

**2019**



**DISTRICT DISASTER MANAGEMENT PLAN  
KHORDHA**



**VOLUME-I**

**DISTRICT DISASTER MANAGEMENT AUTHORITY (DDMA)  
KHORDHA**

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### **ABBREVIATION**

AABY	: Aam Aadmi Bima Yojana
AAO	: Assistant Agriculture Officer
ACSO	: Assistance Civil Supply Officer
ADM	: Additional District Magistrate
ADMO	: Additional District Medical Officer
ADVO	: Additional District Veterinary Officer
ANM	: Auxiliary Nurse Midwife
ARCS	: Assistant Registrar Co-operative Societies
ASHA	: Accredited Social Health Activist
ATMA	: Agriculture Technology Management Agency
AWW	: Angan Wadi Worker
AYUSH	: Ayurveda, Yoga, Unani and Naturopathy, Unani, Siddha, Homoeopathy
BDA	: Bhubaneswar Development Authority
BDO	: Block Development Officer
BEO	: Block Education Officer
BEO	: Block Education Officer
BEOC	: Block Emergency Operation Center
BKKY	: Biju Krushak Kalyan Yojana
BKSS	: Block Kala Sanskruti Sangathan
BKY	: Biju Krushak Yojana
BMC	: Bhubaneswar Municipal Corporation
BMS	: Bharatiya Mazdoor Sangh
BNV	: Bharat Nirman Volunteers
BPL	: Below Poverty Line
BRCC	: Block Resource Centre Coordinator
CDMO	: Chief District Medical Officer
CDVO	: Chief District Veterinary Officer
CE	: Capital Embankment
CII	: Confederation of Indian Industries
CSMMC	: Cyclone Shelter Management & Maintenance Committee
CSO	: Civil Supply Officer
DAO / TO	: District Accounts Officer / Treasury Officer
DAO	: District Agriculture Officer
DCG	: District Crisis Group
DDA	: Deputy Director, Agriculture
DDMA	: District Disaster Management Authority
DDMP	: District Disaster Management Plan
DEO	: District Education Officer
DEOC	: District Emergency Operation Centre
DLO	: District Labour Officer
DM	: District Magistrate
DPC (SSA)	: District Programme Coordinator, Sarva Shiksha Abhiyan

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DPF	: Demarcated Reserve Forest
DPM	: District Programme Manager
DPO (OSDMA)	: District Project Officer
DPO (RMSA)	: District Programme Officer, Rashtriya Madhyamik Shiksha Abhiyan
DSWO	: District Social Welfare Officer
FSMMC	: Flood Shelter Management & Maintenance Committee
GHG	: Green House Gas
HRVA	: Hazard Risk and Vulnerability Analysis
IGNDP	: Indira Gandhi National Disable Pension
IGNOAP	: Indira Gandhi National Old Age Pension
IGNWP	: Indira Gandhi National Widow Pension
IPCC	: Innergovernmental Panel on Cilmate Change
LSI	: Life Stock Inspector
LI	: Labour Inspector
LULUCF	: Land Use Land Use Change Forestry
MBPY	: Madhu Babu Pension Yojana
MI	: Marketing Inspector
MO	: Medical Officer
MVI	: Motor Vehicle Inspector
NASP	: National Social Assistance Programme
NFBS	: National Family Benefit Scheme
NTFP	: Non Timber Fire Produce
OAE	: Other Agricultural Embankment
PACS	: Primary Agriculture Cooperative Society
PD, DRDA	: Project Director, District Rural Development Agency
PMFBY	: Pradhan Mantri Suraksha Bima Yojana
PMJDY	: Prime Minister Jan Dhan Yojana
PMJJBY	: Pradhan Mantri Jeevan Jyoti Bima Yojana
PMRY	: Prime Minister Rojgar Yojana
PMSSY	: Pradhan Mantri Swasthya Surakshya Yojana
PRF	: Protected Reserve Forest
PRI	: Panchayat Raj Institutions
PTG	: Primitive Tribal Group
PVTG	: Primitive Vulnerable Tribal Group
RBSK	: Rashtriya Bal Swasthya Karyakram
RKVY	: Rashtriya Krishi Vikash Yojana
RMSA	: Rastriya Madhyamik Sikshya Abhiyan
RRBs	: Regional Rural Banks
RSBY	: Rashtriya Swasthya Bima Yojna
RTO	: Regional Transport Officer
SAPCC	: State Action Plan on Climate Change
SCG	: State Crisis Group
SDMA	: State Disaster Management Authority
SDWO	: Sub-divisional Welfare Officer

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SE	: Saline Embankment
SI	: Supply Inspector
TRE	: Test Relief Embankment
VAW	: Village Agriculture Worker
ZKSS	: Zilla Kala Sanskruti Sangathan



# **CHAPTER – I**

## **INTRODUCTION**

### **Overview:**

The mounting threat of frequent natural disasters calls for a serious thinking and action on a range of important issues such as how to cope, how to save lives and livelihoods and how to sustain community based disaster preparedness and response, enabling to cope with natural disasters on their own. This cannot happen unless awareness is raised on their nature and characteristics, understanding their vulnerability and risk, tools of disaster preparedness and their long term mitigation measures. The state of Odisha is prone to multiple disasters like Flood, Cyclone, TSUNAMI, Earth Quake, Hail Storm, Heat Wave etc. Similarly, Khordha district is also prone to Cyclone, Flood, Earth Quake, Biological disasters, Heat Wave etc. and the possibility of industrial disasters cannot be ruled out. Planning is investable at all the level and DM Act 2005 suggests the formation of DDMA at the district level and DDMA to adopt planning, organising, coordinating and implementation of preventing measures to tackle the disastrous situation in the district. In this context **Sendai framework** aims at “The substantial reduction of disaster risk and losses in lives, livelihoods, health & the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.” Sendai Framework has four priority areas and 7 Global Targets. SFDRR priorities are understanding disaster risk, strengthening disaster risk Governance to manage disaster risk, investing in disaster risk reduction for resilience, enhancing disaster preparedness for effective response, and to “Build Back Better” in recovery, rehabilitation and reconstruction. SFDRR targets are to substantially reduce Disaster Mortality by 2030, reduce the number of affected people globally , reduce direct disaster economic loss in relation to gross domestic product , reduce disaster damage to critical infrastructure and disruption of basic services, increase the number of countries with national and local disaster risk reduction strategies, enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of present framework , increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030. The DDMP prepared by DDMA undoubtedly is one step towards the planning, preparedness and utilization of resources to minimize losses.

### **1.1 Aims and Objectives of DDMP:**

The objective of the District Disaster Management Plan is to ensure Prevention, Response, Rehabilitation and Recovery and to facilitate Planning, Preparedness, Coordination and Community Participation in the shortest possible time in an effective manner. The main objectives are:

- To identify the areas vulnerable to major types of the hazards in the district.
- To adopt proactive measures at district level by all the Govt. Departments to prevent disaster and mitigate its effects.
- To develop a database helpful for decision making at District and block level.
- To mitigate impact of natural and man-made disasters through preparedness at District, Block, Panchayat and Village level.
- To provide effective support and resources to individuals and groups in disaster.
- To define and assign the different tasks and responsibilities to stakeholders during the pre-disaster and post-disaster phases of the disaster.

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- To assist the District Administration, Line Departments, Block Administration and community in developing technical skills for effective disaster management.
- To disseminate factual information in a timely, accurate and tactful manner while maintaining necessary confidentiality.
- To develop the standardized mechanism to respond to disaster situation to manage the disaster efficiently.
- Increased participation in Preparedness, Prevention, Development, Relief, Rehabilitation and Reconstruction process.

The District Disaster Management Plan (DDMP) is the guide for achieving the objective i.e. mitigation, preparedness, response and recovery.

### **1.2 Evolution of DDMP in brief: Evolution, Procedure and Methodology to be followed for preparation of DDMP**

As per DM Act, 2005 DDMA has the responsibility to prepare the DDMP by considering the different stakeholders. In this regard the DDMA had convened a meeting of all line departments to discuss the formats provided by SDMA on 6<sup>th</sup> Mar 2019 under the Chairmanship of Collector, Khordha. The formats were discussed and letter issued to all the concerned to provide the necessary information by 20<sup>th</sup> April 2019. Letters issued to all line departments to provide the information in the prescribed format both in hard and soft copies by the date mentioned. After receiving the required information, the plan was prepared & shared with all the stakeholders.

Time line for DDMP:

**Table – 1:**

<b>Activities</b>	<b>Timeline</b>
Consultation with line department officials and important stakeholders at district level	6 <sup>th</sup> Mar 2019
Submission of base line data by all line departments	By 20 <sup>th</sup> of April, 2019
Submission of Base line data by all the line departments ( Extended)	By 30 <sup>th</sup> April, 2019
Compilation of information's and preparation DDMP. Sharing of draft with Chairperson, members of DDMA and other stakeholders	By 15 <sup>th</sup> of May, 2019
Necessary modification and finalization	By 20 <sup>th</sup> of May, 2019
Placing the final copy before DDMA, finalization and	By 25 <sup>th</sup> May, 2019
submission of DDMP to SDMA	By 31 <sup>st</sup> May, 2019

### **1.3.Stakeholders and their responsibilities**

#### **The District Collector has the following duties:**

- Lead the DM / Crisis management Teams in the district.
- Facilitate and coordinate with local Government bodies to ensure that pre and post disaster management activities in the district are carried out.
- 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.
- Recommend Special Relief Commissioner and State Government for declaration of disaster.

#### **Local Authorities have the following duties:**

- Provide assistance to the District Collector in disaster management activities.

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- Ensure training of officials and employees
- Undertake capacity building measures and awareness and sensitization of the teachers, students & community.
- The Major Hazardous Units needs to prepare their onsite as well as off-site plans.

### **Private Sector:**

- The private sector are encouraged to ensure their active participation in the pre-disaster activities in alignment with the overall plan developed by the DDMA or the Collector.
- Technical / Educational institutions available in the district to support the local administration for awareness activities, capacity building programmes and response activities by the DDMA.
- As a part of CSR, undertake DRR projects in consultation with district collector for enhancing districts' resilience.

### **Community Groups and Volunteer Agencies:**

- INGOs / NGOs working in the area needs to inform the district administration about their work area, expertise, human resources so that their services can be utilized at the time of need.
- 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.

### **Citizens:**

- Different committees available in the area need to join their hands with the administration with available resources.
- Every citizen needs to assist the District Collector or such other person entrusted with or engaged in disaster management whenever demanded generally for the purpose of disaster management.

### **1.4. Plan for review and updating: Periodicity**

As per the NDMA guideline the DDMP is to be prepared and shared with the concerned line departments as per the timeline given above. After the consultation with the DDMA members, the DDMP to be finalised with the additional inputs and shared with the higher quarter and all line departments for future reference. Also annual updation to be done periodically i.e. in the 1st Quater every year.

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## **CHAPTER-II**

# **DISTRICT PROFILE**

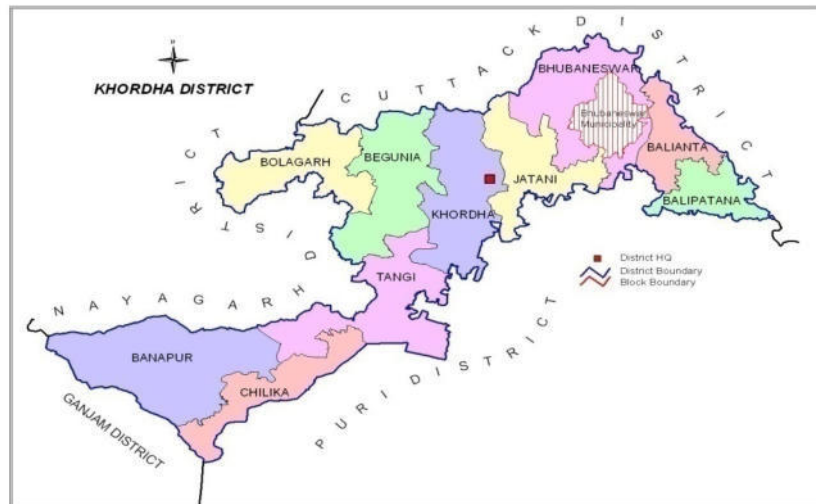
### **2.1 History & Location:**

Khordha is one of the new districts carved out of the former Puri District on 1<sup>st</sup> April, 1993. The other new district carved out of Puri was Nayagarh. In the year 2000, the district's name was changed from Khurda to Khordha. The district headquarters is located in Khordha Town, formerly known as Jajarsingh or Kurada, (kurada means foul mouthed). The old milestones of the area had the word KURADA which have now been white washed and the word "Khurdha" is written on them. About the origin of the word Khurda (as earlier called) it is also told that the word is derived from two Odia words- "Khura" and "Dhara", meaning razor and edge, probably because the soldiers of Khurda were as sharp and dreadful as the edge of a razor. Neither of the two origins, however, can be called authentic.

It lies in between 84°55" to 86°5" East longitude and 19°40" to 20°25" North latitude covering geographical area of 2813 square kilometers which comprises 1.81 percent of the state area. It is one of the developed districts of the state and houses the state capital at Bhubaneswar. The district is bounded by Cuttack district in the north, Ganjam district in the south, Puri district in the east and Nayagarh district in the west.

### **2.2 Administrative Setup:**

The District of Khordha is divided into two administrative Sub-Divisions namely (i) Bhubaneswar Sub-Division with head quarters at Bhubaneswar (ii) Khordha Sub-Division with head quarters at Khordha. Besides this the district is divided into 10 Tehsils, 10 CD



**Map 1: Administrative Map**

blocks, 190 Gram Panchayats, 1669

Villages, 23 Police stations. Out of the total village 212 are uninhabited village. The district Headquarter is located at Khordha Town. The Geographical area of the Dist. is 2813 Sq Kms Forest cover of the district is 50936.56 Hect. Further, the district consists of 2 nos of Parliamentary Constituencies such as 18-Bhubaneswar, 17-Puri and 8 nos of Assembly Constituencies such as 111-Jaydev (SC), 112-Bhubaneswar (Madhya), 113-Bhubaneswar

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(Uttar), 114- Ekamra-Bhubaneswar, 115 – Jatani, 116 – Begunia, 117 – Khordha, 118 – Chilika.

**Table – 2.1:**

Sl. No.	Name of the Subdivision	Headquarters	Number of Blocks/ Tehsils	Name of ULBs
1	Bhubaneswar	Bhubaneswar	Balianta, Balipatna, Bhubaneswar, Jatni	Bhubaneswar Municipal Corporation, Jatani Municipality
2	Khordha	Khordha	Begunia, Khordha, Bolagarh, Banpur, Chilika, Tangi	Khordha Municipality, Banpur NAC, Balugaon NAC

### **2.3 Climate & Rain fall:**

#### **Climate:**

The climate of the district is characterized by a tropical monsoon having three distinct seasons in a year i.e. winter, summer and Rainy season. The rainfall distribution is equal during the monsoon period. The summer is from March to May and during the month of May; temperature goes up to 41 - 47 °C in some parts of the district. The period from June to September is the rainy season and the district gets it from the southwest monsoon. The relative humidity varies from 48 to 85 % at Bhubaneswar. The wind speed is fairly strong during summer and monsoon months and the direction is between southwest and south.

#### **Rainfall:**

The monsoon generally breaks during the month of June and continues up to the end of September. The normal rainfall of the district is 1453.04 mm. The rainfall is uniform in all over the district. Storms and depression, which originate in the Bay of Bengal during monsoon, pass over the district during their southwest movement and cause heavy rains in the catchments area of the rivers in the district.

**Table – 2.2:**

Sl No.	Name of the Block	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	<b>Normal Rainfall</b>	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1408.4	1443.00	1453.4	1453.4
1	Khordha	1791	1430	1078	1323.5	1569	1281	1862	2131	1509.5	1262	1063.9	1491.0	1999.0
2	Begunia	1523	1449	1150	1009	1105	801	1665	1673	1037	893	796.7	1092.1	1329.8
3	Bolagarh	1181	1315	1588	1547	1618	904	1013	2130	1466	638	1152.4	1216.2	1739.0
4	Tangi	1659	1439	1214	1628	1510.8	904	1252	2091	1308	1104	1096.2	1797.8	1607.4
5	Chilika	1659	1423	1439	1581	1725	1178	1271	1841	1631	1128	1203.9	1829.7	1862.8
6	Banpur	1612	1569	1584	1589	1504.7	964	1264	1723	1428	663	911.2	1008.5	1230.0
7	Bhubaneswar	1881	1639	1480	1437	1544.5	1561	1325	1754	1638	959	1181.2	1612.8	2003.1
8	Jatni	1986	1494	1919	1469	1686	1481	1961	2113	1424	1151	1210	1980.5	2086.0
9	Balianta	1800	1105	1100	1357	1711	1709	1462	2147	1659	1252	1809	1862.8	2197.0
10	Balipatna	1309	1242	1054	1023	921	963	763	1118.3	1037	957	1137.4	1409.2	2051.93
	<b>Average</b>	<b>1640.1</b>	<b>1410.5</b>	<b>1360.6</b>	<b>1396.4</b>	<b>1489.5</b>	<b>1174.6</b>	<b>1356.8</b>	<b>1872.1</b>	<b>1413.8</b>	<b>1000.7</b>	<b>1156.19</b>	<b>1530.06</b>	<b>1810.6</b>

*[A Detailed Year and Month wise rainfall data annexed in **ANNEXURE XVII**]*

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### **2.4 Topography:**

The district as a whole is divided into two geographical regions viz. South Eastern Coastal Plains and North Eastern ghats. The former region has alluvial soils while the later has red laterite sandy soil and some patches of ideal alluvial soil. Except Baliana and Balipatna blocks which have got alluvial soil, other 8 blocks in the district have laterite sandy soils. While Baliana, Balipatna, Bhubaneswar and a small portion of Jatni Block are irrigated by canal systems of Mahanadi, Delta Stage II, Banapur Block is irrigated by Salia MIP, Tangi block by Malguni MIP.

### **2.5 Geography:**

#### **Land:**

The District of Khordha has Geographical area of 2813 Sq.Kms. Based on the physiographic setup, the district may be broadly divided into four natural divisions, such as

- (a) Coastal sand dunes,
- (b) Alluvial plain,
- (c) Lateritic upland and
- (d) Hilly terrain.

### **2.6 Forests:**

Khordha Forest Division is situated in the eastern part of Odisha between 19° 40' 41" N to 20° 27' 33" N latitude and 84° 01' 21" E to 86° 05' E Longitude in Cuttack, Khordha, Nayagarh & Puri. The total geographical area under the jurisdiction of this Division is 3514.694 Sqkm. & the forest area is 577.30 Sq km. which is 16.09% of total geographical area of this Division.

**Table – 2.3:**

*[Area in Sq. km]*

<b>Name of District</b>	<b>Geographical area</b>	<b>Very dense forest</b>	<b>Moderately dense forest</b>	<b>Other forest</b>	<b>Total</b>
Khordha	2813	23	191	180	394

*[The details of Forest division of Khordha district is annexed in **ANNEXURE - XXVII**]*

### **2.7 River System:**

The district is drained by number of streams, which are mostly the tributaries and distributaries of Mahanadi River and a few other streams discharging into the Chilika Lake. The important distributaries and sub-distributaries of the river Mahanadi traversing the area are Kuakhai, Bhargavi, Kushabhadra and Daya having southernly, southeasterly and south-westerly courses. The tributaries of the river Mahanadi originating in the district are Rana and Kalijiri having almost northernly course. The streams which drain the southern part of the district and fall directly into Chilika Lake are Sulia, Kharia & Kusumi which flows towards east. Almost all the streams in the district are effluent in nature and drying up during summer months but causing frequent floods in the rainy season. The low lying areas adjoining the Chilika Lake are inundated by the lake during monsoon as rivers discharge large volumes of water into it.

The District is mainly covered by the following rivers.

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**Table – 2.4:**

Sl No.	Name of Rivers	Areas Covered
1	Kuakhai	Bhubaneswar Block
2	Bhargavi	Balianta & Balipatna Block
3	Budunai	Bhubaneswar Block
4	Daya	Bhubaneswar Block
5	Kushabhadra	Balianta Block
6	Malaguni	Khordha, Chilika & Tangi Block
7	Rana	Begunia & Khordha Block
8	Kusumi	Tangi Block

### **2.8 Demography:**

#### **Households and its distribution:**

**Table – 2.6:**

Sl. No	Total Number of Families / HH	Category		Category				Category	
		Rural	Urban	SC	ST	OBC	GEN	BPL	APL
1	494212	247304	246908	20501	10275	70718		121375	245984

### **2.9 Population and its composition:**

As per 2011 Census, out of the total population of 2251673 in the district, 1167357 live in rural areas and 1084316 live in urban areas. In percentage terms it works out to 51.84 percent in case of rural areas and 48.16 percent in case of urban areas. Of the total rural population of 1167357 persons, 595809 (51.0 %) are males and 571548 (49.0 %) are females. In urban areas, of the total population of 1084316 persons, males are 571,328 (52.7 %) and females are 512,988 (47.3%).

**Table 2.7:**

Sl. No	Population			SC		ST		Others	
	T	M	F	M	F	M	F	M	F
1	2251673	1167137	1084536	151528	145984	115051	59094	491445	465640

- Population density of the district and decadal growth of population:
  - Population Density/Km<sup>2</sup> : 800
  - Growth : 19.94 %

### **2.10 Religion wise distribution of Population:**

The district has a predominant Hindu population. The Census 2011 shows that of the total population, 2147632 or 95.38 percent are Hindus. The Muslims numbering 84060 account for 3.73 percent and other religious groups together constitute only 19981 or 0.89 percent. The following statement gives distribution of population by religion:

*[Data Source: Census, 2011]*

Hindu	2,147,632	95.38 %
Muslims	84,060	3.73 %

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Christian	12,527	0.56 %
Sikh	1,264	0.06 %
Buddhist	475	0.02 %
Jain	476	0.02 %
Others	434	0.02 %
Not Stated	4,805	0.21 %

**Table – 2.8:**

*[Source: DPMU, Khordha]*

Sl. No.	Total Population	Category				
		Hindu	Muslim	Christian	Sikh	Others
1	2251673	2147632	84060	12527	1264	6910

### **2.11 Age Group:**

As per census 2011, Child Sex Ratio is 916 compared to 926 of census 2001. In 2011, Children in the 0-6 age group form 10.54 percent of the population of Khordha district compared to 12.28 percent of 2001. There is net change of -1.74 percent in child population between the two censuses of 2001 and 2011. Child population in the age group of 0-6 years comes to 130977 for rural areas of which males are 68,059 and females are 62,918. Child population (0-6) in urban areas comes to 106,417 of which males and females are 55,820 and 50,597 respectively. The child population as percentage to total population constitutes 11.42 percent in case of rural areas and 9.77 percent in case of urban areas.

**Table – 2.9:**

*[Source: DPMU, Khordha]*

Sl. No.	Total Population	0-5 years	6-14 years	15-59 years	60 years & above
1	2251673	164665	390183	1484875	211950

### **2.12 Sex Ratio:**

With regard to Sex Ratio in Khordha, it stood at 929 per 1000 males in 2011 as compared to 902 in 2001. The average sex ratio at the all-Odisha level comes to 979 as per the Census, 2011. As per the 2011 Census, child sex ratio in the district is 916 girls per 1000 boys compared to the figure of 926 girls per 1000 boys for 2001. Between rural and urban areas there is a difference in child sex ratio. The child sex ratio in case of rural areas comes to 924 girls per 1000 boys while in case of urban areas it is 906 girls per 1000 boys.

**Table – 2.10:**

1	Sex Ratio (Females per 1000 males):	929
2	Child Sex Ratio (0-6 Years):	916

### **2.13 Literacy Rate:**

Average literacy rate of Khordha in 2011 comes to 86.88% as compared to 72.9% for the state as a whole. Compared to literacy rate of 2001 Census (79.59%) it has gone up in 2011. If things are seen gender-wise, male and female literacy rates are 91.78% and 81.61%



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respectively. For 2001 census, the male and female literacy rates stood at 87.90 and 70.36 for the district. In absolute terms, the total literates in Khordha district as per 2011 Census are 1,749,936 of which males and females are 957,515 and 792,421 respectively. In 2001, the total literates in district were however 1,310,867. Literacy rate in rural areas of Khordha district is 82.95 % as per census data 2011. Gender wise, male and female literacy in rural areas stood at 89.38 and 76.28 percent respectively. Average literacy rate in urban Khordha as per census 2011 is 91.04 % and those for males and females are 94.24 % and 87.46 % respectively.

**Table – 2.11:**

	Total	Male	Female
Literacy Rate	86.88	91.78	81.61

### **2.14 Socio-Economic profile:**

#### **2.14.1 Workforce participation:**

The survival and subsistence of human society largely depends on the division of labour. Since some people have to work for production either for their own consumption or for social wealth, it is essential for some individuals of the society to indulge in some form of economic activity. There are 768268 nos of workers working in the district out of which 63625 nos are main workers and 135643 nos are marginal workers.

#### **2.14.2 Workforce participation rate: [Male/ Female]**

*[Source: Statistical Abstract, 2012]*

Total workforce participation rate in the district is 35.2% in which 34.2% in case of Rural and 36.2% in the case of urban scenario. Similarly Male participation overall rate is 55.3, where as 55.8% at the Rural and 54.8 at the Urban sector and Female participation overall rate is 13.5% and 11.7 % in case of Rural and 15.4% is in the case of Urban sector. The details are given in **Table 11.1, DDMP, Vol-II.**

#### **2.14.3 Land Holding Pattern:**

Out of the total geographical area of the district (138321 ha.), 124650 ha. are available for cultivation during 2014-15. Forest covers 64867 ha. Land put to non-agricultural uses comes to 44250 ha. Net sown area works out to 124240 ha. As the district is having very meagre irrigation facility, double cropped area is limited. As such the cropping intensity remains lower (159%) as compared to the all-Odisha average of 167%.

#### **2.14.4 Agriculture and Irrigation:**

The cartographic location of Khordha district stands at 19<sup>0</sup>40' to 20<sup>0</sup>25' Latitude and 84<sup>0</sup>55' to 86<sup>0</sup>5' E Longitude. Its bio climatology is much influenced for short radial distance from the Bay of Bengal and presence of a gigantic water body like Chilika. This district enjoys normal annual rainfall 1408mm with maximum minimum temperature 45.2<sup>0</sup> to 11.1<sup>0</sup> respectively. The district is situated in the East and south-eastern coastal plain & agro climate blessed with sandy loam and clayey soil in varied agro-eco system on the basis of soil, climate, topography, geo-hydrology and other resources, Khordha district is divided into district sub-regions. Deltaic Alluvium sub-region, which comprises Balipatana, Baliana & Chilika block and the rest blocks of Bhubaneswar, Begunia, Bolagarh, Tangi, Banapur & Khordha belongs to Lateritic sub-region.

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Major portion of Khordha district may be described as the land of nalas because of meagre irrigation potentiality.

The details of agricultural information with respect to Khordha district is given below:

- Geographical Area : 281300 Hect.
- Cultivable area : 138321 Hect.
- Cultivated Area:
  - High Land : 32505 Hect. (26%)
  - Medium Land : 43338 Hect. (35%)
  - Low Land : 48807 Hect. (39%)
  - Total : 124650 Hect. (100%)
- Paddy Area:
  - High Land : 17475 Hect.
  - Medium Land : 43338 Hect.
  - Low Land : 48807 Hect.
  - Total : 109620 Hect.
- Old Fallow & Cultivable waste : 62181 Hect.
  - Barren & Uncultivable Land : 14467 Hect.
  - Forest Area : 61867 Hect.
  - Land put to non-Agrl. Use : 44250 Hect.
  - Permanent Pasture : 5498 Hect.
  - Flood Prone Area : 7888 Hect.
  - Rain Fed Area : 67345 Hect.
  - Irrigated Area : 57305 Hect.
  - Misc. Tree Crops & Groves : 12369 Hect.
  - Cultivable Waste : 6551 Hect.
  - Old Fallow Lands : 12846 Hect.
    - Kharif : 57897 Hect.
    - Rabi : 32973 Hect.
  - Soil Structure:
    - Sandy Loam : 57943 Hect.
    - Loam : 25056 Hect.
    - Clay Loam : 15127 Hect.
    - Clay : 16500 Hect.
- No of VAW Circles : 88
- No of AAO Circles : 20
- No of Farm Families : 124768

*[Details of Agricultural activities in the district are given in **ANNEXURE- XXI**]*

The total irrigation potential created in the district so far works out to 58175 ha. Out of 10 blocks of the district 6 blocks account for less than 20% irrigation in Rabi season and less than 35% in Kharif season. Canal irrigation being the major source of irrigation, covers 2 blocks i.e. Balianta and Balipatna. More than 90% of the cultivated area of these two blocks is under canal irrigation. In addition to the 7700 nos. of private lift points, 200 nos. of government lift points are operating in the district.

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In the year 2017, the dist. had experienced three hazards due to which crop loss had occurred. The details are:

Sl No	Hazard	No of Blocks affected	No of GPs affected	No of Villages affected	Area affected (In Ha.)
1	Drought	1	5	10	23.0288
2	Pest Attack	6	24	60	442.60
3	Unseasonal Rain	10	172	1268	41829.27

### **Cyclone TITLI and FANI information:**

In the year 2018, the district was affected by Cyclone Titli on 11.10.2018. 9 nos of blocks (80 GPs) and 2 NACs were affected. 3700 nos of persons evacuated and sheltered in 75 sheletres and 9 free kitchen centers were opened to provide them cooked food. In Titli, 1532 beneficiaries were allotted with house building assistance amounting to 67.277 lakhs.

Sl. No	Districts	Total Agriculture Area Affected [in Hect.]	Total Agriculture Area where crop loss is > 33%	Crop loss 33% & above		
				Irrigated [In hect.]	Rainfed {In hect.}	Perennial
1	Khordha	6930.79	5918.00	0	1012.74	0

In the year 2019, the Extremely Severely Cyclonic Storm "FANI" devastated crop areas which is given below:

Sl. No	Districts	Total Agriculture Area Affected [in Hect.]	Total Agriculture Area where crop loss is > 33%	Crop loss 33% & above		
				Irrigated [In hect.]	Rainfed {In hect.}	Perennial
1	Khordha	7817.8	6098.12	3449.42	2648.7	0

In **ESCS FANI**, 190 GPs, 1669 nos of Vilages and 5 nos of ULBs including Bhubaneswar Municipal Corporation was affected, 130198 houses damaged in 10 affected Blocks and 4 ULBs. 4 nos of persons died due to FANI in the district. 2502008 nos of population & 1126976 nos of Live stock were affected in FANI. 114495 persons were evacuated during Fani and 929 free kitchen centers were opened to provide cooked food to the evacuees.

### **2.14.5 Employment and livelihood:**

Agriculture is the main livelihood option of the district. Apart from agriculture, people also adopt various economic activities to sustain their life and livelihood. Basically, in Chilika, Banapur & Tangi blocks, people used to do fishing for their livelihood. There are 65813 nos of Marginal Farmers, 47194 nos of small farmers and 11761 nos of other farmers depending on agriculture and other allied activities.

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Similarly, under the MGNREGS Scheme 135580 nos of Job cards were issued and 33718 nos of HHs provided employment and 1116053 nos of man days generated to earn livelihood. Details are placed in *Table 28.1 of DDMP Vol – II.*

### **2.14.6 Industries and mining:**

There are 4253 nos of registered industrial units in Khordha District out of 10277 total industrial units. There are 11 nos of medium and large units and 16 nos of industrial areas available in the district. 1046 nos of persons employed in large and medium units where as estimated avg. no of daily worker employed in small scale industries are 47078. The details of industries are given in *Table - 29 & 30 of DDMP vol II.*

The district is having the stone crushers as the major mineral based small industries. The building materials like stone and chips are produced from the hills of the district, particularly from Tapang, Narangarh, and Dadhimachhagadia. Apart from these, there are a number of stone carving units available in and around Narangarh and Bhogapur, in the district. There are only two mineral based industries i.e. Anuja Ceramics Pvt. Ltd. and M/s. Refcash Industries located at Mancheswar Industrial Estate which are engaged in manufacturing ceramic products i.e. salt glazed stone pipes and non-ferrous metal products.

### **2.14.7 Education:**

There are 2363 nos of primary & high schools (Both Govt. and private) are available in the district. DEO & DPC, SSA has been instructed to implement the School Safety Policy 2016 in all the schools at the earliest. The details are annexed in the *ANNEXURE - XIV.*

### **2.14.8 Health:**

There are 81 nos of Hospitals and 202 sub centers are working for the community to address the health issues. 41 nos of Ambulances are transporting the patients to different hospitals for treatment. 127 nos of doctors, 357 nos of paramedical staffs, 206 nos of ANMs and 1191 nos of ASHA workers are providing continuous service to the patients. The detailed list of ASHA workers are given in *ANNEXURE – VIII.*

### **2.14.9 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

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BPL household. Indira Awaas Yojana has been restructured into Pradhan Mantri Awaas Yojana (PMAY-G) w.e.f. 1<sup>st</sup> 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 Indira Awaas Yojana. The details of housing are given in *Volume – II*.

### **2.14.10 Electrification:**

Khordha district has no sources hydro and thermal of power of its own. But, there is a solar power plant working at Tangi Block. They have proposed to set up a thermal power plant at Begunia having capacity of 1320 Mega Watt. One Enzine Global Solution Power Ltd., Pattamundai, Kendrapada has proposed to set up a solar power plant in the Khordha district with a capacity of 5 Mega Watt. There are 7969 units of Bio Gas plants functioning in the district. The power generation and transmission in the district are being looked after by OPGC and O.H.P.C. Ltd. and OPTCL Ltd. The Central Electrical Supply Utility (CESU) Ltd. is looking into the distribution of available power.

1553 nos villages are electrified out of which 273 fully and 1280 partially electrified. Similarly out of 201427 HHs, 188097HHs have been electrified till the preparation of the DDMP.

### **2.14.11 Drinking water and sanitation:**

In the district, 1400nos of villages are having the safe drinking water facility where as 4 nos of villages are getting fluoride contaminated water. There are 15104 nos of functional tube wells, 118nos of wells and 409nos of Pipe Water Supply (PWS) are available in the district to provide drinking water. Under the PWS scheme 64nos of overhead tanks and 7823 nos of stand posts are available in the district.

There are 3497 nos of Tube Wells and 92 PWS are available in Flood affected areas of Khordha District. The name of the Blocks are Balianata (all GPs), Balipatana (all GPs), BBSR (Sisupalgarh), Jatni(Benapanjari), Khordha (Narangarh), Tangi (Bhushandpur, Balipatapur, Lendo, Rameswar).

### **2.14.12 Migration:**

*[Source: District Gazetteer, Khordha]*

In 1936 Odisha became a separate province with Cuttack as its capital. After independence in 1947, the capital was moved from Cuttack to Bhubaneswar and the new capital was inaugurated on 13<sup>th</sup> April, 1948. Since then number of migrant population from different corners of Odisha as well as other states to the district and particularly to Bhubaneswar has been increasing. People from neighbouring states such as Andhra Pradesh, West Bengal and other districts of the state migrate to Bhubaneswar in search of job and better living. The most

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dominant feature of migrants to Bhubaneswar has been that they move with their family and settle down on vacant lands inside the city which in course of time have been converted into slums. We see a rise in slums in Khordha district over time. The statement below shows rise in slum population in different towns in the district:

**Table- 2.13:**

*[Source: Census, 2011]*

<b>Urban Area</b>	<b>Total Population</b>	<b>Slum population</b>	<b>% of Slum Population to total Population</b>
Bhubaneswar	8,85,363	3,08,614	34.86
Jatni Mplty	63,697	16,185	25.40
Khordha Mplty	46,205	11,741	25.41
<b>Total</b>	<b>9,95,265</b>	<b>3,36,540</b>	<b>33.81</b>

Till the preparation of the DDMP, no survey conducted on migrant workers, but in khordha district 42 nos of contractors / agents have been granted / issued with licence (valid up to 31.12.2016). Under the Inter State Migration Workmen (RE&CS) Act 1979 read with Odisha Rules for drafting / recruiting 860 nos of migrant workers from the district to outside of the State of Odisha. As per State Action Plan on Labour, Monitoring-cum-Implementation Committee on Labour have already been constituted at GP / Block / District Level to get data through door to door survey by the committee to get the actual data regarding migrant population.

### **2.14.13 Food Security:**

Under NFSA, 331411 nos of PHH cards and 38415 nos of AAY cards provided to the beneficiaries of Khordha district. The details are given in *ANNEXURE – XXXII*.

### **2.14.14 Social Security:**

The National Social Assistance Programmes (NSAP) which came into effect from 15<sup>th</sup> August, 1995 represents a significant step towards the fulfilment of the Directive Principles in Article 41 of the Constitution. NSAP at present comprises of Indira Gandhi National Old Age Pension Scheme (IGNOAPS), Indira Gandhi National Widow Pension Scheme (IGNWPS), Indira Gandhi National Disability Pension Scheme (IGNDPS), National Family Benefit Scheme (NFBS) and Annapurna Yojna.

In khordha district the following beneficiaries are covered under the NSAP:

IGNOAP : 51748  
IGNWP : 16604  
IGNDP : 5033

In January 2008, State Government merged two old schemes, namely, Revised Old Age Pension Rules, 1989 Et Disability Pension Rules, 1985 and introduced the Madhu Babu Pension Yojana Rules, 2008. The no.of beneficiaries benefited under MBPY are as follows:

MBPY : 108183

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*[Block wise information annexed in ANNEXURE - XVIII]*

Similarly, the district has 5 nos of Old Age Homes in which 125 nos of inmates are taking shelter and 16 nos of special schools are available in the district in which 1004 nos of inmates are staying.

### **2.15 Critical infrastructure:**

#### **2.15.1 Anganwadi Centers:**

2554 nos (Both Rural and Urban) of Anganwadi Centers are available in the district to cater to the services related to Supplementary Nutrition programme, immunization, preschool education, nutrition & health education etc. The list is annexed in ANNEXURE - VII.

#### **2.15.2 Schools and other Educational Institutions:**

1040 Primary schools, 839 nos of Upper Primary schools, 294 nos of higher secondary schools and 6 colleges (3- junior and 3 Degree) are available in the district to cater the education to the students. Apart from this 128nos of Junior and 45nos of Degree colleges are available in the district.

#### **2.15.3 Hospitals and Health Centers:**

To tackle the health issues at normal and emergency period the following health infrastructure are available in the district:

- HQ Hospital : 02 nos
- Community health centers : 13 nos
- Primary Health Centers : 44 nos
- Ayurvedic hospital and dispensaries : 21 nos
- Homeopathic Hospitals and dispensaries : 26 nos
- Private Hospitals : 208 nos
- No of Sub-centers : 202 nos

The detailed list is annexed in ANNEXURE – VIII. There are 41 nos of ambulances are available in different hospitals to provide necessary transportation service to the community. There are 5 nos of Blood Banks are available in the dist to provide emergency service.

#### **2.15.4 Veterinary Hospitals:**

20nos of veterinary hospitals and 128 livestock aid centres to look after the live stocks of the, district. The details are placed in DDMP Vol –II table no -22, 57 & 57 A.

#### **2.15.5 Police and Fire Stations:**

There are 32 nos of Police stations and 13 nos of fire stations available in the district to look after law and order situation and fire accidents of the district.

#### **2.15.6 Cooperative Societies:**

142 nos of Cooperative societies are available in the district to provide agricultural loans and other related matters to the farmers of the district. The list is annexed in ANNEXURE - IX.

### **2.15.7 Banks and Post offices:**

There are 320 nos of Post offices available in the district (both Rural and Urban area) which includes Head post offices, sub-post offices and branch post offices. 596 nos of commercial banks, 166 nos of Rural banks, 54 nos of semi urban banks and 376 nos of urban branches are available in the district to cater essential services to the community.

### **2.15.8 Road and Railway network:**

Bhubaneswar the state capital and Khordha is the HQ district of Odisha & is well connected by Roads. The National Highway No.5 passes through the district. State Highway No 1 connecting Khordha and Nayagarh also passes through the district. All the blocks were connected by roads with the district headquarters. Howrah - Chennai Railway line of SE Railway passes through the district via the State capital. The major station in the district after Bhubaneswar is Khordha Junction. The following are the details of Road lengths (in Km) and Railway route lengths are given:

• National Highways	: 165.80 Km	(2014-15)
• State Highway	: 37.98 km	(2014-15)
• Major District Roads	: 238.02	(2014-15)
• Other District Roads	: 599.04	(2014-15)
• Rural Roads	: 845.62	(2014-15)
• GP Roads	: 3366	(2009-10)
• Panchayat Samiti Roads	: 947	(2009-10)
• Forest Roads	: 248.58	(2014-15)
• Railway route length (Double Line)	: 117.39	(2017-18)
• Railway route length (single line)	: 55.34	(2017-18)
• No of Railway stations and PH	: 26 nos	(2017-18)

The East Coast Railways head office is located at Chandrasekharpur, Bhubaneswar which controls three major divisions viz., Sambalpur, Khordha Road and Vishakhapatnam. The General Manager, is the overall in-charge of the head office of the East Coast Railways and thus looks into all the activities like planning, day to day operation and administrative control of the zone. The district is at presently served by Howrah-Chennai and Howrah – Puri railway lines of the East Coast Railways. Recently, a new railway line Khordha-Bolangir has been opened up with 27 kms being made functional between Khordha Road to Begunia. The total length of these railway lines in the district is 171.79 kms and these lines pass through 36 railway stations and passenger halts in the district and serve both the sub-divisions, viz., Bhubaneswar and Khordha. The railway network of the district contains 54.32 km single line, 138 kms of double line.

### **2.15.9 Cyclone and Flood Shelters:**

To provide necessary shelter at the time of emergency Multi Purpose Cyclone Shelters and Flood Shelters were constructed at different vulnerable areas. Apart from the shelters the other infrastructures like schools, offices, private buildings are also used as the shelter places at the time of need. There are 50 nos of MCS & MFS, 1 Godown cum Shelter has been constructed in strategic places to provide accommodation by OSDMA.

### **2.15.10 Rain gauge and Automatic Weather Stations:**

Rain Gauge stations are installed in all ten blocks of the District and the Head Clerks are in charge of recording the rain amount called as Rain Recording Officer. They are instructed to report DEOC by 8.30AM next Day.



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**Table 2.14:**

<b>Sl No:</b>	<b>Name of the Block</b>	<b>Name of the Rain Recording Officer</b>	<b>Contact no.</b>
1.	Bhubaneswar	Dibakar Biswal, HC	9438175395
2.	Balipatana	Nrusingha Charan Paikaray, HC	9439340345
3.	Balianta	Swachhala Das, HC (Gitanjali Tripathy I/C)	9861886757 7077081092
4.	Jatni	Naresh Behera, HC	9437678081
5.	Khordha	Dubaraj Majhi, HC	9439981291 8249827688
6.	Bolagarh	Durga Prasad Samantaray, SC	9090148452
7.	Begunia	Laxman Nayak, HC	9438485690
8.	Tangi	R.K. Panda, HC	8763683604
9.	Chilika	Jhadeswar Nayak, HC	9178506947
10.	Banapur	Lalit Kumar Singh, HC	9777754566

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## **CHAPTER- III**

### **HAZARD, VULNERABILITY & RISK ASSESSMENT**

The super cyclone of 1999 with a death toll of around ten thousand human was an eye-opener for the state machinery to assess its capability to deal with disasters of such intensity and to identify the vulnerable areas, especially in the coastal Odisha. The government of Odisha therefore initiated steps to provide necessary life infrastructures along with capacity building of the communities prone to frequent disasters.

Accordingly, the state government decided to survey the most vulnerable areas for identification of suitable sites for construction of infrastructures like cyclone shelters and assigned the job to the IIT, Kharagpur in December 1999. This survey suggested construction of cyclone shelters in a 10 km grid zone from the High Tide Line (HTL) in each vulnerable district.

Chilika is the biggest lagoon along the East-coast of India. It covers Khordha and Nayagarh districts and two other coastal districts i.e. Puri and Ganjam districts of Odisha. Khordha district is not only vulnerable to cyclonic storms of the highest intensity but also subject to high floods, due to back water on account of river systems not draining into the sea at high tidal levels. Similarly, in the year 2015, Khordha district was also affected by drought in Khordha sub-division.

As per the vulnerability atlas published by the Building Materials and Technology Council, Ministry of Urban Development, Government of India (1997), the Chilika coast of Khordha district has been assessed as a severely vulnerable district. In the past, during 1968 there was large scale flooding in Chilika coast and a number of villages were washed away. During 1972 and 1985 the wind velocities reached 132 km/hr in Chilika coast. An examination of the available literature shows that in severity the effects of storm and storm surge could be lesser in case of the areas surrounding Chilika lake. However, the danger from flood waters of the rivers, falling into Chilika could be as severe.

It has been observed that parts of three Blocks namely Tangi, Chilika and Banpur are coming under High Risk Zone and most vulnerable for cyclone and flood.

During the super cyclone, almost all the mud walled and thatched houses collapsed due to high wind, continuous rain and flooding. No shelter was available for the villagers and many of them perished. In the super cyclone, there was a loss of human lives, live stock, crops, aquatic animals etc. with large scale damage to the environment. Those escaped became destitutes. Therefore, the state government decided to build elevated structures to withstand very high wind speeds, proof against flooding, and saline inundations. The list of hazards that affects Khordha District are given below:

1. Flood
2. Cyclone
3. Drought

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4. Heatwave
5. Hail Storm
6. Fire Accidents
7. Lightning

### **A. Major Disasters/ Incidents during 2006-2018**

A brief profile of major disasters/ incidents occurred in the district during last 13 years (2006 to 2018):

**Table- 3.1:** *The details are given in Volume – II (Table-61)*

The district was affected by Drought, Pest attack and Unseasonal Cyclonic rain in the year 2017. The details are given below:

Sl No	Hazard	No of Blocks affected	Name of the Blocks	No of GPs affected	No of Villages affected	No of Farmers affected	Area affected (In Ha.)	Amount Disbursed
1	Drought	1	Bolagarh	5	10	173	23.0288	156598
2	Pest Attack	6	Bolagarh, Begunia, Khordha, BBSR, Chilika, Baliana	24	60	518	442.60	1870888
3	Unseasonal Cyclonic Rain	10	Bolagarh, Begunia, Khordha, BBSR, Chilika, Baliana, Jatni, Balipatana, Banapur, Tangi	172	1268	101493	41829.27	261897585

**Table- 3.2:**

Sl. No	Disaster/ Incident	No. of incidents during 2017	No. of Deaths	Affected Population	Livestock Loss	House s Damaged	Damage to Infrastructure				Damage and loss of Crop Area (in Hectares )
							AWC/ School Buildings	Hospitals	Road in Km.	Other Critical Infrastructure	
1	2	3	4	5	6	7	8	9	10	11	12

### **B. Vulnerability and Risk Assessment related to disasters:**

#### **1. Cyclone:**

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The district is prone to Cyclone and in the year 1999, 2013 and 2014 the Super Cyclone & Phailin affected the district. All the blocks of the district are prone to cyclone but the Baliaanta, Balipatna, Chilika, Tangi, Banapur & Khordha are more vulnerable. In the year 1999, all 10 blocks were severely affected along with all Municipalities and NACs. The statistics are given below:

**Table – 3.3:**

YEAR	1996-97	1999 – 00	2013-14	2014-15	2015-16	2017-18	2019-20
<b>CYCLONE</b>							<b>FANI</b>
Families Affected	2	826353	2246341	Nil	Nil	Nil	190 (GPs)
Villages Affected	2	635	1652				1669
Human Casualities	2	106	2				4
Animal Lost	Nil	91931	Nil				1326853
No of House Damaged	2	134730	64092				130198
Value of property Lost(In Lakh)		8866.4201	124.058				54434.00

On 03.05.19, the Extremely Severe Cyclonic Storm FANI affected khordha district very badly. District Administration has proactively evacuated 1.14 lakh people from kutchha houses in all 10 blocks due to which the death toll reduced to 4nos. A detailed report is placed in lessons learnt chapter of DDMP Vol – I.

**Table: 3.4:**

Sl. No.	Name of the Block/ ULB	No. of susceptible Gram Panchayats	No. of susceptible Villages/ Wards	Vulnerable Population in Nos.	Milch and Draught animal	Houses	Vulnerable Infrastructure			
							School/ AWC Buildings	Hospitals	Roads (in Km)	Other Critical Infrastructure
	<b>RURAL</b>									
1	Baliaanta	16	97/224	110312	31524	8996	104	20	--	--
2	Balipatna	17	88/245	114212	46295	11233	78	20	--	--
3	Banapur	17	253/233	116895	15539	8788	249	19	--	--
4	Bolagarh	19	235/316	130880	16911	17315	145	23	--	--
5	Begunia	21	167/332	132339	25587	17247	178	21	--	--
6	BBSR	20	121/257	95090	51802	4389	97	0	--	--
7	Chilika	17	138/225	119624	11816	5824	159	20	--	--
8	Khordha	22	131/325	133514	61194	10079	110	20	--	--
9	Jatni	15	111/210	91426	24983	7117	127	13	--	--
10	Tangi	26	211/345	177193	31267	14214	195	24	--	--
	<b>URBAN</b>									
11	BMC	--	68	885363	--	--	308	0	--	--
12	Banapur NAC	--	15	17278	--	--	0	0	--	--

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13	Balugaon NAC	--	11	17645	--	--	0	0	--	--
14	Jatni Mpty	--	27	63697	--	--	0	0	--	--
15	Khordha Mpty	--	22	46205	--	--	0	0	--	--

### 1.1 Electrical Infrastructure and cyclone Vulnerability:

**Table – 3.5:**

Sl. No.	Name of the Block/ ULB	No. of 33/11 KV Substations	No. of Distributing Transformers			Conductor/ Electrical lines-11 KV or less (length in Kms.)	No. of Poles	No. of High Tension Towers	High Tension lines above 11 KV (length in Kms.)
			11 KV or Less	11 KV < and <60KV	6o KV and above				
1.	Khordha	1	7	852	0	486.43	7584	435	85.72
2.	Begunia	1	3	670	0	360.35	5922	485	35.00
3.	Jatni	2	3	480	0	259.60	4176	515	75.50
4.	Bolagarh	0	1	418	0	318.26	4960	121	37.00
5.	Ranapur	0	1	73	0	55.80	896	131	4.00
6.	Tangi	0	3	444	0	241.27	3444	425	34.00
7.	BBSR	5	27	5074	0	1363.34	22700	707	129.10
8.	Chilika	1	2	730	0	264.00	3305	625	43.50
9.	Banapur	0	2	820	0	444.50	5556	206	25.00
10.	Balianta	0	3	352	0	155.00	2583	190	16.00

### 1.2 Drinking water facility in the Cyclone prone areas:

**Table- 3.6:**

Sl. No.	Name of the Block / ULB	Total No. of Tube Wells	No. of Wells	PWS Schemes			
				Total No.	Length in Mtrs.	No. of Over Head tanks	No. of Stand Points
1.	Balianta	1445		44	--	3	911
2.	Balipatna	1504		34	--	6	733
3.	Bhubaneswar	1409	2	37	--	6	997
4.	Jatni	1342	1	33	--	6	638
5.	Banpur	1506	4	38	--	3	539
6.	Begunia	1758	19	59	--	16	881
7.	Bolgarh	1692	43	49	--	5	767
8.	Chilika	1348	16	35	--	9	792
9.	Khurda	1718	11	43	--	8	731
10.	Tangi	1382	22	37	--	2	834
	<b>Total</b>	<b>15104</b>	<b>118</b>	<b>409</b>	<b>--</b>	<b>64</b>	<b>7823</b>

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### 2. Tsunami:

As the district of Khordha is not a coastal district, so the vulnerability to TSUNAMI is not here.

**Table – 3.7:**

Sl. No.	Name of the Block/ ULB	No. of susceptible Gram Panchayats	No. of susceptible Villages/ Wards	Vulnerable Population in Nos.	Milch and Draught animals	Houses	Vulnerable Infrastructure			
							School Buildings/ Anganwadis	Hospitals	Roads (in Km)	Other critical Infrastructure
1	2	3	4	5	6	7	8	9	10	11

### 3. Flood:

Flood is a regular visitor to the district, but all the blocks are not equally affected in flood. Blocks like Baliana, Balipatna are more affected than other blocks. Sometimes heavy down pour also creates flood like situation in the area.

History of Flood in Khordha District:

**Table – 3.8:**

[Source: DDMP, 2018-2019]

YEAR	97-98	01-02	03-04	05-06	06-07	08-09	09-10	10-11	11-12	12-13	14-15	15-16	16-17	17-18	18-19
Families Affected	5838	6818 14	748 30	564 76	13142 5	122 19	13878 2	27175	5380	22463 41	21263	0	0	0	0
Villages Affected	942	1129	612	193	1100	152	1166	236	342	1652	40	0	0	0	0
Human Casualities	0	1	2	0	2	2	0	1	2	2	3	0	0	0	0
Animal Lost	0	19	107 9	0	0	9	34	4	0	0	0	0	0	0	0
No of House Damaged	5838	567	629 8	107 5	1104	227 8	34	635	390	64092	0	0	0	0	0
Value of property Lost (In Lakhs)	99.77	7483. 35	48. 74	30. 35	73.12 2	144 2	70	4.14	1.908	124.5 81	0	0	0	0	0

#### 3.1 Irrigation Division Wise Rivers and Length of Embankments: (within Khordha district)

**Table – 3.9:**

Irrigation Divisions	Khordha	Prachi	Nimapara	Puri (Pipili Irr.Sub-Dvn.)
Name of river Embankment	Hada Malaguni Kusumidhar Salia	Kuakhai Daya Kushbhadra	Kuakhai Kushbhadra Bhargavi	Daya left Bhargavi Sakhigopal Branch canal Kanas Branch Canal
Name of	-	Drainage Sluice at	Jogisahi (Kushabhadra)	-

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Sluices		Tirumal (Daya Rt.) Drainage sluice at Budhanalla (Kuakhai Rt.)	Rt.) Achutapur (Bharagavi Lt.)	
CE	-	74.60	55	10.1
OAE	64.90	2.70	7	-
TRE	4.00	-	-	-
SE	69.82	-	-	-
<b>Total</b>	<b>138.72</b>	<b>77.30</b>	<b>62</b>	<b>10.1</b>

### **3.2 Danger level at different Locations & its past maximum recorded gauge:**

**Table -3.10:**

Name of river Embankment	Name of gauge stations	Zero value of gauge in the meter	Danger level	Irr. Dvn. / Maximum recorded gauge & year
Kushabhadra Right Embankment.	Jogisahi RD 4.0 Km. (Balipatana)	14.55 M	17.44 M	Nimapara
-do-	Sisumatha RD 15.0 Km (-do-)	10.81 M	15.08 M	-do-
Bhargavi left Embankment.	Achyutpur RD 8.5 Km (-do-)	10.92 M	13.26 M	-do-
Kusabhadra left Embankment.	Balianta	14.146 M	18.25 M	Prachi
-do-	Rama Chandrapur	14.306 M	17.28 M	-do-
-do-	Jalahata	11.08 M	13.45 M	-do-
Daya Right Embankment.	Daya Bridge to RD 00	11.13 M	16.34 M	-do-
Malaguni	Golabai (Railway Bridge No.702)	4.87 M	7.77 M	Khordha/ 9.070m In 1994 9.020m in 2001 9.120m in 2006 9.100m in 2008 9.470 M in 2009 & 2011
Kusumidhar	Road bridge at Satasankha at N.H. 5	8.95 M	12.74 M	13.820m in 1981 10.400m in 2001 9.950m in 2006 10.150m in 2008 12.650m in 2009 10.750m in 2011
Chilika lake	Mangalajodi	0.70 M	1.98 M	2.920m in 1982 2.220m in 2001 1.560m in 2006 1.960m in 2008 2.000m in 2009 1.700m in 2011
Hada on Bridge	SH 1 Bridge	64.28 M	67.28 M	Khordha

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These are the different locations where danger levels can be identified in the shortest possible time limits.

### 3.3 Vulnerable Points in the Embankments:

**Table – 3.11:**

VULNERABLE POINTS IN RIVER EMBANKMENT UNDER KHURDA IRRIGATION DIVISION, KHURDA.								
Sl No	Name of the River Embankment	Location	Block	Description of Vulnerable Points	Name of the SDO	Tel No of the SDO	Name of the AE	Tel No of the AE
1	2	3	5	6	7	8	9	10
1	Kusumidhar Right Embankment.	Jaripada	Khurda	Breach occurred during Titli last year i.e. 2018	Sri Sarat Kumar Sahoo, DEE, Khurda sub-Division	9437287278	Sri Pravas Pattnaik, JE Khurda division	9040196319

**Table- 3.12:**

List of Vulnerable Points, Nimapara Irrigation Division									
Sl.No.	Name of the River Embankment	Name of Sub-Division	Name of Section	Block	Constituency	Location		Remarks	
						RD	Village		
1	3	4	5	7	8	9	10	11	12
1	Kushabhadra Right Embankemnt	Balipatna Canal Sub-division	Balipatna	Balipatna	Jaydev	21.400 to 21.800 km	Majjihara, Mundahana patana	Deep river channel nearer to embankment.	Vulnerable points. Needs watch and ward during flood time and flood fighting materials to be stacked .
8	Bhargavi left Embkt.		Achyutpur	Balianta	Jayadev	0.700 to 2.00 km.	Balakati	Inadequate design Section	

**Table – 3.13:**

There is no vulnerable embankment under prachi division.

**Table – 3.14:**

List of Vulnerable points under Puri Irrigation Division					
Sl. No.	Name of Embankment	Location of weak &vulnerable locations	Name of Block	Name of Sub-Division	Reason of vulnerability
1	Daya Lt Embankment	Kumardihi	BBSR	Pipili	Piping & seepage
		Dhaulti	BBSR	Pipili	Deep Channel near



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					to embankment
2	Bhargavi Rt Embankment	Terabatia & Phulapal	BBSR	Pipili	Piping & seepage

Flood vulnerable areas of the district in general:

**Table – 3.15:**

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
<b>RURAL</b>										
1	Balianta	15	93	106643	31524	8996	109	--	--	--
2	Balipatna	14	73	93611	46295	11233	82	--	--	--
3	Banapur	3	45	79859	15539	8788	249	--	--	--
4	Bolagarh	8	100	51288	16911	17315	150	--	--	--
5	Begunia	7	53	44126	25587	17247	236	--	--	--
6	BBSR	8	52	47437	51802	4389	97	--	--	--
7	Chilika	7	55	51301	11816	5824	162	--	--	--
8	Khordha	10	55	102789	61194	10079	110	--	--	--
9	Jatni	6	37	36922	24983	7117	129	--	--	--
10	Tangi	10	75	69353	31267	14214	195	--	--	--
<b>URBAN</b>										
11	BMC	3	--	--	--	--	302	--	--	--
12	Banapur NAC	1	--	--	--	--	--	--	--	--
13	Balugaon NAC	1	--	--	--	--	--	--	--	--
14	Jatni Mplty	--	--	--	--	--	--	--	--	--
15	Khordha Mplty	3	--	--	--	--	--	--	--	--

**Table – 3.16:**

Sl. No.	Causing agent- Rivers/ Water bodies/Tidal Wave/ Others	No. of Susceptible Blocks	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	Malaguni Rajua	1	10	55	102789	--	--	--	--	--	--
2	Mandakini	1	7	53	44126	--	--	--	--	--	--

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	Gobara Rana										
3	Hada	1	8	100	51288	--	--	--	--	--	--
4	Malaguni Kusumi Chilika	1	10	75	69353	--	--	--	--	--	--
5	Chilika Kansari	1	8	55	51301	--	--	--	--	--	--
6	Salia	1	4	45	79859	--	--	--	--	--	--
7	Daya Rajua	1	6	37	36922	--	--	--	--	--	--
8	Kuakhai Daya Gangua	1 / 3 wards of BMC	11	52	47437	--	--	--	--	--	--
9	Kushabhadra Prachi Bhargavi	1	14	93	106643	--	--	--	--	--	--
10	Kuakhai Daya Dhanua	1	15	73	93611	--	--	--	--	--	--

### 3.4 List of Flood Prone GPs in the District:

**Table -3.17:**

Name of The Blocks	Sl. No.	Name of the G.Ps.	No of Villages	Name of Flood Causing River
Khordha	1	Brajamohanpur	5	Malaguni Rajua
	2	Golabai Sasan	7	
	3	Jankia	2	
	4	Orabarasingh	5	
	5	Pubusahi	6	
	6	Dhaulimuhan	5	
	7	Kanpur	5	
	8	Keranga	2	
	9	Naranagarh	11	
	10	Garh Haladia	7	
		<b>Total</b>	<b>55</b>	
Begunia	11	Tulasipur		Mandakini Gobara Rana
	12	Sarua	5	
	13	Simor	6	
	14	Baghamari	7	
	15	Durgapur	14	
	16	Pangarasingh	8	
	17	Podadiha	11	
		<b>Total</b>	<b>53</b>	
Bolgarh	18	Arikama	9	Hada

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	19	Asarala	8	
	20	Dhalapathar	4	
	21	Gediapalli	16	
	22	Manibandha	12	
	23	Bankoi Desa	17	
	24	Sagargaon	17	
	25	Badakumari	17	
		<b>Total</b>	<b>100</b>	
Tangi	26	Sarapari	7	Malaguni Kusumi Chilika
	27	Balipatpur	3	
	28	Bhusandpur	4	
	29	Chhanagiri	6	
	30	Lendo	13	
	31	Nirakarpur	9	
	32	Rameswar	13	
	33	Nuagarh	8	
	34	Kantalbai	7	
	35	Sundarpur	5	
		<b>Total</b>	<b>75</b>	
Chilika	36	Singipur		Chilika & Kansari River
	37	Chandeswar	9	
	38	Haripur	10	
	39	Jaripada	12	
	40	Sana Nairi	3	
	41	Nimikheta	11	
	42	Balugaon NAC		
	43	Barkul	10	
		<b>Total</b>	<b>55</b>	
Banpur	44	Kumaranga Sasan	16	Salia River
	45	Nandapur	20	
	46	Tumuraput	9	
	47	Banpur NAC		
		<b>Total</b>	<b>45</b>	
Jatni	48	Padhansahi	12	Daya, Rajua & other streams
	49	Jamukoli	6	
	50	Barakuda		
	51	Kantia	4	
	52	Chhanaghar	8	
	53	Benapanjari	7	
			<b>Total</b>	
Bhubaneswar	54	Barimunda	5	Kuakhai, Daya & Gangua
	55	Dhauri	12	
	56	Itipur	11	
	57	Raghunathpur	2	
	58	Sisupal	3	

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	59	Basuaghai	5	
	60	Daruthenga	8	
	61	Kalyanpur	6	
	62	Mancheswar	BMC	
	63	Paikerapur	BMC	
	64	Patrapada	BMC	
		<b>Total</b>	<b>52</b>	
Balianta	65	Bentapur	4	Kuakhai Daya, Dhanua & other streams
	66	Benupur	1	
	67	Jaya Dev	3	
	68	Prataprudrapur	6	
	69	Satyabhamapur	7	
	70	Bainchua	7	
	71	Bhingarpur	3	
	72	Jagannathpur	6	
	73	Kakarudrapur	13	
	74	Puran Pradhan	10	
	75	Sarakana	10	
	76	Umadei Brahmapur	8	
	77	Balianta	10	
	78	Jhinti Sasan	4	
	79	Pratap Sasan	1	
		<b>Total</b>	<b>93</b>	
Balipatna	80	Amanakuda	5	Kushabhadra Prachi Bhargavi
	81	Guapur	5	
	82	Marthapur	4	
	83	Bhakarsahi	2	
	84	Bhapur	2	
	85	Deulidharpur	5	
	86	Kurunjipur	15	
	87	Majjihara	3	
	88	Turintira	5	
	89	Garedi Panchan	4	
	90	Nariso	5	
	91	Pampalo	9	
	92	Rajas	2	
	93	Somana Sasan	7	
		<b>Total</b>	<b>73</b>	

### 3.5 Agriculture and Flood Vulnerability:

As per the information provided by DDA, Khordha, 109620 Ha of cultivable area for paddy and 28701 Ha of non-paddy areas are available in the district out of which 9167Ha of paddy and 1018Ha of non-paddy areas are susceptible to flood. The agriculture contingency plan by the DDA, Khordha is given in chapter VIII. The block wise details are given below.

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**Table – 3.18:**

Sl. No.	Name of the Block	Cultivable Area (Hectares)		Area susceptible to Flood (Hectares)	
		Paddy	Non Paddy	Paddy	Non Paddy
1.	Khordha	13047	1535	1616	--
2.	Begunia	13942	2603	782	--
3.	Bolagarh	14345	1403	689	--
4.	Tangi	9814	2729	1795	--
5.	Chilika	9795	1915	1221	--
6.	Banapur	10582	1995	735	--
7.	Bhubaneswar	8935	1046	873	--
8.	Jatni	6850	642	845	--
9.	Balianta	9030	893	861	--
10.	Balipatana	9810	689	768	--
	<b>Total</b>	<b>106150</b>	<b>15450</b>	<b>10185</b>	<b>--</b>

### 3.6 Electrical Infrastructure in the Flood Prone Area:

**Table – 3.19:**

Sl. No.	Name of the Block/ ULB	No. of 33/11 KV Substations	No. of Distributing Transformers			Conductor/ Electrical lines-11 KV or less (length in Kms.)	No. of Poles	No. of High Tension Towers	High Tension lines above 11 KV (length in Kms.)
			11 KV or Less	11 KV < and <60KV	60 KV and above				
1.	Khordha	1	7	852	0	486.43	7584	435	85.72
2.	Begunia	1	3	670	0	360.35	5922	485	35.00
3.	Banapur	0	2	820	0	444.50	5556	206	25.00
4.	Balianta	0	3	352	0	155.00	2583	190	16.00

### 3.7 Drinking water and Flood Vulnerability:

**Table – 3.20:**

[Source: RWSS, Bhubaneswar, PHED-III, PHED-II]

Sl. No.	Name of the Block/ ULB	Total No. of Tube Wells	No. of Tube Wells with raised platforms	No. 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.	Balianta	1445	--	--	44	--	3	911	--
2.	Balipatna	1504	--	--	34	150453	6	733	--
3.	BBSR	1409	--	2	37	--	6	997	--
4.	Jatni	1342	--	1	33	--	6	638	--

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5.	Banpur	1506	--	4	38	--	3	539	--
6.	Begunia	1758	--	19	59	--	16	881	--
7.	Bolgarh	1692	--	43	49	--	5	767	--
8.	Chilika	1348	--	16	35	--	9	792	--
9.	Khurda	1718	--	11	32	--	8	731	--
10.	Tangi	1382	--	22	37	--	2	834	--
	<b>Total</b>	<b>15104</b>	<b>--</b>	<b>118</b>	<b>409</b>	<b>--</b>	<b>64</b>	<b>7823</b>	<b>--</b>
11.	BMC (PHED – III)	3433	0	0	1	519860 mtrs	64	553	Production well 40 Nos.
12.	BMC (PHED – II)	0	0	0	12 ( Amrut Scheme)	Distribution Line- 357.513 KM(Approx.) Rising line- 57.866KM(Approx.)	14	1272	Surface Source- 90.20MLD Production Well (102 nos)- 9.35MLD
13.	BMC (PHED – I)					CI Pipe Lines – 583.07 Km	17 Overhead Reservoirs – 185 Under Ground Reservoir – 76		
14.	Khordha	338	0	0	1	59.72	7	134	Production well 27 Nos.
15.	Jatni	321	0	0	1	56.55	7	149	Production well 17 Nos.
16.	Balugaon	151	0	0	1	65.56	4	70	Production well 8 Nos.
17.	Banapur	158	0	0	1	40.10	2	41	Production well 15 Nos.

#### 4. Land Slide Vulnerability:

The district is not vulnerable to Landslide. Till date there are no instances of landslide noticed in the area.

**Table – 3.21:**

Sl. No.	Land Slide Zone/ Area/ Location	Area in Sq. Km	No. of susceptible Villages/ Wards	Vulnerable Population in Nos.	House s	Vulnerable Infrastructure			
						School/ AWC Buildings	Hospitals	Roads (in Km)	Other Critical Infrastructure
1	2	3	4	5	6	7	8	9	10

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### 5. Lightning:

**Table – 3.22:**

Sl. No.	Name of the Block/ ULB	Year	Identifiable incidents of lightning hit in last 5 years		No. of Lightning events	No. fatality/ Deaths	Total	Injured Persons
			No. GPs	No. of Villages/ Wards				
1.	Baliana	2013	1	1	1	1	2	0
2.		2016	1	1	1	1	2	0
3.	Balipatna	2011	1	1	1	1	2	0
4.		2013	3	3	3	3	6	0
5.		2016	2	2	2	2	4	0
6.		2018	1	1	1	1	2	0
7.	Bhubaneswar	2011	2	2	2	2	4	0
8.		2012	1	1	1	1	2	0
9.		2013	3	3	3	3	6	0
10.		2014	1	1	1	1	2	0
11.		2015	3	3	3	3	6	0
12.		2016	1	1	1	1	2	0
13.		2017	3	3	3	3	6	0
14.		2018	1	1	1	1	2	0
15.	Jatni	2011	1	1	1	1	2	0
16.		2012	1	1	1	1	2	0
17.		2013	2	2	2	2	4	0
18.		2014	1	1	1	1	2	0
19.		2016	5	5	5	5	10	0
20.		2017	1	1	1	1	2	0
21.		2018	2	2	2	2	4	0
22.	Banpur	2011	1	1	1	1	2	0
23.		2012	3	3	3	3	6	0
24.		2013	1	1	1	1	2	0
25.		2016	1	1	1	1	2	0

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26.	Begunia	2011	1	1	1	1	2	0
27.		2012	1	1	1	1	2	0
28.		2013	1	1	1	1	2	0
29.		2015	4	4	4	4	8	0
30.		2017	4	5	5	5	10	1
31.		2018	3	3	3	3	6	0
32.	Bolgarh	2012	2	2	2	2	4	0
33.		2018	2	2	2	2	4	0
34.	Chilika	2011	1	1	1	1	2	0
35.		2013	1	1	1	1	2	0
36.		2014	7	7	7	7	14	0
37.		2017	1	1	1	1	2	0
38.	Khurda	2011	5	5	5	5	10	0
39.		2013	1	1	1	1	2	0
40.		2015	4	4	4	4	8	0
41.		2016	2	2	2	2	4	0
42.		2017	1	1	1	1	2	0
43.		2018	2	2	2	2	4	0
44.	Tangi	2012	4	4	4	4	8	0
45.		2013	2	2	2	2	4	0
46.		2015	2	2	2	2	4	0
47.		2016	6	6	6	6	12	0
48.		2017	4	4	4	4	8	1

The above table shows that the lightning deaths are quite good in numbers almost every year. So there is a need for massive awareness among the community to reduce the losses. In the year 2017-18, a large nos of posters on lightning was distributed among the schools for massive awareness.

The detailed blockwise place where lightning had occurred in past 10 years is given below:

**Table - 3.23:**



## District Disaster Management Plan - 2019

Places where are lighting occurred															
Sl No.	Name of the Tahasils														
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018			
1	Balianta			Jaganathpur	Bhingarpur		Gotalgrama			Sathilo					
2	Balipatna		Balipatna		Padmapur		Ambadiha			Deulidharpur		Khulis			
					Saradeipur		Khajuriapada			Pampalo					
							Deulidharpur								
3	BBSR	Ghasuandhota	Pariapatapur	Dhanapur	Ranipada	Kantabad	Basantpur	HB-08, Vani Bihar		Nuagaon	Deulidharpur	Jayapurpatna	Raghu		
					Chandaka		Niladrivihar					Bhimpur	Gangapatna	nathpur	
					Kalyanpur							Chandaka	Daspur		
					Chandaka										
4	Jatni	Chanda	Arugul	Kusumati	Kudiary	Mundal	Chhanaghar	Arugul		Deulidharpur	Uttarmunda	Jamuk			
			Arugul				Chhanaghar						oli		
5	Khordha	Pubusahi	Sarthapur	Dam	Taratua		Champapur			Deulidharpur	Jhinuihari	Naran			
			Golbai	anb	Saradhapur								dia	garh	
			Achutapur	humi	Lekhanpur								Muktapur	Adakh	
				umi	Keranga								Keranga	andia	
				umi	Keranga								Bantal		
		Paikatigiria	Kanpur												
6	Begunia		Goda	Lokipur	Balibereni	Haja	Dinger					Raimulap	Kurun		
				Saru								a	Botalama	na	ji
													Begunia	Jamabartad	Sarua
													Dalak	ei	
												Balahadi			
												Jemabantad			
												ei			
												Kendupali	Kuru		
													m		
7	Bolagarh	Patabandha	Manibandha	Panchukota	Tikatal	Siula							Manik		
		Hatasahi				Khalikota								apur	
		Bhatapada												Pichuk	
													uli		
8	Tangi		Pariord	Tangi	Tangi	Baghep	Aranga				Tangi	Dia	Godisahi		
				Balipatur		ut					Kuhudi	Bhusandapur	Gopalpur		
				Balipatur		ut						Sundarpur	Ujalagopin		
						ut						Jaganathpat	athpur		
						ut						an	Bhusandpur		
										Sundarpur	sasna				

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									Harichandapur		
9	Chilika			Man singh pur	Baulabandha			Jaripada			Chhedpada
				Balu gaon				Chilika			
								Chilika			
								Chilika			
								Jatipatna			
								Radhamohanpur			
								Chilika			
10	Banpur	Banpur	Banpur		Gurupada	Baguda	Galua samili			Banpur	
		Bhim pur	Badahantua		Kumarangasan	Ayatpur					
			Odagaon			Moramori					

### 6. Drought: Table – 3.24:

(Source: DDA, Khordha)

Sl. No.	Name of the Block	Average Annual Rain Fall	Ground Water Level	Cultivated Area (In Hectares)			
				Paddy		Non- Paddy	
				Rain fed Area	Irrigated area	Rain fed Area	Irrigated area
1.	Khordha	1491	0.044	10474	2573	1430	8
2.	Begunia	1092	0.0339	11209	2733	2510	17
3.	Bolagarh	1216	0.0437	10622	3723	1307	4
4.	Tangi	1798	0.0596	4920	4890	2581	14
5.	Chilika	1830	0.0386	7437	2358	1774	4
6.	Banapur	1008	0.054	2859	7721	1921	8
7.	Bhubaneswar	1613	0.0681	1686	8584	810	34
8.	Jatni	1980	0.031	3822	3018	617	0
9.	Balianta	1863	0.0666	0	9030	94	788
10.	Balipatana	1409	0.0369	0	9804	77	606
11.	<b>Total</b>	<b>1530</b>	<b>0.4764 (Avg.)</b>	<b>53045</b>	<b>54434</b>	<b>13121</b>	<b>1483</b>

### 9.1 Drought Vulnerability:

Some part of the district is prone to drought. Sometimes unprecedented rainfall, less rain from actual rain fall creates drought like situation in the district. In the year 2014, 5 GPs and 15 Villages were affected in drought where as in the year 2015, 104 GPs, 1 ULB and 925 nos of villages were affected in drought.

**Table- 3.25:**

Name of the Block	Year – 2014			Year-2015			Year- 2017		
	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)

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			Paddy	Non-Paddy			Paddy	Non-Paddy			Pad dy	Non - Pad dy
Khordha	3	8	350	0	20	103	9250	0				
Begunia	2	7	290	0	21	161	11154	0				
Bolagarh	0	0	0	0	19	198	12720	0	5	10		23.0288
Tangi	0	0	0	0	20	190	8161	0				
Chilika	0	0	0	0	14 + 1	134	8434	0				
Banapur	0	0	0	0	10	139	0	0				
BBSR	0	0	0	0	0	0	0	0				
Jatni	0	0	0	0	0	0	0	0				
Balianta	0	0	0	0	0	0	0	0				
Balipatana	0	0	0	0	0	0	0	0				
<b>Total</b>	<b>5</b>	<b>15</b>	<b>640</b>	<b>0</b>	<b>104-1UB</b>	<b>925</b>	<b>60750</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Similarly, in the year 2017 district had also experienced pest attack and unseasonal rain due to which massive crop loss had occurred. In pest attack 6 nos of blocks were affected where as due to unseasonal cyclonic rain all 10 nos of blocks were affected.

The information on drought vulnerability villages is annexed in **ANNEXURE – XXIII.**

### **7. Drinking Water Crisis:**

**Table – 3.26:**

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	Chilika			4	1825			13 nos of village affected by saline water
2	Khordha Mply			1, 2, 6, 7, 10, 11,16, 17, 18, 19	22015			

### **8. Events/ Festivals/ Functions organized in the district where mass gathering occurs:**

**Table- 3.27:**

Sl. No.	Name of the Event/ Festival/ Function	Name of the Village	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
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## District Disaster Management Plan - 2019

							the mentioned)
1.	Makar Sankranti Being Organised by Makar Mahostab Committee at Atri	Baghmari	Begunia	15	Jan	30000	
2.	Raja Festival at Ugra Tara Temple	Mulijhara	Tangi	3	June	20000	
3.	Dola Purnima	Bhushandpur	Tangi		Mar	5000	
4.	Dola Festival (Panchu Dola)	Rameswar	Tangi		Mar	4000	
5.	Dola Festival (Panchu Dola)	Chhangiri	Tangi		Mar	3000	
6.	Mohasivaratri ( Jagar Yatra)	Aranga	Tangi		Feb	2000	
7.	Dola Festival ( Bara Dola)	Olasingh	Tangi		Mar	4000	
8.	Dola Festival ( Dayanchori)	Tankol	Tangi		Mar	5000	
9.	Dola Festival (Panchu Dola)	Haripur	Tangi		Mar	5000	
10.	Dola Festival (Panchu Dola)	Badapokharia	Tangi		Mar	3000	
11.	Ashokastami Car Festival	Dia	Tangi		April	6000	
12.	Dola Festival (Phula Dola)	Lendo	Tangi		Mar	3000	
13.	Dola Festival (Phula Dola)	Tangi	Tangi		Mar	6000	
14.	Makar Sankranti	Mangarajpur	Banpur		Jan	3000	
15.	Mahasivaratri	Banapur	Banpur		Feb	3000	
16.	Dola Purnima	Banapur	Banpur		Mar	2500	
17.	Panchudola	Banapur	Banpur	5	Mar	20000	
18.	Danda Melan	Banapur	Banpur		Apr	50000	
19.	Mahabisuba Sankranti	Banapur	Banpur		Apr	2000	
20.	Ashoka Astami	Banapur	Banpur		Apr	7000	
21.	Raja	Banapur	Banpur		June	2500	
22.	Ratha Yatra	Banapur	Banpur		June	10000	
23.	Bheta Amabasya	Banapur	Banpur		Oct	10000	
24.	Dashahara	Banapur	Banpur		Oct	2000	
25.	Vivekandanda Jayanti	Khordha	Khordha		Jan	3000	
26.	Sai Jayanti	Khordha	Khordha		Jan	3000	
27.	Shivaratri Utsav	Sanapalla	Khordha		Feb	3000	
28.	Shivaratri Utsav Nilakantheswar	Olasingh	Khordha		Feb	3000	
29.	Paschimeswar Thakura-jagar	Panichhatra	Khordha		Feb	3000	
30.	Panchudola Ustav	Makundaprasad	Khordha		Mar	4000	
31.	Panchudola Ustav	Gurujang	Khordha		Mar	5000	
32.	Panchudola Yatra	Saradhapur	Khordha		Mar	4000	
33.	Panchudola	Haladiapada	Khordha		Mar	3000	
34.	Maa Bhagabati Thakurani Mela	Mota	Khordha		Mar	1000	
35.	Chaitra Melana	Mallipur	Khordha		Mar	4000	
36.	Dola Purnima	Hadapada	Khordha		Mar	10000	
37.	Dasadola	Golabai	Khordha		Mar	5000	
38.	Meru Yatra,	Nalipada arjunpur	Khordha		Apr	3000	
39.	Sarva Dharma Santi Sammilani	Aranga	Khordha		Apr	15000	

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40.	Balunkeswar Melana	Binkudia	Khordha		Apr	10000	
41.	Sapneswar Mandir Utsav	Kumbhilo	Khordha		May	4000	
42.	Ratha Yatra	Jagulipatna	Khordha		June	10000	
43.	Durga Puja	Narangarh	Khordha		Sept	3000	
44.	Palli Utsav	Kanpur	Khordha		Oct	2500	
45.	Khordha Zilla Loka Utsav	Gurujang	Khordha	7	Nov	8000	
46.	Badaosha Parba	Gurujang	Khordha	3	Nov	6000	
47.	Khordha Mahotsav	Khordha	Khordha	7	Dec	10000	
48.	Pandardola (15 dola)	Bolagarh	Bolagarh	3	Mar	10000	
49.	Bhuiani Yatra	Bolagarh	Bolagarh	3	Dec	10000	
50.	Bolagarh Mahotshav	Bolagarh	Bolagarh	7	Dec	10000	
51.	Maha Shivaratri	Budhanath Temple, Garedipanchan	Balipatan a		Feb	2000	
52.	Rathayatra	Balipatna	Balipatan a		July	2000	
53.	Dola Purnima	Balipatna	Balipatan a		Mar	3000	
54.	Durga Puja	Banamalipur, Majjihara	Balipatan a		Sept	2000	
55.	Sishu Ananta Utsav	Balipatna	Balipatan a		Dec	700	
56.	Chousathi Yogini Mahtsav	Hirpur	Balianta		Dec	1200	
57.	Dola Festival	Pratapsasan, Balakati Bazar	Balianta	1	Mar	2200	
58.	Magha Ekadasi Mela	Ankula	Chilika	3	Feb	8000	
59.	Dahi Jata	Injanpur	Chilika	1	Mar	7000	
60.	Dola Purnima	Badakul	Chilika	1	Mar	5000	
61.	Kartika Purnima	Balugaon	Chilika	1	Nov	15000	
62.	Pana Sankranti	Rampur	Chilika	1	Apr	6000	
63.	Dasadola	Sananairi, Baulabandha	Chilika	1	Mar	20000	
64.	Sata Dola	Brahman, Kusadihi	Chilika	1	Mar	10000	
65.	Bhaunri	Dadhibamanpur	Chilika	1	May	10000	
66.	Raja Jatra	Soran	Chilika	3	June	20000	
67.	Kartika Purnima	Chandeswar	Chilika	1	Nov	8000	
68.	Dolapurnima	Jatni	Jatni	1	Mar	5000	
69.	Panchudola	Jatni	Jatni	1	Mar	5000	
70.	Ganesh puja	Jatni	Jatni	1	Sept	30000	
71.	Durga Puja	Jatni	Jatni	10	Oct	10000	
72.	Laxmi Puja	Jatni	Jatni	7	Oct	10000	
73.	Magha Saptami ( Khandagiri Mela)	Bhubaneswar	Bhubaneswar	7	Feb	6000	
74.	Jagara Mela of Lord Lingaraj	Bhubaneswar	Bhubaneswar	1	Feb	10000	
75.	Ashokastami ( Car Festival of Lord Lingaraj)	Bhubaneswar	Bhubaneswar	1	April	15000	

Dist. Police has submitted a list of mass gathering places which is placed in **ANNEXURE – XII.**

### 9. Boat operation points:

**Table -3.28:**

Sl. No.	Name of the Block & GP	No of Boats	Name of the Ghat/ boat operation	Name of the water body	No. of Panchayat/ villages connected	Daily to and fro movement of people in	Type of boats operating in Nos.	
							Mechani	Non-

## ***District Disaster Management Plan - 2019***

			point			Nos. (Approx.)	sed	Mecha nised
1	Khordha, Orabarsingh	1	Panchamuk hi Balapur	Rajua	Hirimul, Dihakhala, Durgapur, Orabarsingh, Lekhanpur	500	Y	
2	Khordha, Narangarh	0	Panchamuk hi Balapur	Rajua	Orami, Balapur, Dhabalpur	500	Y	
3	Khordha, Garh Haladia	0	Kuapat Patana	Rajua	Kuapat	200	Y	
4	Jatni, Benapanjari	1	Pandiabili	Kuakhai Daya Dhanua	Pandiabili, Budhapada	300	Y	
5	Balianta	2					Y	
6	Balipatna	3					Y	
7	Chilika	210	Balugaon, Badakul	Chilika Lake	5	260	148	52
8	Begunia		Baghamari	Rana	3	250	Y	

- There are 3 mechanised Boats at Balipatana placed at Block office premises and during the flood emergency it is used to be shifted to the required location for rescue and relief operation.
- Khordha Block is provided with one Govt. boat and the same is used for the rescue and relief purpose from different ghats as mentioned above as per the need.

**Table -3.28- A: List of Boat Drivers and Khalasi placed in Different Blocks:**

SI No	Name of the Driver / Khalasi	Contact No	Placed at
1.	Arta Bhanjan Behera S/o – Krushna Ch. Behera, At- Nuadokanda, Po- Kanas, Dist- Puri	9937226902	Khordha
2.	Khired Kumar Behera S/o – Gunanidhi Behera At/Po-Gopinathpur, Via-Kendupatna, Dist – Cuttack	9583435803	Balianta
3.	Ashok Kumar Parida S/o.- Dhuleswar Parida At – Manikunda, PO-Uradiha, Dist- Cuttack	9438794780	Balianta
4.	Lahari Behera S/o.Laxmidhar Behera, At.Gopinathpur, PO.Brajamohanpur Dist.Khordha	7873308454	Jatni Block
5.	Loknath Behera S/o.Padma Charan Behera, At.Nua Dokanda, PO/PS.Kanas, Dist. Puri	9937055545	Balipatana
6.	Krushna Mohan Behera S/o.Sinkuli Behera, At.Bankia Palli , PO-.Ankulachati, Dist. –Khordha	9337710409	Balipatana
7.	Sanjay Kumar Malick S/o-Sadhu Charan Malick, At.Jajasingh. dama sahi. Po/Dist –Khordha,	9348435703	Khordha

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8.	Madhab Behera S/o Gokula Behera At/PO. Kanas, Dist-Puri	7894466104	Balipatana
9.	Rabindra Dihudi S/O Manguli Dihudi, At-Beruan PO-Kalyanpur Dist- Khordha	9556775181	Balianta
10.	Prasant Pratihari S/o – Braja Kishore Pratihari, At – Jakara, PO-Gudum, Dist-Khordha	6370054203	Jatni
11.	Fakir Charana Behera S/o – Udyanath Behera At – Gopinathpur, PO- Brajamohanpur, Dist-Khordha	9937781535	Balianta
12.	Sanjay Behera S/O Birabhadra Behera, At-Gopinathpur Dist- Khordha,Ph-	9778573634	Balipatana
13.	Narayan Sahu S/O- Late Krushna Ch. Sahu, At-Kanata Sahi ,PS-Balipatna, Dist.-Khordha	9937810828	Balipatana

### **10. Major Industrial Establishments/ Chemical & Other hazardous material storage points:**

**Table – 3.29:**

Placed in Volume – II (Table – 29)

### **11. Railway Line Exposed to Different Hazards:**

The railway track of the district contains 54.32 km single line, 138 kms of double line and 36 stations but it does not come under flood, land slide, storm surge and Tsunami hit areas. If cyclone comes then the overall track comes under cyclone zone.

**Table – 3.30:**

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

### **12. Road Accidents:**

As the NH 16 is passing through the district and connecting Bhubaneswar to Berhampur, the district is prone to road accidents. The frequencies of accidents are more on NH and side by villages. Even some times the domestic animals are of road side villages are obstructing the vehicles and accidents occur.

**Table – 3.31:**

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Sl. No.	Stretch of Road (From – to)	Length in Kms.	No. of Traffic Congestion Areas	Name of Accident Prone Areas	Name of villages/ habitations adjacent to accident prone areas
1.	NH-16 from Pitapali to Totapada Chhak, under Model PS, Khordha	4	3	5	6
2.	NH-57 from Khordha to Jaya Mangal under Model PS, Khordha	10	6	6	6
3.	NH-16 from Daleiput to Tapanga under Sadar PS	7	7	5	6
4.	NH -16 from Ugratara Chhak to Malipada under Jankia PS	15	8	10	30
5.	NH-16 from Tangi Bypass to Kuhudi under Tangi PS	9	3	3	5
6.	1. NH 16 from Pranadeipur to Dhuaanla 2. Saranai to Naval OP under Balugaon PS	11	4	4	6
7.	Saralasingh Road to Badakul under Balugaon PS	10	2	2	10
8.	NH-16 from Bishnudiha to Saranai Bridge and Saralasingh to Haripur Chhak under Banapur PS	15	6	8	15
9.	NH-57 from Begunia to Pichukuli under Begunia PS	10	3	4	11
10.	NH-57 from Sunakhala to Bijipur Check Gate under Bolagarh PS	15	3	4	4

### 13. Population Requiring Special Care(2018)

Table – 3.32:

[Source: DSWO]

Sl. No.	Block/ ULB	No. of HHs headed by Women	No. of HHs headed by PWD	No. of Persons With Disability		No. of Widow	No. of Children		No. of Orphans		No. of Aged Persons (60 and above)		No. of Pregnant and lactating mothers
				M	F		0-5 Yrs	6-14 Yrs	M	F	M	F	
1.	BBSR (R)	3933	352	616	394	4518	11461	14325	10	15	6542	6032	1995
2.	Begunia	4079	521	1151	716	5150	9609	16074	101	180	8474	7959	1840



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3.	Baliatna	2693	561	755	482	4196	9372	17158	13	15	7125	7121	1604
4.	Balipatna	2969	402	843	583	4129	9350	12128	7	12	7365	7123	1664
5.	Bolgarh	3024	833	1263	634	5361	9539	16195	37	41	8805	8259	1892
6.	Jatni	4352	252	966	590	3623	12606	13807	21	19	9874	5741	2045
7.	Tangi	4077	352	789	430	5567	14374	18998	12	21	8880	9147	2478
8.	Banapur	2908	544	245	185	3048	12586	6999	15	12	4704	4494	2472
9.	Khordha	5649	434	919	582	6939	14608	18938	17	10	19826		2735
10.	Chilika	2693	380	914	493	4324	9961	15519	22	16	6372	5947	1837
11.	BMC I	2963	146	269	267	3231	11928	11455	49	96	4582	3768	2569
12.	BMC II	1086	170	193	159	1627	7158	5414	15	12	2250	1859	1744
13.	BMC III	2554	73	2696	1931	2682	11428	10294	26	57	3104	4024	2753
	<b>Total</b>	<b>42980</b>	<b>5020</b>	<b>11619</b>	<b>7446</b>	<b>54395</b>	<b>143980</b>	<b>177304</b>	<b>345</b>	<b>506</b>	<b>78077</b>	<b>91300</b>	<b>27628</b>

*[Village wise details are annexed in ANNEXURE - XXVI]*

### **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)

Khordha District is coming under both Zone-II & Zone – III as per BMTPC. The Khordha (P), Banapur, Begunia (P), Bolgada, Tangi (P), Chilika blocks comes under Zone –II (Low damage risk zone) and Khordha (P), Begunia (P), Tangi (P) and Chilika Block comes Zone –III (Moderate damage risk zone).

### **15. Climate Change:**

#### **Climate Change scenario of Odisha :**

Rainfall patterns in Odisha have been more erratic since the 1960s, with below-normal rainfall across all districts being recorded for most years. The "normal" 120 days of monsoon rain has shrunk to 60–70 days, and unusual spikes in rainfall, with torrential rainfall of over 200–250 millimetres/day, are more frequent during the monsoon, frequently resulting in floods. This situation has had a strong influence on agriculture, especially during rabi season, because of the reduced residual moisture.

By 2100, the mean annual temperature globally is projected to increase by one to five degrees Celsius (24.5°C in 1970 to 28.5°C in 2080), depending on the A2 scenario in IPCC AR5 and location. Coastal Odisha will remain relatively less warm than the rest of the state, even though it clearly breaches the 2°C barrier. Northwestern, western, and south-western Odisha show the highest rise in temperature. This temperature rise is certainly at an unsustainable level, assuming the current challenges of global warming are not mitigated. This factor will have an increasingly larger impact on terrestrial and marine ecosystems.

According to the Coastal vulnerability index (CVI) studied by the Indian National Centre for Ocean Information Services (INCOIS), vulnerability, loss and damage from sea level rise,

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coastal geomorphology, tidal range, and elevation in the area of Odisha coastline varied from “low” in about 76 kilometres of the coastal stretch of Odisha state, covering parts of Ganjam, Chilka, southern Puri, and Kendrapara, and to “medium” in about 297 kilometres, covering northern Ganjam, Chilka, central Puri, Jagatsinghpur, Kendrapara, southern Bhadrak, and northern Balasore, and to “high” in about 107 kilometres, covering northern Puri, parts of Jagatsinghpur, Kendrapara, northern and southern Bhadrak, and southern Balasore.

A GHG inventory mapping exercise was undertaken by the state during preparation of the SAPCC in 2011 and to review the changes in state’s carbon footprint, a second study was conducted in 2014 with support of the Confederation of Indian Industries (CII). This emissions inventory was carried out using IPCC guidelines and it is aligned with the “India Greenhouse Gas Emissions Report 2007.”

Comparison of GHG Emissions in Last Five Years, Odisha :

Sector	Co2 – Equivalent (Megatonnes)		
	As per SAPCC I (2010-2015)	As per SAPCC II (2015 – 2020)	Change
Industry, Transport, Energy sector	82.68	109.77	6.0%
Agriculture	-	25.07	
Waste	0.56	0.66	42.4%
Forest	-4.56	-36.9	1.8%
Total	78.68	98.52	11.4%
Per capita Emission	1.88	2.35	11.4

*[Source : Odisha Climate Change Action Plan 2015-2020]*

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 changes 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. CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O) 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, SF<sub>6</sub> and NF<sub>3</sub>).

Greenhouse Gas	Global Warming Potential (GWP) (over 100 years)	% of Total Anthropogenic GHG Emissions (2010)	
Carbon dioxide (CO <sub>2</sub> )	1	76%	

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Methane (CH <sub>4</sub> )	25	16%	
Nitrous oxide (N <sub>2</sub> O)	298	6%	
Hydrofluorocarbons (HFCs)	124-14,800	< 2%	
Perfluorocarbons (PFCs)	7,390-12,200	< 2%	
Sulphur hexafluoride (SF <sub>6</sub> )	22,800	< 2%	
Nitrogen trifluoride (NF <sub>3</sub> )	17,200	< 2%	

### Global warming potential & Concentration levels of GHGs:

Gas	Unit	Pre-1750 (Before Industrialisation)	2011	GWP
Carbon dioxide (CO <sub>2</sub> )	Ppm	280	392.6	1
Methane (CH <sub>4</sub> )	Pb	700	1874	23
Nitrous oxide (N <sub>2</sub> O)	Ppb	270	324	310
Hydrofluorocarbons (HFCs)	Ppt	0	539	10900
Perfluorocarbons (PFCs)	Ppt	0	68	1430
Sulphur Hexafluoride (SF <sub>6</sub> )	Ppt	0	7.47	22800

### Odisha GHG emissions overview:

The following table speaks about the emissions in Odisha 2011-12:

Emmission source	Total Emmission (MT)	Per Capital Emission	Sahare of emissions, %
Energy	77835568	1.8	58
Agruculture	25991455	0.6	19
Waste	3284398	0.08	2.5
Industry Sector	32749128	0.8	24
LULUCF	-4977452	-0.1	-3.5
<b>Total</b>	<b>134883097</b>	<b>3.2</b>	
Population	41940000*		
*India Census report			

In 2011-12, the **Energy Sector** was the largest source of emissions ,over 77 Million tons of CO<sub>2</sub> Eq. of these emissions, 85% was emitted from Power Generation, 8% was emitted from Transport, 2% from Residential/Commercial, 2% from other energy & 3% from Fugitive Emissions.

### GHG Emission Summary in Energy sector:

Emission Source	Co2 Eq. (MT)
Power emission	66161005

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Transport Emission	6079795
Residential Emission	1583204
Other Emission	1686937
Fugitive Emission	2324627
<b>Total</b>	<b>77835568</b>

**Agriculture sector** emitted close to 26million tons of CO2 Eq. Emissions from rice cultivation and enteric fermentation emissions were the largest contributor, collectively amounting to 78.5% of emissions from agriculture.

GHG Emission Summary in Agriculture sector:

<b>Emission Source</b>	<b>Co2 Eq. (MT)</b>
Enteric Fermentation	10112319
Manure Management	543373
Rice Cultivation	10283952
Soils	4896181
Burning Crop residues	155630
<b>Total</b>	<b>25991455</b>

Emissions from **Waste Sector** amounted to 3.3 million tons CO2 Eq. The largest contributor to these emissions was from waste generated in industries & accounted for 88% of the total waste emissions. Domestic waste water contributed another 7% with municipal solid waste emitting about 5% of the total emissions from the waste.

GHG Emission Summary in Waste sector:

<b>Emission Source</b>	<b>Co2 Eq. (MT)</b>
Municipal Solid Waste	170375.3
Domestic Waste water	224449.7
Industrial Waste Water	2889572.8

**Land Use Land Use Change & Forestry (LULUCF)** estimation of carbon stock changes, CO2 emissions and removals and non-CO2 GHG were estimated to be just below 5 million tons of CO2. Total sequestered from crop land was estimated to be 7.6 million tons of CO2 & that from Forest land was 0.8million tons of CO2. Sequestration from wetlands was relatively smaller. Emissions from fuel wood usage were 2.8 million tons of CO2 & grass land emissions were 0.7 Million Tons of CO2.

GHG Emission Summary in LULUCF:

<b>Emission Source</b>	<b>Co2 Eq. / Removals [-Removals &amp; + sequestration] tons</b>
Forest Land	-872954
Crop Land	-7621879
Grass Land	686853
Wetland	-3006
Fuel wood cutting	2833534
<b>Total</b>	<b>-4977452</b>

Emission from **Industry Sector**, which included emissions generated from cement production, chemical industries, iron & steel industries, aluminium industries, ferro-alloy industries, pulp &

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paper industries & other industry related energy consumption, amounted to 32 million tons of CO<sub>2</sub>. These emissions account for 24% of the total emissions generated in the state of Odisha.

GHG Emission Summary in Industrial sector:

Emission Source	Co2 Eq. (MT)
Cement Industry	3024600
Chemical Industry	15156
Iron & Steel Industry	19857741
Aluminium Industry (Smelter & Refinery)	6312838
Fero Alloys Industry	2052667
Pulp & Paper	1415165
Other	70960
<b>Total</b>	<b>32749128</b>

The Overall approach for emission reduction strategy of Odisha should be to pursue an aggressive emission reduction target. In line with the National commitment of reducing emission intensity by 20-25% of 2005 levels by 2020, this study explored all possible options to help the state of Odisha achieve similar emission intensity reduction. Based on the mitigation options identified, an emission intensity reduction of 20-25% by 2020 for the state of Odisha looks feasible.

### Key Recommendations:

1. Adopting voluntary renewable power obligation (RPO) targets.
2. Creation of “**Green Fund**” and supporting the States’s Climate Mitigation Efforts.
3. Land Use, Land Use Change and Forestry (LULUCF) can significantly act as a carbon sink in the states effort.
4. Investment in renewable energy should be aggressively pursued.
5. Establishing a “**Power Plant Refurbishment Fund**” to create a fund source for the Odisha electricity board to gradually refurbish & modernize its power station.
6. Charging Fuel cess of Rs.0.50/litre on both petrol & diesel, with the funds generated from it utilized for funding bio fuel research & supporting technology absorption.
7. Considering a “**Green Tax**” on new vehicles at 1% of the vehicle cost. This green cost can be channeled to develop public transport system and inter-city transportation across the state.
8. Consider **Clean Energy Cess** (@100 per ton of coal) to non fossil fuel based energy such as energy plantations, bio mass, waste to energy etc.
9. Co-processing of industrial, municipal & other combustible wastes in cement kilns could be another viable means of meeting partially cement industries energy requirement.
10. Cleaner production and industry symbiosis can improve the productive use of energy, materials and water, reduce the generation of waste and emissions (including GHGs) and strengthen the sound management of chemicals for small and medium enterprises (SMEs).
11. Promoting adoption of green buildings in residential & commercial space.
12. Demand side management in agricultural pumpsets, water & crop management and Systematic Rice Intensification (SRI) technique to be explored as potential emission reduction opportunities in agricultural sector.

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### ***Further information:***

The 2°C target is not universally agreed. Small Island Developing States (SIDS) and Least Developed Countries (LDCs) have identified global warming of 1.5°C as warming above which there would be serious threats to their own development and, in some cases, survival.

Details of forest as a major Carbon sink (District)

Reserved Forest / Protected Forest	Revenue / Village Forest	Private Owned Forests	Others (If any)
16854 Ha	661.88 Ha	97.28 Ha	22693.99 Ha

### **Sectors with High Mitigation Potential:**

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

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	<ul style="list-style-type: none"> <li>• Controlled wastewater treatment</li> <li>• Recycling and waste minimization</li> <li>• Biocovers and biofilters to optimize CH<sub>4</sub> oxidation</li> </ul>
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### 16. Dam Brust:

#### 1. Dam- Burst Scenario: Salia Dam

Sl. No.	Name of the Dam	Location & Water body	Type (Major/ Medium/ Minor)	Storage Capacity	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)
1	2	3	4	5	6	7	8
1	Salia Dam Project	Latitude 150-48'-8" E and 850-5'-8" N, Salkia River	Medium	6000 Ham	No	Yes	Banapur – 99 Chilika - 41

### Contingency Planning for Dam bursts scenario:

99 nos of villages under Banapur Block and 41nos of villages under Chilika Block are likely to be affected.

#### 1. For Dam – A

Sl. No.	District	Block	Name of the Village	Evacuation Route for the village/s	No. of HHs	Population	Safe Shelter Identified
1	2	3	4	5	6	7	8
1	Khordha	Banapur	Panasadihi	Via Dam Road to Angargaon	88	349	
2	Khordha	Banapur	Gurupada	Via Dam Road to Angargaon	155	556	
3	Khordha	Banapur	Nuagaon	Via Dam Road to Angargaon	18	69	
4	Khordha	Banapur	Hatimunda	Via Banapur to National Highway			
5	Khordha	Banapur	Achyutrajpur	Via Banapur to National Highway			
6	Khordha	Banapur	Tumuraput	Via Banapur to National Highway	128	641	
7	Khordha	Banapur	Kumaranga	Via Banapur to National Highway	165	692	

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8	Khordha	Banapur	Jagannathpur	Via Banapur to National Highway	49	239	
9	Khordha	Banapur	Banapur NAC	Via Banapur to National Highway			
10	Khordha	Banapur	Ranipada	Via Banapur to National Highway	629	3004	
11	Khordha	Banapur	Ekadalia	Via Banapur to National Highway	217	1000	
12	Khordha	Banapur	Gobindapur	Via Banapur to National Highway	312	1600	
13	Khordha	Banapur	Gopalpur	Via Banapur to National Highway			
14	Khordha	Banapur	Patapur	Via Banapur to National Highway			
15	Khordha	Banapur	Sunakera	Via Banapur to National Highway	245	1253	
16	Khordha	Banapur	Galua	Via Banapur to National Highway	955	4718	
17	Khordha	Banapur	Bhimpur	Via Banapur to National Highway			
18	Khordha	Banapur	Sana Hantuad	Via Banapur to National Highway	275	1363	
19	Khordha	Banapur	Nandapur	Via Banapur to National Highway	429	2015	
20	Khordha	Banapur	Bishnudihi	Via Banapur to National Highway	279	1223	
21	Khordha	Banapur	Balidihi	Via Banapur to National Highway	155	691	
22	Khordha	Banapur	Ranasinghprasad	Via Banapur to National Highway			
23	Khordha	Banapur	Manikpur	Via Banapur to National Highway	260	1152	
24	Khordha	Banapur	Bengarajpur	Via Banapur to National Highway	255	1460	
25	Khordha	Banapur	Muktadeipur	Via Banapur to National Highway			
26	Khordha	Banapur	Kotapur	Via Banapur to National Highway			
27	Khordha	Banapur	Pandiripadar	Via Banapur to National Highway			
28	Khordha	Banapur	Dulani	Via Banapur to National Highway			
29	Khordha	Banapur	Bisarapatana	Via Banapur to National Highway			



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30	Khordha	Banapur	Bheseri	Via Banapur to National Highway	108	502	
31	Khordha	Banapur	Dhuanla	Via Banapur to National Highway	48	216	
32	Khordha	Banapur	Khanata	Via Banapur to National Highway	217	894	
33	Khordha	Banapur	Dixitpada	Via Banapur to National Highway	148	682	
34	Khordha	Banapur	Sarubaripadar	Via Banapur to National Highway			
35	Khordha	Banapur	Kimbhiripada	Via Banapur to National Highway			
36	Khordha	Banapur	Ambapada	Via Banapur to National Highway			
37	Khordha	Banapur	Kapileswarpur	Via Banapur to National Highway			
38	Khordha	Banapur	Matiapokhari	Via Banapur to National Highway	168	835	
39	Khordha	Banapur	Naraharipur sasan	Via Banapur to National Highway	76	300	
40	Khordha	Banapur	Samatarapur	Via Banapur to National Highway			
41	Khordha	Banapur	Shyamasundarpur	Via Banapur to National Highway	61	238	
42	Khordha	Banapur	Borigaon	Via Banapur to National Highway	214	1205	
43	Khordha	Banapur	Banloi	Via Banapur to National Highway	292	1486	
44	Khordha	Banapur	Bheteswar	Via Banapur to National Highway	427	2034	
45	Khordha	Banapur	Bhapur	Via Banapur to National Highway	153	567	
46	Khordha	Banapur	Baunsamula	Via Banapur to National Highway	0	0	
47	Khordha	Banapur	Brundabanpur	Via Banapur to National Highway	210	1019	
48	Khordha	Banapur	Sanasiripur	Via Banapur to National Highway	89	410	
49	Khordha	Banapur	Kurunjipur	Via Banapur to National Highway	128	658	
50	Khordha	Banapur	Totapada	Via Banapur to National Highway	0	0	
51	Khordha	Banapur	Betuli	Via Banapur to National Highway	147	629	

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52	Khordha	Banapur	Das Nuagaon	Via Banapur to National Highway	0	0	
53	Khordha	Banapur	Haripur	Via Banapur to National Highway	25	136	
54	Khordha	Banapur	Raghunathpur	Via Banapur to National Highway	0	0	
55	Khordha	Banapur	Padanpur	Via National Highway	212	513	
56	Khordha	Banapur	Parinuagoan	Via National Highway	21	117	
57	Khordha	Banapur	Bandhamunde	Via National Highway	156	675	
58	Khordha	Banapur	Dolamudei	Via National Highway	116	635	
59	Khordha	Banapur	Manatri	Via National Highway	42	235	
60	Khordha	Banapur	Kuankalipatana	Via National Highway	44	245	
61	Khordha	Banapur	Kuanrpur	Via National Highway	17	82	
62	Khordha	Banapur	Saranai	Via National Highway	124	580	
63	Khordha	Banapur	Gopinathpur	Via National Highway	287	1376	
64	Khordha	Banapur	Khanata	Via National Highway	211	894	
65	Khordha	Banapur	Kotari	Via National Highway	189	895	
66	Khordha	Banapur	Manipur	Via National Highway	36	167	
67	Khordha	Banapur	Tenulidihi	Via National Highway	109	498	
68	Khordha	Banapur	Basudeipur	Via National Highway	121	555	
69	Khordha	Banapur	Ghodasalia	Via National Highway	7	28	
70	Khordha	Banapur	Jarigada	Via National Highway	1	6	
71	Khordha	Banapur	Kiajhari	Via National Highway	24	105	
72	Khordha	Banapur	Lathipada	Via National Highway			
73	Khordha	Banapur	Dandigadia	Via National Highway			

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74	Khordha	Banapur	Haripur	Via National Highway	25	136	
75	Khordha	Banapur	Khuntapalli	Via National Highway	80	423	
76	Khordha	Banapur	Jhintikapalli	Via National Highway	116	542	
77	Khordha	Banapur	Punjama Sasan	Via National Highway	147	608	
78	Khordha	Banapur	Kandha Chingudia	Via National Highway	0	0	
79	Khordha	Banapur	Birakeshpur	Via National Highway	138	687	
80	Khordha	Banapur	Keshpur	Via National Highway	71	341	
81	Khordha	Banapur	Dulani sasan	Via National Highway	177	871	
82	Khordha	Banapur	Kandhadulani	Via National Highway	30	157	
83	Khordha	Banapur	Kandha Punjama	Via National Highway	29	121	
84	Khordha	Banapur	Lodhabhuin	Via Banapur to National Highway	51	218	
85	Khordha	Banapur	Bhabanipur	Via Banapur to National Highway	246	1283	
86	Khordha	Banapur	Bahadakhola	Via Banapur to National Highway	4	22	
87	Khordha	Banapur	Gadadharpur	Via Banapur to National Highway	46	252	
88	Khordha	Banapur	Goteswarpur	Via Banapur to National Highway	56	314	
89	Khordha	Banapur	Ghantasila	Via Banapur to National Highway	5	19	
90	Khordha	Banapur	Laxmiprasad	Via Banapur to National Highway	114	541	
91	Khordha	Banapur	Sahaspur	Via Banapur to National Highway	199	898	
92	Khordha	Banapur	Naranpur	Via Banapur to National Highway	57	268	
93	Khordha	Banapur	Parimanikpur	Via Banapur to National Highway	0	0	
94	Khordha	Banapur	Bidharapur patina	Via Banapur to National Highway			
95	Khordha	Banapur	Godipadar Patana	Via Banapur to National Highway			

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96	Khordha	Banapur	Surekhadeipur	Via Banapur to National Highway	14	62	
97	Khordha	Banapur	Pendrapalli	Via Banapur to National Highway	102	504	
98	Khordha	Banapur	Gamei	Via Banapur to National Highway	75	378	
99	Khordha	Banapur	Bhuskapada	Via Banapur to National Highway	147	657	
100	Khordha	Chilika	Balugaon	Via National Highway			
101	Khordha	Chilika	Banamalipur	Via National Highway	0	0	
102	Khordha	Chilika	Belapada	Via National Highway	102	401	
103	Khordha	Chilika	Bidharpur	Via National Highway	110	473	
104	Khordha	Chilika	Damodarpur	Via National Highway	12	46	
105	Khordha	Chilika	Gabapadara	Via National Highway	211	954	
106	Khordha	Chilika	Gundiripur	Via National Highway			
107	Khordha	Chilika	Injanpur	Via National Highway	74	374	
108	Khordha	Chilika	Kulakundhei	Via National Highway			
109	Khordha	Chilika	Nimiketa	Via National Highway	220	1058	
110	Khordha	Chilika	Ranasinghprasad	Via National Highway	70	297	
111	Khordha	Chilika	Ranchoda	Via National Highway	15	66	
112	Khordha	Chilika	Rampur	Via National Highway			
113	Khordha	Chilika	Saralapadar	Via National Highway			
114	Khordha	Chilika	Dhuanla	Via National Highway	217	952	
115	Khordha	Chilika	Ambapada	Via National Highway	86	372	
116	Khordha	Chilika	Mangalpur Sasan	Via National Highway	186	905	
117	Khordha	Chilika	Birpatana	Via National Highway	39	146	

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118	Khordha	Chilika	Rajapalla	Via National Highway	65	262	
119	Khordha	Chilika	Dibyasinghpur	Via National Highway	127	681	
120	Khordha	Chilika	Chungudia	Via National Highway	11	57	
121	Khordha	Chilika	Ostapalli	Via National Highway	103	433	
122	Khordha	Chilika	Ankula	Via National Highway	125	546	
123	Khordha	Chilika	Nimaimalla	Via National Highway	231	921	
124	Khordha	Chilika	Khadikapalli	Via National Highway	92	429	
125	Khordha	Chilika	Raigharpur	Via National Highway			
126	Khordha	Chilika	Aswari	Via National Highway	299	1422	
127	Khordha	Chilika	Atharbatia	Via National Highway	478	2174	
128	Khordha	Chilika	Akhupakhara	Via National Highway	70	264	
129	Khordha	Chilika	Boriasahi	Via National Highway	76	384	
130	Khordha	Chilika	Hatibari	Via National Highway	55	245	
131	Khordha	Chilika	Barkul	Via National Highway	318	1448	
132	Khordha	Chilika	Rautarapalli	Via National Highway	116	594	
133	Khordha	Chilika	Rayagurupur	Via National Highway	69	314	
134	Khordha	Chilika	Totapada	Via National Highway	114	498	
135	Khordha	Chilika	Kharibandha	Via National Highway	147	720	
136	Khordha	Chilika	Nuagada	Via National Highway	372	1685	
137	Khordha	Chilika	Chasangara	Via National Highway	165	645	
138	Khordha	Chilika	Gobardhanpur	Via National Highway	320	1435	
139	Khordha	Chilika	Chandraput	Via National Highway			

## ***District Disaster Management Plan - 2019***

140	Khordha	Chilika	Enginpur	Via National Highway			
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### **2. Formation and Subsequent Bursting of Landslide Dams:**

Sl. No.	Land Slide Area/ Location Vulnerable for formation of land slide Dams	No. of Villages likely to be affected	Population to be affected
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
	Nil	Nil	Nil

### **17. Forest Fire**

#### a. Forest Fire Incidents:

Sl. No.	Year	Name of the Division	Range	No. of Fire Incidents Reported during last 2 years	Area Affected in Ha.	Loss of life/ property if any
1	2017	Khordha	Balugaon	95	227	--
2	2017	Khordha	Khordha	3	12	--
3	2017	Khordha	Ranapur	18	40	--
4	2017	Khordha	Tangi	1	0.32	--
5	2018 upto April 18	Khordha	Balugaon	57	23.1	--
6		Khordha	Ranapur	18	15.76	--
7		Khordha	Tangi	6	4.3	--

#### a.1. Details of forest area Affected:

Sl No	Year	Name for the Range	Name of the Forest Block	Area Affected (In Ha)
1	2014	Ranapur	Mal RF & Sulia " B"	45
		Balugaon	Ranjini RF	5
		Tangi	Tamana RF	5
			<b>Total</b>	<b>55</b>
2	2015	Ranapur	Mal RF	25
		Balugaon	Ranjini RF	15
			<b>Total</b>	<b>40</b>
3	2016	Ranapur	Mal RF	21.5
		Balugaon	Ranjini RF	3
		Balugaon	Tamana RF	1
		Balugaon	Katwal RF	2
		Ranapur	Sulia B	2.5
			<b>Total</b>	<b>30</b>
4	2017	Balugaon	Aranga RF	23
		Khordha	Barunei RF	10
		Balugaon	Jharan DPF	25
		Balugaon	Katwal RF	20
		Ranapur	Maninag RF	13
		Balugaon	Rajini RF	157

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		Balugaon	Tamana RF	37
		Balugaon	Badasirepur RL ( Economic Plantation)	7
		Tangi	Bagheiput DPF	0.32
		Balugaon	Bhatapada DPF	7
		Balugaon	Culijhinka DPF	26
		Ranpur	Mal RF	31
		Khordha	Panchagarh RF	7
		Balugaon	Revenue Land	2
		Balugaon	Sandhamal DPF	1
			<b>Total</b>	<b>366.32</b>
5	2018 upto 9.4.18	Balugaon	Jharan DPF	2.8
		Ranpur	Mal RF	10.56
		Ranpur	Maninag RF	0.7
		Ranpur	NF	2.5
		Tangi	Patia RF	4.3
		Balugaon	Rajin RF	19
		Balugaon	Tamana RF	19
		Balugaon	Chakadapathar DPF	0.5
		Balipatana	Inside Urban Plantation	1
			<b>Total</b>	<b>60.36</b>
			<b>Grand Total</b>	<b>551.68</b>

### b. 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	Khordha	Khordha	55.67	577.30	Barunei RF, Nagapalli RF, Brahmandevi DPF	17	Duburi DPF	5	Pongarsingh RF, Jayamanagal RF	0
2		Balugaon	230.34		Aranga RF, Bankad RF, Katwal RF, Tamana RF, Rajini	34	0	0	0	0

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				Rf, Sandham al dPF & Solary DPF					
3		Tangi	128.59	PatiaRF, Kuhudi RF, Dhani (S)RF, Sulia RF, Bhushan dpur DPF & Rameswar DPF	26	Kuhudi rF, Kunjuri DPF, Jalvar DPF	12	0	0
4		Ranapur	157.42	Champagarh RF, Dhani (N) RF, Mal RF, MAninag RF, Satabhaya RF & Sulia (B), RF	41	0	0	0	0
5		Balipatana	0.97	0	0	0	0	Bhanra PRF	2
6		Delanga	4.3	0	0	Kumuka PRF, Jamunajharpada PRF & Beguniapada PRF	15	0	0

### 18. Embankments:

#### Irrigation Division Wise Embankments in the District:

Sl. No.	Division	Name of the Embankment	Type (Capital Embankment/ Other Agricultural/ Test Relief/ Saline)				Length (in Km.)
			CE	OAE	TRE	SE	
1	2	3	4	5	6	7	8
1.	Khurda Irrigation Division, Khurda	Rajua Right Embankment at Tirimal.	-	2.00	-		2.00
2.	Do	Rajua Right Embankment from Hadapada to Saradhapur	-	4.10	-		4.10
3.	Do	Ichhapur Gherry on Rajua Right Embankment	-	2.00	-		2.00
4.	Do	Malaguni Right Embankment from Rameswar to Chandanpur.	-	4.10	-		4.10
5.	Do	Malaguni Rt. Embankment from Chandanpur to	-	3.00	-		3.00



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		Bhagabatipada					
6.	Do	Dalahana Nallah Left & Right Embankment up to Bhagabatipada	-	-	2.50		2.50
7.	Do	Malaguni Left Embankment from Golabai to Masania.	-	6.50	-		6.50
8.	Do	Ichhapur Gherry on Malaguni Left Embankment	-	2.50	-		2.50
9.	Do	Malaguni Left Embankment from Rambhabilli to NH-5	-	2.00	-		2.00
10.	Do	Balikudia Protection Ring bundh.	-	-	1.50		1.50
11.	Do	Hada Left Embankment to Protect Village Magura.	-	2.50	-		2.50
12.	Do	Hada Left Embankment from Barabati to Sahaspur & Haladiapada	-	3.00	-		3.00
13.	Do	Hada Left Embankment from Arikima to Kharadapalli.	-	6.00	-		6.00
14.	Do	Hada Left Bank near Sanakumari.	-	1.00	-		1.00
15.	Do	Hada Left Bank from Pananagar to Binodpada.	-	0.50	-		0.50
16.	Do	Hada Left Embankment near Nayapatna.	-	1.00	-		1.00
17.	Do	Hada Right Embankment from Asarada to Tareswar Temple.	-	3.00	-		3.00
18.	Do	Hada Right Embankment from Arikima to Kharadapalli.	-	7.00	-		7.00
19.	Do	Hada Right Bank near Sanakumari.	-	1.00	-		1.00
20.	Do	Hada Right Bank from Pananagar to Binodpada	-	0.50	-		0.50
21.	Do	Hada Right Embankment Near Khauruni	-	0.20	-		0.20
22.	Do	Bali Right Embankment near Nidhipur	-	1.00	-		1.00
23.	Do	Kusumidhar Left Embankment near Village Anladihi.	-	0.75	-		0.75
24.	Do	Kusumidhar Left Embankment near Village Jaripada.	-	2.50	-		2.50
25.	Do	Kusumidhar Right Embankment near Village Anladihi.	-	0.75	-		0.75
26.	Do	Kusumidhar Right Embankment near Village Jaripada.	-	2.50	-		2.50
27.	Do	Salia Right Embankment behind Bhagabati Temple.	-	1.50	-		1.50
28.	Do	Salia Left Embankment behind Bhagabati Temple.	-	1.00	-		1.00
29.	Do	Sapua Left Embankment near Bhagabati Temple	-	1.00	-		1.00
30.	Do	Sapua Left Embankment near Baulagadia.	-	1.00	-		1.00
31.	Do	Sapua Rt. Embankment near Bhagabati Temple	-	1.00	-		1.00
32.	Do	Subhadrapur Gherry	-	-	-	17.50	17.50
33.	Do	Subhadrapur Cross Gherry	-	-	-	6.70	6.70

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34.	Do	Block-I Gherry.	-	-	-	7.50	7.50
35.	Do	Block-II Gherry.	-	-	-	5.55	5.55
36.	Do	Block-III Gherry.	-	-	-	10.55	10.55
37.	Do	Block-III Cross Gherry.	-	-	-	2.00	2.00
38.	Do	Block-II Cross Gherry for Kathilagotha Drain.	-	-	-	2.52	2.52
39.	Do	Sitarampur Gherry.	-	-	-	3.30	3.30
40.	Do	Mangalazodi Gherry.	-	-	-	6.70	6.70
41.	Do	Saline Embankment from Soron to Kalupadaghat & Balinasi	-	-	-	6.00	6.00
42.	Do	Saline Embankment from Barakul to Chandraput.	-	-	-	1.50	1.50
		<b>Total</b>	-	<b>64.90</b>	<b>4.00</b>	<b>69.82</b>	<b>138.72</b>
1.	Nimapara Irrigation Division	Kuakhai Left Embankment from RD 00 to 11.00 Km	<b>11.00</b>	--	--	--	<b>11.00</b>
2.	Do	Kushabhadra Right embankment RD 00 to 27.00 Km	<b>27.00</b>	--	--	--	<b>27.00</b>
3.	Do	Bhargavi left embankment from RD 00 to 14.00 km.	<b>26.00</b>	--	--	--	<b>26.00</b>
4.	Do	Dhanua left and right embankment & Achyutpur Escape channel RD 00 to 3.50 km. each.	--	<b>7.00</b>	--	--	<b>7.00</b>
5.	Do	Kushabhadra Right Embankment from RD 27.00 to 30.00km	<b>29.00</b>	--	--	--	<b>29.00</b>
		<b>Total</b>	<b>93.00</b>	<b>7.00</b>	--	--	<b>100.00</b>
1.	Prachi Irrigation Division	Kuakhai Right Embankment RD 6.00 to 32.50Km	<b>26.50</b>	--	--	--	<b>26.50</b>
2.	Do	Daya Right Embankment RD 00 to 8.50Km	<b>8.50</b>	--	--	--	<b>8.50</b>
3.	Do	Daya Right Embankment at Tirumal (RD 30.00 Km to 31.60Km)	<b>1.60</b>	--	--	--	<b>1.60</b>
4.	Do	Kushabhadra Left Embankment 00 to 30.00Km	<b>30.00</b>	--	--	--	<b>30.00</b>
5.	Do	Kuakhai Left Embankment (RD 11.00 to 19.00Km)	<b>8.00</b>	--	--	--	<b>8.00</b>
6.	Do	Kuakhai Right Embankment RD 6.00 to 8.70Km	--	<b>2.70</b>	--	--	<b>2.70</b>
		<b>Total</b>	<b>74.60</b>	<b>2.70</b>	--	--	<b>77.30</b>

### 19. Division wise list of Vulnerable Points:

Sl. No.	Name of the Division	Name of the Embankment/ River	Location of the Vulnerable Point	Affected Length (in Mtr.)	Name of the Block	Name of the Villages to be affected
1	2	3	4	5	6	7
1	Khurda Irrigation Division,	Malaguni Left Embankment	Lekhanpur	45.00 mtrs	Khurda	Lekhanpur Tenulimula Balikudia

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	Khurda					Sabalanga
2	Nimapara Irrigation Divison	Kushabhadra	Mundahanapatana	--	Balipatana	Majjihara Mundahana patina
3	Nimapara Irrigation Divison	Bhargavi	Chitalpur	--	Balipatana	Balakati
4	Prachi Irrigation Divison	Kuakhai Right Embankment RD 6.00 to 32.50 Km			Bhubaneswar	
5	Do	Daya Right Embankment RD 00 to 8.50km			Bhubaneswar	
6	Do	Daya Right Embankment at Tirumal (RD 30.00 km to 31.60 km)			Jatani	
7	Do	Kushabhadra Left Embankment 00 to 30.00 Km			Balianta	
8	Do	Kuakhai Left Embankment (RD 11.00 to 19.00KM)			Balianta	
9	Do	Kuakahi Right Embankment RD 6.00 to 8.70Km			Bhubaneswar	
10	Do	Gherry Bundha to Jhinkardiha (Marichia Island)			Bhubaneswar	

### 20. Child Care Institutions:

Sl no	Name and Address of the Organisation	Boys	Gir ls	Total No of Children	Name and Contact of the Shift in Charge	Fire Safety Equipm ent (Fire Extingui sher, Alarm)	Staff Traini ng on Fire Safety Equip ment	Near by open Space for evacua tion	Alternat ive Shelter
1	Ruchika Social Service Organisation (Open Shelter), Plot-3731, Samantarapur, BBSR	25	0	25	Benudhar Senapati, 9853616279	Yes	No	Yes	
2	Bhairabi Club (Open Shelter),	19	0	19	Sri. Baikunthanath a Martha	Yes	No	Yes	

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	Jatni				9437177490				
3	Viswa Jeevan Seva Sangh, Plot No K/6, HIG 68, Kalinga vihar, Tamando, BBSR	0	25	25	Kodanda Pani Baral 9437286593	Yes	No	Yes	
4	SOS Childrens Village and Youth House Khandagiri, Bhubaneswar ,S- 1/125,126,127, 128.Sector- 1, Niladri Vihar, CS Pur, Bhubaneswar AND Kailnga Nagar , Ghatikia, Bhubaneswar	85	76	161	Sri Ajaya Kumar Dash 9937287160 9437885204  Smt. Swati S. Patra 9439751347 0674-6451464	Yes	No	Yes	
5	Palli Unayan Seba Samiti, Naharkanta, Bhubaneswar	5	60	65		Yes	No	No	
6	Subhadra Mohatab Seva Sadan, Kolathia, Khandagiri, BBSR	1	28	29	Sri. Niranjana Mohanty 9437885150 9937311333 9437114775	Yes	No	Yes	
7	ADRUT CHILDREN HOME For GIRLS, (RAWA) Mendhasala, Kh	0	75	75	Sagarika Mishra 9438553645	Yes	No	Yes	

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	ordha								
8	ADRUT CHILDREN HOME For Boys, (RAWA) Gadakana, BBSR	30	0	30	Supriti Mohanty 9438553647	Yes	No	No	
9	Nehru Seva Sangha, Banpur, Khordha	27	27	54	Smt. Sarojini Dash 9437010672 9937381894	Yes	No	Yes	
10	Open learning System, Gadakana, BBSR	20	20	40	Prakash Ku. Ratha 0674-2301626 9853304178	Yes	No	Yes	
11	Aama Ghara (Peoples Forum), Patrapada, Khordha	15	26	41	Govinda Chandra Pattanaik 8280336260	Yes	No	Yes	
12	Prativa Ashram, Jadupur, Dumduma, BBSR	30	0	30	Md. Zahir 9937305526 9338448456	Yes	No	Yes	
13	SRI SRI Maa Anand Ashram Chandrasekhar pur, Damana, BBSR	28	0	28	Priyabrata Samal 9438489530, 9777255408	Yes	No	Yes	
14	Divya Jyoti Childrens home, Patrapada, Bhubaneswar	1	32	33	Smt. Suchitra Patro 9040022121 , 9438297310	Yes	No	Yes	

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15	ASHRAYA, Handicapped Welfare Organisation, Du mduma, BBSR	26	3	29	Binayak Pallei 0674-2470062 9439490154	Yes	No	No	
16	Missionaries of Charity, BBSR	1	5	6	Sr. Mary Samuel M C 0674-2570930	No	No	Yes	
17	Jivan Jyoti Seva Ashram For Boys & Girls, Khandagiri, BBSR	26	26	52	Sri. Prafulla Senapati 9438005718 8658640230	Yes	No	Yes	
18	SLAJUS (ASHA KIRAN), Sailashree Vihar, BBSR	0	21	21	Pratap Kumar Pradhan 9438166972	No	No	No	
19	Subhadra Mohatab Seva Sadan, Kolathia, Khandagiri, BBSR (SAA)	12	10	22	Sri. Niranjan Mohanty 9437885150	Yes	No	Yes	

### **21. School Safety Initiatives:**

‘School Safety’ has been defined as the creation of safe environments for children starting from their homes to their schools and back. This includes safety from large-scale 'natural' hazards of geological/climatic origin, 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.<sup>2</sup> The concept has evolved over the last couple of decades as the threat to the physical well being of children has become more visible both globally and in the country.

Under the School safety initiatives the following activities are carried out at different levels:

1. School and Mass Education Department of Odisha have issued instructions to all the Collectors and Dist. Education Officers to implement the School Safety Policy 2016 vide his letter no: 3437(30)/Plg/18 dt: 05.04.2018 .
2. State Level School Safety Adviosry Committee has been constituted vide order no: 4824/SME dt: 08.03.2018.

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3. District level School Safety Advisory Committee has been constituted.
4. Instruction has already been issued to all the block clusters to constitute the Block level School Safety Advisory committee.

The detailed report is given below:

### **Part I:**

District:	Khordha
Total Block/ULB	11
Total Cluster	132
Total Village / wards	1555
Total Schools	2334
Total Govt. Schools	1426
Total Govt. Aided Schools	171
Total Pvt. Schools	686
Total Govt. schools – Urban	262
Total Govt. schools – Rural	1164
Total Govt. schools – Elementary	1277
Has the school Safety Advisory Committee has been constituted at the Dist. Level	Yes

### **Part – II (Status of implementation of the National Guideline on School Safety)**

Sl no	Activity	Status		
		Completed	To be Completed	Total
1	No of School which have finalised the School Disaster Management Plan (SDMP)	1426	857	2283
2	No of Schools which have conduted Safety Audit	370	1913	2283
3	a) Structural	344	1939	2283
4	b) Non- structural	15	2268	2283
5	No of Schools have conducted Annual Mock drills	695	1588	2283
6	No of Schools where fire extinguisher have been installed	1650	633	2283
7	No of Schools which adhere to Safety Norms with respect to storage of Inflammable and Toxic Materials	465	1818	2283
8	No of schools confirm to the safety standards as per local building bye-laws ( As approved by Local authorities)	373	1910	2283
9	No of schools which have been issued “ Recognition Certificate” under sub-rule(4) Rule 15 of RTE Rules 2010 ( only to schools that	41	2242	2283

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	comply with structural safety norms)			
10	No of schools where students and teachers undergo regular training in school safety and disaster preparedness	272	2011	2283
11	No of schools where disaster management is being taught as part of the curriculam.	604	1679	2283

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## **CHAPTER – IV**

# **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 other members not exceeding nine 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 defense staff of the chief of staffs are other members of NEC.

*[Please refer ANNEXURE - I]*

### **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 Minister of the state is the Chairperson (*ex-officio*) of SDMA and other members not exceeding than eight nominated by the Chairperson. 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) Lay 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.

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- 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 thereof.
- 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.

*[Please refer ANNEXURE - I]*

### **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 SDMA's and state Governments.

The State Executive Committee shall:-

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

*[Please refer ANNEXURE - I]*

### **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

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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.

### **4.8 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 28<sup>th</sup> 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 Department of Revenue is the administrative department of OSDMA vide Revenue Department Resolution No.39373/R dated 26th August 2000. Subsequently, the name of the Authority was changed from *Odisha State Disaster Mitigation Authority* to *Odisha State Disaster Management Authority* vide Revenue & Disaster Management Department Resolution No. 42317/R&DM dated 27<sup>th</sup> September, 2008.

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.

### **4.6 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.

*[Please refer ANNEXURE - I]*

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

Under the sub-section (1) of section 14 of DM act 2005. District Disaster Management Authority has been constituted by the State Government.

The District Disaster Management Authority (DDMA) consists of the Chairperson and such number of the other members, not exceeding seven, as may be prescribed by the State Government, and unless the rules otherwise provide, it shall consist of the following namely:-

## ***District Disaster Management Plan - 2019***

- 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.

*[Please refer ANNEXURE - I]*

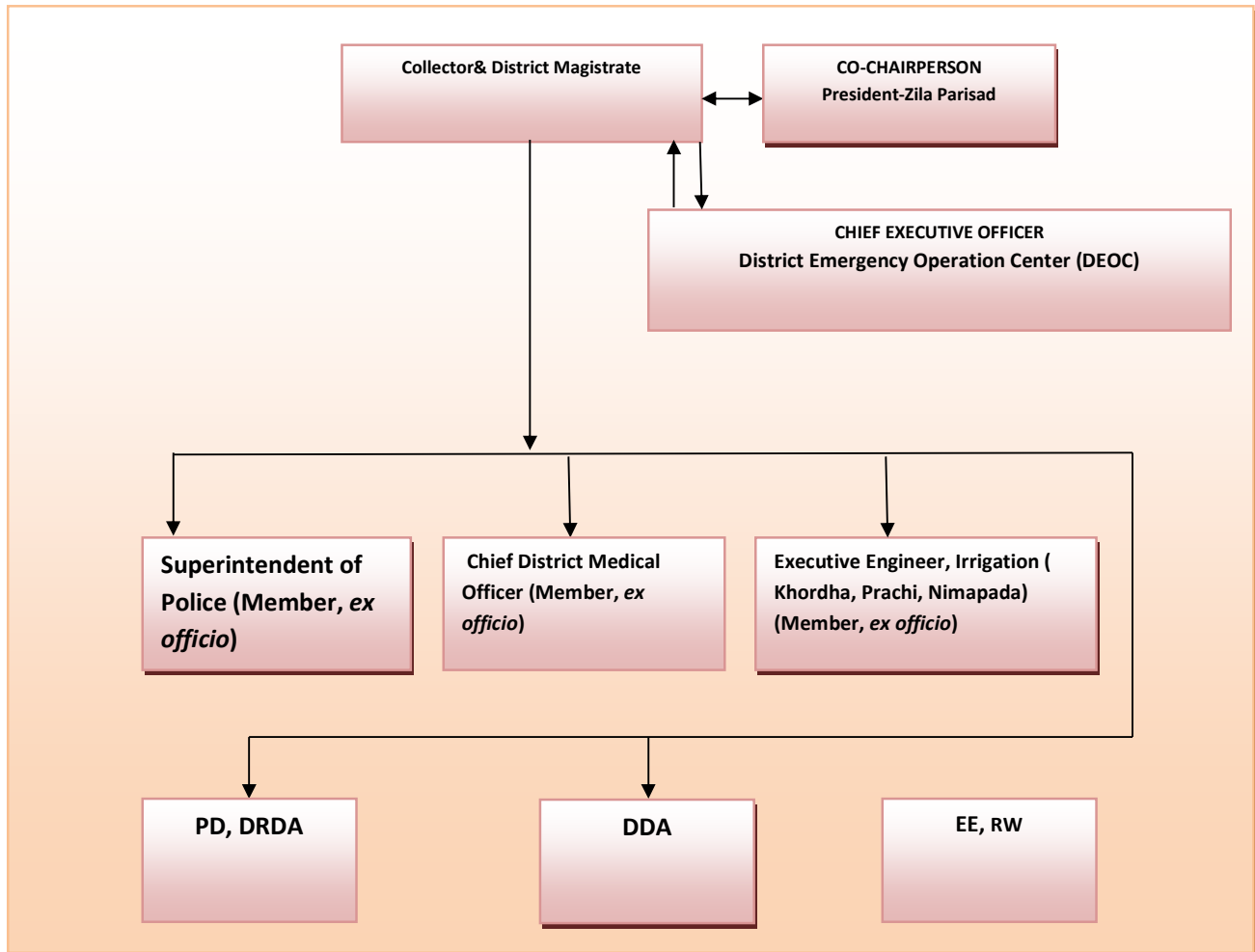
### **Structure of District Disaster Management Authority (DDMA)**

**Table – 4.1:**

Sl No.	Name of the Officer	Designation	Position in DDMA	Contact No.
1.	Sj Bhupendra Singh Poonia, IAS	Collector & District Magistrate	Chairperson, EX-Officio	9438399144
2.	Mr. Prafulla Dalei	Chairman, Zilla Parishad	Co-Chairperson, Ex-Officio	9337882199 9556715132
3.	Mr. Amulya Kumar Das, OPS I	Superintendent of Police	Member, EX-Officio	9437333299
4.	Mr. Saroj Kumar Mishra	Project Director, DRDA	Member	8280405215 9438763133
5.	Mr. Manoranjan Mallick, OAS (S)	Additional District Magistrate	Chief Executive Officer, EX-Officio	9437386765
6.	Dr. BK Mohapatra	Chief District Medical Officer	Member, EX-Officio	9439994500
7.	Mr. Sushil Kumar Behera	Executive Engineer, Irrigation, Khordha	Member, EX-Officio	9437600266
8.	Mr. Bighnaraj Purohit	Executive Engineer, Irrigation, Prachi Division	Member, EX-Officio	8895296277
9.	Mr. Sashi Bhushan Mishra	Executive Engineer, Irrigation, Nimapada Division	Member, EX-Officio	9439641630
10.	Mr. Prasanta Kumar Senapati	Executive Engineer, Rural Works	Member	9437255345
11.	Mr. Bhaskar Barik	Deputy Director, Agriculture	Member	9438500070

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Figure 4.1: Organogram of District Disaster Management Authority



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:-

- Prepare Disaster Management Plan including District Response Plan of the District.
- Coordinate and Monitor the implementation of the National DM Policy, State DM Policy, State DM Plan and District DM Plan.
- 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.
- Ensure that guidelines for Prevention and Mitigation measures, Preparedness and Response as laid down by NDMA and SDMA are being followed by all departments of Government both at district and local level.
- Monitor the implementation of Disaster Management Plan prepared by the departments of the Government at the district levels.

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- 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 provide necessary technical assistance thereof.
- 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 mitigation.
- l) Examine construction in any area in the district and ensure standards for prevention of disaster or mitigation laid down for such construction to be followed by the concerned departments and authorities.
- m) Identify buildings and places which could be used as relief centers or camps in the event of any disaster or disaster like situation and make arrangements for water supply and sanitation in such buildings and places.
- n) Establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at short notice;
- o) Encourage the involvement of Non-Government Organization and Voluntary social – welfare institutions working at the grass root level in the district for disaster management.
- p) Ensure communication systems are in order and disaster management drills are carried out periodically.
- q) Perform such other functions as the State Government or State Authority may assign to.

### **Specific task assigned to members of DDMA by the Chairperson**

#### **Collector and District Magistrate:**

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

#### **Superintended of Police:**

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

#### **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

#### **CDMO:**

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

### **Executive Engineer, Irrigation (Khordha, Nimapada, Prachi):**

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

### **Deputy Director, DDA:**

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

### **Executive Engineer, RW:**

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

## **4.7 District Level Committee on Natural Calamity (DLCNC)**

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

### **Structure of District Level Committee on Natural Calamity**

**Table – 4.2:**

<b>Sl No.</b>	<b>Name of the Member</b>	<b>Designation</b>	<b>Contact No.</b>
1.	Sj Bhupendra Singh Poonia, IAS	Collector, Khordha	9438399144
2.	Sj Pinaki Mishra	MP, Puri	9437033059 0674-2596238
3.	Smt. Aparajita Sarangi	MP, BBSR	
4.	Sj Jotindranath Mitra	MLA, Khordha	9437025707 220930
5.	Sj Prasant Kumar Jagadev	MLA, Chilika	9437005208
6.	Sj Suresh Chandra Routray	MLA, Jatni	
7.	Sj Rajendra Kumar Sahu	MLA, Begunia	9437048478
8.	Sj Ananta Narayan Jena	MLA, BBSR (Central)	9437494700 9861015517
9.	Sj Arabinda Dhali	MLA, Jayadev	
10.	Sj Susanta Kumar Rout	MLA, BBSR (North)	
11.	Sj Ashoka Kumar Panda	MLA, Ekamra	9437028877
12.	Sj Prafulla Kumar Dalai	President, Zilla Parishad	9337882199

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Sl No.	Name of the Member	Designation	Contact No.
			9556715132
13.	Sj. Amulya Kumar Das, OPS I	SP, Khordha	9437333299
14.	Sj Manoranjan Mallick	ADM, Khordha	9437386765
15.	Sj Arun Kumar Behera	ADM, BBSR	9437417761 0674-2393440
16.	Sj Saroj Kumar Mishra	PD, DRDA, Khordha	8280405215 9438763133
17.	MD. Abdaal Akhtar, IAS	PD, DUDA	7682951155
18.	Sj Saroj Kumar Sahu	Sub-Collector, Khordha	9437084846
19.	Sj Suvendu kumar Sahu	Sub-Collector, BBSR	9938540575 7008839099
20.	Dr. BK Mohapatra	CDMO, Khordha	06755-221419 9439994500
21.	Dr. Jayanta Kumar Ray I/C	I/C CDVO, Khordha	7077358456 06755-223067
22.	Sj Bhaskar Barik	DDA, Khordha	9438500070
23.	Sj Ambika Prasad Dash	DLO, Khordha	9439497289
24.	Sj Akshya Kumar Routray	Deputy Director Planning, Khordha	9437303100 222600
25.	Dr. Pradosh Kumar Panda	Asst. Director Horticulture, Bhubaneswar	0674-2392476 9437281535
26.	Sj Prahallad Prusty	Asst. Director Horticulture, Khordha	06755-220553 9438608503
27.	Smt. Rashmi Rekha Pradhan	Tahasildar, Baliana	6370245484
28.	Smt. Prachi Mohapatra	Tahasildar, Balipatna	8658403403
29.	Sj Sambit Kumar Garnayak	Tahasildar, BBSR	9438629092
30.	Sj. Premanshu Chand	Tahasildar, Jatni	9437425134
31.	Sj Suvendu Kumar samal	Tahasildar, Khordha	9437790442
32.	Sj. Bibekananda Parida	Tahasildar, Begunia	9437071175
33.	Mrs Monalisha Panda	Tahasildar, Bolagarh	9853584584
34.	Sj Sunasir Kisan	Tahasildar, Tangi	9438852757
35.	Dr. Sarat Chandra Mohapatra	Tahasildar, Chilika	9437318543
36.	Smt. Susama Barik	Tahasildar, Banpur	9437977416
37.	Smt. Rashmi Rekha Pradhan	BDO, Baliana	6370245484 / 8280405216
38.	Smt. Mitanjali Das	BDO, Balipatna	6370034791 / 8280405217
39.	Sj Santanu Mohanty	BDO, BBSR	9437352110 / 8280405220
40.	Sj Basudev Mahari	BDO, Jatni	9438544941 / 8280405223
41.	Sj Prasant Kumar Nayak	BDO, Khordha	8917206951 / 8280405224
42.	Sj Rabi Narayan Majhi	BDO, Begunia	9438107255 / 8280405219
43.	Sj Madhusudan Behera	BDO, Bolagarh	9437387694 / 8280405221
44.	Sj Akshaya Kumar Rout	BDO, Tangi	9777527007 / 8280405225
45.	Sj Badal Ku. Mohanty	BDO, Chilika	9437511221 / 8280405222
46.	Sj. Sibananda Swain	BDO, Banpur	9337816099 / 8280405218
47.	Sj Tapas Kumar Saha	DIPRO, Khordha	9437507135
48.	Sj Lalatendu Mohapatra	DIPRO, BBSR	9439612505
49.	Er. Sushil Kumar Behera	EE, Khordha Irrigation, Khordha	9437600266
50.	Er. Sashi Bhushan Mishra	EE, Nimapada Irrigation Division, Nimapada	9439641630



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Sl No.	Name of the Member	Designation	Contact No.
51.	Er. Bighanaraj Purohit	EE, Prachi Irrigation Division, Prachi	8895296277
52.	Er. Jagat Jyoti satapathy	EE, MI, Division, Khordha	9437115969
53.	Er. Prasanta Kumar Senapati	EE, RW, Division, BBSR	9437255345
54.	Er. Manoj Kumar Das	EE, CESU, Khordha	9438362932
55.	Er. J.K. Patra	EE, CESU, Balugaon	9437094259
56.	Er. N.K. Mishra	EE, CESU, Nimapara	9437094249
57.	Er. Guru Charan das	EE, PHD-I, BBSR	9437200025
58.	Er. Saroj Kumar Kar	EE, PHD-II, BBSR	9437281971
59.	Er. Biranchi Narayan Pradhan	EE, PHD-III, BBSR	9437108484
60.	Gopal Krishna Rath	Project Director, Watershed, BBSR	9437229818
61.	Er. Badal kumar Sahu	EE, Drainage Division, Khordha	9437246412
62.	Er. P.C Swain	EE, L.I. Division, BBSR	9437210263
63.	Er. Santosh Kumar Kar	EE, RWSS, BBSR	8280408051
64.	Smt Swetapadma Satapathy	EO, Khordha Municipality, Khordha	9438250704
65.	Sj Tapan Kumar Mohapatra	EO, Jatni Municipality, Jatni	9853239784
66.	Sj Surendra Nath Khuntia	EO, Balugaon NAC	9437834948
67.	Sj Santosh Kumar Niala	EO, Banpur, NAC	8763537158
68.	Smt. Rashmi Prava Mishra	I/C DSWO, Khordha	9438109984

District Level Committee on Natural Calamities sit once in a year to review the preparedness activities taken up at different level by different line departments under the chairmanship of the Collector and District Magistrate. In the DLCNC forum different department present their preparedness level, status of stock, alertness at grass root level, planning and the required budget to face any sort of natural exigencies. All the members raise area specific issues or gaps if any in the house so that adequate attention could be given to those issues.

The usual agenda for the DLCNC meeting is:

- Preparation of flood contingency plan of all line Departments.
- Control Room functioning
- Rain Recording and timely reporting
- Joint verification of weak embankments and repairing of the same
- Identification of cyclone and flood shelters
- Deployment of boats at different vulnerable places
- Functioning of telephone lines
- Cleaning of drainage to avoid water logging
- Stock piling of medicines and dry foods inaccessible pockets
- Steps taken in flood areas for agriculture
- Health measures
- Veterinary measures
- Deputation of higher officials at the flood circles
- Coordination among the offices
- Cooperation of NGOs
- Deployment of NDRF / ODRAF Teams

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Department wise discussion points are given below:

**Table – 4.3:**

Sl No:	Departments / Offices	Point of Discussion
1.	Chief District Medical Officer	<ul style="list-style-type: none"> <li>• Control Room operation</li> <li>• Stock piling of Medicines at different PHCs &amp; CHCs</li> <li>• Positioning of Staff at the below level</li> <li>• Medical Health centers at different places with the officer in-charge</li> <li>• Provision of Halogen tabs, ORS etc. with the health workers</li> </ul>
2.	Chief District Veterinary Officer	<ul style="list-style-type: none"> <li>• stock of the Cattle feed available</li> <li>• make indent to procure if required</li> </ul>
3.	Civil Supplies officer	<ul style="list-style-type: none"> <li>• Identification of mills for necessary Rice / Chuda Procurement</li> <li>• Stock piling of Rice, Chuda, K.oil at inaccessible points</li> </ul>
4.	Deputy Agriculture Director	<ul style="list-style-type: none"> <li>• Drought contingency plan</li> <li>• Details of seed procurement and distribution</li> <li>• Alternative cropping mechanism</li> </ul>
5.	Executive Irrigation Engineer,	<ul style="list-style-type: none"> <li>• Stock piling of flood fighting materials</li> <li>• Identification of weak embankments and engaging the officials for close watch on the weak embankments</li> </ul>
6.	Executive Engineer, RWSS	<ul style="list-style-type: none"> <li>• Provision of safe drinking water at vulnerable rural pockets</li> <li>• Provision of water tankers in the shelters where people take shelter at the time of emergency</li> </ul>
7.	Executive Engineer, PHED	<ul style="list-style-type: none"> <li>• Provision of safe drinking water at vulnerable urban pockets</li> </ul>
8.	Executive Engineer, R&B	<ul style="list-style-type: none"> <li>• Identification of vulnerable roads in vulnerable pockets</li> <li>• Immediate restoration of cut off roads</li> </ul>
9.	Executive Engineer, CESU	<ul style="list-style-type: none"> <li>• Immediate restoration of power supply in case of destruction</li> </ul>
10.	Block Development Officers	<ul style="list-style-type: none"> <li>• Control Room</li> <li>• Deployment of boats at vulnerable pockets</li> <li>• Opening of free kitchens at strategic places</li> </ul>
11.	Tahasildars	<ul style="list-style-type: none"> <li>• Control Room</li> <li>• Assessment of damages</li> </ul>
12.	Fire Officer	<ul style="list-style-type: none"> <li>• Clearing of the roads</li> </ul>

The above review cum discussion aware all the departments about everyone's preparedness level to minimize the losses due to upcoming cyclone and flood.

**4.8 Any other existing committees for Disaster Management at District/ Block/Panchayat and Village level may be incorporated in tables:**

### **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 Khordha district. The District Crisis Group is the apex body in the district to deal with measures to prevent Chemical Accidents.

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The members of DCG are given below:

<b>Sl No.</b>	<b>Members</b>	<b>Position</b>
1	Collector, Khordha	Chairperson
2	Assistance Director of Factories and Boilers, BBSR Zone-II	Member Secretary
3	District Emergency Officer, Khordha	Member
4	District Fire Officer, Khordha /Deputy Fire Officer, Khordha	Member
5	District Information and Public Relation Officer, Khordha	Member
6	Deputy Controller of Civil Defence, BBSR	Member
7	Controller of Explosives	Member
8	Deputy Superintendent of Police, Khordha	Member
9	Commandant National Disaster Response Force	Member
10	Chief District Medical Officer, Khordha	Member
11	Executive Officer, Jatni Municipality	Member
12	Executive Officer, Khordha Municipality	Member
13	Executive Engineer, (RWSS),BBSR	Member
14	Regional Officer, Odisha State Pollution Control Board, Khordha	Member
15	District Agriculture Officer, Khordha	Member
16	Representative of Oil Industry Safety Directorate	Member
17	Director of Factories and Boilers, Odisha	Member
18	Secretary, National Safety Council Odisha Chapter	Member
19	Professor H.C Das, Associate Dean Sikshya O Anusandhan University	Member
20	Regional Transport Officer, Khordha	Member
21	Sub-Collector, Khordha (Chairperson local Crisis Group)	Member
22	District Civil Supply Officer, Khordha	Member
23	Head of LPG Bottling Plant , Bharat Petroleum Corporation Limited Est. Khordha	Member
24	Head of LPG Bottling Plant, Hindustan Petroleum Corporation Limited Jatni. Khordha	Member

### **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.

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- Respond to all the public enquires on the subject.

### **District Drought Monitoring Cell:**

A District Drought Monitoring Cell (DDMC) has been formed in the district with the following members to keep close watch on drought situation in the district.

DDMC members:

1. Collector & Dist. Magistrate
2. PD, Watershed, Khordha
3. Deputy Director Agriculture, Khordha
4. District Horticulture Officer, Khordha
5. District Horticulture Office, Bhubaneswar
6. Chief District Veterinary Officer, Khordha
7. Senior Scientist & Head, KVK, Khordha
8. Executive Engineer, Khordha Irrigation Division, Khordha
9. Executive Engineer, Prachi Irrigation Division, Bhubaneswar
10. Executive Engineer, Nimapada Irrigation Division, Nimapada
11. Dist. Emergency Officer, Khordha

### **District Task Force, CDMO (Heat wave)**

**Table – 4.4:**

SI No.	Name and Designation	Contact No	Remarks
1	O/o - CDM&PHO, Khordha	Dr. Bijaya Ku Mahapatra, CDM&PHO	9439994500
2	O/o - CDM&PHO, Khordha	Dr. Biswanath Padhi, I/C, DPHO, Khordha	9439994502
3	O/o - CDM&PHO, Khordha	Dr. Dwarikanatha Satapathy, I/C, ADPHO (FW)	9439994501
4	DHH, Khordha	Dr. R. N Nayak, DMO (M.S)-cum-Superintendent DHH	9439994504
5	O/o - AUDPHO, BBSR	Dr. Pravakar Sahoo, I/C, AUDPHO	9439991221
6	O/o - CDM&PHO, Khordha	Dr. P.K Pal, I/C, ADPHO (VBD)	9439994507
7	O/o - CDM&PHO, Khordha	Dr. S.K Tripathy, DTO, Khordha	9439994503
8	O/o - CDM&PHO, Khordha	Dr. Indira Ku. Rath, DLO, Khordha	9439994508
9	O/o - AUDPHO,	Dr. Pravakar Sahoo, DLO, BBSR	9439997115

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	BBSR		
10	O/o - AUDPHO, BBSR	Dr. Puspita Mohanty, DTO, BBSR	9439997121
11	O/o - CDM&PHO, Khordha	Dr. Dwarikanath Satapathy, ADPHO (DC), Khordha	9439994640
12	O/o - AUDPHO, BBSR	Dr. C.V Satyarayan, ADPHO (DC), BBSR	9437664999
13	O/o - CDM&PHO, Khordha	Gitanajali Dash, DPM, NHM, Khordha	9439997000
14	O/o - CDM&PHO, Khordha	Dr. Prafulla Ku. Panda, Epidemiologist - IDSP	9439997446

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:

**Table – 4.5:**

Sl No.	Name of the Block CHC	MO I/C of CHC	Contact Nos	Control Room Nos
1	Banpur	Dr. N.K Pal	9439997200	06756-253379
2	Balugaon	Dr. S.K Daspattnaik	9439997366	9439997370
3	Bankoi	Dr. B. Behera	9439994656	9439994630
4	Botalama	Dr. Anita Lenka	9439997272	9439997280
5	Balakati	Dr. T.K Tripathy	9439997038	0674-2464181
6	Haladia	Dr. Bharati Rout	9439994692	06755-224160
7	Jatani	Dr. J.K Panda	9439997467	0674-2492033
8	Mendhasal	Dr. M. Hembram	9439997293	9439997293
9	Tangi	Dr. J. K Sahoo	9439997040	06756-254219
10	Balipatna	Dr. M. Hati	9439997403	0674-2462110

### **District Rapid Response Team:**

An emergency Rapid Response Team kept in readiness to meet any eventuality.

### **4.9 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

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Boarder Security Forces (BSF) and 2 Unit each from Central Industrial Security Forces (CISF), Indo- Tibetan Border 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 emergency proactive deployment of NDRF is being carried out by NDMA in consultation with the State Governments.

### **Location of National Disaster Response Forces**

**Table – 4.6:**

Name	Designation	Address	Telephone No.	Fax No.	Mobile No.	Unit Control Room No.	E-Mail
SH. JACOB KISPOTTA	Commandant	3rd BN NDRF, PO-Mundali, Cuttack - Odisha Pin - 754013	0671-2879710	0671-2879711	9437964571/ 7989525740	0671-2879711 09437581614	<a href="mailto:ori03-ndrf@nic.in">ori03-ndrf@nic.in</a>
Sj. Rajesh Negi	I/C Commandant	3rd BN NDRF, PO-Mundali, Cuttack - Odisha Pin - 754013	0671-2879710	0671-2879711	7840037771	0671-2879711 09437581614	<a href="mailto:ori03-ndrf@nic.in">ori03-ndrf@nic.in</a>
NDRF Help Line: +91-9711077372							

*[Details of NDRF are attached in ANNEXURE- V]*

#### **4.10 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.

#### **Location of Odisha Disaster Rapid Action Force with contact details**

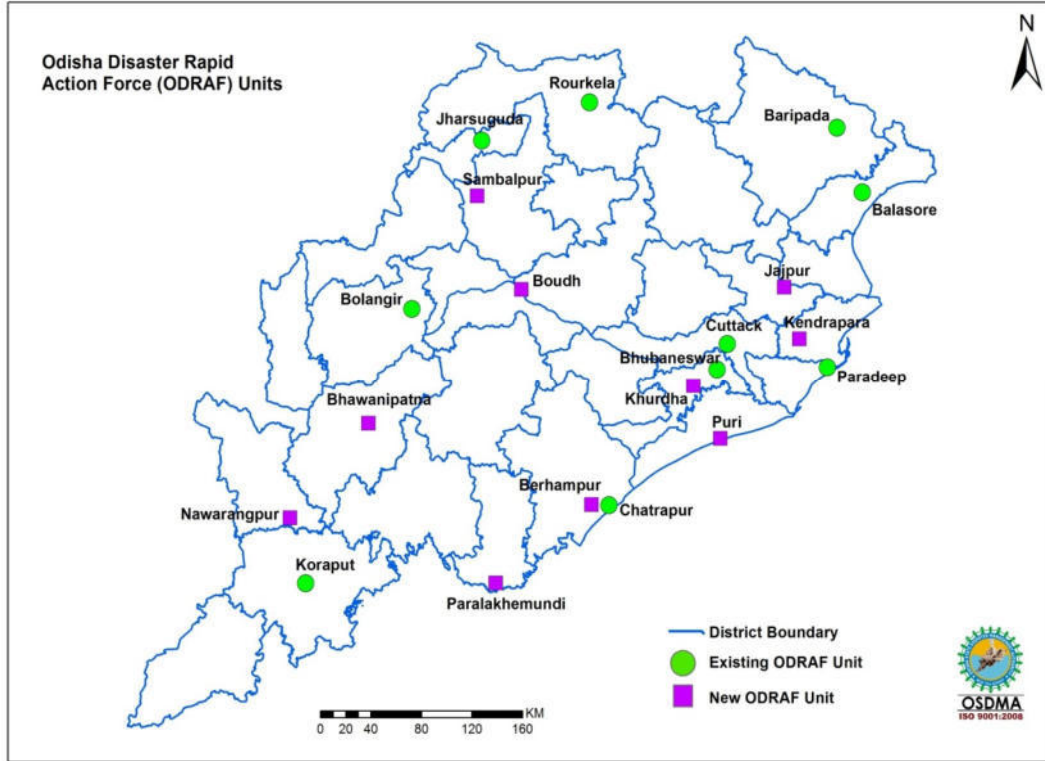
**Table – 4.7:**

Sl. No.	ODRAF Bn.	Name & Designation	Location (District)	No. of Persons in each Bn.	Contact Details (Commandant)
1	OSAP 7 <sup>th</sup> Battalion, Bhubaneswar	Sj. KB Sahoo, DCP(Armed)	BBSR	44	Cell No:9438686667 Phone: 0674-2301055 (O) - 2303426 ® Fax: 0674 -2301055 <a href="mailto:comdt7thbn.odpol@nic.in">comdt7thbn.odpol@nic.in</a>
2	OSAP 7 <sup>th</sup> Battalion, Bhubaneswar	Sj. HN Mohapatra, Addl. DCP (Armed)	BBSR		Cell No: 8763214100 Phone: 0674-2301794 (O)

# District Disaster Management Plan - 2019

[A detailed List of ODRAF units is annexed in **ANNEXURE - XV**]

**Map 4.1: Location of ODRAF Units**



## 4.11 Other Disaster Response Teams in the district

**List of other Disaster Response Teams in the District**

**Table – 4.8:**

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. Satyabrata Padhi	Deputy Controller, Civil Defense	9437282190	civildefencebbsr@gmail.com	150
2.	Home Guards	SP cum Commandant Home Guards	Superintendent of Police cum Commandant Home Guards, Khordha	06755-220535	<a href="mailto:spkda.orphol@nic.in">spkda.orphol@nic.in</a>	238
3.	National Service Scheme (NSS)	Mrs Sarita Patel	Regional Director, NSS	0674-2421339 9438733008	<a href="mailto:nssbbsr@gmail.com">nssbbsr@gmail.com</a>	7400 <i>[Details annexed with list of NSS coordinators in ANNEXURE</i>

## ***District Disaster Management Plan - 2019***

Sl. No.	Name of the Institutions	Name of the Chief Coordinator of the Organization	Designation	Contact Number	Alternate Contact Number	Number of Volunteers
						- XIII]
4.	NCC	Lopamudra Sahoo (7798827703)	Deputy Director	06742432051 (9070759410 Col. KB Mohanty, Deputy Director)	nccdteorissa@yahoo.co.in	[Details annexed in ANNEXURE - XX]
5.	NCC	Wg Cdr S Mitra	6(O) Bn NCC Puri	06752-250474	6orissabn@nccorissa.org	
6.	NCC	Lt. Col Asit Ranjan	1(O) Girls Bn NCC	0674-2432392	lorissagirls@nccorissa.org	
7.	NCC	Wg Cdr S Mitra	1(O) Air Sqn NCC	0674-6543857	lorissaair@nccorissa.org	
8.	NCC	Col P K Singh	1(O) R&V Sqn NCC	0674-2397332	lorissarv@nccorissa.org	Junior – 600 cadets Senior -130 cadets
9.	NCC	K.Ram, MCPO II	Chief Instructor, 3(Odisha) Naval Unit, NCC, Cuttack	8096071573(C) 0671-2339037	Co3onavalncc@gmail.com	65 boy cadets from various institutions
10.	Nehru Yuva Kendra (NYK)	Mr. Prabir Kumar Pradhan	District Youth Coordinator	9438402497	0674-2421325	15
11.	District Red Cross	Mrs. Talat Afreen	Secretary District Red Cross Branch	9437311381		

### **4.12 Emergency Communication System**

The district machinery used to follow the following methodology to communicate the down line.

- SRC / IMD provide the warning message to the District Administration / DEOC from the SEOC.
- DEOC immediately pass it to the all line departments / BDOs / Tahasildars via cell phone, email or incase required through police VHF message.
- BDOs / Tahasildars used to disseminate the message through their local channel such as VLWs, VAWs, RIs, PRIs etc.
- Sometimes Public Address System used to reach the last mile i.e. community at risk.
- Local News channels also used to disseminate the warning depending upon gravity of the calamity.

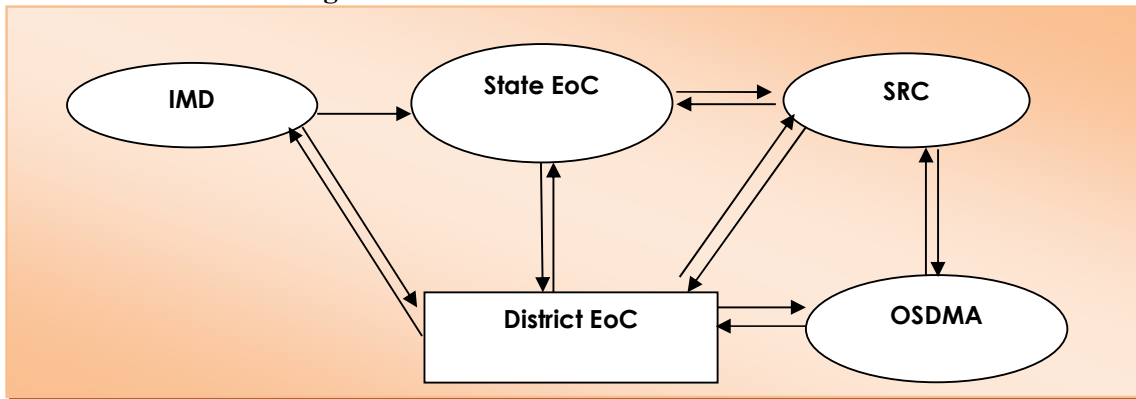
#### **4.12.1 State Emergency Operation Center (SEOC)**



## ***District Disaster Management Plan - 2019***

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

**Figure 4.2: Information flow chart from SEOC to Districts**



### **4.12.2 District Emergency Operation Centers (DEOC)**

#### **STANDARD OPERATING PROCEDURE (SOP)**

DISTRICT EMERGENCY OPERATION CENTER (DEOC), KHORDHA

TEL: 06755- 220002/220003, 1077

Email id: [khordhaemergency@gmail.com](mailto:khordhaemergency@gmail.com), [sddma.khordha@gmail.com](mailto:sddma.khordha@gmail.com)

LOCATION: New Collectorate Building, Khordha.

#### **The primary functions of DEOC are:**

- Coordination
- Analytical decision making
- Policy-making
- Operations management
- Information gathering and record keeping
- Public information – receipt and dissemination
- Reporting to higher quarter
- Resource management

#### **PRE DISASTER**

**Officer in charge of DEOC:** The DEOC shall be in overall charge of Collector & District Magistrate. In the absence of Collector, ADM, Khordha / ADM, Bhubaneswar, PD, DRDA, Khordha will be in-charge and Assistant Collector; Emergency shall be the focal point for the DEOC. The officer in charge of District Emergency Operation Center (DEOC) shall be personally responsible for implementing the SOP. She/he shall take all decisions as outlined below and sign for the Collector on all reports mentioned below. She/he shall not wait for orders from anybody. The existing staffing pattern of the DEOC:

## ***District Disaster Management Plan - 2019***

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**Mrs. Sandhyarani Guru,**  
District Emergency Officer,  
Cell no: 9438619673  
Email Id:  
[khordhaemergency@gmail.com](mailto:khordhaemergency@gmail.com)

**Sri Sachidananda Pati,**  
District Project Officer, DDMA -  
OSDMA  
Cell no: 9437087642, 9040230032  
(what's app)

Email Id:  
[sddma.khordha@gmail.com](mailto:sddma.khordha@gmail.com),  
[sachidanandapati@gmail.com](mailto:sachidanandapati@gmail.com)

**Sri Nihar Ranjan Samal,**  
Senior Clerk  
Cell no: 9040244151

**Sri Anil Kumar Ray,**  
Data Entry Operator, DEOC  
Cell no: 7008751432  
Mail Id: [kingani198@gmail.com](mailto:kingani198@gmail.com)

### **DURING DISASTER**

1. **Assembly in District EOC:** Following staff and officers shall assemble in the DEOC on getting any information from any reliable source about any upcoming emergency / urgency. Apart from this, any other officer or staffs who get the information from any source will reach the DEOC. Control Room duty staff must be present during the duty period.
  - 1.1. Collector, ADMs, PD, DRDA, Sub-Collector, Khordha, DSWO, DSSO, DCPO, CDMO / AMDO (PH), DEO, CSO, DIPRO, District Education Officer, DPC, SSA and ARTO.
  - 1.2. All staffs of Emergency Section.
2. Getting the DEOC ready: DEOC need to be kept in readiness from all aspects during normal period and the following preparatory steps needs to be taken up for keeping the DEOC functional during emergency.
  - Telephone & Internet Connections
  - Electrical Installations
  - Gensets / inverters for Back Up Power Supply
  - District Disaster Management Plan (DDMP)
  - Communication Equipments like Satellite phone, cell phones
  - Information and allied equipments
  - Warning Procedures Check List.
  - Different reporting formats
3. Alert message to be given to field officers like BDOs, Tahasildars, MOs, VAS, Police, Fire stations, Industries, Telephone, Agriculture, RWSS, RD, R&B, DSWO / ICDS, Irrigation, CESU, KED, National Highways, PHD, Municipality / ULBs, DEO, Station Director, All India Radio, through VHF / Telephone / e-mail / if required local print and electronic media shall be used.
4. Civil Supplies Officer (CSO) shall ensure availability of food stuff (*Rice, Chuda & Gur*) and kerosene oil at block headquarters, with storage agents and other inaccessible pockets will be carried out by CSO, Khordha and report compliance to the Chairman, DDMA. The food stuff placed in different inaccessible pockets should be done in consultation with BDOs concern.
5. Health sector: CDMO will take stock of the following items through Health Emergency Operation Center.
  - 5.1. Medicines, bleaching powder, and halogen/chlorine tablets.

## ***District Disaster Management Plan - 2019***

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- 5.2. Movement of medicines, bleaching powder, etc. to PHCs/CHCs if not done early.
- 5.3. Ensure Medical officers are in place at the PHCs and CHCs through police stations, blocks and Tahasildars.
- 5.4. CDMO shall decide the locations of camps.
6. District Social Welfare Officer (DSWO) to ensure that all CDPOs shall be teamed up with the MO of PHC / CHC with their vehicles and supervisors.
7. District Social Security Officer (DSSO) to ensure that all PWDs under his/her jurisdiction will be shifted to safe shelters.
8. Veterinary measures: CDVO will take stock of Cattle feeds and will contact immediately to MD, OMFED after verifying the stocks within the district.
9. Boats: Requisition of boats within district through the Tahasildar Chilika and Tangi along with the Asst. Engineer, IWT, Balugaon.
10. Make a thorough assessment of relief items available in stock at different places.
11. Functional distribution of work: Following functional distribution of works shall be done. Each team will have staff and resources. The team leader will have full powers to take decisions
  - 11.1. Transportation team
  - 11.2. Stock and store team
  - 11.3. Finance team
  - 11.4. Information and office documentation team
  - 11.5. Food and other relief items team
  - 11.6. Civil Society and International Organisations co-ordination team
12. ORDAF, NDRF & Fire Service shall be in close contact to assist the administration in clearing the relief lines.
  - 12.1. **NDRF:** 3<sup>rd</sup> Battalion NDRF, Mundali, Cuttack, Fax: 0671-2879710 /11, Email id: [ori03-ndrf@nic.in](mailto:ori03-ndrf@nic.in)
  - 12.2. **ODRAF:** Sj KB Sahoo, DCP (Armed), Commandant, 9438686667 (M), **0674-2301055 (O)- 2303426 (R)**, Fax: 0674 -2301055, [comdt7thbn.orpol@nic.in](mailto:comdt7thbn.orpol@nic.in)
  - 12.3. **Fire Officer, Khordha:** Sarat ch. Mallick, 9497464584, [khurdafirestation101@gmail.com](mailto:khurdafirestation101@gmail.com)
  - 12.4. **Fire Officer, Bhubaneswar:** Saroj Kumar Behera, Asst. Fire Officer, 9438359594, [afobhubaneswarfirestation@gmail.com](mailto:afobhubaneswarfirestation@gmail.com)
13. Civil Society Organisations: Get in touch with civil society Organisations. Allot them areas or functions. Get them introduced to the field functionaries. Ask them to prepare a list of volunteers. Make a quick inventory of their resources. Contact UN agencies & other international relief agencies (if possible). Make a quick assessment of district needs and expectations from different agencies.
14. Press briefings: Press briefings if required will be carried out by the competent authority, decided by the Collector. DIPRO to handle the press related issues.  
Message to public over local cable or alternative networks.
15. Regularly contact required with R.D.C., S.R.C., OSDMA, IMD, Water Resources Deptt. & Dam Safety Divisions for updates.
16. Orders for identifying places for starting free kitchens with the BDOs and Local PRIs.  
Issue of instruction by looking into the severity of the hazardous event and damage.
17. Regularly checking up the following websites :

## ***District Disaster Management Plan - 2019***

[www.imd.gov.in](http://www.imd.gov.in),  
[www.imdbbsr.gov.in](http://www.imdbbsr.gov.in)  
[www.osdma.org](http://www.osdma.org),  
[www.odisha.gov.in](http://www.odisha.gov.in)

Indian Meteorological Deptt.  
 Indian Meteorological Deptt.  
 Orissa State Disaster Management Authority  
 Govt. of Odisha

18. [www.idrn.gov.in](http://www.idrn.gov.in) may be referred for resource mobilization.
19. Keep spare copies of district maps. Jurisdiction maps of all irrigation divisions shall be kept ready in good numbers.
20. Requisition of School/ College for army/ police forces staying and movements.
21. Looking at the onset of emergency and after making quick preparations, convene Emergency meeting of important official and non-official agencies. Give them clear instructions.

### **Assignment of Senior Officials to supervise the emergency situation:**

**Table – A:**

SI No:	Name of the Officers	Blocks Assigned
1.	Sj. Saroj Kumar Mishra, PD, DRDA Cell: 9438763133	Overall In-charge of all blocks
2.	SJ. Arun Kumar Behera, OAS (S) ADM, Bhubaneswar Cell: 9437417761	Bhubaneswar, Balipatna
3.	SJ. Manoranjan Mallick, OAS (S) ADM, Khordha Cell: 9437386765	Bloagarh, Begunia
4.	SJ. Saroj Kumar Sahu, OAS I (SB) Sub-Collector, Khordha Cell: 9437084846	Chilika, Khordha, Banapur
5.	SJ. Suvendu Kumar Sahoo, OAS I (SB) Sub-Collector, Bhubaneswar Cell: 9938540575	Balianta, Jatni, Tangi

### **Equipments provided to DEoC and their operational status**

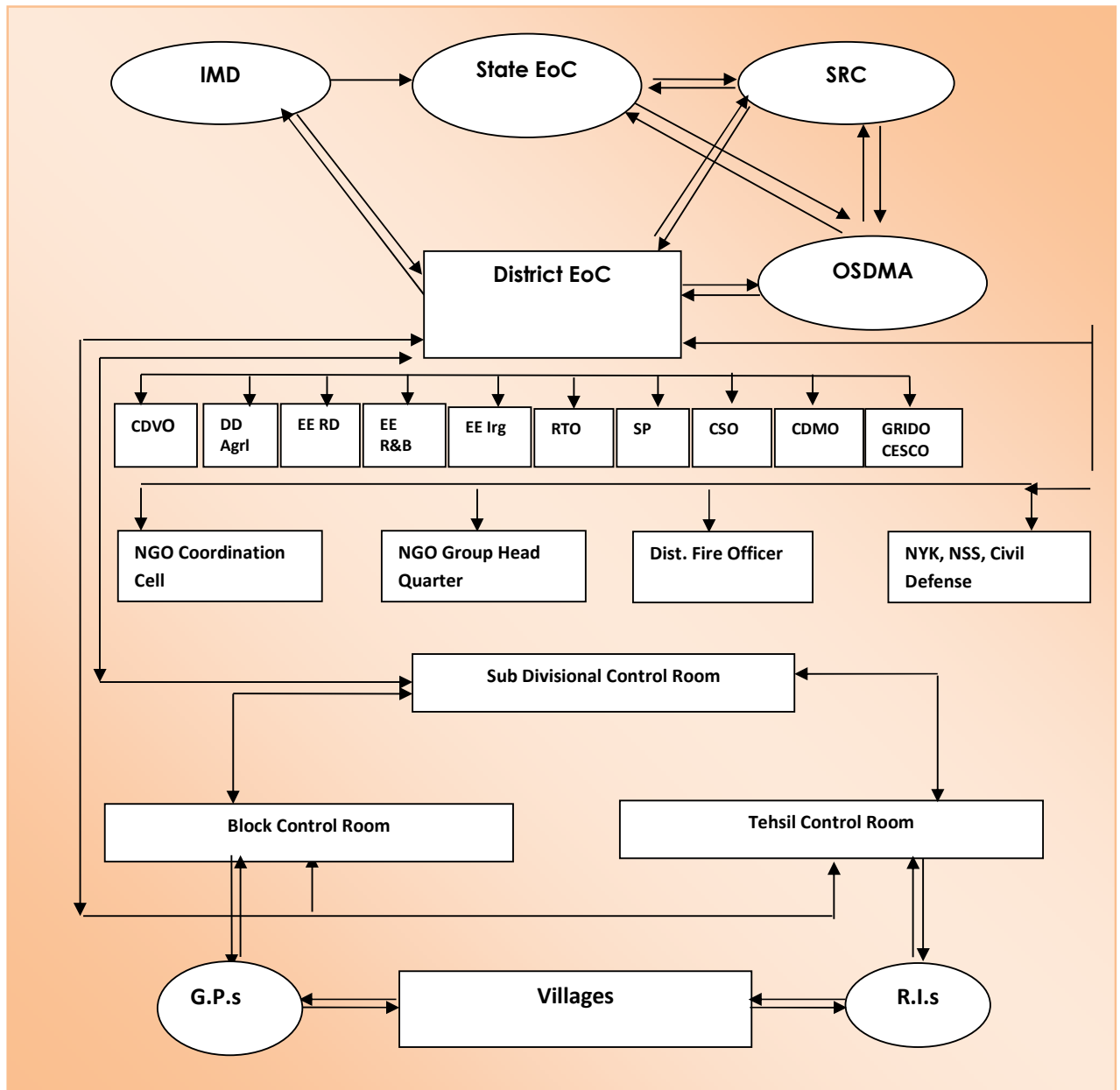
**Table – 4.10:**

SI No.	Equipments	Unit	Status		Remarks
			Operational	Non-Operational	
1	Desktop Computer	1	Yes		
2	Printer	1	Yes		
3	Scanner	1	Yes		

Due to fire accident in the DEOC, all the equipments supplied earlier were damaged. Now the DEOC is in the process of procuring the equipments for DEOC.

## District Disaster Management Plan - 2019

**Figure 4.3: Information flow chart from District Emergency Operation Center (DEoC) to Villages with early warning**



## ***District Disaster Management Plan - 2019***

### **Important Line Departments at the District**

**Table – 4.11:**

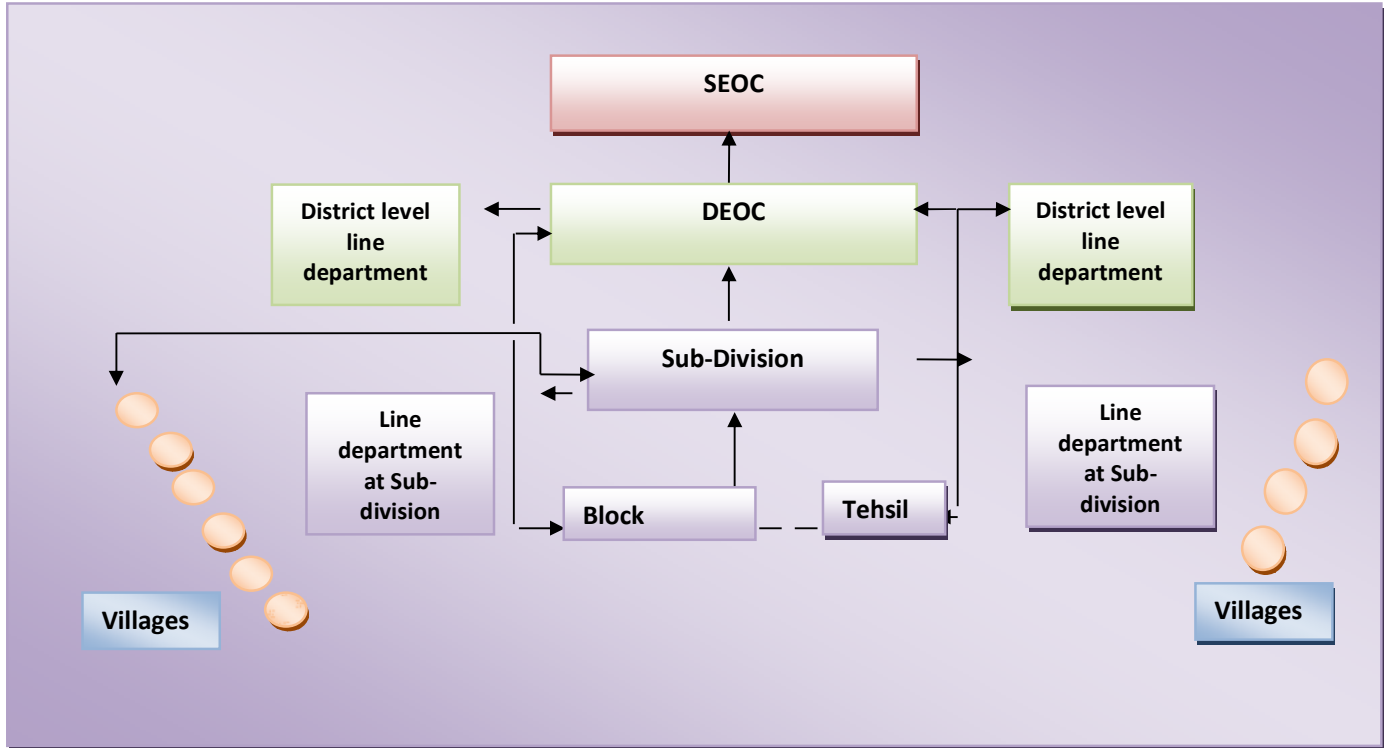
<b>Sl No.</b>	<b>Department</b>	<b>Head of the Department at District</b>	<b>Name of the Nodal Officer</b>	<b>Contact No.</b>
1.	Revenue and Disaster Management	Collector & District Magistrate	Sj Bhupendra Singh Poonia, IAS	9438399144
2.	PR Department	Project Director, DRDA	Sj. Saroj Kumar Mishra	9438763133 8280405215
3.	H&UD dEpartment	Project Director, DUDA	Md Abdaal Akhtar, IAS	7682951155
4.	Home Department	Superintendent of Police	Sj. Amulya Kumar Das	9437333299
5.	Health & Family Welfare Department	Chief District Medical Officer	Dr. Bijay Kumar Mohapatra	9439994500 06755- 221419
6.	Fisheries & Animal Resource Dev. Deptt.	Chief District Veterinary Officer	Dr. Jayant Kumar Ray I/C CDVO	7077358456
7.	Agriculture & Farmers Empowerment Department	Deputy Director, Agriculture	Mr. Bhaskar Barik	9438500070
8.	Water Resources	Executive Engineer, Irrigation, Khordha Division	Sushil Kumar Behera	9437600266
9.	Water Resources	Executive Engineer, Irrigation, Prachi Division	Er. Bihghnaraj Purohit	8895296277
10.	Water Resources	Executive Engineer, Irrigation, Nimapada Division	Er. Sashi Bhushan Mishra	9439641630
11.	Fisheries & Animal Resource Development Department	District Fishery Officer	Jagadish Panda	9437269613 06755- 221015
12.	Chemical (Industrial) Disaster Management (Directorate of Factories and Boilers)	Asst. Director, Factories & Boilers	Manoj Kumar Panda	9437430292 8280196527
13.	SC & ST Development	District Welfare Officer	Manoj Kumar Nayak	9937374524
14.	Works Department	Executive Engineer, PWD (R&B) I/C SE, R&B	P.K. Patra	9439925306
15.	Cooperative Society	DRCS	Bhakata Bandhu sahu	9437234230
16.	Industries Department	GM, DIC	Kandhia Behera	9437491677
17.	Finance Department	LDM		9437095624
18.	Works Department	Executive Engineer, PHED II	Saroj Kumar Kar	9437281971
19.	Energy Department	Executive Engineer, CESU, Khordha	Manoj Kumar Das	9438362932
20.	Energy Department	Executive Engineer, CESU, Balugaon Division	J.K. Patra	9437094259
21.	Energy Department	Executive Engineer,	N.K. Mishra	9437094249

## ***District Disaster Management Plan - 2019***

SI No.	Department	Head of the Department at District	Name of the Nodal Officer	Contact No.
		CESU, Nimapada Division		
22.	Information Technology Department	District Informatics Officer, NIC	Ajay Kumar Sahu	9439849431
23.	Rural Development	Executive Engineer, RD	Prasanta Kumar Senapati	9437255345
24.	Textiles, Handloom & Handicrafts Department	Asst. Director, Textiles, Handloom & Handicrafts	Debaraj Senapati	9937924403
25.	Women & Child Development Department	District Social Welfare Officer	Rashmi Prava Mishra I/C	9438109984
26.	Food supplies & Consumer Welfare Department	Civil Supplies Officer	Rabindra Behera	9438200049
27.	School & Mass Education Department	District Education Officer	Brundaban Satapathy	9437113521
28.	School & Mass Education Department	DPC, SSA	Amita Pattnaik	9437227243
29.	Forest & Environment Department	Divisional Forest Officer, Khordha	Sudip Nayak	9437000935
30.	Culture Department	DIPRO	Tapas Kumar saha	9437507135
31.	Tourism Department	Tourist Officer	Rina Rath	9438362835
32.	Home Department	Asst. Fire Officer	Sarat Chandra Mallick	9437464584
33.	Agriculture & Farmers Empowerment Department	Project Director, Watershed	Gopal Krishna Rath	9437229818
34.	Agriculture & Farmers Empowerment Department	Asst. Director, Horticulture, Khordha	Prahallad Prusty	9438608503
35.	Agriculture & Farmers Empowerment Department	Asst. Director, Horticulture, BBSR	Dr. Pradosh Kumar Panda	9437281535
36.	Rural Development	Executive Engineer, RWSS	Santosh Kumar Kar	8280414141

## **District Disaster Management Plan - 2019**

**Figure 4.4: Information flow chart from Villages to District Emergency Operation Center (DEoC) without early warning**



### **4.12.3 Block Emergency Operation Center (BEoC)**

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**

**Table – 4.12:**

Sl No.	Department	Head of the Department at Block	Name of the Nodal Officer	Contact No.
1.	PR Deptt.	BDO, Balianata	Smt. Rashmi Rekha Pradhan	6370245484 / 8280405216
2.	PR Deptt.	BDO, Balipatna	Smt. Mitanjali Das	6370034791 / 8280405217
3.	PR Deptt.	BDO, BBSR	Sj Santanu Mohanty	9437352110 / 8280405220
4.	PR Deptt.	BDO, Jatni	Sj Basudev Mahari	9438544941 / 8280405223
5.	PR Deptt.	BDO, Khordha	Sj Prasant Kumar Nayak	8917206951 / 8280405224



## ***District Disaster Management Plan - 2019***

Sl No.	Department	Head of the Department at Block	Name of the Nodal Officer	Contact No.
6.	PR Deptt.	BDO, Begunia	Sj Rabi Narayan Majhi	9438107255 / 8280405219
7.	PR Deptt.	BDO, Bolagarh	Sj Madhusudan Behera	9437387694 / 8280405221
8.	PR Deptt.	BDO, Tangi	Sj Akshaya Kumar Rout	9777527007 / 8280405225
9.	PR Deptt.	BDO, Chilika	Sj Badal Ku. Mohanty	9437511221 / 8280405222
10.	PR Deptt.	BDO, Banpur	Sj. Sibananda Swain	9337816099 / 8280405218
11.	R&DM	Tahasildar, Baliana	Smt. Rashmi Rekha Pradhan	6370245484
12.	R&DM	Tahasildar, Balipatna	Smt. Prachi Mohapatra	8658403403
13.	R&DM	Tahasildar, BBSR	Sj Sambit Kumar Garnayak	9438629092
14.	R&DM	Tahasildar, Jatni	Sj. Premanshu Chand	9437425134
15.	R&DM	Tahasildar, Khordha	Sj Suwendu Kumar samal	9437790442
16.	R&DM	Tahasildar, Begunia	Sj. Bibekananda Parida	9437071175
17.	R&DM	Tahasildar, Bolagarh	Smt Monalisha Panda	9853584584
18.	R&DM	Tahasildar, Tangi	Sj Sunasir Kisan	9438852757
19.	R&DM	Tahasildar, Chilika	Dr. Sarat Chandra Mohapatra	9437318543
20.	R&DM	Tahasildar, Banpur	Smt. Susama Barik	9437977416
21.	H& FW	Banpur	Dr. N.K Pal	9439997200
22.	H& FW	Balugaon	Dr. S.K Daspattnaik	9439997366
23.	H& FW	Bankoi	Dr. B. Behera	9439994656
24.	H& FW	Botalama	Dr. Anita Lenka	9439997272
25.	H& FW	Balakati	Dr. T.K Tripathy	9439997038
26.	H& FW	Haladia	Dr. Bharati Rout	9439994692
27.	H& FW	Jatani	Dr. J.K Panda	9439997467
28.	H& FW	Mendhasal	Dr. M. Hembram	9439997293
29.	H& FW	Tangi	Dr. J. K Sahoo	9439997040
30.	H& FW	Balipatna	Dr. M. Hati	9439997403
31.	SSEPD	Baliana	Block Social Security Officer	9438730965
32.	SSEPD	Balipatana	Block Social Security Officer	8458054363
33.	SSEPD	Jatni	Block Social Security Officer	876812253
34.	SSEPD	Bhubaneswar	Block Social Security Officer	9861048978

## ***District Disaster Management Plan - 2019***

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<b>Sl No.</b>	<b>Department</b>	<b>Head of the Department at Block</b>	<b>Name of the Nodal Officer</b>	<b>Contact No.</b>
35.	SSEPD	Khordha	Block Social Security Officer	9938752964
36.	SSEPD	Begunia	Block Social Security Officer	9337298912
37.	SSEPD	Bolgarh	Block Social Security Officer	9853370717
38.	SSEPD	Tangi	Block Social Security Officer	9937463842
39.	SSEPD	Chilika	Block Social Security Officer	9437074509
40.	SSEPD	Banapur	Block Social Security Officer	9437074509
41.	SSEPD	BMC	Block Social Security Officer	9439257673
42.	SSEPD	Jatni Municipality	Block Social Security Officer	9937770665
43.	SSEPD	Khordha Municipality	Block Social Security Officer	9778240902
44.	SSEPD	Balugaon NAC	Block Social Security Officer	9861197959
45.	SSEPD	Banapur NAC	Block Social Security Officer	7377318561

## ***District Disaster Management Plan - 2019***

### **4.12.4 Any other Alternative Emergency Operation Center in the district**

#### **Irrigation Control Room:**

A flood control room starts functioning at Khurda, Nimapara and Prachi Irrigation Division Offices, round the clock from **1<sup>st</sup> of June** and continues up to **31<sup>st</sup> October**. The Telephone No of the control room is **Khurda: 06755-220729, Prachi: 0674-256427, Nimapara- 06758250240**. The information relating to gauge of the river with respect to time used to sent to the control Rooms functioning at Office of the Engineer-In-Chief, Water Resources, Bhubaneswar, respective District Collectors, Sub-Collectors & other destinations as and when required.

Besides this, information about River gauge & flood relating to River Malaguni and Chilika to be available at the section office at Jankia and Tangi respectively. The Reservoir Level and Discharge through Spillway of Salia Reservoir to be available at the Office of the Sub-Divisional Officer, Salia Dam Sub-Division, Banapur. Telephone No: **220352**. The list of Telephone nos are given below:

**Table – 4.13: TELEPHONE NOS OF CONTROL ROOMS**

<b>Sl No.</b>	<b>Name of Officer &amp; Division.</b>	<b>Location</b>	<b>Telephone Nos.</b>	<b>Particulars of Information</b>
1	Er. Sushil Kumar Behera, Executive Engineer, Khurda Irrigation Division.	Khurda.	06755-220729 (Office) 9437600266 (EE)	River Gauge, Flood fighting arrangement & Damage Reports.
2	Er. Sarat Kumar Sahoo, SDO Er. Muralidhar Behera, AE Jankia Irrigation Section.	Jankia.	9437287278 (SDO) 9437114083 (AE)	Malaguni River Gauge, Flood fighting arrangements & Damage Reports.
3	Er. Sarat Kumar Sahoo, SDO Er. Pravas kumar Pattnaik, AE I/C Tangi Irrigation Section.	Tangi	9437287278 (SDO) 9040196319 (JE)	Gauge of Chilika, flood fighting arrangement & Damage Reports.
4	Er. Paban Ram, SDO Er. Binod Kumar Sahoo, JE Salia Dam Sub-Division.	Banapur	9437164766 (SDO) 9437073010 (JE) 06756-220352 (off)	Salia Reservoir Level, Rainfall & Damage Reports.
5	Hirakud Control Room, Burla	Burla	0663-2432592/ 2430292	Gauge, Inflow, Outflow & Gate Opening of Hirakud reservoir
6	S.D.O, Mundali	Mundali, Cuttack	0671 – 2879549 9437844418	Gauge, Inflow, Outflow of Mahanadi at Mundali
7	Flood Cell at E.I.C.Office, BBSR	BBSR	0674 – 2391474 / 2395953(F)	All information
8	Flood Cell at SE,C.I.C., BBSR	BBSR	0674 – 2560236/ 2560625 9437432975	All information
9	Er. Bighnaraj Purohit, Executive Engineer, Prachi Irrigation Division	BBSR	0674-2562427 8895296277	All information

## ***District Disaster Management Plan - 2019***

<b>Sl No.</b>	<b>Name of Officer &amp; Division.</b>	<b>Location</b>	<b>Telephone Nos.</b>	<b>Particulars of Information</b>
10	K. Krishna Rao, AEE (Estimator)	BBSR	0674-2562427 9437507002	
11	Balianta Canal Division, JE (Estimator)	Balianta	0674-2111004 9437227935	
12	Flood Control of CWC, Bhubaneswar	BBSR	0674-2407086 /2407361	
13	Flood Forecasting Division, Sahid Nagar, Bhubaneswar	BBSR	0674-2590427	
14	Executive Engineer, Nimapada Irrigation Division	Nimapada	06758-250240 9439641630	
15	Chief Engineer & Basin Manager, Lower Mahanadi Basin	BBSR	0674-2390185 9938362378	
16	Executive Engineer, Puri Irrigation Division	Puri	06752-251397 9438363902	
17	Flood Control Room, Burla	Burla	0663-2432592, 2430292	
18	Er. Sambit Kumar Sahoo, DEE, Balipatana Canal Sub-Division,	Bhubaneswar	9439281483 0674-2462227	
19	Er. Rakesh Kumar Mallik, Balanga Irrigation Sub-Division	Balanaga	7327098759	
20	Er. Laxmidhar Biswal, AEE, Nimapara Canal Sub-Division	Nimapara	9437280879	

### **Health Control Room: [Heat Wave & Flood]**

The district level control room functions in the office of ADMO (PH) with the telephone no-06755-223178, Khordha from 1.3.19 to 15.6.19 to have a close watch on the heat wave condition. Staff deployed at the control room on a rotation basis. Similarly, at the CHCs control rooms operate under the MO I/C.

Further, Flood control rooms starts from the 16<sup>th</sup> June and continues till the month of Nov at CDMO as well as at the CHC level.

### **Control Room: CDVO**

The Control Room for Flood, Cyclone & other Natural Calamity has been constituted with the following staff working in the Office of the C.D.V. O Khordha which functions round the clock with w.e.f. 01.06.2019. The Control Room Telephone No. is **06755-223067**. Similar arrangements have been made at all veterinary dispensaries head quarter to function as control room w.e.f. 01.06.2018.

Another control room would be functional in the office of the Sub- Divisional Veterinary Officer, Bhubaneswar with telephone No: **0674- 2540425**.

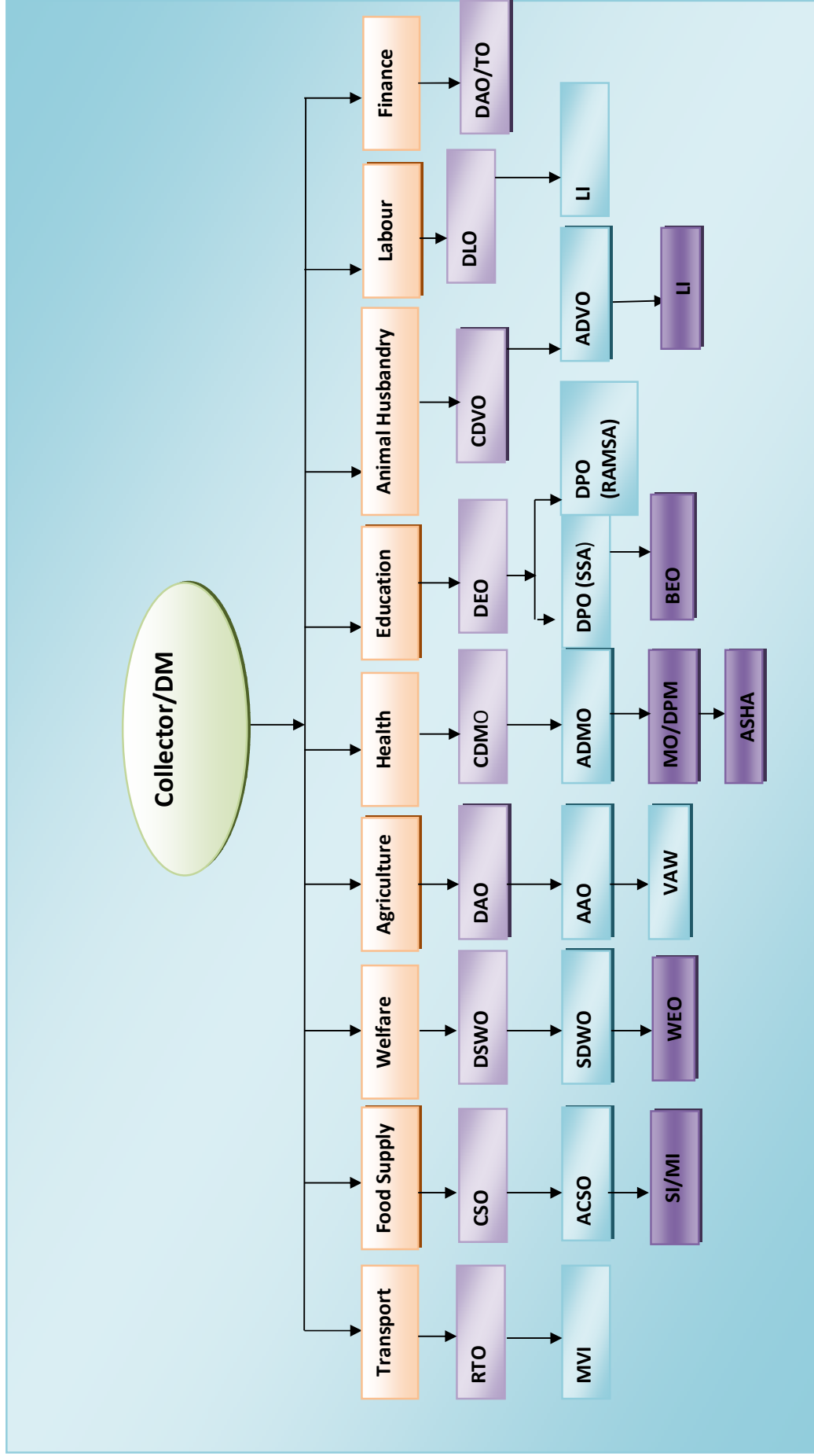
### **Control Room: Deputy Director, Agriculture**

## ***District Disaster Management Plan - 2019***

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The control room starts functioning from June 1<sup>st</sup> to till the end of November and will remain open from 8AM to 8PM. One officer at district level will remain in over all charge of the control room. The control room Telephone **No: 06755-223955**. Crop whether watch group will be constituted at district level. Rainfall and crop coverage will be assessed regularly. AAOs at block level and DAOs at DAO level has been advised to open control room similarly to collect information and report to the district authority.

Fig 4.5: 4.13 Coordination structure at the District level and down the line



## ***District Disaster Management Plan - 2019***

### **4.14 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 can be reformed and the cell has to be reestablished under the umbrella of DDMA. The following the list of NGOs who served the dist. in different activities.

**Table – 4.15:**

<b>Sl No:</b>	<b>Name of the Organisation with Address</b>	<b>Name of the Contact Perosn</b>	<b>Cell no</b>	<b>Email Id</b>
<b>1</b>	<b>2</b>	<b>6</b>	<b>7</b>	<b>8</b>
1	Ruchika Social Service Organisation (Open Shelter), Plot no: 3731, Samantarapur, BBSR	Benudhar Senapati	9853616279	<a href="mailto:rssobbs@hotmail.com">rssobbs@hotmail.com</a>
2	Bhairabi Club	Baikuntha nath Martha	9437177490	<a href="mailto:bhairabi_27@yahoo.co.in">bhairabi_27@yahoo.co.in</a>
3	Vishwa Jiban Seva sangha, At: Kalinga Vihar, BBSR	Kodanda Pani Baral	9437286593	<a href="mailto:vjss_khurda@yahoo.co.in">vjss_khurda@yahoo.co.in</a>
4	Palli Unayan Seba Samiti, Naharakanta, BBSR	Smt. Swati S. Patra	9437951347	<a href="mailto:kadambini_bhuyan@yahoo.com">kadambini_bhuyan@yahoo.com</a>
5	Subhadra Mohatab Seva Sadan, Kolathia, Khandagiri, BBSR	Niranjan Mohanty	9437885150 9937311333 9437114775	<a href="mailto:smssmohanty@yahoo.com">smssmohanty@yahoo.com</a>
6	Nehru Seva Sangha, Banpur, Khordha	Smt. Sarojini Dash	9437010672 9937381894	<a href="mailto:nehrowsevasangh@gmail.com">nehrowsevasangh@gmail.com</a>
7	ASHRAYA, Handicapped Welfare Organisation, Dumduma, BBSR	Binayak Pallei	9439490154	<a href="mailto:ashraya.hwo.bbsr@gmail.com">ashraya.hwo.bbsr@gmail.com</a>
8	Pragati Parishad	Dillip Kumar Ojha	8763180488	<a href="mailto:dillip.ojha1234@gmail.com">dillip.ojha1234@gmail.com</a>
9	IYWW	Siba Prasad Patjoshi	9439621646	<a href="mailto:iyww98@gmail.com">iyww98@gmail.com</a>
10	Darbar Sahitya Sansad (DSS), Balipatna	Kedar Chpudhary	9861022440	<a href="mailto:darbar4@rediffmail.com">darbar4@rediffmail.com</a>
11	Life Line Care, Jatni	Bijan Pratihary	9861448311	
12	Padmashree Society, Jatni	Hochimin Sastri	9437107124 9337160036	<a href="mailto:hochiminh@rediffmail.com">hochiminh@rediffmail.com</a>
13	Benudhar Foundation, Jatni		7325991853	
14	Nabajyoti Yuba Parishad	Ashutosh Das	9437628233	<a href="mailto:ashutoshdash75@gmail.com">ashutoshdash75@gmail.com</a>
15	Gopinath Yubak Sangha	Prasant Mishra	8249431341	

Similarly, 2 rounds of GO-NGO coordination meeting were conducted at District Level in which the NGOs currently working in different parts of District have participated and shared their details of support to the affected population due to FANI. The detailed matrix is annexed in Annexure -XXXVI.

### **4.15 Role of Corporate Sector in the district relating to Disaster Management**

## ***District Disaster Management Plan - 2019***

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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 loss of life, 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, organising, 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 Super Cyclone Odisha in 1999, Bhuj Earthquake in 2001 and Tsunami in 2004.

### **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:**



## ***District Disaster Management Plan - 2019***

- Donation of cash, food, medicines and other resources
- Support the administration with skilled HR
- Participation in the recovery activity
- 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.

### **4.16 Public Private Partnership: Public & Private Emergency service facilities available in the district.**

Khordha Municipality is in partnership with the local companies like Cocacola (7894104494), SMS (7894042868), Gupta Cables (9337223265) and United Beverage Pvt. Ltd. (9238009028) to provide safe drinking water in water scarcity pockets of municipality area. Similarly, Health services are managing 4 nos of Mobile Health Teams with coordination with NGOs which are running at Bhubaneswar under the public and private partnership. The details are given below:

NAME OF THE UMHU	COVERED WARD NUMBER	COVERED UCHC ZONE	NAME OF THE MANAGED NGOS IN PPP MODE
UMHU-I	67, 59, 61, 58, 60, 54, 45, 55, 56, 57, 42, 32, 43, 44, 46, 52, 53, 62	UCHC BMC, ZONE-I	GJS
UMHU-II	9, 3, 12, 19, 31, 33, 18, 4, 5, 10, 11, 1, 2, 6, 7, 13, 14	UCH CPATIA, ZONE-II	Orissa Voluntary Health Association
UMHU-III	63, 50, 24, 51, 22, 23, 15, 38, 39, 47, 48, 49, 64, 65, 66	UCHC DUMUDUMA, ZONE-III	GJS
UMHU-IV	25, 27, 37, 28, 36, 40, 41, 8, 30, 34, 35, 29, 17, 16, 20, 21, 26	UCHC UNIT-IV, ZONE-IV	Vishwa Jeevan Seva Sangh (VJSS), Orissa

Some private emergency service providers are given below:

### **Contact Details of Private emergency services**

**Table – 4.16:**

Sl. No.	Name of the Contact Person	Contact No.
1	Kalinga Hospital Ambulance Service, Chandrasekharpur, Bhubaneswar	0674-2300570 0674-2300726
2	Sumitra Ambulance service, Unit 6, Ganganagar, Bhubaneswar	9937255912
3	Mamata Hospital, Chandrasekharpur, Bhubaneswar	0674-2302779
4	Care Hospital, Prachi Enclave, Chandrasekharpur, Bhubaneswar	0674-3021999 9937299112
5	Sparsh Hospital, Behind Metro Tower,	0674-6626666

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Sl. No.	Name of the Contact Person	Contact No.
	Bhubaneswar	
6	Jay Durga Ambulance service, Mahatab Road, Bhubaneswar	9861067826 9439337826
7	Basanti Trust Ambulance service, Board Colony, Bhubaneswar (Free of Cost)	9437164399
8	Marwari Yuva Morcha Ambulance Service, Laxmi Sagar, Bhubaneswar	9861093200
9	AMRI Hospital, Kolathia, Bhubaneswar	0674-6666666
10	Durga light & sound, Old Fire Station, Khordha	9861505706
11	Maa Kali Tent House, Gurujang, Khordha	9437185332

### **4.17 Multi Purpose Cyclone Shelters (MCS) in the district**

a) Details of Cyclone Shelter Management and Maintenance Committee (CSMMC) :

The completed Multipurpose Flood Shelters constructed by OSDMA has been handed over to the community based Cyclone Shelter Management and Maintenance Committees (CSMMC). The CSMMC was constituted in a Special Meeting convened by the local Sarpanch/Executive Officer in the shelter village including served villages. The CSMMC consists of around 21-25 members as given below. The Sarpanch of the concerned Gram Panchayat/Executive Officer of concerned ULB functions as the **President** of the CSMMC. One representative of the vulnerable community, selected by General Body or in case of urgency nominated by the President, functions as the **Secretary** of the CSMMC.

**Table – 4.17:**

<b>Official Members</b>		
1.	Sarpanch/Executive Officer	<b>President</b>
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
<b>PRI representatives</b>		
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)
<b>Community representatives</b>		
12.	One community volunteer to be selected as	<b>Secretary</b>
13.	Representative of Local N.G.O./village club	Member

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	<b>Official Members</b>	
14.	Women representative	Member
15.	SC/ST representative	Member
16.	Shelter village/ hamlet representatives	Member (1-4)
17.	Representative of Persons with Disability	Member

### **Details of CSMMC**

**Table – 4.18:**

<b>Sl No.</b>	<b>Name of the Block</b>	<b>No of MCS</b>
1	Balipatna	1
2	Banapur	7
3	Chilika	12
4	Tangi	15
	<b>Total</b>	<b>35</b>

*[Detailed List of MCS is attached in ANNEXURE- XXII]*

### **Details of equipments provided to MCS**

**Table – 4.19:**

Detailed List of MCS is attached in ANNEXURE- XXII

### **4.18 Flood Shelters (FS) in the District**

a) Details of Flood Shelter Management and Maintenance Committee (FSMMC):

The procedure followed for formation of Flood Shelter Management & Maintenance Committee (FSMMC) in Flood Shelters are very much similar to the process of formation of CSMMC.

### **Details of FSMMC**

**Table – 4.20:**

<b>Sl No.</b>	<b>Name of the Block</b>	<b>Name of the FS</b>
1	Balipatna	3
2	Balianta	4
3	Khordha	2
4	Jatni	2+1 (Godown)
5	Begunia	2
6	Banapur	2
	<b>Total</b>	<b>16</b>

*[Detailed List of MFS is attached in ANNEXURE- XXII]*

b) Equipments provided to the FS

### **Details of equipments provided to FS**

**Table – 4.21:**

Detailed List of MFS is attached in ANNEXURE- XXII.

### **4.19 Other identified Safe temporary shelters in the district**

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There are 292 nos of High Schools available in the district which can be used for safe shelters. Apart from High schools, there are 2363 nos of Pry & UP schools are also available in the district which can be used as safe shelters at the time of emergency. The data provided by the SSA shows that in almost every village there are schools to be used as safe shelters and there are 51 multipurpose flood and cyclone shelters constructed by OSDMA in vulnerable villages to provide necessary shelter.

### **Identified Safe temporary shelters**

**Table – 4.22:**

Sl No.	Block	No of High Schools
1.	Balianta	17
2.	Balipatna	21
3.	Banapur	17
4.	Begunia	30
5.	Bhubaneswar	22
6.	Bolgarh	27
7.	Chilika	15
8.	Khordha	30
9.	Jatni	17
10.	Tangi	25
11.	Khordha Mplty	4
12.	Balugaon NAC	2
13.	Banapur NAC	3
14.	BMC	57
15.	Jatni Mplty	5
	<b>Total</b>	<b>294</b>

*[List of High, UP and Primary Schools are annexed in **ANNEXURE - XIV**]*

### **List of Identified shelters at ULB level:**

**Table – 4.23:**

Ward No:	School / Shelter Available	Population of the ward / capacity	Location
1	Chachara Saar Sahi UP School	1801/200	Mukundaprasad
2	Mukundaprasad UGME school	1247/500	Mukundaprasad
3	Jemadei UP / Jayee Rajguru UP / Jemadei Badha Sabarsahi Pry. Sch / PN College	1898/3000	Jemadei, Barunei Road side, Mukundaprasad
4	Garh Khordha UP School	2010/300	Garhkhordha
5	Block REO UP Sch	1567/300	Near Collectorate, Khordha
6	Smatarapur UP School / Women's College	3222/1000	Samantarapur
7	Upper Sahi UP School	1697/200	Upper sahi
8	Kamanabar UP School	2004/100	Near Harijan Sahi
9	Bhaliabadi UGME School / Bhaliabadi Bauri Sahi Pry. school	1728/500	Bhaliabadi
10	TLC Colony School	1571/300	TLC colony
11	BDA Colony UP Sch / Forest Colony Pry. Sch	1946/400	BDA Colony Chhak
12	Practising UGME School	1947/1000	Nayagarh Road
13	Town UP School / Jajarsingh Primary School	1345/600	Talajahi, Jajarsingh
14	Khordha UP School	1516/300	Near Municipality Office
15	BJB High School	1549/3000	Telephone Exchange
16	Maa Jenamani Pry school / Housing board colony Gurujanga / Gurujanga UGME School	1974/600	Gurunjanga

## ***District Disaster Management Plan - 2019***

<b>Ward No:</b>	<b>School / Shelter Available</b>	<b>Population of the ward / capacity</b>	<b>Location</b>
17	Gurunjanga pry. / Gurunjanga High school	1351/800	Gurunjanga
18	Dhabaleswar UP School / Gurunjanga ME School	2154/600	Gurunjanga
19	Jagannath Bidyapitha, Khordha	1527/400	Gurunjanga
20	Khordha Town Center pry. School / Tahaisl Pry. School	1694/500	Talasaahi
21	Mukundaprasad Urdu Maktab Pry. School	1405/200	Mukundaprasad
22	Mukundaprasad UGME School	1901/500	Mukundaprasad

### **1.20. Other Safe Sites for temporary shelter for Flood / Tsunami etc.**

**Table – 4.24:**

<b>Sl. No.</b>	<b>Block Name</b>	<b>GP Name</b>	<b>No. of Mounds</b>	<b>No. of High Bridges</b>
1.	Bhubaneswar	Andharua	1 ( Padmapada Mundia)	
2.	Bhubaneswar	Barimunda	--	1 ( Kuakhai Bridge)
3.	Bhubaneswar	Basuaghai	--	1 ( Tankapani Bridge)
4.	Bhubaneswar	Chandaka	1 (Jogisahi Mundia)	--
5.	Bhubaneswar	Dadha	1 (Nandankanan)	--
6.	Bhubaneswar	Daruthenga	1 ( Chudanga Gada)	--
7.	Bhubaneswar	Dhauri	1 (Dhauri Pahada)	1 ( Daya Bridge)
8.	Bhubaneswar	Itipur	--	--
9.	Bhubaneswar	Kalaranhanga	--	--
10.	Bhubaneswar	Kalyanpur	--	--
11.	Bhubaneswar	Kantabada	2 ( Jhumuka / Deras)	--
12.	Bhubaneswar	Lingipur	--	1 (Daya Bridge)
13.	Bhubaneswar	Mendhasal	--	--
14.	Bhubaneswar	Nanput	--	--
15.	Bhubaneswar	Malipada	1 (Phata Mundia)	--
16.	Bhubaneswar	Ranasinghpur	--	--
17.	Bhubaneswar	Raghunathpur	1 ( Nandankanan)	--
18.	Bhubaneswar	Sisupalgarh	--	1 ( Daya Bridge)
19.	Bhubaneswar	Tamando	--	--
20.	Bhubaneswar	Tikarpada	--	1 ( Daya Bridge)
21.	Khordha	Orabarasingh	4	0
22.	Khordha	Brajmohanpur	1	0
23.	Khordha	Naranagarh	1	0
24.	Chilika	Kumandolpatana	1	1
25.	Chilika	Ankula	1	1
26.	Chilika	Badakul	1	1
27.	Chilika	Nimikheta	1	1
28.	Chilika	Singeswar	1	
29.	Chilika	Chandeswar		1
30.	Balianta	Bhingarpur	--	1 Bridge over Kusabhadra river.
31.	Balianta	Umadeibrahmapur	--	1 Bridge over Kuakhai river.
32.	Balianta	Pratapsasan	--	1 Bridge over Bhargabi river.
33.	Jatni	Benapanjari	Budhangar & Pandiabili	1

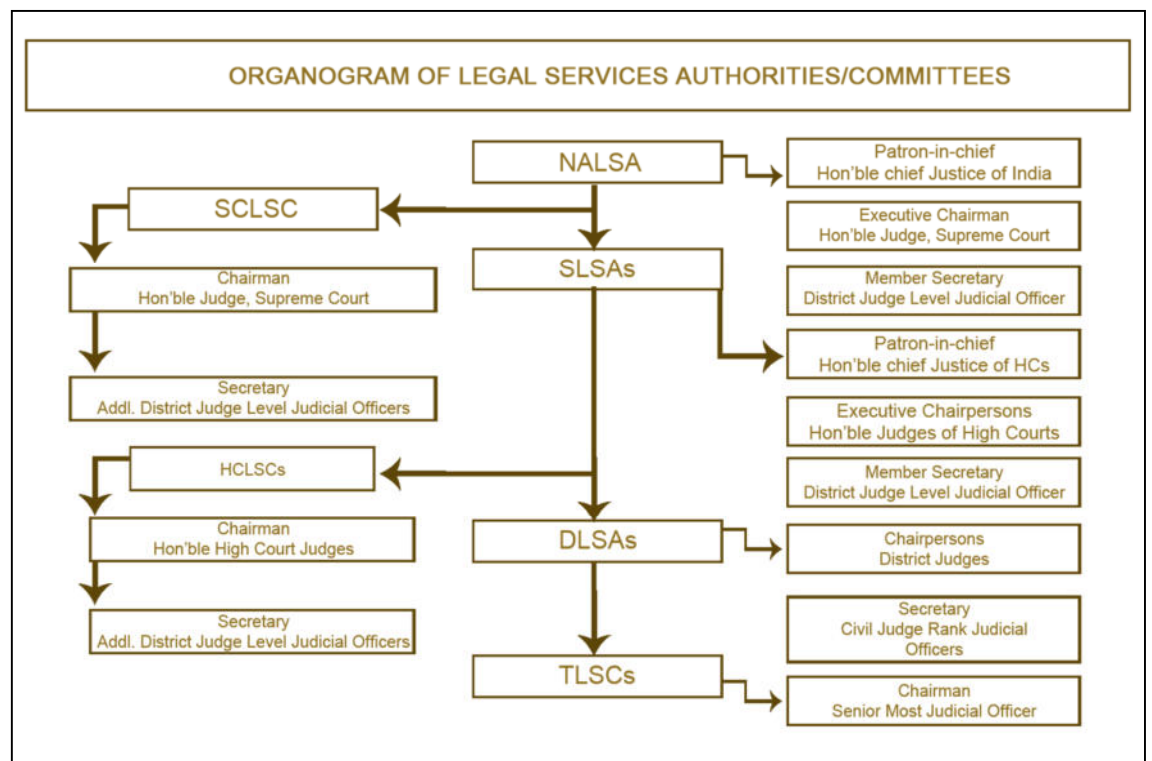
- **National Legal Services Authority (NALSA):**

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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 above mentioned functions, 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.



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### **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.

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## **CHAPTER - V**

### **PREVENTION & MITIGATION MEASURES**

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

Prevention is better than cure. Community is the first responder to the disasters. For facing any kind of disaster community needs proper planning and preparedness to tackle the situation till the Govt. machinery reaches to them. For that it is very much essential to take steps towards different measures both structurally as well as non-structurally. Structural measures can be:

- |  |  |
|--|--|
| 1. Strengthening the embankments                                 | 3. Strengthening the relief lines                    |
| 2. Developing the infrastructures in flood / cyclone prone areas | 4. Retrofitting of existing critical infrastructures |

Similarly the non-structural measures can be:

- |   |   |
|---|---|
| 1. Capacity Building of Govt. Officials   | 5. Safety plan for hospitals  |
| 2. Capacity building of PRIs  | 6. Safety plans for schools   |
| 3. Capacity building of Para medical staffs, Anganwadi workers, teachers, students, community, NGOs, Youth clubs, Self Help Groups, Farmers Groups etc. | 7. Training of Engineers and Masons on EQ resilient housing               |
| 4. Planning at all levels (village to District)   | 8. Community awareness on different probable hazards they are exposing to |
|   | 9. Hazard Risk Vulnerability Capacity assessment of the vulnerable areas  |

#### **5.2 Structural Measures:**

**Table – 5.1:**

Sl. No.	Name of the Department/ Office	Activity/ Project	Starting Date	Date of completion	Cost	Funding source
	PH Division III, Bhubaneswar	Strengthening / Improvement of Drinking water Supply Source through	--	--	--	--
	Do	a. Hand pump Tube wells to replace defunct ones	--	--	--	--
	Do	b. Production wells to replace the defunct ones	--	--	--	--
	Do	Spares for Hand pump tube wells	--	--	--	--
	Do	Hiring of Tankers	--	--	--	--
		POL for departmental tankers and inspection vehicles	--	--	--	--
	Do	Hiring of DG Set	--	--	--	--



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	Do	Protection of Approach Roads to head works & pumping stations, land fills and plinth protection	--	--	--	--
	Do	Repair & renovation of pumping installations including procurement of spare parts of pump and motors	--	--	--	--
	Do	Repair and renovation of head works, pump houses etc.	--	--	--	--
	Do	Procurement of Chemicals	--	--	--	--
	Do	Procurement and installation of PVC	--	--	--	--
	Do	Cleaning and disinfection	--	--	--	--
	Do	Preventive and curative measures for cleaning, repair and renovation of existing sewerage	--	--	--	--
	H & U.D. Department/Executive Engineer, P.H. Division-II, Bhubaneswar	Upgradation of 2.00 lakh Gallon UGR & ESR loading pipe line of at Acharya Vihar, BBSR	--	--	--	--
	Do	Improvement of pipe water supply to Rameswar palli ward no.21, BBSR	--	--	--	--
	Do	Improvement of pipe water supply to Dhirkuti Sahi Basti South side ward no. 11 BBSR	--	--	--	--
	Do	Provision of 5000 Gln. Capacity UGR at Rasulgarh Industrial Estate, BBSR	--	--	--	--
	DRDA	Construction of pucca ghar under Biju Pucca Ghar for the year 2016-17, target -4284	--	--	--	--
	DRDA	IAY normal housing Target – 15688	--	--	--	--
	DRDA	GGY Target-1699	--	--	--	--

### **5.3 Non-structural Measures:**

**Table – 5.2:**

Sl. No.	Name of the Department/ Office	Activity/ Project	Starting Date	Date of Completion	Cost	Funding Source	Remarks
1	2	3	4	5	6	7	
1.	CDMO	Disease Control Programme – IDSP, NCD, Mental health, Tobacco control Prog, NBCP,	--	--	--	--	Throughout the year

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Sl. No.	Name of the Department/ Office	Activity/ Project	Starting Date	Date of Completion	Cost	Funding Source	Remarks
		RNTCP, Leprosy, NVBDCP, V.S, Food safety, DAPCU (HIV/AIDS), IDD programme					
2.	CDMO	Reproductive & Child Health Programme – Family welfare programme, Routine Immunization (IPPI, JE, MR), NDD, VHND, RBSK, PMSSY, Mamata Divas.	--	--	--	--	Throughout the year

### **5.4 Scope for integrating different schemes for Disaster Risk Reduction (DRR) Activities.**

**Table – 5.3:**

Sl. No.	Schemes	Possible activities for DRR
1.	Mission Shakti: Empowering Women through SHGs	<ul style="list-style-type: none"> <li>Capacity building of women on adaptation and risk reduction behaviors and preparedness at household level to face climatic extremes.</li> <li>Linking livelihood promotion with sustainable natural resource management.</li> </ul>
2.	Gopabandhu Gramin Yojana	<ul style="list-style-type: none"> <li>The roads must be assessed for future climatic extremes and should be location wise designed to be resilient. The same applies to the other two sectors. The integration can be done from design to implementation, monitoring and evaluation that the infrastructure is created maintained keeping in mind future possibilities and rising frequency and magnitude of extremes.</li> <li>A life cycle analysis based on (probable life of the infrastructure and expected future climatic extreme events) history of extremes and climatic projections can ensure resilient design, construction and maintenance. For this capacity building of planners, contractors and engineers on themes such as, assessment of climate and disaster risks, resilient designs, monitoring and evaluation will be required</li> </ul>
3.	Biju Pucca Ghar Yojana	<ul style="list-style-type: none"> <li>Disaster Resilient housing for the beneficiaries by the trained Engineers and Masons</li> <li>Awareness among the beneficiaries to take up disaster resilient housing</li> </ul>
4.	Prime Minister Awaas Yojana	<ul style="list-style-type: none"> <li>Disaster Resilient housing for the beneficiaries by the trained Engineers and Masons</li> <li>Awareness among the beneficiaries to take up disaster resilient housing</li> </ul>
5.	Pradhan Mantri Suraksha Bima Yojana (PMSBY)	<ul style="list-style-type: none"> <li>Insurance and Risk Transfer to be promoted among the beneficiaries to minimize the losses</li> </ul>
6.	The Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)	<ul style="list-style-type: none"> <li>Insurance and Risk Transfer to be promoted among the beneficiaries to minimize the losses</li> </ul>

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<b>7.</b>	Sarva Shiksha Abhiyan	<ul style="list-style-type: none"> <li>• Disaster resilient construction of new school buildings</li> <li>• Retrofitting in existing school buildings</li> <li>• Essential school safety, planning, preparedness &amp; response at school level</li> <li>• Awareness among the PTA</li> <li>• Training of teachers and students on Search &amp; Rescue and First Aid</li> <li>• Mock drill at the schools</li> </ul>
<b>8.</b>	Rashtriya Swasthya Bima Yojana (RSBY)	<ul style="list-style-type: none"> <li>• Insurance and Risk Transfer</li> </ul>
<b>9.</b>	Member of Parliament Local Area Development Scheme (MPLADS)	<ul style="list-style-type: none"> <li>• Construction of flood control embankments</li> <li>• Construction of common shelters for cyclones, Floods and handicapped</li> <li>• Purchase of motor boats for flood and cyclone prone areas</li> <li>• Fire tenders for Government organization</li> <li>• Retrofitting of essential lifeline buildings, viz Govt. hospitals, Govt. Schools and public buildings to be used as shelters in an emergency.</li> <li>• Early Warning Systems for effective disaster mitigation.</li> <li>• Construction of roads, approach roads, link roads, Pathways.</li> <li>• Drinking water facility</li> </ul>
<b>10.</b>	MGNREGA	<ul style="list-style-type: none"> <li>• Construction of embankments</li> <li>• Construction of roads in remote areas</li> <li>• Construction of multi-hazard shelters</li> </ul>
<b>11.</b>	RKVY	<ul style="list-style-type: none"> <li>• Preparation of agriculture plans for the districts and the States based on agro-climatic conditions, availability of technology and natural resources;</li> <li>• Development of structures for to mitigate various disaster related to agricultural, horticultural and veterinary</li> </ul>

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## **CHAPTER – VI**

### **CAPACITY BUILDING MEASURES**

#### **6.1 Approach**

Developing a DDMP without building capacity or raising awareness amongst stakeholders 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 disastrous.

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.

#### **6.2 Capacity Building of Govt. Officials, PRI Members etc.:**

**Table – 6.1: (Proposed Plan)**

<b>Sl. No.</b>	<b>Name of the Course/ Training Programme</b>	<b>Participants</b>	<b>Duration of the Training Programme</b>	<b>Month of Organization</b>	<b>To be Organized by</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
1.	Orientation training programme on disaster management (To be coincided with the first quarter meeting of the DDMA)	ADM, Sub- Collector All BDOs, Tahasildars, Head of line departments, Police & Fire Dept. etc.	½ day		DDMA/ Collector
2	Training programme on heat wave preparedness	All BDOs / EE RWS &S, CDMO, CDVO, NGOs, etc.	1 day		DDMA/ Collector
3	Hospital preparedness and mass casualty management including hospital management plan	Doctors and Hospital Administrators			CDMO
4	Training programme on treating heat wave related health issues	Doctors and Paramedical Staff/ ANMs	1 day		CDMO
5	Mass Casualty Management.	Para Medics /Police / RPF /Home Guard /Fire and Civil Defense / Railway Officials			DDMA
6	Earth quake resistant construction	Asst. Engineers & JEs	1 day		
7	Post disaster damage assessment	AEs of all Blocks and line departments	1 day		DDMA
8	GIS mapping of Utilities	Block Computer Programmers, Line Department MIS officials	1 day		
9	Public health in emergencies- safe drinking water and sanitation	All BDOs, Block and district level officials of PHED/ RWS & S Dept.			CDMO

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<b>Sl. No.</b>	<b>Name of the Course/ Training Programme</b>	<b>Participants</b>	<b>Duration of the Training Programme</b>	<b>Month of Organizat ion</b>	<b>To be Organized by</b>
10	Training of teachers on school safety including DM plan and conduct of Mock Drills	Principal/ Head Masters of all Govt. & Private Institutions	1 day		DEO
11	Role of PRIs and ULBs in disaster management.	Members of ZP and ULBs, Chairman & Vice Chairman of PS.	1 day		DDMA/ Collector
12	Block level training programmes on role of PRIs in disaster management	Sarapanchas & PS members	1 day		BDO
13	Role of NGOs/VOs/CBOs in disaster management.	District and block level NGOs/ VOs involved with district administration in disaster management			DDMA/ Collector
14	Training of ZKSS and BKSS members on basics of disaster management and creating community level awareness for dos and don'ts related to common disasters.	ZKSS and BKSS members	1 day		District Culture Officer/ DIPRO
15	Search & rescue and safe evacuation.	Civil Defense Volunteers, NSS, NYK Volunteers, NCC	5 days		SP/ Asst. Commandant of the nearest ODRAF unit.
16	Training of Masons on earthquake resistant construction.	Masons for Blocks & ULBs	5 days		DDMA
17	Role of Media in Disaster Management	Media Personnel	1 day		DIPRO
18	Preparation of Block Disaster Management Plan (BDMP)	BDOs / Tahasildars / Officer in charge of DM of Blocks & Tahasils / Computer Programmers	1 day		DDMA
19	Drought Management Plan	DAO / AAO / VAWs	2 days		DDA
20	Training of Engineers on earthquake resistant construction.	Engineers AE & JE) from Blocks	1 Day		DDMA / DRDA

### **6.3 Tabletop Exercise:**

The objective of Table Top exercise is:

- To review the District Disaster Management Plan for Mitigation & Management of Cyclone / Flood / Heat wave.
- To facilitate in checking the adequacy of the Emergency
- To review the Response Plan of districts to meet the exigency.
- To highlight the roles and responsibilities of the concerned stakeholders at the District level.
- To enhance the coordination and synergize efforts of various Emergency Support Functions at the District level.
- To identify gaps if any, in the resources, manpower, equipment, communication and systems.

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- To chalk out the empowerment plan for vulnerable groups to face disaster squarely with enhanced resilience.

On 31.05.2019, the DDMA along with other line department officials discussed the following:

- Heat wave action plan discussed and plan chalked out to take up the measures to combat the heat wave situation. All the departments such as CDMO, CDVO, BDOs, Tahasildars, RWSS, PHED instructed to present their plan of action for the year 2019 with respect to Khordha district. The gaps identified in the discussion were addressed.
- The new outline prepared for preparation of DDMP for the year 2019 discussed and all the line departments were instructed to provide the necessary information for the purpose.
- It was decided to discuss the flood preparedness measures on next exercise and the line departments instructed to bring their departmental preparedness and action plan to the exercise.
- The detailed empowerment plan for different stakeholders is given in Table 6.1, 6.3, 6.4, 6.5 in which different plans were chalked out to provide training.

### **6.3 District/ Block level Mock Drills:**

Off-Site Mock drill:

A district level off-site mock drill was conducted on 29.11.2018 at Khordha District with multiple scenarios. Cholrine Gas leakage on road side on the way to Khordha and fire in LPG tank in Bharat Petroleum Corporation Limited, Khordha. Simlutaneously both the mock drills were conducted. Prior to drill a briefing was done at the Collectorate Confernece Hall, under the Chaimanship of ADM, Khordha. A multi agency control room was opened in the Conference Hall and response teams like NDRF, ODRAF & Fire Service conducted the drill with active participation from the local units available in the district. In the said off-site drill all line departments, District Crisis Group members and members from companies participated.

**Table – 6.2:**

<b>Sl. No.</b>	<b>Type of Mock Drill</b>	<b>Officials / Institutions to be involved</b>	<b>Month / Date</b>
1.	Flood	All Blocks / Tahasildars / Line department Officials like EE, Irrigation (Khordha, Prachi & Bhubaneswar), CSMMCs, NGOs	June
2.	Cyclone	All Blocks / Tahasildars / Line department Officials like EE, Irrigation (Khordha, Prachi & Bhubaneswar), CSMMCs, NGOs	June
3.	Industrial Accidents/ Industry Specific Mock drills	Industrial safety wings/ NDRF / Fire Service / Director, Factories & Boilers / Administration	Quarterly
4.	Railway Mock Drill	Railway Division Khordha / Administration / NDRF/ Fire Service	February

### **6.5 Disaster management Education (School Safety and School Disaster Preparedness):**

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School Safety is one of the most important aspect of disaster management, as the students are vulnerable to both natural and man-made disasters. Students spend 8 long hours in the school and the way nowadays Heatwave, EQ, cyclonic winds, accidents during school hours like drowning in the school pond, road accidents of the school vehicles etc. are happening, there is a demanding need for the school safety in all the schools. The Teachers as well as students needs to understand their vulnerability and prepare themselves for any exigencies. Similarly, there is need for mass awareness and training needed at the colleges too.

### **6.6 Community Capacity Building and Community Based Disaster Management:**

As per the discussion held at Rajiv Bhawan Conference Hall on 10<sup>th</sup> June 2019, it was instructed to chalk out plan for 200 villages of the district to conduct the community based disaster management programme in the villages. So 200 villages will be covered in the first phase i.e. year 19-20. The plan is given below:

**Table- 6.3:**

Sl. No.	Block Name	Total No of Villages	No. of vulnerable villages to be covered during 2019-20	No. of VDMC and task force member to be oriented	No. NGOs to be involved in the process	Time line	Remarks
1.	All 10 Blocks of the District	1669	310	310	10 (Minimum)	6 months from selection of NGOs	

### **6.7 Capacity building of Cyclone and Flood Shelter Maintenance & Management Committee and Task Force members:**

**Table – 6.4:**

Sl. No.	Name of the Training Programme	Total No. of Persons to be trained	No. of Training Programmes to be organized	Time Line	Remarks if any
1.	Orientation of CSMMC and FSMMC	500 (10 MFS & 10 MCS)	20	May – Dec	
2.	Traing of Srapanches	51	1	June - Dec	
3.	Training of task force members on Search & Rescue	250	10	May – Dec	
4.	Training of task force members on First Aid	250	10	May – Dec	
5.	Dist. Level Trg. Of Trainers (SAR & FA)	40 – SAR 40 - FA	1 1	May June	

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### **6.8 Shelter level mock drills:**

**Table – 6.5:**

Sl. No.	Type	No. of Cyclone/ Flood Shelters to be covered	No. of villages to be covered.	Month/ Date
1	Cyclone Mock drill	51	51	June
2	Flood Mock drill	51	51	June
3	Block Level Mock drill (10 blocks)			19 <sup>th</sup> June
4	Dist. Mock Drill ( 1 at the Dist. Level)			19 <sup>th</sup> June

### **6.9 FAMEX / CAP:**

As a part of community awareness, Govt. of Odisha has initiated a process called Familiarisation Exercise (FAMEX) / Community Awareness Programme (CAP) to educate the Govt. Officials, PRIs, Community, Students (School / College), Teachers on various aspects of both Natural as well as Man-Made disasters such as Lightning, Snakebite, Drowning, Heatwave, Flood, Cyclone and Fire. ODRAF and Fire Services team were instructed to conduct such exercise in different places in close coordination with District Disaster Management Authority (DDMA). For the year 2019, FAMEX /CAP had been conducted in School and colleges of Jatni Block. The details are given below:

1. Prannath High School, Jatni
2. Sarat Paikarai Colege, Argul
3. Sanatan Harichandan College, Madanpur.

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## **CHAPTER – VII** **PREPAREDNESS**

**Relief Lines: District to Blocks**

**Table – 7.1:**

Sl. No	Name of the Road		Type of Road & Length	Vulnerability of the route (Description of the Vulnerability)	Coverage (Blocks & ULBs)
	From	To			
1.	Khordha	Balianta Block point	NH, 37 Kms (Via. Uttara & Hanspal)	No vulnerability till block points. Only vulnerability is falling of trees due to cyclone.	Bhubaneswar, Balipatna
2.	Khordha	Balipatna Block point	NH, 43 kms (Via. Uttra & Pipali)	No vulnerability till block points	Bhubaneswar, Baliana
3.	Khordha	Jatni Block point	NH, 11 kms	No vulnerability till block points	Jatni NAC
4.	Khordha	Bhubaneswar Block point	NH, 29 kms	No vulnerability till block points	Jatni Block
5.	Khordha	Khordha Block point	0 kms	No vulnerability till block points	Khordha Mplty
6.	Khordha	Bolgarh Block point	NH, 45 kms	No vulnerability till block points	Begunia, Khordha
7.	Khordha	Begunia Block point	NH, 21 kms	No vulnerability till block points	Khordha Block
8.	Khordha	Banapur Block point	NH, 76 kms	No vulnerability till block points	Chilika, Tangi, Khordha
9.	Khordha	Tangi Block point	NH, 71 kms	No vulnerability till block points	Khordha, Tangi
10.	Khordha	Chilika Block point	NH, 68 kms	No vulnerability till block points	Balugaon NAC, Banapur
11.	Khordha	Balugaon NAC Point	NH, 70 kms	No vulnerability till NAC points	Chilika, Banapur
12.	Khordha	Jatni NAC point	NH, 11 kms	No vulnerability till NAC points	Jatni Block
13.	Khordha	Khordha Mplty Point	0 kms	No vulnerability till Mplty points	Khordha Block
14.	Khordha	Banapur NAC point	NH, 76 kms	No vulnerability till NAC points	Banapur, Tangi, Chilika Block & Balugaon NAC

Distance chart from District Office, Khordha:

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Approximate Distance in KM.	Bhubaneswar	Balianta	Balipatana	Bolgargh	Jatni	Tangi	Chilika	Banpur	Begunia	Khordha
Khordha	29	37	43	45	11	71	68	76	21	0
Begunia	50	57	65	24	33	37	62	67	0	
Banpur	105	114	115	56	85	35	62	0		
Chilika	92	57	100	58	73	25	0			
Tangi	50	57	65	24	50	0				
Jatani	19	28	32	56	0					
Bolgargh	74	81	89	0						
Balipatana	16	14	0							
Balianta	9	0								
Bhubaneswar	0									

### Relief Line Channels: Block to GPs & Villages

Table – 7.2:

Sl. No	Name of the Road		Type of Road & Length	Vulnerability of the route (Description of the Vulnerability)	Coverage (In Nos.)	
	From	To			Village/wards	Population
1.	Gareidipanchan GP Off	Kiajodi	Muhhram Road 3 KM	Usually affected by Flood	Kiajodi	647
2.	Gareidipanchan GP Off	Biswanathpur	Muhhram Road 5 KM	Do	Biswanathpur	2203
3.	Pampalo GP Off	Huikera	Black top road 3 KM	Do	Huikera	315
4.	Pampalo GP Off	Darada	Black top road 2 KM	Do	Darada	1432
5.	Kurunjipur GP Off	Dalakasoti	Muhhram Road 5 KM	Do	Dalakasoti	466
6.	Kurunjipur GP Off	Sanamachhapu	Black top road 3 KM	Do	Sanamachhapu	602
7.	Kurunjipur GP Off	Ghasiandhoti	Black top road 2 KM	Do	Ghasiandhoti	424
8.	Kurunjipur GP Off	Indolakusuari	Muhhram Road 5 KM	Do	Indolakusuari	435
9.	Rajas GP Office	Danapada	Black top road 3 Km	Do	Danapada	513
10.	Rajas GP Office	Bindha	Black top road 2 Km	Do	Bindha	219
11.	Rajas GP Office	Garia	Muhhram Road 5 Km	Do	Garia	641
12.	Somanasasan	Palasahi	Black top road 3 Km	Do	Palasahi	978
13.	Somanasasan	Biswalpada	Black top road 2 KM	Do	Biswalpada	1277
14.	Somanasasan	Raiddeuli	Black top road 2	Do	Raiddeuli	585

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15.	Orabarsingh	Hirimul	Hirimul Village Road 1.050	Do	Hirimul	143
16.	Orabarsingh	Masania	Masania Orabarsing Road 1.250	Do	Oranarsingh	2469
17.	Orabarsingh	Dihakhala	Dihakhala Village Road 0.450	Do	Dihakhala	441
18.	Orabarsingh	Durgapur	Durgapur Village Road 3.00	Do	Durgapur	148
19.	Orabarsingh	Lekhanpur	Lekhanpur Main Road 0.500	Do	Lekhanpur	352
20.	Brajamohanpur	Saradhapur	Saradhapur Village Road 0.450	Do	Saradhapur	1444
21.	Brajamohanpur	Gopinathpur	Gopinathpur Village Internal Road 0.350	Do	Gopinathpur	1036
22.	Brajamohanpur	Brajamohanpur	Brajamohanpur Village Internal Road 2.450	Do	Brajamohanpur	1295
23.	Narangarh	Orami	Narangarh to Orami Road 1.850	Do	Orami	523
24.	Narangarh	Balapur	Narangarh to Balapur Road 0.950	Do	Balapur	1019
25.	Hadapada	Dhabalpur	Hadapada to Dhabalpur Road 1.250	Do	Dhabalpur	243
26.	Kuapaut Patana	Saarsahi	Kuapaut Patana PWD Road to Saarsahi Road 1.250	Do	Kuapaut Patana	--

### **Resources available: Response force & Volunteers**

**Table 7.3:**

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	45	40	40	40	Sh. Jaocb Kispotta	0671-287971 09437964571
2	ODRAF	50	44	44	44	Shri KB Sahoo, Addl DCP (Armed)	9438686667
3	Police	477	--	--	--	Sj. Amulya Kumar Das, OPS (I), SP	06755-220535
4	Home Guards	238	100	100	0	Sj. Amulya Kumar Das, OPS (I), SP, OPS (I), SP cum Commandant Home Guards	06755-220535

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5	Civil Defense	150	50	50	50	Mr. Satyabrata Padhi	9437282190
6	NCC	730	--	--	--	Deputy Director General, NCC	06742432051
7	NSS	7400	1500	1500	0	Mrs. Sarita Patel	06742421339 9438733008
8	NYK	22	22	22	22	Mr. Prabir Kumar Pradhan	9438402497

### **Preparedness at District level:**

**Table – 7.4:**

<b>Task</b>	<b>Activity</b>
District Emergency operation Centre (DEOC)	<ul style="list-style-type: none"> <li>• DEOC needs to be in a state of preparedness always with updated equipments, computers with Internet facility, telephone, Toll free no etc.</li> <li>• Test Checkup of all communication Interfaces in regular interval</li> <li>• Proper manning of the Control Room as per Para-10 of the Odisha Relief Code</li> <li>• A dedicated vehicle must be earmarked for Control Room</li> <li>• An updated DDMP needs to be available at the DEOC</li> </ul>
Upward & Downward Communication	<ul style="list-style-type: none"> <li>• Have a list of Nodal persons with contact details</li> <li>• Establish regular linkages with all important stakeholders</li> <li>• Regular Communication with SEOC</li> </ul>
Meeting of DDMA (Heads of the department & stakeholder)	<ul style="list-style-type: none"> <li>• DDMA must meet twice a year to discuss different issues pertaining to disaster management</li> <li>• Emergency meeting of DDMA members before any disaster</li> <li>• Fix time &amp; venue for regular Preparedness meeting to Assess preparedness of District /Department /Civil Society /Block Community /Family /Individual level regularly</li> <li>• Circulate the minutes of the meeting with clear-cut role &amp; responsibility</li> </ul>
Capacity Building	<ul style="list-style-type: none"> <li>• Identifying &amp; designating Nodal Officer for different Dept.</li> <li>• Regular training of Govt. Officials on latest updates of disaster preparedness and management</li> <li>• Training of PRIs on different aspects of Disaster Management</li> <li>• Capacity building &amp; skill upgradation of ODRAF / Fire services / Police / Home Guard</li> <li>• Identify Volunteer like Civil Defense/Cyclone shelter Task Force / NCC / NSS /Scout &amp; Guide &amp; train them on Search &amp; Rescue, First Aid, evacuation etc.</li> <li>• Take stock of required materials for search &amp; rescue, first aid, mass casualty management, evacuation, relief etc. &amp; update IDRN portal regularly with updated information from different line departments</li> <li>• Assess preparedness through Mock drill at District, Block &amp; Community level</li> </ul>
Shelter Management	<ul style="list-style-type: none"> <li>• Formation of CSMMC and different Task force groups</li> <li>• Preparation of Shelter Management Plan</li> <li>• Training CSMMC on Shelter Management, Book Keeping etc.</li> <li>• Training of Task Force members on Search &amp; Rescue and First Aid</li> <li>• Take necessary steps for operation &amp; maintenance of shelters</li> <li>• Test Check of various Equipment at shelter level &amp; repair of the defective ones</li> <li>• Ensure regular meeting of Shelter committee</li> <li>• Assess Shelter level preparedness through Mock drill</li> </ul>
Planning & Reporting	<ul style="list-style-type: none"> <li>• BEOC and DEOC needs to collect &amp; transmit Rain fall data regularly</li> <li>• Collect &amp; transmit weather report regularly</li> <li>• Ensure preparation of Disaster Management Plans &amp; Safety plans at all levels</li> </ul>

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	<ul style="list-style-type: none"> <li>• Capacity building of all Stake holders</li> <li>• Integrate the District plan with block &amp; Village disaster management Plans</li> <li>• Develop healthy media partnership</li> </ul>
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### **Preparedness at Community Level:**

**Table -7.5:**

<b>Task</b>	<b>Activity</b>
Early Warning Dissemination	<ul style="list-style-type: none"> <li>• Build regular linkages with BEOC &amp; DEOC</li> <li>• Have the BEOC / DEOC telephone no to ensure the viability of the warning issued</li> <li>• Test Check of various Equipment at shelter level &amp; repair of the defective ones</li> <li>• Keep updates from BEOC/DEOC</li> <li>• Monitor &amp; Transmit updates to BEOC</li> <li>• Supply required information to BEOC &amp; DEOC</li> </ul>
Ensuring Preparedness	<ul style="list-style-type: none"> <li>• Have a list of Nodal person deployed in the village with contact details</li> <li>• Identification of safer routes &amp; shelters</li> <li>• Identify possible ways to reach persons like Farmers / Fisherman / NTFP collectors etc. who ventures into fields, sea &amp; forest respectively</li> <li>• Build teams from among the task force on Search &amp; Rescue, First aid, Damage &amp; loss assessment</li> <li>• Assess preparedness at Family/Individual level</li> <li>• Test Check-up of equipment's</li> <li>• Understand Local dynamics exposed &amp; vulnerable to different disaster</li> <li>• local Social Economic &amp; weather conditions</li> <li>• Develop Village DM plan</li> <li>• List of emergency contact Nos. &amp; display it in Centre places.</li> <li>• Participate in the activities of Preparing village Disaster Management, developing Safety plans, Capacity building Programmes &amp; Mock Drills</li> </ul>

### **Preparedness at Family Level:**

**Table – 7.6:**

<b>Task</b>	<b>Activity</b>
Warning Communication	<ul style="list-style-type: none"> <li>• List the minimum Important requirements</li> <li>• Keep all the important Documents in a water proof polythene</li> <li>• Record the Safe &amp; alternative routes to shelter</li> <li>• Keep News update in Radio/TV</li> </ul>
Preparedness	<ul style="list-style-type: none"> <li>• 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 &amp; charger / radio</li> <li>• Family must have a “Ready to go First Aid Kit” containing Iodine/ Band aids/ Cotton/ Medicines/ ORS/ ointments/ scissor/ halogens etc.</li> <li>• Assess preparedness on a regular basis by checking Radio/Mobile/ Emergency Kit/First Aid Kit/Fuels &amp; Kerosene (as per need)</li> <li>• Replace the damaged outdated or expired materials with new ones.</li> </ul>
Capacity Building	<ul style="list-style-type: none"> <li>• Participate &amp; involve in the activities of village disaster Management plan, preparation of Safety plans,</li> </ul>

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	<ul style="list-style-type: none"> <li>• participate in Capacity building Programmes &amp; involved in Mock Drills</li> <li>• Capacity building programmes for SHGs / Youth Clubs / Task Force members / Para medical staffs / ASHA workers etc.</li> </ul>
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### **Preparedness at Individual Level:**

**Table – 7.7:**

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

### **Preparedness of Departments:**

**Table – 7.8:**

<b>Name of the Department</b>	<b>Normal Time</b>
Collector/ADM / Emergency Officer	<ul style="list-style-type: none"> <li>• Ensure regular meetings of District Disaster Management Authority</li> <li>• Develop &amp; update Disaster Management Plan, carry out Hazard analysis in the district</li> <li>• Identify safe alternate routes to cyclone shelters.</li> <li>• Keep a list of Contacts of DEOCs, Nodal officer of different departments, Important stake holders, Village leaders, shelters</li> <li>• List of Relief lines &amp; storage places</li> <li>• List &amp; maintenance of SAR equipment</li> <li>• Capacity building of stakeholders &amp; volunteers</li> <li>• Asses preparedness through Mock Drills for different disasters at district department, block &amp; community level</li> <li>• Adopt sustainable mitigation measures</li> <li>• Integrate DM &amp; DRR features in development programmes</li> <li>• Develop Disaster Management Plans; Update the Disaster Management Plan quarterly, with focus on Hazard, Vulnerability, Risk and Capacity Analysis (HVRCA). Plan preparation should involve all concerned line departments and stakeholders in the district.</li> </ul>
CDMO	<ul style="list-style-type: none"> <li>• Disaster Management Plans &amp; Safety plans for Hospitals</li> <li>• Capacity building of Medical &amp; Para Medical Staffs</li> <li>• Formation of response teams and assignment of duties</li> </ul>

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	<ul style="list-style-type: none"> <li>• Assess preparedness through Mock Drills &amp; familiar exercises</li> <li>• Integrate department plans with plans with Village &amp; Block Plans and development programmes</li> <li>• Develop media partnership</li> <li>• Develop capacity of hospitals with advance equipment, proper manning &amp; disaster resilient infrastructures</li> <li>• Proper documentation and management of data for future reference</li> </ul>
Superintendent of Police (SP)	<ul style="list-style-type: none"> <li>• Prepare and quarterly update disaster management plan, especially identifying the sensitive areas with the active involvement of all concerned line departments and local bodies in the district.</li> <li>• Prepare a Deployment Plan for the Police Force, based on the needs of the most vulnerable and sensitive areas.</li> <li>• Ensure that a sufficient number of trained Police Force is available for responding to the disaster situation.</li> <li>• Frequent training programmes for the police personnel</li> <li>• Drill in regular intervals</li> <li>• Familiarization exercise at the community level to have a better rapport</li> <li>• Regular check up of equipments</li> <li>• Review and update emergency measures and procedures before the onset of monsoon</li> </ul>
EE- RWSS	<ul style="list-style-type: none"> <li>• Preparation of Departmental Disaster Management Plan to combat Heat wave and provide safe drinking water in flood prone areas</li> <li>• Capacity building of officials</li> <li>• Identification of water scarcity areas</li> <li>• Plan for structural and non-structural measures</li> <li>• Preparedness review at district and below before onset of summer and monsoon</li> </ul>
EE- Irrigation	<ul style="list-style-type: none"> <li>• Preparation of Departmental Disaster Management Plan</li> <li>• Prepare and quarterly update the disaster risk and vulnerability map with active involvement of all concerned line departments and local bodies in the district. The map should show the vulnerability and risks of the critical infrastructure related to irrigation and the presence of alternate source of water within the district.</li> <li>• Formulate a plan for managing the water situation in a drought-affected area through reservoir management; repairs and augmentation of existing water supply schemes;</li> <li>• Capacity building of officials and other stake holders on disaster proofing mechanism</li> <li>• Identification of weak embankment areas</li> <li>• Plan for structural and non-structural measures by involving the local community and PRIs</li> <li>• Keep in readiness essential tool kits and protection material at critical places for emergency deployment before the onset of monsoon. These may include: 1. Empty Cement Bags 2. Boulders 3. Ropes 4. Sand 5. Wire mesh 6. Shovels 7. Baskets 8. Lights, and 9. First Aid Kit</li> <li>• Rapport building with the community</li> </ul>
DAO- Agriculture	<ul style="list-style-type: none"> <li>• Preparation of Departmental Disaster Management Plan</li> <li>• Capacity building of officials and farmers</li> <li>• Preparation of Drought management plan with Standard Operation Procedure</li> <li>• Identification of flood prone areas and identification &amp; procurement of appropriate small duration variety seeds to be given to the farmers</li> </ul>

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EE- Rural Works	<ul style="list-style-type: none"> <li>• Preparation of Departmental Disaster Management Plan</li> <li>• Capacity building of officials</li> <li>• Communication establishment with District and Block/ Tahasil control room and departmental officers within the division</li> <li>• Plan out the water resource management process for estimating the demand for water. It can be undertaken on the basis of the consumption needs of the total population of the district and the demand for water from industrial service and agricultural sector.</li> <li>• An officer to be nominated as nodal officer</li> <li>• Arrangement of extra vehicles/ heavy equipments, such as front-end loaders/ towing vehicles/ earth moving equipments/ cranes etc.</li> <li>• Inspection and emergency repair for roads/ road bridges/ underwater inspection/ piers/ concrete and steel work</li> <li>• Inspection by mechanical engineer of all plant and equipments</li> <li>• Route strategy for evacuation and relief marked</li> <li>• Clearance of blocked roads</li> <li>• Community assistance mobilized for road clearing</li> <li>• All staff informed about the disasters, likely damages and effects</li> </ul>
EE- Public Works	<ul style="list-style-type: none"> <li>• Develop and quarterly 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.</li> <li>• Preparation of Departmental Disaster Management Plan</li> <li>• Capacity building of officials</li> <li>• Communication establishment with District and Block/ Tahasil control room and departmental officers within the division</li> <li>• An officer to be nominated as nodal officer to do the coordination with district administration</li> <li>• Arrangement of extra vehicles/ heavy equipments, such as front-end loaders/ towing vehicles/ earth moving equipments/ cranes etc.</li> <li>• Inspection and emergency repair for roads/ road bridges/ underwater inspection/ piers/ concrete and steel work</li> <li>• Inspection by mechanical engineer of all plant and equipments</li> <li>• Route strategy for evacuation and relief marked</li> <li>• Clearance of blocked roads</li> <li>• Community assistance mobilized for road clearing</li> <li>• All staff informed about the disasters, likely damages and effects</li> </ul>
DTO-Telecom	<ul style="list-style-type: none"> <li>• Ensure regular check up of the facilities and services</li> <li>• Preparation of Departmental disaster management plan</li> <li>• Identification of additional HR in case of emergency</li> </ul>
CDVO	<ul style="list-style-type: none"> <li>• Preparation of departmental disaster management plan</li> <li>• Training of officials on various aspects of animal management including the farmers</li> <li>• Formation of response teams and assignment of duties</li> <li>• Proper vaccination of the animals before the onset of monsoon</li> <li>• Close watch on different animal related issues like bird flu.</li> </ul>
RTO/MVI	<ul style="list-style-type: none"> <li>• Work in close coordination with district administration</li> <li>• Provide required vehicles as and when required</li> <li>• Keep close watch on road accidents</li> </ul>
Fire Officer	<ul style="list-style-type: none"> <li>• Regular training programmes for the school &amp; College students</li> <li>• Training programmes for officials</li> <li>• Regular check up of the equipments available with the fire station</li> </ul>



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	<ul style="list-style-type: none"> <li>• In close contact with the district administration for clearing the roads / relief line in case of emergency</li> </ul>
Railway	<ul style="list-style-type: none"> <li>• Inspection of railway network in frequent intervals</li> <li>• Close watch on the tracks passing through flood / storm surge areas</li> <li>• Close watch on the tracks passing through coastal areas because of track damage due to saline water</li> <li>• Regular drills involving District Administration, NDRF, ODRAF etc.</li> <li>• Familiarization with the community residing at the both sides of the railway track</li> <li>• Creating awareness among the community to help the railway at the time of any sever accident and support the authority to provide all sort of help to the people suffered due to rail accident</li> </ul>
EE- Electricity	<ul style="list-style-type: none"> <li>• Database management</li> <li>• Ensure checking of the grid points and other important substations</li> <li>• Ensure uninterrupted supply of electricity to the Hospitals / CHCs / PHCs during summer to tackle Heat wave situation</li> <li>• Maintenance of the transformers and grid points at a regular interval</li> <li>• Identification of additional HR for emergency use.</li> </ul>
EE - PHED	<ul style="list-style-type: none"> <li>• Preparation of Departmental Disaster Management Plan to combat Heat wave and provide safe drinking water in water scarcity areas</li> <li>• Capacity building of officials and other stakeholders</li> <li>• Identification of water scarcity pockets to arrangement of water tankers to provide drinking water twice daily</li> <li>• Plan for structural and non-structural measures</li> <li>• Preparedness review at district and below before onset of summer and monsoon</li> </ul>
DEO- School & Mass Education	<ul style="list-style-type: none"> <li>• Training of Teachers on School safety</li> <li>• Training of Students on School Safety, Family safety during different disasters</li> <li>• Mock drills to memorize the safety tricks</li> <li>• Teachers to guide the villagers in village DM planning as and when required</li> <li>• Teacher to Act as a resource person for students as well as the villagers for disaster preparedness, mitigation and management activities</li> </ul>
DEO - Higher Secondary Education	<ul style="list-style-type: none"> <li>• Training of Lecturers and Students on disaster safety</li> <li>• Training of Students on Different Safety aspects, Family safety during different disasters</li> <li>• Training of Students on SAR and FA</li> <li>• Mock drills to memorize the safety tricks</li> </ul>

### **Preparedness activities by specialized teams:**

National Disaster Response Force (NDRF)	<ul style="list-style-type: none"> <li>• Deployment and pre-deployment at the district</li> <li>• To conduct famex in order to acquaint personnel with vulnerability of the area, roads, infrastructure, populace and response to different disasters.</li> <li>• To conduct mock exercises in coordination with other stake holders for well coordinated response during disaster.</li> <li>• To conduct community awareness programmes for capacity building</li> <li>• To organise demonstrations and exhibitions as part of community awareness</li> </ul>
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	<ul style="list-style-type: none"><li>• To undergo different kinds of training in order to increase the skill and expertise of NDRF personnel.</li><li>• To train SDRF, community, volunteers, students and NGOs in disaster management.</li></ul>
Fire Service	<ul style="list-style-type: none"><li>• Conducts training cum awareness programme usually one programme in a month at different schools and colleges</li><li>• Conducts the awareness programme in schools and colleges to make the students aware about the following<ul style="list-style-type: none"><li>○ Fire safety in home</li><li>○ Handling of gas cylinders in home</li><li>○ Electrical Safety in schools and houses</li><li>○ Rescue a drowning students during school hour</li><li>○ To provide minimum first aid to a road accident victim</li><li>○ Demonstration of Mock drills</li></ul></li></ul>

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## **CHAPTER – VIII**

### **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.

#### **8.1 Flood / Cyclone Circle Zone:**

10 flood circle zones have been formed in 10 Blocks under the supervision of concerned Block Development Officers. Each zone is again sub-divided into sub-zones (Gram Panchayats) and kept in charge of ABDO/ VLWs/ RIs / Extension Officers.

- BDOs – Zone Officers of respective Blocks
- Tahasildars – Addl. Zone Officers of respective Tahasils
- Executive Officer, ULB – Flood Zone Officer
- GP Extension/Executive Officers – Sub Zone Officers of respective GPs

Sub-Collector, Khordha would monitor the Blocks like Banapur, Chilika, Tangi, Khordha, Bolgarh and Begunia. Whereas Sub-Collector, Bhubaneswar would monitor the blocks like Jatni, Bhubaneswar, Baliana and Balipatana.

For smooth monitoring of rescue and relief operation during high flood/ severe cyclonic situation or any calamity of similar nature, the senior district level Officers remain in-charge of the Blocks as Supervising Officers to keep close watch on preparedness and response actions.

The Additional District Magistrates Khordha and Bhubaneswar remain in-charge of the following Sub-divisions as Supervising Officers to keep close watch on prepared and response actions.

- ADM - Khordha Khordha Sub-Division
- ADM –Bhubaneswar Bhubaneswar Sub-Division

#### **8.2 Duties of Zone /Addl. Zone Officer**

The Zone/Addl. Zone Officers receive weather/flood warning from DEOC Sub-Divisional Control Rooms, Electronics and Print Media etc.

Immediately on receipt of warning they will act as follows:

- They will depute the Sub-Zone Officers to their appointed places.
- Inter departmental coordination needs to be activated immediately.
- They will warn the people specifically of low-lying areas through Sarpanches, PS members, Ward members, youth clubs, NGOs working the area and by Public Address system, bit of drums, blowing the sankha or any other traditional way, in the village and local markets.

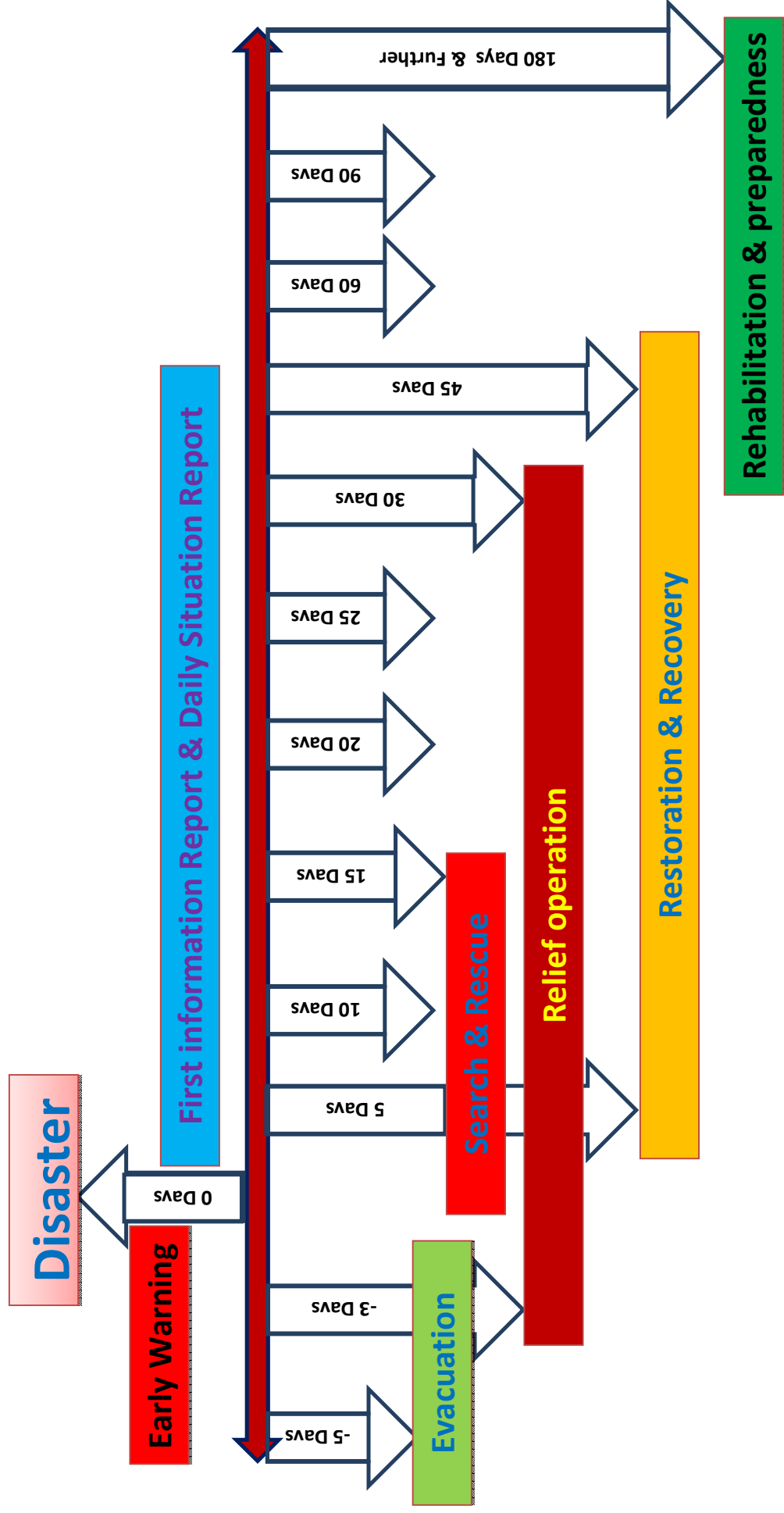
## ***District Disaster Management Plan - 2019***

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- They will take necessary steps to evacuate people from low-lying areas if situation so warrants. For this they may enlist co-operation of local Youths, volunteers and youth clubs or even the police and fire brigade consulting with DEOC.
- They will keep the Government power and country boats ready in vulnerable points and appoint boatman for the country boats. As such there is no facility available right now. So, they may access the private country boat use during emergency. The list must be prepared earlier at the time of preparation of Disaster Management Plan.
- They should see that sufficient quantity of rice/wheat/ Chuda/Kerosene oil/Match Boxes/fuel etc., are made available through retail sale center and at local markets.
- They will have to take steps to guard the weak and vulnerable points in embankments through village volunteers, Home Guards and Police constables etc. if situation demands then the Irrigation deptt may be coordinated to provide support and service.
- If situation so warrants, they will start distribution of emergent relief in marooned areas after obtaining approval of Collector/Sub-Collector concerned. While transporting and distributing relief the Officers concern may take the help of GP level and village level DMTs (relief team members) for the said purpose.
- There may be necessity of more vehicles for undertaking rescue and relief operation. In such circumstances they will immediately contact the Sub-Collectors / district control room for assistance.
- Apart from Govt. Country boats there may be necessary of private country boats. In such cases the Zone and Addl. Zone Officer may hire private country boats under intimation to District Control Room.
- They will keep District Control Room informed regularly about the situation and relief measures.
- They will assess damages through field staff and submit preliminary report within 3 days of the occurrence of the calamity. Before to this a daily situation report also will be submitted to the Collector by the Zone / Addl. Zone Officer without fail (as per para 71 of ORC)
- They will assess detailed damage and submit final damage report to District and Sub-Collector's office within a week.
- Tahasildars will assess the damage to the private houses through Revenue field staff and staff deputed from other offices. After assessment of damages they will conduct at least 10% test check to ensure correctness of the enumeration. Addl. Tahasildars and other officers deputed from different offices may also be engaged for checking. After final assessment, proposal is to be sanctioned by Tahasildars concerned and submitted to Sub-Collector/ District Office for approval of House Building Grant u/r 81(1) and 82(3) of Orissa Relief Code (the revised norms) and simultaneously requirement of funds should be indicated. All such assessment works should be completed within 7 days from the date of occurrence.
- In case of human casualty, the Tahasildars concerned will bring proforma report from Revenue Inspectors within 24 hours and submit report to District Collector at once for consideration and sanction of ex-gratia u/s 254 of Orissa Relief Code.
- All the Officers will immediately be called up and they should remain in headquarters until the situation becomes normal.
- A logbook may be maintained for recording chronological sequence of events time to time.
- They personally should check up availability of food (Rice, Chuda and Jaggery) and kerosene at block headquarters, with storage agents and other inaccessible pockets, BDOs shall contact all Storage Agents. The Agents shall remain present at the store round the clock. BDOs shall immediately depute one officer to the place where the storage godowns are located.
- They will direct the Stockiest /wholesaler and FCI to remain open on all days, including Sundays and holidays till situation gets back to normal.
- Movement of food stock and Kerosene Oil will be started from Block headquarters to areas that are likely to be cut-off.

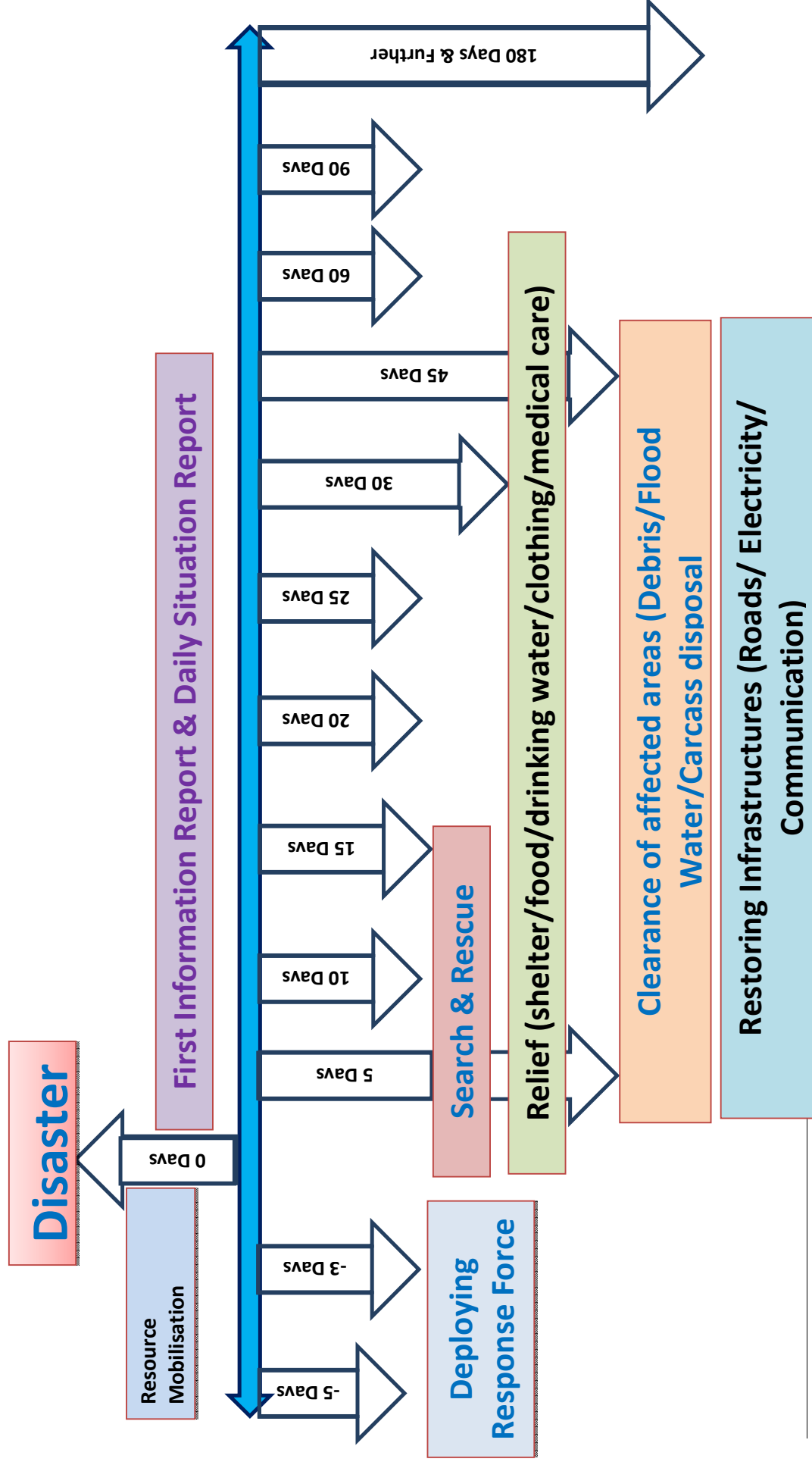
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### 8.3 Phases of Response: Timeline (Indicative)



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### 8.4 Relief Management: Timeline



## ***District Disaster Management Plan - 2019***

### **8.5 Response: District Administration**

<b>Task</b>	<b>Activity</b>
Warning Communication	<ul style="list-style-type: none"> <li>• Warning dissemination to the concerned BDOs / Tahasildars / Police stations / PRIs</li> <li>• Warning dissemination at the last mile by Public address system for necessary evacuation from the low lying areas</li> <li>• Recording the receipt of information &amp; regular Status update</li> <li>• Transmitting updates to SEOC &amp; DEOC in regular interval as instructed</li> <li>• Reporting frequently to DEOC</li> </ul>
Meeting of DDMA (Heads of the department & stakeholder)	<ul style="list-style-type: none"> <li>• Collector to take up a department coordination meeting &amp; distribute works among all the Departments</li> <li>• Assignment of officers to coordinate with other line departments such as                             <ul style="list-style-type: none"> <li>○ Revenue officer to coordinate and call for report from CSO, RTO</li> <li>○ Establishment officer to coordinate and call for report from CDMO, CDVO</li> <li>○ Sports officer to coordinate with the NSS &amp; NCC</li> <li>○ Emergency officer to coordinate with the coordinating officers for smooth reporting and monitoring</li> <li>○ DIPRO to conduct the media management in coordination with Dist. Emergency Officer</li> </ul> </li> <li>• Collector issues circular to keep Govt. offices open cancelling all holidays and not allowing the field and HQ staff to leave their duty station</li> <li>• A fixed time to be finalized every day for reporting at all level.</li> <li>• Circulate the minutes of the meeting with clear-cut role &amp; responsibility</li> </ul>
Pre-positioning of staff, resources & Evacuation	<ul style="list-style-type: none"> <li>• Identifying &amp; designating Nodal Officer for different disaster affected areas.</li> <li>• Positioning of ODRAF / NDRF / Fire services / Police / Home Guard in the strategic places</li> <li>• Pooling Volunteer services (Civil Defense / Task Force / NCC / NSS / Scout &amp; Guide)</li> <li>• Take stake of required materials for search &amp; rescue, first aid, casualty management, evacuation, relief etc.</li> <li>• Make necessary arrangements of shelters for evacuation</li> <li>• Keeping track of the persons evacuated and the places where they have taken the shelter</li> <li>• Time to time reporting the nos of evacuees at different shelter places to the DEOC for onward transmission</li> <li>• Constitute a special team for special care to vulnerable section like specially abled, Sr. Citizen, Pregnant &amp; lactating women, Infants &amp; children etc.</li> <li>• CSO should have the plan for procuring the relief materials from the neighboring districts if required.</li> </ul>
Response	<ul style="list-style-type: none"> <li>• EOCs to Ensure back up (Power/Fuel/internet) Communication at Dist. / Dept. &amp; Block levels</li> <li>• Response force under guidance of Nodal officers ensure complete Evacuation (Human/ Animal), carry out Search &amp; Rescue, clear relief lines,</li> <li>• Collector to submit requisition of vehicle/boat/ helicopters &amp; list of support from state &amp; Centre to all concerned authorities</li> <li>• CSO to store required relief materials (Chhuda. Gur, Dry Foods) in the nearby storage points and identify the procurement point if required</li> <li>• CDVO to store, transport &amp; distribute required foddors for animals to the affected areas</li> </ul>

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	<ul style="list-style-type: none"> <li>• Cyclone shelter committee &amp; Village Disaster management committee to organize free kitchen in the shelters with help of revenue dept.</li> <li>• EE- RWSS &amp; CDMO to ensure supply of drinking water, disinfection of water &amp; maintain Health &amp; hygiene in the shelters</li> <li>• CDMO to carry out First aid &amp; casualty management</li> <li>• Collector to collect &amp; transmit First Information Report (FIR) &amp; Daily Situation Report as per requirement</li> </ul>
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### **8.6 Response : Community Level**

	<b>Activity</b>
	<ul style="list-style-type: none"> <li>• DEOC to disseminate warning communication to BEOC, PRIs, Community through Email, Cell Phones, VHF Message (if required)</li> <li>• Print and Electronic Media needs to be used depending upon the severity of the situation</li> <li>• Response force to ensure Power/Fuel/internet/ Communication at Shelters back up</li> <li>• Supply Inspectors &amp; Marketing Inspectors to distribute relief materials with response force, Task force &amp; volunteers</li> <li>• Response force to carry out Search &amp; Rescue measures, Emergent relief operation, Relief line clearance, distribution of relief</li> <li>• Doctors to carry out First aid &amp; casualty management, Carcass disposal &amp; sufficient mortuary facility in the affected areas</li> <li>• House hold members needs to protect their valuables such as property documents, medical prescriptions for critical illness (if any), jewelry etc. after getting the information so that it will be protected from damage</li> <li>• Every house hold needs to keep stock of dry foods at least three days so that if evacuated to the nearest shelter they can take care of their families and belongings.</li> </ul>

### **8.7 Response: Family & Individual Level**

	<b>Activity</b>
Response	<ul style="list-style-type: none"> <li>• Listen to the instruction of the response force &amp; warnings</li> <li>• Validate the warning from the DEOC (1077) or other control rooms nearby</li> <li>• Economic use of “Ready to go Emergency Kit” Ready to go First Aid Kit</li> <li>• Cooperate the response force/officers &amp; Render volunteer service if asked for</li> <li>• Maintain cleanliness &amp; hygiene at home / shelter / community center</li> <li>• Every house hold needs to keep stock of dry foods at least three days so that if evacuated to the nearest shelter they can take care of their families and belongings.</li> <li>• Follow the do and don’t properly</li> </ul>



## *District Disaster Management Plan - 2019*

### 8.8 Response: Standard Operating Procedures for Departments

Name of the Department	On Receiving Warning	Response time	Post Disaster
Collector/ADM / Emergency Officer	<ul style="list-style-type: none"> <li>● Review the situation in DDMC meeting and identification of gaps and arrangement to be done accordingly</li> <li>● Activate DEOC &amp; Early Warning</li> <li>● Appoint / Deploy Officers In-charge of Response Base. i.e. DEOC..</li> <li>● Work distribution among the officials for smooth operation</li> <li>● Circular to keep offices open and staffs to be in alertness</li> <li>● Arrange vehicle &amp; activate Evacuation (Normal/Forceful)</li> <li>● Deployment of ODRAF / NDRF units in the affected areas.</li> <li>● Ensure formalizing supply contracts for all departments that require additional manpower during emergencies.</li> <li>● Create teams including transport, relief material and equipment for responding to the disaster incident headed by one of the Higher officer of the district.</li> </ul>	<ul style="list-style-type: none"> <li>● Convene an emergency meeting and take stock of the situation.</li> <li>● After receipt of the information within 30 minutes the system needs to be activated and the warning disseminated to the concerned.</li> <li>● Frequent check up off updates and warning dissemination needs to be done accordingly.</li> <li>● Activate Search &amp; Rescue</li> <li>● Arrange temporary shelters</li> <li>● Arrange logistics in shelters</li> <li>● Workout financial estimates (evacuation / relief /recovery)</li> <li>● Coordinate with Army, Air Force, Navy, NDRF &amp; ODRAF for support towards evacuation, rescue and relief.</li> <li>● Facilitate preparation of a transportation plan for supply of relief items.</li> </ul>	<ul style="list-style-type: none"> <li>● Convene an emergency meeting and take stock of the situation</li> <li>● Prepare an evacuation plan for the marooned / devastated areas.</li> <li>● Prepare a list of transit/temporary shelters, and check their suitability for accommodating people.</li> <li>● Activate relief line clearance</li> <li>● Proper relief Distribution</li> <li>● Start damage assessment</li> <li>● Facilitate Ex-gratia &amp; Compensation</li> <li>● Start primary damage estimate</li> <li>● Pool resources for SAR/shifting of critical patients</li> <li>● Convene meetings of NGOs, Youth Clubs, Self-Help Groups, etc., in the district, and assign them specific responsibilities for relief, recovery and rehabilitation.</li> <li>● Have a back-up communication system.</li> </ul>

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Name of the Department	On Receiving Warning	Response time	Post Disaster
<p>Chief District Medical Officer (CDMO)</p> <ul style="list-style-type: none"> <li>• Disseminate the alert to all concerned (Staff list)</li> <li>• Arrangement of medicine, First aid kits &amp; teams</li> <li>• Assignment of Mobile Health units for inaccessible pockets</li> <li>• Provision of medicines to the Medical Relief Centers</li> <li>• Identifying &amp; shifting patients requiring intensive care to safer places</li> <li>• Supply of medicines &amp; pre-positioning of medical teams to vulnerable areas</li> <li>• Vaccination for prevention of communicable diseases</li> <li>• Measures to disinfect drinking water</li> <li>• Availability of Blood Banks/Ambulance</li> <li>• 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.</li> <li>• 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.</li> <li>• 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 hepatitis; 3. Drugs required for treating snake bite and infection; 4. Drugs needed for detoxification including breathing equipment; and 5. Intravenous fluids.</li> </ul>	<ul style="list-style-type: none"> <li>• Mass Casualty Management units &amp; Triage</li> <li>• First Aid Centers</li> <li>• Medical surgical teams</li> <li>• Adequate mortuary facility</li> <li>• Measures to shift patients requiring intensive care</li> <li>• Pool of Blood donors (Preferably each group)</li> <li>• Additional laboratories</li> <li>• Carcass disposal team &amp; units</li> <li>• Hospital administration should: 1. Establish work schedules to ensure that adequate staff is available for patients' needs; 2. Organize in-house emergency medical teams to ensure that adequate staff is available at all times to handle emergency casualties; and 3. Set up teams of doctors, nurses and paramedical staff as per IRS</li> <li>• 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-diarrhoeal and Antiemetic (Used for controlling vomiting and nausea) medicines; 5. Intravenous fluids; 6. Suture material (A 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Psycho-Social Counseling</li> <li>• Post Disaster Disease surveillance system</li> <li>• Special attention to vulnerable section</li> <li>• Move medical personnel both for each Response Base and mobile unit as soon as possible.</li> <li>• 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.</li> <li>• Networking with &amp; promote treatment in Private Hospitals</li> <li>• Carcass Management &amp; Issuance of Death Certificate</li> <li>• Relocate non-ambulatory patients to the safest areas within the hospital. The safest rooms are likely to be: 1. On ground floor; 2. Rooms in the Centre of the building away from windows; and 3. Rooms with concrete ceilings.</li> <li>• Proper documentation of the patients coming to the hospital and keeping their records.</li> <li>• Develop a system of monitoring the outbreak of disease to ensure that timely measures can be initiated to 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</li> </ul>	

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<b>Name of the Department</b>	<b>On Receiving Warning</b>	<b>Response time</b>	<b>Post Disaster</b>
	<ul style="list-style-type: none"> <li>• Check the emergency electrical generator to ensure that it is operational and that buffer stock of fuel exists. If an emergency generator is not available at the hospital, arrange for one.</li> <li>• Fill hospital water storage tanks, and arrange water storage tanks, if not in existence; and also keep drinking water in clean and protected containers.</li> <li>• Prepare an area of the hospital for receiving casualties.</li> </ul>	<ul style="list-style-type: none"> <li>• Pack all valuable instruments such as surgical tools, ophthalmoscopes, portable sterilizers, ECG machine, dental equipments, ultrasound machine, analyzer, invertors, and computer hardware, etc., in protective coverings and store in rooms considered to be the most damage proof.</li> <li>• Protect all immovable equipment such as X-ray machines, Sterilizer, Dental Chair by covering them with tarpaulins or polythene.</li> <li>• All electrical equipments likely to be affected should be marked &amp; unplugged when disaster warning is received.</li> <li>• Prepare a maternity facility for pregnant women in every Response Base/ Advance Medical Post.</li> </ul>	<ul style="list-style-type: none"> <li>• Arrange transport for transfer of seriously injured/sick patients from villages and peripheral hospitals to general hospitals. If roads are blocked, ensure arrangement of alternate mechanism by Nodal Officer/ Deputy Commissioner/ District Collector/ District Magistrate.</li> <li>• Use information formats and monitoring checklist for programme monitoring and development and report to emergency operation centre at state level. This is in addition to existing reporting system in the department.</li> <li>• Seek security arrangements from Senior Superintendent of Police to keep curious persons from entering hospital areas and to protect staff from hostile actions.</li> <li>• Establish “Health Helpline” with means of communication to assist in providing an organized source of information. The hospital is responsible for keeping the community informed of its potential and limitations in disaster situations, and providing the list of admitted patients and dead persons, etc.</li> </ul>

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<p>Superintendent of Police (SP)</p>	<ul style="list-style-type: none"> <li>• Ensure functioning of the warning system.</li> <li>• Formation of team</li> <li>• Delegation of areas</li> <li>• Formation of zones/Sub-Zones</li> <li>• Prepare a Deployment Plan for the Police Force, based on the needs of the most vulnerable and sensitive areas.</li> <li>• Ensure that a sufficient number of Police Force is available for responding to the disaster situation.</li> <li>• Constitute 'Search &amp; 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.</li> <li>• Support Block staff and volunteers during evacuation operation</li> <li>• Check the wireless communication network, and secure additional wireless sets for deployment during a disaster.</li> <li>• Assist fire brigade personnel in their efforts</li> <li>• Maintain law and order situation</li> <li>• 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</li> <li>• 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.</li> <li>• Review and update emergency measures and procedures, and ascertain with staff the precautions that have been taken to protect equipment.</li> </ul>	<ul style="list-style-type: none"> <li>• Remain in close contact with the district administration</li> <li>• Keep close watch on the situation</li> <li>• Call for emergency meeting to take stock of the situation. Develop a strategy and a mission underlining objectives.</li> <li>• Ensure that all field staff and stationed officers submit the necessary action reports to the Control Room.</li> <li>• Provide convoys for relief materials.</li> <li>• Arrange rescue kits.</li> <li>• Support Block staff and volunteers during evacuation operation</li> <li>• Assist fire brigade personnel in their efforts</li> <li>• Maintain law and order situation</li> <li>• Ensure security of key installations like power, water and supply, telecommunication, etc.</li> <li>• Provide the VHF at most vulnerable points</li> </ul>	<ul style="list-style-type: none"> <li>• Support District/Block officials and volunteers during search and rescue operation</li> <li>• Provide guards wherever needed, particularly at stores and distribution centres.</li> <li>• Help injured people, and assist the community in organizing emergency transport of seriously injured to medical treatment centres, with the assistance of health professionals.</li> <li>• Assist fire brigade personnel in their efforts</li> <li>• Make available officers to 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.</li> <li>• Monitor the medical needs and welfare of people sheltered in relief camps.</li> <li>• 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.</li> <li>• Provide adequate security to personnel of International Agencies for Search and Rescue, Medical Assistance and Security for their relief material and equipments, etc.</li> </ul>
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<p>DRDA wing in-charge of Water Supply &amp; RWSS / PHED</p>	<ul style="list-style-type: none"> <li>• 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</li> <li>• Installation and repairing of tube-wells</li> <li>• Site visit and report</li> <li>• Awareness generation for using bleaching</li> <li>• Helping BDO during emergency</li> <li>• Review and update precautionary measures and procedures and ascertain with staff the precautions that have been taken to protect equipment.</li> <li>• Supply of drinking water during emergency</li> <li>• Site selection and water test in</li> <li>• Collection and storing of K-018H2s test stripe, bottle, bleaching, halogen tablets, tube well accessories</li> <li>• Area wise deployment of staff, fitter, Mason etc.</li> <li>• To inform all its staff members to report their respective headquarters</li> <li>• Close contact with DEO</li> <li>• Arrangement of water tankers</li> <li>• Procurement collection of water purifiers</li> <li>• Stockpiling of accessories</li> <li>• Repairing the defunct tube-wells</li> <li>• Raising platforms/height of the tube wells in low lying areas.</li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Call for emergency meeting to take stock of the situation</li> <li>• Coordination with the DEOC for the information and keeping a strict vigil over the situation and act accordingly.</li> <li>• Maintenance of record for information generation and dissemination.</li> <li>• Co-ordinate with District Administration</li> <li>• Immediate address the issues related to water scarcity during summer</li> <li>• Make provisions to acquire tankers and establish other temporary means of distributing water on an emergency basis.</li> <li>• Make available standby water supply in the event of damage, saline intrusion or other pollution of the regular supply.</li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Damage assessment</li> <li>• Identification of areas for clearance</li> <li>• Delegation of team</li> <li>• Monitoring the work</li> <li>• Proposal to the government for repair and restoration</li> <li>• 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;</li> <li>• Ensure that potable water supply is restored, as per the standards and procedures laid down in “Standards for Potable Water”;</li> </ul>
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<p>EE- Irrigation</p>	<ul style="list-style-type: none"> <li>● Suspension or cancellation of all leaves of instruction to the concerned person to join head quarter immediately.</li> <li>● Arrangement of all-important telephone line and number in order</li> <li>● Arrangement or requisition of Jeeps/ Trekkers/ Auto Rickshaw to disseminate received warning information to the population of vulnerable/ weak places.</li> <li>● Maintenance of record for information generation and dissemination.</li> <li>● Co-ordinate with District Administration</li> <li>● 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.</li> <li>● Prescribe a register for recording of rainfall</li> <li>● Keep in readiness essential tool kits and protection material at critical places for emergency deployment. These may include:             <ol style="list-style-type: none"> <li>1. Empty Cement Bags</li> <li>2. Boulders</li> <li>3. Ropes</li> <li>4. Sand bags</li> <li>5. Wire mesh</li> <li>6. Shovels</li> <li>7. Baskets</li> <li>8. Lights, and</li> <li>9. First Aid Kit</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>● Coordination of the information and keeping a strict vigil over the situation and act accordingly.</li> <li>● Maintenance of record for information generation and dissemination.</li> <li>● Co-ordinate with District Administration</li> <li>● . Organize round the clock inspection and repair of :             <ol style="list-style-type: none"> <li>1. Bundhs</li> <li>2. Dams</li> <li>3. Irrigation channels</li> <li>4. Bridges</li> <li>5. Culverts</li> <li>6. Control/sluice gates</li> <li>7. Overflow channels</li> <li>8. Pumps</li> <li>9. Generators</li> <li>10. Motor equipment, and</li> <li>11. Station building</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>● Damage assessment</li> <li>● Identification of areas for clearance</li> <li>● Delegation of team</li> <li>● Monitoring of work</li> <li>● Proposal to the government for repair and restoration</li> <li>● Field Office Priorities:             <ol style="list-style-type: none"> <li>1. Continue round the clock inspection and repair of bunds, dams, irrigation channels, bridges, culverts, control gates and overflow channels, etc.;</li> <li>2. Make round the clock inspection and repair of pumps, generators, motor equipment and station buildings;</li> <li>3. Clear the inlet and outlet to lake or reservoirs, on an on-going basis, in order to ensure that waterways are unobstructed by trees or vegetation; and</li> <li>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.</li> </ol> </li> </ul>
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<p>DAO- Agriculture</p>	<ul style="list-style-type: none"> <li>● Activate the field functionaries</li> <li>● 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)</li> <li>● Close watch on the flood situation</li> <li>● Review and update precautionary measures and procedures.</li> <li>● Check and stock equipment, if possible agricultural materials, which are likely to be needed most, during and after a disaster.</li> </ul>	<ul style="list-style-type: none"> <li>● Close watch on the flood situation</li> <li>● Develop a pest and disease monitoring system so that timely steps can be taken to reduce damage to crops.</li> <li>● Suggest variety of seeds and cropping pattern, which can reduce losses and reduce the risks to farmers.</li> <li>● Review of stock of seeds available with the department.</li> <li>● Identification of vehicles for necessary transportation of the seeds to the affected.</li> <li>● Farmers' awareness plan needs to be chalked out depending upon the severity of the situation.</li> <li>●</li> </ul>	<ul style="list-style-type: none"> <li>● Call for emergency meeting to take stock of the situation. Develop strategy and objectives for early recovery.</li> <li>● Assess the extent of damage to soil, crop, plantation, micro-irrigation systems and storage facilities and ascertain the requirements of seeds, pesticides, equipments, etc., to salvage the situation or go for re-plantation.</li> <li>● Pack all valuable equipments and instruments in protective coverings and store in room that is most damage-resistant.</li> <li>● Assist Extension Officers to:             <ol style="list-style-type: none"> <li>a. Establish work schedules to ensure that adequate work force is available; and</li> <li>b. Set up teams of extension personnel and assistants for visiting disaster/disaster affected sites.</li> </ol> </li> <li>● Coordinate the provision of agricultural services with irrigation department, DRDA, District EOC, Site Operations Centres.</li> <li>● Ensure that certified seeds of required varieties are available in adequate quantities. The Agriculture Department should work with National Seeds Corporation and other suppliers and ensure availability at their depots or have agents appointed for the same.</li> <li>● Print and widely distribute the list of points where certified seeds are available along with names of varieties and rates.</li> </ul>
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<p>EE- Rural Works</p>	<ul style="list-style-type: none"> <li>• Suspension or cancellation of all leaves of instruction to the concerned persons to join head quarter immediately.</li> <li>• Arrangement of all- important telephone line and number in order.</li> <li>• Maintenance of record for information generation and dissemination</li> <li>• Co-ordinate with District Administration</li> </ul> <p>Clearance of Roadside dead trees posing threat to communication, life and electricity.</p>	<ul style="list-style-type: none"> <li>• Remain in alertness and close watch on the situation</li> </ul>	<ul style="list-style-type: none"> <li>• Establish a public information centre with means of communication, to assist in providing updated information to people. Ensure that the department is responsible for keeping the community informed of its potential and limitations in disaster situation</li> <li>• Assist farmers to re-establish their contacts with agriculture produce market and ensure that produce gets proper support price.</li> </ul>
		<ul style="list-style-type: none"> <li>• Immediate restoration of the relief lines</li> <li>• If there is a cut off in communication then provision of alternative communication roads for relief operation.</li> </ul>	



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<p>EE- Public Works (Buildings &amp; Roads)</p>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Ensure personnel are aware and nominated to be available for emergency duties within the affected district and sub-division.</li> <li>• Appoint Nodal officers (technical officers) and ensure they meet the staff to review emergency procedures in their jurisdiction.</li> <li>• Move heavy equipments, such as front-end loaders to areas likely to be damaged and put them in a safe place.</li> <li>• Ensure emergency inspection by mechanical engineer of all plants and equipment at the district workshops.</li> <li>• Inspect old buildings and suggest retrofitting of weak buildings/ demolition of dangerous structures and evacuation of population.</li> <li>• Declaration of the unsafe buildings for not safe for shelter.</li> </ul>	<ul style="list-style-type: none"> <li>• Close watch on the situation</li> <li>• Ensure the Officer-in-Charge-PWD (B&amp;R) is responsible for mobilizing staff and volunteers to clear the roads in his section.</li> <li>• Dispatch extra transport vehicles from headquarters and ensure these are stationed at safe strategic spots along routes likely to be affected.</li> <li>• Give priority attention to urgent repair works that need to be undertaken in disaster affected areas.</li> <li>• Check the evacuation routes and assist people, if they have to evacuate an area.</li> <li>• Construct/ reinforce the connecting roads from villages to roads, canals and bunds and raise their level so that people can access the high ground.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide a work team carrying emergency tool kits, depending on the nature and extent of the disaster, essential equipments such as: 1. Towing vehicles 2. Earth moving equipments and 3. Cranes, etc.</li> <li>• Coordinate with Public Works Department and Zila Parishad.</li> <li>• Mobilize community assistance for road clearing by contacting community based organizations.</li> <li>• 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.</li> <li>• 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 Centres.</li> <li>• 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.</li> </ul>
<p>DTO-Telecom</p>	<ul style="list-style-type: none"> <li>• Remain in close contact with the district administration</li> <li>• Regular inspection of towers, repair if required</li> </ul>	<ul style="list-style-type: none"> <li>• Take steps as per the demand of the situation</li> <li>• All the staff needs to remain alert</li> </ul>	<ul style="list-style-type: none"> <li>• Restore the telephone lines as per the priority basis such as Dist. Administration, Block Administrations, Govt. Offices,</li> </ul>

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<p>CDVO</p>	<ul style="list-style-type: none"> <li>• List out staff members with contact address</li> <li>• Vaccination of cattle population</li> <li>• Provision of supply of yearly medicines</li> <li>• Arrangement of mobile health units in inaccessible areas</li> <li>• Health awareness campaign</li> <li>• Arrangement of vehicle for uninterrupted mobility</li> <li>• Repair of LI Centers and other necessary equipments</li> <li>• On receipt of warning ask all the staff to join duty immediately</li> <li>• Deployment of staff to the inaccessible areas</li> <li>• Regular maintenance of records</li> <li>• Co ordination with higher authorities</li> <li>• Fix the price of fodder so that it is affordable to the farmers.</li> <li>• Estimate the requirement of water, fodder and animal feed, for cattle camps and organize the same.</li> <li>• Procure fodder through Forest Department, traders, private cultivators, and neighbouring states, if required.</li> </ul>	<ul style="list-style-type: none"> <li>• Record keeping</li> <li>• Information dissemination to concerned quarters (Sub-Divisional Vet. Officer)</li> <li>• Maintenance of regular flow of information</li> <li>• Develop a system of monitoring outbreak of diseases to ensure that timely measures can be initiated to contain them.</li> </ul>	<ul style="list-style-type: none"> <li>• Damage assessment</li> <li>• Identification of areas for clearance</li> <li>• Delegation of team</li> <li>• Monitoring of work</li> <li>• Proposal to the government for repair and restoration</li> <li>• 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 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;</li> <li>• Ensure that adequate sanitary conditions through cleaning operations are maintained in order to avoid outbreak of any epidemic.</li> </ul>
<p>RTO/MVI</p>	<ul style="list-style-type: none"> <li>• Remain in close contact with the Dist. Emergency Officer</li> <li>• A nodal officer to be nominated to make necessary coordination between RTO and Administration</li> <li>• Provide necessary vehicles for relief distribution</li> <li>• Provide vehicle for team movement if required</li> </ul>	<ul style="list-style-type: none"> <li>• Remain in close coordination with the administration</li> <li>• Issue standing instructions to the state transport department for providing buses for evacuation and relief.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide required vans and ambulances for mobile health and animal husbandry teams.</li> <li>• Make available trucks, buses, jeeps, tractors, etc., for evacuation and supply chain management.</li> </ul>

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<p>Fire Officer</p>	<ul style="list-style-type: none"> <li>● Remain alert with staff and equipments</li> <li>● If required test check the equipment available</li> <li>● In close contact with district administration</li> <li>● Mobilize volunteers trained earlier by the fire service</li> <li>● Make the volunteers always action mode</li> <li>● Ready for rescue operation</li> </ul>	<ul style="list-style-type: none"> <li>● Close watch to the situation around</li> <li>● Assist the administration in rescue operation if required</li> <li>● Always attend the control room phone of the station and any grave situation comes to notice, immediately inform the district administration to take prompt action</li> </ul>	<ul style="list-style-type: none"> <li>● Assist the administration in clearing the relief lines</li> <li>● Assist the administration as and when required</li> </ul>
<p>Railway</p>	<ul style="list-style-type: none"> <li>● Remain alert with staff and equipments</li> <li>● If required test check the equipment available</li> <li>● In close contact with district administration</li> <li>● Safety officer of the organization needs to be always in coordination with the administration</li> </ul>	<ul style="list-style-type: none"> <li>● Attend the calls comes to the control room</li> <li>● Any grave situation comes to the spot and immediately rush to the spot and inform the administration to take further steps.</li> </ul>	<ul style="list-style-type: none"> <li>● Damage Assessment</li> <li>● Immediate restore of essential services</li> <li>● Assist the administration in relief transportation</li> </ul>

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<p>EE- Electricity</p>	<ul style="list-style-type: none"> <li>● 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.</li> <li>● Regular identification of faults</li> <li>● Regular checking and repair of weak points / Transformers</li> <li>● Pre monsoon maintenance of the transformers and high tension lines</li> <li>● Pre monsoon cutting of the branches of the trees to safe guard the supply lines</li> <li>● Stockpiling of equipments/accessories</li> <li>● Skill development training/orientation</li> <li>● Precautions/protections near high voltage electric equipments installed</li> <li>● Stopping illegal consumption of electricity</li> <li>● Disconnection of electricity in the event of an emergency</li> <li>● Arrangement of alternative energy sources such as generators and fuel for generators</li> <li>● Identification of HR and allot them to different areas</li> <li>● 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.</li> <li>● Check emergency tool kits, and assemble any additional equipment needed.</li> <li>● 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.</li> </ul>	<ul style="list-style-type: none"> <li>● Disconnection of electricity to the affected areas to avoid any causality due to short circuit</li> <li>● Arrangement of uninterrupted power supply at the Hospitals (PHC, CHC, etc.) / temporary shelters</li> <li>● Dispatch emergency repair groups equipped with food, bedding, tents, and tools.</li> <li>● Provide information to the people about the state of power supply, as it is one of the most important sources of information.</li> <li>● Assist hospitals in establishing an emergency supply by assembling generators and other emergency equipments, if necessary.</li> </ul>	<ul style="list-style-type: none"> <li>● Restoration of electricity with additional HR</li> <li>● 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. Telecommunications buildings 7. Meteorological stations 8. Irrigation Office, and 9. Any other place, if required.</li> <li>● Compile an itemized assessment of damage, from reports made by various electrical receiving centres and sub-centres.</li> <li>● Report all activities to the head office and district EOC.</li> </ul>
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## *District Disaster Management Plan - 2019*

<p>EE - PHED</p>	<ul style="list-style-type: none"> <li>• Alerting the staff</li> <li>• Drinking water to be immediately filled in overhead tanks to provide safe drinking water</li> <li>• Arrangement of generator and fuel for emergency at the supply points</li> </ul>	<ul style="list-style-type: none"> <li>• Close watch on the situation</li> </ul>	<ul style="list-style-type: none"> <li>• Immediate restoration of water supply with additional human resources</li> </ul>
<p>DEO- School &amp; Mass Education</p>	<ul style="list-style-type: none"> <li>• Closely work with the block administration</li> <li>• HMs of the schools needs to be alerted and schools needs to be closed depending upon the severity of the situation.</li> <li>• School keys need to be placed with a teacher staying at the same village</li> <li>• Necessary arrangement for cooking materials i.e. utensils and gas</li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• If required the key needs to be handed over to the villagers to take shelter</li> <li>• The local teachers needs to be present at the school to look after the important documents i.e. Enrollment list, other related official document.</li> <li>• Further the available teacher also try to maintain the disciple among the evacuees taking shelter in the school</li> </ul>	<ul style="list-style-type: none"> <li>• Assist the villagers to go to their houses after de-warming or the situation comes to normalcy.</li> </ul>

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### **8.9 Departmental Standard Operating Procedure (SOP):**

#### **Public Health Engineering Department:**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>Early Warning &amp; Disaster Response</b>	
1. Activation of communication with the DEOC or the Deputy Collector, Emergency.	
2. To direct department staff at all levels across the district about the possible impending disaster and actions to be taken to prepare for response including arrangement of water supply tankers, as required.	
3. Construction of required number of toilets, bathrooms and implanting of hand pumps in shelter sites on the basis of demand received.	
4. Providing halogen tablets in areas facing water contamination, particularly during floods and bleaching of water sources such as Ring Wells or Hand Pumps in rural areas by leveraging field staff.	
5. Coordination with the health department especially to locate areas that report good number of cases of waterborne diseases so as to quality affected water sources, including surface water bodies such as Ponds for undertaking their disinfection.	
6. Coordination with the health department to provide safe drinking water sources in affected health centers.	
7. Arrangement of water tankers and other temporary means of distribution and storage water.	
8. Water quality testing of habitations that get affected by floods and addition of these habitations among the priority beneficiaries of projects like Rain Water Harvesting, Raised Hand Pumps and Raised Toilets, thereby creating a database.	
9. To deactivate the emergency response actions in consultation with DEOC and agencies.	
10. Reporting to DEOC.	

#### **Water Resources Department**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>Early Warning &amp; Disaster Response</b>	
1. Activation of communication with the DEOC or the Deputy Collector, Emergency as with the responsibility of the appointed Nodal Officer and the accountability of the Executive Engineer, WRD or the Assistant Exec Engineer, if former is not placed in the district.	
2. All personnel required for disaster management, shall work under the overall supervision and guidance of the Responsible Officer (RO), i.e., Deputy Commissioner & the Incident Commander.	
3. To direct department staff at all levels across the district about the possible impending disaster, cancel leaves of all staff and prepare actions to be taken to prepare for response. In case of a declared emergency by the DEOC, communicate to staff at all levels.	
4. To prepare situation reports of river water levels periodically and share those with the DEOC and DDMA.	
5. In locations where Sluice Gates have been installed, undertake opening of gates to allow water to move across the side of embankments that shall help reduce pressure on embankments and improve irrigation for fields on the other side.	

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6. In a post-earthquake scenario, undertake embankment audit and activate village embankment status checking teams to ensure any vulnerable points can be identified by the department.	
7. To deactivate the emergency response actions in consultation with DEOC and agencies.	

### **PUBLIC WORKS DEPARTMENT (BUILDING)**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>Early Warning &amp; Disaster Response</b>	
1. Activation of communication with the DEOC or the Deputy Collector, Emergency. The responsibility of the nominated Nodal Officer and the accountability of the Executive Engineer, PWD (Building) or Assistant Executive Engineer, if former is not placed in the district..	
2. To put all contractors and their equipments in ready to respond mode in case of an early warning.	
3. To push all contractors with their equipments into actions for emergency response and giving them the required directions.	
4. To undertake rapid visual screening and damage assessment to buildings.	
5. To direct department staff at all levels to take immediate retrofitting or seismic strengthening / repairing of buildings on high priority that are damaged by earthquake.	
6. Controlled demolition of buildings which are beyond repair and hazardous due to severe damage and dumping of debris in identified dumping sites.	
7. To undertake clearing of debris and trees from the roads that blocks the communication by using the equipments such as JCBs and sharp equipments such as Chain saw, cutter.	
8. To deactivate the emergency response actions in consultation with EOC and agencies.	

### **PUBLIC WORKS DEPARTMENT (BRIDGES & ROADS)**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>Early Warning &amp; Disaster Response</b>	
1. Activation of communication with the DEOC or the Deputy Collector, Emergency.	
2. To put all contractors and their equipments in ready to respond mode in case of an early warning.	
3. To push all contractors with their equipments into actions for emergency response and giving them the required directions.	
4. Temporary roads shall be constructed to access transit relief camps and medical facilities for disaster victims.	
5. To undertake rapid visual screening and damage assessment of bridges and roads.	
6. To direct department staff at all levels to take immediate seismic strengthening / repairing of bridges & roads on high priority that are damaged by earthquake or floods.	
7. Arrangement of extra vehicles/ heavy equipments, such as front-end loaders/towing vehicles/earth moving equipments /cranes etc.	
8. Controlled demolition of bridges which are beyond repair and hazardous due to severe damage and dumping of debris in identified dumping sites.	
9. A priority listing of roads to be opened first shall be established. The	

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most important roads are those leading to hospitals, main trunk routes and highways.	
10. To undertake clearing of debris and trees from the roads that blocks the communication by using the equipments such as JCBs and sharp equipments such as saw.	
11. Community organisations shall be contacted to mobilise community assistance for road clearing.	
12. To deactivate the emergency response actions in consultation with DEOC.	

### **FOREST DEPARTMENT**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>DISASTER RESPONSE</b>	
1. Activation of communication with the DEOC or the Deputy Collector, Emergency as with the responsibility of the nominated Nodal Officer and the accountability of the District Forest Officer for Search & Rescue and Damage Assessment.	
2. To undertake assessment of damage to plantation done due to floods, storms, hailstorms or animal depredation.	
3. Identification of forest areas affected by erosion from flooding and placing plans of flood bank protection initiatives on priority.	
4. To support district administration in Search & Rescue operations if required to be done in forest areas with the involvement of the Forest Protection Force.	
5. Providing compensation in case of damage to ready to harvest crops, injury or loss of lives of domestic animals or humans, or otherwise any other damage to property.	
6. To deactivate the emergency response actions in consultation with DEOC and agencies.	
7. Reporting to DEOC.	

### **SOCIAL WELFARE DEPARTMENT**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>Disaster Response</b>	
1. Activation of communication with the DEOC or the Deputy Collector, Emergency. The responsibility lies with the nominated Nodal Officer and the accountability of the District Social Welfare Officer.	
2. All personnel required for disaster management, shall work under the overall supervision and guidance of the Responsible Officer (RO), i.e., Deputy Commissioner & the Incident Commander.	
3. To direct department staff at all levels across the district about the possible impending disaster, cancel leaves of all staff and prepare actions to be taken to prepare for response. In case of a declared emergency by the DEOC, communicate to staff at all levels.	
4. To provide special care of children, women, old and disabled, especially those separated from families.	
5. To fetch records of households who lose life during disasters in coordination with the health department to provide these households life insurance support proactively.	
6. To ensure continued access to food supplies to AWCs.	
7. To deactivate the emergency response actions in consultation with EOC and agencies.	



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8. Reporting to DEOC.	
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### **HEALTH DEPARTMENT**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>Disaster Response</b>	
1. Activation of communication with the DEOC or the Deputy Collector, Emergency. The responsibility for the same lies with the appointed Nodal Officer and the accountability of the Joint Director of Health Services or the CMO.	
2. The Nodal Officer shall be responsible for coordination with DEOC and Support agencies	
3. All personnel required for disaster management, shall work under the overall supervision and guidance of the Responsible Officer (RO), i.e., Deputy Commissioner & the Incident Commander.	
4. To direct department personnel at all levels across the district about the possible impending disaster, cancel leaves of all staff and prepare actions to be taken to prepare for response. In case of a declared emergency by the DEOC, communicate to staff at all levels.	
5. To coordinate and transport necessary medical supplies to disaster affected areas.	
6. The following emergency drugs & medical equipments are stocked <ul style="list-style-type: none"> <li>• Drugs used in treatment of cuts and fractures, such as tetanus toxoid, analgesics and antibiotics</li> <li>• Drugs used for the treatment of diarrhoea, water-borne diseases and flu (including oral rehydrating supplies)</li> <li>• Drugs required to treat burns and fight infections</li> <li>• Drugs needed for detoxication including breathing equipments</li> </ul>	
7. To provide immediate first-aid and transport to the health centres for the treatment of the patients injured or rescued.	
8. To maintain records of the number of people injured and the number of lives lost during the disaster and share the information on the number of the dead with Social Welfare department so that they can provide the life insurance sum proactively.	
9. In-house emergency medical team to ensure that adequate staff available at all times to handle emergency 'casualties'	
10. Designating an area of the hospital for receiving large number of casualties. <ul style="list-style-type: none"> <li>• Emergency admissions</li> <li>• Procedures to be maintained</li> <li>• Records to be kept for future reference</li> <li>• Work schedules to ensure availability of adequate staff</li> </ul>	
11. Accommodation arrangement for medical personnel from outside the area.	
12. Continuing procedural management of all forms of waste from the health centres.	
13. Establishing of Public Information Center at the hospital	
14. To deactivate the emergency response actions in consultation with EOC and agencies.	

### **Home Department**

<b>Actions to be Taken</b>	<b>Action Taken: Yes</b>
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	/ No
<b>Disaster Response</b>	
1. Activation of communication with the DEOC or the Deputy Collector, Emergency. The responsibility for the same lies with the appointed Nodal Officer and the accountability of the Superintendent of Police.	
2. The Nodal Officer shall be responsible for coordination with DEOC	
3. Immediately after the disaster, it shall be ensured that all police stations are functional with all appointed force at all the required locations and law and order is maintained properly.	
4. All personnel required for disaster management, shall work under the overall supervision and guidance of the Responsible Officer (RO), i.e., Deputy Commissioner & the Incident Commander.	
5. To direct department personnel at all levels across the district about the possible impending disaster, cancel leaves of all staff and prepare actions to be taken to prepare for response. In case of a declared emergency by the DEOC, communicate to staff at all levels.	
6. Security shall be provided in transit and relief camps, affected villages, hospitals, medical centres, and the identified areas should be cordoned off.	
7. All department vehicles shall be refueled and parked unprotected /safe area.	
8. At the onset of the disaster, officers shall be dispatched to identify and assist people and communities in life-threatening situations.	
9. Seriously injured people shall be identified and the community assisted in organizing emergency transport to medical treatment centres.	
10. The community shall be assisted and encouraged in road-clearing operations.	
11. Transport carrying transit passengers (i.e. passengers travelling through trains, buses-passing through the district) shall be diverted away from the disaster areas.	
12. Public Information Centre shall be set-up to: <ul style="list-style-type: none"> <li>• Latest status of effect of disaster in the affected area.</li> <li>• Respond to personal inquiries about the safety of relatives in the affected areas</li> <li>• Compile statistics about affected communities, deaths, complaints and needs</li> <li>• Respond to the many specific needs that will be presented</li> </ul>	
13. Officers shall be available to inquire and record deaths normally there are neither time nor personnel available to carry out the standard post-mortem procedures.	
14. The police shall co-ordinate with the military service personnel in the area.	
15. District authorities shall be assisted in taking necessary action against hoarders, black marketer and that manipulating relief material in conjunction with other government offices.	
16. To deactivate the emergency response actions in consultation with EOC and agencies.	

### **ENERGY / ELECTRICITY DEPARTMENT**

<b>Actions to be Taken</b>	<b>Action Taken:</b>
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	<b>Yes / No</b>
<b>Disaster Response</b>	
1. Activate communication with the DEOC or Deputy Collector, Emergency. The responsibility for the same lies with the appointed Nodal Officer and the accountability of the Exec Engineer.	
2. The Nodal Officer shall be responsible for coordination with DEOC.	
3. To cutoff power supply during storms, hailstorms, floods and in inundated areas to prevent loss of lives to electrocution.	
4. Standby arrangements for temporary electric supply or generators.	
5. Procurement and storage of fuel for generator sets that may be required to be installed.	
6. Inspection and repair of high-tension lines / substations / transformers / poles.	
7. Clearing of damaged poles / salvaging of conductors and insulators	
8. To deactivate the emergency response actions in consultation with DEOC and agencies	
9. Reporting to the DEOC.	

### **AGRICULTURE DEPARTMENT:**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>Disaster Response</b>	
1. Activation of communication with the DEOC or Deputy Collector, Emergency. The responsibility for the same lies with the appointed Nodal Officer and the accountability of the District Agriculture Officer.	
2. The Nodal Officer shall be responsible for coordination with DEOC.	
3. To conduct damage assessments of the damage to agricultural output and submit report to the DEOC.	
4. To deactivate the emergency response actions in consultation with EOC.	

### **ANIMAL HUSBANDRY DEPARTMENT**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>
<b>Disaster Response</b>	
1. Activation of communication with the DEOC. The responsibility for the same lies with the appointed Nodal Officer and the accountability of the CDVO.	
2. The Nodal Officer shall be responsible for coordination with DEOC	
3. To conduct damage assessments of the injury or deaths of livestock in the district and submit the report to the DEOC.	
4. Arrangement of anesthetic drugs/vehicle for transport of injured animals.	
5. To start relief camps for livestock in higher places during floods and providing support with fodder supplies and drinking water.	
6. To facilitate mass casualty management by disposal of animal carcasses necessary to prevent spread of epidemics.	
7. To deactivate the emergency response actions in consultation with EOC and other agencies.	

### **DEOC, DDMA**

<b>Actions to be Taken</b>	<b>Action Taken: Yes / No</b>

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<b>Disaster Response</b>	
1. Activation of communication with Early Warning or Emergency Response.	
2. The Nodal Officer shall be responsible for sending communication and coordination with all agencies.	
3. Communities in disaster prone areas shall be made aware of the Early Warning System especially through field indications.	
4. All available Early Warning Systems shall be used & information so gathered to be disseminated as quickly as possible through laid down channels/methods.	
5. The early warnings shall to the extent possible, be clear about its spread with risk area, its severity, duration, and likely damages it may cause.	
6. Warning statements should be conveyed in simple, local language in order that it is understood. Along with today's messages, relevant continued background scenario along with likely development in few days ahead may also if possible to be incorporated. The warning statement should not evoke panic and prevent any spread of rumour.	
7. Wherever possible, assistance of community leaders and organized groups should be sought in managing the threat to the people.	
8. Once issue of early warning has been started, it shall be followed-up by subsequent warnings till it is over in order to keep people informed of the latest situation.	
9. In case of a disaster threat reduces, deactivation of warning or emergency response actions in consultation shall be sent to community.	

### **8.10 DISTRICT LEVEL RESPONSE PLAN BY DIFFERENT DEPARTMENTS:**

#### **District Administration for Flood Response:**

The District Administration instructed all the line departments and Block development officers to prepare their respective disaster management plans and make necessary arrangements for food stuffs at vulnerable pockets, flood fighting materials at weak embankments, close watch on flood and cyclone forecasting, remain alert always. Also all concerned officials instructed not to leave their respective HQs without prior permission. Apart from this the dist. administration identified the boats which can be utilized at the time for flood response. The details are given below:

At the time of emergency it was the practice of using hired country boats available in the areas of Mangalajodi under Tangi Block and Balugaon.

The following are the registered boats with the Ports and Inland Water Transport, Balugaon. If situation arises the same boats can be requisitioned through **Mr. Sanjay Kumar Ghadei, Junior Engineer (Mech), Ports & IWT, Balugaon, Cell no: 7978889610** and Sri Padma Lochan Roul, Executive Engineer, IWT, Cuttack, Cell no: 9437818418.

The nodal officers for boat liaison is **Sri Khetrabasi Behera, District Fisheries Officer, Balugaon, Cell no: 9937425481** can also be contacted for fishing Boats which can also be used for rescue operation.

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Besides this **Sri Akhaya Kumar Rout, BDO, Tangi** (Mobile No: **9777527007 / 8280405225**) can be contacted for boats from Magalajodi area under Tangi Block.

**Table – 8.10.1:**

*[Source: Ports & IWT Balugaon]*

<b>List of Boats Registered</b>					
<b>Sl No</b>	<b>Name of the Boat Owner</b>	<b>Location of Boat</b>	<b>Address</b>	<b>Contact No</b>	<b>Remarks</b>
<b>1</b>	Sri Anil Tarei S/O: Kalu Tarei	Balugaon	At: Gandhi Nagar, PO: Balugaon, Dist: Khordha		OML 23 - 428 Valid upto 6.1.2019
<b>2</b>	Sri Maheswar Behera S/O: Shankar Behera	Balugaon	At: Samatarapur PO: Balugaon, Dist: Khordha		OML 23 - 430 Valid upto 27.12.2018
<b>3</b>	Sri Baikunhta Tarai, S/O: Kanhu Tarai	Balugaon	At: Gandhi Nagar, PO: Balugaon, Dist: Khordha		OML 23 - 431 Valid upto 27.12.2018
<b>4</b>	Sri Sudam Charan Behera S/O: Jagannath Behera	Balugaon	At: Bidyadharpur, PO: Balugaon, Dist: Khordha		OML 23 - 432 Valid upto 27.12.18
<b>5</b>	Sri Dhoba Behera S/O: Khali Behera	Balugaon	At: Samatarapur PO: Balugaon, Dist: Khordha		OML 23 - 433 Valid upto 27.12.18
<b>6</b>	Sri Arjun Behera S/O: Late Gangadhar Behera	Balugaon	At: Samatarapur PO: Balugaon, Dist: Khordha		OML 23 - 434 Valid upto 27.12.18
<b>7</b>	Sri Kartika Behera S/O: Golekha Behera	Balugaon	At: Kodapur PO: Gheekhala, Via: Balugaon, Dist: Khordha		OML 23 - 436 Valid upto 27.12.18
<b>8</b>	Sri Tarani Balabantaray S/O: Bhimsen Balabantaray	Balugaon	At: Shikhar padar PO: Gheekhala, Via: Balugaon, Dist: Khordha		OML 23 - 439 Valid upto 27.12.18
<b>9</b>	Sri Jogendra Behera S/O: Late Bauribandhu Behera	Balugaon	At: Samatarapur PO: Balugaon, Dist: Khordha		OML 23 - 440 Valid upto 27.12.18
<b>10</b>	Sri Laxmidhar Tarai S/O: Kanhai Tarai	Balugaon	At: Gandhi Nagar, PO: Balugaon, Dist: Khordha		OML 23 - 441 Valid upto 27.12.18
<b>11</b>	Sri Narendra Behera S/O: Madan Behera	Balugaon	At: Kodapur PO: Gheekhala, Via: Balugaon, Dist: Khordha		OML 23 - 442 Valid upto 27.12.18

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12	Sri Hrudananda Behera S/O: Satya Behera	Balugaon	At: Biswal Sahi PO: Balugaon, Dist: Khordha		OML 23 - 445 Valid upto 6.1.2019
13	Sri Ramakanta Balabantaray S/O: Tarini Balabanta Ray	Balugaon	At: Shikhar pur PO: Gheekhala, Via: Balugaon, Dist: Khordha		OML 23 - 446 Valid upto 6.1.2019
14	Sri Rama Chandra Behera, S/O: Brundaban Behera	Balugaon	At: Bodangara Patana, PO: Nilagiri Patana, PS: Nirakarapur, Dist: Khordha		OML 23 - 447 Valid upto 6.1.2019
15	Sri Akshaya Behera S/O: Jogendra Behera	Balugaon	At: Samatarapur Behera Sahi PO: Balugaon, Dist: Khordha		OML 23 - 448 Valid upto 6.1.2019
16	Sri Shashikanta Balabanta Ray S/O: Sanatan Balabanta Ray	Balugaon	At: Sikhar Padar, PO: Gheekhala, Via: balugaon, Dist: Khordha		OML 23 - 449 Valid upto 6.1.2019
17	Sri Kailash Behera, S/O: Rankanath Behera	Balugaon	At: Samatarapur PO: Balugaon, Dist: Khordha		OML 23 - 450 Valid upto 6.1.2019
18	Sri Jagannath Nayak, S/O: Dasarathi Nayak	Balugaon	At: Samatarapur PO: Balugaon, Dist: Khordha		OML 23 - 451 Valid upto 6.1.2019
19	Sri Dasarathi Behera S/O: Hadu Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha	7437996049	OML 23 - 123 Valid upto 31.3.2019
20	Sri Ramesh Chandra Behera S/O: Arakhita Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha	8457974021	OML 23 - 130 Valid upto 4.5.2019
21	Sri Pintu Behera S/O: Subash Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha	9348993723	OML 23 - 131 Valid upto 4.5.2019
22	Smt. Sujata Behera W/O: Ram Chandra Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 176 Valid upto 31.8.2019
23	Smt. Puspallata Behera W/O: Kabiratna Behera	Barkul	At: Barkul, PO: Barkul, PS: Balugaon Dist: Khordha		OML 23 - 184 Valid upto 31.3.2019
24	Sri Hata Kei C/O: Halu Kei	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha	8763932470	OML 23 - 198 Valid upto 4.5.2019
25	Sri Dukhishyam Behera S/O:	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha	9078243563	OML 23 - 201 Valid

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	Udiaya Behera				upto 4.5.2019
26	Sri Pramod Das, S/O: Sambari Das	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 206 Valid upto 31.5.2020
27	Sri Dasarathi Behera S/O: Arjuna Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha	9938480678	OML 23 - 218 Valid upto 21.8.2018
28	Sri Braja Kishor Jaly s/O: Natabar Jally	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha	9937145229	OML 23 - 220 Valid upto 31.3.2019
29	Sri Bibhuti Jally, S/O: Mangu Jally	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 221 Valid upto 31.3.2019
30	Sri Subash Behera S/O: Arakhita Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 222 Valid upto 31.11.2019
31	Sri Dillip Kumar Behera S/O: Ghanashyam Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 226 Valid upto 31.3.2019
32	Sri Lingaraj Behera S/O: Bhagabat Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha	7789938479	OML 23 - 229 Valid upto 31.3.2019
33	Sri Bhagabat Jally, S/O: Bhonath Jally	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha	9938178797	OML 23 - 277 Valid upto 31.3.2019
34	Sri Brundaban Behera, S/O: Hari Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 278 Valid upto 18.3.2019
35	Sri Jadunath Behera S/O: Merua Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha	7790032693	OML 23 - 519 Valid upto 1.12.2019
36	Sri Santosh Kumar Behera, S/O: Brundaban Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha	8018872778	OML 23 - 520 Valid upto 1.12.2019
37	Sri Dayanidhi Behera, S/O: Baruribandhu Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 522 Valid upto 1.12.2018
38	Sri KArtika Behera S/O: Suresh Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha	6370067490	OML 23 - 523 Valid upto 1.12.2019

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39	Sri Dasarathi Behera, S/O: Banshidhar Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 527 Valid upto 31.3.2019
40	Sri Suresh Behera S/O: Arakhita Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 200 Valid upto 31.3.2019
41	Sri Keshab Jally, S/O: Hajari Jally	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 521 Valid upto 1.12.2019
42	Sri Lingaraj Jally S/O: Banchha Jally	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 512 Valid upto 7.11.2018
43	Sri Rajak Das S/O: Dushasan Das	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 514 Valid upto 7.11.2018
44	Sri Rajesh Das S/O: Sudam Das	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha	8637226845	OML 23 - 515 Valid upto 7.11.2018
45	Smt. Buli Das W/O: Dukhishyam Das	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 517 Valid upto 7.11.2018
46	Sri Dillip Kumar Jally, S/O: Dama Jally	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 518 Valid upto 7.11.2018
47	Sri Baikuntha Jally, S/O: Bula Jally	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 525 Valid upto 1.12.2018
48	Sri Brundaban Jally, S/O: Bheti Jally	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 526 Valid upto 1.12.2018
49	Sri Jalandhar Swain, S/O: Bachha Swain	Barkul	At: Pathara, PO: Barkul, PS: Balugaon, Dist: Khordha	7978333371	OML 23 - 529 Valid upto 10.12.2018
50	Sri Muralidhar swain S/O: Bahha Swain	Barkul	At: Pathara, PO: Barkul, PS: Balugaon, Dist: Khordha		OML 23 - 531 Valid upto 18.12.2018
51	Sri Mohan Behera S/O: Dinabandhu Behera	Barkul	At/PO: Barkul, Dist: Khordha		OML 23 - 535 Valid upto 18.12.2018



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52	Sri Sarat Ch. Nayak S/O: Bhati Nayak	Barkul	At: Chhada Padar, PO: Barkul, PS: Balugaon, Dist: Khordha		OML 23 - 538 Valid upto 25.12.2018
53	Sri Trinath Jally, S/O: Madhu Jally	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 545 Valid upto 1.12.2018
54	Sri Mohan Jally, S/O: Bholanath Jally	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 547 Valid upto 25.12.2018
55	Sri Pabitra Jena, S/O: Haribandhu Jena	Balipatapur Jetty	At: Jhati Nuagain, PO: Bhusandpur, PS: Tangi, Dist: Khordha	8658804553	OML 23 - 594 Valid upto 28.11.2018
56	Smt. Mamata Behera, W/O: Mahendra Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 595 Valid upto 26.12.2018
57	Sri Khandeswar Behera, S/O: Duryodhan Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 596 Valid upto 26.12.2018
58	Sri Laxman Jally, S/O: Gobinda Jally	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 597 Valid upto 26.12.2018
59	Sri Gobinda Das, S/O: Banambar das	Barkul	At/PO: Barkul, PS: Balugaon, Dist: Khordha		OML 23 - 598 Valid upto 26.12.2018
60	Sri Srinath Jally, S/O: Loknath Jally	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 599 Valid upto 26.12.2018
61	Sri Maina Behera, W/O: Rabindra Behera	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 600 Valid upto 26.12.2018
62	Sri Bhagirathi Jally, S/O: Lingaraj Jally	Barkul	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 601 Valid upto 26.12.2018
63	Sri Rankanath Behera S/O: Hari Behera	Balugaon	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 602 Valid upto 26.12.2018
64	Sri Satyananda Das, S/O: Pabana Das	Balugaon	At: Chandra put, PO: Barkul, Dist: Khordha		OML 23 - 603 Valid upto 26.12.2018

## ***District Disaster Management Plan - 2019***

The list of fishing boats available in the district are given below which can be requisitioned for rescue operation at the time of emergency. The same can be mobilised through the Dist. Fisheries officer, Balugaon, Mr. Khetrabasi Behera, 9937425481.

**Table -8.10.2:**

Sl No.	Name	Fatehr's Name	Village	G.P.	OLTK
1	Gurudeba Behera	Bhabagrahi	Jayanti	Hatabaradi	5409
2	Rasik Ranjan Behera	Rajkishore	Jayanti	Hatabaradi	5435
3	Bhagi Behera	Akrua	Jayanti	Hatabaradi	4791
4	Bijaya Behera	Nimai	Jayanti	Hatabaradi	4872
5	Gadadhar Behera	Jagia	Jayanti	Hatabaradi	4408
6	Dija Behera	Udaynath	Mansinghpur	Sorana	3617
7	Fakira Behera	Purastam	Mansinghpur	Sorana	3658
8	Ramesh Behera	Banchanidhi	Mansinghpur	Sorana	3661
9	Dusasan Behera	Dama	Mangalajodi	Mangalajodi	716
10	Bhagirathi Behera	Dama	Mangalajodi	Mangalajodi	717
11	Ajan Behera	Naran	Mangalajodi	Mangalajodi	718
12	Madhu Behera	Jugal	Mangalajodi	Mangalajodi	728
13	Bira Behera	Arjun	Mangalajodi	Mangalajodi	722
14	Judhistira Behera	Bhima	Mangalajodi	Mangalajodi	2128
15	Sarat Behera	Binod	Mangalajodi	Mangalajodi	2217

Similarly, for the Govt. Boats provided to different blocks by the administration, the services of temporary Drivers and Khalasi would be utilized.

### **Electrical Division:**

**Table – 8.10.3**

<b>Electrical Division:-Khordha Electrical Division, Khordha.</b>						
Sl No.	Name of the power station	Transmission tower (major)	Electrical Installation	Responsible officer for the station (Phone No.)		
				Section	Sub-Division	Division
1	10 pole structure Khordha	Over head lines are constructed with joist &PSC pole	2*8 MVA	Junior Manager (Elect) No-1., Khordha Ph-9437555902	SDO (Elect.) Khordha Phone No.- 9437555870	Khordha Electrical Division, Khordha Phone No. 06755-220530
2	Gurujanga	-do-	1*5 MVA	JM(Elect)No-II., Khordha Ph-9437555904		
3	Tirimal	-do-	2*5 MVA	JM(Elect) No-III., Khordha Ph-9437555913		

## District Disaster Management Plan - 2019

Electrical Division:-Khordha Electrical Division, Khordha.						
Sl No.	Name of the power station	Transmission tower (major)	Electrical Installation	Responsible officer for the station (Phone No.)		
				Section	Sub-Division	Division
4	Oil mill structure	-do-	2*12.5 MVA	JM(Elect) No-IV, Khordha Ph-9437555915		
5	Jatin	-do-	2*8 MVA + 1x5MVA	JM (Elect)No-3 1 , JatinPh-9437555916	SDO (Elect.) Jatni Phone No.-9437555873	
6	Janla	-do-	3*5MVA	JM(Elect), Janla, Ph -9437555934		
7	Harirajpur	-do-	1*3.15MVA+2*5MVA	JM(Elect) Harirajpur, Ph-9437555935		
8	Jankia	-do-	2*3.15MVA+1*5MVA	JM(Elect)1, Jankia, Ph-9437555936	SDO (Elect.) Jankia Phone No.-9437555892	
9	Malipada	-do-	2*5MVA	JM (Elect), Malipada,		
10	Naranagada	-do-	2*5MVA	Ph-94375559336		
11	Parichala	-do-	1*5 +1x3.15MVA	JM(Elect) Begunia, Ph-9437555947	SDO (Elect.) Begunia Phone No.-9437555895	
12	Begunia	-do-	1*3.15MVA			
13	Baghamari	-do-	2x3.15+1x5 MVA	JM(Elect) Baghamari, Ph-9437555949		
4	Binodpada	-do-	3*5.MVA	JM (Elect) Raj Sunakhala, Ph-9437555952		
15	Kalapathara	-do-	2*3.15MVA	JM(Elect) Kalapathara, Ph-9437555953		

### Executive Engineer, R&B, Bhubaneswar:

**Table – 8.10.4**

Machinery at R&B II, IV, Bhubaneswar				
Sl No.	Location	Details of Men/Machineries	Contact Person	Contact No.
1	(R&B) Section No. 28,BBSR (MLA Colony)	J.C.B- 1 1Nos Labourers (along with axes)- 5Nos Tipper/Tractor-1 No. Power Saw-1 No	Er. T.K. Panigrahi, A.E.E (R&B) Sub-Divn.-X/ Er. N.K Nayak, A.E. (R&B) Sec. No.30	9437033439(M) 9437300959(M)

## ***District Disaster Management Plan - 2019***

<b>Machinery at R&amp;B II , IV, Bhubaneswar</b>				
<b>Sl No.</b>	<b>Location</b>	<b>Details of Men/Machineries</b>	<b>Contact Person</b>	<b>Contact No.</b>
2	Raj Bhawan (R&B) Section Raj Bhawan	J.C.B- 1 1Nos Labourers (alongwith axes)- 5Nos Tipper/Tractor-1 No. Power Saw-1 No	Er. T.K. Panigrahi, A.E.E (R&B) Sub-Divn.-X/ Er. R.K. Padhy, A.E. (R&B) Sec.	9437033439(M) 9437335257(M)
3	(R&B) Section No. 33, BBSR Unit-IX (Flat)	J.C.B- 1 1Nos Labourers (alongwith axes)- 5Nos Tipper/Tractor-1 No. Power Saw-1 No	Er. B.D. Praharaj, A.E.E (R&B) Sub-Divn.-XI/ Er. N Patra, A.E. (R&B) Sec. No.33	9437316324(M) 9438803169(M)
4	RoB-Bomikhal Site,BBSR	J.C.B- 1 1Nos Labourers (along with axes)- 5Nos Tipper/Tractor-1 No. Power Saw-1 No	Er. B.D. Praharaj, A.E.E (R&B) Sub-Divn.-XI/ Er.K.C. Rout, A.E. (I/C Bomikhal ROV)	9437316324(M) 9437184646(M)
5	(R&B) Section No. 36 (Sainik School,BBSR)	J.C.B- 1 1Nos Labourers (along with axes)- 5Nos Tipper/Tractor-1 No. Power Saw-1 No	Er. T.K. Panigrahi, A.E.E (R&B) Sub-Divn.-XII/ Er. A.K Sahu, A.E. (R&B) Sec. No.36	9437301932(M) 9437190113(M)
6	R&B Division II	Earth Moving & Road Cleaning Equipment are not available with the division but available with the contractors and agencies which can be utilised as and when required.  Sand bags, bullahs and other required equipments are being kept at the O/O: AE, Pipili, IB at pipili, IB at Saradeipur.	Er. Prasanta Kumar PATro, EE, R&B Division II, Bhubaneswar	0674-2397694 9439925306
7	R&B Sub-Division IV	Do	Er. Pravat Kumar Mohapatra, AE, R&B Sub-Division IV, Bhubaneswar	9437011507
8	R&B Sub-Division V	Do	Er. Ramakanta Mishra, AE, R&B Sub-Division V, BBSR	9437036992
9	R&B Sub-Division VI	Do	Er. Sishir Kumar Mishra, AE, R&B Sub-Division VI, BBSR	9437054789

## ***District Disaster Management Plan - 2019***

<b>Machinery at R&amp;B II , IV, Bhubaneswar</b>				
<b>Sl No.</b>	<b>Location</b>	<b>Details of Men/Machineries</b>	<b>Contact Person</b>	<b>Contact No.</b>
10	R&B Sub-Division Pipili	Do	Er. Umesh Chandra Moharana, AE, R&B Sub-Division Pipili	9777073252
11	R&B Section Saradeipur	Do	Er. Uday Chandra Behera, AE, R&B Sub-Division Saradeipur	9437263133
12	R&B Section Jatni	Do	Er. Siba Narayan Pal, AE, R&B Section Jatni	9438373329
13	R&B Section Pipili	Do	Er. Dillip Kumar Pati, AE, R&B Section Pipili	9937234549

### **Deputy Director, Agriculture:**

#### **Contingent measures for Rainfed Agriculture in Khordha:**

The aberration in temporal and spatial distribution of rainfalls makes the crop vulnerable to drought. Among the different Kharif crops the upland rice is most affected by drought. Therefore diversified land use with low duty non paddy crops is the best option in these lands. So it is imperative to have a long term policy and planning at the beginning of the season for judicious use of water, and crops in a particular locality for the best results.

#### **Preventive measures for upland:**

- Select efficient crops and cropping system matching the length of growing season. Some of the promising crops for rain-fed uplands are maize, Arhar, Black gram, Ragi Groundnut, Sesame, Pumpkin and Sweet Potato.
- Choose short duration varieties which possess faster rate of growth, deep and penetrating root system and ability to escape drought.
- Store rain water to use as life saving irrigation.
- Plough and sow the crops across the slope to develop a mosaic of ridge and furrow type of land configuration for effective soil moisture conservation to overcome drought for longer period.
- Perform off season ploughing to conserve moisture, reduce pest and weed problem and to facilitate early sowing.
- Follow proper land levelling in the lean period.
- Follow partial mechanisation to ensure for timelines operation and quality of operation and quality of operation (Desired depth and tilt) totalise land, rainfall and other natural resource effectively.
- Use of soil amendments in acid soils. Acid soils promote more grassy weeds. Use of soil amendment like lime or paper mill sludge reduces 'grass population.
- Adopt intercropping / mixed cropping system in recurrent drought prone areas. The intercropping systems recommended for the state are as follows.
- Practise the best farming systems and grow different field crops in the alleys.
- Adopt integrated farming system.
- Follow principal of watershed management:

## ***District Disaster Management Plan - 2019***

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- In situ soil and water management measures line contour farming cover cropping bundling, trenching, terracing and ridge and furrow method of planting.
- Manage water ways through check dams, stone structures, and brush ward structures on natural streams / Nalahs to store water.
- Water harvesting (Digging ponds and lining) in 10-12 % area.
- Utilised harvested water through Micro-Irrigation methods

### **(Drip/ Sprinklers)**

- Moisture conservation through mulching.
- Gully plugging stacking of locally available pebbles, filled in empty cement bags across water ways. Growing of grasses in water ways is also helpful in reducing soil erosion.
- Construct several percolation tanks to recharge the profile.
- Strengthen village institutions to enable people's participation.

### **Drought ameliorative measures:**

It is difficult to define rigid contingent measures well in advance of the cropping season applicable to all situations. However, some general contingent measure have been suggested considering specifics aberrant situations.

### **Situation- I (Early onset and sudden stoppage of monsoon). (Upland)**

1. Under such a situation there is more livelihood of mortality of rice seedlings. When there is more than 50% Mortality, resow the crop in the month of July when sufficient rain have received. It is always wise to raise low water requiring non paddy crops like Green gram (K851, Sujata, PDM- 54), Black gram (T-9, Pant-U-19, Pant-U-30 and Sarala), Castor (Jyoti, Kranti). These crops may be gap filled and resown with subsequent rains rather than allowing sub-optimal poor plant stand.

2. Cultivate vegetables- Okra, Brinjal where ever possible. Besides. Other helpful measures as listed below may be followed.

- i. Apply portion of FYM in the seed furrows at the time of sowing to conserve moisture for sustaining the seedlings from early "drought.
- ii. Soak the paddy seed in sodium phosphate solution (358 Mg/ Ltr of water) for 6 Hours and dry seeds before sowing. It will help in better germination and growth of seedlings.
- iii. Spray the crop with Potassium silicate (10%) on IOPPM Cycocel to overcome the drought effect in rice.
- iv. Grow drought tolerant! escaping rice varieties such as Armada, Pathara, Khandagiri, Kalinga- III, Heera, Vandana (90 days), Sahabhagi Dhan (100 days), Mandakini (100 days), Jaldi Dhan-6 (80 days), Jyotirmayee (95 days), Sidhant Jogesh.

### **Medium and low land:**

- i. If rice population is less than 50% resow the crop. Select medium duration (125 days) varieties. Sprouted seeds may be direct seeded on fresh seedlings of early varieties may be raised for transplanting.

## ***District Disaster Management Plan - 2019***

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- ii. If the rice population is more than 50%, carry out weeding and adjust the plant population by Khelua (removing and redistributing the hills) and clonal propagation.
- iii. Raise community nursery of rice for transplanting at a reliable water source to save time for further delay.
- iv. Sow the seeds at 3-5 cm depth by Punji method (10-15) seeds at one points, cover it with a mixture of FYM:SSP (10:1) to avoid seeding mortality due to moisture stress in low land.
- v. Saline soil: Use *FYM/Green* leaf manure. So sprouted seeds, Gap filling the crop by transplanting.

### **Situation - 11(Late onset, upland areas are hot covered till mid-July:**

- i. Sow non paddy drought tolerant crops like Rabi, Green Gram, Black Gram, Cow pea, Guar, Castor etc. in place of upland rice.
- ii. Vegetables come up well in drought! low rainfall years. Utilise the ponds, reservoirs and water bodies for growing Brinjal, Okra, Chilly.
- iii. Apply full P,K and 20% N of the recommended dose as basal along with well decompose organic manure for early seedling vigor.
- iv. Seed treatment with (Carboxin+ Thiram) i.e. Vitavax power @ 1.5 Gram or (Carbendazim 1g+ Thiram 1.5g)1 Kg. of seed to avoid germination failure.
- v. Major emphasis should be given on in-situ rain water conservation, harvesting excess run of for its recycling to make provision for protected irrigation.
- vi. Take up weeding in the newly planted fruit orchards. Make rings around the plants and provide mulching to conserve moisture.

### **Situation- III (Mid season drought- Temporary wilting):**

- i. Spray 2% KCI+O.1 PPM boron to black gram to overcome drought situation.
- ii. Foliar application of 2% urea at pre-flowering and flowering stage.
- iii. Spray 1% Urea in Brinjal- Take Spraying measures against mealy bugs and mite which area more prevalent in dry weather.
- iv. Top dress the crop after receipt of rain.
- v. Remove the borer affected tiller / late formed tillers/ dried leave in sugarcane and fallow wrapping and propping as chains- stripe the lower 4-5 leaves.
- vi. Thinning to the extent of 25% and using the removed plants as cattle feed.
- vii. Close the drainage holes and check of seepage loss in direct sown medium land rice regularly.
- viii. If there is apprehension of losses of more than 75% of the standing crop, go ahead for the next crops like Arhar(T-21, Upas etc.), Black gram (T-9, Sarala, Pant U-29 etc.) or groundnut (AK 12-24 Jeval Kishan etc.)

### **Situation- IV (Beushaning operation delayed due to want of rain in medium and low land:**

- i. Do not practice beushaning (blind ploughing in rice, if crop is more than 45 days old.
- ii. Weed out the field, top dress after receipt of rainfall.
- iii. Use seedling of same age of clonal tillers for gap filling to have uniform distribution of plant after rain.

## ***District Disaster Management Plan - 2019***

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- iv. Strengthen the field bunds and clog the holes to check seepage loss.

### **Situation-V (Contingent Measure in situation where rice seedlings are over aged):**

- i. Remove the weeds and follow plant protection measures against blast in nursery.
- ii. About 45 and 60-70 days old seedlings can be transplanted in case of medium and late duration rice varieties respectively without much reduction in yield.
- iii. Pulverise the main rice field in any condition, if is not ploughed earlier to save time final puddling.
- iv. Use tractor/ Power tiller/ Tractor mounted rotavator for speedy land preparation! puddling cover, more area with less time.
- v. Follow close transplanting using 5-7 seedling / hills.
- vi. Apply 50% recommended N at the time of transplanting.

### **Situation- VI (Late season drought/ terminal drought):**

It occurs as a result of early cessation of monsoon rains and is expected to occur year of late commencement or weak activity of monsoon. The management practice is.

- i. Provide protective irrigation through recycling of excess rain water.
- ii. Provide irrigation at critical states in alternate furrows in wide spaced crops. Harvest upland rice at physiological maturity stage and crops like cow pea green gram fodder purpose when all season drought is anticipated.
- iii. Under situation of complete crop failure, dibble the pre Rabi crops in the standing Kharif crop/ dismantle the Kharif crop and prepare the land for pre Rabi crop.

### **Pest control:**

The following insect! pests and diseases appear more frequently under drought situation for which it requires constant vigilance to take up timely control measures.

#### **1. Rice:**

- Stem bores attack starting from nursery to rain field will increase as the temperature (28-38C) and humidity remain high.
- Mealy bug attack on direct sown and upland rainfed will increase.
- Foliage damage by grass hoppers, leaf minor (*Hydrollia Griseola*) and grub of *Hispa* may increase.
- Sunti and other hairy caterpillar will increase and damage the crop in inland districts.

#### **2. Sugarcane:**

- Termite and mealy bug attack will increase among the borers early shoot borer attack will continue. Top shoot borer attack will be there.

#### **3. Vegetables:**

- *Epilachna* beetles (in Gourds and Brinjal) shoot and fruit borers and fruit flies will increase damage. Damage due to ants will also be increased.

### **Diseases:**

#### **1. Rice**

Brown spots and blast diseases increase under the dry condition.



# ***District Disaster Management Plan - 2019***

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## **FLOOD**

### **Early Flood (July)**

#### **1. Medium/ Low Land**

- Select the rice varieties like Kanchan, Ramachandi, Durga, Sarala, Varsa dhan for semi- deep low lands.
- If damage is more than 50% retranslate rice crop.
- In partially damaged fields allow the rice plants to stand upright. Do not go for Beushaning as it may further reduce the plant population.
- Weed out the rice field, make gap filling and top dress P and to boost the growth.

### **Late Flood (September)**

If flood occurs during mid August to early September,

- Transplant 40-65 days old seedling after flood water recedes.
- Make up plant population by transplanting clonal tillers detaching from the old clump wherever possible.
- Apply moderate dose if fertilizers.
- Broadcasting! Line sowing of sprouted seeds of relatively short duration rice varieties in soft puddle.
- Particularly in up- medium land, where there is no scope for revival of rice, go for pulses Green gram, Black gram.

### **Plant population:**

- Raise dapog method of nursery to transplant wherever possible.
- Maintain a buffer nursery in the backyard/ high land area to ensure adequate plant population in the field after flood damage.

### **Fertilizer Application:**

- Reduce nitrogen application and apply recommended dose of P and K as basal
- Apply moderate dose of N:P:K at beushaning, if not applied earlier.
- Top dress N and K in Flood affected areas.
- Apply of phosphatic fertilizer to rice at the time of sowing to increase flood resistance.

### **Besides above some general pre planned measures are being taken:**

- To ensure the availability of agricultural inputs like seed, fertilizer and pesticides at the time of needs of the farmers at their reach.
- Departmental sales centres should remain open from 9 AM to 5PM in all working days.
- The pest surveillance activities should be geared up. In case of any occurrence, prompt and appropriate remedial measures may be advised to farmers. If it is not solved at field level this should be immediately brought to the notice of higher officers.
- A control room will start functioning from June 1<sup>st</sup> to till the end of November and will remain open from 8AM to 8PM. One officer at district level will remain in over all charge of the control room. The contact Telephone No: 06755-223955. Crop watch group will be constituted at district level. Rainfall and crop coverage will be assessed regularly. AAOs at block level and DAOs at DAO level has been

## ***District Disaster Management Plan - 2019***

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advised to open control room similarly to collect information and report to the district authority.

- To face the drought situation short duration paddy varieties (Sahabhagi Dhan, Mandakini, Khandagiri) of 500 Qtls., mung of 140 Qtl & Biri 140 Qtl have been indented in addition to the previous indent.
- To combat the situation, advance stocking of fertiliser has been prepared & one rake of fertiliser at Jatni rake point has already reached in the last week of May 2015 & planning for arrival of more rakes has been prepared with different fertiliser manufactures in the chairmanship of the Collector & District Magistrate, Khordha.
- Steps have already been initiated at district level forum for restoration of defunct lift irrigation point by the order of the Collector & District Magistrate, Khordha.
- 500 pumpsets under BGREI has been programmed for supply to farmers on subsidy in Khordha district to overcome the drought like situation. For controlling the pest and disease, pesticides will be available on 50% subsidy under BGREI scheme to the affected farmers during Kharif in Khordha district.

### **Drainage Divisions:**

The drainage division channel in Khordha District are being renovated from time to time as and when required on proposals from local farmers / public representatives are received by this oragnasiation. Some of the drainage channels have already been renovated in the recent past. The renovation of drainage channels which are now in progress is expected to be completed before monsoon. The clearance of congestion due to growth of weeds and water hyacinth at various bridge / culvert points will be taken up as and when required during flood.

List of responsible officers with contact details:

**Table – 8.10.6:**

<b>SI No</b>	<b>Name of the Officer</b>	<b>Designation</b>	<b>Cell no</b>
1	Er.Badal Ku Sahu	Executive Engg.	9437246412
2	Devendranath Sarangi	Asst. Engg.	9437280309
3	Sibadatta Mishra	Asst. Engg.	9437239571
4	Subhendu Kumar Meher	Asst. Engg.	7873349645
5	Pratap Kumar Mishra	Asst. Executive Engg.	9437283992
6	Smt. Nilima Priyadarshini Panda	Junior Engg.	9438731397

### **National Highways:**

Team - 1 (Puri)

Sri Prakash Ranjan Dash, Assistant Executive Engineer( Mobile No. 9437314889) shall remain in charge of the team-1 stationed at Puri round the clock with followings:

- |                  |                   |
|------------------|-------------------|
| a. Workman 6 Nos | d. Cycle 2 No     |
| b. KCB 1 No      | e. Rope 1 Bundle  |
| c. Truck 1 No    | f. Bullah 100 Nos |

Team – 2 (Konark)

Sri Saroj Kumar Gan, Assistant Executive Engineer( Mobile No. 9437189642) shall remain in charge of the team-2 stationed at Konark round the clock with followings:

- |                  |             |
|------------------|-------------|
| a. Workman 6 Nos | b. KCB 1 No |
|------------------|-------------|

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- |          |      |           |          |
|----------|------|-----------|----------|
| c. Truck | 1 No | e. Rope   | 1 Bundle |
| d. Cycle | 2 No | f. Bullah | 500 Nos  |

### Team – 3 (Bramagiri)

Sri Rasmi Ranjan Sahoo, Assistant Executive Engineer( Mobile No. 9439491250) shall remain in charge of the team-3 stationed at Bramagiri round the clock with followings:

- |            |       |           |          |
|------------|-------|-----------|----------|
| a. Workman | 6 Nos | d. Cycle  | 2 No     |
| b. KCB     | 1 No  | e. Rope   | 1 Bundle |
| c. Truck   | 1 No  | f. Bullah | 50 Nos   |

### Team –4 (Bhubaneswar)

Sri Pravakar Nayak, Assistant Executive Engineer( Mobile No. 9437159047) shall remain in charge of the team-4 stationed at Bhubaneswar round the clock with followings:

- |            |       |           |          |
|------------|-------|-----------|----------|
| a. Workman | 6 Nos | d. Cycle  | 2 No     |
| b. KCB     | 1 No  | e. Rope   | 1 Bundle |
| c. Truck   | 1 No  | f. Bullah | 50 Nos   |

### Team –5 (Khordha)

Sri Krushna Ch. Mishra, Assistant Executive Engineer (Mobile No. 9437370631) shall remain in charge of the team-5 stationed at Khordha round the clock with followings:

- |            |       |           |          |
|------------|-------|-----------|----------|
| a. Workman | 6 Nos | d. Cycle  | 2 No     |
| b. KCB     | 1 No  | e. Rope   | 1 Bundle |
| c. Truck   | 1 No  | f. Bullah | 50 Nos   |

### Team –6 (Khordha)

Sri Prasanta Kumar Mohapatra, Assistant Executive Engineer( Mobile No. 9437384832) shall remain in charge of the team-6 stationed at Begunia round the clock with followings:

- |            |       |           |          |
|------------|-------|-----------|----------|
| a. Workman | 6 Nos | d. Cycle  | 2 No     |
| b. KCB     | 1 No  | e. Rope   | 1 Bundle |
| c. Truck   | 1 No  | f. Bullah | 50 Nos   |

### Team –7 (Nayagarh)

Sri Biraja Prasad Mohanty, Assistant Executive Engineer (Mobile No. 8456809525) shall remain in charge of the team-7 stationed at Nayagarh round the clock with followings:

- |            |       |           |          |
|------------|-------|-----------|----------|
| a. Workman | 6 Nos | d. Cycle  | 2 No     |
| b. KCB     | 1 No  | e. Rope   | 1 Bundle |
| c. Truck   | 1 No  | f. Bullah | 50 Nos   |

### Team –8 (Nuagaon)

Sri Narayan Sarangi, Assistant Executive Engineer ( Mobile No. 9437118166) shall remain in charge of the team-8 stationed at Nuagaon round the clock with followings:

- |            |       |           |          |
|------------|-------|-----------|----------|
| a. Workman | 6 Nos | d. Cycle  | 2 No     |
| b. KCB     | 1 No  | e. Rope   | 1 Bundle |
| c. Truck   | 1 No  | f. Bullah | 50 Nos   |

Respective Assistant Executive/Assistant Engineers have been directed to remain in close contact with the District Administration. As decided by the Collectors of Khordha, Nayagarh and Puri Dist. Our Officers, machineries & manpower are to work under the direction of District Administration as and when required. The required fuel for machineries, food & food & drinking water for the manpower to be deployed in the system will be arranged by the

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respective Assistant Engineers to augment the need. The Executive Engineer stationed at Bhubaneswar shall monitor the clock. The report on the matter shall be intimated to the higher officers from time to time.

### **Chief District Veterinary Officer**

#### **(CDVO):**

#### **Veterinary Measures:**

Vaccination: Mass pre-flood vaccination programme is in progress in all flood prone areas, i.e. Khordha, Jankia, Nirakarpur, Balipatna and Baliana along with all other blocks of the district. The required vaccines have already been supplied in all the blocks of the district. Further supply would be carried out depending upon receipt of indent of the same from the BVOs. Vaccination would also be taken up post-flood depending upon the need of the vaccines and intensity of the flood in the affected areas. OBPI, Bhubaneswar is in constant touch for allocation of vaccines during probable flood situation for the district.

Medicines: Medicines received from Director of AH & VS, Cutback have been supplied to the SDVO, Bhubaneswar for utilization in their Sub-Division. The medicines of Khordha Sub-Division have been distributed in the concerned blocks. Further, the Director, AH & VS, Cuttack will be moved for supply of more medicines for flood relief work if the situation demands.

In addition, the following medicines are required for ensuing the probable flood and cyclone situation during 2019. These medicines would be utilized in 20 Veterinary Dispensaries including Veterinary Hospitals and 98 Livestock Aid Centers of the district.

**Table – 8.10.7:**

<b>Sl no:</b>	<b>Name of the Medicine</b>	<b>Quantity</b>	<b>Amount</b>
1.	Inj. DNS – 5% 500ml	2000 Bottles	46000.00
2.	Inj. Dexamethasone-5ml	2000 Vials	40000.00
3.	Inj. Multivitamin 30ml	2000 Vials	80000.00
4.	Inj. B.Complex 30ml	2000 Vials	60000.00
5.	Anti stress Solution 500ml	2000 Bottles	400000.00
6.	Inj. Chlopheniramine maleate 30 ml	4000 Vials	80000.00
7.	Saline Infusion Set	500 Nos	15000.00
	<b>Total</b>	<b>Total</b>	<b>721000.00</b>

Feed & Fodder: The concerned BVOs of the block have been instructed to trace out the supply agency of their areas respectively for supply of cattle feed during emergency. The requirement of the cattle feed will be assessed as per the declaration of the flood affected villages by the District Administration, so that the total amount can be calculated as per the cattle population of the area and as per the total number of days of relief declared. The OMFED and Agro Industries Corporation Ltd will supply the required cattle feed on requisition by the Director of AH & VS, Odisha, Cuttack. The daily flood report will be submitted during the flood situation.

If the flood situation warrants, Collector will indent cattle feed on receipt of requirement from the CDVO, Khordha and the cattle feed will be stored at the respective

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block go down and distributed to concerned GPs by BDOs, so that the distribution of cattle feed can be done by the Livestock Inspector, Block Veterinary Officer and Additional Veterinary Assistant Surgeon in the presence at local PRI members and revenue Inspector depending upon the demand of the situation

**In addition, rice bran and green fodder will also be supplied as done in previous years during flood.**

### Mobile Teams:

Like previous year, this year also 2 Nos. of District Mobile Teams have been constituted consisting of 1 Vet, 1 Para Vet and 2 Attendants in each Team to face accordance of flood situation. The names of Employees of Mobile Team are given below. Similar arrangement of 1 mobile team is to be constituted at each Block VD (10 blocks) and team mobile team at SDVO, Bhubaneswar.

### **Publicity and Creation of public awareness:**

Action is being taken for wide publicity of pre-cautionary measures to be taken during Flood and Cyclone situation. The Department Officers are instructed to Create awareness on this during Public meeting & various Training programmes & Camps.

### **Organization of Camps:**

Like previous year this year also. Mass deworming Camps & Mega Health Camps will be organized with Department Medicines in Flood affected areas.

### **Daily report on Flood/cyclone situation:**

During the flood period action will be taken to submit a daily report like previous year to the Collector-cum-District Magistrate (Emergency Section) & Director of Animal Husbandry & Veterinary Services, Odisha, Cuttack mentioning Daily status performance report of Mobile team. The filed officers are accordingly instructed to inform regarding any eventuality in their area to this office immediately over phone to avoid delay, followed by written report.

### **Disease Surveillance:**

Like previous years this year also during the flood period, action would be taken to invite Expert for Disease surveillance. The OIL, District Diagnostic Laboratory, Nayagarh would be provided with a vehicle to proceed to flood affected areas for disease surveillance.

### **Information on Veterinary Institutions:**

Sl no	Name of the Block	Name of the VD	No of GPs	No of LACs	No of functional Gomitra	No of Large Animals (Cattle & Buffalo)	No of Small Animals (Sheep & Goats)
1.	Tangi	Tangi, Nirakarpur	20	7	5	33182	8237
2.	Begunia	Begunia	21	8	9	34715	12659

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3.	Khordha	Khordha	20	9	5	93257	9304
4.	Bolagarh	Bolagarh	19	12	3	28039	12144
5.	Chilika	Balugaon	14	7	5	18896	4196
6.	Banapur	Gambharimunda, Nachuni	13	5	1	26402	4772
7.	Balipatana	Balipatana	14	15	1	32795	17149
8.	Balianta	Balakati	15	13	5	25161	14402
9.	BBSR	Old Town, Nayapalli, Saheed Nagar, Chandaka	19	16	6	47987	10804
10.	Jatni	Jatni, Janla	13	6	2	26817	6779
	<b>Total</b>		<b>168</b>	<b>98</b>	<b>42</b>	<b>313251</b>	<b>100446</b>

### **Khurda Irrigation Division, khurda:**

#### 1. Introduction:

Khurda Irrigation Division is looking after the River embankments of Hada, Malaguni, Kusumidhar and Salia and Saline Embankments of Chilika in **KHURDA** District. The total length of Embankments is 138.72 km in Khurda District under Khurda Irrigation Division. The details are given below:

**Table – 8.10.8:**

Sl No	Type of Embankment	Length in Km.
1	Capital Embankment	-
2	O.A.E.	64.90
3	T.R.Embankment	4. 00
4	Saline Embankment	69. 82
	<b>Total</b>	<b>138. 72</b>

The Embankments are constructed along the banks of the Rivers mentioned above for protection to nearby villages, towns and agricultural fields against flood. There is no Capital embankment in Khurda District under Khurda Irrigation Division.

A list showing the Length of Embankments under this Division within the jurisdiction of Khurda District is enclosed as Annexure.

#### 2. Review of Vulnerable Points:

There is 1(one) No. of Vulnerable point located along the river embankments as per the criteria determined for the Vulnerable points. When the River touches the Danger Level, those vulnerable points will be kept on close vigil round the clock till the flood recedes and comes to normal. A list showing the location of vulnerable points is enclosed as Annexure.

#### 3. Maintenance of River Gauge & Discharge Observation:

This division is maintaining 3(Three) Nos. of River Gauge Stations at different locations of River Malaguni, Kusumidhar and Chilika along with 1(One) No. of Reservoir Gauge station at

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Salia. A list showing the Zero value of the gauge, Danger Level, Highest flood level so far recorded and Highest Flood Levels of July-2001, September-2008, September-2011, October 2013 and September-2014 are enclosed as Annexure.

Arrangements have been made to measure flood levels of river 2(Two) times day i.e. at 6.00 A.M. and 6.00 P.M. on normal days. When the River flows above danger levels hourly gauge reading will be taken up and continued till the flood recedes.

### 5. Functioning of Flood Control Room and its Function:

A flood control room will function at Division Office, Khurda round the clock from **1<sup>st</sup> of June** and will continue the same up to **31<sup>st</sup> October**. The Telephone No of the control room is **06755-220729 Khurda**. The information relating to gauge of the river with respect to time will be sent to the control Rooms functioning at Office of the Engineer-In-Chief, Water Resources, Bhubaneswar, respective District Collectors, Sub-Collectors & other destinations as and when required.

Besides this, information about River gauge & flood relating to River Malaguni and Chilika will be available at the section office at Jankia and Tangi respectively. The Reservoir Level and Discharge through Spillway of Salia Reservoir will be available at the Office of The Sub-Divisional Officer, Salia Dam Sub-Division, Banapur. Telephone No: **220352**. The list of Telephone nos are enclosed as Annexure.

### 5. Reporting Of Flood Messages / Damages: -

On normal days (When their normal flow or no flood in the River) messages will be conveyed to various quarters by 10.30A.M. shortly after compilation of the same at Flood Control Room at Division Office, Khurda. On the high flood days the messages on river gauge damages and flood conditions will be sent to various quarters immediately after its receipt. The medium of transmission is through Telephone, Wireless or Special messenger which is available at the earliest.

### 6. Review of Flood Responsibility: -

Assistant Engineer of Jankia and Khurda Irrigation Section of Khurda Irrigation Sub-Division, Khurda along with their staffs located at various points will keep a strict vigil on flood round the clock during high flood days. A list showing the staffs engaged at various locations are enclosed **ANNEXURE - XXX**.

### 7. Use of police and central water commission's wireless: -

Police Wireless of Jankia, Tangi, Banapur & Khurda Police Station will be used for transmission of flood messages as it is situated nearest to our control rooms, gauge sites etc. District administration is requested to instruct concerned Police stations to transmit flood messages on top priority basis. There are no gauge stations of Central Water Commission within the jurisdiction of the Khurda Irrigation Division.

### 8. Observation of kilometer wise free board and flood slope: -

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The Top Level of the Embankments has been fixed with 1.20m high above H.F.L. of 2001 flood. During July-2001, flood of 14, 00,000 Cusecs passed through river Mahanadi. During September-2008, unprecedented flood of 15.81 lakhs cusecs passed through river Mahanadi. Rivers like Daya, Rajua and Makara shared a part of it according to its capacity. High flood occurred in river Salia, Sapua in July, 2009 and October, 2009. Heavy flood occurred in Malaguni river during July, 2009. Also during September-2011, high flood of 13.86 lakhs cusecs passed through river Mahanadi.

### 9. Drainage Clearance: -

People used to make cross bundhs across river Malaguni for the purpose of irrigating their land during Rabi Season. Tahasildars may be instructed to remove such cross bundhs by 15<sup>th</sup> of June and make drainage path clear.

### 10. Other items if any: -

#### (a) Flood fighting Materials: -

Flood fighting materials like **empty cement gunny bags 37,500 nos, bullahs 350Nos, sand 560 Cum** will be stored at various locations preferably at nearby villages quite close to the vulnerable points. The other flood fighting materials like **Bamboo mats** etc. will be procured at the time of requirement. A list showing flood fighting materials proposed to be stored at different places is enclosed as Annexure. Extra flood fighting materials if required in case of very high flood, the same will be procured at that time basing on further requirement.

#### (b) Flood of 2016 & 2017:

No breach occurred in River embankments and in canals in Khurda District due to flood in 2016 & 2017.

#### (c) Flood of 2018:

01 breach occurred in Kushabhadra river right embankment at Jaripada in Khurda due to flood in the year 2018.

### **Nimapada Irrigation Division, Khordha:**

Nimapara Irrigation Division comes under administrative control of the Superintendent Engineer, Central Irrigation circle, Bhubaneswar and looks after the maintenance of river embankments namely River Kuakhai, Kushabhadra, bhargavi, Devi, dhanua, Siarocut and Saline embankments within Devi mouth and Kushabhadra Dhanua mouth. To combat the grave situation of flood under Khordha district, flood embankments have been constructed on both sides of all rivers.

This Division maintains a total length of 328.62 km. of embankments under different categories. Khordha district covers 62 kms.

The category wise break up is given below.

#### **Table – 8.10.9:**



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Sl.No.	Category of Embankment	Total length in Km.	DISTRICT WISE BREAK UP			
			Cuttack	Jagtsinghpur	<i>Khurda</i>	Puri
( 1 )	( 2 )	( 3 )	( 4 )	( 5 )	( 6 )	( 7 )
1	Capital Embankment	168.30	4.00	1.00	<b>55.00</b>	108.30
2	O.A.Embankment	43.00	-	--	<b>7.00</b>	36.00
3	T.R.Embankment	26.28	-	--	--	26.28
4	Saline Embankment	91.04	-	--	--	91.04
	TOTAL	328.62	4.00	1.00	<b>62.00</b>	261.62

The detail breaks up of different river embankment is shown in ***ANNEXURE- XXXI***.

### **1. RIVER ESCAPES/SLUICES**

#### **A. Jogisahi Escape**

- i. Location: Kushabhadra Right Embankment
- ii. RD: 4.00 km.
- iii. Type: Gated AFC
- iv. Function Being maintained by Executive Engineer, stores & Mechanical Division, Bhubaneswar & it works when the flood in Mahanadi is 8.00 lakh crosses at Naraj.

#### **B. Achutapur Escape:**

- i. Location: Bhargabi left embankment
- ii. RD: 8.50 km.
- iii. Type: ungated
- iv. Function Works when flood in Mahanadi exceeds 6.00 lacks cusecs at Naraj

### **2. CRITICAL VULNERABLE & VULNERABLE POINTS**

The lists of vulnerable points have been shown in ***ANNEXURE- XXXI***. There are no critical vulnerable points but 2 Nos. of vulnerable points need watch and ward during the flood time and flood fighting materials will be provided for combating any breaches.

### **3. GAUGE & DISCHARGE OBSERVATION**

3 Nos of river gauge stations are being operated during the flood. A list of gauge stations is given in ***ANNEXURE- XXXI***.

### **4. OPERATING OF FLOOD CONTROL ROOM AND ITS FUNCTION**

During Flood, the Divisional Control Room will function round the clock at the Division office (**Phone No.06758- 250240**) under the control of Assistant Executive Engineer (Estimator) of this Division who will coordinate with the control room of higher authorities and control rooms of Sub-divisional level and at temporary flood cell units to be situated at different sites if required.

A detail list of flood control cells is given in ***ANNEXURE- XXXI***.

### **5. TRANSMISSION OF FLOOD MESSAGE**

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There is 3 Nos. of. of Police Station within the jurisdiction of this Division i.e. at Balipatna, Balanga & Nimapara. Besides one number CWC Wireless station is functioning at Delta Colony, Nimapara. The flood message will be transmitted effectively.

### **6. TEMPORARY FLOOD SHED**

During Flood period for proper watch and ward of the river embankments temporary flood sheds will be constructed to have stock for urgently required flood fighting materials. These temporary flood sheds will be constructed near weak points as listed depending upon the necessity and urgency. There is a provision for 5 numbers of temporary flood sheds to be constructed during high flood at detailed in ANNEXURE- XXXI.

### **7. REQUIREMENT OF FLOOD FIGHTING MATERIALS**

Sub-division wise requirement of Flood fighting materials to combat flood situation of 12,00,000 lakhs cusecs at Naraj has been appended in ANNEXURE- XXXI.

#### **Prachi Irrigation Division:**

1. The jurisdiction of Prachi Division covers part of Cuttack, Jagasinghpur, Khordha & Puri District. River Mahanadi and it's branches i.e. Kathajori, Kuakhai, Kushabhadra, Daya and Devi are the main rivers flowing inside the jurisdiction of Prachi Division. To combat the grave situation of flood, flood embankments have been constructed on both the sides of all the rivers. The total length of embankment under Prachi Division is 285.77 Km with 22 Nos. of drainage sluices.

a) Capital Embankment	:-	227.34Km.
b) O.A. Embankment	:-	52.53Km.
c) T.R. Embankment	:-	5.90Km.
<b>Total</b>	:-	<u><b>285.77Km.</b></u>

Categorically wise details of river embankments are given below:

<b>LIST OF EMBANKMENT UNDER PRACHI DIVISION</b>		
<b>KHORDHA DISTRICT</b>		
<b>Capital Embankment:-</b>		
1	Kuakhai Right Embankment RD 6.00 to 32.50Km	26.50 Km
2	Daya Right Embankment RD 00 to 8.50Km	8.50 Km
3	Daya Right Embankment at Tirumal (RD 30.00 Km to 31.60Km)	1.60 KM
4	Kushabhadra Left Embankment 00 to 30.00Km	30.00 KM
5	Kuakhai Left Embankment (RD 11.00 to 19.00Km)	8.00 KM
		74.60 KM
<b>Other Agricultural Embankment.</b>		
	Kuakhai Right Embankment RD 6.00 to 8.70Km	2.70 KM

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	(Gherry Bundha to Jhinkardiha Marichia Island)	-
	<b>Total</b>	<b>77.30 Km</b>

The details of the sluices are given below:

### **LIST OF SLUICES IN CAPITAL EMBANKMENT /O.A.E./T.R.E. UNDER PRACHI DIVISION**

Sl No	Name of Sluice	Name of Embankment in which located	Status
1	Drainage Sluice at Tirumal	Daya Rt.Embankment at RD 31.311Km	Good Condition
2	Drainage Sluice at Budhanalla	Kuakhai Rt.Embankment at RD 10.30Km	Good Condition
3	Drainage Sluice at NMuapatna	Kuakhai Lt.Embankment at RD 12.30Km	Good Condition

#### 2. Review of Weak Points:

Almost all the weak points in the river embankments have been strengthened and they are safe against flood of 9.50 lakhs Cusecs at Head of Delta at Mundali. Near Kantisal on Kathajodi-Sirua-Devi Rt. Embankment from RD 61.00 Km to 63.00 Km, the protection works have been completed under central assistance. Near Gopalpur-Tithapada, the protection works have been completed under CRF grant under the supervision of OSDMA.

If unprecedented flood like 1980, 1982, 1991, 1992, 2001, 2003, 2006, 2008 and 2011 occurs in order of 12.27lakhs, 15.80lakhs, 12.18lakhs, 12.09lakhs, 13.15lakhs, 13.35lakhs, 12.75 lakhs, 15.81 lakhs and 13.80 lakhs cusecs magnitude at Mundali, the embankments may not sustain. There is no weak point in respect of Khordha district under the division.

#### 3. Flood fighting Materials:

The requirement of flood fighting materials under the division is given below:

Sl. No.	Name of Sub-Division	Empty Cement bags in No.	Sutuli in Kg.	Neddle in Nos.	Gas light in Nos.	Torch Battery in Nos.	Torch light 5Cell in Nos.	Sand in Cum	Bullah /Bambo o
1	Bhubaneswar	35000	3	3	6	18	4	770	350
2	Balianta	65000	5	5	10	30	6	1430	650
	Total	100000	8	8	16	48	10	2200	1000

#### 4. Flood Control Room:

The Divisional control room will function at Division Office, Phone No.- 2562427 under the control of Assistant Executive Engineer (Estimator)/ Asst. Engineer (Estimator) who will co-ordinate the control room of higher authority and control rooms at Sub-Divisional levels and temporary flood sheds to function at different sites.

*[Detailed information from Prachi Division is attached in **ANNEXURE - XXIV**]*

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### **Chief District Medical Officer (CDMO):**

**District Health Control Room Contact Number: - 06755 – 223178**

### **Block Level Control Room & Preparedness:**

- The Block Medical Officer I/Cs are instructed to form the Control room and open it round the clock.
- To attend the emergency of any natural calamity, epidemic situation whenever required without waiting to the direction of District Authorities.
- To form Block Rapid Response team which will take care of the epidemic and natural calamity situation.
- Chlorination of the wells and drinking water sources, 1<sup>st</sup> round completed in April, 2<sup>nd</sup> in May & 3<sup>rd</sup> round is going on.
- During epidemic situation PRI members, ASHA, AWW and School teachers will be involved.
- Sending of daily/ weekly/ fortnightly reports to the district control room, CDMO office through special messenger/ phone/ E. Mail.
- To store adequate emergency medicines like Bleaching powder, ORS, Halazone, Anti- Diarrhoeal, IV fluids, Anti Snake Venom etc.
- To supply Paracetamol, ORS (25 nos.), Halazone, Metronidazole sufficiently to all ASHA & AWW of the flood prone blocks.

### **2.5 Block CHCs Health Personnel with Contact Number:**

*[List annexed in **ANNEXURE - VIII**]*

### **2.6 Staff position of Health Institutions**

*[List annexed in **ANNEXURE - VIII**]*

### **2.7 List of ASHAs**

**Table – 8.10.13:**

Name of the Block.	No. of ASHA	GP Covered.	Contact Person with Tel. No.
Banapur	107	13	Individual contact telephone Nos. are available with District Control Room and annexed in annexure of DDMP.
Balugaon	125	14	
Tangi	154	20	
Begunia	136	21	
Bolagarh	130	19	
Khordha	132	20	
Bhubaneswar Rural	93	19	
Jatni	89	13	
Balianta	110	15	
Balipatna	115	14	
Total	1191	168	

### **3. Causality services and contingency plan for Medical Relief Centre (MRC):**

- During disasters MRC will be opened to provide causality services 24x7 basis.

## ***District Disaster Management Plan - 2019***

**3.1** Proposed Detail List of Medical Relief Centres (MRC) At Flood Affected Areas Of Khordha District.

*[Annexed in ANNEXURE - VIII]*

**4. Contingency plan for mobile health team & deployment of staff:**

- One M.O and one paramedics are to be mobilized from D.H.H and non affected blocks.

Plan for mobile team:

No of teams:

From within district	5
From outside district	2
Total	7

**5. Supply of Drugs, Logistics And Disinfectants:**

- Adequate stocks available at CHCs, PHC (N) and Sub-centre level.
- Stocks are ensured for prepositioning & to be replenished as per guideline as follows

**Table – 8.10.13:**

Sl. No	Name of the Items	Health Facilities			
		Sub Center	PHC (N)	CHC	ASHA
1	ORS Sachets	100	400	1500	25
2	Halazone	1000	3000	5000	-
3	Bleaching Powder	1 Kg	1 Bag (25Kg)	3 Bag (75Kg)	-
4	ASV	-	5 Vials	10 Vials	-

- Stock position of district H.Q. , CHCs, Blocks level are annexed.

*[Annexed in ANNEXURE - VIII]*

- The stock position of block CHCs will be replenished regularly by district drug warehouse.

**6. Ambulance Services:**

- Ambulance 108 & 102 services will be utilized for referral of cases.
- In cases of non availability of institutional ambulances, then can be hired using Untied / RKS fund of NHM.

*[List annexed in ANNEXURE - VIII]*

**7. Disinfection of Drinking Water Sources:**

- First round of disinfection of all drinking water sources by bleaching powder have been completed in the month of April, 2<sup>nd</sup> in May & 3<sup>rd</sup> round is being done in the month of June.
- The R.W.S.S and R.D dept. have been communicated to repair the defunct tube wells and also do disinfection of tube wells, bore wells & over head tanks.
- PHED have been contacted for maintenance of pipe water supply in Municipality & NAC areas.
- Orthotoludine Test Kits (OT Test Kit) to ensure chlorination & Hydrogen sulphide Test Kits (H<sub>2</sub>S) to confirm contamination of water are available in all CHCs in the district. Random tests are being done weekly. During epidemic, daily testing will be done.

**8. Disease surveillance (IDSP):**

## ***District Disaster Management Plan - 2019***

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- The epidemiological situation of the district will be analysed and immediate effective containment measures will be taken. Compliance reports of news items in the daily news papers will be investigated and sent to State H.Q by email / Fax.
9. Health Education:
- District Mass Media organisation (electronic, print, outdoor display), health services providers like M.O, AYUSH, DPHCO, PHEIO, MPHS (M/F), MPHWS (M/F) should propagate the message related to personal hygiene, hand washing, safe drinking water, chlorination use of ORS, Halazone & Chlorine Tabs, Food hygiene and environmental sanitation.
10. **Daily reporting:**
- The day's report in the prescribed format will be sent to State H.Q, through Email/Fax/by 3 PM of next day.
11. **Inter Sectoral coordination:**
- The coordination committee meeting for disaster management have already been conducted under the chairmanship of Collector & D.M Khordha on dt. 28.05.16.
  - All line departments have been instructed to take appropriate measures
12. Additional Safety Measures:
- 12.1 The line listing of Flood/Cyclone shelters are available to provide health care services to the displaced population.

*[List annexed in **ANNEXURE - VIII**]*

- 12.2 Motor boats will be provided by Special Relief Commissioner (SRC) and as per direction of Collector & District Magistrate, those will be deployed. Dedicated Boats would be available for medical relief.

**No of motor boats required with their station:**

**Table – 8.10.13:**

Sl. No	Name of the Block	Place of Station	Nos
1	Balipatana	Pumpalo, Nischintapur, Rajas	3
2	Balianta	Kulasahi, Sarakana, Phulapala	3
3	Khordha	Masania, Manapur	2
4	Begunia	Baghamari, Tulasipur	2
5	Tangi	-----	0
6	Jatani	Pandiabili, Budhapada	2
7	Mendhasal	Itipur	1

13. ACTION PLAN FOR MINIMUM INITIAL SERVICE PACKAGE (MISP)

Objective:

- To improve existing health service delivery packages for Women & Children during disasters.
- To reduce Gender Based Violences (GBV)

Strategy Prepared:

## ***District Disaster Management Plan - 2019***

- Capacity building of all MOs, Paramedical workers, RRTs and first responders (HW/ASHA/AWW/PRI members/Teachers) already done.
- Intersectoral Coordination with related departments already done
- Prepositioning of Drugs & Logistics is being done like Delivery Kits, FP measures (OC/EOC/IUD/Condom) HIV/STI Drugs & Dignity Kits
  - Help Desk Centres are being created at DHH & CHC head quarters for examination of GBV victims.

Action Plan: For preparing MISP Action Plan, the following data base prepared and available at District RRT.

• **Block wise No. of Pregnant Women, Eligible Couple & Adolescent Girls**

**Table – 8.10.14:**

SL NO.	Name of the Block CHC	No. of S.C	No. of Pregnant Woman	No. of Eligible Couple.	No. of Adolescent girl
1	Banapur	19	2428	26996	7137
2	Balugaon	20	2328	24620	8952
3	Tangi	24	2712	26090	7657
4	Botalama	21	2014	21027	5991
5	Bankoi	23	2012	20066	5833
6	Jatni	13	2134	26571	9128
7	Haladia	20	2286	21254	6249
8	Mendhasal	22	2074	20926	5369
9	Balakati	20	1654	18425	7442
10	Balipatna	20	1742	18320	5462
<b>Total</b>		<b>202</b>	<b>21384</b>	<b>224295</b>	<b>69220</b>

**Civil Supplies Officer: Khordha**

As per the contingency plan submitted by the CSO, the table given below shows the proposed quantity of Rice to be stored in the flood prone areas:

**Table – 8.10.15:**

SI No	Name of the Blcok	No of GPs	Amount (in Qntls)
1	Khordha	2	847.88
2	Balipatana	14	4093.14
3	Balianta	14	1571.25
4	Bhubaneswar	8	2350.60
5	Begunia	2	130.69
6	Jatni	2	456.50
	<b>Total</b>	<b>42</b>	<b>9450.06</b>

**PDS Godowns at Blocks:**

**Table – 8.10.16:**

SI No:	Type of Storage Structure	Location	Capacity in MT	Contact Person	Address & Phone No
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## District Disaster Management Plan - 2019

1	2	3	4	5	6
1	Pucca	Mancheswar, BBSR	3000	Smt. Rasmita Mallick, PI Kalyanai Mishra, ACSO	7978140778 9437308311
2	Pucca	Balianta	500	Smt. Lipika Das, PI Dhiraj Kumar Bhuyan, MI	8280003592 7978021506
3	Pucca	Jatni	1500	Smt. Ayasee Nayak, PI Pruthiraj Pradhan, MI	9861364376 9937535933
4	Pucca	Jatni	8300	Pabitra Kumar Kar, PI Pruthiraj Pradhan, MI	9438833852 9937535933
5	Pucca	Begunia	500	Sj. Paresh Beura, PI Manoj Kumar Sharma, MI	9658254173 6372006865
6	Pucca	Bolagarh	500	Chetan Nayak, PI Nirmal Kumar Mohapatra, MI	8249944393 9861933366
7	Pucca	Khordha	500	Smt. Sujata Nayak, PI Marshalin Padhiari, MI	9439253874 7008273523
8	Pucca	Tangi (Mulajhari)	5000	Sesadri Baral, PI Nirmal Kumar Mohapatra, MI	7008617785 9861933366

### Pre-Positioning of Food Grains:

Table – 8.10.17:

Name of the Block	Name of the G.Ps	Name of vulnerable Point for storage of food grains	Quantity of essential items to be kept				Contact person address and Pn. no
			Rice (in Qntls)	Chuda	Jagerry	K.Oil	
Balipatna	14 GPs	In all GPs	4093.14	0	0	0	Smt. Debasamita mallick, MI 8280000375
Balinta	14 GPs	-do-	Q.1571.25 @100 at each retail point	0	0	0	Dhiraj Kumar Bhuyan, MI, 7978021506
BBSR	08 GPs	8 GPs	2350.60			0 Ltrs.	Smrutirekha Kalparekha Singhasamanata, 7008568520
Khordha	02 GPs	2 GPs	847.88			0	Marhalin Padhiari, MI, 7008273523
Bgunia	02 GPs	2 GPs	130.69	0	0	0	Manoj Kumar Sharma, MI 6372006865

### Pre-Positioning of K.Oil:

Table – 8.10.18:

Name of the Wholesaler
Maa Duladei Filling Station
Utkal Dyes & Chemicals, wholesalers of K.Oil
M/S R.A Surekha, Wholesaler of K.Oil
M/S Bolgarh

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## **CHAPTER – IX**

# **REHABILITATION AND RESTORATION**

### **9.1 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 and submit financial requisition to the state Govt. under SDRF & NDRF. The requisition must reach the SDMA & SRC office in the prescribed format as annexed for smooth & quick processing.

### **9 Standard Operating Procedure : Restoration & Rehabilitation**

**Table – 9.1:**

<b>Name of the Department</b>	<b>Normal Time / Post Disaster</b>
District Disaster Management Authority	<p><b>Normal:</b></p> <ul style="list-style-type: none"><li>• Conduct capacity building programmes for Govt. Official, PRIs, NGOs, Volunteers, SHGs, Paramedical Staffs, etc. To have a better knowledge on disasters and its management.</li><li>• Documentation of best practices</li><li>• Provision of funds for infrastructure development</li><li>• Preparation of DDMP and its implementation at all levels</li></ul> <p><b>Post Disaster:</b></p> <ul style="list-style-type: none"><li>• The DDMA will review the relief, restoration and rehabilitation measures.</li><li>• Utilize the machinery in restoration and rehabilitation work without compromise</li><li>• In close coordination with Blocks, Tahasil and PRIs</li><li>• Act at the center point for State and below district level</li></ul>
Collector/ADM / Emergency Officer	<p><b>Normal:</b></p> <ul style="list-style-type: none"><li>• Monitor the activities undertaken by DDMA</li><li>• Review the preparedness activities</li></ul> <p><b>Post Disaster:</b></p> <ul style="list-style-type: none"><li>• Restoration of Critical Infrastructures to bring situation to normalcy</li><li>• Ensure Restoration of roads &amp; channels, Communication Network, Electricity &amp; Energy</li></ul>

## ***District Disaster Management Plan - 2019***

Name of the Department	Normal Time / Post Disaster
	<ul style="list-style-type: none"> <li>• Ensure address of health issues in the affected areas</li> <li>• Adopt sustainable mitigation measures in the restoration activities</li> <li>• Monitor &amp; review the restoration activities</li> <li>• Ensure proper functioning of rehab centers</li> <li>• Ensure proper functioning of free kitchen centers in rehab centers</li> </ul>
CDMO	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>• Awareness and training programs for staff and other stakeholders</li> <li>• Preparedness planning and sharing with the DDMA</li> <li>• Review and monitor the preparedness activities and report to DDMA</li> </ul> <p><b>Post Disaster:</b></p> <ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• Carry out Disease surveillance measures to check epidemic prone diseases</li> <li>• Rehabilitation of deprived &amp; destitute</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA on daily basis</li> <li>• Carry out Trauma &amp; Psycho-social counseling</li> <li>• A mechanism for quick identification of factors affecting the health of the affected people shall be established for surveillance and reporting.</li> <li>• An assessment of the health and nutritional status of the affected population shall be done by experts with experience of emergencies and, if possible, local knowledge.</li> <li>• The voluntary deployment of the nearest medical resources to the disaster site, irrespective of the administrative boundaries, will be warranted.</li> <li>• Mobile medical hospitals and other resources available with District shall be provided to the relief camp.</li> <li>• Adequate supply of medicines, disinfectants etc. shall be made.</li> <li>• Where necessary inoculation shall be done.</li> <li>• Vaccination of the children &amp; pregnant women shall be undertaken.</li> <li>• Vector-borne diseases are a major cause of sickness and death in many disaster situations. Vector control measures shall be undertaken.</li> <li>• Water borne diseases may cause sickness and deaths and therefore adequate measures shall be taken to prevent such outbreaks.</li> </ul>
Superintendent of Police (SP)	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>• Conduct training programmes for staff on operation of updated equipments for Search and Rescue</li> <li>• Conduct training programme for staff on First Aid</li> <li>• Review and monitor of preparedness activities</li> <li>• Rapport building with the local community by the staff members</li> </ul> <p><b>Post Disaster:</b></p> <ul style="list-style-type: none"> <li>• Close coordination with Dist. Administration</li> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Deployment of police personnel in shelters and relief camps to ensure smooth operation</li> <li>• Coordination with the district administration for law and order situation</li> </ul>

## ***District Disaster Management Plan - 2019***

Name of the Department	Normal Time / Post Disaster
	<ul style="list-style-type: none"> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA on daily basis</li> </ul>
EE- RWSS	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>• Proper planning for supply of drinking water at the rural pockets for summer and flood season</li> <li>• Time to time restoration of tube wells and raising of platforms in the flood affected area</li> <li>• Aware the community to use safe drinking water</li> </ul> <p><b>Post Disaster:</b></p> <ul style="list-style-type: none"> <li>• Close coordination with DEOC</li> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA on daily basis</li> <li>• Immediate restoration of drinking water facility</li> <li>• Provision of drinking water tankers in water scarcity pockets.</li> <li>• Disinfection of drinking water sources</li> <li>• Awareness among the community to take safe drinking water</li> </ul>
EE- Irrigation	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>• Identification of weak embankments</li> <li>• Repairing of the embankments</li> <li>• Capacity building training programmes for staff and other stakeholders</li> <li>• Flood contingency planning and sharing with DDMA</li> </ul> <p><b>Post Disaster:</b></p> <ul style="list-style-type: none"> <li>• Close coordination with DEOC</li> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA on daily basis</li> </ul>
DAO- Agriculture	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>• Training to farmers and other stake holders on different good agricultural practices</li> <li>• Training to Staff members on different good / updated agricultural practices</li> </ul> <p><b>Post Disaster:</b></p> <ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation,</li> </ul>

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Name of the Department	Normal Time / Post Disaster
	Fishery and Social Welfare will accompany Circle Officer & his staff during damage assessment
EE- Rural Works	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>Routine developmental works but disaster proofing mechanism needs to be ensured</li> </ul> <p><b>Post Disaster:</b></p> <ul style="list-style-type: none"> <li>All Circle Officers will carry out damage assessment in their respective areas</li> <li>Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> <li>Immediate restoration of critical infrastructures</li> </ul>
EE- Public Works	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>Construct/reinforce the connecting roads from villages to roads, canals and bunds and raise their level so that people can access the high ground.</li> <li>Routine developmental works but disaster proofing mechanism needs to be ensured</li> </ul> <p><b>Post Disaster:</b></p> <ul style="list-style-type: none"> <li>All Circle Officers will carry out damage assessment in their respective areas</li> <li>Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> <li>Immediate restoration of critical infrastructures</li> </ul>
DTO-Telecom	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>Routine developmental works such as towers needs to be placed outside crowded locality with the disaster proofing mechanism needs to be ensured</li> </ul> <p><b>Post Disaster:</b></p> <ul style="list-style-type: none"> <li>All Circle Officers will carry out damage assessment in their respective areas</li> <li>Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> <li>Similar damage assessment reports needs to be sent to the parent organisation</li> </ul>
CDVO	<ul style="list-style-type: none"> <li><b>Normal:</b></li> <li>Awareness of the livestock farming as one of the viable alternative livelihood option in the normal year in particular and in drought year in general through awareness generation, attractive schemes etc.</li> <li><b>Post Disaster:</b></li> <li>All Circle Officers will carry out damage assessment in their respective</li> </ul>

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Name of the Department	Normal Time / Post Disaster
	<p>areas</p> <ul style="list-style-type: none"> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> <li>• Restore the gosalas with fodder, water etc.</li> <li>• Distribution of assistance</li> <li>• Improvement of the quality and productivity of local livestock through Artificial Insemination and other breeding process.</li> <li>• Strengthening of the dispensaries/Livestock Aid centers with staffs, medicines, and equipment to proper health care of the animal.</li> <li>• Capacity building of the grass root extension workers/Para worker/farmers on animal health care and hygiene, AI/breeding, birth care etc.</li> <li>• Popularization of the cultivation of nutritious fodder grasses or trees in the home stead/field bunds of farmers/village pasture lands etc. through demonstration unit, mini kit distribution etc.</li> <li>• Storage, Processing, Market linkage, Price fixation of the livestock products</li> <li>• Promotion of the development of Institutions like Milk Cooperatives, Goat grower association etc. for better access to market, credit etc.</li> <li>• Supply of quality and productive fingerlings of fast growing/improved fish species.</li> </ul>
RTO/MVI	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>• Identification of potential places of road accident and necessary arrangement needs to be done to prevent accidents in coordination with the Police service</li> <li>• Prepare a plan to meet any sort of disasters with clear cut role and responsibilities</li> </ul> <p><b>Post Disaster:</b></p> <ul style="list-style-type: none"> <li>• RTO /MVI needs to have a close watch on the situation and coordinate with DEOC</li> <li>• All Circle Officers instructed to be in coordination with the local authority</li> <li>• Identification and Provision of vehicles for necessary emergency movement</li> </ul>
Dist. Fisheries Officer	<p><b>Normal:</b></p> <ul style="list-style-type: none"> <li>• Introduction of Pisciculture in all the Dams, Reservoirs /MIP /GP tanks and other bodies.</li> <li>• Capacity building of fish farmers/grass root extn. Workers/SHG members on commercial pisciculture, fish seed and feed production etc.</li> </ul> <p><b>Post Disaster:</b></p> <ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> </ul>
Railway	<p><b>Post Disaster:</b></p> <ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation,</li> </ul>

## ***District Disaster Management Plan - 2019***

Name of the Department	Normal Time / Post Disaster
	<p>Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</p> <ul style="list-style-type: none"> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> <li>• Damage Assessment report of Railway may be sent to parent department apart from DDMA /DEOC.</li> </ul>
EE- Electricity	<p><b>Post Disaster:</b></p> <ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> <li>• Restoration of Electricity in hospitals, administrative buildings</li> </ul>
EE – PHED	<p><b>Post Disaster:</b></p> <ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> <li>• Restoration of safe drinking water</li> <li>• Close watch on outbreak of jaundice and other water related diseases</li> </ul>
DEO- School & Mass Education	<p><b>Post Disaster:</b></p> <ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> <li>• Immediate restoration of Electricity, Drinking water facility, sanitation facilities after any serious disastrous event</li> </ul>
DEO - Higher Secondary Education	<p><b>Post Disaster:</b></p> <ul style="list-style-type: none"> <li>• All Circle Officers will carry out damage assessment in their respective areas</li> <li>• Representatives from line department's viz. Agriculture, PWD, PHED, Water Resource, Animal Husbandry, Education, Health, Irrigation, Fishery and Social Welfare will accompany Circle Officer &amp; his staff during damage assessment</li> <li>• All damage assessment reports in the prescribed format (By GoO) to be submitted to DDMA /DEOC on daily basis</li> <li>• Immediate restoration of Electricity, Drinking water facility, sanitation facilities after any serious disastrous event</li> </ul>

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## **CHAPTER-X**

### **RECOVERY**

#### **10.1 Recovery:**

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

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

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

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

There are schemes implemented by DRDA such as OLM and MGNREGS which help the poorest of the poor for recovering from the poverty. Also helps them in enhancing the livelihood opportunities.

#### **10.2 Odisha Disaster Recovery Project:**

ODRP is one of the Recovery Project taken up immediately after the Cyclone Phailin. In Khordha district Tangi block 95nos and Chilika block 183nos of beneficiaries allotted houses at a cost of Rs.3Lakhs each.

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## **CHAPTER- XI**

# **FINANCIAL ARRANGEMENT**

### **11.1 National Disaster Response Fund (NDRF)**

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

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

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

*[Please refer to Annexure - III for NDRF Items and Norms]*

### **11.2 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 13<sup>th</sup> 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



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connected with the financing of the relief expenditure of immediate nature from SDRF.

*[Please refer to Annexure - III for NDRF Items and Norms]*

### **11.3 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.

#### **11.3.1 Cases Eligible for Assistance under CMRF**

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

**11.3.1.2 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.

**11.3.1.3 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.

**11.3.1.4 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.

#### **11.4 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.

#### **11.5 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

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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.

### **11.5.2 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.

### **11.6 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.

**Table-11.1: Different State and Central Government Schemes and Programms**

Sl No.	Name of the Scheme	Sector	Nodal Department	Objective of the Scheme
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Sl No.	Name of the Scheme	Sector	Nodal Department	Objective of the Scheme
1	National Agriculture Insurance Scheme (NAIS)/ Rastriya Krishi Bima Yojna (RKBY)	Crop Insurance	Agriculture Insurance Company of India (AICI)	To protect the farmers against the losses suffered by them due to crop failures on account of natural calamities, such as droughts, floods, hailstorm, storms, animal depredation, etc.
2	Janashree Vima Yojna	Life Insurance	Life Insurance Corporation Of India	The objective of the scheme is to provide life insurance protection to the rural and urban poor persons below poverty line and marginally above the poverty line.
3	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 (Deen Dayal 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 (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

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Sl No.	Name of the Scheme	Sector	Nodal Department	Objective of the Scheme
				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-G)	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	Digital India	Ministry of	The Digital India Land Records Modernization

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Sl No.	Name of the Scheme	Sector	Nodal Department	Objective of the Scheme
	Record Modernisation Programme (NLRMP)		Rural Development	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"> <li>• Separation of agriculture and non-agriculture feeders</li> <li>• Strengthening and augmentation of sub-transmission &amp; distribution</li> <li>• Rural electrification</li> </ul>
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	Pradhan Mantri Fasal Bima Yojana (PMFBY)	Agriculture Insurance	Ministry of Agriculture and Farmers Welfare, Government of India	<p>To provide insurance coverage and financial support to the farmers in the event of failure of any of the notified crop as a result of natural calamities, pests &amp; diseases.</p> <ul style="list-style-type: none"> <li>- To stabilise the income of farmers to ensure their continuance in farming.</li> <li>- To encourage farmers to adopt innovative and modern agricultural practices.</li> <li>- To ensure flow of credit to the agriculture sector.</li> </ul>
19	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.
20	Sarva Shiksha Abhiyan (SSA)	Elementary Education	Ministry of Human Resource Development, Department of School Education, Literacy, GOI	Sarva Shiksha Abhiyan (SSA) is Government of India's flagship programme for achievement of Universalization of 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.
21	Integrated Child Development Scheme (ICDS)	Women and Child	Ministry of Women and Child	<p>Objectives of the scheme are as under:-</p> <ul style="list-style-type: none"> <li>• To improve the nutritional and health status of children in the age group of 0-6</li> </ul>

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Sl No.	Name of the Scheme	Sector	Nodal Department	Objective of the Scheme
			Development	<p>years.</p> <ul style="list-style-type: none"> <li>To lay the foundation for proper psychological, physical and social development of the child.</li> <li>To reduce the incidence of mortality, morbidity, malnutrition and school dropout.</li> <li>To achieve effective co-ordination of policy and implementation amongst the various departments to promote child development, and</li> <li>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.</li> </ul>
22	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.
23	Pradhan Mantri UJJWALA Yojana (PMUY) – LPG connection to BPL families	Women Empowerment	Ministry of Petroleum and Natural Gas	Pradhan Mantri Ujjwala Yojana (PMUY) aims to safeguard the health of women & children by providing them with a clean cooking fuel – LPG, so that they don't have to compromise their health in smoky kitchens or wander in unsafe areas collecting firewood.
24	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).
25	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.
26	Pradhan Mantri Awaas Yojana (Grameen) Earlier - Indira Awaas Yojana (IAY)			<ul style="list-style-type: none"> <li>❖ Indira Awaas Yojana has been restructured into Pradhan Mantri Awaas Yojana w.e.f 1<sup>st</sup> April, 2016 in India.</li> <li>❖ Government committed to provide “Housing for all” by 2022.</li> <li>❖ Identification and selection of beneficiaries based on the housing deficiency and other social deprivation parameters in SECC-2011.</li> </ul>

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Sl No.	Name of the Scheme	Sector	Nodal Department	Objective of the Scheme
27	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.
28	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.
29	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.
30	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".
31	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.

### **11.7 Roles of District Planning Committee on financial outlay on mainstreaming Disaster Risk Reduction (DRR) in development programs.**

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

- a. 11 members to be elected out of Zilla Parishad members
- b. 5 members to be elected out of Councilors/Corporators of ULBs.
- c. 2 Expert Members to be nominated by Govt.
- d. Minister of the State nominated by Govt. is the Chair Person of the Committee and Collector is the Member Secretary of the Committee.

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

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 removed 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. The list of projects to be taken up under Gopabandhu Grameen Yojana shall be approved by the District Planning Committee.
2. 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.
3. Consolidation of Draft Development Plan for approval in the 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.

### **11.8 Fund provision for disaster preparedness & capacity building**

Special Relief Commissioner and OSDMA have to provide necessary funds for preparedness and capacity building activities at the dist. and below level.

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## **CHAPTER - XII**

### **PREPARATION & IMPLEMENTATION OF DDMP**

#### **12.1 Procedure for preparation of DDMP as per the DM act to be elaborated**

Under Section 31 of Disaster Management Act 2005 (DM Act), it is mandatory on the part of District Disaster Management Authority (DDMA) to adopt a continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary and expedite for prevention as well as mitigation of disasters. DDMP shall include Hazard Vulnerability Capacity and Risk Assessment (HVCRA), prevention, mitigation, preparedness measures, response plan and procedures. These processes are to be incorporated in the developmental plans of the different departments and preparedness to meet the disaster and relief, rescue and rehabilitation thereafter, so as to minimize the loss to be suffered by the communities and are to be documented so that it is handy and accessible to the general public.

As per the DM Act 2005, DDMA Khordha invited a meeting of all line departments and the members of DDMA to have a preliminary discussion on the formats given by SRC and OSDMA. A detailed discussion was made on the different formats and all the line departments issued instructions to provide necessary information so that all the required information will be incorporated in the DDMP. The processes followed to prepare the DDMP are given below:

1. Stakeholders meeting at the Dist. level on the formats given.
2. Detailed discussion was made on the format.
3. Letters issued under the signature of Collector & DM to the line departments to provide the information with a dateline.
4. Reminders were also issued to the defaulting line departments under the signature of ADM.
5. A sharing meeting organized for DDMA members to have a discussion on the plan prepared and to identify the gaps.
6. Necessary suggestions from DDMA members incorporated in the plan and one round of follow up made to collect the missing data from the line departments.
7. DDMP was finalized with information from the line departments.
8. After finalization, DDMP placed for approval of Chairman, DDMA and finally submitted to SRC for necessary information.

#### **12.2 Roles of ADM, DEO and Nodal Officers support from other line Departments to be defined:**

##### **ADM, Khordha:**

- ADM, Khordha took the leading role in preparation of DDMP.
- Reminders issued to the line departments to provide the necessary data.
- Time to time reviewed the progress of preparation of DDMP by discussing with DEO and DPO, Emergency.

##### **DEO, Khordha:**

- Actively supervised the preparation of DDMP.

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- Time to time called different departments to provide the required information.
- Talked to the senior officials to the departments to provide necessary inputs from their department for preparation of DDMP.
- Time and again wrote mails to all to provide data.

### **Nodal Officers:**

- Provided necessary support for data from their line departments.
- As huge data required from different departments, the Nodal officers took the pain of extracting the data from the files and provided to the Dist. Administration.

### **12.3 Support of line departments (for providing information) to be mentioned.**

- Line departments provided necessary data, but as the DDMP process was started in the month of March, it was difficult on their part to devote time for the data.
- After required follow up, the administration managed to get some data from line departments.
- Two reminders were issued to the concerned departments to provide the information.
- Other departments provided data but after constant follow ups.

12.4 **Time lines for updating DDMP** to be mentioned. (From January to February of every) should be incorporated in matrix (information to line departments etc.)

<b>Sl No.</b>	<b>Activities to be done</b>	<b>Timeline</b>
1	Consultation with line department officials and important stakeholders at district level	1 <sup>st</sup> week of Feb
2	Submission of base line data by all line departments	3 <sup>rd</sup> week of Mar
3	Compilation of information's and preparation DDMP. Sharing of draft with Chairperson, members of DDMA and other stakeholders	1 <sup>st</sup> week of Apr
4	Necessary modification and finalization	2 <sup>nd</sup> week of May
5	Placing the final copy before DDMA, finalization and submission of a copy to SDMA	Last week of May
6	Approval by SDMA	By May

### **12.5 Details of number of consultation and meetings, discussion with stakeholders for modification and final sharing.**

- A three day workshop on preparation of DDMP was attended by DEO and DPO at State level on 8<sup>th</sup> June to 10<sup>th</sup> June 2019.
- Dist. level meeting on sharing of formats was done on 31<sup>st</sup> May 2019.
- Letter issued in the month of Mar with the formats to all line departments and asked to provide data by 31<sup>st</sup> Mar, later one reminder issued to the defaulting offices to provide the data by end of April 2019.
- DEO used to do the weekly review the data collection.
- ADM used to do the fortnightly review of data collection and progress of DDMP.

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- Review of DDMP by the CEO of DDMA was done.
- Sharing with DDMA members was done.
- Approval of DDMP was done.
- The soft copy of the DDMP provided to all line departments to refer and asked for necessary suggestions, so that the same can be made more effective in the coming years.

### **12.6 Sharing and placing before DDMA for approval**

After the sharing of DDMP with DDMA members the final touch was given to the DDMP. On \_\_\_\_\_, the DDMP placed to the Chairman, DDMA for necessary approval. Finally, the DDMP submitted to SRC & OSDMA.

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## **CHAPTER - XIII** **LESSONS LEARNT AND DOCUMENTATION**

### **Management of ESCS "FANI" at Khordha District**

FANI the extremely severe cyclonic storm hit Khordha district on 3<sup>rd</sup> May 2019. All 10nos of blocks and 4 nos of municipality and NACs were completely affected by FANI. Rain started from 2.5.19 evening almost in blocks. After receiving the alert message from IMD on 29.4.19, District Administration was on high alert and multi agency control room was operational.

Immediately Collector-cum-Chairman DDMA called two meeting one at Collectorate Conference Hall on dt-29.04.2019 at 10.30 AM for all Block development Officers, Tahasildars and Executive Officers of ULBs & the second one at 7.00 PM at Special Circuit House, Bhubaneswar for all line departments to alert them and to activate their man and machinery available with them. CSO was instructed to lift 2



months quota of rice for the place it in GPs. BDOs were instructed to indentify the vulnerable persons living in thatched houses and make the shelters ready for evacuees. 2<sup>nd</sup> round of preparatory meeting was conducted on 30.4.19 at Spl. Circuit



House, to ensure readiness at all quarters in presence of specialized forces like NDRF, ODRAF, Fire Service and Civil Defense. 3<sup>rd</sup> round of meeting was conducted on 1.5.19 under the Chairmanship of Dr. Kishan Kumar, IAS, State Nodal officer for the district with a clear instruction to the field functionaries that no one would be left at kutcha houses during evacuation. DSWO and CDMO was instructed to admit the pregnant women in nearest hospital whose expected delivery date was close to 3.5.19. Simultaneously miking was

done at all places to alert the locals.

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From 2.5.19, evacuation started in the field and on hourly basis the reports were compiled at the DEOC. Whole night the evacuation was done. DEOC has got the information that around 1.14 lakhs person were evacuated to different shelters. Necessary arrangement was done at the shelters like generator sets, free kitchen, drinking water etc. Local PRI members were involved in the process. Local PHC/ CHC Doctors were instructed to visit the shelter twice a day to check up the health issues of the evacuees.



For preparedness measure the Dist. Level senior officers were deputed to blocks, ULBs to monitor the evacuation process. NDRF & ODRAF were allotted to blocks like Khordha, Chilika, Balipatana, Jatni & Bhubaneswar from 1.5.19 for necessary rescue and road clearing work. Immediately after the storm, specialized forces started their work from 3.5.19 afternoon. Free kitchen was provided to the evacuees at shelters from 1.5.19 evening. Immediately after FANI, as the tele and mobile communication completely failed, HAM radio station was installed at DEOC by OSDMA to communicate with State

HQ.

Apart from Multi Agency Control room at DEOC, another police control room was established at the Collectorate to provide safety and security for receipt and transportation of Relief materials and other related matters. Under Chief Ministers Special Package for the people extremely affected by the Severe Cyclonic Storm, 295499 nos of NFSS / SFSS beneficiary families



allotted with 50 kg Rice, Rs. 2000/- . In lieu of polythene Rs. 500/- paid to beneficiaries. Similarly, 159757 nos of beneficiary families covered under additional one-month pension. On 7.5.19 review meeting it was decided to open all AWCs from 8.5.19. Also 120 boxes of biscuits was procured and distributed among the children of AWCs. On 13.5.19 a review meeting was conducted for all line departments, blocks

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and Tahasils to finalize the criteria for non card holders. BDOs were instructed to provide 50Kg. rice to the affected non-card holder families.

Central team visited the affected blocks on 13<sup>th</sup> and 14<sup>th</sup> May to assess the damage



occurred in different sectors like schools, roads, houses, agriculture, veterinary, electrical installations etc.

As electrical installations were badly affected by FANI, it was a challenge for the administration to restore electricity quickly. But the field officers worked hard and restored electricity supply to hospitals and other important offices.

DEO was instructed to clean the school campus. It was found that not only school community but also the village people helped the school to clean the campus.

To streamline the relief and restoration work by NGOs, a GO-NGO coordination meeting was conducted on 18.5.19 under the chairmanship of ADM, Khordha and NGOs presented their work area and activity to the house.



On war footing manner relief and restoration work is going on in the district. House damage assessment, crop damage and public property damage assessment have been



completed. Immediate repair of schools damaged due to FANI have been taken up and instruction has been issued to complete the process before the schools re-open on 19.06.19. Frequent review meetings are being conducted to expedite the repair and restoration work in the district.

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