road side	07
8	Gondia	Neulapoi	PS & 11 KM	Possibility of obstruction by trees existing in road side	05
9	Gondia	PIngua	PS & 15 KM	Possibility of obstruction by trees existing in road side	04

10	Gondia	Dasamanapana	PS & 14 KM	Possibility of obstruction by trees existing in road side	05
11	Gondia	Kabara	PS & 8 KM	Possibility of obstruction by trees existing in road side	07
12	Gondia	Gundurapasi	SH/PS & 2 KM	Possibility of obstruction by trees existing in road side	02
13	Gondia	Ratanpur	PS & 38 KM	Possibility of obstruction by trees existing in road side	05
14	Gondia	Lethaka	PS & 32 KM	Possibility of obstruction by trees existing in road side	10
15	Gondia	Sadangi	PS & 8 KM	Possibility of obstruction by trees existing in road side	06
16	Gondia	Barada	PS & 6 KM	Possibility of obstruction by trees existing in road side	04
17	Gondia	Bidharpur	SH & 2 KM	Possibility of obstruction by trees existing in road side	04
18	Gondia	Santhapur	PS & 10 KM	Possibility of obstruction by trees existing in road side	08
19	Gondia	Gondia	SH & 1 KM	Possibility of obstruction by trees existing in road side	05
20	Gondia	Lulai	PS & 36 KM	Possibility of obstruction by trees existing in road side	02
21	Gondia	Nihalprasad	PS & 30 KM	Possibility of obstruction by trees existing in road side	02
22	Gondia	Khandabandha	PS & 13 KM	Possibility of obstruction by trees existing in road side	08
23	Gondia	Bega	PS & 34 KM	Possibility of obstruction by trees existing in road side	05
24	Gondia	Khankira	PS & 35 KM	Possibility of obstruction by trees existing in road side	04
25	Gondia	Mathatentuli	PS & 6 KM	Possibility of obstruction by trees existing in road side	06

26	Gondia	Joranda	PS & 15 KM	Possibility of obstruction by trees existing in road side	10
27	Gondia	Poruhakhoj	SH & 1/2 KM	Possibility of obstruction by trees existing in road side	04
28	Gondia	Mandar	SH & 12 KM	Possibility of obstruction by trees existing in road side	09
29	Gondia	Digambarpur	PS & 14 KM	Possibility of obstruction by trees existing in road side	06

8. Kankadahad.

Sl. No	Name of the Road		Type of Road & Length	Vulnerability of the route (Description of the Vulnerability)	Coverage (In Nos.)	
	From	To			Village	Population
1	Kankadahad	Kankadahad	PWD & 1 KM	Possibility of obstruction by trees existing in road side	7	6203
2	Kankadahad	Ghagarmunda	PWD, PM GSY & 40 KM	Possibility of obstruction by trees existing in road side and 1 Bridge	8	5921
3	Kankadahad	Chandpur	PWD/PM GSY & 35 KM	Possibility of obstruction by trees existing in road side and 1 Bridge overflowing water during heavy rain	2	2680
4	Kankadahad	Biribolei	PWD/PM GSY & 37 KM	Possibility of obstruction by trees existing in road side and 1 Bridge overflowing water during heavy rain	3	2663
5	Kankadahad	Dasipur	PWD/PM GSY & 35 KM	Possibility of obstruction by trees existing in road side and 1 Bridge overflowing water during heavy rain	3	4049
6	Kankadahad	Pangatira	PWD/PM GSY & 38 KM	Possibility of obstruction by trees existing in road side and 1 Bridge	4	4183

				overflowing water during heavy rain		
7	Kankadahad	Kuturaia	PWD/Village Road & 35 KM	Possibility of obstruction by trees existing in road side and 1 Bridge overflowing water during heavy rain	5	3496
8	Kankadahad	Mahabirod	PWD & 30 KM	Possibility of obstruction by trees existing in road side and 1 Bridge overflowing water during heavy rain	1	3612
9	Kankadahad	Jhilli	PWD & 28 KM	Possibility of obstruction by trees existing in road side and 1 Bridge overflowing water during heavy rain	4	3648
10	Kankadahad	Garhpalasuni	PWD & 22.5 KM	Possibility of obstruction by trees existing in road side and 1 Bridge overflowing water during heavy rain	6	7079
11	Kankadahad	Bam	PWD/PM GSY & 14 KM	Possibility of obstruction by trees existing in road side	7	5934
12	Kankadahad	Kantapal	PWD/PM GSY/Village road & 08 Km	Possibility of obstruction by trees existing in road side	4	6664
13	Kankadahad	Kerjolli	PMGSY & 10Km	Possibility of obstruction by trees existing in road side	9	5675
14	Kankadahad	Kantol	PMGSY & 15 KM	Possibility of obstruction by trees existing in road side	6	3543
15	Kankadahad	Karagola	PMGSY & 06 KM	Possibility of obstruction by trees existing in road side	6	5988
16	Kankadahad	Balikuma	PWD/PM GSY/Village Road & 15 KM	Possibility of obstruction by trees existing in road side and 1 Bridge overflowing water during	9	4677


				heavy rain		
17	Kankadahad	Batagaon	PWD & 10 KM	Possibility of obstruction by trees existing in road side and 1 Bridge overflowing water during heavy rain	9	6748
18	Kankadahad	Makuakatani	PWD/PM GY/Village Road & 17 KM	Possibility of obstruction by trees existing in road side and 1 Bridge overflowing water during heavy rain	9	6690
19	Kankadahad	Birasal	PWD/PM GSY & 20 KM	Possibility of obstruction by trees existing in road side and 1 Bridge overflowing water during heavy rain	8	6952
20	Kankadahad	Maruabil	PWD/PM GSY & 25 KM	Possibility of obstruction by trees existing in road side and 1 Bridge overflowing water during heavy rain	9	8935
21	Kankadahad	Raibol	PWD/RD/PMGSY & 25 KM	Possibility of obstruction by trees existing in road side and 1 Bridge overflowing water during heavy rain	8	5215

1.3 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	1065	1065	1065	1065	Jacob Kispota	9437964571
2	ODRAF	43	43	43	43	Mr. Lingaraj Parida	9861039267 0671-2442148
3	ODRAF	27	Yes	Yes	Yes	Commdt., OSAP, 1 st BN, DKL	9437308404 06762226229

4	Police	63	-	Yes	-	S P., Dhenkanal	8763865027 06762-225777
5	Home Guards	50	-	Yes	-	K. Siva Subramani	8763865027 06762-225777
6	Civil Defense	255	30	255	-	Umakanta Nayak. Dy. Controller- cum- Assistant Fire Officer.	7008940131
7	NCC	20	5	8	7	Lt Col SGS Shekhar (SM)	06762-223336 9471007299
8	NSS						
9	NYK	17	Nil	Nil	Nil	Mrs. Rita Shanti Dungdung	8763362088 226590 (O)
9	Trained Task force(Red Cross)	30	-	30	-	Mr. Biranchi Narayan Pani	9437026006

1.4 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**.

Phone Numbers (Table9.4)

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	ODRAF Cuttack, OASP 6th Battalion	870776146961
6	Collector Boudh	870776146929	32		870776146962
7	Collector Cuttack	870776146932	33	ODRAF Bhubaneswar, OSAP 7th Battalion	870776146959
8	Collector Deogarh	870776146931	34		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	870776146950	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

12.5 Preparedness at District level.

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 & stakeholder)	<ul style="list-style-type: none"> • DDMA must meet quarterly other than exigencies. • Fix time & venue for regular Preparedness meeting to Assess preparedness of District /Department /Civil Society /Block Community /Family /Individual level regularly • 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/Cyclone 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 Equipments at shelter level & repair of the defective ones. • Ensure regular meeting of Shelter committee as per norms. • Assess Shelter level preparedness through Mock drill.
Planning &	<ul style="list-style-type: none"> • Collect & transmit Rain fall data regularly and updating in

Reporting	<ul style="list-style-type: none"> • 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.
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12.6 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

12.7 Preparedness at Family Level :

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 • Keep minimum essential requirement for 7 days. • Do n't be panic and wisely tackle the impending disaster. • Update information may be access surfing Internet or related website. • Update warning message may be updated in keep touch with District/Block Control room. • Take appropriate steps to send patients or expected mothers whose EDD between 2day before hitting disaster and 4 days after hitting of Disaster(Flood/Cyclone,others)
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

12.8 Preparedness at Individual Level.

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

12.9 Preparedness of Departments/District level Officers at district Level.

Name of the Department	Normal Time
Collector/ADM / Emergency Officer	<ul style="list-style-type: none"> • Ensure regular meetings of District Disaster Management Authority (DDMA). • Develop & update Disaster Management Plan, carry out Hazard analysis in the district • Identify safe alternate routes to cyclone 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 & DRR features in development programmes
CDM&PHO	<ul style="list-style-type: none"> • Disaster Management Plans & Safety plans for Hospitals. • Awareness and capacity building activities ASHA,GKS members, MAS,WKS, others on DM. • Capacity building of Medical & Para Medical Staffs • Assess preparedness through Mock Drills & familiar exercises • Integrate department plans with plans with Village & Block Plans and development programmes • Develop media partnership • Develop capacity of hospitals with advance equipment, proper manning & disaster resilient infrastructures

	<ul style="list-style-type: none"> • List out the staff with contact address • Stock position of the sub-center and PHC/ SCs • Prepare the plan and indent for stock • Train paramedical staff/ ANMs/ Male Health Workers/ Volunteers/ Task Forces/ Anganwadi Workers for use and providing minimum health services to the community. • Arrange for mobile health unit for inaccessible areas • MRC at village level • Health Awareness Campaign • Reinstall telephone connection • Arrangement of vehicle for uninterrupted mobility • Repair of Sub Centers buildings • Registration of Birth/ Death and other vital events • Dis-infections of Drinking water Sources thrice before flood season at least, one month before
Superintendent of Police (SP)	<ul style="list-style-type: none"> • Ensure functioning of the warning system. • Formation of team • Delegation of areas • Formation of Zones/ Sub-Zones • Maintenance of Law & Order.
Revenue Department(Collector & DM, ADM, all Sub Collectors)	<ul style="list-style-type: none"> • Holding of natural calamity meeting in the month of May and October. • Preparedness to timely release of ex-Gratia Assistance or Financial Assistance to NoKs /beneficiaries as per the NDRF/SDRF norms. • Identification/Management of Relief Camps as per the NDMA norms. • Joint inspection • Formation of Zones/ Sub-Zones • Review progress • Arrangement of boats and transport, based on the risk assessment, for evacuation • Provision/ arrangement of rescue kit at risk prone area. • Equipments to be ready • Formation of team • Delegation of areas
EE- RWSS	<ul style="list-style-type: none"> • Installation of tube-wells • Site visit and report preparation • Awareness generation for using bleaching • Helping BDO during emergency • Supply of drinking water during emergency

	<ul style="list-style-type: none"> • Site selection and water test in Palasuni (BBSR) • Collection and storing of K-018H2s test stripe, bottle, bleaching, halogen tablets, tube well accessories • Area wise deployment of staff, fitter, Mason, APD
EE- Irrigation	<ul style="list-style-type: none"> • Take necessary action as per the decision of theDLNCC meeting in the month of May and October. • Awareness Generation • Formation of Zones/ Sub- Zones • Review Progress • Provision/ arrangement of sand bags in risk prone area • Equipments to be ready • Formation of team • Arrangement of vehicle • Delegation of areas. • Strengthening of Panipanchayats activities. • Proper functioning of Minor Irrigation Points, and timely Maintenance.
Animal Resource Development Department(CDVO/ DFO)	<ul style="list-style-type: none"> • List out staff members with contact address • Vaccination of cattle population • Provision of supply of yearly medicines • Arrangement of mobile health units in inaccessible areas • Health awareness campaign. • Arrangement of vehicle for uninterrupted mobility • Repair of LI centers and other necessary equipments.
DDA/DAO- Agriculture	<ul style="list-style-type: none"> • Information provided about the disaster and likely damages to crop and plantation • Organized transport, storage and distribution of seeds/fertilizers/pesticides • Cleaning operation carried out to avoid water-logging and salinity • Surveillance for pests and diseases being carried out. • Establishment of public information centers requirements for salvage or re-plantation assessed damage. • Identification of different areas to be affected by different hazard • Listing of irrigation sources with status.
EE- Rural Works	<ul style="list-style-type: none"> • Route strategy for evacuation and relief marked will be prepared • Clearance of blocked RD roads • Community assistance mobilized for road clearing. • All staff informed about the disasters, likely damages and effects

EE- Public Works Department.	<ul style="list-style-type: none"> • Route strategy for evacuation and relief marked will be prepared • Clearance of blocked roads • Community assistance mobilized for road clearing. • All staff informed about the disasters, likely damages and effects
DTO-Telecom	<ul style="list-style-type: none"> • Inspection and repair of poles etc. • Standby arrangements for temporary electric supply or generators • Identification of materials required for response operations • All staff informed about the disasters, likely damages and effects
CDVO	<ul style="list-style-type: none"> • Availability of food stuffs for the animals • Availability of vaccines and medicines for animals • Regular check up of animals by mobile health unit • Sensitize the public about the animal care • Ensuring of basic infrastructure i.e. veterinary hospitals and mounds • Availability of Doctors and other staff
RTO/MVI	<ul style="list-style-type: none"> • Regular checking of DL and other documents of vehicles • Awareness about road safety in roads by displaying hoardings • Patrolling in night to detect the drunk drivers • Regular checking for over loading vehicles in public transport • Heavy penalty for the road rule breakers
DFO-	<ul style="list-style-type: none"> • Avoid the fire in forests • Fire fighting items and water availability in order to tackle forest fire. • Special team formation to capture the thieves of forest products. • Maintenance of Forest roads.
Railway	<ul style="list-style-type: none"> • Regular inspection of railway lines in order to avoid rail accidents • Regular maintenance of the electronic equipments • Capacity building of staffs in order to tackle the disaster situation • Fire fighting items should be regularly checked • Availability of water in order to avoid the fire accident situations is stations.
EE- Electricity	<ul style="list-style-type: none"> • Regular identification of faults • Regular checking and repair of weak points. Transformers • Stockpiling of equipments/ accessories • Skill development training / orientation

	<ul style="list-style-type: none"> • Precautions/ protections near high voltage electric equipments installed • Stopping illegal consumption of electricity
EE - PHED	<ul style="list-style-type: none"> • Super chlorination of water sources • Sinking pump machines • Installation of water storage tanks • Installation of DG sets. • Alternative arrangement in case of any excigencies.
DEO/DPC-SSA-School & Mass Education	<ul style="list-style-type: none"> • Repairing of school buildings • Repairing of roads and approaches to school buildings • Creating awareness among the parents & students regarding different disasters • Proper Planning and implementation of Disaster Management at School level and regular meeting of SSAC at different level. • Preparation of School Safety Plan and its updation.
DEO - Higher Secondary Education	<ul style="list-style-type: none"> • Repairing of High Schools /college buildings • Repairing of roads and approaches to college buildings • Creating awareness among the parents & students regarding different disasters. • Preparation of the School Safety Plan in each Schools.
Non Government Organisations (NGO)	<ul style="list-style-type: none"> • IEC activities on disaster management • Community mobilization • Ensure regular meeting of NGO co-ordination cell • Disseminate all govt. aided programme to the community • Ensure regular mock drill • Ensure regular bleaching / use disinfectants in the drinking water sources • Organize workshops seminar meeting/ training on community based disaster management • Long term mitigation strategies • Assist DDMA,Dhenkanal in over all implementation of Disaster Management in the district.

Chapter 13.

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.

Standard Response Plan for various Disasters.

1- Flood:

Measures to be taken as per the Odisha Relief Code.

(xvii) Functioning of Control Room (Para 10 & 47 of ORC)

Control Room is functioning in District Office with telephone No.06762-221376 round the clock with the effect from **1st May to 30th November** Control Rooms are also functioning in the Offices of the Sub-Collectors/Tahasildars/Block Development Officers and in other District Level Officers. The case of any natural calamities viz – flood or cyclone etc immediately after the occurrence it will be the responsibility of village level workers to inform the facts to the nearest RI who will pass on the information to the nearest Police Station for transmission of the message to the Sub-Collector and Collector's Control Room also keep the concerned zone officer and Tahasildar informed. Revenue Inspector's are trained at Tahasils level for the purpose.

(xviii) Wireless station (Para 55 OF O.R.C)

All the Police Station and Out-posts in the District are equipped with VHF/HF for transmission of the flood /cyclone messages. Special Relief Commissioner has been moved for installation of temporary V.H.F. Centers at the following places to facilitate transmission of flood/cyclone messages.

(xix) Rain recording and submission of rainfall reports (Para 49 of O.R.C.)

Rain recording stations are available in all the blocks of this district. The Head Clerks of the Blocks are acting as Rain Recording Officers under the supervision of the respective Block

Development Officers. The rainfall reports from each rain recording station shall be transmitted to the District Control Room daily through V.H.F./ Telephone/ Messenger.

(xx) Gauge reading (Para 50 of O.R.C.)

The gauge reading stations of different rivers are available at different places in the district as shown. The gauge readings will be transmitted by the flood control cell to the District Control Room every hour when the gauge reading is near or above danger level. When the gauge reading is fairly below the danger level, the same will be transmitted once a day by 5 P.M., Gauge readings at the above Gauge stations shall be communicated to the Revenue Control Room through phone/Fax from the District Control Room.

(xxi) Dissemination of weather reports, flood bulletin etc. (Para 52 of O.R.C.)

Immediately on receipt of weather warnings and bulletin above high flood from the Metrological Center of the Government of India at Bhubaneshwar or from the Revenue Department/ Special Relief Commissioner, the same shall be communicated to the superintendent of Police. Executive Engineers of the Water Resources Department, the Sub-Collectors, Executive Officers of U.L.Bs., Tahasildars and Block Development Officer who shall, without delay of time, disseminate the messages among the people through their respective agencies and caution them so that they will be in readiness to shift to flood shelters or other safer places in the event of high floods. The people will also be asked to refer to the special weather/flood bulletin of T.V./Radio during such periods.

(xxii) Storage of foodstuff in interior areas (Para 57 of O.R.C.)

To ensure that food grains/food-stuff are available in the interior areas which are likely to become inaccessible during flood, Civil Supplies Officer, Dhenkanal, has been reported to store adequate amount of rice and also to keep stock of Kerosene. Other dry foods like chuda, mudhi, guda, bread and other necessities like candle, match box etc, will be arranged immediately for distribution among the marooned people in the event of high flood.

(xxiii) Selection of flood shelters (Para 60 of O.R.C.)

In or about the flood prone areas, suitable buildings belonging to Government, Panchayat Samities, Gram Panchayats, Educational Institutions, Mahila Samitis, Recreation Centres or other Institutions of public nature may be selected for providing emergent shelter to the people on evacuation from the flood affected areas. In case no such buildings could be found, temporary structures with bullahs, bamboos, talais and tarpaulins should be raised on high mounds or embankments for such shelters. The Collectors of flood prone districts shall arrange for quick availability of bamboos, bullahs, ropes, talais, tarpaulins, etc. for construction of such shelters.

(xxiv) Organisation of relief parties for rescue and relief operation (Para 60 of O.R.C.)

In the event of high flood it will be necessary to rescue the marooned people and to distribute emergent relief to the people affected by the calamity. For smooth management of rescue and relief operation, the Sub-Collector have been instructed to constitute Relief Parties in advance indicating their area of jurisdiction. The employees of the local Government offices shall be included in such relief parties. NGOs will also be involved in the programmed.

(xxv) Arrangements for army assistance (para 61 & 69 of O.R.C.)

In case of severe and wide spread calamity, the assistance of army personnel may be sought for relief and rescue operation. In such contingency, necessary arrangements shall be made to requisition the army to assist the civil authorities through Special Relief Commissioner / Government following the procedure laid down under paragraph 61 and 69 of the Orissa Relief Code

(xxvi) Daily reporting of flood situation (Para 71 of O.R.C)

As per para 71 of Orissa Relief Code instructions have been separately issued for submission of daily situation report by the Block Development Officer /Tahasildars in the prescribed format through wireless message from the date of occurrence of the flood till after 3 days of the abatement of flood. The required flood information will be collected by the V.L.Ws and Extension Officers who will furnish the same to the Block Office by 2 P.M. every day. Besides, other line department officers will also pass on the information relating to their department officers who will also pass on the information relating to their department to the respective Block Development Officers. The Block Development Officers will compile and transmit the information as per the format of the daily situation report through the nearest police wireless by 3 P.M. to District Control Room.

(xxvii) Transport.

In the event of any Natural Calamity, vehicles may be required for sending the relief parties and relief materials including foodstuff to the affected areas. The Regional Transport Officer will make requisition and provide such vehicles with the help of his enforcement staff as per the requirement.

(xxviii) Disposal of dead bodies (Para 73 of ORC)

The dead bodies of human beings, if any, found in the flood-affected areas in case of high flood, shall ordinarily be made over to their relatives and friends, if available, for cremation or burial.

When there are no claimants for dead bodies, those shall be cremated/buried at the Govt. cost i.e. Health Department. Chief District Medical Officer, Khordha will issue necessary instructions to their officer and staff in the field in this regard. Similarly, carcasses of cattle and other animals shall be buried by the Animal Resources Development Department. Chief District Veterinary Officer will issue necessary instruction in this regard.

(xxix) Assessment of damage (Para 74 to 77 of O.R.C)

Damages caused by the Natural Calamity to the private and public properties and loss of life are assessed by the Revenue Agency. The Tahasildars are to collect such information with the help of his staff through the local enquiry. The Block Development Officers and the Extension Officers in this work if necessary will assist them and officers may be specially deputed by the Collector to assist the Tahasildars in this work where there is large-scale damage. This report of damages would be submitted without delay. The other departments will similarly assess their losses and submit reports within the stipulated time.

(xxx) Restoration of communication and power supply (Para 86 of ORC)

In case of high flood, the communication and power supply to the affected areas are usually cut off. The respective departments will take immediate steps for restoration of the communication as well as power supply after abatement of flood.

(xxxi) Law and order.

In case of occurrence of any Natural Calamity, there is change of law and order problems. Transportation and distribution of relief materials may require police protection. The Superintendent of Police will issue necessary instruction to all Inspector officer/officer officers in the District in the direction of maintenance of law and order in such eventuality and to render necessary assistance to the District/Sub-Divisional authorities for smooth management of relief and rescue operation.

(xxxii) Other Measures:

Total 8 nos of Multipurpose Flood Shelter (MCS) constructed in the district by Rural Works Division, Dhenkanal and Kamakhyanagar, OSDMA provided funds to RWDs.. The completed Multipurpose Flood Shelters constructed by OSDMA is handed over to the community based Flood Shelter Management and Maintenance Committees (CFMMC) in the district.

2- Heat wave:

- Heat Wave is defined as a condition of increased atmospheric temperature that leads to physiological stress, which sometimes can claim human life. Quantitatively Heat Wave can be defined as any increase from the normal temperature. Again, depending on the upper deviation from the normal

temperature it can be moderate Heat Wave or Severe Heat Wave. If the maximum temperature of any place continues to be 45° C for consecutive two days, it is called as Heat Wave condition. Physiologically human body can tolerate environmental temperature of 37° C.

- Whenever the environmental temperature increases above 37° C., the human body starts gaining heat from the atmosphere. In the case of humidity being high along with high temperature, a person can suffer from heat stress disorders even with the temperature at 37° or 38° C. Higher daily peak temperatures and longer, more intense Heat Waves are becoming increasingly frequent globally due to climate change. Extreme heat events already have a significant impact in Odisha and India.

Table I: IMD Temperature Ranges for Heat Wave Designations

The normal temperature is < 40° C. Any increase from the above normal temperature is called a Heat Wave.

- + (5 or 6) ° C – Moderate Heat Wave or simply Heat Wave Days (HWD).
- +7° C or more – Severe Heat Wave Day (SHWD)

Table II -The normal temperature is ≥ 40° C. Any increase from the above normal temperature is called Heat Wave.

- + (3 or 4) ° C – Moderate Heat Wave (or HWD)
- +5° C or more – Severe Heat Wave Day (SHWD)

Table III -If the maximum temperature of any place continues to be 45° C consecutively for two days (40° C for coastal areas), it is also called a Heat Wave condition or HWD

- In the year 1998, the State of Odisha faced an unprecedented Heat Wave situation, as a result of which 2042 persons lost their lives. Though extensive awareness campaigns have largely reduced the number of casualties during post 1998 period, still a good number of casualties are being reported each year.
- The district Dhenkanal is also experiencing strong Heat wave situation every year from March-June. The sunstroke is one of the prominent disasters of the district. DDMA, Dhenkanal must have focal point on proper Heat Wave Management every year.
- The precautionary measures (HAP) as prescribed by OSDMA from year to year should be implemented apparently in a meticulous manner. The DDMA shall take appropriate action for convergence of all line departments along with synergetic effort for its implementation as per responsibility fixed and timely monitoring and Supervision.

- Autopsy and Joint Enquiry Report is required in case of death due to the Sunstroke for release of ex-gratia amount of Rs.50000/- to NoKs.

It is clearly mentioned in the GO no-1936/R&DM (SR) Dt. 01-06-2015 of the Principal Secretary to Govt.& SRC.

Condition -1

Where a person is admitted to a hospital/Medical institution after being affected by a disaster and his or her death has occurred during treatment in such hospital/medical institution, the cause of death reported by the treating Medical Officer may be referred for sanction of the ex-gratia

assistance. But, no opinion is formed by the treating Medical Officer about the cause of death in such cases, post mortem should be carried out for ascertaining the same.

Condition-II

In case of report of death of a person due to heat wave/sun stroke, except where the death has occurred in a hospital/Medical institution after being admitted and treated there, in addition to the postmortem report, a joint enquiry shall be conducted by the local Revenue Officer authorized by the Collector/Sub-Collector and local Medical Officer of the PHC/SHC/CHC/DHH, which shall be taken into consideration for sanction of the ex-gratia.

- Timely submission of preliminary reports and case records to the Collector& DM, Dhenkanal by Tahasildar and Sub-Collector for sanctioning of ex-gratia and reported to SRC, Odisha for sanction and release of funds. Sub-Collectors and Tahasildar should take prompt action for release of ex-gratia to the NoKs of the deceased.

1. Drowning:

- On the basis of the information of Local R.I, the Tahasildar shall immediately intimate the Collector& DM, Dhenkanal about the matter. The fire brigades shall be deployed for search & Rescue Operation. The 6th Bn ODRAF unit, Cuttack shall be deployed as per the intensity of drowning incidents with the permission of the SRC, Odisha, if so required.
- The rescued body shall be provided immediate preliminary medical aid, and transferred to nearby Hospital for further treatment.
- The dead body shall be fishing out, and postmortem will done as per norms.
- For cremation of dead body, immediate financial support may be provided to NoKs out of Harischandra Sahayata Yojana or Redcross by Sarpanch or Sub-Collector.
- Timely submission of preliminary reports and case records to the Collector& DM, Dhenkanal by Tahasildar and Sub-Collector for sanctioning of ex-gratia and reported to SRC, Odisha for sanction and release of funds. Sub-Collectors and Tahasildar should take prompt action for release of ex-gratia amount Rs.400000/- to the NoKs of the deceased.
- The administration should take appropriate action for non occurrence of such types of Incidents in future.

2. Fire:

- The occurrence of fire incident shall be controlled with the deployment of firefighters or brigade immediately. The local arrangement may be done as per the situation before reaching Fire Brigades.
- Maximum effort shall be initiated to minimize loss of life, animals and property, others.

- The immediate relief material shall be provided to aggrieved family by Revenue Officer.
- Free kitchen or cooked food may be provided to the suffered families as per the ORC norms as per the requirements with temporary shelters.
- Financial Support or assistance in form of kind may be provided to beneficiaries from the DRCB, Dhenkanal.
- Timely submission of preliminary reports on loss of Fire and case records to the Collector& DM, Dhenkanal by Tahasildar and Sub-Collector for sanctioning of ex-gratia Assistance/HBA/Utensil /Clothing and reported to SRC, Odisha for sanction and release of funds as per the NDRF/SDRF norms.
- The involvement of District /Sub-Division administration should be proactive manner.
- The administration should take appropriate action for non occurrence of such types of Incidents in future and cause of the incident for necessary action.

5-Snake Bite:

- It is one of the State specific disasters of the State/district, Anti Snake Venom (ASV) should be kept in strategic Hospitals.
- Appropriate treatment must be provided to the patients victim of Snake Bite.
- The post mortem must be done in hospital death due to snake bite at community level also.
- For cremation of dead body rituals, immediate financial support may be provided to NoKs out of Harischandra Sahayata Yojana or Redcross by Sarpanch or Sub-Collector respectively.
- Timely submission of preliminary reports and case records to the Collector& DM, Dhenkanal by Tahasildar and Sub-Collector for sanctioning of ex-gratia Assistance amount Rs 400000/- to SRC, Odisha for sanction and release of funds as per the NDRF/SDRF norms .Tahasildar should take prompt action for release of ex-gratia amount Rs.400000/- to the NoKs of the deceased
- IEC material developed for snakebite precautionary measures as follows,

6-Lightning:

- Appropriate treatment must be provided to the patients suffering from Lightning incident.
- The post mortem must be done all death due to Lightning at community level and govt. Hospital also.
- For cremation of dead body rituals, immediate financial support may be provided to NoKs out of Harischandra Sahayata Yojana or Redcross by Sarpanch or Sub-Collector respectively.

- Timely submission of preliminary reports and case records to the Collector & DM, Dhenkanal by Tahasildar and Sub-Collector for sanctioning of ex-gratia Assistance amount Rs 400000/- to SRC, Odisha for sanction and release of funds as per the NDRF/SDRF norms. Tahasildar should take prompt action for release of ex-gratia amount Rs.400000/- to the NoKs of the deceased. In case of death of animals due to Lightning occurred, preliminary and case record to be submitted as per above for sanction of assistance to the owner of the animal/poultry.

7-Drought:

- Organizing DDMA meeting for implementation of various activities to ascertain number of GPs, block affected in the Drought situation (Crop Loss 33% or above) in the district through Crop Cutting Experiment or eye estimation, other methods.
- All Tahasildar submit drought report of their revenue area through the Sub-Collector to the Collector & DM for submission of to Govt.
- DDMA, Dhenkanal will make Coordination among the Revenue & DM, Department, Agriculture & Farmers' Empowerment, Department, Co-operation Department, Planning & Convergence Department of Govt. of Odisha at district level for proactive Drought management in the district.
- Identification of farmers/crop shares for eligible to get Input Subsidy. Timely release of Input Subsidy as per the NDRF/SDRF norms to Tahasildar for disbursement at the rate of (a) Irrigated Land @ Rs.13,500/- per hectare (ii) Rain fed land @ Rs.6800/- per hectare (iii) Perennial @ Rs.18000/ per Hectare, Maximum limits 2 Hectare per farmer.
- District/Block administration take proactive steps to augment the process to release of the Sum assured under PPBY to the farmers.
- Implementation of Govt. guidelines promptly and diligently.

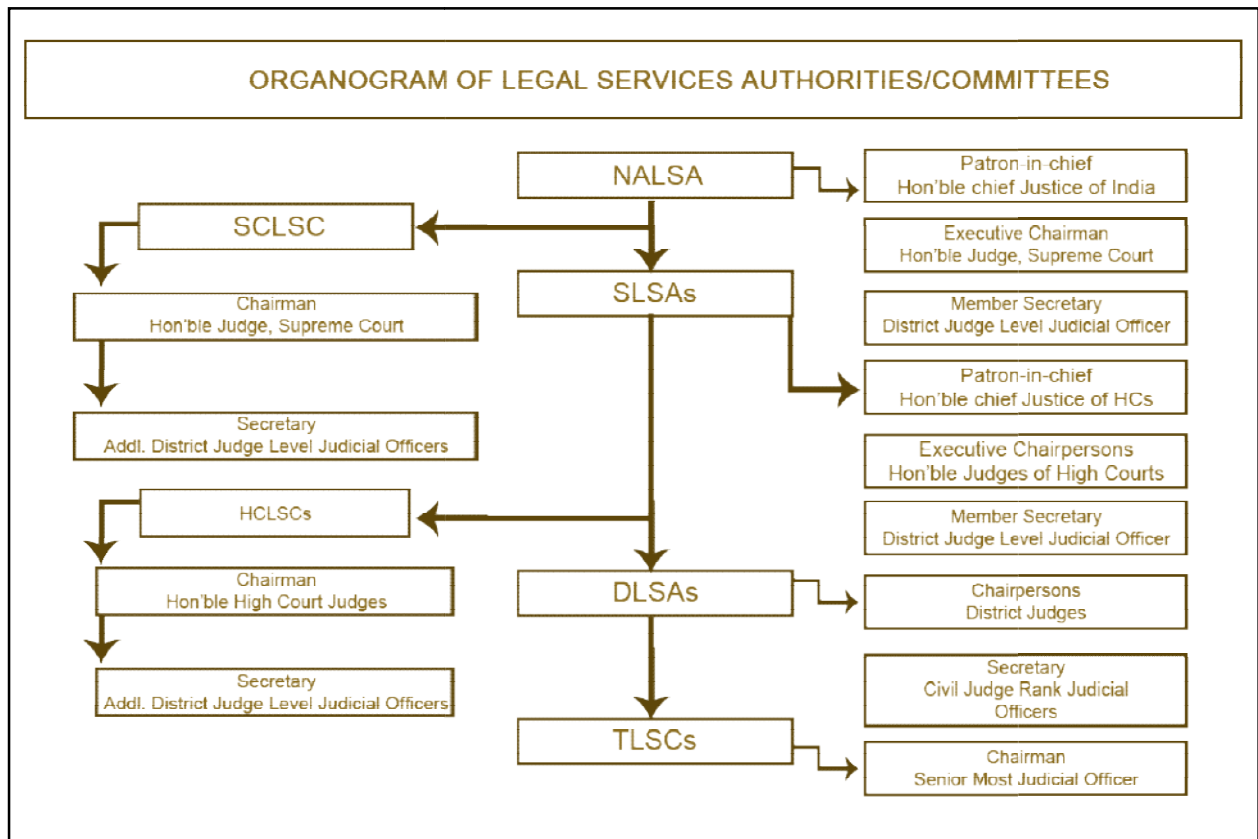
Response Plan of NALSA/SALSA/DLSA.

National Legal Services Authority (NALSA):

The National Legal Services Authority (NALSA) has been constituted under the Legal Services Authorities Act, 1987 to provide free Legal Services to the weaker sections of the society. The Chief Justice of India is the Patron-in-Chief and the Senior most Hon'ble Judge, Supreme Court of India is the Executive Chairman of the Authority.

Public awareness, equal opportunity and deliverable justice are the cornerstones on which the edifice of NALSA is based. The principal objective of NALSA is to provide free and competent legal services to the weaker sections of the society and to ensure that opportunities for securing justice are not denied to any citizen by reason of economic or other disabilities, and to organize Lok Adalats for amicable settlement of disputes. Apart from the abovementioned, functions of NALSA include spreading legal literacy and awareness, undertaking social justice litigations etc.

With the aim of reaching out to the diverse milieu of people belonging to different socio-economic, cultural and political backgrounds, NALSA identifies specific categories of the marginalized and excluded groups from the diverse populace of the country and formulates various schemes for the implementation of preventive and strategic legal service programmes to be undertaken and implemented by the Legal Services Authorities at the various levels. In carrying out all these responsibilities, NALSA works in close coordination with the various State Legal Services Authorities, District Legal Services Authorities and other agencies for a regular exchange of relevant information, monitoring and updating on the implementation and progress of the various schemes in vogue and fostering a strategic and coordinated approach to ensure smooth and streamlined functioning of the various agencies and stakeholders.



Odisha State Legal Services Authority (SALSA):

Odisha State Legal Services Authority is a Statutory Body established under the Legal Services Authorities Act, 1987. Hon'ble Chief Justice of High Court of Odisha is the Patron-in-Chief of the Odisha Legal Services Authority and the Sr. Judge of the High Court of Orissa is the Executive Chairman of the Odisha Legal Services Authority. To look after the legal services pertaining to the High Court, there is High Court Legal Services Committee, which is chaired by a sitting Judge of the High Court and the Registrar (Judicial), Orissa High Court is functioning as the Secretary of High Court Legal Services Committee. The State Legal Services Authority monitors and guides the District Legal Services Authorities and Taluk Legal Services Committees in achieving the aims and objectives of the Act. There are 30 District Legal Services Authorities in the State of Odisha and 81 Taluk Legal Services

Committees functioning under them. The District Legal Services Authorities are headed by District & Sessions Judges. An officer in the cadre of Senior Civil Judge functions as the Secretary of the District Legal Services Authority. The Taluk Legal Services Committees are headed by the senior most judicial officer posted at the station as the Chairman.

The general public who need any legal help / legal aid can directly contact the concerned Taluk Legal Services Committee / District Legal Services Authority, the High Court Legal Services Committee and the State Legal Services Authority, as the case may be, for their legal needs. Added to it, Front Offices have also been established in the premises of the District Legal Services Authority and Taluk Legal Services Committee manned by advocate retainers to offer legal advice to the beneficiaries and the general public as well and also to assist them in different Legal Services Activities.

The State Legal Services Authority has 15 Members which include the Hon'ble Chairman of High Court Legal Services Committee, Principal Secretaries in the Depts. of Law and Finance, Director-General and Inspector-General of Police, Advocate General, District Judges of Cuttack and Khurda at Bhubaneswar. Apart from that the State Authority has 5 nominated Members namely Hon'ble Minister, Law, Orissa, a Senior Advocate of Orissa High Court, an M.P., an M.L.A., and an eminent social worker who have experience in the field of Law, Finance, Social Service or Administration and who are engaged in the upliftment of the weaker sections of the society, including Schedule Castes, Schedule Tribes, Women, Children, rural and Urban Labour and who are interested in the implementation of the Legal Service Schemes.

District Legal Service Authority (DLSA), Dhenkanal

Road map/Response plan in connection of provision of legal services to the victims of disasters(As per Letter No.953 Dt.23.06.2018 of the Secretary,DLSA,Dhenkanal)

For providing legal services to the disaster victims, DLSA has planned to implement the NLSA (Legal Services to disasters victims through legal services Authorities) Scheme, 2010. The strategy of implementation of the scheme includes:

- Constitution of a core group by the SLSA consisting of a senior Judicial Officer, Lawyers, Doctors, accredited NGOs
- The said Core Group set up will immediately proceed to the area where disaster has occurred and get involved in the work of relief.
- The Core Group will supervise the distribution of relief materials, construction of temporary shelters or transporting victims to safer place, health care of victims, needs of women and children and reconstitution of damaged dwelling house.

- The Core Group will ensure the availability of food, drinking water and medicines.

Core Group:

- 1- Addl. District&Sessions Judge, Dhenkanal.
- 2- Dr.Pradyot Kumar Behera, Orthopaedic Specialist, DHH, Dhenkanal.
- 3- Dr. Bhanushankar Acharya-Spdt, SDH,Hindol
- 4- Dr.Ratnakar Samal-Gaenocologist, SDH Kamakhyanagar.
- 5- Advocate-Ms.Sasmita Pattnaik.
- 6- President/Secretary-NGO-Maharshi Dayananda Service Mission, Dhenkanal.

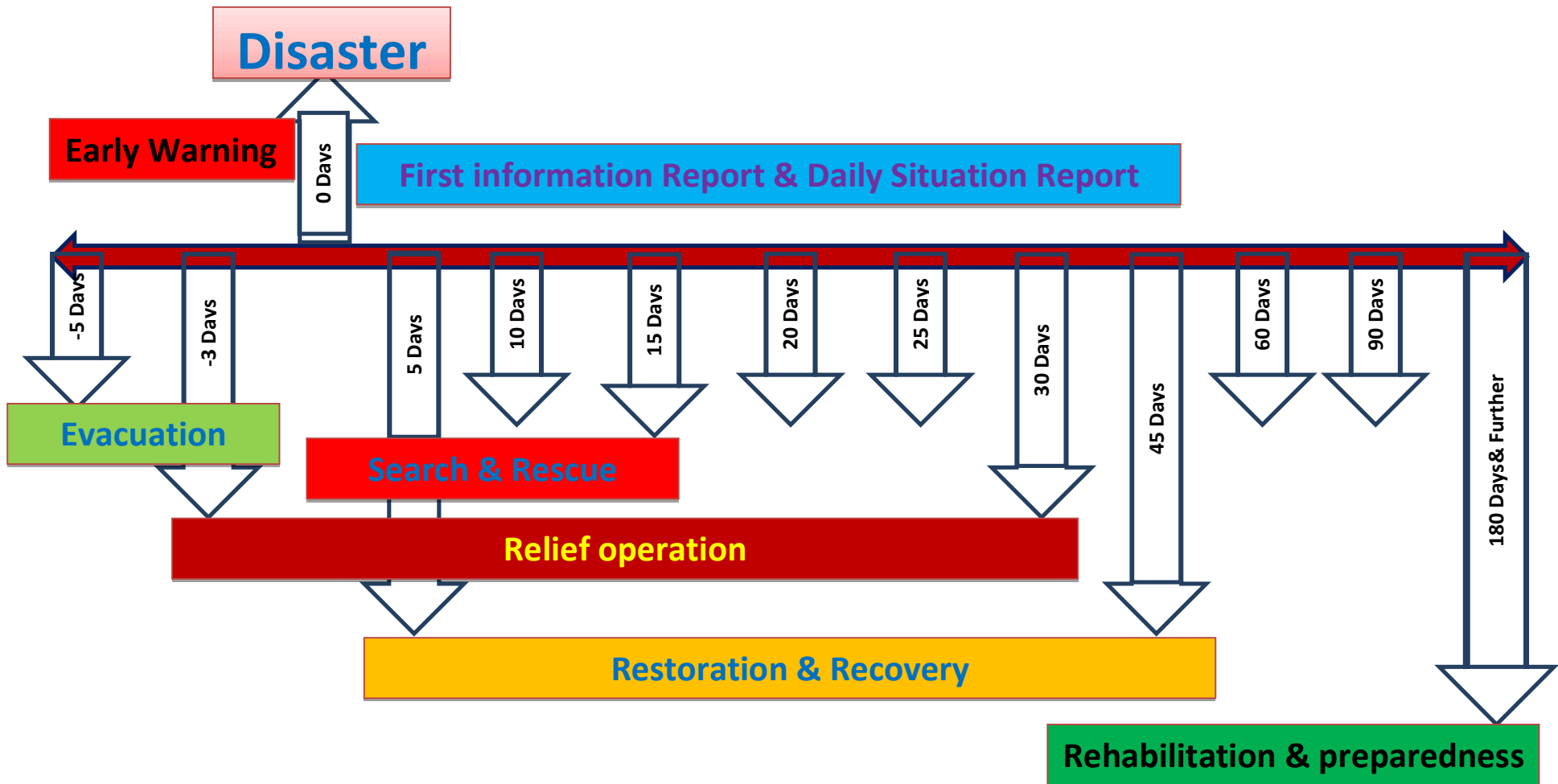
Legal Awareness:

The DLSA, Dhenkanal has planned to hold free awareness programme involving Govt. officials associated with District Disaster Management Authority(DDMA),Dhenkanal,Panel Lawyers and para legal Volunteers at a convenient places and time near the relief camps for imparting legal awareness to the victims. The Legal remedies available and mode in which the benefits of the offers and scheme announced by Govt. are to be availed or shall be included as topics.

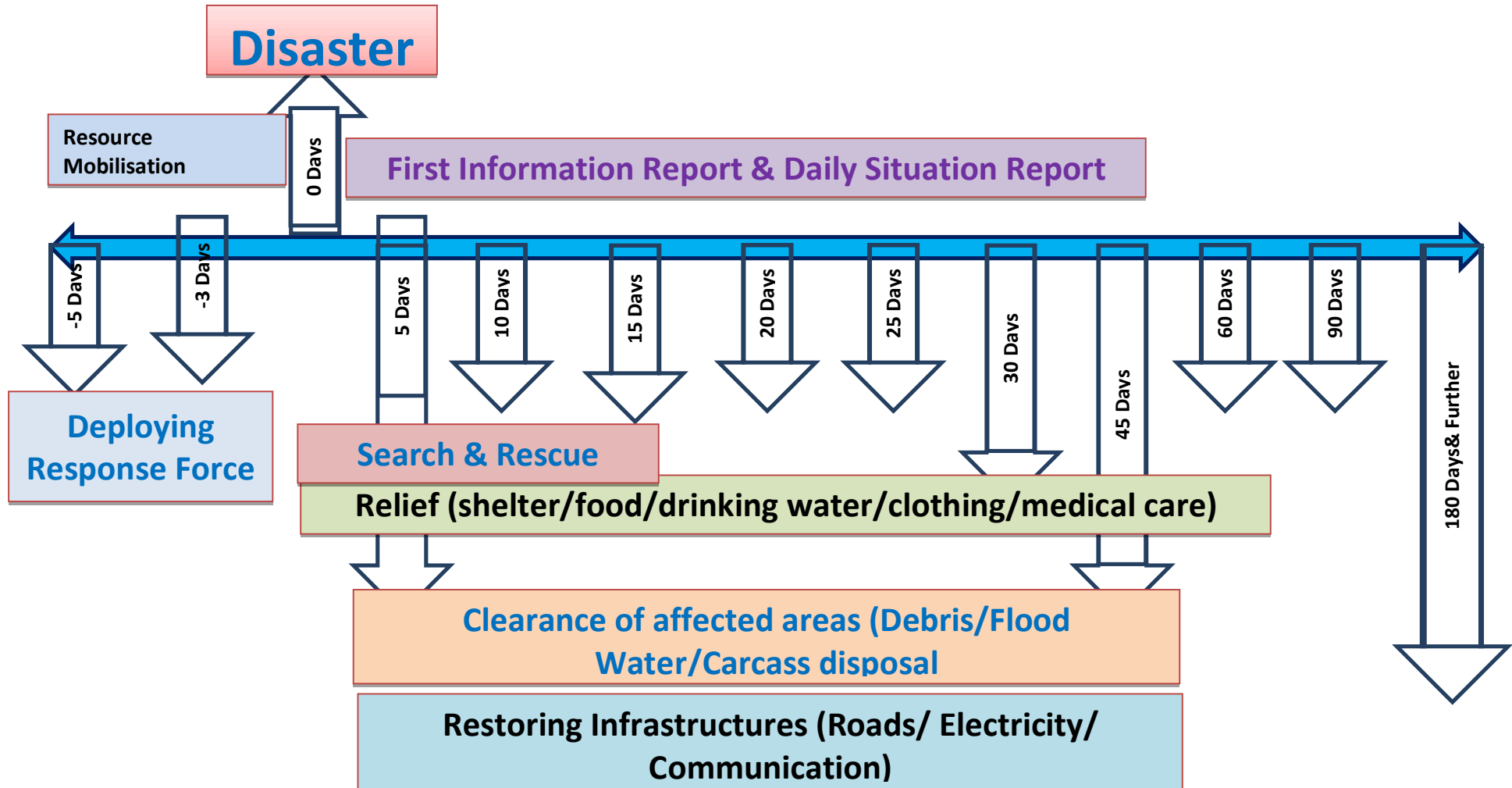
Capacity Building:

For capacity building of Panel lawyers and para legal Volunteers, the DLSA has planned to hold training programmes for them with prior permission of the SLSA. Panel lawyers and para legal Volunteers so trained shall be deputed in the legalAid Clinics organized by DLSA,Dhenkanal in the affected areas.

13.1 Phases of Response : Timeline



13.2 Relief Management: Timeline



13.3 Response: District level.

Task	Activity
Warning Communication	<ul style="list-style-type: none"> • Warning dissemination to the list of Nodal Officers & concerned BDOs and Tahasildars • 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 & DM to take up a departmental 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 stock 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

	<ul style="list-style-type: none"> • 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 • CDMO to carry out First aid & casualty management <ul style="list-style-type: none"> • Collector to collect & transmit First Information Report (FIR) & Daily Situation Report as per requirement
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13.4Response : 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

13.5Response: 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

13.6Response: 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 DDMA meeting and identification of gaps and arrangement to be done accordingly • Activate DEOC & Early Warning 	<ul style="list-style-type: none"> • Convene an emergency meeting and take stock of the situation. • After receipt of the information within 30 minutes the system 	<ul style="list-style-type: none"> • Convene an emergency meeting and take stock of the situation • Prepare an evacuation plan

	<ul style="list-style-type: none"> • Appoint / Deploy Officers In-charge of Response Base. i.e. DEOC.. • Work distribution among the officials for smooth operation • Circular to keep offices open and staffs to be in alertness • Arrange vehicle & activate Evacuation (Normal/Forceful) • Deployment of ODRAF / NDRF units in the affected areas. • Ensure formalizing supply contracts for all departments that require additional manpower during emergencies. • Create teams including transport, relief material and equipment for responding to the disaster incident headed by one of the Higher officer of the district. • 	<p>needs to be activated and the warning disseminated to the concerned.</p> <ul style="list-style-type: none"> • Frequent check up off updates and warning dissemination needs to be done accordingly. • Activate Search & Rescue • Arrange temporary shelters • Arrange logistics in shelters • Workout financial estimates (evacuation / relief /recovery) • Coordinate with Army, Air Force, Navy, NDRF & ODRAF for support towards evacuation, rescue and relief. • Facilitate preparation of a transportation plan for supply of relief items. 	<p>for the marooned / devastated areas.</p> <ul style="list-style-type: none"> • Prepare a list of transit/temporary shelters, and check their suitability for accommodating people. • Activate relief line clearance • Proper relief Distribution • Start damage assessment • Facilitate Ex-gratia & Compensation • Start primary damage estimate • Pool resources for SAR/shifting of critical patients • Convene meetings of NGOs, Youth Clubs, Self-Help Groups, etc., in the district, and assign them specific responsibilities for relief, recovery and rehabilitation. • Have a back-up communication system.
<p>CDM&PHO</p>	<ul style="list-style-type: none"> • Disseminate the alert to all concerned (Staff list) • Arrangement of medicine, First aid kits & teams • Assignment of Mobile Health units for inaccessible 	<ul style="list-style-type: none"> • Mass Casualty Management units & Triage • First Aid Centers • Medical surgical teams 	<ul style="list-style-type: none"> • Psycho-Social Counseling • Post Disaster Disease surveillance system

	<p>pockets</p> <ul style="list-style-type: none"> • Provision of medicines to the Medical Relief Centers • Identifying & shifting patients requiring intensive care to safer places • Supply of medicines & pre-positioning of medical teams to vulnerable areas • Vaccination for prevention of communicable diseases • Measures to disinfect drinking water by DSU/IDSP. • Availability of Blood in Banks and Ambulance • Assign medical personnel for each Response Base, as identified by the district administration, to the extent possible. Keep essential medicines and first aid facilities with each Response Base. • Constitute mobile response units consisting of a doctor, health workers and ANMs, and prepare a deployment plan. Each mobile health unit should be capable to cover at least one Response Base in a day. • Check stocks of equipments and drugs which are likely to be needed most in disaster management. These can be categorized generally as: 1. Drugs used in treatment of wounds and fractures such as tetanus toxoid, analgesics, antibiotics, dressing material, and splints; 2. Drugs used for treatment of diarrhoea, influenza, malaria, and infective 	<ul style="list-style-type: none"> • Adequate mortuary facility • Measures to shift patients requiring intensive care • Pool of Blood donors (Preferably each group) • Additional laboratories • Carcass disposal team & units • Hospital administration should: 1. Establish work schedules to ensure that adequate staff is available for patients' needs; • Organize in-house emergency medical teams to ensure that adequate staff is available at all times to handle emergency casualties; • and Set up teams of doctors, nurses and paramedical staff as per IRS • Secure medical supplies in adequate quantity for dealing with these situations, which may include: 1.Oral Rehydration Solutions; 2. Chlorine Tablets; 3. Bleaching Powder; 4. Anti-diarrhoea and Antiemetic (Used for controlling vomiting and nausea) medicines; 5. Intravenous fluids; 6. Suture material (A 	<ul style="list-style-type: none"> • Special attention to vulnerable section • Move medical personnel both for each Response Base and mobile unit as soon as possible. • Determine type of injuries/illness expected and drugs and other medical items required, and accordingly ensure that extra supplies of medical items are obtained quickly. • Networking with & promote treatment in Private Hospitals • Carcass Management & Issuance of Death Certificate • Proper documentation of the patients coming to the hospital and keeping their records. • Develop a system of monitoring the outbreak of disease to ensure that timely measures can be initiated to
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	<p>hepatitis; 3. Drugs required for treating snake bite and infection; 4. Drugs needed for detoxification including breathing equipment; and 5. Intravenous fluids.</p>	<p>foreign body implanted into human tissues for closure of wounds); 7. Surgical Dressings; 8. Splints; 9. Plaster Rolls; 10. Disposable Needles and Syringes; and 11. Local Antiseptics.</p>	<p>counter them. Carry out monitoring for potable water and quality of food and disposal of waste in transit/relief camps, feeding centres and affected villages</p>
<p>Superintendent of Police (SP)</p>	<ul style="list-style-type: none"> • Ensure functioning of the warning system. • Formation of team • Delegation of areas • Formation of zones/Sub-Zones • Prepare a Deployment Plan for the Police Force, based on the needs of the most vulnerable and sensitive areas. • Ensure that a sufficient number of Police Force is available for responding to the disaster situation. • Constitute ‘Search & Rescue’ Teams from the Police Force, and arrange training for these units. At least, one Search and Rescue Team for every district should be in place; more Teams could also be constituted depending upon the area and magnitude of disaster. Arrange rescue kits. • Support Block staff and volunteers during evacuation operation • Check the wireless communication network, and secure additional wireless sets for deployment 	<ul style="list-style-type: none"> • Remain in close contact with the district administration • Keep close watch on the situation • Call for emergency meeting to take stock of the situation. Develop a strategy and a mission underlining objectives. • Ensure that all field staff and stationed officers submit the necessary action reports to the Control Room. • Provide convoys for relief materials. • Arrange rescue kits. • Support Block staff and volunteers during evacuation operation • Assist fire brigade personnel in their efforts • Maintain law and order situation • Ensure security of key installations like power, water and supply, telecommunication, 	<ul style="list-style-type: none"> • Support District/Block officials and volunteers during search and rescue operation • Provide guards wherever needed, particularly at stores and distribution centres. • Help injured people, and assist the community in organizing emergency transport of seriously injured to medical treatment centres, with the assistance of health professionals. • Assist fire brigade personnel in their efforts • Make available officers to

	<p>during a disaster.</p> <ul style="list-style-type: none"> • Assist fire brigade personnel in their efforts • Maintain law and order situation • Assess and identify roads on the bases of following conditions/facilities: 1. One-Way 2. Blocked 3. Alternate route 4. Overall Traffic Management and 5. Other access roads • Plan for Installation of radio communications at: 1. District Control Room, Deputy Commissioner/ District Collector/ District Magistrate and SP Office; 2. Control Room at affected site; and 3. Departmental Offices within the District and Division. • Review and update emergency measures and procedures, and ascertain with staff the precautions that have been taken to protect equipment. 	<p>etc.</p> <ul style="list-style-type: none"> • Provide the VHF at most vulnerable points 	<p>inquire into deaths and record them, as there is likely to be shortage of time or personnel available to carry out Standard Post-mortem Procedures.</p> <ul style="list-style-type: none"> • Monitor the medical needs and welfare of people sheltered in relief camps. • Activate a public helpline, with the help of government offices to: 1. Respond to personal inquiries about the safety of relatives in the affected areas; 2. Serve as a rumour control centre; and 3. Build confidence among the public. • Provide adequate security to personnel of International Agencies for Search and Rescue, Medical Assistance and Security for their relief material and equipments,
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			etc.
EE- RWSS	<ul style="list-style-type: none"> • Develop and update the disaster management plan that includes the Contingency Action Plan for the Department based on HVRC analysis with the active involvement of all concerned line departments and local bodies in the district • Installation and repairing of tube-wells • Site visit and report • Awareness generation for using bleaching • Helping BDO during emergency • Review and update precautionary measures and procedures and ascertain with staff the precautions that have been taken to protect equipment. • Supply of drinking water during emergency • Site selection and water test in • Collection and storing of K-018H2s test stripe, bottle, bleaching, halogen tablets, tube well accessories • Area wise deployment of staff, fitter, Mason etc. • To inform all its staff members to report their respective headquarters • Close contact with DEO • Arrangement of water tankers • Procurement collection of water purifiers • Stockpiling of accessories • Repairing the defunct tube-wells 	<ul style="list-style-type: none"> • Call for emergency meeting to take stock of the situation • Coordination with the DEOC for the information and keeping a strict vigil over the situation and act accordingly. • Maintenance of record for information generation and dissemination. • Co-ordinate with District Administration • Immediate address the issues related to water scarcity during summer • Make provisions to acquire tankers and establish other temporary means of distributing water on an emergency basis. • Make available standby water supply in the event of damage, saline intrusion or other pollution of the regular supply. • Prepare plans in coordination with other departments for water distribution to all transit and relief camps, affected villages and cattle camps and ensure proper execution of these plans. 	<ul style="list-style-type: none"> • Damage assessment • Identification of areas for clearance • Delegation of team • Monitoring the work • Proposal to the government for repair and restoration • Identify unacceptable water sources and take necessary precautions to ensure that no water is accessed from such sources, either by sealing such arrangements or by posting the department guards; • Ensure that potable water supply is restored, as per the standards and procedures laid down in “Standards for Potable Water”;

	<ul style="list-style-type: none"> • Raising platforms/height of the tube wells in low lying areas. • On the receipt of disaster warning, organize continuous monitoring of: 1. Wells 2. Intake structures 2. Pumping stations 3. Buildings above ground, and 4.Pumping mains; and Treatment plant. 		
<p>EE- Minor Irrigation</p>	<ul style="list-style-type: none"> • Suspension or cancellation of all leaves of instruction to the concerned person to join head quarter immediately. • Arrangement of all-important telephone line and number in order • Arrangement or requisition of Jeeps/ Trekkers/ Auto Rickshaw to disseminate received warning information to the population of vulnerable/ weak places. • Maintenance of record for information generation and dissemination. • Co-ordinate with District Administration • Checking of all the rain-gauge stations and ensure that they are functioning properly. Ensure that the readings from these stations are available immediately to the Irrigation Department. Prescribe a register for recording of rainfall • Keep in readiness essential tool kits and protection material at critical places for emergency deployment. These may include: 1.Empty Cement Bags 2. Boulders 3. Ropes 4.Sand bags 5. Wire 	<ul style="list-style-type: none"> • Coordination of the information and keeping a strict vigil over the situation and act accordingly. • Maintenance of record for information generation and dissemination. • Co-ordinate with District Administration • . Organize round the clock inspection and repair of : 1. Bundhs 2. Dams 3. Irrigation channels 4. Bridges 5. Culverts 6. Control/slucice gates 7. Overflow channels 8. Pumps 9. Generators 10. Motor equipment, and 11. Station building 	<ul style="list-style-type: none"> • Damage assessment • Identification of areas for clearance • Delegation of team • Monitoring of work • Proposal to the government for repair and restoration • Field Office Priorities: 1. Continue round the clock inspection and repair of bunds, dams, irrigation channels, bridges, culverts, control gates and overflow channels, etc.; 2. Make round the clock inspection and repair of pumps, generators, motor equipment and station buildings; 3. Clear the inlet and outlet to

	<p>mesh 6. Shovels 7. Baskets 8. Lights, and 9. First Aid Kit</p>		<p>lake or reservoirs, on an on-going basis, in order to ensure that waterways are unobstructed by trees or vegetation; and 4. Use information formats and monitoring checklist for programme monitoring and development, and for reporting to District Emergency Operations Centre (DEOC). This is in addition to existing reporting system in the department.</p>
<p>DDA/DAO-Agriculture</p>	<ul style="list-style-type: none"> • Activate the field functionaries • Issue necessary instructions to the staff as well as the farmers to safe guard their crops (in case of heavy rain warning, to cover up the paddy or other crops already placed in the house premises) • Close watch on the flood situation • Review and update precautionary measures and procedures. • Check and stock equipment, if possible agricultural materials, which are likely 	<ul style="list-style-type: none"> • Close watch on the flood situation • Develop a pest and disease monitoring system so that timely steps can be taken to reduce damage to crops. • Suggest variety of seeds and cropping pattern, which can reduce losses and reduce the risks to farmers. • Review of stock of seeds available with the department. • Identification of 	<ul style="list-style-type: none"> • Call for emergency meeting to take stock of the situation. Develop strategy and objectives for early recovery. • Assess the extent of damage to soil, crop, plantation, micro-irrigation systems and storage facilities and ascertain the requirements of

	<p>to be needed most, during and after a disaster.</p>	<p>vehicles for necessary transportation of the seeds to the affected.</p> <ul style="list-style-type: none"> • Farmers’ awareness plan needs to be chalked out depending upon the severity of the situation. 	<p>seeds, pesticides, equipments, etc., to salvage the situation or go for re-plantation.</p> <ul style="list-style-type: none"> • Pack all valuable equipments and instruments in protective coverings and store in room that is most damage-resistant. • Assist Extension Officers to: a. Establish work schedules to ensure that adequate work force is available; and b. Set up teams of extension personnel and assistants for visiting disaster/disaster affected sites. • Coordinate the provision of agricultural services with irrigation department, DRDA, District EOC, Site Operations Centres. • Ensure that certified seeds of required varieties are available in adequate quantities. The Agriculture
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			<p>Department should work with National Seeds Corporation and other suppliers and ensure availability at their depots or have agents appointed for the same.</p> <ul style="list-style-type: none"> • Print and widely distribute the list of points where certified seeds are available along with names of varieties and rates.
EE- Rural Works	<ul style="list-style-type: none"> • Suspension or cancellation of all leaves of instruction to the concerned persons to join head quarter immediately. • Arrangement of all-important telephone line and number in order. • Maintenance of record for information generation and dissemination • Co-ordinate with District Administration Clearance of Roadside dead trees posing threat to communication, life and electricity. 	<ul style="list-style-type: none"> • Remain in alertness and close watch on the situation 	<ul style="list-style-type: none"> • Immediate restoration of the relief lines • If there is a cut off in communication then provision of alternative communication roads for relief operation.
EE- Public Works	<ul style="list-style-type: none"> • Make personnel available to the Deputy Commissioner/District Collector/District Magistrate, within the affected district/sub-division, tahasil. If more personnel are required, recall those on leave. 	<ul style="list-style-type: none"> • Close watch on the situation • Ensure the Officer-in-Charge-PWD (B&R) is responsible for mobilizing staff and volunteers to clear the roads in his section. • Dispatch extra 	<ul style="list-style-type: none"> • Provide a work team carrying emergency tool kits, depending on the nature and extent of the disaster, essential equipments such

	<ul style="list-style-type: none"> • Ensure personnel are aware and nominated to be available for emergency duties within the affected district and sub-division. • Appoint Nodal officers (technical officers) and ensure they meet the staff to review emergency procedures in their jurisdiction. • Move heavy equipments, such as front-end loaders to areas likely to be damaged and put them in a safe place. • Ensure emergency inspection by mechanical engineer of all plants and equipment at the district workshops. • Inspect old buildings and suggest retrofitting of weak buildings/ demolition of dangerous structures and evacuation of population. • Declaration of the unsafe buildings for not safe for shelter. 	<p>transport vehicles from headquarters and ensure these are stationed at safe strategic spots along routes likely to be affected.</p> <ul style="list-style-type: none"> • Give priority attention to urgent repair works that need to be undertaken in disaster affected areas. • Check the evacuation routes and assist people, if they have to evacuate an area. • Construct/ reinforce the connecting roads from villages to roads, canals and bunds and raise their level so that people can access the high ground. 	<p>as: 1. Towing vehicles 2. Earth moving equipments and 3. Cranes, etc.</p> <ul style="list-style-type: none"> • Coordinate with Public Works Department and Zila Parishad. • Mobilize community assistance for road clearing by contacting community based organizations. • Undertake clearing of ditches, grass cutting, burning or removal of debris, and the cutting of dangerous trees along the roadside in the affected area through area engineer's staff. • As per the decisions of the District Control Room, undertake construction of temporary structures required, for organizing relief work and construction of relief camps, feeding centres, medical facilities, cattle camps and Site Operations
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			<p>Centres.</p> <ul style="list-style-type: none"> • Keep an up-to-date report of all damage and repairs in the district office report book and communicate the same to the District Control Room.
<p>DTO/SDO-Telecom</p>	<ul style="list-style-type: none"> • Remain in close contact with the district administration • Regular inspection of towers, repair if required 	<ul style="list-style-type: none"> • Take steps as per the demand of the situation • All the staff needs to remain alert 	<ul style="list-style-type: none"> • Restore the telephone lines as per the priority basis such as Dist. Administration, Block Administrations, Govt. Offices,
<p>CDVO</p>	<ul style="list-style-type: none"> • List out staff members with contact address • Vaccination of cattle population • Provision of supply of yearly medicines • Arrangement of mobile health units in inaccessible areas • Health awareness campaign • Arrangement of vehicle for uninterrupted mobility • Repair of LI Centers and other necessary equipments • On receipt of warning ask all the staff to join duty immediately • Deployment of staff to the inaccessible areas • Regular maintenance of records • Co ordination with higher authorities • Fix the price of fodder so 	<ul style="list-style-type: none"> • Record keeping • Information dissemination to concerned quarters (Sub-Divisional Vet. Officer) • Maintenance of regular flow of information • Develop a system of monitoring outbreak of diseases to ensure that timely measures can be initiated to contain them. • 	<ul style="list-style-type: none"> • Damage assessment • Identification of areas for clearance • Delegation of team • Monitoring of work • Proposal to the government for repair and restoration • Cattle camps and hospital administrators should: 1. Establish work schedules to ensure that adequate staff are available; 2. Set up teams of veterinary doctors, and

	<p>that it is affordable to the farmers.</p> <ul style="list-style-type: none"> • Estimate the requirement of water, fodder and animal feed, for cattle camps and organize the same. • Procure fodder through Forest Department, traders, private cultivators, and neighbouring states, if required. 		<p>assistants for visiting disaster affected sites; 3. Fix the quantity and quality of fodder and feed to be provided in the cattle camp. Issue fodder and feed for each cattle in accordance to standards;</p> <ul style="list-style-type: none"> • Ensure that adequate sanitary conditions through cleaning operations are maintained in order to avoid outbreak of any epidemic.
RTO/MVI	<ul style="list-style-type: none"> • Remain in close contact with the Dist. Emergency Officer • A nodal officer to be nominated to make necessary coordination between RTO and Administration • Provide necessary vehicles for relief distribution • Provide vehicle for team movement if required 	<ul style="list-style-type: none"> • Remain in close coordination with the administration • Issue standing instructions to the state transport department for providing buses for evacuation and relief. 	<ul style="list-style-type: none"> • Provide required vans and ambulances for mobile health and animal husbandry teams. • Make available trucks, buses, jeeps, tractors, etc., for evacuation and supply chain management.
Fire Officer	<ul style="list-style-type: none"> • Remain alert with staff and equipments • If required test check the equipment available • In close contact with district administration • Mobilize volunteers trained 	<ul style="list-style-type: none"> • Close watch to the situation around • Assist the administration in rescue operation if required • Always attend the 	<ul style="list-style-type: none"> • Assist the administration in clearing the relief lines • Assist the administration as and when

	<p>earlier by the fire service</p> <ul style="list-style-type: none"> • Make the volunteers always action mode • Ready for rescue operation 	<p>control room phone of the station and any grave situation comes to notice, immediately inform the district administration to take prompt action</p>	<p>required</p>
Railway	<ul style="list-style-type: none"> • Remain alert with staff and equipments • If required test check the equipment available • In close contact with district administration • Safety officer of the organization needs to be always in coordination with the administration 	<ul style="list-style-type: none"> • Attend the calls comes to the control room • Any grave situation comes to notice immediately rush to the spot and inform the administration to take further steps. 	<ul style="list-style-type: none"> • Damage Assessment • Immediate restore of essential services • Assist the administration in relief transportation
SE/EEs- Electricity	<ul style="list-style-type: none"> • Make personnel available to the Deputy Commissioner/District Collector/District Magistrate, within the affected district/sub-division, tahasil. If more personnel are required, recall those on leave. • Regular identification of faults • Regular checking and repair of weak points / Transformers • Pre monsoon maintenance of the transformers and high tension lines • Pre monsoon cutting of the branches of the trees to safe guard the supply lines • Stockpiling of equipments/accessories • Skill development training/orientation • Precautions/protections near high voltage electric equipments installed • Stopping illegal 	<ul style="list-style-type: none"> • Disconnection of electricity to the affected areas to avoid any causality due to short circuit • Arrangement of uninterrupted power supply at the Hospitals (PHC , CHC, etc.) / temporary shelters • Dispatch emergency repair groups equipped with food, bedding, tents, and tools. • Provide information to the people about the state of power supply, as it is one of the most important sources of information. • Assist hospitals in establishing an emergency supply by assembling generators and other emergency equipments, if 	<ul style="list-style-type: none"> • Restoration of electricity with additional HR • Ensure that the Power Supply department makes alternate arrangements of emergency supply for the following offices on receipt of warning: 1. Hospitals 2. Public Health Departments 3. Deputy Commissioner/ District Collector/ District Magistrate Office 4. District EOC, Sub-Divisional EOC, Site Operation Centres 5. Police Stations 6. Telecommunicat

	<p>consumption of electricity</p> <ul style="list-style-type: none"> • Disconnection of electricity in the event of an emergency • Arrangement of alternative energy sources such as generators and fuel for generators • Identification of HR and allot them to different areas • Protect Power Stations from disaster. Raise the height of compound walls. Arrange gunny bags. Install pump sets for draining water in case of Disaster/ Cyclone/ Tsunami, etc. • Check emergency tool kits, and assemble any additional equipment needed. • After receiving alert warning, immediately undertake inspection of the following: 1. High tension lines 2. Towers 3. Sub-stations 4. Transformers 5. Insulators 6. Poles, and 7. Other equipments. 	necessary.	<p>ions buildings 7. Meteorological stations 8. Irrigation Office, and 9. Any other place, if required.</p> <ul style="list-style-type: none"> • Compile an itemized assessment of damage, from reports made by various electrical receiving centres and sub-centres. • Report all activities to the head office and district EOC.
EE/AE - PHED	<ul style="list-style-type: none"> • Alerting the staff • Drinking water to be immediately filled in overhead tanks to provide safe drinking water • Arrangement of generator and fuel for emergency at the supply points 	<ul style="list-style-type: none"> • Close watch on the situation 	<ul style="list-style-type: none"> • Immediate restoration of water supply with additional human resources
DEO/DPC(SSA)- School & Mass Education	<ul style="list-style-type: none"> • Closely work with the block administration • HMs of the schools needs to be alerted and schools needs to be closed depending upon the severity of the situation. • School keys need to be placed with a teacher staying at the same village • Necessary arrangement for 	<ul style="list-style-type: none"> • If required the key needs to be handed over to the villagers to take shelter • The local teachers needs to be present at the school to look after the important documents i.e. Enrollment list, other 	<ul style="list-style-type: none"> • Assist the villagers to go to their houses after de-warning or the situation comes to normalcy.

	cooking materials i.e. utensils and gas • If the school itself in the flood area then steps needs to be taken to safe Guard the books supplied by the govt. for the students.	related official document. • Further the available teacher also try to maintain the disciple among the evacuees taking shelter in the school	
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13.7 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).

13.8 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.

- Mobile vans deployed-
- Water tanker deployed-
- ORS powder distributed-
- Halogen Tablets distributed-
- Water pouches distributed-
- Bleaching powder distributed-
- Sintex Tanks available-
- Tube wells disinfected-

3.FS & CW Department

-Qtls. Chuda, Qtls gur supplied to Blocks
(Qty .in quintals)

District	Chuda	Gur

- Qtls of rice has been allocated to the Districts mentioned below

Blocks **Quantity allocated (in quintal)**

Total:

4.Fisheries &A,R.D. Department

- Animals vaccinated-
- Animals treated-

Damages to Roads/River Embakments

1.R.D. Department.

- Roads damaged-
- CD/Breach occurred-
- Breach closed-
- Building damaged-
- Building collapsed-
- Pipe water supply affected-
- Tube Wells affected-

2.Works Department.

- Roads damaged-
- Breach occurred-
- CD works damaged-
- CDs washed away-
- Breach closed-

3.W.R Department.

- Breach occurred-
- Breaches closed-

Breach closing works in progress

Chapter 14.

Rehabilitation & Restoration;

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.

1.1 Standard Operating Procedure: Restoration & Rehabilitation.

Name of the Department	Normal Time
Collector/ADM / Emergency Officer	<ul style="list-style-type: none"> • Restoration of Critical Infrastructures to bring situation to normalcy • Ensure Restoration of roads & channels, Communication network, Electricity & Energy • Coordination of Line departments and review of activities. • Ensure health management in the affected areas • Adopt sustainable mitigation measures in the restoration activities
CDMO&PHO	<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 with DSWO. • Carry out Trauma & Psycho-social counseling. • Rehabilitation health services through DDRC, Branch office of NIRTAR.
Superintendent of Police (SP)	<ul style="list-style-type: none"> • Conduct training programmes for staff on operation of updated equipments for Search and Rescue • Conduct training programme for staff on First Aid • Review and monitor of preparedness activities • Rapport building with the local community by the staff members

EE- RWSS	<ul style="list-style-type: none"> • Proper planning for supply of drinking water at the rural pockets for summer and flood season • Time to time restoration of tube wells and raising of platforms in the flood affected area • Aware the community to use safe drinking water
EE- Irrigation	<ul style="list-style-type: none"> • Identification of weak embankments • Repairing of the embankments • Capacity building training programmes for staff and other stakeholders • Flood contingency planning and sharing with DDMA
DAO- Agriculture	<ul style="list-style-type: none"> • Training to farmers and other stake holders on different good agricultural practices • Training to Staff members on different good / updated agricultural practices
EE- Rural Works	<ul style="list-style-type: none"> • Routine developmental works but disaster proofing mechanism • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis • Immediate restoration of critical infrastructures
EE- Public Works	<ul style="list-style-type: none"> • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis • Immediate restoration of critical infrastructures
DTO-Telecom	<ul style="list-style-type: none"> • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis
CDVO	<ul style="list-style-type: none"> • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff

	<p>during damage assessment</p> <ul style="list-style-type: none"> All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis
RTO/MVI	<ul style="list-style-type: none"> All Circle Officers instructed to be in coordination with the local authority Identification and Provision of vehicles for necessary emergency movement
DFO-	<ul style="list-style-type: none"> All Circle Officers will carry out damage assessment in their respective areas Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis.
Railway	<ul style="list-style-type: none"> All Circle Officers will carry out damage assessment in their respective areas Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis Damage Assessment report of Railway may be sent to parent department apart from DDMA /DEOC.
EE- Electricity	<ul style="list-style-type: none"> All Circle Officers will carry out damage assessment in their respective areas Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis Restoration of Electricity in hospitals, administrative buildings
EE – PHED	<ul style="list-style-type: none"> All Circle Officers will carry out damage assessment in their respective areas Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis Restoration of safe drinking water Close watch on outbreak of jaundice and other water related diseases
DEO- School &	<ul style="list-style-type: none"> All Circle Officers will carry out damage assessment in their

<p>Mass Education</p>	<p>respective areas</p> <ul style="list-style-type: none"> • Representatives from line department’s viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis • Immediate restoration of Electricity, Drinking water facility, sanitation facilities after any serious disastrous event
<p>DEO - Higher Secondary Education</p>	<ul style="list-style-type: none"> • All Circle Officers will carry out damage assessment in their respective areas • Representatives from line department’s viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment • All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis • Immediate restoration of Electricity, Drinking water facility, sanitation facilities after any serious disastrous event

14.3 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					

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 crop loss 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											
4											
5											
Total											

14.4 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										
4										
Total										

14.5 Farmers affected by successive calamities

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										
4										
5										
Total										

14.6-Animal Husbandry (Replacement of Animals)

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 Animal		Poultry	Milch Animal		Draught Animal		Milch Animal		Draught Animal			
	Buffalo/ Cow	Sheep / Goat	Camel / Horse/ Bullock	Calf/ Donkey/ Pony		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)

Contd..

14.7 Assistance sought for repair /restoration of damaged houses

(Rs. In Lakh)

Sl	District	Fully Damaged/ Severely Damaged								Partially (15% & More)				Huts		Cattle shed attached with house		TOTAL
		Plain Areas				Hilly Areas								Nos.	Amount	Nos.	Amount	
		Pucca	Amount @ Rs.- 95100/-	kutcha	Amount @ Rs.- 95100/-	pucca	Amount Rs.- 101900/-	Kutcha	Amount @ Rs.- 101900/-	pucca	Amount @ Rs.- 5200/-	Kutcha	Amount @ Rs.- 3200/-	Nos.	Amount @ Rs.- 4100/-	Nos.	Amount @ Rs.- 4100/-	
1																		
2																		
3																		
4																		
5																		
6																		
7																		
TOTAL																		

14.9 Assistance for provision for temporary accommodation, food, clothing and medical care

Sl. No.	Name of the district	Average No. (in a day) of relief camps	Average duration of operation of relief camps	Average No. of people accommodated per day in the relief camps	Expenditure incurred on (Rs. in lakh)				
					Tempo-rary accomm-odation	Food	clothin g	Medical care	Total expen-diture
1									
2									
3									
4									
5									
6									
7									
Total									

14.10 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 kutch houses	
	v) Partly damaged houses (pucca + kutch)	
	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	

14.11 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-15

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-terms 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;

Currently no such Recovery project is under implementation, DDMA will take appropriate action for implementation of Recovery project, if sanctioned in future, as per the guidance of the Govt.

Chapter- 16: Financial Arrangement

16.1 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.

16.2 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 Volume-II for SDRF Items and Norms)

16.3 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.

16.3.1 Cases Eligible for Assistance under CMRF

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

16.3.1.2 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.

16.3.1.3 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.

16.3.1.4 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.

16.4 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.

16.5 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.

11.5.1 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.

16.5.2 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.

16.6 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.

16.7 Different State and Central Government Schemes and Programme.

Sl No.	Name of the Scheme	Sector	Nodal Department	Objective of the Scheme
1	Pradhanamantri Fhasala Bima Yojana	Agriculture/Crop Insurance.	Department of Agriculture and Farmer Empowerment, Govt. of Odisha.	It provides insurance coverage and financial support to the farmers in the event of failure of any of the notified crops as a result of natural calamities, pests & diseases. . In case of non commercial Crops and commercial crops, the maximum premium rate is 2% and 5% respectively. It is implemented in convergence with the Revenue &DM, Agriculture and farmer empowerment, Planning & Convergence Department and implementing Insurance Company. The finalization of premium rate is fixed in the bidding process by the State Govt. This scheme is implemented with the financial support of both GoI and State Govt.
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	Mahatma Gandhi National Rural Employment Guarantee Schemes (MGNREGS)	Livelihood Security	Ministry of Rural Development / Panchayati raj Department	It aims at enhancing the livelihood security of the households in rural areas of the country by providing at least one hundred days of guaranteed wage employment in every financial year to every household whose adult members volunteer to do Un-Skilled manual work.
4	National Rural Livelihood Mission (DeenDayal Antordaya Yojana)	Poverty reduction programme	Ministry of Rural Development / Panchayati raj Department	To reduce poverty by enabling the poor households to access gainful self-employment and skilled wage employment opportunities, resulting in appreciable improvement in their livelihoods on a sustainable

				basis, through building strong grassroots institutions of the poor.
5	Deen Dayal Upadhaya - Gramin Kaushalaya Yojana (DDU-GKY)	Skill development scheme	Ministry of Rural Development / Panchayati raj Department	DDUGKY is a placement linked skill development scheme for rural poor youth. This initiative is a part of NRLM
6	Pradhan Mantri Gram Sadak Yojana (PMGSY)	Poverty Reduction Strategy	Rural Development Department	Pradhan Mantri Gram Sadak Yojana (PMGSY) aims at providing all weather connectivity to all unconnected habitations having population 250 and above for IAP districts and population of 500 or more in general area and population of 250 or more in schedule area for non-IAP districts
7	National Social Assistance Programme (NSAP)	Social Welfare programme	Ministry Of Rural Development	The National Social Assistance Programme (NSAP) which came into effect from 15th August, 1995 represents a significant step towards the fulfillment of the Directive Principles in Article 41 of the Constitution. The programme introduced a National Policy for Social Assistance for the poor and aims at ensuring minimum national standard for social assistance in addition to the benefits that states are currently providing or might provide in future. NSAP at present, comprises of Indira Gandhi National Old Age Pension Scheme (IGNOAPS), Indira Gandhi National Widow Pension Scheme 8(IGNWPS), Indira Gandhi National Disability Pension Scheme (IGNDPS), National Family Benefit Scheme (NFBS) and Annapurna.
8	Pradhan Mantri Awas Yojana (Housing for all – Urban)	Rehabilitation of Slum Dwellers	Ministry of Housing and Urban Poverty Alleviation	The Mission will be implemented during 2015-2022 and will provide central assistance to Urban Local Bodies (ULBs) and other

				implementing agencies through States/UTs for: 1. In-situ Rehabilitation of existing slum dwellers using land as a resource through private participation 2. Credit Linked Subsidy 3. Affordable Housing in Partnership 4. Subsidy for Beneficiary-led individual house construction/enhancement.
9	Swachha Bharat Mission (SBM-U)	Cleanliness, Water & Sanitation, Urban	Ministry of Drinking Water & Sanitation	To accelerate the efforts to achieve universal sanitation coverage and to put focus on sanitation, the Prime Minister of India launched the Swachh Bharat Mission on 2nd October, 2014. The Mission Coordinator shall be Secretary, Ministry of Drinking Water and Sanitation (MDWS) with two Sub-Missions, the Swachh Bharat Mission (Gramin) and the Swachh Bharat Mission (Urban), which aims to achieve Swachh Bharat by 2019, as a fitting tribute to the 150th Birth Anniversary of Mahatma Gandhi, which in rural areas shall mean improving the levels of cleanliness in rural areas.
10	Swachha Bharat Mission (SBM)	Cleanliness, Water & Sanitation, Gramin	Ministry of Drinking Water & Sanitation	To accelerate the efforts to achieve universal sanitation coverage and to put focus on sanitation, the Prime Minister of India launched the Swachh Bharat Mission on 2nd October, 2014. The Mission Coordinator shall be Secretary, Ministry of Drinking Water and Sanitation (MDWS) with two Sub-Missions, the Swachh Bharat Mission (Gramin) and the Swachh Bharat Mission (Urban), which aims to achieve Swachh Bharat by 2019, as a fitting tribute to the 150th Birth Anniversary of

				Mahatma Gandhi, which in rural areas shall mean improving the levels of cleanliness in rural areas.
11	National Rural Drinking Water Programme (NRDWP)	Safe Drinking Water	Ministry of Drinking Water & Sanitation	The aim and objective of National Rural Drinking Water Programme (NRDWP) is to provide every rural person with adequate safe water for drinking, cooking and other basic domestic needs on a sustainable basis, with a minimum water quality standard, which should be conveniently accessible at all times and in all situations. Achieving this aim and objective is a continuous process.
12	Pradhan Mantri Krishi Sinchai Yojana (PMKSY) – Integrate Watershed Management Programme (IWMP)	Agriculture	Ministry of Agriculture and Farmers Welfare, GoI	Har Khet ko Pani “Prime Minister Krishi Sinchayee Yojana” PMKSY has been formulated amalgamating ongoing schemes viz. Accelerated Irrigation Benefit Programme (AIBP) of the Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR,RD&GR), Integrated Watershed Management Programme (IWMP) of Department of Land Resources (DoLR) and the On Farm Water Management (OFWM) of Department of Agriculture and Cooperation (DAC).
13	Digital India Land Record Modernisation Programme (NLRMP)	Digital India	Ministry of Rural Development	The Digital India Land Records Modernisation Programme (DILRMP) is launched by Government of India in August 2008, aimed to modernize management of land records, minimize scope of land/property disputes, enhance transparency in the land records maintenance system, and facilitate moving eventually towards guaranteed conclusive titles to immovable properties in the country.

14	Deen Dayal Upadhaya Gram Jyoti Yojana (DDUGKY)	Rural Electrification	Ministry of Power	<ul style="list-style-type: none"> • Separation of agriculture and non-agriculture feeders • Strengthening and augmentation of sub-transmission & distribution • Rural electrification
15	Shyama Prasad Mukherjee Urban Mission – NRuM	Economic Development	Ministry of Rural Development	The objective of the National Rurban Mission (NRuM) is to stimulate local economic development, enhance basic services, and create well planned Rurban clusters.
16	Atal Mission for Rejuvenation and Urban Transformation (AMRUT)	Urban Infrastructure	Ministry of Urban Development	Providing basic services (e.g. water supply, sewerage, urban transport) to households and build amenities in cities which will improve the quality of life for all, especially the poor and the disadvantaged is a national priority.
17	Smart City Mission	Urban Infrastructure	Ministry of Urban Development	It aims at: i. Adequate water supply, ii. Assured electricity supply, iii. Sanitation, including solid waste management, iv. Efficient urban mobility and public transport, v. affordable housing, especially for the poor, vi. Robust IT connectivity and digitalization, vii. good governance, especially e-Governance and citizen participation, viii. Sustainable environment, ix. Safety and security of citizens, particularly women, children and the elderly, and x. health and education.
18	National Health Mission (NHM)	Health	Department of Health & Family Welfare, GoO	Improved health status and quality of life of rural population with unequivocal and explicit emphasis on sustainable development measure..
19	Sarva Shiksha Abhiyan (SSA)	Elementary Education	Ministry of Human Resource Development, Department of	Sarva Shiksha Abhiyan (SSA) is Government of India's flagship programme for achievement of Universalization of

			School Education, Literacy, GOI	Elementary Education (UEE) in a time bound manner, as mandated by 86th amendment to the Constitution of India making free and compulsory Education to the Children of 6-14 years age group, a Fundamental Right.
20	Integrated Child Development Scheme (ICDS)	Women and Child	Ministry of Women and Child Development	Objectives of the scheme are as under:- <ul style="list-style-type: none"> • To improve the nutritional and health status of children in the age group of 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.
21	Mid-Day Meal Scheme	Primary Education	Ministry of Human Resource Development, Department of School Education, Literacy, GOI	With a view to enhancing enrolment, retention and attendance and simultaneously improving nutritional levels among children, the National Programme of Nutritional Support to Primary Education (NP-NSPE) was launched as a Centrally Sponsored Scheme on 15th August 1995.
22	Pradhan Mantri UJJWALA Yojana (PMUY) – LPG connection to BPL families	Women Empowerment	Ministry of Petroleum and Natural Gas	Pradhan Mantri Ujjwala Yojana (PMUY) is a welfare programme of GoI ,launched by Hon'ble PM of India on 1 st May 2016 ,aims to safeguard the health of women & children (BPL) by providing them with a safe and clean

				cooking fuel – LPG, so that they don't have to compromise their health in smoky kitchens or wander in unsafe areas collecting firewood.
23	Pradhan Mantri Kaushal Vikash Yojana	Skill Development	Ministry of Skill Development and Entrepreneurship (MSDE)	Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the flagship scheme of the Ministry of Skill Development & Entrepreneurship (MSDE). The objective of this Skill Certification Scheme is to enable a large number of Indian youth to take up industry-relevant skill training that will help them in securing a better livelihood. Individuals with prior learning experience or skills will also be assessed and certified under Recognition of Prior Learning (RPL).
24	Digital India – Public Internet Access Programme – Providing common Service Center in each Gram Panchayat	Digital India	Ministry of Electronics & Information Technology Government of India	CSCs would be strengthened and its number would be increased to 250,000 i.e. one CSC in each Gram Panchayat. CSCs would be made viable and multi-functional end-points for delivery of government and business services. DeitY would be the nodal department to implement the scheme.
25	Pradhan Mantri Awaas Yojana(Grameen) Earlier - Indira Awaas Yojana (IAY)			Indira Awaas Yojana has been restructured into Pradhan Mantri Awaas Yojana w.e.f 1 st April, 2016 in India. Government committed to provide “Housing for all” by 2022. Identification and selection of beneficiaries based on the housing deficiency and other social deprivation parameters in SECC-2011.
26	Gopabandhu Gramin Yojana (GGY)	Rural Development	Panchayati Raj Department	The principal objective of the scheme is to provide additional development funds to the targeted districts to

				provide infrastructure consisting of Bijili, Sadak and Pani (i.e. electrification, roads and water supply) to every revenue village in the identified districts on need based manner.
27	Biju Pucca Ghar Yojana (BPGY)	Rural Housing	Rural Development Department	Biju Pucca Ghar Yojana is a major Flagship program of Government of Odisha, which plays a pivotal role in Rural Development. Odisha Government attaches utmost priority and importance to provide pucca house to every household, living in kutcha house and is committed to achieve this goal by 2019.
28	Biju Pucca Ghar Yojana (Mining)	Rural Housing	Rural Development Department	Biju Pucca Ghar Yojana (Mining) is a major Flagship program of Government of Odisha, which plays a pivotal role in Rural Development. Odisha Government attaches utmost priority and importance to provide pucca house to every household, living in kutcha house and is committed to achieve this goal by 2019.
29	Nirman Shramik Pucca Ghar Yojana	Rural Housing	Rural Development Department	The Nirman Sharmika Pucca Ghara Yojana has been lunched to meet the housing needs of building and other construction workers registered under the Odisha Building and other Construction Workers' welfare Board who do not have their own pucca house and who have not availed of housing assistance under any other Govt. Scheme of the State or Central Govt. A building worker between the age of 18 years and 60years having existing valid registration with the Odisha Building and other construction Workers Welfare Board under the Building and

				other construction workers (RE&CS) Act at least for a continuous period of 3years will be eligible for assistance under the “Nirman Sharmika Pucca Ghara Yojana”.
30	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.

Mainstreaming of DRR and CCA into development programs and schemes

1. Mahatma Gandhi National Rural Employment Guarantee Scheme

The Scheme seeks to provide social protection for the most vulnerable, livelihood security for the poor through creation of durable assets, improved water security, soil conservation and higher land productivity, drought-proofing and flood management in rural India.

Utilization of MGNREGS funds to reduce the vulnerability of Panchayat against natural hazards such as floods, earthquake, landslide etc. should be given priority. While identifying MGNREGS works the hazard profile and offer continuous employment opportunities in the event of disasters take into account to ensure livelihood security in the event of disasters.

- 1) Notify the areas within villages liable to threat/damage from natural hazards such as river incursion/erosion;
- 2) Identify locations within the villages and prepare a list of appropriate MNREGA works that could be undertaken to mitigate disaster and climate risks in the vulnerable locations as per HRVA;
- 3) Prepare a list of work related to creation as well as strengthening of flood protection structures within the villages/panchayats;
- 4) Undertake works related to removal of river siltation under MNREGA;
- 5) Undertake plantation works for preventing river erosion/incursion as well as landslide mitigation;
- 6) Create structures to regulate flow of rainwater under MNREGA;
- 7) Designate evacuation routes and put in system for safe evacuation;
- 8) Give priority to disaster mitigation works under the Scheme which address hazards like flood, river erosion among others;

- 9) Develop a checklist for the Gram Sabha on safe construction of various community assets/structures under the Scheme;
- 10) Introduce mechanism of passing resolutions by Sarpanch in Gram Panchayat for disaster preparedness;
- 11) Develop convergence strategy for DRR & CCA integration into programmes being implemented with the help of government as well as private funds;
- 12) Set up task forces of the youth/villagers in the village/cluster of villages and equip them with basic tools and knowledge to address and monitor hazard risks;
- 13) Undertake awareness for PRIs and community members on safe development;

2. Indira Awaas Yojana

The Scheme seeks to ensure adequate and affordable housing for all and facilitate development of sustainable and inclusive habitats in rural areas by expanding Government support, promoting community participation, self- help and public-private partnership within the framework of Panchayati Raj.



Inclusion of such measures like application of hazard resistant design in construction of IAY houses, appropriate sitting of IAY housing, development of model design for IAY houses capacity Building of rural masons on safe construction, capacity Building of PRIs and community awareness are some of key actions to be taken under the Scheme.

- 1) Train masons and construction workers in multi- hazard-resistant construction particularly addressing risk of earthquake and fire;
- 2) Demonstrate technology and designs for low-cost, eco-friendly and hazard resistant housing;
- 3) Design, construct and demonstrate models of low-cost hazard resistant housing with locally available, eco-friendly to popularize them for house construction;
- 4) Formulate a Panchayat level convergence plan and facilitate a joint platform for programmes pertaining to housing, water and sanitation, and rural roads, among others;
- 5) Organize orientation programmes for beneficiaries/owners;
- 6) Build capacity of Village/Panchayat level functionaries, PRI representatives, community- level resource persons;
- 7) Organize trainings for Gram Sabha on the subject of convergence, based on the plan;
- 8) Put in place a mechanism to promote convergence of schemes for synergy and optimal utilisation of resources;
- 9) Motivate beneficiaries to put additional funds for incorporating hazard-resistant features;
- 10) Develop and implement a strategy to create awareness about disaster risks and produce as well as disseminate appropriate IEC materials.

3. Pradhan Mantri Gram Sadak Yojana

The Scheme seeks to connect villages by all weather roads by consolidating the rural road network. Roads are lifelines and must be functional in post disaster phase.

- 1) As the villages are vulnerable and lack road connectivity' construction of all weather roads under the PMGSY should be given preference;
- 2) Give preference to establish road connectivity for critical facilities such as primary health centres (PHCs), schools and panchayat offices within the villages;
- 3) Identify localities and households within villages which are disconnected particularly during disasters such as a flood or earthquake and make it a priority to build roads there for connectivity, with adequate safety measures.
- 4) Keeping in view the hazard proneness of the villages, roads construction in the villages PMGSY must meet the technical specifications and geometric design standards given in the Rural Roads Manual of the Indian Roads Congress (IRC:SP20:2002) and the Hill Roads Manual (IRC:SP:48);
- 5) Road design and surface for villages should consider soil type and rainfall as well as by the technical specifications laid down in the Rural Roads Manual (IRC: SP20:2002).
- 6) Road for villages should be designed preferably as a cement road or with paved stones, besides being provided with appropriate side drains and cross drainage so that improper drainage does not damage the road or the dwelling units alongside;
- 7) While approving road construction, additional provision should be made for hazards such as floods, landslides and snowfall, among others;
- 8) Village/Panchayat level functionaries, PRI representatives and community- level resource persons should be oriented on DRR and involved to enhance the effectiveness of the PMGSY;
- 9) Gram Panchayat should formulate a plan to bring convergence of the PMGSY with the MGNREGA and other schemes.



4. National Health Mission

The Mission seeks to attain universal access to equitable, affordable, and quality healthcare services, accountable and responsive to people's needs, with effective inter-sectoral convergent action to address the wider determinants of health.

Reaching health facilities in remote areas is a big challenge particularly in post disaster phase when infrastructure and connectivity would be down. Adequate capacity needs to be created at the local level.



- 1) Undertake disaster mitigation measures for PHCs in the villages with focus on retrofitting, non-structural mitigation and medical emergency preparedness planning and training;
- 2) Establish linkages with telemedicine to reach out to villages/households that are difficult to access;
- 3) Ensure that health facilities to be created in the villages in future are able to withstand disaster risks as indicated in HRVCA;
- 4) Ensure training on structural safety for engineers and masons involved in execution of projects under the programme.
- 5) Prepare Health Disaster Preparedness and Response Plan with focus on the training of PHC staff, ASHA Workers and ANMs;
- 6) Formulate village level emergency response plan for health facilities in the villages;
- 7) Prepare training module on disaster management for PHC staff, ASHA Workers, and ANMs;
- 8) Impart training to PHC staff, community workers such as ASHA, ANMs and community members on first aid and emergency health response;
- 9) Put in a mechanism for surveillance, detection and reporting outbreaks of diseases and issuing alerts and response tracking;
- 10) Prepare IEC material showing the links between health aspects and DRR & CCA and create awareness among the community by dissemination of IEC material through community-level workers.

5. Sarva Shiksha Abhiyan

The Scheme seeks to attain Universal Elementary Education (UEE) in the country in a mission mod by ensuring that all children complete five years of primary schooling and eight years of elementary schooling of satisfactory quality.

Schools are key public assets and must be protected from known hazard risks as they play critical role in post-disaster phase. Assessment of structural and non-structural elements of schools buildings, undertaking vulnerability assessment and training & capacity building of school functionaries, parents, teachers, students and non-teaching staff etc. must be inculcated.



- 1) Undertake disaster mitigation measures for schools in the villages with focus on retrofitting, non-structural mitigation and medical emergency preparedness planning and training;
- 2) Undertake Structural & Non-structural Safety Audit of Schools and develop School Safety Plan
- 3) Undertake structural and non-structural risk reduction/mitigation measures
- 4) Undertake retrofitting of existing schools and provide for drinking water and sanitation.

- 5) New school buildings to be constructed under the programme in future should to ensure structural safety and demonstrate multi-hazard resistant design and construction to serve as a model for similar buildings in the area;
- 6) Focus on the use of low cost and environment friendly construction material that is locally available;
- 7) Designate school buildings for providing shelter during emergency situations. Ensure necessary facilities are built in to cater support to the evacuated.
- 8) Give priority to seismic safety, the safety of boundary walls and furniture & fittings in the schools;
- 9) Give emphasis on micro planning for school development at the village or village cluster level, with the formation of a core group comprising of teachers and parents, community leaders and NGOs;
- 10) Undertake functional training of teachers and other stakeholders (PRI Members) involved in managing the school;
- 11) Constitute Core Committee at village/panchayat level to oversee school safety and preparedness;
- 12) Formulate and implement a School Disaster Management Plan and conduct preparedness drills;
- 13) Prepare training modules on School Safety to train School Management Committee members, teachers and core committee members;
- 14) Conduct specific trainings on school safety and management;
- 15) Undertake training of children and school staff in basic first-aid, select search and rescue methods;



16) Organize rally and education programmes to raise awareness;

17) Encourage student volunteers to participate in DRR activities;

18) Undertake annual mock drill on fire, flood, and earthquake safety.

6. *Rashtriya Krishi Vikas Yojana*

The Scheme seeks to incentivize the states to increase public investment in agriculture and allied sectors to ensure that local needs/crops/priorities are better reflected in the agricultural plans of states.

Agriculture is one of the key sectors affected by natural hazards which enhance vulnerabilities of farmers and often threaten their livelihood. Exposure to and losses resulting from climate induced disasters are increasing worldwide, affecting peoples' livelihoods and food security.

Preserving the natural resources and ecosystem against hazard risks and long-term climate variability would be key for rural communities. Uneven distribution of rainfall, occurrence of floods and dry spells, lack of infrastructure, difficulties associated with hilly terrains, poor economic status of farmers, very small land holdings, depletion of soil nutrients, massive soil erosion due to high intensity rainfall events, lack of post harvesting facilities and marketing infrastructures are some of the challenges in 10 villages.

Providing technological know-how to the farming community through agricultural extension services and educating farmers on soil and water conservation technologies and equipping them with knowledge and skills to deal with disaster and climate risk is the need of the hour. Undertaking skill upgradation of farmers, generating awareness on hazards, establishing early warning mechanisms to gather information related to impending floods, droughts or pest attacks etc. should be key interventions.

- 1) Undertake construction of bunds along arable lands of villages to prevent river ingress and soil erosion;
- 2) Undertake locally appropriate solutions such as the construction of check dams/ minor irrigation tanks to regulate flow of rain water;
- 3) Establishing storage and accessibility for quality/ hazard-resistant seeds; Undertake extension activities for training farmers;
- 4) Set up mechanism for integrated pest management;
- 5) Advise farmers on various agricultural issues free of cost in the local language.
- 6) Impart training of farmers and for the creation of grain and seed banks;
- 7) Create awareness about the likely impacts of climate change and adaptation measures;
- 8) Involve community facilitators who can motivate farmers to use various technological innovations and appropriate practices;
- 9) Strengthen market linkages to ensure remunerative prices to farmers;
- 10) Establish a mechanism to track changes in weather patterns and their impact on agriculture, document and disseminate among farmers.
- 11) Promote crop insurance for farmers.

7. National Rural Drinking Water Programme



The Programme seeks to provide safe and adequate drinking water for all, at all times for drinking, cooking and other basic needs on a sustainable basis in rural India. Though water may be available, but quality of water could be an issue during post disaster phase.

- 1) Identify and revive water spring sheds in order to protect and safeguard the water supply;
- 2) Assess drinking water challenges during disasters for the villages and provide solutions;
- 3) Establish low-cost water treatment plants at the GP level;
- 4) Create reliable drinking water facilities under the programme;
- 5) Take measures to ensure sustainability of the water supply infrastructure;
- 6) Take actions in convergence with sanitation programmes;
- 7) Involve NGOs, CSOs and ASHA workers for addressing challenges of drinking water in post disaster phase.

8. Swachh Bharat Abhiyan



The Scheme seeks to accomplish the vision of clean India by 2019 by eliminating open defecation and changing people's attitudes to sanitation and create awareness. The

programme plans to construct 12 crore toilets in rural areas.

- 1) Based on the sanitation and hygiene practices of the villages/panchayat, organize the orientation of key personnel
- 2) Prepare a village/Gram Panchayat Plan and IEC activities under the scheme;
- 3) Design and promote toilet models and sanitation infrastructure suited to local geo-climatic conditions;
- 4) Provide proper sanitation facilities in schools and community centers;
- 5) Encourage cost-effective and appropriate technologies for ecologically sustainable sanitation;
- 6) Develop community-managed solid and liquid waste management for overall cleanliness in villages;
- 7) Involve community-level staff such as teachers, ASHA and Anganwadi workers to motivate the community to adopt sanitation facilities;
- 8) Motivate PRIs and communities to provide sustainable sanitation facilities through awareness creation and health education;
- 9) Undertake capacity building of field-level staff including school teachers, ASHA and Anganwadi workers, NGOs and Community-based Organizations (CBOs) connected with toilet construction.
- 10) Develop appropriate sanitation strategies for disaster situations and include this in the Village/Gram Panchayat Disaster Management Plan.

16.8 :Roles of District Planning Committee(DPC) on financial outlay on mainstreaming Disaster Risk Reduction (DRR) in development programmes.

As per the Orissa District Planning Committee Rules 2000, the District Planning Committee, Dhenkanal, consists of 20 members as per details given below.

- a. **MLA of the District nominated by Govt. of Odisha (Hon'ble MLA, Parjang Constituency) is the Chairperson of the Committee and Collector &DM,Dhenkanal is the Member Secretary of the Committee.**
- b. 15 members to be elected out of Zilla Parishad members.
- c. 1 member to be elected out of Councilors of ULBs.
- d. 2 Expert Members to be nominated by Govt. of Odisha.

Hon'ble MPs & Hon'ble MLAs are the permanent invitees of the District Planning Committee,Dhenkanal.

Now the aforesaid Rule has been modified as Odisha District Planning Committee (Amendment) Rules, 2016. As per modification,

- a) As nearly as may be, but not less than one-half of the total number of the elected members shall be reserved for Women.
- b) The term of office of elected Members shall be 3 years commencing on the date of his/her Election unless remove earlier, provided that the term of the office of every elected members shall be co-terminus with his/her membership in the Zilla Parishad or, as the case may be, the Municipality.
- c) The term of Office of nominated members shall be 3 years commencing from the date of his/her nomination unless remove earlier.
- d) A Minister in the Council of Ministers of the State or a Member of the Legislative Assembly of the state representing the constituency which comprises wholly or partly any area of the district, as may be nominated by the Govt., who shall be the Chairperson.
- e) The Vice Chairperson shall be nominated by the Government from among the elected members.

Role of DPC

1. Technical committees will be constituted in the District level, Panchayat level, Block level & ULB level for preparing Integrated Draft Development Plan every year in respect of **47 nos.** of District Sector Schemes.
2. Consolidation of Draft Development Plan for approval in the Committee.
- 3- The proposal for Disaster Management activities/measures (Mitigative Measures, Awareness, Preparedness, others) both structural and non structural will also be included and same to be approved by DPC for Disaster Risk Reduction.
- 4-The list of projects to be taken up under Gopabandhu Grameen Yojana shall be approved by the District Planning Committee.

Besides, Power has been delegated by the Govt. to the Chairperson of District Planning Committee to sanction funds out of “**Critical Gap Fund for District Plan**” placed at his disposal to address the basic rural infrastructure needs as priority with special emphasis on zero connectivity areas, Health, Drinking Water, Street Lights etc. During the Financial Year 2017-18, Govt. has sanctioned **Rs.119 Lakh** which has been sanctioned for **32 nos.** of projects covering all the Blocks.

Key Considerations for DPC, Dhenkanal on Disaster Management:

- 1-Include Disaster Risk Reduction (DRR) in the different Govt. Projects implemented in the district.
 - Take Appropriate Mitigation Measures.
 - Consider disaster risks before initiating developmental projects.
- 2-Ensure Risk Sensitive and informed developmental projects.
 - Take professional advice of disaster management experts to vet the project proposals.
 - Develop checklist on DRR to be attached with the project proposals.
- 3-Consider vulnerabilities and need of the community through assessment and feedback.

- It will be exercised on Physical, Social, Economic and Environmental aspects
- 4-Sensitise and build capacity of the key stake holders.
- Sensitise and capacitate stakeholders in Risk Sensitive Planning in the different Govt. community organizations, i.e GKS, WKS, MAS, SHG Federation and CLF, Panipanchayat, Farmers Club and others.
 - Build Local Capacity and reduce Vulnerability.
- 5-Facilitate Integration and Inter- Departmental Linkages at district and block level.
- Mostly interdepartmental linkages of the key sectors/Departments like, Health,Environment,Housing,Agriculture, Water&Sanitation,Education,Road &Buildings and Urban Development.
- 6- Co-ordination and Convergence with DDMA, Dhenkanal.
- 7-Other customised activities may be decided in the adaptive environments.

16.9 Fund provision for disaster preparedness & capacity building.

Special Relief Commissioner and OSDMA will provide necessary funds for preparedness and capacity building activities in the district. Apart from that ,the DDMA will utilise funds of District Mitigation Fund for conducting various preparedness,capacity building and mitigative measures from time to time.The detailed capacity building plan is given in the respective Chapter.

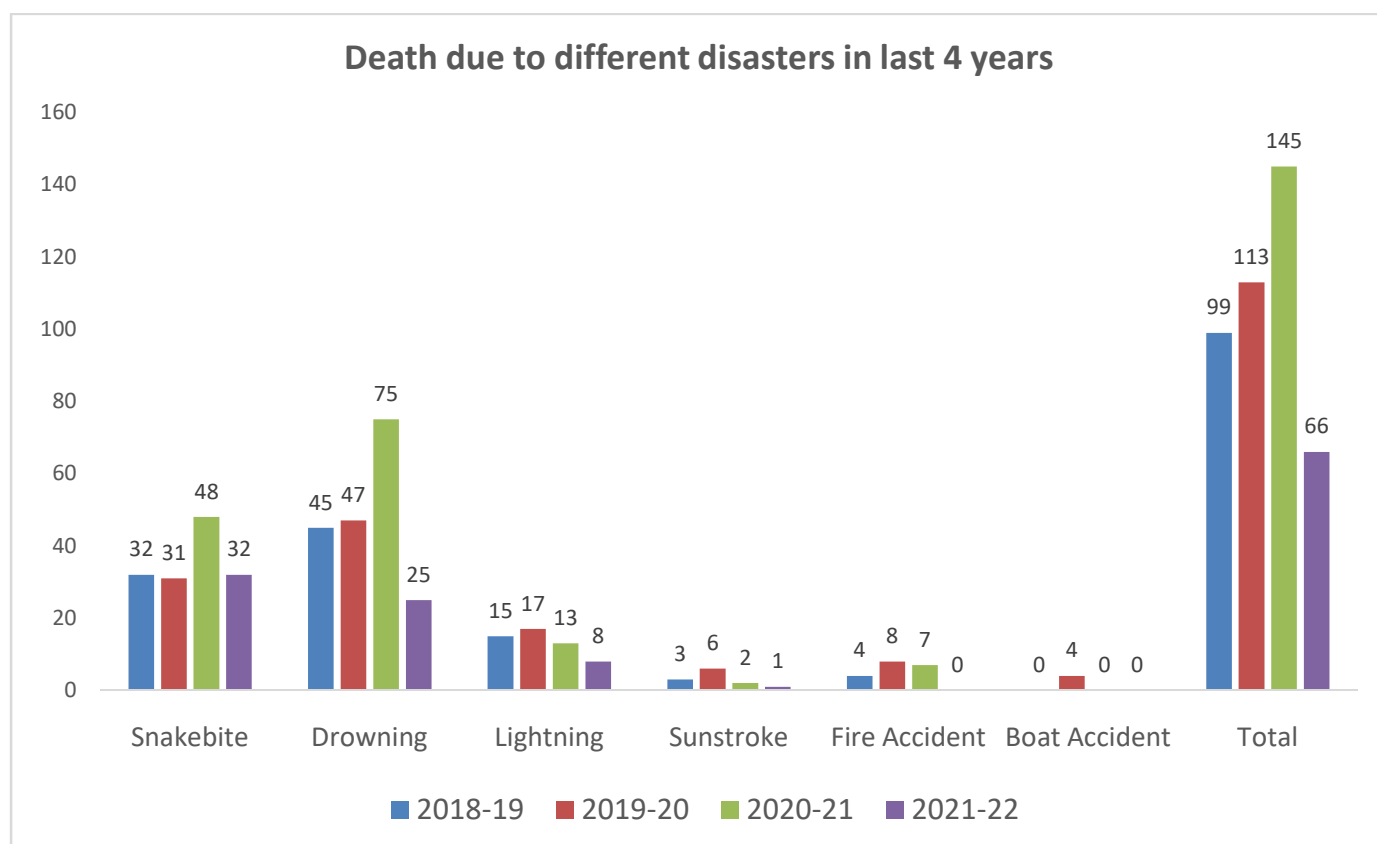
Chapter 17: Lessons learnt and Documentation.

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

The trends and analysis of death due to various disasters in last four years & pending cases due to different reasons as follows,

Sl.No	Name of Disaster	2018-19	2019-20	2020-21	2021-22	Total	Pending Cases 2021-22	Pending cases 2018-19 to 2020-21	Total Pending Cases
1	Snakebite	32	31	48	32	143	24	2	26
2	Drowning	45	47	75	25	192	39	19	58
3	Lightning	15	17	13	8	53	4	1	5
4	Sunstroke	3	6	2	1	12	0	2	2
5	Fire Accident	4	8	7	0	19	1	2	3
6	Boat Accident	0	4	0	0	4	0	0	0
	Total	99	113	145	66	423	68	26	94

If confirmed and alleged death are taken into account, total death due to different disasters in 2021-22 will be 134 which will be slightly declining to 2020-21. 95.5 % death occurred due to State Specific Disasters in last 4 years,



NB: In 2021-22, total 68 nos. of alleged death & in 2018-19 to 2020-21, total 26 nos. alleged death due to different disasters are yet to be confirmed.

. Total nos. of confirmed death in 2018-19,2019-20 and 2020-21 was 99,113 and 145 respectively. Where as, total nos. of death due to various disasters in last 4 years was 423. In last 4 years, the highest no. of death occurred due to Drowning (192) and which contributes 45% of the total confirmed death due to disasters..

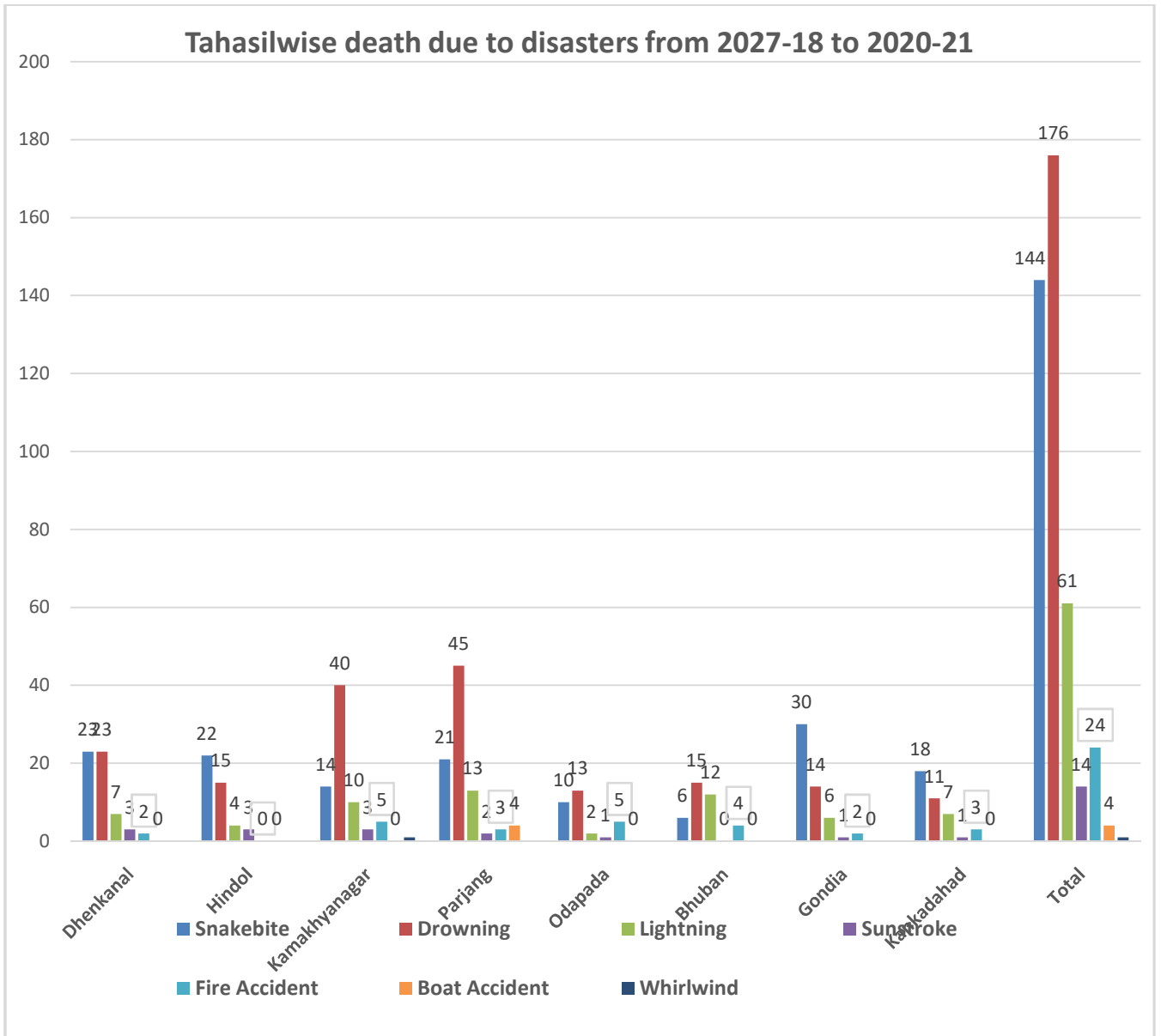
So far as the payment of ex-gratia to NoKs of deceased is concerned, total **Rs.16,50,50000** was released as per the SDRF/NDRF norms i.e **Rs. 400000/-** in each case of death due to disasters other than Sunstroke and Rs.50000/- in case of death due to Sunstroke.

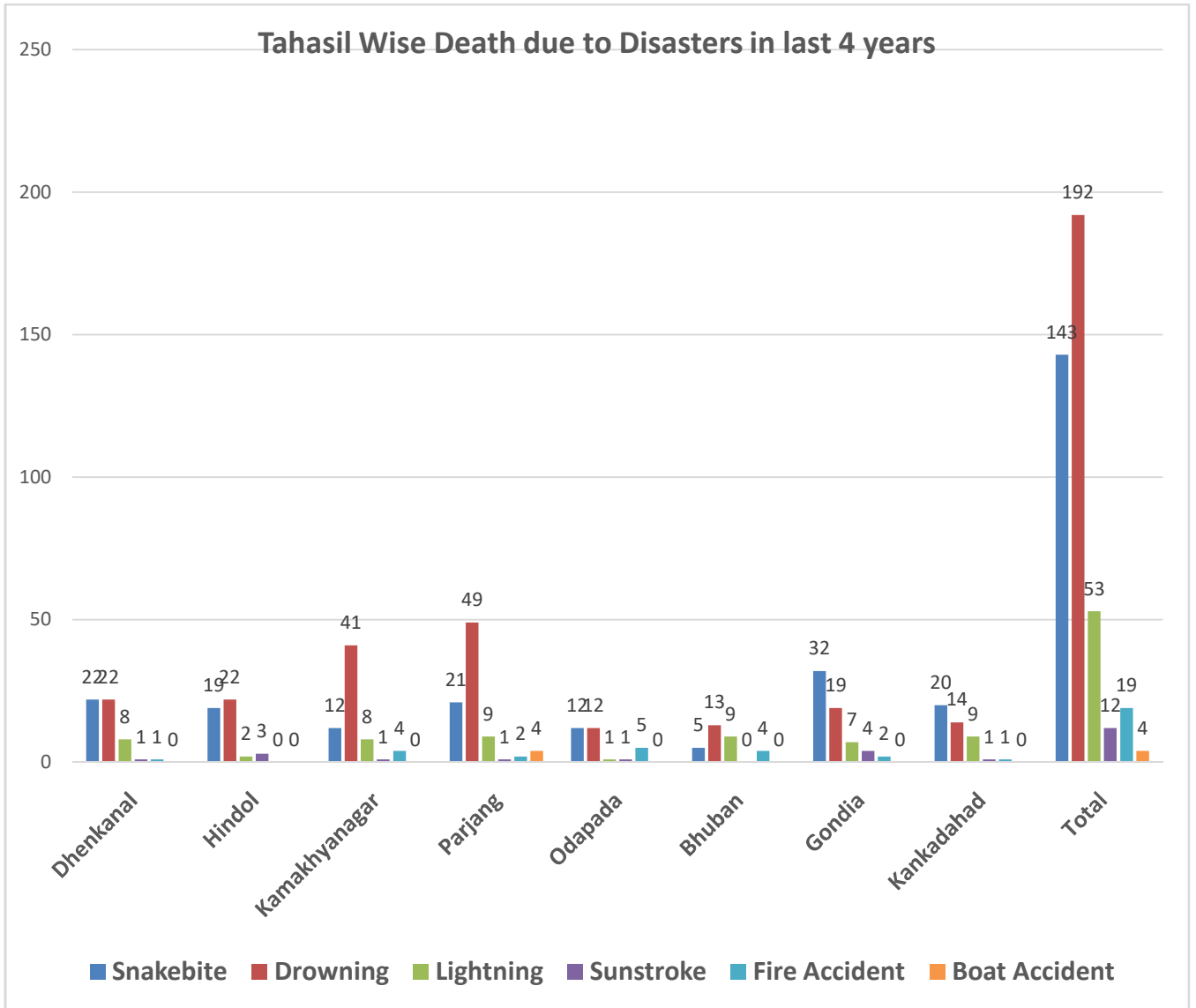
The trends and analysis of Tahasil wise death due to various disasters in last four years from 2018-19 to 2021-22 as follows,

Tahasil wise death due to various notified Disasters from 2018-19 to 2021-22, Dhenkanal.

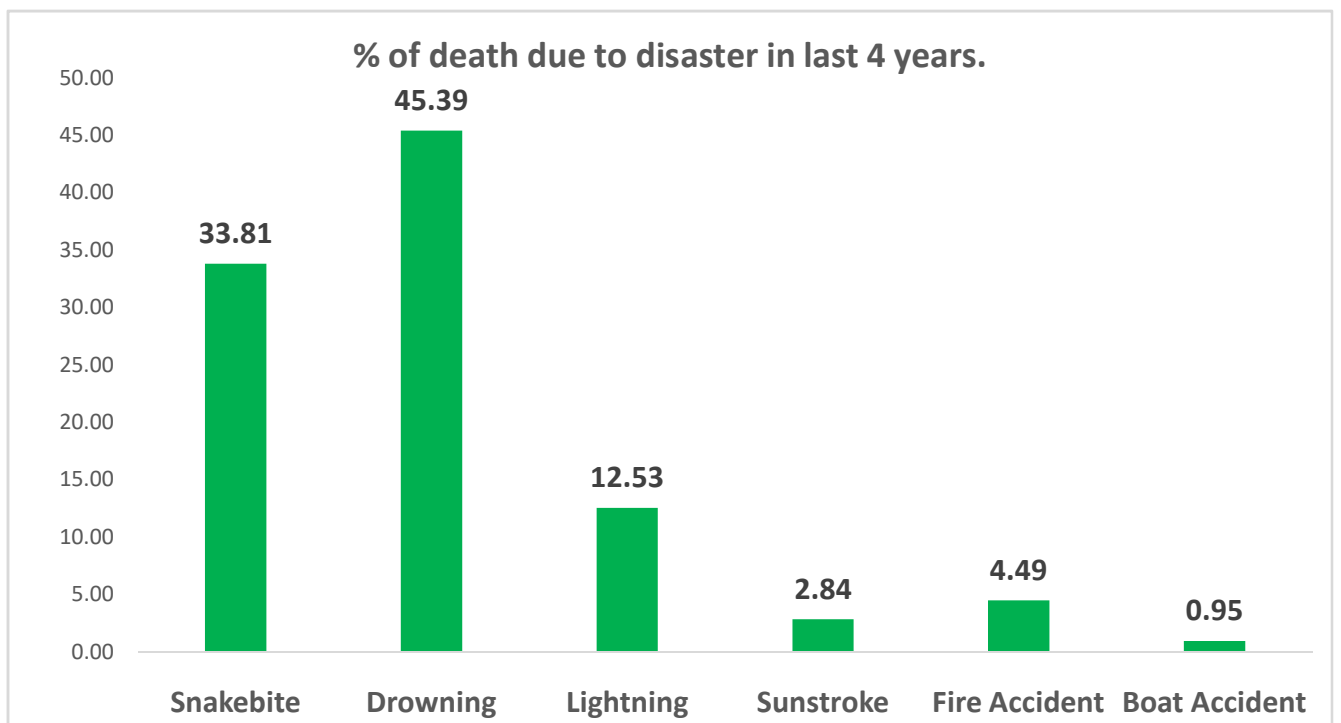
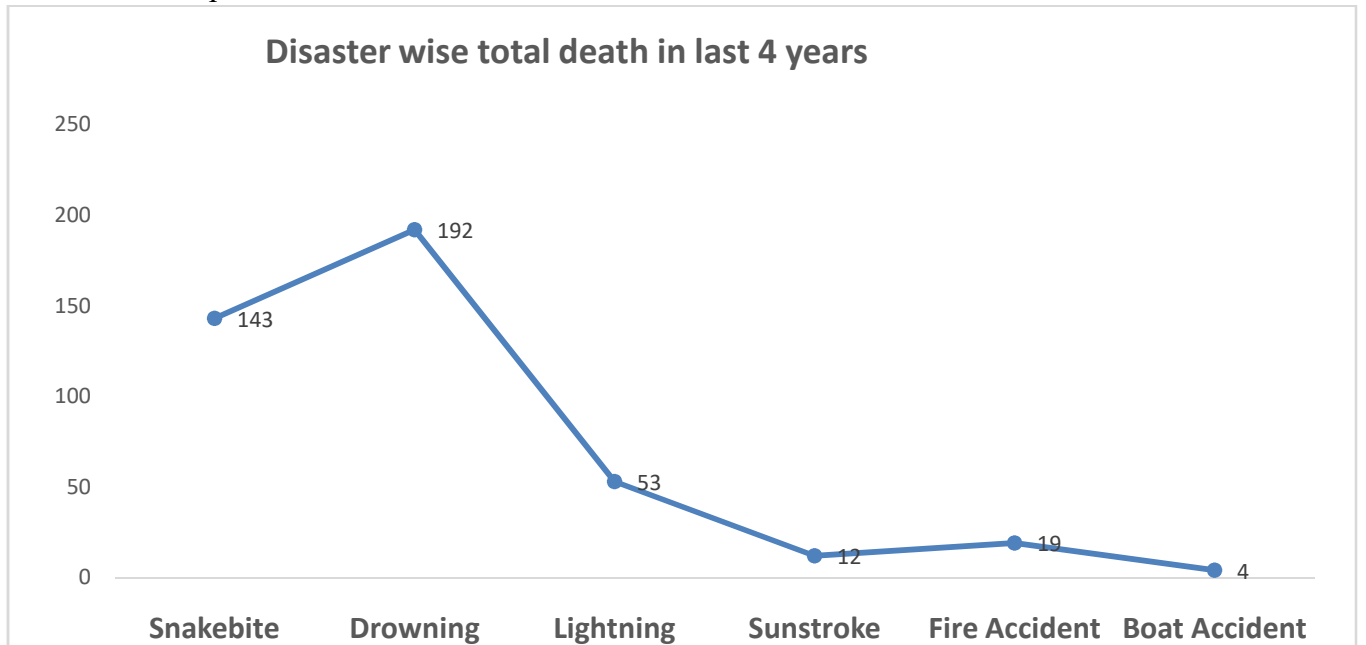
Sl.No.	Tahasil/ Block	Death due to Disasters from 2018-19 to 2021-22						Total
		Snakebite	Drowning	Lightning	Sunstroke	Fire Accident	Boat Accident	
1	Dhenkanal	22	22	8	1	1	0	54
2	Hindol	19	22	2	3	0	0	46
3	Kamakhyanagar	12	41	8	1	4	0	66
4	Parjang	21	49	9	1	2	4	86
5	Odapada	12	12	1	1	5	0	31
6	Bhuban	5	13	9	0	4	0	31
7	Gondia	32	19	7	4	2	0	64
8	Kankadahad	20	14	9	1	1	0	45
Total		143	192	53	12	19	4	423

The highest no. of death (86) has occurred in Parjang block and lowest no. of death occurred in Odapada & bhuban block (31 each). Where as 66 nos. of death was in Kamakhyanagar block and 64 nos. of death was in Gondia block relatively higher than rest three blocks. The graphical representation is as follows,





Line Chart represents disaster wise death occurred from 2018-19 to 2021-22 in the district.

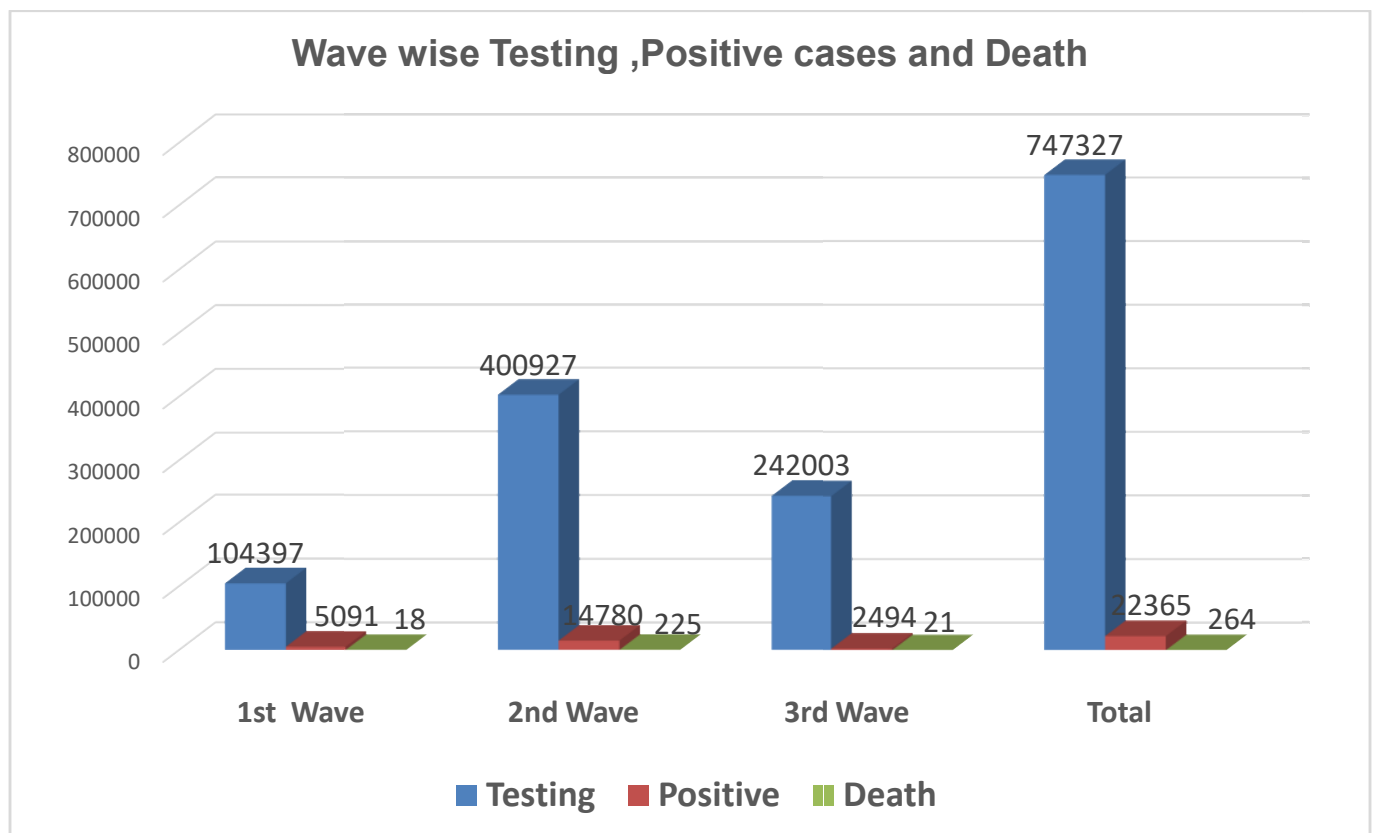


As per the above analysis, it is found that all Tahasils are vulnerable to multi-disasters and Snakebite & Drowning contribute **79.20% death out of the total death toll due to disasters in last four years.** As such, the Drowning, Snakebite & Lightning are prominent disasters in the district apart from others. The special focus will be given to minimise the impact and incidence of the above two disasters by implementing mitigatory measures.

Apart from that, total 264 nos. of death occurred due to Corona Virus Disease (COVID-19) which was notified as Disaster under Section -2(d) of the Disaster Management Act,2005 and the 2nd Wave was more dangerous than 1st&3rd Wave.

Wave wise Testing, Positive cases and death due to COVID-19, Dhenkanal

Sl.No	COVID-19 Wave	Total Testing	Positive Cases	No. of Death
1	1st Wave	104397	5091	18
2	2nd Wave	400927	14780	225
3	3rd Wave	242003	2494	21
	Total	747327	22365	264



NB:In the Final DDMP-2023-24, there will be a separate section on documentation & Lesson learnt on Disaster Management of COVID-19.

The Disaster Management of Extremely Severe Cyclonic Storm (ESCS)-“FANI”.

About FANI:The Extremely Severe Cyclonic Storm “Fani” was the strongest tropical cyclone to strike Odisha since Phailin in 2013. The second named storm and the first Extremely Severe Cyclonic Storm of the 2019 North Indian Ocean cyclone season, Fani originated from a tropical depression that formed west of Sumatra in the Indian Ocean on 26 April,2019. Vertical wind shear at first hindered the storm's development, but conditions became more favorable on 30 April,2019. Fani rapidly intensified into an ESCS and reached its peak intensity on 2 May as a high-end Extremely Severe Cyclonic Storm—the equivalent of a high-end Category 4 major hurricane. Fani weakened before

making landfall, and its convective structure rapidly degraded thereafter, degenerating into a remnant low on 4th May, and dissipating on the next day.

Prior to Fani's landfall, authorities in India and Bangladesh moved at least a million people each from areas within Fani's projected path onto higher ground, and into cyclone shelters, which is thought to have reduced the resultant death toll.[3] Fani killed at least 89 people in eastern India and Bangladesh. Fani caused about US\$1.81 billion in damages in both India and Bangladesh, mostly in Odisha. At least 72 people have been killed by Fani in India; 64 in Odisha, and 8 in two districts of Uttar Pradesh. There was no casualty in Dhenkanal District.

Disaster Management (preparedness&Mitigative) measures to tackle FANI by DDMA,Dhenkanal.

1. The District Level Preparatory meeting was held on 30.04.2019 under the chairmanship of the Collector-Cum-Chairperson,DDMA,Dhenkanal for Disaster Management of ESCS-FANI.All Deptt. Officers were aware of the action to be taken by respective Line Deptt. Officers at District, Sub-Division, Block, GP, Village level.
2. The Nodal Officer for each block was fixed to co-ordinate all activities.
3. Timely Dissemination of Information received from SRC Office/OSDMA to different level to take action.
4. ADM,Dhenkanal,PD-DRDA,Dhenkanal,District Emergency Officer,Collectorate Dhenkanal and DPO-OSDMA, Collectorate, Dhenkanal co-ordinated/monitored all activities with support of staff of Emergency Section.
5. All BDOs &EO, ULBs (Dhenkanal, Kamakhyanagar, Hindol, Bhuban) took proactive action to evacuate people in safe identified Shelter and free kitchen provision was made as per SDRF/NDRF norms following the minimum standard of relief as per NDMA norms to the evacuees at Temporary Shelters.
6. The District Administration took appropriate steps to curb black marketing of essential items and to maintain rational price of essential items.All Sub-Collectors, CSO,Dhenkanal,Police Officers took action accordingly.
7. The DEOC was operating 24x7 basis, the staff of different section was deployed to Emergency Section till 06.05.2019. The DEOC was regularly in touch with Block Administration as well as all GP Office to take stock on preparedness measures through direct telephonic Contact.
8. Special focus was given in inaccessible area of Kankadahad Block and prepositioning of all essential items was made available.
9. The District Level GO-NGO meeting was held on 02.05.2019 under the chairmanship of Collector-Cum-Chairperson,DDMA,Dhenkanal and requested all concerned Civil Society Organisations, Corporate Organisations to extend their co-operation for the Disaster Management of Impending Cyclonic Storm-FANI and accordingly they agreed to extend cooperation to District Administration in Disaster Management.
10. The Response Forces like one NDRF unit and local fire brigades were strategically positioned to tackle any type of eventualities.
11. The required resources like Vehicles, Bus, Trucks, Kerosene, DoL/PoL, Generator set, cash etc were ready as per the requirement.
12. The steps were taken by CDM&PHO, DSWO, Dhenkanal to admit all expecting mothers whose EDD coming under 01.05.2019 to 10.05.2019. Total 64 nos. of pregnant women were admitted in different Delivery Points for their safe delivery and treatment of Maternal & neonatal health issues.
13. Others as per requirement.

Impact&Incidence:

The Cyclonic Storm-FANI hit Odisha on 03.05.2019 in Puri district and its impact & incidence fall on 14 districts including Dhenkanal and accordingly 52 ULBs and 159 blocks affected, however, 5 districts(Puri,Khordha,Cuttack,Jagatsinghpur,Nayagarh) severely affected as per the notification of SRC Office/Govt.In Dhenkanal, 04 ULBs, all 8 blocks were affected.There was no human casualty in Dhenkanal District, however public &private properties, loss of livelihood were severely affected.Some of the photographs are placed herewith for information.





















Post Disaster Management:

- The Response/Relief activities were taken up immediately to bring normalcy.
- All activities were taken up as per the guideline of Govt.
- The joint assessment of public infrastructures and private HH& properties were assessed and reported to Govt. for release of funds to take up reconstruction & Rehabilitation activities.
- All guideline of Govt. were implemented meticulously.
- Other affected Line Deptt. also assessed their loss caused to Govt. infrastructure and accordingly reported to respective Deptt. of Govt.

The detail of the damage cause to public& private property and loss of livelihood is mentined at Volume-II,

2017-18:- Fire accident in Village Dhobaninandara, Hindol Tahasil.

On 25.04.2017 at about 01.00PM a breathtaking fire accident was occurred in village Dhobaninandar of Kantamila G.P under Hindol R.I circle. As per the report submitted by Tahasildar Hindol 58 nos of families were affected out of which 25 nos of families were affected fully and rest 33 nos of families were partially affected. 185 nos of rooms were gutted in the said fire accident. All the fire victims were compensated by the Govt. An amount Rs.95,100/- towards HBA, Rs.2000/- towards utensil, Rs.1800/- towards clothing and a sheet of polythene were disbursed per each fully affected families. Similarly an amount of Rs.3200/- towards HBA and Rs.2100/- towards cattle shed damages along with a polythene sheet were disbursed per each partially affected families. Free kitchen for seven days provided to the fire victims. The District Red Cross Branch, Dhenkanal distributed 58 Nos of relief kits having 12 essential items in each kit to the aggrieved family.



Though no one can control the fire accident, but the risk of fire accident can be minimized by eliminating the kutchha houses through rural housing schemes like PMAY, BPGY etc and public awareness. This year DDMA, Dhenkanal has undertaken to conduct extensive awareness programme on disaster Management including Fire Accident through Gaon Kalyan Samiti(GKS),Ward Kalyan Samiti(WKS), Mahila Arogya Samiti (MAS),SHG Federation(District, Block, GP level) and other Govt. social organisations at village ,GP, Block level in the district. Thus, the said preventive and mitigative measures can reduce the incident and impact of the disasters including the fire accidents.

Boat Capsize-2016, Bhuban Block.

The Boat Accident tragedy (Other than during Flood) occurred in **Chandipal Ghat of Brahmani River** on **07.03.2016** in Bhuban Block, forced to raise toll to six nos of death, when the said incident came to the notice of the District and Block administration, the Tahasildar along with the field staff

rushed to the spot for rescue and recovery of the dead bodies without any hindrances with Fire brigades .The District administration immediately intimated the fact to the SRC, Odisha and ODRAF team (6th Battalion, Cuttack)arrived to the spot as quick as possible. The joint co-ordination the rescue works started and six no of dead bodies were recovered and taken to CHC Bhuban for treatment or declaring dead, after post mortem the dead bodies were handed over to bereaved family of the deceased for their cremation. The sanction and release of ex-gratia assistance amounting Rs 4, 00,000/- for each deceased to NoKs along with other financial supports was done in time. That was a lesson learnt by the district and Block administration. In order to curb such type of future incidents, the registration of boat for ferrying purpose was made mandatory as per norms of Govt. and AEE of the each Block is declared as nodal officer for issuing of licence in favour of boat man along with regular supervision of the said to and fro movement of the registered boats and unregistered boats also.As per the Govt. Guideline,the Collector and DM Dhenkanal, is the competent authorityfor issuing of the boat ferry licence in the district.The community level awareness, regular checking of boat activities and annual renewal of licence are emphasised and not to repeat such type of incident in the future. No such incident repeated after the happening of the said incident.

ANNEXTURE- I

Information Education Communication (IEC) Material developed for notified Disaster Management.

1-Snakebite:

ସାପ କାମୁଡ଼ିବାର ପ୍ରାଥମିକ ଚିକିତ୍ସା

ଓଡ଼ିଶାରେ ଦେଖାଯାଉଥିବା ବିଷଧର ସାପ

 ନାଗ	 ଚିତି	 ଚନ୍ଦନବୋଡ଼ା	 କ୍ଳିଆବୋଡ଼ା
 ତମ୍ବା	 ରଣା	 ଡାଲୁଆ ବୋଡ଼ା	 ଅକ୍ୱିରାଜ

ସାଧାରଣରେ ଦେଖାଯାଉଥିବା କିଛି ବିଷହୀନ ସାପ

 ନୁଲ ସାପ	 କରମୁଆ ଚିତି	 ବାଲି ବୋଡ଼ା	 ଏସ
 ତମାସା	 ତମ୍ବାମୁଣ୍ଡିଆ ଉଷରା	 ମୁନସାପ	 ରାଜତମ୍ବା
 ଅଲରାଜ	 ନାୟନା	 ମରୁତ ଏସ	 ଅଜି ସାପ

ସବୁ ସାମୁଦ୍ରିକ ସାପ ଅତ୍ୟନ୍ତ ବିଷଧର ।

ସରକାରୀ ଚାକ୍ଷୁଷାଳୟରେ ସାପ ବିଷ ନିରୋଧକ ଇଞ୍ଜେକ୍ସନ୍ (ASV) ମାଗଣାରେ ମିଳିଥାଏ ।

ଗୁଣି ଗାରେଡି କରିବା ଆଇନ୍ ଅନୁଯାୟୀ ଦଣ୍ଡନୀୟ ଅପରାଧ ।

<p>ସାପ କାମୁଡ଼ିଲେ କ'ଣ କରିବା ଉଚିତ୍</p> <ul style="list-style-type: none"> ✓ ସାପ କାମୁଡ଼ିଥିବା ବ୍ୟକ୍ତିଙ୍କୁ ଆଶ୍ୱାସନା ଦିଅନ୍ତୁ । ✓ ସାପ କାମୁଡ଼ିଥିବା ସ୍ଥାନରେ ପିନ୍ଧିଥିବା ମୁଚି, ଘଷା, ଚୁଟ, ପାଉଁଜି ଇତ୍ୟାଦି ଖୋଲି ଦିଅନ୍ତୁ । ✓ କ୍ଷତସ୍ଥାନର ଉପରକୁ ଛେଦି ବ୍ୟାଣ୍ଡେଜରେ (ତାହା ନଥିଲେ ପତଳା ଲମ୍ବା କନା) ହାଲକା ଭାବରେ ଗୁଡେଇ ଗୁଡେଇ ବାନ୍ଧି ଦିଅନ୍ତୁ । ✓ ହାତକୁ କାମୁଡ଼ିଥିଲେ ଛାତି ତଳକୁ ଝୁଲେଇ କରି ରଖନ୍ତୁ । ଗୋଡ଼କୁ କାମୁଡ଼ିଥିଲେ, ଗୋଡ଼କୁ ସମ୍ପର୍କ କରି ରଖନ୍ତୁ ଏବଂ ସେହି ବ୍ୟକ୍ତିଙ୍କୁ ଚେକିକରି ନେବା ଆଣିବା କରନ୍ତୁ । ✓ ସାପ ବିଷଦାଉରୁ ରକ୍ଷା ପାଇବା ପାଇଁ ସର୍ପ ବିଷ ନିରୋଧକ ଇଞ୍ଜେକ୍ସନ୍ (ASV) ହିଁ ଏକମାତ୍ର ଚିକିତ୍ସା । ଯଥାଶୀଘ୍ର ଏହି ସୁବିଧା ମିଳୁଥିବା ଡାକ୍ତରଖାନାକୁ ରୋଗୀକୁ ନେଇଯିବା ଉଚିତ୍ । ✓ ଡାକ୍ତରଖାନା ଯିବା ବାଟରେ ରୋଗୀଠାରେ ଦେଖାଯାଉଥିବା ଲକ୍ଷଣ ଡାକ୍ତରଙ୍କୁ ସବିଶେଷ କୁହନ୍ତୁ । 	<p>ସାପ କାମୁଡ଼ିଲେ କ'ଣ କରିବା ଅନୁଚିତ୍</p> <ul style="list-style-type: none"> • ଆଦୌ ଡରନ୍ତୁ ନାହିଁ କି ବିଚଳିତ ହୁଅନ୍ତୁ ନାହିଁ । • ରୋଗୀକୁ ଚଳାଚୁଳା ବା କୌଣସି କାମ କରିବାକୁ ବାରଣ କରନ୍ତୁ । • କ୍ଷତ ସ୍ଥାନକୁ ଆଦୌ ଧୁଅନ୍ତୁ ନାହିଁ, ବରଫ କିମ୍ବା ଇଲେକ୍ଟ୍ରିକ୍ ସର୍କିଟ୍ ଦିଅନ୍ତୁ ନାହିଁ । • ଗୁଣି-ଗାରେଡି, ମଦିରରେ ପାଣି ଢାଳିବା, ଫୋନ୍‌ରେ ବିଷ ଝାଡିବା କାରମତୂରା ଲଗାଇବା ଆଦି କାମରେ ସମୟ ନଷ୍ଟ କରନ୍ତୁ ନାହିଁ । • କ୍ଷତ ସ୍ଥାନକୁ ବାନ୍ଧିବା ପାଇଁ ସୁତୁଳା, କଟା ଦଉଡି, କଟା ଉଦର ଚୁପ, ଇଲେକ୍ଟ୍ରିକ୍ ତାର ଆଦି ବ୍ୟବହାର କରନ୍ତୁ ନାହିଁ । • ଦେହ, କୁରୀ ଇତ୍ୟାଦିରେ କ୍ଷତସ୍ଥାନକୁ କାଟନ୍ତୁ ନାହିଁ । • କ୍ଷତସ୍ଥାନକୁ ଚୁଟୁମନ୍ତୁ ନାହିଁ କିମ୍ବା ତିପାଟିପି କରନ୍ତୁ ନାହିଁ । • ଖାଦ୍ୟ ପଦାର୍ଥ କି ନିଶାଦ୍ରବ୍ୟ ଦିଅନ୍ତୁ ନାହିଁ । • କ୍ଷତ ସ୍ଥାନରେ ଗତ, ଚରମୁକି ବାଟି ଲଗାନ୍ତୁ ନାହିଁ ।
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ସ୍ୱାସ୍ଥ୍ୟ ଓ ପରିବାର କଲ୍ୟାଣ ବିଭାଗ, ଓଡ଼ିଶା ସରକାର

ସାପକୁ ଚିହ୍ନିବା ପାଇଁ :  09337295142

ସାପ କାମୁଡ଼ା

ସତର୍କ ରୁହନ୍ତୁ ସୁରକ୍ଷିତ ରୁହନ୍ତୁ

- ରାତିରେ ଟର୍ଚ୍ଚ ଓ ବାଡ଼ି ନେଇ ବାହାରକୁ ଯାଆନ୍ତୁ
- ଖୋଲାରେ ଶୌଚ କରିବାକୁ ଯାଆନ୍ତୁ ନାହିଁ
- ଫସଲ ଅମଳ, କାଠ ବା ନଡ଼ା ଭାଡ଼ି, ପୋଖରୀ ଓ ନାଳ ଆଦିରେ କାମ କରିବାବେଳେ ସତର୍କ ରହିବା ସହିତ ସାପ କାମୁଡ଼ା ନିରୋଧ ଜୋତା (ଗମ୍ ବୁଟ୍) ବ୍ୟବହାର କରିବା ଭଲ
- ଘରେ ମୂଷା ଓ ବେଙ୍ଗ ରହିବାକୁ ଦିଅନ୍ତୁ ନାହିଁ
- ଘର ଚାରିପଟ ସଫା ରଖନ୍ତୁ, କାନ୍ଥକୁ ଲାଗି ଫୁଲକୁଣ୍ଡ ଓ ଗଛତାଳ ରଖନ୍ତୁ ନାହିଁ
- ଘରେ ମଶାରୀ ଟାଙ୍ଗି ଶୋଇଲେ ଏହା ସାପଠାରୁ ମଧ୍ୟ ସୁରକ୍ଷା ଦିଏ
- ଘର ଚଟାଣରେ ନ'ଶୋଇ ଖଟରେ ଶୁଅନ୍ତୁ
- ଗୃହପାଳିତ ପଶୁ ଯଥା ବିରାଡ଼ି ଓ କୁକୁର ସାପ ଦାଉରୁ ସୁରକ୍ଷା ଦିଅନ୍ତି
- ଝରକା, କୁକୁଡ଼ା ଭାଡ଼ି ଓ ଗୁହାଳରେ ଜାଲି ବ୍ୟବହାର କରନ୍ତୁ
- ସାପକୁ ଧରିବା ଦୁଃସାହସିକ ଓ ପ୍ରାଣଘାତକ ହୋଇପାରେ



ସ୍ୱାସ୍ଥ୍ୟ ଓ ପରିବାର କଲ୍ୟାଣ ବିଭାଗ, ଓଡ଼ିଶା ସରକାର



09337295142

2-Flood



ସର୍ବୋଚ୍ଚ ଯତ୍ନ, ଜଳସମ୍ପଦ ବିଭାଗ, ଓଡ଼ିଶା, ଭୁବନେଶ୍ୱର

ବର୍ଷାରତ୍ନ ପାଇଁ ସତର୍କ ସୂଚନା



ଏତଦ୍ୱାରା ସର୍ବସାଧାରଣଙ୍କ ଅବଗତି ନିମନ୍ତେ ଜଣାଇ ଦିଆଯାଉଅଛି ଯେ, ଚଳିତ ବର୍ଷାରତ୍ନରେ ବିଭିନ୍ନ ନଦୀଗୁଡ଼ିକର ଜଳସ୍ତର ଯେକୌଣସି ସମୟରେ ବଢ଼ିବାର ସମ୍ଭାବନା ଅଛି । ତେଣୁ ଜନସାଧାରଣ ନଦୀ ବା ଜଳଭଣ୍ଡାର ମଧ୍ୟକୁ ଯିବା ସମୟରେ ନିମ୍ନଲିଖିତ ସତର୍କତା ଅବଲମ୍ବନ କରନ୍ତୁ;

Television ଓ ବିଭିନ୍ନ ଗଣମାଧ୍ୟମରେ ଦିଆଯାଉଥିବା ବନ୍ୟା ସମ୍ପର୍କିତ ସୂଚନା ଜାଣି ଏବଂ ଆବଶ୍ୟକୀୟ ସତର୍କତା ଅବଲମ୍ବନ କରନ୍ତୁ ।

ନଦୀ, ନାଳ, ପ୍ରଦ ଓ ଜଳଭଣ୍ଡାର ମଧ୍ୟରେ ଯାତାୟତ ସମୟରେ ଜୀବନସୁରକ୍ଷା ଜ୍ୟାକେଟ୍ (Life Jacket) ବ୍ୟବହାର କରନ୍ତୁ ।

ଜଳଭଣ୍ଡାରରୁ ପାଣି ଛଦା ଯାଉଥିବା ସୂଚନା ଥିଲେ ନଦୀ ଶଯ୍ୟା ଭିତରକୁ ପ୍ରବେଶ କରନ୍ତୁ ନାହିଁ ।

ନଦୀକୂଳରେ ପଲିଆ ହେଲେ କିମ୍ବା ଘାଟ ହେବାର ସମ୍ଭାବନା ଦେଖିଲେ ଜଳସମ୍ପଦ ବିଭାଗର ଅଧିକାରୀଙ୍କ ସହ ଚୁରଳ ଯୋଗାଯୋଗ କରନ୍ତୁ ଏବଂ ବନ୍ଧ ମରାମତି କାର୍ଯ୍ୟରେ ସମ୍ପୂର୍ଣ୍ଣ ସହଯୋଗ କରନ୍ତୁ ।

ବୁଡ଼ି ଯାଇଥିବା ନଦୀକୂଳ ଉପରେ ଯାତାୟତ କରନ୍ତୁ ନାହିଁ ।

ଗଭୀର ଜଳ ଓ ପ୍ରଖର ସ୍ରୋତଠାରୁ ଦୂରେଇ ରୁହନ୍ତୁ ।

ତପକମତି କିଶୋର/କିଶୋରୀମାନଙ୍କୁ ରୁକ୍ଷାହସିକ ଭାବେ ବନ୍ୟା ଦେଖିବାକୁ ବା ମାଛ ଧରିବାକୁ ଛାଡ଼ନ୍ତୁ ନାହିଁ ।

ଅଣଲାଇସେନ୍ସପ୍ରାପ୍ତ ନୌକାରେ ଯାତାୟତ କରନ୍ତୁ ନାହିଁ ତଥା ଧାର୍ଯ୍ୟ କ୍ଷମତାଠାରୁ ଅଧିକ ସଂଖ୍ୟକ ଯାତ୍ରୀ ଯାତାୟତ କରିବାରୁ ଛାଡ଼ ରୁହନ୍ତୁ ।



ସର୍ବୋଚ୍ଚ ଯତ୍ନ,
ଜଳସମ୍ପଦ ବିଭାଗ

ANNEXTURE -I

Important Contact Numbers-

Sl. No.	Name of the Officers	Designation	Office No.	Mobile No	Email. Id
1	Collector	DM Cum Collector , Dhenkanal	225601(O), 226500(R), 225717(Fax)	94371 74051	dm-dhenkanal@nic.in
2	SP	SP, Dhenkanal	06762-225777	9861434343	spdcl.odpol@nic.in
3	PD, DRDA	CDO Cum EO	06762-224506	9777130279	ori-ddhenkanal@nic.in
4	ADM	ADM, Dhenkanal	06762-225700	87631 66161	dcl.adm@nic.in
5	Deputy Collector, Emergency	Deputy Collector, Emergency	06762-226507	97760 09500	dklemgy@gmail.com
6	District Project Officer	DRR Consultant, Dhenkanal	06762-226507	8249015565	dklemgy@gmail.com
7	CDMPHO	CDMO & PHO	06762-226423	9439981081	cdmodkl2012@gmail.com
10	BDO	BDO, Sadar	06762-224485	8249099734	ori-bdhenkanal@nic.in
11	BDO, Sadar	BDO, Kankadahad	06762-264022	7048923363	ori-kankadahad@nic.in
12	BDO, Kankadahad	BDO, Gondia	06762-231124	9439044896	ori-gandia@nic.in
13	BDO, Gondia	BDO, Hindol	06762-251242	6372651997	ori-hindol@nic.in
14	BDO, Hindol	BDO, Kamakhyanagar	06762-270446	9818594213	ori-kamakhyanagar@nic.in
15	BDO, Kamakhyanagar	BDO, Parjang	06762-261021	8847859651	ori-parajang@nic.in
16	BDO, Parjang	BDO, Odapada	06762-256035	7504258414	ori-odapada@nic.in
17	BDO, Odapada	BDO, Bhuban	06762-272024	9937176714	ori-bhuban@nic.in

18	BDO, Bhuban	EO, Kamakhyanagar	06762- 270336	94370 07113	kamakhyanagarn.hud@ori.nic.in
19	EO, Dhenkanal	EO, Dhenkanal	06762- 224401	93370 13841	dhenkanalm.hud@gmail.com
20	EO, Bhuban	EO, Bhuban	06762- 272023	98612 47000	bhubann.hud@ori.nic.in
21	EO, Hindol	EO, Hindol	06762- 251054	87633 00255	eohindol13@gmail.com
22	City/ Municipal Engineer	City/ Municipal Engineer	9438300884	9438300884	dhenkanalm.hud@gmail.com
23	Executive Engineer, RWSS	Executive Engineer, RWSS	9437107027	9437107027	eerwss-dkl@nic.in
24	Executive Engineer, Tata Power	Executive Engineer, Tata Power	7853876100	7853876100	ee.ded@tpcentralodisha.com
25	Indian Red Cross	Vice President	7008403039	7008403039	bnpany@gmail.com
26	NGO, Bhuban	Vice President ISSARA	9437426534	9437426534	santoshjea05@gmail.com
27	NGO, Odapada	Vice President ISWAR	9438444507	9438444507	iswar1970@gmail.com
28	NGO, Hindol	Vice President New Odisha	7735382347	7735382347	Newodissa5623@gmail.com
29	NGO, Kankadahad	Vice President ABCD	8249914157	8249914157	abcdngo@gmail.com
30	NGO, Parjang	Vice President Bibartan	6370184274	6370184274	Bibartan1440@gmail.com
31	NGO, Dhenkanal, Kamakhyana gar	Vice President Self Help	94371 55440	94371 55440	selfhelpngo@gmail.com
32	NGO, Gondia	Vice President	94381 77758	94381 77758	nammindia@gmail.com