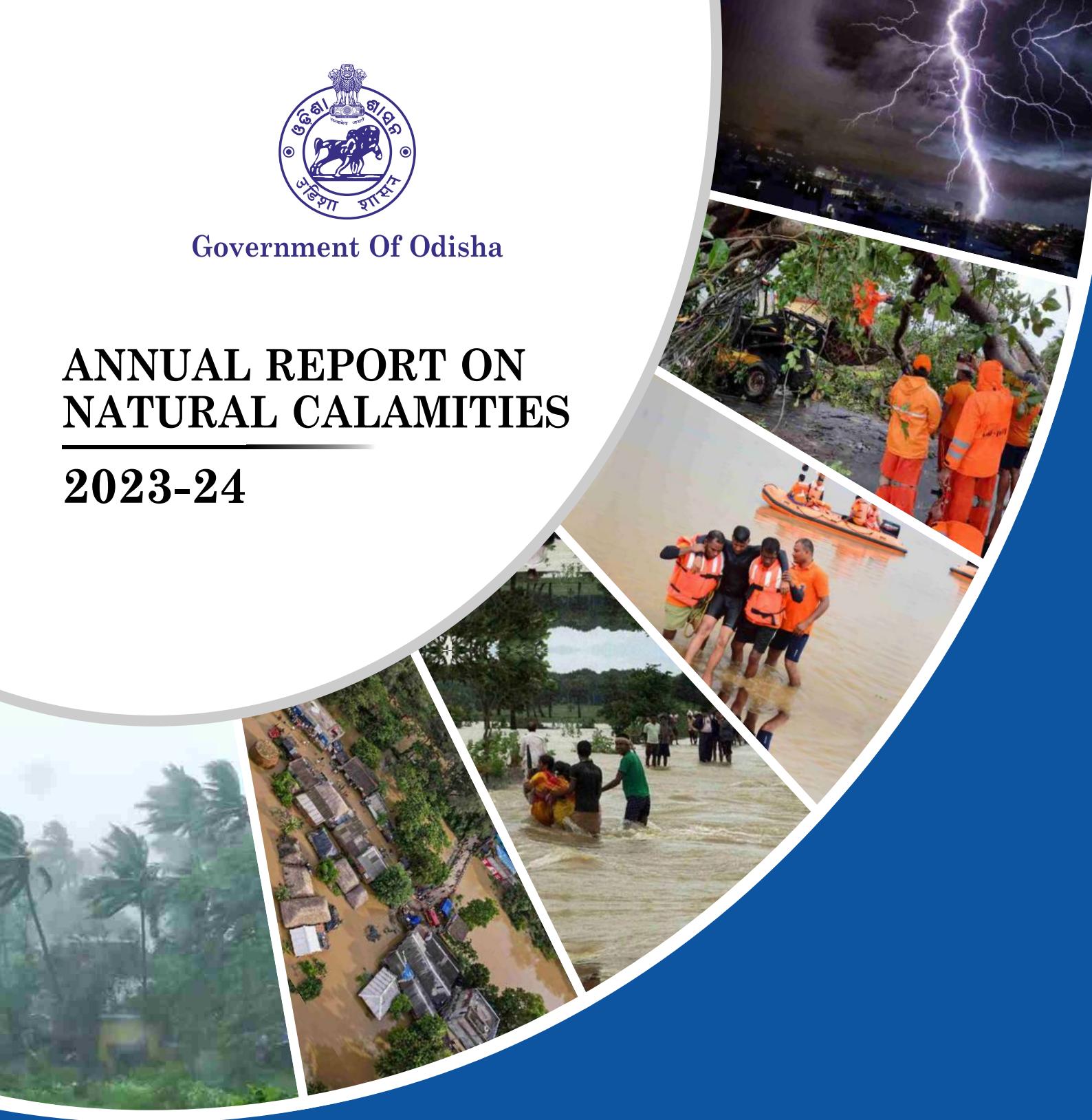




Government Of Odisha

# ANNUAL REPORT ON NATURAL CALAMITIES

## 2023-24



**SPECIAL RELIEF COMMISSIONER**

Revenue and Disaster Management Department

Government Of Odisha



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ON  
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## CHAPTER - I

### Profile of the State

<b>Sl. No.</b>	<b>Name of the District</b>	<b>Total Land Area (Sq. Km.)</b>	<b>Number of Villages (2011 Census)</b>	<b>Popul- ation (in '000)</b>	<b>Literacy Rate (in per cent)</b>	<b>Gross Cropped area (in '000 ha.)</b>	<b>Rivers</b>	<b>Normal Annual rainfall (mm)</b>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>
1	Angul	6375	1871	1272	78.96	285.14	Brahmani, Mahanadi	1401.9
2	Balasore	3806	2932	2317	80.66	326.65	Subarnarekha, Budhabalang, Jalaka, Swarna	1592.0
3	Baragarh	5837	1206	1479	63.99	443.09	Mahanadi, Zira, Anga	1367.3
4	Bhadrak	2505	1312	1507	83.25	229.39	Baitarani, Salandi	1427.9
5	Bolangir	6575	1783	1648	65.50	434.08	Hati, Suktel, Rahul	1289.8
6	Boudh	3098	1187	440	72.37	130.17	Mahanadi, Tel, Salanki, Bagh, Mehurni	1623.1
7	Cuttack	3932	1952	2619	84.20	309.73	Mahanadi, Devi, Kathajodi, Birupa, Kuakhai, Sidua, Luna,	1424.3
8	Deogarh	2940	878	312	73.07	94.74	Bramani	1582.5
9	Dhenkanal	4452	1208	1193	79.41	235.13	Bramani, Ramiyal	1428.8
10	Gajapati	4325	1612	576	54.29	131.66	Bansadhara	1403.3
11	Ganjam	8206	3195	3520	71.88	617.94	Rusikulya, Badanadi, Baghua, Dhanei, Loharakhandi, Ghodahada, Kokalaba, Bahuda	1276.2
12	Jagatsinghpur	1668	1292	1137	87.13	70.97	Biluakhai, Paika, Mahanadi, Devi, Hansua.	1514.6
13	Jajpur	2899	1783	1826	80.44	258.60	Baitarani, Brahmani, Budha, Kharasrota, Birupa	1559.9
14	Jharsuguda	2081	351	579	78.36	81.87	Ib, Veden	1362.8
15	Kalahandi	7920	2253	1573	60.22	542.74	Hati, Indravati,	1330.5

							Tel, Reta, Vamsadhara, Chandola, Utei.	
16	Kandhamal	8021	2587	732	65.12	163.34	Rahul, Salunki,	1427.9
17	Kendrapada	2644	1547	1440	85.93	254.26	Brahmani, Hansua, Kharasrota, Luna, Chitrotpala, Paika, Karandia	1556.0
18	Keonjhar	8303	2123	1803	69.00	371.67	Baitarani	1487.7
19	Khordha	2813	1534	2246	87.51	162.42	Kusabhadra, Bhargavi, Daya	1408.4
20	Koraput	8807	2042	1377	49.87	355.38	Kolab, Ultajharan, Champabati, Jhanjabati	1567.2
21	Malkanagiri	5791	1055	613	49.49	186.99	Saberi, Sileru, Guru, Priyakalam, Taptadhara	1667.6
22	Mayurbhanj	10418	3950	2514	63.98	449.50	Kala, Budhabalang	1600.6
23	Nawarangpur	5291	891	1219	48.20	261.60	Indravati, Tel, Vaskel	1569.5
24	Nayagarh	3890	1692	962	79.17	190.29	Mahanadi, Brutanga, Kaligiri, Kusumi, Malaguni, Budhabudhari, Kuairia	1354.3
25	Nuapada	3852	668	606	58.20	269.72	Udanti, Jalka	1286.4
26	Puri	3479	1707	1698	85.37	259.04	Kadua, Dhanua, Bhadua, Ratnachira, Malaguni, Devi, Daya, Kusabhadra, Bhargavi, Prachi, Luna	1408.8
27	Rayagada	7073	2665	962	50.88	234.77	Bansadhara, Nagabali	1285.9
28	Sambalpur	6657	1313	1044	76.91	249.11	Mahanadi	1495.7
29	Subarnapur	2337	962	652	74.42	217.75	Mahanadi, Tel	1418.5
30	Sundargarh	9712	1762	2081	74.13	349.86	Brahmani, Ib	1422.4
<b>Total (State)</b>		<b>155707</b>	<b>51313</b>	<b>41947</b>	<b>73.45</b>	<b>8167.60</b>		<b>1451.2</b>

## **CHAPTER- II**

### **Rainfall**

#### **Normal rainfall (Long Term Average):**

The long term average rainfall in respect of different Blocks, Districts and the State for different months of year is fixed by IMD, Pune taking into account the rainfall data for preceding 30 years. Such long term average rainfall popularly called 'Normal Rainfall' has been last fixed during 2006 for different districts and the State as follows:

<b>Sl. No.</b>	<b>District</b>	<b>Annual Normal Rainfall (in mm)</b>	<b>Sl. No.</b>	<b>District</b>	<b>Annual Normal Rainfall (in mm)</b>
1	Angul	1401.9	17	Kendrapada	1556.0
2	Balasore	1592.0	18	Keonjhar	1487.7
3	Bargarh	1367.3	19	Khordha	1408.4
4	Bhadrak	1427.9	20	Koraput	1567.2
5	Balangir	1289.8	21	Malkanagiri	1667.6
6	Boudh	1623.0	22	Mayurbhanj	1600.2
7	Cuttack	1424.3	23	Nawarangpur	1569.5
8	Deogarh	1582.5	24	Nayagarh	1354.3
9	Dhenkanal	1428.8	25	Nuapada	1286.4
10	Gajapati	1403.3	26	Puri	1408.8
11	Ganjam	1276.2	27	Rayagada	1285.9
12	Jagatsinghpur	1514.6	28	Sambalpur	1495.7
13	Jajpur	1559.9	29	Subarnapur	1418.5
14	Jharsuguda	1362.8	30	Sundargarh	1422.4
15	Kalahandi	1330.5	<b>State Average</b>		<b>1451.2</b>
16	Kandhamal	1427.9			

#### **District-wise rainfall for the year 2023**

The district-wise monthly rainfall statistics from January to December, 2023 including percentage of deviation is indicated in the table below.

Sl. No.	DISTRICT	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE			JULY		
		Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.
1	Angul	0.0	12.6	-100.0	0.0	27.1	-100.0	42.2	24.3	73.6	38.3	27.2	40.9	33.4	52.9	-36.8	277.7	225.1	23.4	299.6	347.7	-13.8
2	Balasore	0.0	14.7	-100.0	0.3	31.8	-99.2	92.4	34.4	168.7	87.1	62.2	40.0	50.8	108.5	-53.1	169.8	221.5	-23.4	251.9	308.6	-18.4
3	Bargarh	0.0	12.5	-100.0	0.0	19.1	-100.0	58.2	22.0	164.4	44.4	20.0	122.2	32.7	25.6	27.8	252.9	205.6	23.0	337.1	397.2	-15.1
4	Bhadrak	0.7	11.8	-93.9	0.0	29.6	-100.0	107.2	36.1	196.8	68.8	51.2	34.4	52.8	91.4	-42.2	145.0	198.2	-26.9	342.2	293.6	16.5
5	Balangir	0.0	8.6	-100.0	0.0	13.2	-100.0	37.4	14.6	156.0	35.1	13.4	161.8	24.7	27.8	-11.0	121.7	202.8	-40.0	321.3	360.5	-10.9
6	Boudh	0.0	17.0	-100.0	0.0	26.8	-100.0	51.3	22.4	129.0	35.6	16.5	115.6	43.4	38.4	13.0	161.1	233.8	-31.1	457.2	418.5	9.2
7	Cuttack	0.0	9.9	-100.0	0.0	28.6	-100.0	38.8	24.7	57.3	83.3	28.3	194.3	68.1	71.5	4.7	120.8	210.0	-42.5	216.5	308.3	-29.8
8	Deogarh	0.0	14.1	-100.0	0.0	27.0	-100.0	22.2	20.6	7.6	24.1	21.3	13.0	67.5	41.9	61.2	329.3	242.4	35.8	374.9	447.7	-16.3
9	Dhenkanal	0.0	10.5	-100.0	0.0	21.9	-100.0	62.5	33.7	85.5	67.0	41.3	62.1	70.5	69.6	1.2	252.7	225.7	12.0	293.7	317.9	-7.6
10	Gajapati	0.1	8.1	-98.5	0.0	23.0	-100.0	97.8	41.3	136.9	85.0	65.2	30.3	106.8	107.8	-0.9	118.2	199.7	-40.8	310.2	230.6	34.5
11	Ganjam	0.0	9.4	-100.0	0.0	24.1	-100.0	49.2	32.6	51.0	68.3	36.6	86.6	46.8	65.4	-28.5	79.5	168.3	-52.8	194.9	220.8	-11.8
12	Jagatsinghpur	0.0	14.5	-100.0	0.0	21.7	-100.0	27.1	35.5	-23.7	59.0	25.4	132.3	40.0	78.0	-48.8	94.6	202.3	-53.2	263.3	277.3	-5.1
13	Jajpur	0.0	12.9	-100.0	0.9	25.1	-96.4	80.2	28.4	182.5	48.5	46.1	5.2	68.5	93.7	-26.9	147.7	238.5	-38.1	221.7	350.9	-36.8
14	Jharsuguda	0.0	14.1	-100.0	0.0	22.9	-100.0	31.9	17.6	81.0	35.0	15.1	131.5	26.0	27.9	-6.7	244.8	218.8	11.9	335.3	385.8	-13.1
15	Kalahandi	0.0	10.3	-100.0	0.0	14.4	-100.0	40.3	23.7	70.2	75.2	25.7	192.6	33.9	41.8	-19.0	80.4	240.4	-66.5	338.7	327.7	3.4
16	Kandhamal	0.0	10.6	-100.0	0.0	29.7	-100.0	75.7	28.0	170.5	92.4	35.7	158.8	93.2	67.8	37.5	79.6	207.9	-61.7	442.9	325.1	36.2
17	Kendrapara	0.8	10.6	-92.7	0.0	30.2	-100.0	51.0	35.0	45.7	62.3	33.9	83.9	44.7	94.2	-52.6	82.9	208.3	-60.2	247.1	317.1	-22.1
18	Keonjhar	0.2	14.6	-98.9	0.0	33.8	-100.0	51.9	33.1	56.7	68.4	42.1	62.6	60.8	94.8	-35.8	212.5	241.4	-12.0	274.4	318.0	-13.7
19	Khordha	0.0	12.4	-100.0	0.0	24.3	-100.0	65.7	22.1	197.3	65.1	28.0	132.6	44.4	60.7	-26.8	126.6	196.2	-35.5	251.7	304.9	-17.5
20	Koraput	0.0	5.7	-100.0	0.0	8.6	-100.0	96.1	18.3	424.9	102.9	55.2	86.4	120.6	81.9	47.2	170.6	206.8	-17.5	329.5	375.6	-12.3
21	Malkangiri	0.0	2.7	-100.0	0.0	4.1	-100.0	109.9	8.9	1134.5	50.2	34.8	44.4	57.1	49.1	164	215.7	212.2	1.7	603.0	465.7	29.5
22	Mayurbhanj	0.0	10.3	-100.0	0.0	28.0	-100.0	68.7	40.2	71.0	33.7	52.5	-35.7	73.8	101.2	-27.1	115.2	265.8	-56.7	304.1	337.3	-9.8
23	Nawarangpur	0.0	6.7	-100.0	0.0	14.1	-100.0	66.4	15.1	339.8	101.1	34.1	196.6	67.9	66.1	2.8	124.2	251.8	-50.7	278.2	356.6	-22.0
24	Nayagarh	0.0	11.7	-100.0	0.0	28.6	-100.0	56.2	30.0	87.4	81.5	39.9	104.2	32.2	58.8	-45.3	123.5	203.5	-39.3	336.5	288.5	16.6
25	Nuapada	0.0	12.0	-100.0	0.0	14.6	-100.0	48.0	19.7	143.5	54.7	21.8	150.9	61.7	97.8	126.0	210.3	-40.1	304.9	347.1	-12.2	
26	Puri	0.0	10.9	-100.0	0.0	25.4	-100.0	21.0	15.5	35.2	8.6	18.5	-53.7	20.0	62.1	-67.7	108.2	188.0	-42.4	175.2	292.0	40.0
27	Rayagada	0.0	9.6	-100.0	0.0	22.9	-100.0	71.8	38.0	89.0	100.1	52.7	89.9	78.4	87.8	-10.7	49.0	195.3	-74.9	311.7	259.5	20.1
28	Sambalpur	0.0	14.8	-100.0	0.0	24.5	-100.0	37.3	18.2	104.8	33.4	16.5	102.4	25.8	32.3	-20.1	306.7	221.0	38.8	413.9	429.5	-3.6
29	Subarnapur	0.0	12.5	-100.0	0.0	17.2	-100.0	50.4	15.7	220.7	21.5	15.4	39.4	33.9	29.3	15.7	141.6	217.4	-34.9	375.4	399.6	-6.1
30	Sundargarh	0.0	15.1	-100.0	0.0	24.9	-100.0	21.8	16.0	36.1	40.5	16.0	153.2	22.4	40.6	-44.8	218.8	237.4	-7.8	316.7	386.4	-18.0
<b>State Average</b>	<b>0.1</b>	<b>11.4</b>	<b>-99.5</b>	<b>0.0</b>	<b>22.9</b>	<b>-99.8</b>	<b>57.7</b>	<b>25.5</b>	<b>126.2</b>	<b>59.0</b>	<b>33.1</b>	<b>78.4</b>	<b>53.4</b>	<b>63.3</b>	<b>-15.6</b>	<b>159.9</b>	<b>216.5</b>	<b>-26.1</b>	<b>317.5</b>	<b>339.9</b>	<b>-6.6</b>	

Contd..

Sl. No.	DISTRICT	AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER			Annual	
		Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.		
1	Angul	321.4	357.5	-10.1	266.4	217.5	22.5	125.6	86.3	45.5	9.7	20.4	-52.6	9.8	3.3	197.3	1424.1	1401.9
2	Balasore	335.5	332.1	1.0	328.8	267.6	22.9	145.9	170.5	-14.4	0.8	34.6	-97.8	8.6	5.5	56.1	1471.9	1592.0
3	Bargarh	312.8	374.4	-16.5	334.2	222.6	50.1	49.7	52.8	-5.9	0.0	10.4	-100.0	33.1	5.1	549.8	1455.1	1367.3
4	Bhadrak	247.0	311.7	-20.7	287.2	216.8	32.5	114.5	145.3	-21.2	0.0	37.3	-100.0	4.8	4.9	-2.3	1370.2	1427.9
5	Balangir	276.4	333.6	-17.2	311.8	237.4	31.3	31.1	68.4	-54.5	4.5	7.2	-38.0	29.5	2.3	1182.9	1193.4	1289.8
6	Boudh	448.8	488.8	-8.2	226.7	244.8	-7.4	115.4	90.5	27.5	0.0	21.1	-100.0	19.8	4.4	350.0	1559.2	1623.0
7	Cuttack	288.5	339.1	-14.9	406.0	229.2	77.1	99.4	125.6	-20.9	4.4	45.0	-90.3	9.2	4.1	123.3	1335.0	1424.3
8	Deogarh	322.1	443.4	-27.3	245.9	228.2	7.7	111.0	84.4	31.5	4.1	8.0	-49.2	26.5	3.5	656.2	1527.4	1582.5
9	Dhenkanal	367.3	344.8	6.5	366.6	220.6	66.2	133.1	104.4	27.5	1.0	36.2	-97.2	15.4	2.2	598.3	1629.7	1428.8
10	Gajapati	166.9	253.6	-34.2	269.5	237.9	13.3	21.2	168.6	-87.4	16.2	61.8	-73.8	28.5	5.7	399.8	1220.3	1403.3
11	Ganjam	139.5	246.8	-43.5	287.8	216.3	33.1	17.9	177.7	-89.9	6.4	71.1	-91.1	40.2	7.1	465.9	930.4	1276.2
12	Jagatsinghpur	227.6	379.1	-40.0	327.4	241.4	35.6	103.9	151.1	-31.2	8.8	80.4	-89.1	6.8	-14.4	1158.4	1514.6	-23.5
13	Jajpur	274.6	341.2	-19.5	326.7	238.0	37.3	113.4	140.2	-19.1	5.0	41.0	-87.9	9.0	3.9	130.8	1296.2	1559.9
14	Jharsuguda	450.3	382.9	17.6	377.8	210.7	79.3	130.7	54.9	138.0	21.6	7.7	180.0	62.2	4.4	1314.5	1715.4	1362.8
15	Kalabandi	290.4	355.4	-18.3	403.3	204.6	97.1	27.9	74.0	-62.4	6.2	10.9	-43.3	39.6	1.6	2376.9	1335.9	1330.5
16	Kandhamal	359.9	330.8	8.8	371.4	239.1	55.3	61.4	117.7	-47.9	14.6	31.0	-53.1	19.8	4.5	339.8	1610.7	1427.9
17	Kendrapara	205.0	333.3	-38.5	300.7	237.3	26.7	126.9	183.7	-30.9	5.9	67.2	-91.2	3.6	5.2	-31.6	1130.8	1556.0
18	Keonjhar	392.4	343.6	14.2	286.1	241.1	10.4	128.0	101.3	26.3	10.3	20.5	-49.8	25.5	3.4	650.7	1490.5	1487.7
19	Khordha	257.3	320.6	-19.8	311.3	234.5	32.8	66.3	149.3	-55.6	8.9	50.4	-82.4	20.8	5.0	316.4	1218.0	1408.4
20	Koraput	262.8	393.6	-33.2	512.1	256.3	99.8	30.5	126.1	-75.8	46.0	32.6	41.1	78.7	6.5	1110.0	1749.7	1567.2
21	Malkangiri	257.4	472.8	-45.6	368.1	281.2	30.9	15.0	109.5	-86.3	37.3	23.6	58.1	48.6	3.0	1521.0	1762.5	1667.6
22	Mayurbhanj	363.4	359.9	1.0	274.1	262.0	4.6	87.3	114.1	-23.5	16.9	21.6	-21.9	38.6	7.3	429.1	1375.8	1600.2
23	Nawarangpur	232.0	407.5	-43.1	392.9	225.6	74.2	13.7	168.6	-91.9	3.7	18.7	-80.2	51.2	4.6	1012.6	1331.4	1569.5
24	Nayagarh	222.7	288.2	-22.7	341.6	226.8	50.6	54.2	134.5	-59.7	11.6	39.0	-70.3	15.3	4.8	218.0	1275.1	1354.3
25	Nuapada	228.9	327.8	-30.2	342.4	214.5	59.6	8.8	68.9	-87.2	0.0	15.3	-100.0	60.1	3.2	1779.4	1225.4	-4.0
26	Puri	281.5	297.9	-5.5	251.5	243.2	3.4	114.6	181.6	-36.9	9.8	67.3	-85.5	3.4	6.4	-47.4	993.7	1408.8
27	Rayagada	215.7	273.7	-21.2	291.0	199.1	46.2	9.8	109.7	-91.1	4.8	32.9	-85.5	22.8	4.7	384.3	1155.1	1285.9
28	Sambalpur	466.7	442.4	5.5	297.1	224.7	32.2	139.7	54.7	155.4	18.8	12.7	48.2	32.9	4.4	648.4	1772.4	1495.7
29	Subarnapur	500.5	408.9	22.4	235.8	228.0	3.4	96.2	59.8	60.9	0.8	11.4	-92.7	24.4	3.3	638.9	1480.4	1418.5
30	Sundargarh	302.0	393.9	-23.3	302.4	211.5	43.0	111.2	67.7	64.3	14.5	8.7	66.5	41.4	4.2	884.9	1391.7	1422.4
<b>State Average</b>		<b>300.6</b>	<b>356.0</b>	<b>-15.6</b>	<b>320.8</b>	<b>231.9</b>	<b>38.3</b>	<b>80.1</b>	<b>114.7</b>	<b>-30.1</b>	<b>9.7</b>	<b>31.5</b>	<b>-69.1</b>	<b>27.7</b>	<b>4.5</b>	<b>514.7</b>	<b>1336.5</b>	<b>1451.2</b>
																<b>-4.5</b>		

### **Rainfall during Monsoon 2023 (1<sup>st</sup> June to 30<sup>th</sup> September)**

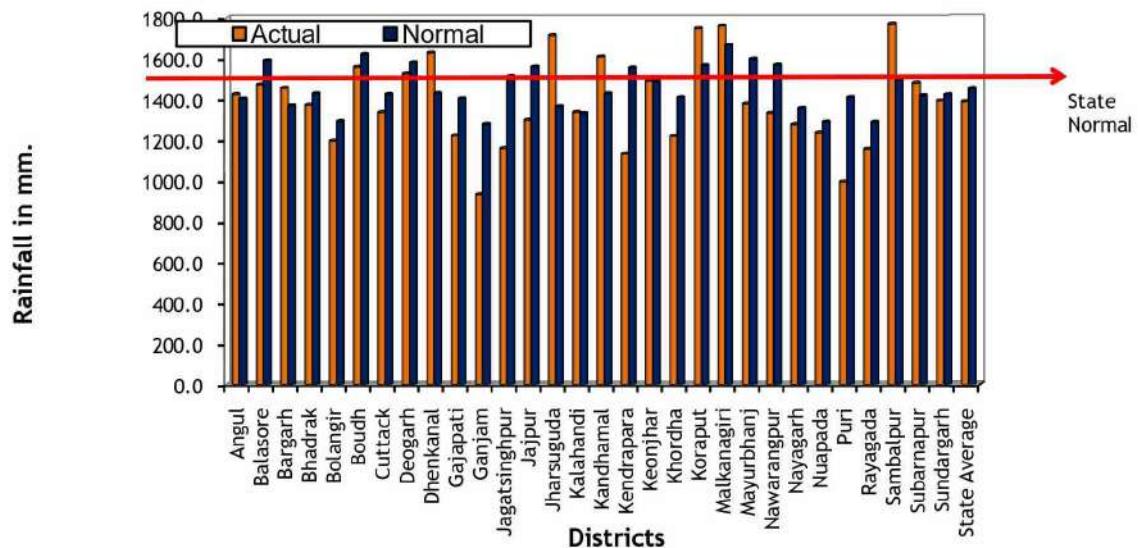
The State experienced average deficit rainfall of 26.1 percent in June, deficit rainfall of 6.6 percent in July, deficit rainfall of 15.6 percent in August and surplus rainfall of 38.3 percent in September, 2023 compared to the long term average rainfall. The cumulative average rainfall of the State from June to September, 2023 remained 1098.7 mm against the Long Term Average (LTA) of 1144.3 mm registering a deficit of 4.0 percent.

<b>Month</b>	<b>Normal</b>	<b>Rainfall in MM</b>	
		<b>Actual</b>	<b>Deviation in %</b>
June	216.5	159.9	-26.1
July	339.9	317.5	-6.6
August	356.0	300.6	-15.6
September	231.9	320.8	38.3
<b>Total:</b>	<b>1144.3</b>	<b>1098.7</b>	<b>-4.0</b>

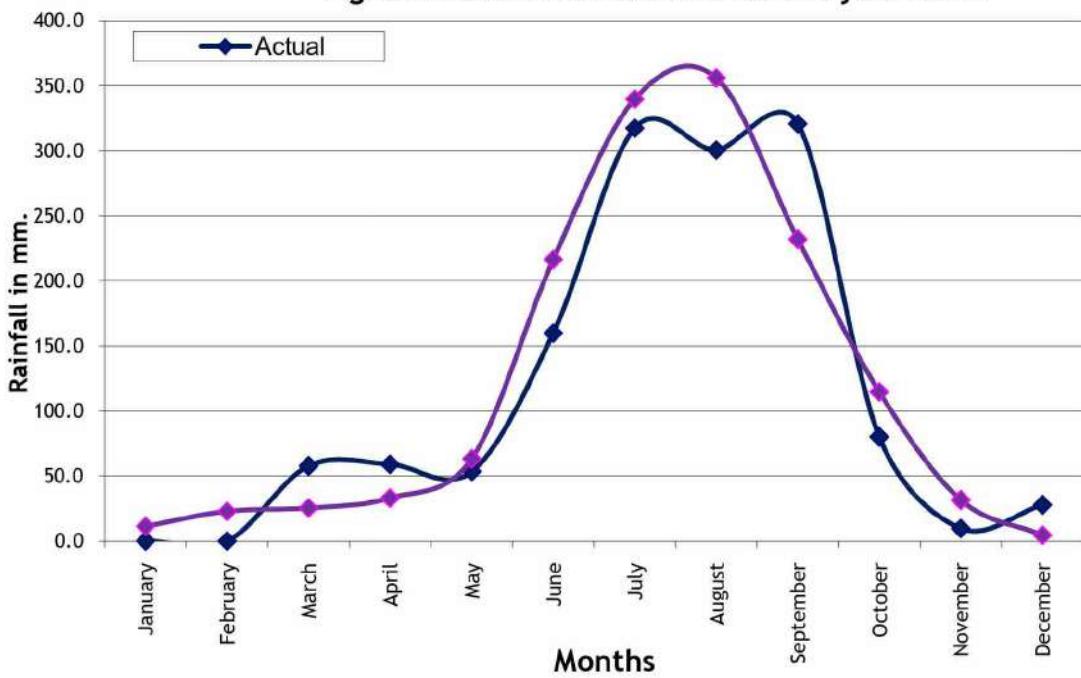
Block-wise analysis of the cumulative rainfall from 1<sup>st</sup> June, 2023 to 30<sup>th</sup> September, 2023 indicates that out of 314 Blocks in the State, 41 Blocks received surplus rainfall (above 19%), 186 Blocks received normal rainfall (+19% to -19%), 71 Blocks received deficit rainfall (shortfall of >19% to 39%), 13 Blocks received severe deficit rainfall (shortfall of >39% to 59%) and 3 Blocks recorded scanty rainfall (shortfall of >59%). Table below indicates district-wise position.

STATUS OF RAINFALL (1st June, 2023 to 30th September, 2023)							
Sl . N.o.	District	No. of Blocks having Surplus Rainfall (above 19% )	No. of Blocks having Normal Rainfall (+19% to - 19%)	No. of Blocks having Deficit Rainfall (shortfall of >19% up to 39%)	No. of Blocks having Severe Deficit Rainfall (shortfall of >39% up to 59%)	No. of Blocks having Scanty Rainfall (shortfall of >59%)	Not Report ed
1	2	3	4	5	6	7	8
1	Angul	2	4	2			
2	Balasore	1	9	2			
3	Bargarh	3	8	1			
4	Bhadrak	1	5	1			
5	Balangir	2	7	3	2		
6	Boudh		2	1			
7	Cuttack	2	7	4			
8	Deogarh		3				
9	Dhenkanal	3	4	1			
10	Gajapati		7	1			
11	Ganjam	1	12	6	1	2	
12	Jagatsinghpur		4	4			
13	Jajpur		5	4	1		
14	Jharsuguda	3	2				
15	Kalahandi	3	5	5			
16	Kandhamal	4	7	1			
17	Kendrapara		5	2	2		
18	Keonjhar	1	10	2			
19	Khordha	1	5	3	1		
20	Koraput	4	6	4			
21	Malkanagiri		6	1			
22	Mayurbhanj	3	11	8	4		
23	Nawarangpur	1	5	3		1	
24	Nayagarh		8				
25	Nuapada		4	1			
26	Puri	1	4	4	2		
27	Rayagada	2	6	3			
28	Sambalpur	2	7				
29	Subarnapur	1	4	1			
30	Sundargarh		14	3			
<b>No. of Blocks</b>		<b>41</b>	<b>186</b>	<b>71</b>	<b>13</b>	<b>3</b>	
<b>No. of Districts</b>		<b>20</b>	<b>30</b>	<b>26</b>	<b>7</b>	<b>2</b>	

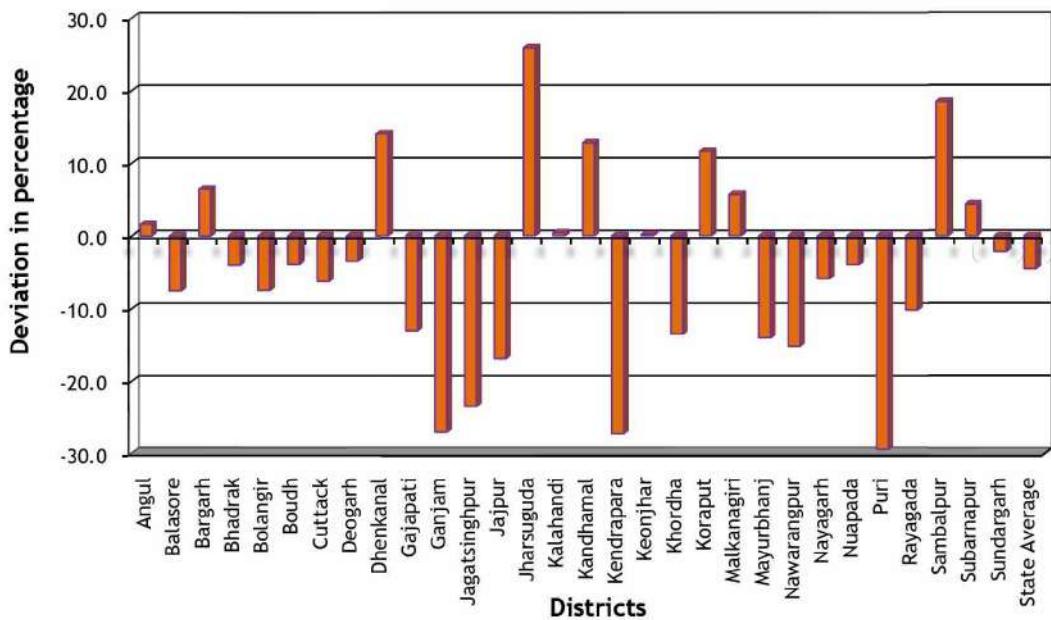
**Fig.1.1. District-wise Rainfall for the year 2023**



**Fig.1.2. Month-wise Rainfall for the year 2023**



**Fig.1.3. Rainfall Deviation of the Districts for the year 2023**



## **CHAPTER – III**

### **Disasters during the Year**

#### **III(a). Flood & Heavy Rain**

From the beginning of the month of August 2023, due to depression in the Bay of Bengal, Heavy Rain was experienced in many parts of the State and due to heavy rain in upper catchments of the rivers of The Baitarani, The Mahanadi & The Jalaka, some amount of flooding was experienced in the lower catchment of these rivers.

The blocks which witnessed rainfall of more than 200 mm in 3 days period ( from 1.8.2023 to 3.8.2023 ) is indicated in the table below.

<b>RAINFALL REPORTS OF DIFFERENT BLOCKS FROM 1.8.2023 TO 3.8.2023</b>						
<b>(Rainfall in mm.)</b>						
<b>Sl.</b>	<b>District</b>	<b>Block</b>	<b>1.8.2023</b>	<b>2.8.2023</b>	<b>3.8.2023</b>	<b>Total</b>
<b>Rainfall more than 500 mm</b>						
1	Boudh	Boudh	25.0	390.6	87.0	502.6
<b>Rainfall more than 400 mm</b>						
1	Sambalpur	Jujumura	51.0	361.8	64.4	477.2
2		Rairakhol	34.0	348.0	62.0	444.0
3	Subarnapur	Birmaharajpur	35.0	272.4	104.5	411.9
<b>Rainfall more than 300 mm</b>						
1	Angul	Kishorenagar	40.2	230.0	77.8	348.0
2	Angul	Athamalik	8.4	232.0	90.7	331.1
3	Jharsuguda	Kirmira	15.0	193.0	97.0	305.0
4	Kalahandi	Madanpur Rampur	40.0	195.0	99.0	334.0
5	Kandhamal	Nuagaon	11.2	206.4	86.2	303.8
6	Keonjhar	Saharpada	9.2	276.8	19.4	305.4
7	Mayurbhanj	Karanjia	20.0	300.6	14.0	334.6
8	Subarnapur	Binika	6.1	227.2	139.0	372.3
9	Subarnapur	Ullunda	11.0	262.0	62.0	335.0
10	Subarnapur	Sonepur	50.0	193.0	75.0	318.0

Rainfall from 200 mm to 300 mm						
1	Angul	Talcher	29.0	147.0	65.0	241.0
2	Angul	Pallahara	27.0	160.0	38.0	225.0
3	Angul	Angul	5.6	150.0	45.0	200.6
4	Balangir	Duduka	1.0	223.4	48.2	272.6
5	Balangir	Balangir	5.5	173.0	50.0	228.5
6	Balangir	Gudvella	30.4	125.6	66.4	222.4
7	Balangir	Bangomunda	2.0	159.0	55.0	216.0
8	Balasore	Khaira	33.0	185.0	24.0	242.0
9	Balasore	Baliapal	51.0	173.0	4.0	228.0
10	Balasore	Simulia	52.0	162.0	7.0	221.0
11	Bargarh	Bijepur	27.0	185.0	49.0	261.0
12	Bargarh	Barpali	72.0	148.0	35.0	255.0
13	Bargarh	Gaisilet	2.0	170.0	45.0	217.0
14	Bargarh	Padampur	0.0	120.0	88.0	208.0
15	Boudh	Kantamal	28.6	160.4	99.6	288.6
16	Boudh	Harabhangha	13.4	143.4	72.0	228.8
17	Cuttack	Kantapada	101.0	124.0	61.0	286.0
18	Cuttack	Banki-Dampada	70.0	70.0	62.0	202.0
19	Dhenkanal	Bhuban	96.0	145.0	35.0	276.0
20	Jharsuguda	Kolabira	19.0	190.2	61.0	270.2
21	Jharsuguda	Laikera	16.2	156.2	63.1	235.5
22	Kalahandi	Bhabanipatna	70.0	140.0	35.0	245.0
23	Kalahandi	Karlamunda	18.7	90.0	110.0	218.7
24	Kandhamal	Phiringia	8.2	219.2	61.0	288.4
25	Kandhamal	Phulbani	15.6	205.6	57.2	278.4
26	Kandhamal	Baliguda	9.0	210.0	48.0	267.0
27	Kandhamal	Chakapad	9.2	147.0	49.2	205.4
28	Kandhamal	Khajuripada	6.0	133.2	63.8	203.0
29	Keonjhar	Telkoi	13.4	186.5	61.2	261.1
30	Keonjhar	Patna	3.0	220.2	26.7	249.9
31	Keonjhar	Banspal	17.2	145.5	66.3	229.0
32	Khordha	Bhubaneswar	157.8	27.0	25.2	210.0
33	Mayurbhanj	Thakurmunda	2.0	218.0	52.5	272.5
34	Mayurbhanj	Joshipur	22.4	217.2	13.2	252.8
35	Mayurbhanj	Kaptipada	48.0	148.0	34.0	230.0
36	Mayurbhanj	Raruana	1.0	210.0	19.0	230.0
37	Mayurbhanj	Sukuruli	0.0	208.6	20.4	229.0
38	Mayurbhanj	Kusumi	16.0	189.0	21.0	226.0

39	Mayurbhanj	Jamda	18.0	185.0	13.0	216.0
40	Mayurbhanj	Bahalda	56.4	144.6	10.2	211.2
41	Mayurbhanj	Udala	68.0	109.0	31.0	208.0
42	Nuapada	Komna	0.0	140.0	80.0	220.0
43	Sambalpur	Naktideul	48.0	140.0	71.0	259.0
44	Sambalpur	Maneswar	71.6	64.8	80.2	216.6
45	Subarnapur	Dunguripali	3.2	210.0	45.0	258.2
46	Subarnapur	Tarbha	16.6	156.0	52.6	225.2
47	Sundargarh	Kuarmunda	53.2	9.4	175.2	237.8
48	Sundargarh	Kutra	26.0	15.2	195.4	236.6
49	Sundargarh	Bisra	17.3	18.3	191.2	226.8

### **Response Activities:**

The District Administration had undertaken elaborate preparedness to encounter the flood situation. As precautionary measures, 53485 number of people were evacuated from low lying areas and were kept in Flood/ Cyclone shelters & safe school and other buildings.

Total 374 number of relief camps were opened for affected people and arrangement of food, drinking water, lighting, sanitation and health facilities were made for them till they were able to return to their houses.

Sl. No.	Name of the District	Total no. of relief camps opened	Total no. of people accommodated in relief camps				
			Male	Female	Child	Others	Total
1	Angul	10	484	516	353	0	1363
2	Balangir	15	1315	1236	378	0	2929
3	Balasore	38	948	567	210	0	1725
4	Bhadrak	151	34107	19227	15543	0	68877
5	Boudh	8	356	302	214	0	872
6	Cuttack	1	40	35	17	0	92
7	Jagatsinghpur	6	706	512	286	0	1504
8	Jajpur	8	1380	497	529	0	2406
9	Kalahandi	18	419	607	206	0	1232
10	Kandhamal	1	32	49	14	0	95
11	Kendrapara	10	8965	5245	980	0	15190

12	Keonjhar	15	622	558	278	0	1458
13	Mayurbhanj	76	927	782	601	0	2310
14	Sambalpur	7	201	184	70	0	455
15	Subarnapur	10	340	295	208	0	743
<b>Total</b>		<b>374</b>	<b>50842</b>	<b>30612</b>	<b>19887</b>	<b>0</b>	<b>101251</b>

#### **Deployment of Response Forces:**

As many as 13 Teams of ODRAF, 8 Teams of NDRF and 85 Local Fire Service Teams with emergency equipment were deployed for search and rescue operation. The district wise deployment of search & rescue team is given below.

SI No	Name of the District where deployment is made	ODRAF Team	NDRF Team	Additional Fire & Emergency Services Team	Grand Total
1	Bhadrak	1	1	3	<b>5</b>
2	Jajpur	1	1	3	<b>5</b>
3	Sambalpur	1	-	1	<b>2</b>
4	Keonjhar	1	-	1	<b>2</b>
5	Mayurbhanj	1	-	1	<b>2</b>
6	Angul	1	1	1	<b>3</b>
7	<u>Sonepur</u>	-	-	1	<b>1</b>
8	<u>Boudh</u>	1	-	1	<b>2</b>
9	<u>Kandhamal</u>	-	-	1	<b>1</b>
10	Balasore	1	-	-	1
11	Cuttack	1	1	20	22
12	Kendrapada	1	1	12	14
13	Jagatsinghpur	1	1	11	13
14	Puri	1	1	14	16
15	Khordha	1	1	7	9
16	Nayagarh	-	-	8	8
<b>Grand Total</b>		<b>13</b>	<b>8</b>	<b>85</b>	<b>106</b>

### **Emergent Relief:**

840 Quintal of Chuda (flattened rice), 121.87 kg of Guda (Jaggery) have been distributed as emergent relief to the affected people. In addition to that Cattle feed and polythene sheets have also been distributed, the details of which can be seen below.

SI No.	Name of District	Chuda in qntl.	Guda in qntl.	Beneficiary Covered	Cattle feed in MT	Polythene sheet (nos.)
1	Angul					1070
2	Balangir	0	0	0	0	301
3	Balasore	22	2.7	3250	0	45
5	Bhadrak	585.33	80.7	75652	0	206
6	Boudh	0	0	2717	0	754
8	Jagatsinghpur	45	12	3827	0	0
9	Jajpur	62.5	6.1	40680	0	45
10	Jharsuguda	0	0	0	0	301
11	Kalahandi					442
12	Kandhamal	0	0	0	0	234
13	Kendrapara	97	14.5	15190	0	0
14	Keonjhar	4.5	0.75	2645	0	761
15	Khordha	8.95	1.87	215	0.1	0
16	Mayurbhanj	7.3	0.9	2872	0	304
17	Puri	2.5	0.25	270	11.2	
18	Sambalpur	3.07	1.21	1074	0	329
19	Subarnapur	2.22	0.89	386	0	610
	<b>Total</b>	<b>840.37</b>	<b>121.87</b>	<b>148778</b>	<b>11.3</b>	<b>5402</b>

### **Health & Sanitation Measures:**

Emergency medicines were stocked in districts prior to floods. Essential drugs like halogen tablets, paracetamol tablets, antibiotics were provided to all affected districts. Medical teams were deployed in flood affected districts. Doctors & paramedics were mobilized to serve flood affected areas. The detail health care measures undertaken by Health department were as follows.

SI No.	Name of District	Medical Team deployed (Nos.)	Medical Centre Opened (Nos.)	ORS (No. of Pkts. distributed)	Halogen Tablets (Nos.) distributed	Bleaching powder (in bag) supplied
1	Angul	2				
2	Balasore	0	0	150	3500	10
3	Bhadrak	12	8	10542	10542	110
4	Boudh	10	1	280	1250	8
5	Jagatsinghpur	2	2	0	0	2

6	Jajpur	5	20	3463	25980	120
7	Kandhamal	12	0	0	0	450
8	Kendrapara	6	5	2660	26520	1122
9	Keonjhar					40
10	Mayurbhanj	0	0	270	570	35
11	Subarnapur	3	2	4000	1000	11
Total		52	38	21365	69362	1908

### **Drinking Water Measures:**

Disinfection of drinking water sources carried out in affected districts. Mobile vans were deployed in heavily affected areas for disinfection and repair of tube wells. Total 2301 tubewells and 507 no. of wells were disinfected.

### **Impact:**

#### **Area & population affected**

During the Flood & Heavy rain of the month August 2023, total 22 districts were affected out of which 13 districts were affected by Flood & Heavy rain and 9 districts were affected by only Heavy rain. The details of area affected is shown below.

Sl. No	District	Blocks Affected	GPs affected	Villages Affected	ULBs affected	No. of People Affected
	<b>Heavy Rain affected</b>					
1	Bolangir	5	45	135	2	6926
2	Baragarh	4	49	113	1	726
3	Dhenkanal	1	1	5	0	170
4	Jharsuguda	5	55	123	3	949
5	Kalahandi	2	20	48	1	6826
6	Kandhamal	9	19	74	3	14200
7	Koraput	7	17	21	0	161
8	Mayurbhanj	13	36	91	1	4739
9	Sundargarh	5	6	28	0	1434
	<b>Total</b>	<b>51</b>	<b>248</b>	<b>638</b>	<b>11</b>	<b>36131</b>
	<b>Flood &amp; Heavy Rain affected</b>					
1	Angul	8	119	496	2	14017
2	Balasore	8	46	273	0	220675
3	Bhadrak	6	93	429	1	365538
4	Boudh	3	35	113	1	3038
5	Cuttack	6	10	20	1	4000
6	Jagatsinghpur	4	14	21	0	69470
7	Jajpur	8	78	293	1	166761

8	Kendrapara	6	35	144	0	134635
9	Keonjhar	10	82	258	2	31124
10	Khordha	2	2	9	0	215
11	Puri	1	1	1	0	150
12	Sambalpur	6	32	113	2	7860
13	Subarnapur	6	8	98	1	3846
	<b>Total</b>	<b>74</b>	<b>555</b>	<b>2268</b>	<b>11</b>	<b>1021329</b>
	<b>Grand Total</b>	<b>125</b>	<b>803</b>	<b>2906</b>	<b>22</b>	<b>1057460</b>

### Damages to Private Properties:

#### House Damages

Sl. No	Name of the District	Fully damaged		Severely damaged		Partially damaged		Hut damaged	Total	Cow shed damaged	Total house damage including Cowshed
		Pucca house	Kutch a house	Pucca house	Kutch a house	Pucca house	Kutcha house				
		No.	No.	No.	No.	No.	No.				
1	Angul	1	0	0	10	29	1113	1	1154	4	1158
2	Balangir	0	0	0	0	0	348	0	348		348
3	Balasore	0	1	0	0	0	99	5	105	7	112
4	Baragarh	0	0	0	3	0	158	2	163	6	169
5	Bhadrak	0	3	0	13	0	857	36	909	0	909
6	Boudh	0	0	0	0	0	504	0	504	0	504
7	Jajpur	0	0	0	2	0	226	7	235	71	306
8	Jharsuguda	0	0	0	0	5	219	0	224	2	226
9	Kalahandi	0	0	0	0	1	52		53	1	54
10	Kandhamal	0	3	0	3	8	77	2	93	0	93
11	Keonjhar	0	4	0	0	5	380	4	393	43	436
12	Koraput	0	0	0	0	0	40	0	40	0	40
13	Mayurbhanj	0	5	0	7	0	201	43	256	36	292
14	Sambalpur	0	0	0	0	3	243	0	246	2	248
15	Subarnapur	0	0	0	0	1	742	0	743	1	744
16	Sundargarh	0	5	0	4	5	206	0	220	21	241
	Grand Total	1	21	-	42	57	5,465	100	5686	194	5880

### Crop Damage:

A total of 24363.69 Ha of crop area was affected by Flood and Heavy rain and out of that 18880.62 Ha of crop area sustained crop loss of more 33% and above. The district wise detail is shown below.

Sl. No.	Name of the District	Total agriculture/ horticulture crop area affected (in Ha.)	Total area under crop loss of 33% & above (area in Ha.)			
			Rainfed	Irrigated	Perennial	Total
1	2	3	5	6	7	8
1	Angul	20	20.00	0.00	0.00	20.00
2	Balangir	181	94.00	0.00	0.00	94.00
3	Balasore	195	0.00	5.00	0.00	5.00
4	Bhadrak	7822.96	7342.26	72.40	0.00	7414.66
5	Boudh	205.832	34.23	84.20	0.00	118.43
6	Cuttack	5873	1518.00	32.00	0.00	1550.00
7	Jagatsinghpur	211.5	167.50	0.00	0.00	167.50
8	Jajpur	9316.56	9180.93	135.63	0.00	9316.56
9	Khordha	49.388	49.39	0.00	0.00	49.39
10	Mayurbhanj	111.904	24.20	0.00	0.00	24.20
11	Sambalpur	5	1.00	0.00	2.00	3.00
12	Subarnapur	371.5498	61.74	56.15	0.00	117.89
<b>Total</b>		<b>24363.6938</b>	<b>18493.2471</b>	<b>385.3818</b>	<b>2</b>	<b>18880.6289</b>

### Livestock Loss:

Sl. No.	Name of the District	No of Livestock / Birds lost				
		Milch Animal		Draught Animal		Poultry Birds
		Buffalo/ Cow	Sheep/ Goat	Camel/ Horse/ Bullock	Calf/ Donkey/ Pony	
1	Angul	0	25	0	0	100
2	Jajpur	2	0	0	0	850
3	Mayurbhanj	1	0	0	0	0
4	Sambalpur	1	5	4	0	50
5	Subarnapur	0	0	0	0	1200
<b>Total</b>		<b>4</b>	<b>30</b>	<b>4</b>	<b>0</b>	<b>2200</b>

### **Damage to Fishery sector:**

Sl. No.	Name of the District	Fish Farm Damage		Fish Seed Farm damage	
		No.	Area in Ha.	No.	Area in Ha.
1	Balasore	0	0	46	11.91
2	Bhadrak	2	22	38	14
3	Boudh	0	0	2	2.8
4	Jajpur	0	0	272	40.68
<b>Total</b>		<b>2</b>	<b>22</b>	<b>358</b>	<b>69.39</b>

### **Heavy Rain in the month September 2023:**

Due to the influence of Cyclonic circulation in East Central Bay of Bengal, a Low Pressure area was formed over Northwest & adjoining westcentral Bay of Bengal on 12th September 2023. Due to this low pressure Heavy Rain was experienced from 12th September to 15th September mostly in Western Odisha districts and Southern Odisha districts along with one or two places of other districts.

There were total 28 blocks which have witnessed rainfall of more than 200 mm from 12.09.2023 to 15.09.2023 i.e. in 4 days period.

<b>RAINFALL REPORTS OF DIFFERENT BLOCKS from 12.09.2023 to 15.09.2023</b>							
<b>(Rainfall in mm.)</b>							
Sl. No.	District	Block	12.09.2023	13.09.2023	14.09.2023	15.09.2023	Total
<b>Rainfall more than 300 mm</b>							
1	Balangir	Balangir	7.5	12.0	215.0	112.0	346.5
2	Balangir	Deogaon	9.0	23.0	85.0	193.0	310.0
3	Kalahandi	Madanpur Rampur	31.0	29.0	193.0	80.0	333.0
4	Kalahandi	Lanjigarh	13.0	156.4	121.4	39.6	330.4
5	Kandhamal	Kotagarh	60.0	44.0	176.0	23.0	303.0
6	Koraput	Similiguda	208.0	87.0	49.0	9.0	353.0
<b>Rainfall from 200 mm to 300 mm</b>							
1	Balangir	Gudvella	3.0	62.0	92.3	125.6	282.9
2	Balangir	Puintala	0.0	46.0	130.0	90.0	266.0
3	Bargarh	Padampur	0.0	98.0	58.0	84.0	240.0
4	Boudh	Kantamal	0.0	5.8	158.0	53.4	217.2

5	Ganjam	Buguda	56.0	79.0	99.0	0.0	234.0
6	Jagatsinghpur	Jagatsinghpur	25.4	1.4	184.6	11.4	222.8
7	Jharsuguda	Laikera	87.2	0.0	78.2	43.2	208.6
8	Kalahandi	Narla	11.0	35.5	117.0	108.0	271.5
9	Kalahandi	Thuamul Rampur	7.0	45.0	158.0	56.0	266.0
10	Kandhamal	Phiringia	11.6	94.2	116.4	48.6	270.8
11	Kandhamal	Baliguda	20.0	55.0	65.0	99.0	239.0
12	Koraput	Boipariguda	200.0	20.0	52.0	16.0	288.0
13	Koraput	Jeypore	161.7	39.4	57.7	15.6	274.4
14	Koraput	Koraput	101.0	68.0	65.2	11.8	246.0
15	Koraput	Dasmantpur	3.0	98.0	88.0	27.0	216.0
16	Koraput	Nandapur	65.0	70.0	61.0	11.0	207.0
17	Malkangiri	Chitrakonda	11.0	117.0	71.0	32.0	231.0
18	Nawarangpur	Papadahandi	146.0	25.0	76.0	7.0	254.0
19	Nawarangpur	Dabugaon	88.0	8.0	140.0	10.0	246.0
20	Nuapada	Nuapada	11.4	35.2	63.4	98.1	208.1
21	Rayagada	Muniguda	66.2	34.8	110.4	4.2	215.6
22	Rayagada	Kashipur	26.0	83.0	86.0	8.2	203.2

Though there was less damage, 447 no. of houses including cowsheds were reported by six districts Kandhamal, Koraput, Sundargarh, Kalahandi, Nabarangpur and Balangir. Sandcast of 46.99 Ha crop area reported by Balangir and Puri reported crop damage due to flooding in Pipili block as river water went into 596 Ha of crop area due to weak embankment.

The detail of house damage in six districts is shown below.

Sl No.	District	Fully/ Severely Pucca or Kutchha	Partially Damaged Pucca	Partially Damaged Kutchha	Hut Damaged	Cowshed Damaged	Total in No.
1	Kandhamal	1	2	20	8	0	31
2	Koraput	1	0	190	0	2	193
3	Sundargarh	0	0	18	0	0	18
4	Kalahandi	2	0	78	0	3	83
5	Nabarangpur	0	0	64	0	0	64
6	Bolangir	0	1	55	2	0	58
Total		4	3	425	10	5	447

## Small scale flooding in October 2023

Due to Heavy rain in 3rd & 4th October 2023 in upper catchments of the Jalaka river, the river at Mathani station continued to flow above its danger level from 3rd October till 4th & 5th October 2023. This affected Balasore district with action needed from district administration for dewatering of flood water as well as distribution of relief. Due to this flooding one house was damaged fully, 87 houses partially damaged and 9 huts damaged.

The districts had been allotted funds for various relief measures and assistance for damage to private properties. The detail of these allotments for the year due to flood & heavy rain is given below.

Allotment of Fund due to Heavy Rain & Flood in August 2023 (in Rs Lakh)												
Sl No .	Name of District	House Building Assistance	Clothing	Utensils	Agriculture Input Subsidy	Assistance for Desilting Sandcast	Animal Exgratia	Assistance for Fish Pond	Assistance for Fish Seed Farm	Relief camp Expenditure	Search & Rescue Expenditure	Total
1	Angul	59.805	-	-	1.700	-	1.100	-	-	1.605	0.567	64.777
2	Balangir	13.920	-	-	7.990	16.920	-	-	-	1.576	-	40.406
3	Balasore	5.770	0.025	0.025	0.850	-	-	-	1.191	2.940	0.469	11.270
4	Baragarh	10.260	0.075	0.075	-	13.622	-	-	-	-	-	24.032
5	Bhadrak	56.360	0.450	0.450	636.400	-	-	3.960	1.400	82.615	5.044	786.679
6	Boudh	20.160	-	-	17.224	12.030	-	-	0.280	3.704	0.580	53.977
7	Cuttack	-	-	-	134.470	-	-	-	-	0.085	2.246	136.801
8	Dhenkanal	0.200	-	-	0.259	-	0.120	-	-	-	-	0.579
9	Jagatsinghpur	-	-	-	14.238	-	-	-	-	0.763	0.670	15.671
10	Jajpur	14.130	0.050	0.050	803.436	-	0.850	-	4.068	3.263	0.385	826.232
11	Jharsuguda	9.145	-	-	-	-	-	-	-	-	-	9.145
12	Kalahandi	2.175	-	-	-	2.322	-	-	-	1.130	-	5.627

13	Kandhamal	11.560	0.075	0.075	-	-	-	-	-	0.391	0.300	12.401
14	Kendrapara	-	-	-	-	-	-	-	-	0.866	1.347	2.213
15	Keonjhar	21.935	0.100	0.100	-	22.705	-	-	-	2.670	0.472	47.982
16	Khordha	-	-	-	4.198	-	-	-	-	-	1.109	5.307
17	Koraput	1.600	-	-	-	-	-	-	-	-	-	1.600
18	Mayurbhanj	26.960	1.200	1.200	2.057	-	0.375	-	-	2.537	0.695	35.024
19	Puri	-	-	-	-	-	-	-	-	0.119	0.446	0.565
20	Sambalpur	9.975	-	-	0.535	3.625	-	-	-	0.957	0.090	15.183
21	Subarnapur	29.775	-	-	14.797	-	0.400	-	-	0.901	0.327	46.200
22	Sundargarh	19.995	-	-	-	-	-	-	-	-	-	19.995
<b>Sub Total</b>		<b>313.725</b>	<b>1.975</b>	<b>1.975</b>	<b>1,638.153</b>	<b>71.225</b>	<b>2.845</b>	<b>3.960</b>	<b>6.939</b>	<b>106.122</b>	<b>14.748</b>	<b>2,161.667</b>

**Allotment of Fund due to Heavy Rain & Flood in September 2023 (in Rs Lakh)**

Sl No.	Name of District	House Building Assistance	Clothing	Utensils	Agriculture Input Subsidy	Assistance for Desilting Sandcast	Animal Exgratia	Assistance for Fish Pond	Assistance for Fish Seed Farm	Relief camp Expenditure	Search & Rescue Expenditure	Total
1	Kandhamal	2.870	0.025	0.025	-	-	-	-	-	-	-	2.920
2	Koraput	8.960	0.025	0.025	-	-	-	-	-	-	-	9.010
3	Sundargarh	0.720	-	-	-	-	-	-	-	-	-	0.720
4	Kalahandi	5.810	0.050	0.050	-	-	-	-	-	-	-	5.910
5	Nabarangpur	2.560	-	-	-	-	-	-	-	-	-	2.560
6	Balangir	2.425	-	-	-	9.955	-	-	-	1.170	-	13.549
7	Boudh	-	-	-	-	-	-	-	-	0.325	-	0.325
8	Puri	-	-	-	50.660	-	-	-	-	-	-	50.660
<b>Sub Total</b>		<b>23.345</b>	<b>0.100</b>	<b>0.100</b>	<b>50.660</b>	<b>9.955</b>	-	-	-	<b>1.495</b>	-	<b>85.654</b>

Allotment of Fund due to Heavy Rain & Flood in October 2023 (in Rs Lakh)												
Sl No .	Name of District	House Building Assistance	Clothing	Utensils	Agriculture Input Subsidy	Assistance for Desilting Sandcast	Animal Exgratia	Assistance for Fish Pond	Assistance for Fish Seed Farm	Relief camp Expenditure	Search & Rescue Expenditure	Total
1	Balasore	6.630	0.050	0.050	-	-	-	-	-	0.890	0.680	8.300
<b>Sub Total</b>		<b>6.630</b>	<b>0.050</b>	<b>0.050</b>		-	-	-	-	<b>0.890</b>	<b>0.680</b>	<b>8.300</b>
<b>Grand Total Allotment</b>		<b>343.700</b>	<b>2.125</b>	<b>2.125</b>	<b>1,688.813</b>	<b>81.180</b>	<b>2.845</b>	<b>3.960</b>	<b>6.939</b>	<b>108.506</b>	<b>15.429</b>	<b>2,255.621</b>

The State Government successfully managed the flood situation.

### **III(b). Cyclone "Michaung"(pronounced as MIGJAUM)**

A cyclonic circulation emerged into South Andaman Sea and adjoining South Thailand in the morning of 26th November 2023. Under its influence, a low pressure areaformed over South Andaman Sea & adjoining Malacca Strait in the early morning of the 27th November.

Moving westwards, it concentrated into a Depressionover Southeast & adjoining Southwest Bay of Bengal in the early morning of the 1st December, 2023. It moved west-northwestwards and intensified into a Deep Depressionover Southwest Bay of Bengal in the early morning of the 2nd December, 2023. It intensified into a Cyclonic Storm "MICHAUNG" (pronounced as MIGJAUM)over the southwest Bay of Bengal in the early morning of the 3rd December, 2023.

#### **Preparedness of Districts**

- The District Administration of vulnerable districts were directed to operateDistrict Emergency Operation Centre round the clock under the supervision of a Class-I officer in each shift.
- Districts under orange/ yellow warning were asked to keep administrative machinery ready to face any eventuality particularly water logging / landslide in the hilly areas.
- It was instructed that in case of very heavy rain, people of low-lying areas/ vulnerable kutcha houses are to be shifted to safer locations temporarily.

- In case of evacuation, Cooked food through free kitchen, safe drinking water, lighting, health& sanitation facilities were to be arranged for evacuated people.
- Polythene sheets were kept in readiness so that in case of damage to houses, temporary shelter materials (polythene sheet) can be provided to suffering people without delay.
- De-watering steps were taken in advance by pre-positioning water pumps with generators in low lying areas susceptible to water logging in case of heavy rain.
- Immediate restoration of road communication for movement of relief materials to the affected areas is very important. Hence, necessary advance arrangements were made through the concerned departments for restoration of the damaged roads immediately.
- As the power supply is likely to be cut off during very heavy rain, all offices were instructed to make their back-up power arrangement for that period. Generators available in the different offices including health institutions were instructed to immediately check and store adequate fuel.
- In view of the rainfall prediction, the farmers were advised to follow the advisory issued by OUAT/ Director of Agriculture & FP to protect the crops.
- People were advised to keep watch on the weather and take safe shelter during the thunderstorm activity.

### **Energy Department preparedness**

- Department set up a Control Room to operate on 24x7 basis to coordinate with the district level officials, state level departments and SRC office.
- All vulnerable locations and facilities were identified in advance and a comprehensive plan of action prepared for the quickest restoration of the damaged energy infrastructure
- Adequate quantity of materials like poles, conductors, transformers, suitable equipment like crane, tree cutter and sufficient number of skilled gangs were pre-positioned at strategic locations for pressing them into service for the quickest restoration of energy supply in the likely affected areas.
- It was instructed that

- alternate power arrangement through diesel generators with sufficient quantity of fuel to be put in place at critical facilities like water supply, hospitals, petrol pumps for uninterrupted services.
- Transport vehicles with adequate oil and diesel gen-sets, cutters, emergency lights are to be kept in readiness.
- Necessary coordination should be made with enlisted vendors for dispatch of materials at short notice.
- Existing EPC contractors, rate contract holders & utility workmen are to be placed at strategic locations to speed up restoration works.

#### **Agriculture Department preparedness:**

- Agro-based crop advisory, prepared by OUAT and Directorate of Agriculture for protection of matured and harvested paddy as well as non-paddy crops along with other crop protection practices was issued by the A&FE Department for wide circulation among the field functionaries and farmers.
- Crop advisories were disseminated through social media, print media and miking.
- In anticipation of rainfall the farmers were advised by the district machinery to take following precautionary measures to save crops:
  - Harvested paddy to be shifted to safe places and keep it properly stacked under suitable cover so as to avoid any loss/ damage due to rain.
  - Where paddy crops are ready for harvest, steps are taken to harvest the same and store safely to avoid any damage due to rain.
  - Necessary measures to be taken to protect the paddy in mandis, if any, against rain.
  - Farmers to take necessary measures to protect the vegetables, horticulture crops, standing paddy crops.

### **Fishery and Animal Husbandry:**

- Fishermen Warnings were issued to Collectors and fishermen were advised not to venture into sea. District Administration along with officials of Fisheries Department was in close coordination with the marine fishermen in the matter.
- All 22945 number of boats that had gone to sea for fishing returned to shore by 1.12.2023.
- Awareness campaign on protection of animal resources from possible cyclone situation was launched in electronic as well as print media.
- Supply of required medicines and vaccines to the CDVOs for distribution to vulnerable areas was expedited.
- People were advised to shelter the cattle and domestic animals at safe places. They were advised to evacuate their cattle to the ground floor of the MCS/ MFS and other suitable buildings in case of necessity.

The Cyclonic Storm “MICHAUNG” moved nearly northwards almost parallel and close to south Andhra Pradesh coast and crossed south Andhra Pradesh coast between Nellore and Machilipatnam, close to south of Bapatla during 1230 to 1430 hours IST (0700-0900 UTC) of the 5th December 2023 as a **Severe Cyclonic Storm** with maximum sustained wind speed of **90-100 kmph gusting to 110 kmph**.

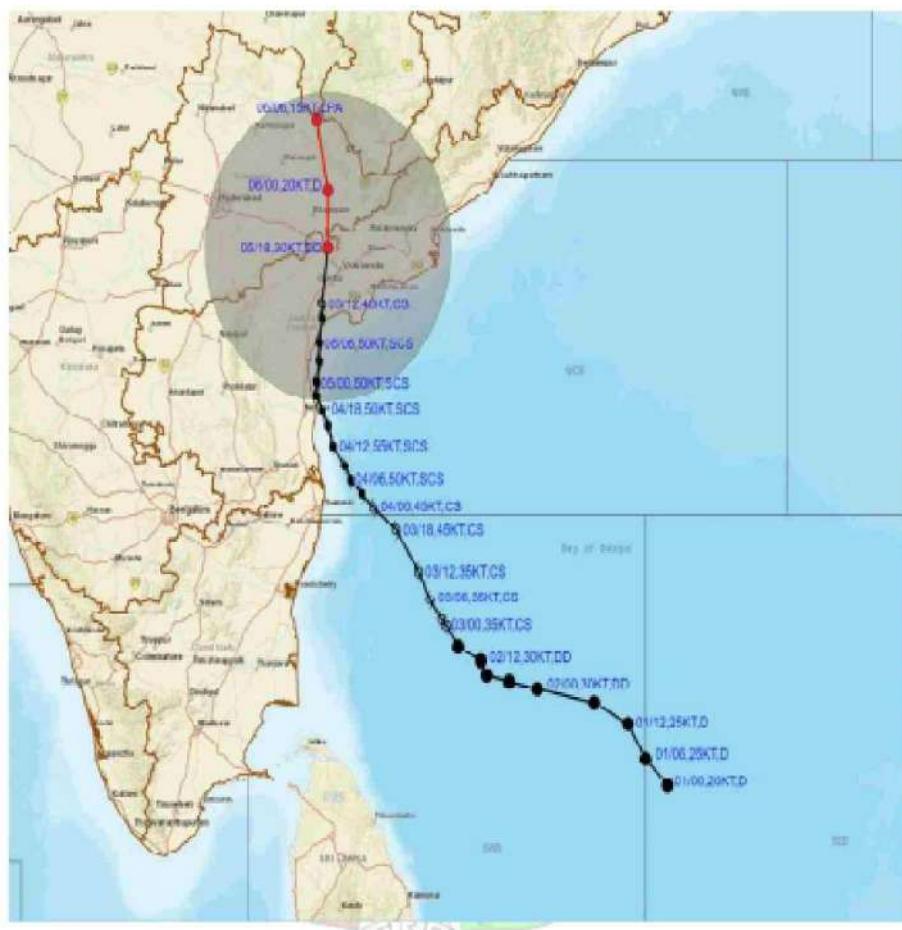


मारतासरकार  
पृष्ठविज्ञाननेत्रालय  
मारतीसरविज्ञानविभाग  
मीसमविज्ञानकेंद्र  
मुद्रनेत्रबॉर्ड, लोडिंग्स - 751020

ବର୍ଷାପଦିକ  
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ବୃଦ୍ଧିଶ୍ଵର, ପ୍ରକାଶ-୨୫୧୦୯୦



**OBSERVED & FORECAST TRACK AND MAXIMUM SUSTAINED WIND WITH QUADRANT WIND IN ASSOCIATION WITH DEEP DEPRESSION (REMNANT OF SEVERE CYCLONIC STORM "MICHAUNG") OVER CENTRAL COASTAL ANDHRA PRADESH BASED ON 1800 UTC (2330 IST) OF 5<sup>TH</sup> DECEMBER 2023.**



DATE/TIME IN UTC  
 IST-UTC +0530  
**L:** LOW PRESSURE AREA  
**WML:** WELL MARKED LOW PRESSURE AREA  
**D:** DEPRESSION (17-27 KT)  
**DD:** DEEP DEPRESSION (28-33 KT)  
**CS:** CYCLONIC STORM (34-47 KT)  
**SCS:** SEVERE CYCLONIC STORM (48-63KT)  
**VSCS:** VERY SEVERE CYCLONIC STORM (64-89 KT)  
**ESCS:** EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)  
**SuCS:** SUPER CYCLONIC STORM @ 120 KT

The legend includes the following entries:

- LESS THAN 34 KT
- 34-47 KT
- $\geq 48$  KT
- OBSERVED TRACK (black line)
- FORECAST TRACK (red line)
- CONE OF UNCERTAINTY (green arrow)

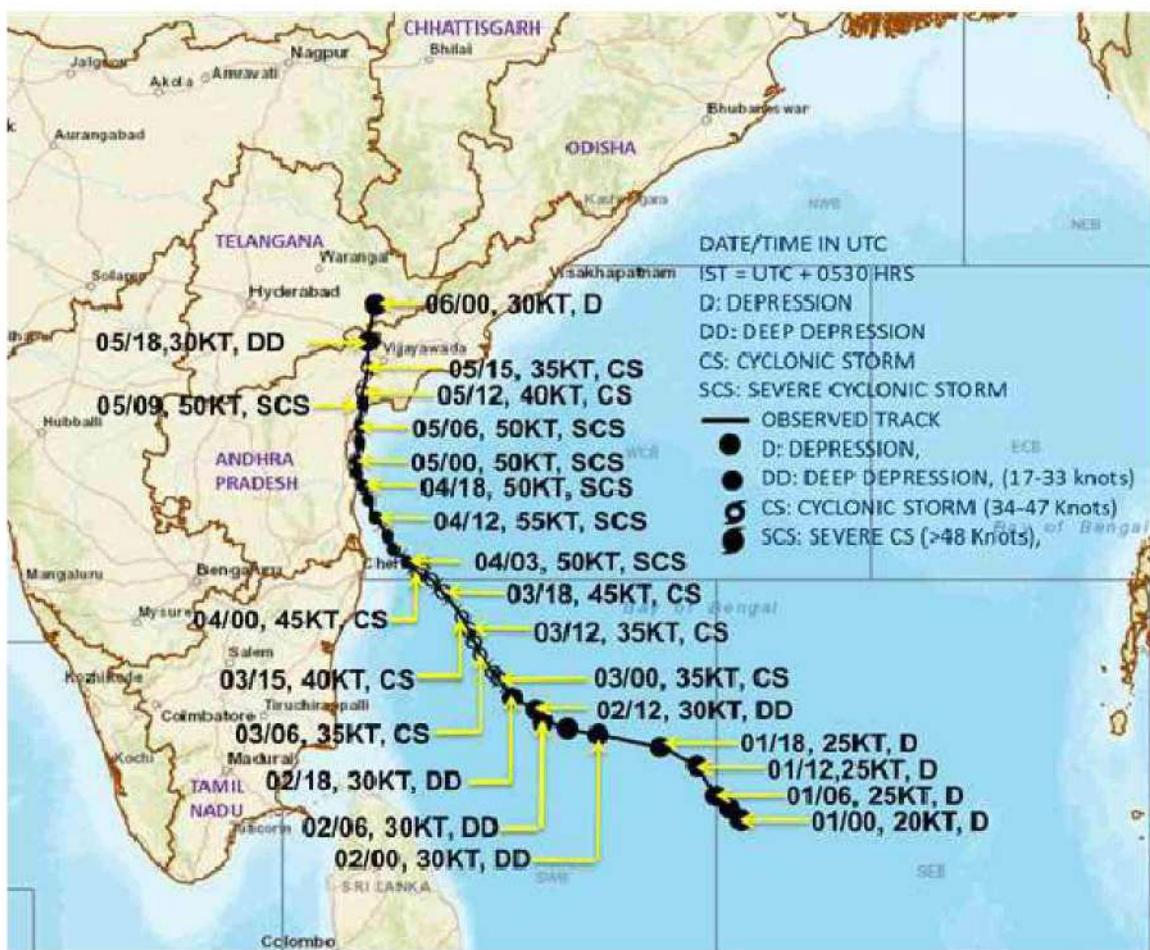
AREA OF MAXIMUM SUSTAINED WIND SPEED:

- 28-33 KT (52-61 KMPH)
- 34-49 KT (62-91 KMPH)
- 50-63 KT (92-117 KMPH)
- > 64 KT (>118 KMPH)

IMPACT OVER THE SEA

IMPACT OVER THE SEA		
MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations

The observed track of the system is presented in figure below.



### **Impact:**

Due to the effect of the cyclone rainfall activity were witnessed from 5<sup>th</sup> to 7<sup>th</sup> December 2023 mainly in the southern Odisha and some western Odisha district.

The damages caused by the cyclone were mainly to the crops. As it was harvest time of paddy crops, the crops that were not ready to be cut got wet on the field. No other damages reported on the field.

Nine districts Bargarh, Deogarh, Jharsuguda, Kalahandi, Koraput, Nabarangpur, Nuapada, Sambalpur, and Sundargarh reported damages to the crops. These districts were given funds to give Agriculture input subsidy to the affected farmers who have lost more than 33% of their crops. The district-wise detail of the crop damage and allotment of fund is given in the table below.



Sl. No.	District	Crop damage (in Hect)				Allotment of Funds (Rs in Lakh)
		Rainfed	Irrigated	Perennial	Total	
1	Bargarh	264.24	135.19	0.00	399.43	45.443
2	Deogarh	0.33	0.00	0.00	0.33	0.028
3	Jharsuguda	1034.51	51.45	0.00	1085.96	96.680
4	Kalahandi	476.25	184.07	0.00	660.32	71.932
5	Koraput	204.91	9.68	0.00	214.59	19.063
6	Nabarangpur	1.61		0.00	1.61	0.137
7	Nuapada	1960.58	971.36	0.00	2931.94	331.781
8	Sambalpur	546.42	997.86	0.00	1544.28	216.082
9	Sundargarh	6157.21	399.11	0.00	6556.32	591.253
	<b>Total</b>	<b>10646.06</b>	<b>2748.72</b>	<b>0.00</b>	<b>13394.78</b>	<b>1372.399</b>

### **III(c). Bahanaga, Balasore Train Accident**

## **Train Accident at Bahanaga Bazar Station of Balasore District in Odisha**

#### **Occurrence:**

On 2<sup>nd</sup> June, 2023 at around 6.55 PM, there was a major train accident took place at Bahanaga Bazar Station of Balasore district. This accident was three-way accident which involved following Trains.

- (1) 12841- Shalimar- Chennai Corromandel Express
- (2) 12864- Sir M Visveswarya - Howrah Super Fast Express
- (3) Goods Train stationed at Bahanaga Bazar Station

As a result, 17 coaches of these passenger two trains have been de-railed & severely damaged.

#### **Response:**

At 7.00PM, Collector, Balasore has informed about the train accident to Chief Secretary. Immediately Chief Secretary & Chairman of State Executive Committee has responded immediately and took a meeting with Senior Officers of Commerce & Transport Deptt, Health & FW Deptt and SRC office at State Emergency Operation Center in the Office of Special Relief Commissioner, Bhubaneswar.

#### **Rescue Operation:**

About hundreds of persons were died at spot and thousands of persons were trapped in the damaged bogies with injuries. At 7.11PM, Disaster Response Forces i.e NDRF Teams, ODRAF Units and Fire Services & Emergency Units were directed to proceed to the accident site with all emergency equipment & lights to carry out search & rescue operations. ODRAF, Balasore, NDRF RRC Balasore and Local Fire Service Teams arrived at accident site within 20 minutes. In total 9 NDRF Teams, 5 ODRAF Units and 24 Fire Services & Emergency Units were engaged in rescue operation. Night time rescue operation was carried on with the help of Tower light arrangements, search lights and equipments. Disaster Response Forces had made all efforts to recover dead bodies from bogies and rescued the injured persons safely with the help of rescue equipments.

### **Medical Assistance:**

Due to this severe accident, 293 persons had lost their lives and 1289 persons were severely injured.CDMO, Balasore and his team immediately reached the site, directing ambulances and first aid. Private hospitals in Bhubaneswar and Cuttack were kept ready to receive injured persons.Director Health Services, along with Director Blood Safety, Addl DMET and 3 other Addl Directors were camping at Balasore, coordinating health teams. More than 100 Medical Teams with paramedical staff along with first aid/ medicines and bed sheets medicines were mobilized to the accident site for medical treatment of injured persons.FMT (Forensic medicine specialists) from PRM MCH Baripada and SCB MCH were also mobilized for supervising dead body post mortem and disposal. All Dead Body Carriers of neighbouring districts i.e Mayurbhanj, Bhadrak, Jajpur were dispatched to site, carrying bed sheets. All BSKY empanelled private hospitals kept beds ready to receive patients from accident site. All Hospitals en route from Balasore to Cuttack kept in readiness to receive patients. Bed sheets and stretchers were mobilized to the site.All required first-aid consumables, drugs and IV fluids were released in sufficient stock from Balasore drug warehouse. Some additional stock of medicines were kept in readiness at Mayurbhanj District. Central Drug Warehouse Bhubaneswar kept in readiness for dispatch of drugs and consumables in case of any need. More than 200 ambulances were deployed to the accident site.A record-breaking 7084 units of blood were collected for the accident victims from the 6 districts of Balasore, Bhadrak, Jajpur, Cuttack, Khordha and Dhenkanal, in just 2 days. Apart from this, bloods were donated by 100 citizens across the State.

### **Dead Body Management:**

All mortuaries in all hospitals ( both Govt & private) were kept in readiness for dead bodies. 110 nos of Ambulances/ dead Body Carriers were engaged to shift dead bodies form AIMS Hospital, Capital Hospital, Hi Tech and AMRI Hospital Bhubaneswar to their native placers. About 100 ambulances transported nearly 200 dead bodies overnight, with dignity, speed and care to mortuaries in Bhubaneswar. Forensic teams were deployed to undertake embalming and DNA sample extraction of all bodies that remained unclaimed after 24-48 hours. The dead bodies that identified were provided free transport along with their families members to their homes in their

native place. The patient attendants were provided free transport services to the different mortuary and help desk of Bhubaneswar.

### **Welfare measures for Victims and their Families:**

Government of Odisha took all steps for admission of all injured patients in various government hospitals, and including private hospitals, free of charge. All medical care were provided to them.

Help Desks/ Control Rooms were opened at Bhubaneswar and Cuttack for providing support to the families and friends of the victims to reach out to their families who are admitted in various hospitals and to identify the dead bodies. Families and friends reaching Odisha were helped through helpdesks at various railway stations and bus terminals.

Families, attendants and friends of accident victims were provided with free of charge accommodation facilities within the SCB campus and also been provided with three meals per day during their stay, free of charge. They were also provided with free transport arrangements, to the hospitals, from the railway stations and bus stands, and also for quick movement between Bhubaneswar and Cuttack.

Free Bus services were provided for all concerned to move from Cuttack and Bhubaneswar to Kolkata.

Women SHGs and volunteers were engaged in taking care of the patients in the wards and providing coordination for the families in identifying the patients through the various helpdesks in the state.

Special care was taken for the children by the hospital administration in identifying their parents and assisting them in re-uniting with their families. Sandals and clothes were provided free of cost to the patients and their attendants.

### **Transport Facilities:**

Vehicles were arranged for transportation of Accident victims, the stranded passenger from Bhubaneswar Railway Station to different places, free bus services to Kolkata shifting of dead body from different hospital to West Bengal, Bihar and Jharkhand by road. On 02.06.2023 16 nos. of Buses were provided at Bhubaneswar Railway Station

for movement of detained passengers. On 03.06.2023 05 nos. of Buses were provided at Bhubaneswar Railway Station for movement of detained passenger. 110 nos of Ambulances/ dead Body Carriers were engaged to shift dead bodies from AIMS Hospital, Capital Hospital, Hi Tech and AMRI Hospital Bhubaneswar to their native places. 35 nos. Buses were engaged to shift the detained passengers from Bhubaneswar to Kolkata on Free Bus Services. One help Desk Counter was opened round the Clock at AIMS for providing Free Ambulance Service.

### **Monitoring at State Level:**

A Control room was opened round the clock in State Emergency Operation Center at the office of Special Relief Commissioner, Rajiv Bhawan, Bhubaneswar for public for assistance to victims.

Chief Secretary, Development Commissioner, Special Relief Commissioner & ACS and other Senior Officers were monitoring the situation minute by minute in the State Emergency Operation Center.

There were 294 human Casualties. 288 people died on the spot and 6 people died during treatment. Total no. of patients admitted to hospitals (including private hospitals) was 1289. The no. of dead bodies identified and handed over to their relatives were 266, and the unidentified 28 bodies were cremated following proper procedure.

### **Ex-gratia Assistance:**

Apart from the compensation from railways, the govt. of Odisha also provided ex-gratia assistance out of Chief Minister's Relief Fund (CMRF) of Rs. 5.00 lakh to the next of the kin of the deceased & Rs. 1 lakh is given as assistance to seriously injured persons of Odisha as per announcement of Hon'ble Chief Minister for the victims of Odisha of the train tragedy.

\*\*\*\*

### **Hailstorm**

As many as six (6) districts namely Balangir, Balasore, Kalahandi, Koraput, Mayurbhanj, Nabarangpur were affected due to hailstorm accompanied by whirlwind and three(3) persons lost their lives under the impacts of the disaster during the year 2023-24. Steps have been taken for payment of ex-gratia @ Rs.4.00 lakh to next of kins of each of the deceased. Besides, funds have been placed with the concerned Collectors for payment of assistance like agriculture input subsidy, house building assistance, assistance for clothing and utensils to the affected people as per the Norms of assistance from SDRF.

## **CHAPTER-IV**

### **State Specific Disasters**

#### **Heat Wave**

Government had taken numbers of precautionary measures to tackle the heat wave situation in the state during the year 2023-24. Measures taken by the Government include launching of Public Awareness Campaign through electronic and print media, mitigation of water scarcity problem in the identified water scarcity pockets both in the rural and urban areas by supply of drinking water through tankers, opening of Paniya JalasevaKendras at market places, bus stands and other congregation points by involving civil society organisations, construction/ repair of vats for roaming livestock, provision of water for the animals in reserved/ protected forests, rescheduling the timing of classes and examinations of schools and colleges, rescheduling the timing for engagement of labourers/ workmen at worksites, provision of portable drinking water, ORS packets and rest-shed at worksites, ensuring adequate stock of life saving medicine, saline, ORS in all dispensaries, PHCs, CHCs and District Headquarters Hospitals, Arrangements of special beds for treatment of heat-stroke patients in all hospitals & ensuring uninterrupted power supply during the summer months, etc.

Control Rooms at the State and the District levels were operationalized round the clock to monitor the situation and the response activities.

Despite all the precautionary measures taken to meet the possible heat wave situation, as many as 24 persons lost their lives due to heat wave during the year 2023-24. Steps are being taken to provide ex-gratia assistance @ Rs.50,000/- to the bereaved families out of the SDRF.

#### **Lightning**

As many as 266 Persons lost their lives due to lightning in 30 districts during the year 2023-24. Steps have been taken to provide ex-gratia assistance @ 4,00,000/- per deceased to Next of Kins of the victims from SDRF. The district-wise number of human casualties is indicated below:

<b>Sl. No</b>	<b>Name of the District</b>	<b>No. of death</b>	<b>No. of cases where ex- gratia has been paid to the NoKs</b>
1	Angul	12	5
2	Balangir	7	7
3	Balasore	24	18
4	Bargarh	5	5
5	Bhadrak	14	14
6	Boudh	3	2
7	Cuttack	15	12
8	Deogarh	3	3
9	Dhenkanal	12	9
10	Gajapati	4	4
11	Ganjam	16	7
12	Jagatsinghpur	7	7
13	Jajpur	12	5
14	Jharsuguda	1	0
15	Kalahandi	14	13
16	Kandhamal	0	0
17	Kendrapara	4	4
18	Keonjhar	10	9
19	Khurda	13	9
20	Koraput	10	9
21	Malkangiri	3	1
22	Mayurbhanj	21	20
23	Nawarangpur	11	5
24	Nayagarh	8	7
25	Nuapada	2	1
26	Puri	11	8
27	Rayagada	9	7
28	Sambalpur	3	3
29	Sonepur	1	1
30	Sundargarh	11	9
	<b>TOTAL</b>	<b>266</b>	<b>204</b>

### **Boat Accident**

As many as 9 Persons lost their lives due to Boat capsize in 3 districts namely Balasore(1), Koraput(4) and Malkangiri(4) during the year 2023-24. Ex-gratia assistance @ 400,000/- per deceased has been provided to Next of kin of the victims from the SDRF.

### **Drowning**

As many as 1503 persons lost their lives due to drowning in 30 districts during the year 2023-24. Steps have been taken to provide ex-gratia assistance @ 4,00,000/- per deceased to Next of Kins of the victims from SDRF. The district-wise number of human casualties is given below:

<b>Sl.</b>	<b>District</b>	<b>No. of deaths</b>	<b>No. of cases where ex-gratia has been paid to the NoKs</b>
1	Angul	48	37
2	Bolangir	26	13
3	Balasore	121	73
4	Baragarh	26	24
5	Bhadrak	70	56
6	Boudh	6	2
7	Cuttack	76	44
8	Deogarh	26	10
9	Dhenkanal	68	39
10	Gajapati	11	4
11	Ganjam	101	21
12	Jagatsinghpur	18	5
13	Jajpur	56	46
14	Jharsuguda	30	12
15	Kalahandi	27	28
16	Kandhamal	26	19
17	Kendrapada	53	29
18	Keonjhar	119	78

19	Khordha	37	19
20	Koraput	65	45
21	Malkanagiri	59	44
22	Mayurbhanj	107	81
23	Nawrangapur	91	73
24	Nayagarh	32	13
25	Nuapada	12	4
26	Puri	53	28
27	Rayagada	26	5
28	Sambalpur	30	19
29	Subarnapur	12	10
30	Sundargarh	71	60
	<b>Total</b>	<b>1503</b>	<b>941</b>

### **Snake bite**

As many as 1016 persons lost their lives due to snake bite in 30 districts during the year 2023-24. Steps have been taken to provide ex-gratia assistance @ 4,00,000/- per deceased to Next of Kin of the victims from SDRF. The district-wise number of human casualties is given below:

<b>Sl. No.</b>	<b>Name of the District</b>	<b>No. of persons died</b>	<b>No. of cases where ex-gratia has been paid to the NoKs</b>
1	Angul	30	25
2	Bolangir	23	13
3	Balasore	87	65
4	Bargarh	30	26
5	Bhadrak	51	39
6	Boudh	3	2
7	Cuttack	86	62
8	Deogarh	31	22
9	Dhenkanal	31	20
10	Gajapati	6	4

11	Ganjam	70	31
12	Jagatsinghpur	11	8
13	Jajpur	42	22
14	Jharsuguda	21	14
15	Kalahandi	23	18
16	Kandhamal	10	9
17	Kendrapara	48	30
18	Keonjhar	75	57
19	Khurda	20	17
20	Koraput	22	20
21	Malkangiri	33	30
22	Mayurbhanj	64	48
23	Nawarangpur	23	20
24	Nayagarh	14	9
25	Nuapada	17	8
26	Puri	38	23
27	Rayagada	9	2
28	Sambalpur	26	22
29	Sonepur	9	6
30	Sundargarh	63	58
	<b>Total</b>	<b>1016</b>	<b>730</b>

### **Fire**

As many as 61 persons lost their lives due to Fire accident during the year 2023-24. Steps have been taken to provide ex-gratia assistance @ 400,000/- per deceased to Next of Kin of the victims from SDRF. The district-wise number of human casualties is given below:

<b>Sl. No.</b>	<b>Name of the District</b>	<b>No. of persons died</b>	<b>No. of cases where ex-gratia has been paid to the NoKs</b>
1	Angul	0	0
2	Bolangir	2	0
3	Balasore	4	2
4	Bargarh	2	2

5	Bhadrak	0	0
6	Boudh	0	0
7	Cuttack	7	2
8	Deogarh	1	0
9	Dhenkanal	0	0
10	Gajapati	0	0
11	Ganjam	1	0
12	Jagatsinghpur	1	1
13	Jajpur	1	0
14	Jharsuguda	1	1
15	Kalahandi	0	0
16	Kandhamal	2	2
17	Kendrapara	1	1
18	Keonjhar	12	2
19	Khurda	0	0
20	Koraput	0	0
21	Malkangiri	1	0
22	Mayurbhanj	3	1
23	Nawarangpur	5	3
24	Nayagarh	1	0
25	Nuapada	0	0
26	Puri	2	2
27	Rayagada	4	1
28	Sambalpur	1	1
29	Sonepur	0	0
30	Sundargarh	9	8
	<b>Total</b>	<b>61</b>	<b>29</b>

## **CHAPTER – V**

### **Disaster Assistance Monitoring and Payment System (DAMPS)**

Earlier, payment of ex-gratia to the next of kin of the persons who lost their lives due to different approved disasters was getting physically processed through case records from the lowest levels of revenue administration and sanctioned at the level of collector. On receipt of the sanction order from the Collector, it was processed physically and allotment of funds was given to the collector, who in its turn was transferring the funds to the concerned Tahasildar for payment to the beneficiary. It was a burden on the collector to submit utilisation certificate also. There was neither scope of effective monitoring as the system was based on Physical File Processing. The matter was personally tracked from State level on the basis of complaints. In the process, despite the best intent of the Government the distressed families were not getting their due in time.

The Special Relief Commissioner on 10.06.2020 has instructed the Collectors to stop sanction of ex-gratia in physical files and introduced an administrative initiative in the true spirit for augmenting service delivery to the citizen in distress in the remotest parts of the state. It is a digital platform developed by National Informatics Centre, Bhubaneswar on the design parameters for online processing, monitoring and payment of ex-gratia to the NoK of the disaster victims. DAMPS has been integrated with both CCTNS and IFMS to streamline the process of disbursement of ex-gratia assistance. The entire process is on paperless digital path. The total time taken from First Information Report (FIR) of death due to receipt of payment in the bank account is reduced substantially than the old manual system.

The effort is one of its kinds by the Government of Odisha. DAMPS is intended to reduce unnecessary physical processing hassles. It provides a platform to the citizen to know the time lapse of processing at each level as well as to administrative hierarchy to have better monitoring and control on service delivery. It's comparable to OSWAS at the State Level with the uniqueness of connecting the field level administrative reporting machinery and control at each level to ensure better accountability of the Government functionaries. The Damps facilities officers at

different levels like Revenue Inspector, Tahasildar, Sub-Collector, Collector, Under Secretary, Additional Commissioner Relief and Special Relief Commissioner to work for all-too-precious Last Mile Connectivity in service delivery to the citizen. Needless to say, the effort has brought administrative processing of ex-gratia to the NoK of the persons who lose their lives in disasters.

On an analysis of the disposal of ex-gratia cases processed through DAMPS during the year 2023-24, it reveals that the number of cases disposed of is more than the number of cases instituted that minimises the pendency created due to physical process of files for sanction of ex-gratia. The district wise institution and disposal data is given below:

<b>Sl. No.</b>	<b>District</b>	<b>No. of cases instituted during the year 2023-24</b>	<b>No. of cases sanctioned during the year 2023-24</b>
1	Angul	149	134
2	Bolangir	81	76
3	Balasore	352	339
4	Bargarh	85	98
5	Bhadrak	156	147
6	Boudh	18	25
7	Cuttack	266	272
8	Deogarh	66	48
9	Dhenkanal	152	160
10	Gajapati	23	32
11	Ganjam	258	225
12	Jagatsinghpur	69	71
13	Jajpur	133	136
14	Jharsuguda	64	55
15	Kalahandi	84	78
16	Kandhamal	56	48
17	Kendrapara	146	148
18	Keonjhar	270	275
19	Khurda	92	96
20	Koraput	136	129

21	Malkangiri	118	122
22	Mayurbhanj	288	396
23	Nawarangpur	138	132
24	Nayagarh	85	58
25	Nuapada	50	33
26	Puri	123	132
27	Rayagada	60	46
28	Sambalpur	135	154
29	Subarnapur	32	27
30	Sundargarh	276	280
	<b>Total</b>	<b>3961</b>	<b>3972</b>

## **CHAPTER – VI**

### **State Disaster Response Fund (SDRF)**

#### **Annexure – IX**

##### **Status of release of funds out of SDRMF Account 2023-24 for State of ODISHA**

**(As on 31.03.2024)**

**[Rs. in Crore]**

1	Opening Balance (As on 01.04.2023)	3765.74
2	SDRMF releases during the year 2023-24 (Central & State Share)	
#	Central Share (SDRMF)	2106.00
#	State Share (SDRMF)	701.20
3	NDRF releases during the year 2022-23:	0.00
4	<b>Total funds available in SDRF Account (1+2+3)</b>	<b>6572.94</b>
	Expenditure incurred on calamities	
#	Avalanches	-
#	Cloud Burst	-
#	Cyclone	36.81
#	Drought	-
#	Earthquake	-
#	Fire	18.92
#	Flood	16.06
#	Hailstorm	6.81
#	Landslides	-
#	Pest attack	0.05
#	Tsunami	-
#	Cold Wave	-
	<b>Sub-Total</b>	<b>78.65</b>

<b>Expenditure incurred during the year 2022-23</b>		
6	Covid-19 expenditure	0.96
7	Expenditure incurred from SDRF on procurement of search and rescue equipments etc.	85.74
8	Expenditure incurred from SDRF Capacity Building Activities	46.64
9	Expenditure incurred from SDRF on State Specific disasters	163.96
10	Expenditure incurred from SDMF on State Specific disasters	215.74
11	Total expenditure incurred on all calamities (5+6+7+8+9+10)	<b>591.69</b>
<b>12</b>	<b>Balance available in SDRF Account (4 - 11)</b>	<b>5981.25</b>

# No funds was received from SDMF during the Financial Year 2022-23.

**Appendix-XII**  
**Statement showing item-wise details of expenditure  
incurred as per approved items and norms  
of SDRF/NDRF  
for the year 2023-24**

Code No.	Items	Calamity														(Rupees in Lakh)
		Cyclone	Cloud burst	Avalanche	Drought	Earthquake	Fire	Flood	Hailstorm	Landslide	Pest Attack	Tsunami	Cold wave/frost	Covid-19	Calamity	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1	Gratuitous Relief															
	(a) Ex-gratia payment to families to deceased persons															
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	900,000	12,000	0	0	0	0	0	96,292	13812.000
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total no. of beneficiaries	0	0	0	0	0	225	3	0	0	0	0	0	130	3453	
	(b) Ex-gratia payment for loss of a limb or eyes															
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total no. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(c)	Grievous injury requiring hospitalization														
(i)	As per SDRF/NDRF norms	0	0	<b>0.043</b>	0	0	<b>15.371</b>	0	0	0	0	0	0	0	<b>3.291</b>
(ii)	Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(iii)	Total no. of beneficiaries	0	0	<b>1</b>	0	0	<b>196</b>	0	0	0	0	0	0	0	<b>49</b>
(d)	Relief for the old, infirm and destitute, children														
(i)	As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>
(ii)	Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>
(iii)	Total no. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>
(e)	Clothing and utensils/household goods for families whose houses have been washed away/fully damaged/severely inundated for more than a week due to a natural calamity														
(i)	As per SDRF/NDRF norms	0	0	0	0	0	0	<b>18.053</b>	<b>0.275</b>	0	0	0	0	0	<b>4.500</b>
(ii)	Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>
(iii)	Total no. of beneficiaries	0	0	0	0	<b>723</b>	<b>11</b>	0	0	0	0	0	0	0	<b>180</b>
(f)	Gratuitous relief for families in dire need of immediate sustenance after a calamity														
(i)	As per SDRF/NDRF norms	0	0	<b>20.828</b>	0	0	<b>7.240</b>	<b>10.240</b>	0	0	0	0	0	0	<b>122.234</b>
(ii)	Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>
(iii)	Total no. of beneficiaries	0	0	19323	0	0	6414	10178	0	0	0	0	0	0	<b>178987</b>





<b>4</b>	<b>Input Subsidy to farmers other than Small &amp; Marginal Farmers</b>	
(i) As per SDRF/NDRF norms	0	0
(ii) Outside the norms	0	0
(iii) Total eligible area (ha.)	0	0
(iv) No. of S&M farmers	0	0
<b>5</b>	<b>Assistance to small and marginal sericulture farmers</b>	
(i) As per SDRF/NDRF norms	0	0
(ii) Outside the norms	0	0
(iii) Total area (ha.)	0	0
(iv) No. of S&M farmers	0	0
<b>6</b>	<b>Employment Generation</b>	
(i) As per SDRF/NDRF norms	0	0
(ii) Outside the norms	0	0
(iii) No. of man days generated	0	0
(iv) Quantum of food grains distributed as part of wage component	0	0

7	Animal Husbandry Assistance to small and marginal farmers/agricultural labourers	
(i)	Replacement of draught/milch animals or animals used for haulage	
(i)	(i) As per SDRF/NDRF norms	0      0 <b>0.300</b> 0      0 <b>38.582</b> 0      0      0      0      0      0      0      0      0 <b>144.205</b>
	(ii) Outside the norms	0      0      0      0      0      0      0      0      0      0      0      0      0      0      0      0
	(iii) Total no. of beneficiaries	0      0 <b>1</b> 0      0 <b>112</b> 0      0      0      0      0      0      0      0      0 <b>475</b>
(ii)	Provisions of fodder/feed in cattle camps	
(i)	(i) As per SDRF/NDRF norms	0      0      0      0      0      0      0      0      0      0      0      0      0      0      0      0
	(ii) Outside the norms	0      0      0      0      0      0      0      0      0      0      0      0      0      0      0      0
	(iii) No. of cattle camps	0      0      0      0      0      0      0      0      0      0      0      0      0      0      0      0
	(iv) Number of cattle kept in camps	0      0      0      0      0      0      0      0      0      0      0      0      0      0      0      0
	(V) Qty. of fodder(qtls.) supplied in camp	0      0      0      0      0      0      0      0      0      0      0      0      0      0      0      0
(iii)	Water supply in Cattle Camps	
(i)	(i) As per SDRF/NDRF norms	0      0      0      0      0      0      0      0      0      0      0      0      0      0      0      0
	(ii) Outside the norms	0      0      0      0      0      0      0      0      0      0      0      0      0      0      0      0
	(iii) Total no. of Tanker load	0      0      0      0      0      0      0      0      0      0      0      0      0      0      0      0
	(iv) No. of cattle camps and cattle kept therein	0      0      0      0      0      0      0      0      0      0      0      0      0      0      0      0

(iv)	Additional cost of medicines and vaccine ( calamity related requirements)													
(i)	As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0	0
(ii)	Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0
(v)	Supply of fodder outside Cattle Camps													
(i)	As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0	0
(ii)	Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0
(iii)	Total qty. of fodder transported (Qtls)	0	0	0	0	0	0	0	0	0	0	0	0	0
(vi)	Movement of useful cattle to other areas													
(i)	As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0	0
(ii)	Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0
(iii)	No. of cattle moved	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Assistance to Fishermen													
(a)	For repair/replacement of boats, nets (damaged or lost)													
(i)	As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0	0
(ii)	Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0

(b)	<b>Input Subsidy for fish seed farm</b>
(i)	As per SDRF/NDRF norms
(ii)	Outside the norms
(iii)	Total eligible area (ha.)
(iv)	No. of fish farmers
<b>9</b>	<b>Assistance to artisans in handicrafts/handloom sectors by way of subsidy for repair/replacement of damaged equipments</b>
(a)	<b>Traditional Crafts (Handicraft)</b>
(i)	<b>For replacement of damaged tools / equipments</b>
(i)	As per SDRF/NDRF norms
(ii)	Outside the norms
(iii)	No. of equipments
(iv)	No. of beneficiaries
(ii)	<b>For loss of raw materials / goods in process/ finished goods</b>
(i)	As per SDRF/NDRF norms
(ii)	Outside the norms
(iii)	Qty. of materials (Qtls.)
(iv)	No. of beneficiaries



(b)	Fully damaged/ destroyed Kutcha houses														
(i)	As per SDRF/NDRF norms	0	0	0	0	0	0	403.425	0	0	0	0	0	0	0
(ii)	Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(iii) Number		0	0	0	0	0	357	0	0	0	0	0	0	0	0
(c)	Severely damaged houses														
(i)	Severely damaged Pucca houses														
(i)	As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0	0	64.000
(ii)	Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(iii) Number		0	0	0	0	0	0	0	0	0	0	0	0	0	50
(ii)	Severely damaged Kutcha houses														
(i)	As per SDRF/NDRF norms	0	0	0.951	0	0	108.045	0	0	0	0	0	0	0	10.800
(ii)	Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(iii) Number		0	0	1	0	0	95	0	0	0	0	0	0	0	9
(d)	Partially damaged houses ( both pucca and kutchha)														
(i)	As per SDRF/NDRF norms	0	0	0	0	0	31.083	48.385	143.135	0	0	0	0	0	187.954
(ii)	Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(iii) Number		0	0	0	0	0	836	1210	3289	0	0	0	0	0	4312

(e)	Huts damaged/ destroyed													
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	13.522	3.440	0	0	0	0	0.095
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Number	0	0	0	0	0	0	348	43	0	0	0	0	195
11	Provision of emergency supply of drinking water in rural areas and urban areas													
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total Qty. of water supplied ( No. of Tankers load)	0	0	0	0	0	0	0	0	0	0	0	0	0
12	(i) Provisions of medicines, disinfectants, insecticides for prevention of outbreak of epidemics	0	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) No. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0	0
13	(i) Medical care for cattle and poultry against epidemics as a sequel to a notified natural calamity	0	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Total No. of cattle & poultry benefited	0	0	0	0	0	0	0	0	0	0	0	0	0

	(i) Evacuation of people affected/ likely to be affected	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	(ii) No. of people evacuated	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Average cost/person	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	<b>Hiring of boats for carrying immediate relief and saving life</b>																		
	(i) No. of boat days	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Average hiring cost per boat/day	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	<b>Provisions for temporary accommodation, food, clothing, medical care etc. of people affected/ evacuated ( operation of relief camps )</b>																		
	(i) As per SDRF/NDRF norms	0	0	2090.92	0	0	298.19	1509.21	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) No. of persons provided shelters	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iv) No. of relief camps opened	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(v) Average cost per person/per day	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	<b>Air dropping of essential supplies</b>																		
	(i) No. of sorties	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Quantity ( in MTs) dropped	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0





		Operational cost ( of POL only) for Ambulance Service, Mobile Medical Teams and Temporary Dispensaries									
20	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0
21	Cost of clearance of debris										
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0.573
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0
22	Draining off flood water in affected areas	0	0	0	0	0	0	0	0	0	0
23	Cost of search and rescue measures										
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0
24	Disposal of dead bodies/ carcasses										
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0
	(iii) Total no. of dead bodies disposed	0	0	0	0	0	0	0	0	0	0
	(iv) Total no. of carcasses disposed	0	0	0	0	0	0	0	0	0	0

25	Training to specialist multi-disciplinary groups/ teams of the State personnel drawn from different cadres/ services/ personnel involved in management of disaster in the State
	(I) No. of training organized
	0      0      912.353      0      0 <b>2207.042</b> <b>1474.850</b> 0      0      0      0      0      0 <b>70.00</b>
	(II) No. of persons trained
	0      0      0      0      0      0      0      0      0      0      0      0      0      0
26	Procurement of essential Search, Rescue and Evacuation equipments including Communication equipments
	Cost of equipments procured
	0      0      1012.280      0      0      5143.660      2418.044      0      0      0      0      0      0      0
	<b>TOTAL</b> <b>0.000</b> <b>0.000</b> <b>5605.626</b> <b>0.000</b> <b>0.000</b> <b>9242.726</b> <b>5498.664</b> <b>680.529</b> <b>0.000</b> <b>4.774</b> <b>0.000</b> <b>0.000</b> <b>96.292</b> <b>16465.911</b>

## **CHAPTER – VII**

# **STATE DISASTER MITIGATION FUND**

The Disaster Management Act, 2005 defines mitigation as 'measures aimed at reducing the risk, impact or effects of a disaster or threatening disaster situation'. As per the recommendation of 15<sup>th</sup> Finance Commission, under the section 48 (1) (c) of the DM Act, 2005, the State Disaster Mitigation Fund (SDMF) has been constituted by Government of Odisha on 04.10.2021. This fund is created exclusively for the purpose of mitigation projects in respect of disasters covered under the State Disaster Response Fund (SDRF)/ National Disaster Response Fund (NDRF) Guidelines and the State specific local disasters notified by the State Government.

As per the Guidelines on Constitution and Administration of State Disaster Mitigation Fund (SDMF), mitigation project proposals have been sought for from various departments under Structural and Non Structural Measures.

## Information for Annual Report on SDMF during 2023-24

<b>Expenditure made out of SDMF during 2023-24</b>			
<b>SI No.</b>	<b>Name of the Department</b>	<b>Mitigation Project Name</b>	<b>Expenditure incurred from SDMF (Rs. in Crore)</b>
1	Agriculture & FE	Dynamics of drought and its impact & mitigation options for smallholder farmers in Odisha: A pilot Study	1.995
2	Energy	Under ground Cabling to important Government offices and critical infrastructures	96.300
		Strengthening of River Crossing infrastructure of Transmission lines	50.680
		Raising 23 Lakh Palm Tree (including 4 lakh tree towards Casualty Replacement) along notified Forest Block Boundaries to act as lightning arrester	7.590
		Fire line creation @ Rs.124.96 lakh & Deployment of Real-time Early Fire Detection and Warning System @ Rs.250.00 lakh	3.750
3	Forest, Environment& CC	Raising 145 Hectare (@500 plants/Ha) Casurina Plantation in Berhampura PRF-95 Ha and Pitisal PRF-50 Ha adjoining to Bay of Bengal	0.528

	Casurina Plantation in 15 Hectare Coastal Area in Puri Wildlife Division	0.756	Cyclone
	Mangrove plantation in 37.0 Hectare Area and Casurina plantation in 50 hectare Area	0.684	Cyclone
	Creation and maintenance of fire line inside forest	6.327	Fire
	For fire safety mitigation measures in Unit -1 Haat , BBSR Construction of Storm Water Drain from Braja Nagar to Jyoti Nagar (0.44 KM) under Berhampur Municipal Corporation	5.155	Fire
4	Housing & Urban Development	1.638	Flood
5	Rural Development	9.930	Flood
6	Water Resources	1.743	Cyclone
7	OSDMA	20.000	Drought
	Installation of Lightning Arresters in 297 nos. of Multipurpose Cyclone/Flood Shelters	8.168	Lightning
	Lightning alert / forecast system	0.500	Lightning
	<b>TOTAL</b>	<b>215.743</b>	



ସୁତନ୍ତ ରିଲିଫ୍ କମିଶନର  
ରାଜସ୍ବ ଓ ବିପର୍ଯ୍ୟୟ ପରିଷଳନା ବିଭାଗ,  
ଓଡ଼ିଶା ସରକାର

