



Government of Odisha

ANNUAL REPORT
ON
NATURAL CALAMITIES
2020-21

SPECIAL RELIEF COMMISSIONER
Revenue and Disaster Management Department
Government of Odisha

CONTENTS

CHAPTER-I	Introduction	01-02
CHAPTER-II	Rainfall	03-08
CHAPTER-III	Heavy Rain & Floods/Un-seasonal Cyclonic Rain.	09-48
CHAPTER-IV	Covid-19	49-153
CHAPTER-V	State Specific Disasters	154-158
CHAPTER-VI	Disaster Assistance Monitoring Sysytem	158-159
CHAPTER-VII	State Disaster Response Fund(SDRF)	160-175

CHAPTER-1

Profile of the State

Sl. No.	Name of the District	Total Land Area (Sq. Km.)	Number of Villages (2011 Census)	Population (in '000)	Literacy Rate (in per cent)	Gross Cropped area (in '000 ha.)	Rivers	Normal Annual rainfall (mm)
1	2	3	4	5	6	7	8	9
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	Balangir	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, Tel, Reta, Vamsadhara, Chandola, Utei.	1330.5
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, Priya Kalam, Taptadhara	1667.6
22	Mayurbhanj	10418	3950	2514	63.98	449.50	Kala, Budhabalang	1600.6
23	Nawaranghpur	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, Budha Budhari, 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
Total (State)		155707	51313	41947	73.45	8167.60		1451.2

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:

Sl. No.	District	Annual Normal Rainfall (in mm)	Sl. No.	District	Annual Normal Rainfall (in mm)
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			
16	Kandhamal	1427.9		State Average	1451.2

District-wise rainfall for the year 2020

The district-wise monthly rainfall statistics from January to December, 2020 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	24.6	12.6	94.9	76.5	27.1	182.1	74.1	24.3	204.8	110.0	27.2	304.3	76.9	52.9	45.3	235.5	225.1	4.6	238.1	347.7	-31.5
2	Balasore	41.7	14.7	183.7	16.5	31.8	-48.2	52.0	34.4	51.2	123.3	62.2	98.2	218.8	108.5	101.6	221.9	221.5	0.2	149.2	308.6	-51.7
3	Bargarh	9.4	12.5	-24.5	100.8	19.1	427.7	56.6	22.0	157.4	73.2	20.0	266.2	55.5	25.6	116.7	293.2	205.6	42.6	240.5	397.2	-39.5
4	Bhadrak	38.4	11.8	225.5	23.2	29.6	-21.8	55.0	36.1	52.4	143.8	51.2	180.9	148.2	91.4	62.1	199.1	198.2	0.4	138.5	293.6	-52.8
5	Balangir	10.9	8.6	26.3	50.8	13.2	285.0	39.9	14.6	173.6	40.3	13.4	200.5	40.3	27.8	45.1	241.4	202.8	19.0	248.5	360.5	-31.1
6	Boudh	18.1	17.0	6.7	84.0	26.8	213.3	57.2	22.4	155.5	129.4	16.5	684.0	28.4	38.4	-26.0	266.3	233.8	13.9	339.6	418.5	-18.8
7	Cuttack	8.4	9.9	-15.3	55.1	28.6	92.7	72.9	24.7	195.3	136.3	28.3	381.7	147.7	71.5	106.6	181.0	210.0	-13.8	170.1	308.3	-44.8
8	Deogarh	32.8	14.1	132.6	94.4	27.0	249.8	48.0	20.6	133.2	153.3	21.3	619.6	84.9	41.9	102.7	352.4	242.4	45.4	266.2	447.7	-40.5
9	Dhenkanal	18.5	10.5	75.8	50.4	21.9	130.0	63.0	33.7	86.8	128.4	41.3	211.0	126.3	69.6	81.5	233.6	225.7	3.5	157.7	317.9	-50.4
10	Gajapati	5.5	8.1	-31.9	48.5	23.0	110.9	70.1	41.3	69.7	92.2	65.2	41.4	54.0	107.8	-49.9	228.7	199.7	14.5	222.2	230.6	-3.7
11	Ganjam	4.5	9.4	-52.5	47.8	24.1	98.5	60.5	32.6	85.5	116.8	36.6	219.0	51.1	65.4	-21.9	229.5	168.3	36.4	189.4	220.8	-14.2
12	Jagatsinghpur	7.3	14.5	-50.0	28.0	21.7	29.0	34.5	35.5	-2.8	149.0	25.4	486.6	206.1	78.0	164.3	114.4	202.3	-43.5	152.0	277.3	-45.2
13	Jajpur	17.1	12.9	32.4	36.1	25.1	44.0	52.3	28.4	84.1	156.5	46.1	239.6	164.0	93.7	75.0	172.3	238.5	-27.7	171.1	350.9	-51.2
14	Jharsuguda	17.8	14.1	26.2	40.6	22.9	77.2	104.4	17.6	493.2	93.4	15.1	518.5	72.8	27.9	161.0	393.4	218.8	79.8	297.0	385.8	-23.0
15	Kalahandi	8.9	10.3	-13.6	22.1	14.4	53.8	60.7	23.7	156.1	46.8	25.7	82.3	41.3	41.8	-1.2	306.9	240.4	27.7	271.7	327.7	-17.1
16	Kandhamal	7.6	10.6	-28.1	60.7	29.7	104.4	97.8	28.0	249.2	131.7	35.7	268.9	38.5	67.8	-43.2	235.1	207.9	13.1	270.4	325.1	-16.8
17	Kendrapada	11.2	10.6	5.9	16.4	30.2	-45.5	84.9	35.0	142.5	148.2	33.9	337.2	161.6	94.2	71.5	150.9	208.3	-27.6	134.0	317.1	-57.7
18	Keonjhar	39.9	14.6	173.6	55.0	33.8	62.8	49.0	33.1	48.2	152.9	42.1	263.1	153.2	94.8	61.6	272.9	241.4	13.0	170.7	318.0	-46.8
19	Khordha	12.2	12.4	-1.6	50.3	24.3	107.1	28.5	22.1	28.8	97.1	28.0	246.8	101.7	60.7	67.5	153.4	196.2	-21.8	150.7	304.9	-50.6
20	Koraput	8.6	5.7	50.9	17.7	8.6	106.0	46.6	18.3	154.8	119.3	55.2	116.1	74.8	81.9	-8.7	244.4	206.8	18.2	272.2	375.6	-27.5
21	Malkangiri	1.9	2.7	-29.1	0.0	4.1	-100.0	11.5	8.9	29.1	89.1	34.8	156.0	45.7	49.1	-6.9	238.5	212.2	12.4	371.5	465.7	-20.2
22	Mayurbhanj	40.1	10.3	289.5	19.3	28.0	-31.0	59.4	40.2	47.7	197.6	52.5	276.4	192.9	101.2	90.6	267.9	265.8	0.8	200.7	337.3	-40.5
23	Nawarangpur	8.0	6.7	18.8	9.2	14.1	-34.6	41.4	15.1	174.4	75.0	34.1	120.1	92.7	66.1	40.2	214.1	251.8	-15.0	336.7	356.6	-5.6
24	Nayagarh	27.4	11.7	134.0	55.1	28.6	92.6	47.5	30.0	58.2	126.7	39.9	217.6	46.0	58.8	-21.7	199.6	203.5	-1.9	179.8	288.5	-37.7
25	Nuapada	10.5	12.0	-12.5	39.5	14.6	170.7	83.5	19.7	324.1	84.5	21.8	287.4	55.2	31.2	77.0	297.4	210.3	41.4	300.5	347.1	-13.4
26	Puri	8.0	10.9	-26.3	21.6	25.4	-15.0	25.8	15.5	66.3	67.2	18.5	263.3	131.3	62.1	111.5	103.6	188.0	-44.9	110.4	292.0	-62.2
27	Rayagada	9.9	9.6	2.9	23.1	22.9	1.1	58.0	38.0	52.8	92.4	52.7	75.4	47.1	87.8	-46.3	204.0	195.3	4.5	260.9	259.5	0.5
28	Sambalpur	15.5	14.8	4.8	83.1	24.5	239.0	65.2	18.2	258.0	92.6	16.5	461.4	42.7	32.3	32.2	321.1	221.0	45.3	261.2	429.5	-39.2
29	Subarnapur	23.9	12.5	91.1	126.4	17.2	634.8	44.1	15.7	180.9	113.1	15.4	634.1	63.2	29.3	115.7	197.2	217.4	-9.3	201.0	399.6	-49.7
30	Sundargarh	20.0	15.1	32.2	35.4	24.9	42.3	96.7	16.0	504.6	101.5	16.0	534.3	87.7	40.6	116.1	327.0	237.4	37.7	170.0	386.4	-56.0
Total		508.5			1387.7			1741.1			3381.5			2850.8			7096.8			6642.4		
State Average		17.0	11.4	48.7	46.3	22.9	102.0	58.0	25.5	127.6	112.7	33.1	240.5	95.0	63.3	50.1	236.6	216.5	9.3	221.4	339.9	-34.9

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.	Actual	Normal	% of Dev.
1	Angul	586.5	357.5	64.0	129.8	217.5	-40.3	176.1	86.3	104.0	0.0	20.4	-100.0	0.0	3.3	-100.0	1727.9	1401.9	23.3
2	Balasore	414.3	332.1	24.7	109.4	267.6	-59.1	185.2	170.5	8.6	6.0	34.6	-82.7	0.0	5.5	-100.0	1538.2	1592.0	-3.4
3	Bargarh	620.2	374.4	65.6	99.4	222.6	-55.3	49.3	52.8	-6.7	0.0	10.4	-100.0	0.0	5.1	-100.0	1598.1	1367.3	16.9
4	Bhadrak	649.0	311.7	108.2	107.5	216.8	-50.4	254.2	145.3	75.0	0.0	37.3	-100.0	0.0	4.9	-100.0	1756.8	1427.9	23.0
5	Balangir	430.0	333.6	28.9	91.5	237.4	-61.5	77.3	68.4	13.0	0.0	7.2	-100.0	0.0	2.3	-100.0	1270.9	1289.8	-1.5
6	Boudh	546.2	488.8	11.7	125.0	244.8	-48.9	99.0	90.5	9.4	0.0	21.1	-100.0	0.0	4.4	-100.0	1693.2	1623.0	4.3
7	Cuttack	635.1	339.1	87.3	106.6	229.2	-53.5	228.7	125.6	82.1	1.2	45.0	-97.4	0.0	4.1	-100.0	1743.2	1424.3	22.4
8	Deogarh	756.9	443.4	70.7	128.6	228.2	-43.6	130.5	84.4	54.6	5.9	8.0	-26.7	0.0	3.5	-100.0	2053.9	1582.5	29.8
9	Dhenkanal	625.7	344.8	81.5	99.2	220.6	-55.0	142.2	104.4	36.2	0.0	36.2	-100.0	0.0	2.2	-100.0	1644.9	1428.8	15.1
10	Gajapati	196.0	253.6	-22.7	162.0	237.9	-31.9	334.5	168.6	98.4	14.4	61.8	-76.7	0.0	5.7	-100.0	1428.0	1403.3	1.8
11	Ganjam	182.6	246.8	-26.0	172.9	216.3	-20.0	355.2	177.7	99.9	5.5	71.1	-92.2	0.0	7.1	-100.0	1415.8	1276.2	10.9
12	Jagatsinghpur	585.1	379.1	54.3	73.8	241.4	-69.4	288.4	151.1	90.9	0.0	80.4	-100.0	0.0	7.9	-100.0	1638.5	1514.6	8.2
13	Jajpur	695.8	341.2	103.9	91.5	238.0	-61.6	215.1	140.2	53.4	0.0	41.0	-100.0	0.0	3.9	-100.0	1771.8	1559.9	13.6
14	Jharsuguda	586.9	382.9	53.3	214.2	210.7	1.7	44.5	54.9	-18.9	10.0	7.7	29.6	0.0	4.4	-100.0	1875.0	1362.8	37.6
15	Kalahandi	397.8	355.4	11.9	195.9	204.6	-4.3	130.2	74.0	76.0	0.0	10.9	-100.0	0.0	1.6	-100.0	1482.4	1330.5	11.4
16	Kandhamal	421.7	330.8	27.5	184.2	239.1	-23.0	187.8	117.7	59.6	2.6	31.0	-91.7	0.0	4.5	-100.0	1637.9	1427.9	14.7
17	Kendrapada	755.4	333.3	126.7	81.3	237.3	-65.7	343.0	183.7	86.7	0.6	67.2	-99.2	0.0	5.2	-100.0	1887.6	1556.0	21.3
18	Keonjhar	605.7	343.6	76.3	137.8	241.1	-42.9	76.4	101.3	-24.6	5.0	20.5	-75.6	0.0	3.4	-100.0	1718.5	1487.7	15.5
19	Khordha	375.1	320.6	17.0	128.3	234.5	-45.3	265.7	149.3	78.0	6.1	50.4	-87.9	0.0	5.0	-100.0	1369.2	1408.4	-2.8
20	Koraput	473.4	393.6	20.3	208.9	256.3	-18.5	205.5	126.1	62.9	10.9	32.6	-66.4	0.0	6.5	-100.0	1682.4	1567.2	7.4
21	Malkanagiri	979.6	472.8	107.2	211.3	281.2	-24.8	209.5	109.5	91.4	5.2	23.6	-77.9	0.0	3.0	-100.0	2164.0	1667.6	29.8
22	Mayurbhanj	500.3	359.9	39.0	137.0	262.0	-47.7	107.2	114.1	-6.1	25.9	21.6	20.1	0.0	7.3	-100.0	1748.3	1600.2	9.3
23	Nawarangpur	452.4	407.5	11.0	217.3	225.6	-3.7	111.3	168.6	-34.0	0.0	18.7	-100.0	0.0	4.6	-100.0	1558.2	1569.5	-0.7
24	Nayagarh	315.1	288.2	9.3	161.3	226.8	-28.9	200.6	134.5	49.1	1.1	39.0	-97.3	0.0	4.8	-99.5	1360.0	1354.3	0.4
25	Nuapada	323.1	327.8	-1.4	122.8	214.5	-42.8	84.2	68.9	22.2	0.0	15.3	-100.0	0.0	3.2	-100.0	1401.2	1286.4	8.9
26	Puri	435.9	297.9	46.3	92.0	243.2	-62.2	295.1	181.6	62.5	3.3	67.3	-95.2	0.0	6.4	-100.0	1294.3	1408.8	-8.1
27	Rayagada	244.5	273.7	-10.7	167.2	199.1	-16.0	200.4	109.7	82.7	7.7	32.9	-76.5	0.0	4.7	-100.0	1315.3	1285.9	2.3
28	Sambalpur	668.4	442.4	51.1	110.3	224.7	-50.9	124.8	54.7	128.2	3.6	12.7	-71.5	0.0	4.4	-100.0	1788.6	1495.7	19.6
29	Subarnapur	682.4	408.9	66.9	118.9	228.0	-47.8	103.6	59.8	73.2	0.0	11.4	-100.0	0.0	3.3	-100.0	1673.8	1418.5	18.0
30	Sundargarh	564.2	393.9	43.2	128.5	211.5	-39.2	51.3	67.7	-24.2	2.9	8.7	-66.9	0.0	4.2	-100.0	1585.2	1422.4	11.4
Total		15705.2			4114.6			5276.5			117.8			0.0			48823.0		
State Average		523.5	356.0	47.1	137.2	231.9	-40.9	175.9	114.7	53.3	3.9	31.5	-87.5	0.0	4.5	-100.0	1627.4	1451.2	12.1

Rainfall during Monsoon 2020 (1st June to 30th September)

The State experienced average surplus rainfall of 9.3 percent in June, deficit rainfall of 34.9 percent in July, surplus rainfall of 47.1 percent in August and deficit rainfall of 40.9 percent in September, 2020 compared to the long term average rainfall. The cumulative average rainfall of the State from June to September, 2020 remained 1118.6 mm against the Long Term Average (LTA) of 1144.3 mm registering a deficit of 2.2 percent.

Month	Normal	Rainfall in MM	
		Actual	Deviation in %
June	216.5	236.6	9.3
July	339.9	221.4	-34.9
August	356.0	523.5	47.1
September	231.9	137.2	-40.9
Total:	1144.3	1118.7	-2.2

Block-wise analysis of the cumulative rainfall from 1st June, 2020 to 30th September, 2020 indicates that out of 314 Blocks in the State, 38 Blocks received surplus rainfall (above 19%), 205 Blocks received normal rainfall (+19% to -19%), 61 Blocks received deficit rainfall (shortfall of >19% to 39%), 10 Blocks received severe deficit rainfall (shortfall of >39% to 59%) and no Block recorded scanty rainfall (shortfall of >59%). Table below indicates district-wise position.

Sl. No.	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%)
1	2	3	4	5	6	7
1	Angul	3	4	1		
2	Balasore		6	5	1	
3	Bargarh	2	10			
4	Bhadrak	2	5			
5	Balangir	1	8	4	1	
6	Boudh		2	1		
7	Cuttack	3	9	1		
8	Deogarh	1	2			
9	Dhenkanal	1	6	1		
10	Gajapati		6	2		

11	Ganjam	1	16	3	2	
12	Jagatsinghpur	1	4	2	1	
13	Jajpur	1	8	1		
14	Jharsuguda	3	2			
15	Kalahandi	2	10	1		
16	Kandhamal	1	10	1		
17	Kendrapara		8	1		
18	Keonjhar	3	7	3		
19	Khordha		3	6	1	
20	Koraput	4	6	3	1	
21	Malkanagiri	3	4			
22	Mayurbhanj	2	17	5	2	
23	Nawarangpur	1	8	1		
24	Nayagarh		4	4		
25	Nuapada		4	1		
26	Puri		2	8	1	
27	Rayagada	1	7	3		
28	Sambalpur	1	8			
29	Subarnapur		5	1		
30	Sundargarh	1	14	2		
No. of Blocks		38	205	61	10	0
No. of Districts		21	30	24	8	0

Fig.1.1. District-wise Rainfall for the year 2020

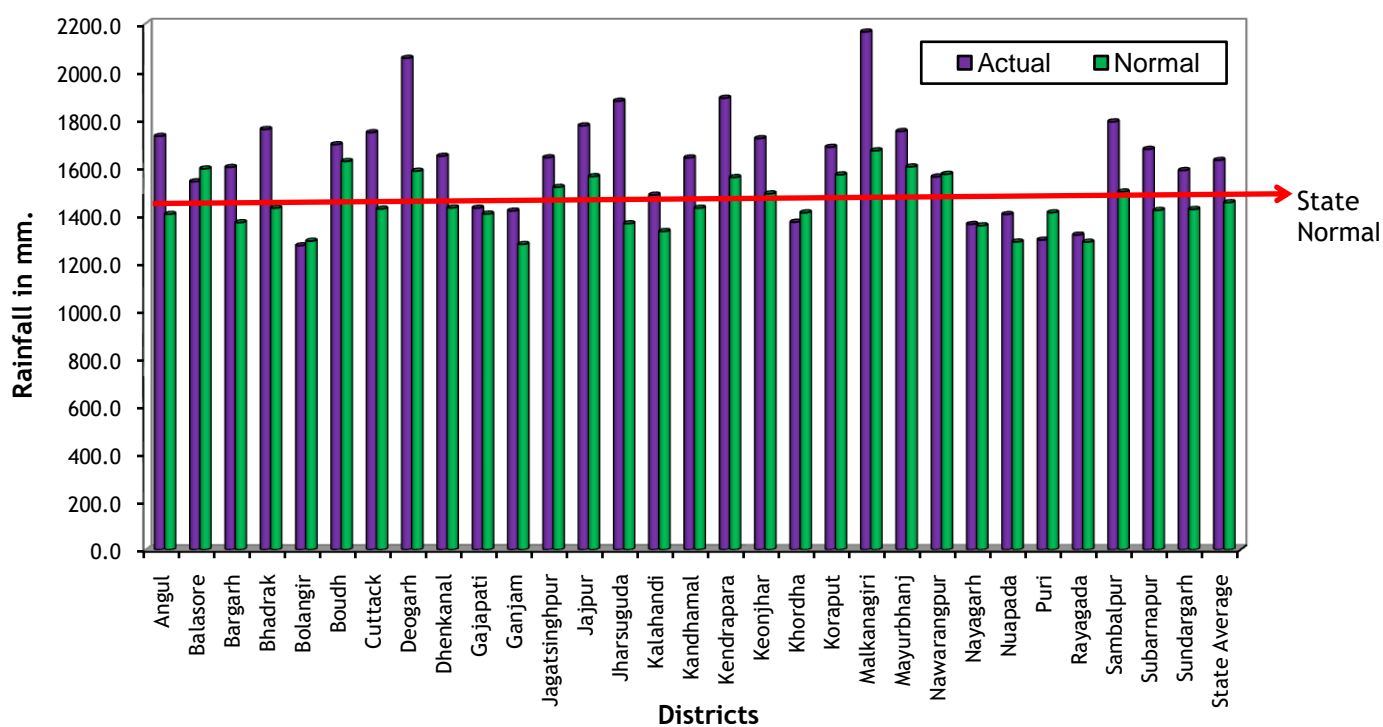


Fig.1.2. Month-wise Rainfall for the year 2020

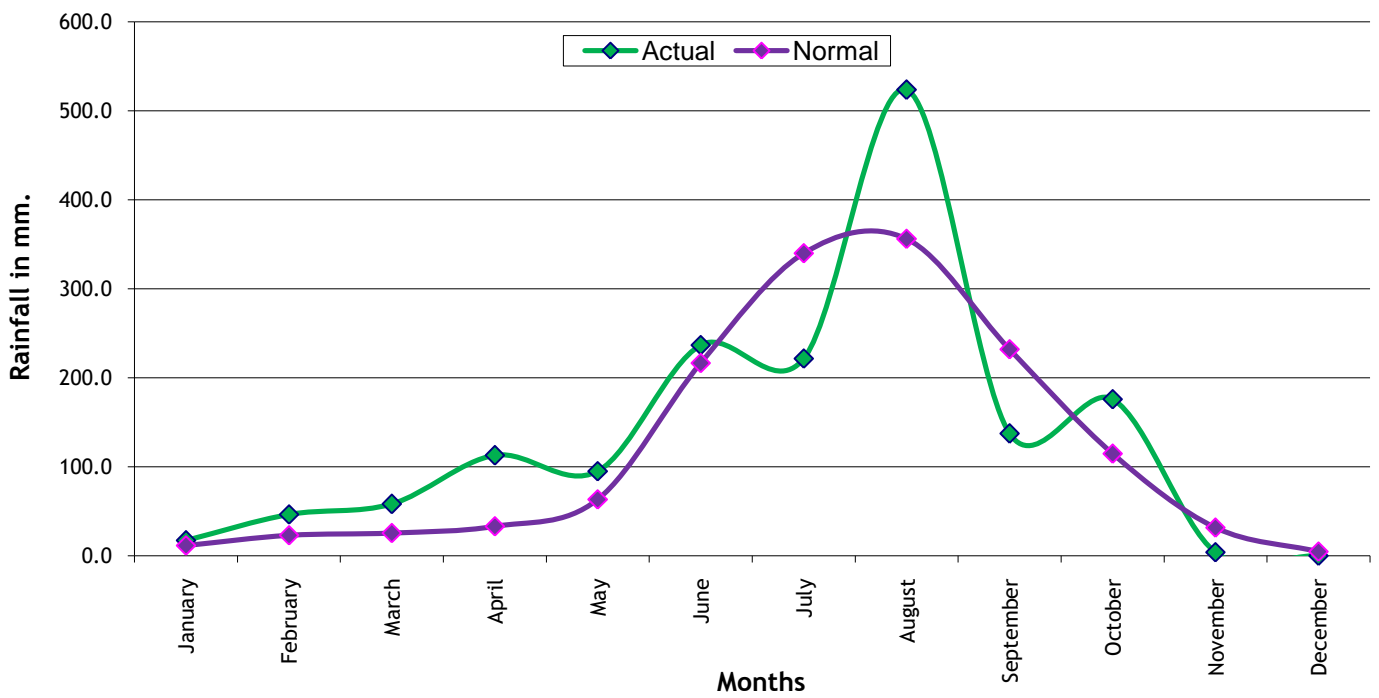
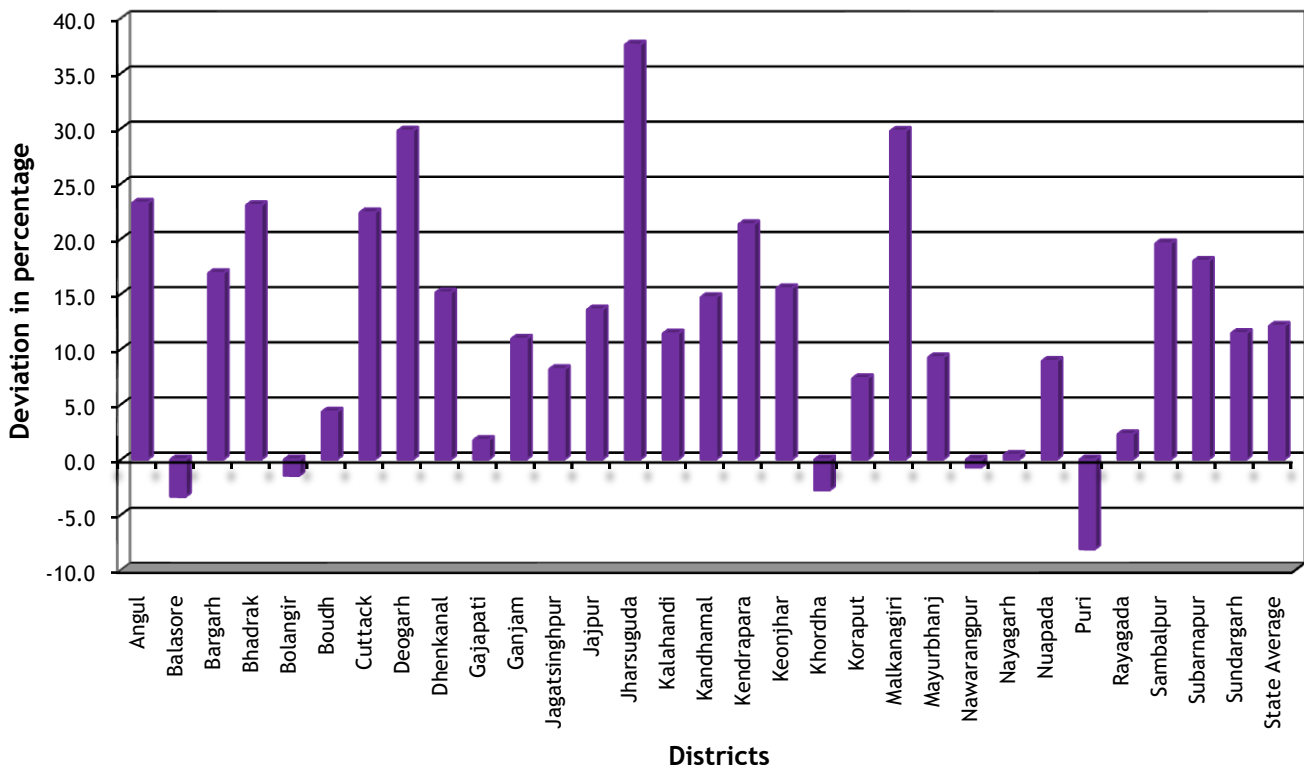


Fig.1.3. Rainfall Deviation of the Districts for the year 2020

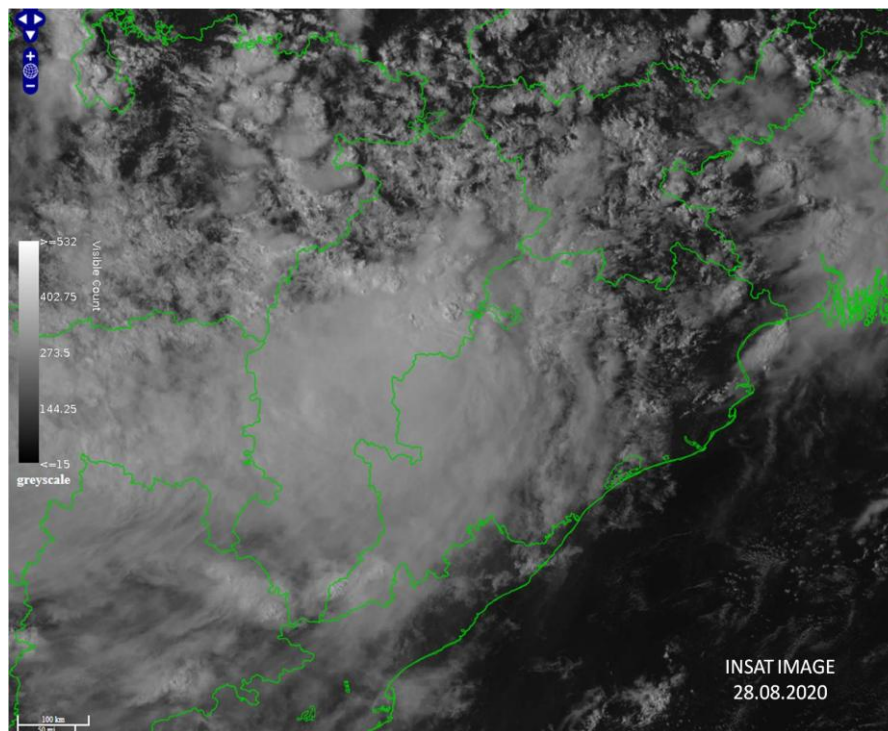


CHAPTER – 2

Disasters during the Year

2.1 Flood & Heavy Rain 2020

Monsoon 2020 witnessed spates of heavy to very heavy rainfall in different parts of the State during July & August, 2020. Especially, Almost all the districts received substantial rainfall from 26.8.2020 to 28.08.2020 due to Low pressure over Bay of Bengal and active Monsoon.



Heavy rainfall occurred in the lower as well as upper catchments of Mahanadi, Brahmani, Baitarani, Budhabalanga & Subarnarekha River Systems from 26.8.2020. During this period also lower catchment of Mahanadi River System, received heavy rainfall which caused severe floods. The average rainfall in the districts from 26.8.20 to 28.8.20 is given below:

DISTRICT AVERAGE RAINFALL					
(Rainfall in mm.)					
Sl. No.	District	26.8.2020	27.8.2020	28.8.2020	Total
1	Subarnapur	162.3	67.0	37.7	267.0
2	Boudh	133.3	114.1	6.0	253.4
3	Jharsuguda	50.9	176.8	25.2	252.9
4	Bargarh	71.3	76.4	92.8	240.5
5	Deogarh	94.9	128.5	12.1	235.5
6	Sambalpur	87.0	116.7	22.0	225.7
7	Angul	95.5	107.2	3.1	205.8
8	Keonjhar	124.8	77.3	2.5	204.6
9	Sundargarh	60.1	110.3	20.8	191.2
10	Kendrapara	168.3	13.2	0.0	181.5
11	Mayurbhanj	122.2	56.1	3.1	181.4
12	Nuapada	37.6	68.7	53.4	159.7
13	Jagatsinghpur	146.5	12.3	0.0	158.8
14	Kandhamal	73.0	81.2	3.5	157.7
15	Balangir	48.1	69.3	36.6	154.0
16	Balasore	84.3	56.3	2.5	143.1
17	Bhadrak	117.0	21.2	0.0	138.2
18	Dhenkanal	78.3	51.7	4.6	134.6
19	Jajpur	115.0	13.3	1.2	129.5
20	Cuttack	101.9	15.6	0.0	117.5
21	Kalahandi	44.5	50.2	9.9	104.6
22	Puri	76.1	25.7	0.0	101.8
23	Nayagarh	52.3	34.7	1.3	88.3
24	Khordha	60.6	20.7	3.1	84.4
25	Nawarangpur	15.3	24.2	17.2	56.7
26	Malkanagiri	7.1	43.2	5.8	56.1
27	Rayagada	33.9	15.7	3.8	53.4
28	Koraput	23.3	10.1	10.7	44.1
29	Ganjam	16.4	15.0	0.1	31.5
30	Gajapati	10.9	5.9	0.0	16.8
State Average		77.1	55.9	12.6	145.6

2.1.1 Hirakud Reservoir Position

Commencing on 27th August there was heavy rainfall for about six days in the upper catchments of river Mahanadi in the neighboring Chhattisgarh State. From 9.00 AM of 27.08.20 onwards the Hirakud reservoir started receiving more than 4.00 lakh cusecs of water and on 28.08.2020 the inflow into the reservoir dangerously exceeded 4- 5 lakh cusecs. As the reservoir level steadily approached the Full Reservoir Level (FRL) i.e., 630 feet, commensurable flood water had to be discharged into river Mahanadi. There was also heavy rain in the upper catchment of the tributaries of river Mahanadi and the tributaries rose in flood; adding to the outflow from Hirakud Reservoir.

Due to enormous inflow into the reservoir, the level of dam was maintained nearing FRL at 630.00 ft for safety of the dam. The inflow into the reservoir increased from 7.71 lakh cusecs on 29.8.20 to a peak of 8.98 lakh cusecs on 29.8.20. On the same day at 3.00 PM the reservoir level was 627.04ft with an inflow of more than 8 lakh cusecs. The outflow from Hirakud reservoir had to be balanced with the inflow keeping in view the safety of dam and also the flood situation in delta area. Due to heavy discharge of water, the mighty Mahanadi created floods in delta areas. The peak flood discharge at Mundali i.e., delta head was more than 10.26 lakh cusecs on 31.08.2020.

The inflow and outflow of water of Hirakud Reservoir was as follows:

Date	Time	Water level (in ft.)	Inflow (cusecs)	Out flow (cusecs)	No. of Gate opened
29.8.20	3.00 AM	626.02	7,71,233	6,63,232	42
	6AM	626.27	8,53,029	6,94,200	42
	9AM	626.56	8,79,407	6,95,172	42
	12Noon	626.81	8,83,855	7,25,026	44
	3PM	627.04	8,98,042	7,51,922	46
	6PM	627.23	8,82,743	7,62,034	46
	9PM	627.41	8,76,982	7,62,629	46
	12.00 Midnight	627.60	8,83,917	7,63,207	46
30.8.20	3.00 AM	627.79	8,84,665	7,63,959	46
	6AM	627.85	8,02,598	7,64,479	46
	9AM	627.95	8,28,569	7,65,040	46
	12Noon	628.00	7,97,078	7,65,311	46

	3PM	628.00	7,65,402	7,65,402	46
	6PM	627.89	6,88,989	7,16,368	43
	9PM	627.79	6,46,249	7,09,782	40
31.8.20	6AM	627.29	4,94,094	6,65,624	40
	9AM	627.21	5,69,531	6,20,355	36
	12Noon	627.08	5,16,256	5,98,847	36
	3PM	626.89	4,74,689	5,93,395	34
	6PM	626.71	4,49,600	5,63,957	32
	9PM	626.54	4,26,277	5,34,278	32
	12.00 Midnight	626.43	4,00,410	5,33,830	32
	3.00 AM	626.17	4,06,780	5,33,842	32
1.9.20	6AM	625.91	3,62,884	5,28,061	32
	9AM	625.79	4,37,643	5,13,881	28
	12Noon	625.77	3,90,896	4,03,601	24
	3PM	625.71	3,65,897	4,04,016	24
	6PM	625.65	3,66,663	4,04,782	24
	9PM	625.56	3,47,417	4,04,594	24
	12.00 Midnight	625.43	3,21,859	4,04,450	24
	3.00 AM	625.35	3,44,370	3,95,194	24

Downstream flood water of Hirakud reservoir coupled with huge inflow from the neighbouring State Chhattisgarh caused severe damages in Sambalpur, Baragarh, Boudh, Subarnapur, Nayagarh Cuttack, Jagatsinghpur, Kendrapara, Jajpur, Puri and Khurda districts in the Mahanadi basin. It is worth mentioning that the safe carrying capacity of Mahanadi river system is around 9 lakh cusecs at delta head (Naraj / Mundali) against which the peak discharge went up continuously to **10.26 lakh cusecs** approximately on **31.8.20 and 1.09.2020**.

2.1.2 Discharge to Coastal Plain

The volume of water discharged at Mundali causes floods in Mahanadi delta areas. The water discharges at Khairmal, Barmul and Mundali in Mahanadi river system since 29.8.2020 are as follows.

Date	TIME	Discharge in cusec during August 2020		
		Khairmal	Barmul	Mundali
29.8.20	3.00AM	10,02,000	8,81,500	8,43,086
	6AM	10,11,000	8,70,000	8,95,708

Date	TIME	Discharge in cusec during August 2020		
		Khairmal	Barmul	Mundali
	9AM	10,02,000	8,67,500	9,18,383
	12Noon	10,02,000	8,67,500	9,41,203
	3PM	9,93,000	8,75,000	9,48,905
	6PM	9,93,000	8,88,000	9,48,905
	9PM	10,02,000	8,97,750	9,48,905
	12.00 Midnight	10,02,000	8,97,750	9,72,013
30.8.20	3.00AM	10,11,000	8,97,750	9,79,715
	6AM	10,11,000	8,91,250	9,79,715
	9AM	10,02,000	8,91,250	9,87,418
	12Noon	10,02,000	8,91,250	10,02,823
	3PM	9,93,000	8,97,750	10,02,823
	6PM	9,84,000	9,23,750	10,02,823
	9PM	9,84,000	9,33,500	10,02,823
31.8.20	6AM	9,10,000	9,23,750	10,18,372
	9AM	8,80,000	9,23,000	10,26,218
	12Noon	8,50,000	9,23,750	10,26,218
	3PM	8,30,000	9,14,000	10,26,218
	6PM	8,14,000	8,88,000	10,26,218
	9PM	7,90,000	8,62,218	10,26,218
	12.00Midnight	7,74,000	8,47,500	10,26,218
1.9.20	3.00AM	7,42,000	8,25,000	10,26,218
	6AM	7,10,000	8,03,000	10,02,823
	9AM	6,94,000	7,75,500	9,79,715
	12Noon	6,70,000	7,53,500	9,72,013
	3PM	6,38,000	7,20,500	9,48,905
	6PM	6,06,000	7,03,750	9,25,942
	9PM	5,48,000	6,90,250	8,95,708

2.1.3 Water Level of Rivers

Due to heavy discharge at coastal plains in river Mahanadi, the water level of Mahanadi and its tributaries at coastal districts rose and crossed the danger level .The water level above danger level continued for **five days**. Further, due to heavy rainfall under the impact of low pressure over North Odisha during August, the rivers Subarnarekha, Brahmani, Baitarani and Budhabalanga crossed their respective danger

levels affecting the downstream areas of the districts namely Balasore, Bhadrak, Mayurbhanj, Keonjhar and Jajpur.

2.1.4 Impact of Full Moon:

Due to full moon on 2.9.20 and extremely turbulent sea, there was reduced discharge of flood water into sea resulting in submergence of delta area for three days that multiplied the miseries to the affected people.

2.1.5 Duration of flood and affected area

Sl. No	River	Duration of Flood
1	Budhabalanga	26 th August to 28 th August,2020
2	Baitarani	26 th August to 28 th August,2020
3	Brahmani	27 th August & 28 th August,2020
4	Subarnarekha	27 th August & 28 th August,2020
5	Mahanadi	29 th August to 3 rd September,2020
6	Jalaka (Balasore)	26 th August to 30 th August,2020

18 out of 30 districts of Odisha were affected by flood in different river systems which commenced on 26th of August and continued up to 3rd September, 2020. Similarly, 19 districts were affected by heavy rain during July & August of 2020. So, cumulatively, 10 districts suffered damage by both flood and heavy rain, 8 districts by only flood and 9 districts by only heavy rain. The table below indicates the districts affected by Flood/ Heavy Rain in July & August 2020.

Sl.No	Name of District	Affected by Flood	Affected by Heavy Rain
1	Angul	✓	✓
2	Bargarh	✓	✓
3	Boudh	✓	✓
4	Dhenkanal	✓	✓
5	Jagatsinghpur	✓	✓
6	Jharsuguda	✓	✓
7	Kendrapara	✓	✓
8	Keonjhar	✓	✓

9	Sambalpur	✓	✓
10	Subarnapur	✓	✓
11	Balasore	✓	
12	Bhadrak	✓	
13	Cuttack	✓	
14	Jajpur	✓	
15	Khordha	✓	
16	Mayurbhanj	✓	
17	Nayagarh	✓	
18	Puri	✓	
19	Bolangir		✓
20	Deogarh		✓
21	Kalahandi		✓
22	Kandhamal		✓
23	Koraput		✓
24	Malkangiri		✓
25	Nabarangpur		✓
26	Nuapada		✓
27	Sunadargarh		✓

2.1.6 Breaches

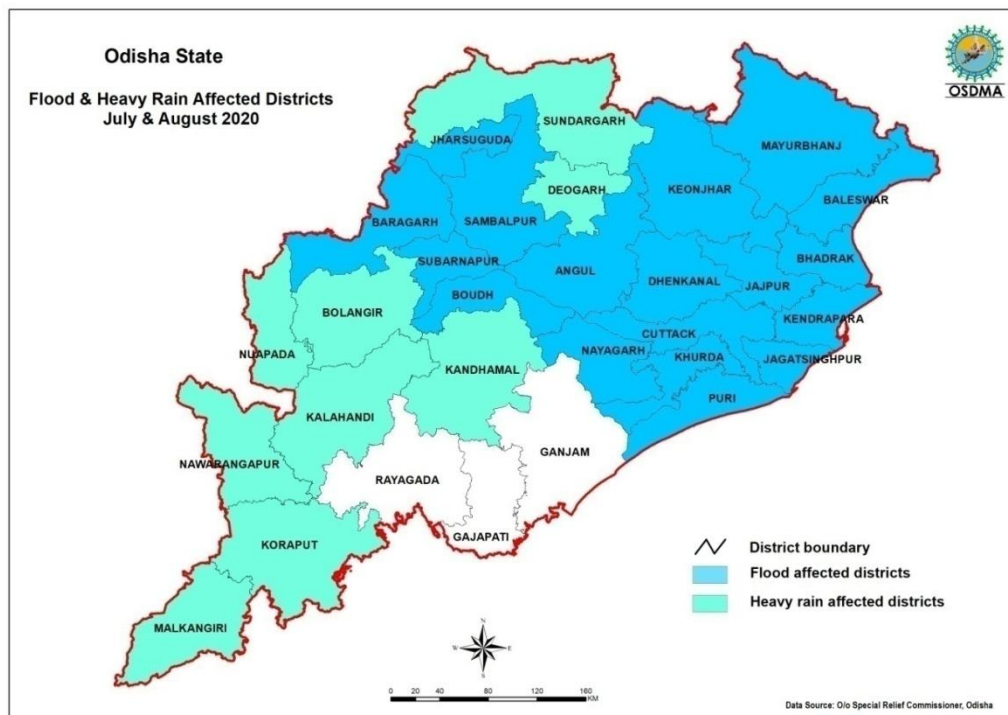
Due to floods, heavy damages occurred to river and canal embankments, service roads on embankments, drainage channels, M.I. Projects, Lift Irrigation Points and field channels. All necessary preventive measures were taken at identified vulnerable points along river embankments prior to floods. Because of this, breaches were avoided in delta area of Mahanadi river system up to 9.50 lakh cusecs of floods discharge. However, there were 38 nos. of breaches in river/saline embankments and 93 nos. of breaches in canal embankments of Minor Irrigation. The breaches that occurred in river/ canal embankments led to submerge of human habitations and vast area of the agricultural land.

Due to the floods in August 2020 in Mahanadi River System, extensive damage had occurred in the districts of Sambalpur, Baragarh, Subarnapur, Boudh,

Angul, Nayagarh, Dhenkanal, Cuttack, Jagatsinghpur, Kendrapara, Puri, Khurda and Jajpur severely impacting the normal life, livelihood and infrastructure.

Besides the flood in the Mahanadi system, the State experienced floods in river Brahmani, Subarnarekha, Budhabalanga and Baitarani in August affecting the districts of Angul, Balasore, Bhadrak, Kendrapara, Jajpur, Keonjhar and Mayurbhanj.

The flood & heavy rain affected Districts have been delineated in the following map:



2.1.7 Preparedness Activities

The following immediate preparedness measures had been undertaken:

- Hon'ble Chief Minister had taken review of the status of preparedness for the possible flood through Video Conferencing with Collectors & Secretaries of concerned Departments.
- Addl. Chief Secretary, Disaster Management & Special Relief Commissioner had held video conferencing with Collectors of all districts and had taken stock of the preparedness measures.
- Information on weather warnings / flood warnings had been disseminated to all Collectors / Departments / Blocks / Tahashil / Gram Panchayats well in advance.

- District Collectors had been instructed to hold advance preparedness meeting.
- Foodstuff in inaccessible, vulnerable and strategic locations had been pre-positioned by the District Administration.
- High alert had been issued to Cuttack, Puri, Kendrapara, Jagatsinghpur before occurrence of flood.
- Collectors of Cuttack, Puri, Kendrapara, Jagatsinghpur, Jajpur had been instructed to evacuate the people from low lying areas and to shift them to nearby school buildings and cyclone/ flood shelters.
- Regular Coordination with the IMD, Flood Cell of DoWR, CWC and with the authority of the Hirakud Dam Division was being made.
- ODRAF, NDRF, Fire Service units had been mobilised and pre-positioned in the vulnerable locations prone to flood well in advance.
- Senior officers had been deployed to the districts of Kendrapara, Cuttack, Balasore, Bhadrak, Jajpur, Jagatsinghpur & Puri to assist the District Administration in management of flood.

2.1.8 Evacuation

1.73 lakh people were evacuated to safe shelters including multipurpose cyclone/ flood shelters and provided with dry/ cooked food. Besides, free kitchen service was also provided to the people in inundated and marooned villages. In all, 980 no.of relief camps were opened for 4.84 lakh people.

2.1.9 Deployment of Boats

For relief and rescue operation, NDRF/ODRAF/State Fire Service personnel with their equipment were pressed into action. 160 power boats of State Port Engineering Organization were also deployed in the flood affected districts. Besides, hired boats were utilized for rescue and relief operation by the district authorities. In total, 462 boats have been engaged in relief & rescue operation.

2.1.10 Rescue Operation

17 units of ODRAF, 14 Teams of NDRF were deployed to the affected districts for rescue & relief operation. The district wise deployment is given below.

Sl. No.	Name of the District	ODRAF	NDRF
1.	Balasore	-	01
2.	Bhadrak	01	01
3.	Jajpur	04	03
4.	Kendrapada	04	04
5.	Jagatsinghpur	01	01
6.	Puri	01	03
7.	Dhenkanal	01	-
8	Angul	01	-
9	Bolangir	01	-
10	Jharsuguda	01	-
11	Khurdha	01	-
12	Cuttack	01	01
	Total	17	14

Besides, 116 Fire Service teams with powerboats & ancillary rescue equipment were also pressed into service by the Fire Service under the supervision of District Administration.

2.1.11 Temporary Shelters:

54170 polythene sheets were distributed to the affected families for temporary shelters.

2.1.12 Emergent Relief

244770.52 Qtl. of rice, 5247.77 Qtl. of Chuda (flattened rice), 562.5 Qtl. of Guda (Juggery) were distributed as emergent relief to the affected people. In addition to that, candles, matchboxes, kerosene oil and other materials were also distributed.

Sl. No.	District	Emergent Relief Distributed		
		Rice (in Qtl)	Chuda (in Qtl)	Gud (in Qtl)
1	Angul	0	14.2	2.5
2	Balasore	31215.75	167.4	16.68
3	Bargarh	0	5.0	1.1
4	Bhadrak	43755	82.55	12.93
5	Boudh	0	0.5	0.14
6	Cuttack	3345	38.64	3.8
7	Dhenkanal	1.0	14.0	3.0

8	Jagatsinghpur	2851.5	5.25	1.55
9	Jajpur	98760.5	2728.06	275.32
10	Jharsuguda	8.65	7.1	1.83
11	Kendrapada	43902.5	1598.32	112.05
12	Keonjhar	49.6	35.8	7.38
13	Khordha	1678.5	34.5	3.5
14	Mayurbhanj	4.5	45.0	9.5
15	Nayagarh	0	11.0	2.0
16	Puri	19132.5	227.25	28.55
17	Sambalpur	0	20.0	10.0
18	Subarnapur	0	0.42	0.11
19	Malkangiri	65.52	2.78	0.56
20	Nawarangpur	0	210.0	70.0
	TOTAL	244770.52	5247.77	562.5

2.1.13 Health and Sanitation:

In addition to the stock of medicines in the district headquarters prior to the floods, essential drugs like halogen tablets, antibiotics, paracetamol tablets, antacids, ASVs, bleaching powder and ORS packets were provided to all the affected districts. Medical teams were deployed in flood-affected districts. Doctors and paramedics from non-affected districts as well as from the Medical Colleges were mobilized to serve in the flood-affected areas. Essential medicines and vaccines were distributed in the affected areas to prevent epidemics. Dis-infection of drinking water sources carried out regularly. The detailed health care measures undertaken by Health Department are as follows.

Medical Relief Centers opened	:	205
Mobile Teams with Doctor deployed	:	106
Tube wells disinfected	:	21738
Wells disinfected	:	10097
ORS packets distributed	:	580293
Halogen tablets distributed	:	519723
Bleaching Power (Bags) supplied	:	2797

2.1.14 Animal Care:

Due to flood, the entire livestock and poultry population of 12 districts were severely affected. As per the preliminary estimation, 8.80 lakh livestock had been affected. To meet the requirement of cattle feed in the affected areas, the measures undertaken in veterinary sector were as follows.

Cattle feed arranged for distribution :	1693.50 MT
Animals vaccinated :	334515
Animals treated :	131600
Veterinary Teams deployed :	154

2.1.15 Drinking Water:

Piped water supply sources in rural as well as urban areas were submerged under floodwater. The pumps and pipes were filled with sand in some places causing severe damage to the water supply system. However, efforts were made to restore the system either temporarily or permanently. Drinking water supplied through 44 tankers in rural areas. Mobile vans were deployed for disinfections and repair of tube wells. 27,43,300 water pouches were distributed in the affected rural areas. Similarly, 85 water tankers were deployed in urban areas. 16000 water pouches were distributed in the affected urban areas.

2.1.16 Restoration Measures:

Extensive damage had been caused to public properties, mainly roads, river/canal embankments, power supply and water supply installations. The concerned departments had been advised to take up restoration work on war-footing with the available funds.

2.1.17 Relief Package

To ameliorate the sufferings of the people, Hon'ble Chief Minister on 31.08.2020 had announced immediate assistance for the affected people as shown below.

- (i) Cooked/ Dry food was provided to all the people who had been evacuated, for the period they were housed in shelters.
- (ii) 50 Kg. of rice and Rs.500/- were provided to all families in the villages which had been severely affected/ inundated/ marooned due to the flood.
- (iii) One polythene sheet to each deserving household whose house had been damaged.

- (iv) House Damage Assistance as per SDRF norms. Collectors took steps for assessment of house damage within 15 days and disburse the assistance in next 7 days.
- (v) Assistance for clothing and utensils as per SDRF Norms.
- (vi) Cattle feed assistance to dairy farmers as per SDRF Norms.
- (vii) Exemption of User Fees for vaccination and treatment of animals in flood affected areas.
- (viii) Free animal check-up camps in affected areas.

On 11.09.2020, Hon'ble Chief Minister announced a special livelihood package of Rs.300 crore for the affected farmers the detail of which is given below:

(a) Agriculture Sector:

1. Agriculture input subsidy to be provided to the small and marginal farmers who have sustained crop loss of 33% and above @Rs. 6,800/- per hectare of land in rain-fed/non-irrigated areas, Rs.13,500/- per hectare of land in areas under assured irrigation, and Rs.18,000/- per hectare for all types of perennial crops. Perennial crops will include mango, cashew, coconut, kewra, betel vine etc. The assistance shall be provided to the actual cultivators. Agricultural input subsidy to any affected farmer shall not be less than Rs.2000/- for perennial crops and Rs.1000/- for other crops.
2. 20,000 pulse seed mini kits to be provided to the Flood affected farmers during Rabi 2020.
3. 60,000 acres of demonstration programmes of different crops to be taken up in affected districts in the ensuing Rabi season.
4. 2,000 pump sets to be provided with 50% subsidy limited to a maximum of Rs.15,000/-.
5. 5,000 power sprayers to be made available to the Flood affected farmers at a subsidy of 50% limited to maximum of Rs.3,000/- for battery operated sprayers and Rs.600/- for hand operated sprayers.
6. One lakh farmers to be trained on seed treatment programme with free supply of seed treatment chemicals /bio-pesticides to cover one lakh acres for increasing production in Rabi crops.

7. Immediate steps to be taken to arrange and distribute quality certified seeds in sufficient quantity for the Rabi season. Special assistance to be provided to the farmers with higher subsidy around 75% on Certified Quality Seeds.
8. Farm Mechanization Subsidy of Rs.10 crore to be disbursed to the affected districts.
9. Expeditious steps to be taken for crop loss assessment and steps to be taken for invoking mid-season adversity under the Crop Insurance Scheme.
10. One lakh farmers to be provided with vegetable kits involving seeds of Palak, Beans, Cowpea, Tomato, Chilli and Radish etc. to meet their immediate needs through kitchen garden @ Rs.130/- per kit.
11. 75,000 farmers to be provided with 10 nos. of quick growing fruit species like Papaya, Banana and Drumstick @ Rs.160/- per affected farmers to raise backyard garden in the flood affected districts.
12. Rs.500/Unit to be provided for Shade Net/ Thatched Structure for renovation of 10,000 Mushroom Units affected by flood to farmers/ WSHGs for livelihood support.

(b) Farm Credit:

13. Short Term Kharif loan advance in the flood affected areas having crop loss of 33% and above to be converted into Medium Term (Conversion) loans.
14. Due date of Short Term Kharif loan advance in the affected areas to be extended by one year from the date of financing (maximum upto 30thSeptember 2022) to facilitate conversion of such loans into Medium Term (Conversion) loans.
15. Affected farmers to be provided fresh finance for Rabi cultivation during coming Rabi season commencing from 01.10.2020.

(c) Animal Resources Development Sector:

16. Assistance for replacement of animals to be provided towards loss of animals @ Rs. 30,000/- per milch cow and buffalo, Rs. 25,000/- per draught animal (upto 3 animals), Rs. 16,000/- per calf (upto 6 animals), Rs.3,000/- per goat (upto 30 animals), Rs. 50/- per poultry bird (maximum Rs. 5000/-)

(d) Fisheries sector:

17. Financial assistance of Rs.12,200/- per hectare to be provided to fish farmers (Freshwater/ Brackish water) for repair of damaged fish ponds/ dykes.

18. Input subsidy @ Rs. 8,200/- per hectare to be given for de-silting/ restoration/ repair of damaged fish seed farm.

(e) Handloom & Handicrafts Sector:

19. Assistance of Rs.4,100/- per weaver/ handicrafts artisan to be provided for replacement tools/ equipment and Rs.4,100/- per weaver/ handicrafts artisan towards loss of raw materials/ goods in process/ finished goods.

(f) Employment Generation:

20. Works under MGNREGS to be intensified once flood water subsides. The focus to be given on works like repair and maintenance of GP roads, Playfields, canals, earthen bunds, goat shed, cowshed, and fodder cultivation.

2.1.18 Area & population affected

SI	District	Blocks Affected	GPs Affected	Villages Affected	No. of ULBs Affected	Population Affected	Human Casualty	House Damage including cow shed
1	Angul	8	114	319	1	32500	1	2250
2	Balasore	7	77	361	1	262223	2	474
3	Bargarh	7	19	92	0	4783	1	2868
4	Bhadrak	7	126	618	4	432000	3	2862
5	Bolangir	12	120	750	1	20468	1	2667
6	Boudh	3	43	278	1	5455	0	1765
7	Cuttack	12	179	711	1	71774	4	139
8	Deogarh	3	63	174	1	1763	1	446
9	Dhenkanal	8	146	385	1	25000	1	414
10	Jagatsinghpur	7	23	233	0	38833	0	373
11	Jajpur	10	258	1244	1	995947	10	41935
12	Jharsuguda	5	74	200	3	16248	1	1128
13	Kalahandi	4	31	45	0	348	0	89
14	Kandhamal	7	31	96	1	1430	0	215
15	Kendrapada	9	249	1592	2	1522901	2	4907
16	Keonjhar	8	81	397	1	97796	2	4599
17	Khordha	6	29	120	0	10647	0	0
18	Koraput	11	11	194	0	6840	0	350
19	Malkangiri	7	74	351	2	106999	0	1363
20	Mayurbhanj	16	68	470	2	11826	7	1671
21	Nayagarh	2	12	66	0	28406	0	13
22	Nabarangpur	6	72	143	0	1502	0	372

23	Nuapada	2	10	10	1	1180	0	33
24	Puri	9	62	237	1	133121	1	413
25	Sambalpur	9	107	406	2	7845	0	2108
26	Subarnapur	6	64	511	2	44809	0	2578
27	Sundargarh	17	121	347	1	8000	1	2105
	Total	208	2264	10350	30	3890644	38	78137

2.1.19 Livestock Affected:

Sl No	Name of the District	No. of animals affected			
		LA	SA	Poultry	Total
1	Angul	1318	1305	624	3247
2	Balasure	111383	48086	6767	166236
3	Bhadrak	116261	28229	612	145102
4	Boudh	4877	5413	1823	12113
5	Cuttack	45573	19919	500	65992
6	Dhenkanal	2382	812	1039	4233
7	Jagatsinghpur	9549	3088	1200	13837
8	Jajpur	175173	50565	83744	309482
9	Jharsuguda	405	293	0	698
10	Kendrapada	43727	13748	7500	64975
11	Khordha	5133	2643	3000	10776
12	Puri	47224	14468	22502	84194
	TOTAL	563005	188569	129311	880885

2.1.20 Livestock Casualty

Sl No	Name of the District	Animal Casualty			
		LA	SA	Poultry	Total
1	Angul	0	6	0	6
2	Bhadrak	4	0	2000	2004
3	Cuttack	0	0	500	500
4	Dhenkanal	3	0	0	3

5	Jajpur	3	0	22909	22912
6	Kendrapada	5	3	600	608
7	Khordha	1	0	100	101
8	Puri	1	0	7120	7121
TOTAL		17	9	33229	33255

2.1.21 Crop Area Affected:

Sl. No.	Name of the district	Total agriculture/ horticulture crop area affected (in Ha.)
1	2	3
1	Angul	1970
2	Balasore	11385
3	Bargarh	1724.07
4	Bhadrak	42755
5	Bolangir	660
6	Boudh	1154
7	Cuttack	35574.3
8	Dhenkanal	6442.6
9	Jagatsinghpur	19125
10	Jajpur	73514
11	Jharsuguda	955.05
12	Kalahandi	0.23
13	Kendrapara	56590
14	Keonjhar	3805
15	Khordha	7903.35
16	Koraput	1.2
17	Malkangiri	1040.08
18	Mayurbhanj	8102
19	Nayagarh	2802
20	Puri	35312
21	Sambalpur	550.73
22	Subarnapur	2285.103
Total		313650.713

2.1.22 Crop loss

The State Government declared an area of 235228.2 hectares in 4896 villages under 1274 Gram Panchayats of 111 Blocks and 69 wards of 11 ULBs in 22 Districts as

affected by Flood & Heavy rain occurred during July and August, 2020 having sustained crop loss of 33% and above. The detail of this crop loss is given in the table below.

Sl. No.	District	No. of affected Blocks	No. of affected GPs	No. of affected Villages	No. of affected ULBs	No. of affected Wards	Crop loss 33% and above			
							(Area in hectare)			
							Irrigated	Rainfed	Perennial	Total
1	2	3	4	5	6	7	8	9	10	11
1	Angul	3	15	79	1	5	143.29	1259.08	0	1402.37
2	Balasore	3	31	162	0	0	2605.64	1181.16	94	3880.8
3	Bargarh	3	18	45	0	0	243.46	168.72	2.85	415.03
4	Bhadrak	4	69	302	2	11	4131.4	25785	0	29916.4
5	Balangir	2	20	93	0	0	0	660	0	660
6	Boudh	3	29	130	0	0	514	638.22	0	1152.22
7	Cuttack	12	179	648	1	6	12367.3	19931	0	32298.3
8	Dhenkanal	7	82	263	1	8	173.21	4086.35	0	4259.56
9	Jagatsinghpur	8	141	565	0	0	5315.4	6900	6.04	12221.44
10	Jajpur	10	239	1068	0	0	13138	49953.7	76.3	63168
11	Jharsuguda	3	31	81	2	4	7	911.84	0	918.84
12	Kalahandi	1	1	1	0	0	0.23	0	0	0.23
13	Kendrapara	9	135	412	1	9	5621.41	39391.99	51.8	45065.2
14	Keonjhar	4	18	85	0	0	113	2706.07	0	2819.07
15	Khordha	6	35	124	0	0	2129.31	4941.31	0	7070.62
16	Koraput	2	3	6	0	0	0	8.33	0	8.33
17	Malkanagiri	6	54	144	0	0	280.62	609.16	0	889.78
18	Mayurbhanj	4	20	68	0	0	0	507.16	0	507.16
19	Nayagarh	3	16	81	0	0	70.9	2791.9	4.9	2867.7
20	Puri	8	76	338	0	0	7418.43	15786.87	17.93	23223.23
21	Sambalpur	6	16	49	1	21	430.61	146.21	0	576.82
22	Subarnapur	4	46	152	2	5	1439	468.1	0	1907.1
Total		111	1274	4896	11	69	56142.21	178832.17	253.82	235228.2

2.1.23 Sand Cast

Sl. No.	Name of District	Crop Area Sand Cast more than 3 inch (in hect.)
1	Balangir	50.9
2	Jharsuguda	1.38
3	Kalahandi	0.23
4	Malkangiri	168.737
5	Sundargarh	21.38
	Total	242.627

2.1.24 Loss of livelihood of traditional craftsmen:

Due to floods, 905 handicraft artisans have been affected due to damage to their equipment and raw materials. Similarly, 403 handloom weavers & 1230 sericulture farmers have been affected.

2.1.25 Damage to Nets and Boats of Fishermen:

107 boats and 277 fishing nets have been damaged in 5 districts.

Sl	District	No. of Boats damaged		No. of Nets damaged	
		Fully	Partially	Fully	Partially
1	Dhenkanal			3	
2	Cuttack			25	
3	Sambalpur	1			
4	Bargarh	3			22
5	Jharsuguda	97	6	227	
	Total	101	6	255	22

2.1.26 Damage to Drinking Water Supply System:

There is extensive damage to the rural water supply and urban water supply systems. 635 piped water supply systems and 11939 tube wells in rural areas and 85 tube wells in urban areas have been affected.

2.1.27 Damage to public properties due to flood & heavy rain in July & August 2020

Sl.	Departments/ damaged Property	Quantity
1	Water Resources Department	
	Damage to river/ saline embankment	1302 Nos./ 996.90 kms.
	Breaches in river/ saline embankment	38 Nos./ 3.35 kms.
	Partial damage to canals	383 Nos./ 457.58 kms.
	Repair/ restoration/ clearance of drainage canals	863.63 kms.
	Damage to Lift Irrigation Projects	3856 Nos.
	Damage to Minor Irrigation Projects	93 Nos.
2	Works Department	
	PWD roads damaged	1714.72 kms.
	Breaches in PWD roads	42 Nos/ 1.61 kms.
	CD/ Bridges damaged/ washed away in PWD roads	192 Nos.
	Drains damaged	300 kms.
	NH damaged (Maintained by state)	10.09 kms.
	Breaches in NH	11 Nos.
	CD/ Bridges damaged/ washed away in NH	14 Nos.
	Secondary School Building damaged	10 Nos.
	CHCs damaged	3 Nos.
	Damage to residential buildings	20 Nos.
	Damage to non-residential buildings	35 Nos.
3	Rural Development Department	
	Home Department building damaged	45 Nos.
	RD Department Building damaged	58 Nos.
	Revenue Dept. Building damaged	157 Nos.
	Other Department building damaged	9 Nos.
	Residential Building damaged of all Department	113 Nos.
	Damage to rural roads	1728.85 kms.
	Breaches in rural roads	267 Nos./ 6.84 kms.
	CD/ Bridges damaged/ washed away	473 Nos.

4	Housing & Urban Development Department	
	Road damaged	151.32 kms.
	Drain damaged	44.28 kms.
	Culverts damaged	7 Nos.
	Tube Well/ Platform damaged	85 Nos.
	Piped water supply system damaged	92 Nos.
5	Panchayati Raj & DW Department	
	Anganwadi Center damaged	282 Nos.
	Primary School Buildings damaged	540 Nos.
	GP/ PS Building & Community Hall damaged	101 Nos.
	GP/ PS road damaged	8316.51 kms.
	Piped Water Suplly System/ Tube well damaged	543 Nos.
6	Energy Department	
	FeederTransformer damaged	14 Nos.
	33 KV conductor damaged	48.5 kms.
	33KV Poles damaged	134 Nos.
	33KV. & 11 KV. VCB damaged	28 Nos.
	11KV Transformer damaged	45 Nos.
	11KV poles damaged	982 Nos.
	11KV conductor damaged	331.64 kms.
	Distribution Transformer damaged	571 Nos.
	LT line pole damaged	1172 Nos.
	LT Line conductor damaged	219.17 kms.
	Minor material& civil work	
	Erection charge	
7	Handlooms, Textile & Handicrafts Department	
	Damage to workshed of handloom weaver	1 No.
	Damage to infrastructure in handloom Sector	11 Nos.
	Loss to Seed (DFL) of Sericulture Sector	93910 Nos.
	Rearing loss of Sericulture Sector	755 Nos.
	Damage to infrastructure in Sericulture Sector	1 No.
8	Agriculture & FE Department	
	Damage to individual/ Community Farm Pond, earthen embankment, check dam etc.	211 Nos.

2.1.28 Submission of Memorandum

The total loss due to the disaster had been assessed to be **Rs.1642.26 crore**. The State Government had sought for assistance to the tune of **Rs.715.90 crore** through memorandum to undertake immediate relief and restoration of damaged infrastructure in eligible sectors as per the norms of SDRF/ NDRF.

Apart from that, two mitigation proposals were also given in the said memorandum for providing required funding support from Govt. of India out of NDRMF. The details are given below:

For improvement with widening, raising & strengthening of roads to provide all weather connectivity to Bari town of Jajpur district (Works Dept.)	Rs.204.70 crore
For strengthening of Flood Embankments (Water Resource Dept.)	Rs.648.90 crore
Total for Mitigation purpose	Rs.853.60 crore

Thus the total demand put forth to Govt. of India for Flood & Heavy Rain was as follows:

For Relief & Immediate repair/ restoration as per SDRF/ NDRF Norms	Rs.715.90 crore
For Mitigation Measures from NDRMF	Rs.853.60 crore
Total	Rs.1569.50 crore

2.1.29 Visit of the Inter-Ministerial Central Team:

An Inter-Ministerial Central Team led by Sri Praveen Vasistha, Joint Secretary (LWE), Ministry of Home Affairs, Government of India visited the State from 16.9.2020 & 17.9.2020 for on the spot assessment of damages. The Team visited the flood affected areas of Bhadrak, Jajpur, Kendrapada and Puri district.

2.1.30 Funds released from SDRF:-

Immediate restorations of roads have been made for clearance of relief line in the flood affected areas.

The districts were allotted funds for various relief measures and assistance for damage to private properties. Similarly departments were allotted fund for repair and restoration of damage to public properties. The detail of these allotments for the year due to flood & heavy rain is given below.

Funds released to Collectors (Rs in Lakh)

Sl. No.	Name of the affected District	HBA	Clothing	Utensils	Agriculture Input Subsidy	Assistance for Sandcast	GR in Kind	GR in Cash	Replacement of Animal	Assistance to Fishermen
1	Angul	123.63	0.20	0.22	104.96		0.66			
2	Balasore	18.99	0.07	0.08	449.00		16.09	337.95		
3	Bargarh	101.72	0.20	0.22	44.85		1.64			9.30
4	Bhadrak	103.84	0.23	0.26	2311.11			437.55	0.60	
5	Bolangir	170.11	0.11	0.12	44.88	6.21	0.07			
6	Boudh	58.32			112.78		15.67			
7	Cuttack	5.17	0.02	0.02	3024.89		4.20	34.49		
8	Deogarh	20.79	0.03	0.04						
9	Dhenkanal	14.20	0.02	0.02	301.25		0.30		0.16	
10	Jagatsinghpur	9.33			1187.86		5.22	22.39		
11	Jajpur	3201.42	8.26	9.18	5184.21		270.82	954.60	2.18	
12	Jharsuguda	95.99	0.11	0.12	62.95	0.17	6.23		0.25	
13	Kalahandi	4.82	0.03	0.04	0.03	0.03	0.00			
14	Kandhamal	9.21	0.04	0.04			0.05			
15	Kendrapara	177.20	0.30	0.34	3446.81			454.44	1.55	
16	Keonjhar	234.22	0.86	0.96	199.26					
17	Khordha				623.46			16.79		
18	Koraput	12.12			0.57					
19	Malkangiri	115.72	0.41	0.46	79.30	20.58	1.28			
20	Mayurbhanj	115.50	0.52	0.58	34.48		3.15			
21	Nabarangpur	21.76	0.05	0.06						

22	Nayagarh	3.18	0.02	0.02	200.27					
23	Nuapada	1.06								
24	Puri	14.51			2078.22			191.02		
25	Sambalpur	79.62	0.18	0.20	68.07		12.35			
26	Subarnapur	89.81			226.09		0.82			
27	Sundargarh	227.14	0.92	1.02		2.61	0.04			
Total		5029.38	12.58	14.00	19785.30	29.60	338.57	2449.22	4.74	9.30

Funds released to Departments

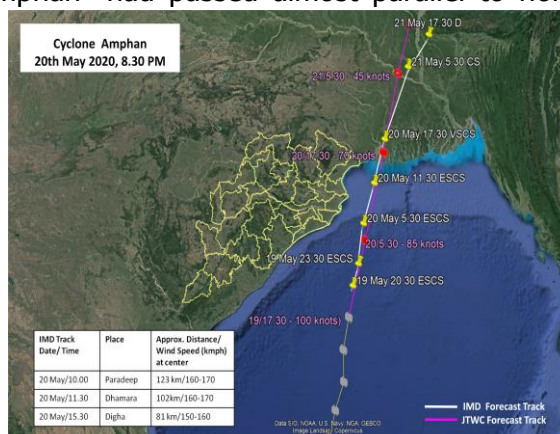
SI No.	Department	Funds Allotted (in Rs Lakh)
1	Energy	964.21
2	Panchayatiraj & DW	14168.03
3	Water Resources	7472.09
4	HUD	483.75
5	Works	4136.8
6	Rural Development	4533.07
7	Food Supplies & Consumer Welfare	8410.25
8	Fisheries & Animal Resources Development	432.69
Total		40600.8883

The State Government had successfully managed the Flood & Heavy Rain in 2020.

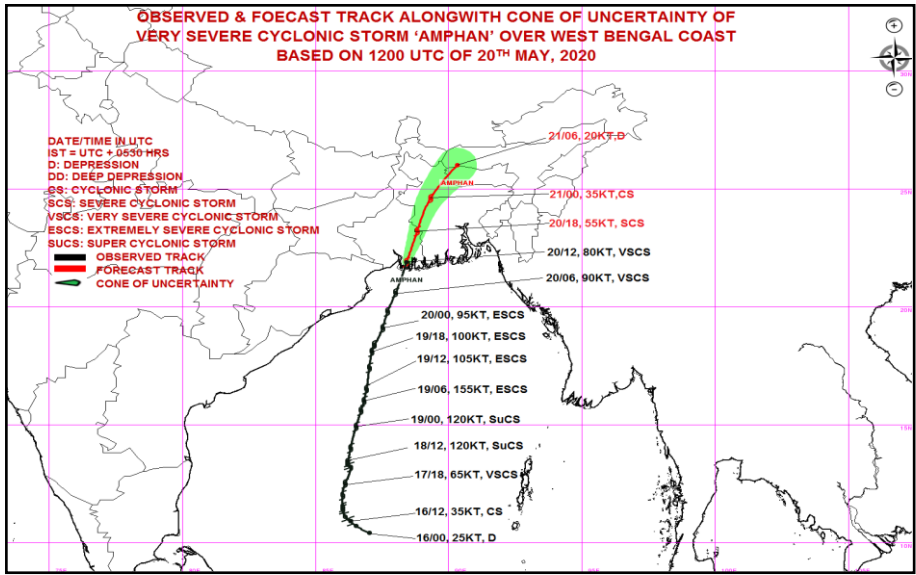
2.2. Cyclone "Amphan" -2020

2.2.1 Tracking: -

Barely after 6 months of Very Severe Cyclonic Storm "Bulbul" affected the State in November, 2019, Odisha had faced yet another Super Cyclonic Storm (SuCS) "Amphan" in the month of May, 2020. The Cyclone "Amphan" had passed almost parallel to northern Odisha coast during 20th May, 2020 as Extremely Severe Cyclonic Storm (ESCS) and it had crossed West Bengal-Bangladesh coasts as a Very Severe Cyclonic Storm with a wind speed of 155-165 kmph gusting to 185 kmph across Sundarbans, near Lat. 21.65°N and

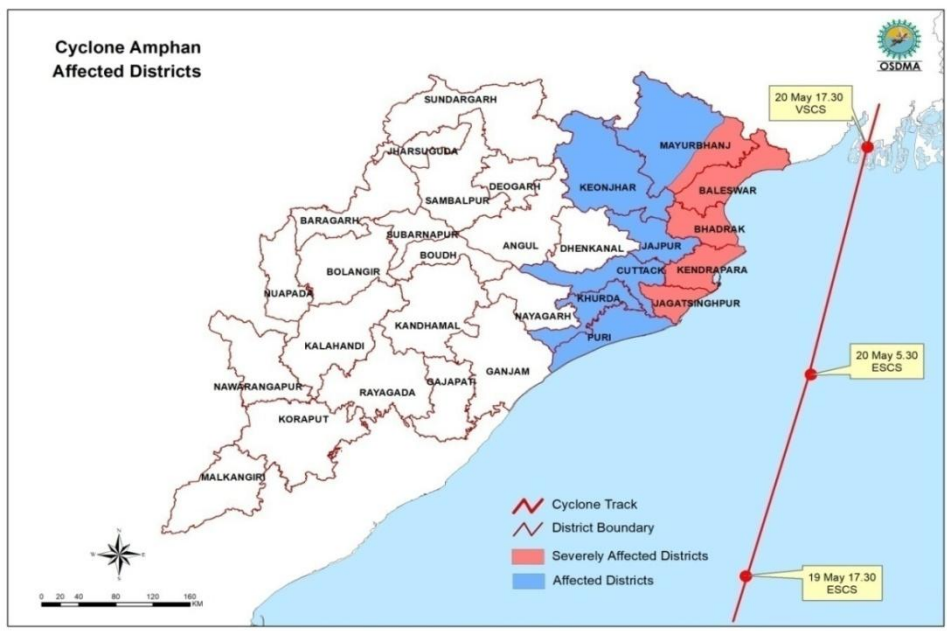


longitude 88.3°E on 20th May, 2020 at about 17.30 hrs..The wind and the cyclonic rain due to the effect of cyclone had caused extensive damage to the crop and other private as well as public properties along the coastal and adjoining districts.



2.2.2 Occurrence & Intensity: -

Due to the impact of SuCS "Amphan", gale wind speed reaching 90 to 100 kmph gusting to 110 kmph prevailed along and off Jagatsinghpur, Kendrapara, Bhadrak, Balasore and Mayurbhanj districts of Odisha and squally wind speed reaching 55 to 65 kmph gusting to 75 kmph prevailed along & off remaining coastal and adjoining districts of Odisha (Puri, Khordha, Cuttack, Jajpur) during 20th May 2020. Gale wind speed reaching 160-170 gusting to 190 kmph prevailed over northwest Bay of Bengal.



2.2.3 Rainfall:

Under the impact of cyclone, heavy rain was experienced in Jagatsinghpur, Balasore, Kendrapara, Jajpur, and other districts.

DISTRICT AVERAGE RAINFALL (Rainfall in mm)				
Sl. No.	District	20.05.2020	21.05.2020	Total
1	Jagatsinghpur	119.4	36.0	155.4
2	Balasore	54.2	62.3	116.5
3	Kendrapara	74.3	38.2	112.5
4	Jajpur	50.2	52.2	102.4
5	Mayurbhanj	28.6	67.0	95.6
6	Puri	71.2	22.0	93.2
7	Bhadrak	54.9	31.6	86.5
8	Cuttack	43.5	26.8	70.3
9	Khordha	34.9	14.8	49.7
10	Dhenkanal	18.3	29.5	47.8
11	Keonjhar	12.2	29.2	41.4
12	Nayagarh	18.5	0.7	19.2
13	Ganjam	7.3	0.4	7.7
14	Angul	5.7	1.5	7.2
15	Nuapada	3.7	0.0	3.7
16	Malkanagiri	3.5	0.0	3.5
17	Gajapati	3.2	0.0	3.2
18	Kandhamal	0.8	0.0	0.8
19	Nawarangpur	0.6	0.0	0.6
20	Sundargarh	0.2	0.4	0.6
21	Balangir	0.2	0.0	0.2
Remaining 9 Districts		Nil		
State Average		20.2	13.8	34.0

2.2.4 Preparedness Measures Undertaken: -

- a.** Concerned Departments of the Government and Collectors of 12 coastal and adjoining districts (Gajapati, Ganjam, Nayagarh, Puri, Khordha, Cuttack, Jagatsinghpur, Kendrapada, Jajpur, Bhadrak, Balasore and Mayurbhanj) were alerted and advised to undertake required preparedness measures to effectively handle the disaster.
- b.** The District Administration of vulnerable districts were directed to keep Multipurpose Cyclone Shelters (MCS) and Multipurpose Flood Shelters (MFS) in readiness and to identify other suitable RCC roofed public buildings for use as safe shelters in case of requirement.
 - 634 MCS/MFS, excluding those being used as TMC for COVID-19, and 7092 other RCC buildings with cumulative capacity to accommodate more than 12 lakh people, maintaining social distancing norms, were kept ready in 12 districts.
 - It was also directed to arrange for Food, Drinking Water, Lighting, Sanitation and Health facility at each shelter and keep the Tower Light, and Chain Saw and other emergency equipment available in MCS/ MFS in readiness to meet any eventuality.
 - 486 no. of DG sets, 1513 no. of inflatable tower lights and 1497 no. of chain saws were kept in readiness at shelter level.
 - Arrangements were made to divert the inflatable tower lights available in Puri, Cuttack and Ganjam districts to Balasore, Bhadrak, Kendrapada and Jagatsinghpur districts.
- c.** Collectors of districts likely to be affected to assess the situation and identify the people living near the coast/ low lying areas, people living in vulnerable condition in hut or kutcha house & take steps to evacuate them to MCS/ MFS or other identified safe buildings and organise all basic needs like food, drinking water, lightning, sanitation and health facilities for them.
- d.** Collectors of Balasore, Bhadrak, Kendrapada and Jagatsinghpur were requested to take immediate steps to remove all hoardings in ULB areas and roadside hoardings put in rural areas.
- e.** 4 Senior IAS Officers were deputed to Balasore, Bhadrak, Kendrapara and Jagatsinghpur districts to provide guidance and support to the District Administrations in management of the Cyclone.
- f.** Besides, 4 Senior IPS Officers were deputed to above mentioned 4 districts to provide guidance and support to the District Superintendent of Police for management of the cyclone.

g. Evacuation: 2,00,346 people were evacuated to the safe shelters. As many as 1885 no. of pregnant women were shifted to the hospitals/ Maa Gruhas.

h. Deployment of Disaster response forces

- 20 NDRF teams, 16 ODRAF teams and 231 Fire Service team were deployed in 6 coastal and 6 nearby districts.
- 100 teams of OFDC were also deployed in 6 districts.
- Fire Officers and Deputy Fire Officers were deputed to each of the vulnerable districts for coordination among Fire Service Teams.
- Balance 4 ODRAF teams, 17 teams of Fire Service and 20 OFDC teams were kept in standby to be pressed into service.

Sl. No.	Name of the district	NDRF	ODRAF	Fire Services	OFDC Teams	Total Teams
1	Ganjam	0	0	33	0	33
2	Khordha	0	2	17	0	19
3	Cuttack	0	1	21	0	22
4	Kendrapada	3	3	18	10	34
5	Jagatsinghpur	4	1	15	10	30
6	Jajpur	1	1	18	0	20
7	Puri	1	0	15	0	16
8	Bhadrak	4	3	18	10	35
9	Balasore	6	4	21	35	66
10	Mayurbhanj	1	1	32	10	44
11	Nayagarh	0	0	0	0	0
12	Gajapati	0	0	09	0	09
13	Keonjhar	0	0	14	25	39
Total		20	16	231	100	367

i. Electricity:

- Advanced action was taken Odisha Power Transmission Corporation Limited (OPTCL) and Distribution Companies (DISCOMs) for mobilizing technical gangs and materials to take up restoration immediately after the cyclone. Gangs with Gen Sets, gas cutters and vehicles were kept in readiness for immediate deployment.
- 340 no. of gangs, each comprising 10 work men, 4305 no. of poles, 365 km of conductors, 116 KM of AB Cable, 115 no. of DTR, 3850 no. of insulators were mobilized and prepositioned by CESU, NESCO and SOUTHCO.

- PGCIL and NTPC deputed 30 gangs each with necessary equipment for prepositioning in NESCO area.
 - 17 nos. of ERS Towers were also mobilised to the affected areas.
 - As power supply was likely to be shut down before the cyclone, the life line institutions including Government offices were asked to make power back up arrangement (Genset with sufficient fuel).
 - 24X7 Control room was set up in OPTCL/ GRIDCO for sharing of information.
 - District wise nodal officers were allotted for monitoring the situation.
- j. Telecom:** Meetings were held with all Telecom Service Providers (TSPs) for taking necessary preparedness measures to keep the Telecom/ Internet Service functional during cyclone situation and to restore the communication in case of any damage due to cyclone. The TSPs made necessary arrangements for functioning of all the DG sets with fuel reserve of 24 hours. Movable DG sets were kept ready at central locations for movement.

All the TSPs kept **Cell-on-Wheels** in readiness for deployment in case there is damage to mobile towers in district due to impact of AMPHAN. All the telecom operators were advised to be ready with adequate numbers of technical manpower for restoration of any affected telecom towers and Optical Fiber Cables (OFC).

k. Drinking water:

Panchayati Raj and Drinking Water (PR&DW) Department:

- 276 DG sets were kept ready for Rural Pipe Water Supply (PWS) projects in 12 districts for uninterrupted water supply in absence of electricity.
- 805 vehicles loaded with PVC tanks and 75 water tankers were in readiness for use.
- 199 mobile repair units (each comprising of two SEMs) and 106 local electricians were kept ready for taking up repair work on emergency basis.
- 2724 no. of overhead tanks were kept loaded with water.
- 1828 bags of bleaching powder were supplied for disinfection.

Housing & Urban Development Department:

- 113 DG sets, 95 tankers and 246 PVC tanks were arranged for deployment in the ULB areas of Balasore, Bhadrak, Kendrapada, Jagatsinghpur and Mayurbhanj districts for ensuring uninterrupted water supply.
- 20 storage reservoirs were kept for continuous pumping operation to ensure availability of adequate stock for 24 hours post cyclone.

I. Health preparedness:

- Mobile health teams were deployed in affected areas.
- Power back up arrangement was made in all hospitals with sufficient quantity of fuel.
- Sufficient stock of essential medicines, anti snake venom was kept.
- Arrangement was made for screening all migrant workers in Temporary Medical Centres (TMC) located within 3 km of the coastline and to send the COVID negative cases to home quarantine and positive cases to COVID facilities immediately.
- Nodal Officers were identified for districts and blocks for continuous monitoring of disaster response activities.
- Contingency plans were made for opening of Medical Relief Centers and providing treatment to the trauma patients at health facilities.
- Plans were made for shifting of pregnant women from interior areas to delivery point/ Maa Gruha.
- Contingency plan for sanitation was in place and stocking of bleaching power/ ORS/ Halogen tablets at PHC, CHC, DHHs and up to ASHA level was ensured.

m. 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 4115 number of boats that had gone to sea for fishing returned to shore by 17th May and no boat was allowed enter into sea from 18th.
- 22,050 number of boats in 6 coastal districts and Chilika area of Khurdhadistrict berthed in safe places like fishing harbour and fish landing centres.
- 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.

n. Agriculture:

- 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 All India Radio, Community Radio Stations across the state and Door Darshan.
 - Out of a crop coverage area of 2,65,800 hectares in north and south coastal districts 1,37,400 hectares were harvested in a week time.
 - Awareness camps and mike announcements were done in different villages to take the harvested crops/ grains to a safer place and to cover the crops/grains by polythene sheets.
- o. Water Resources:**
- 12 senior level Engineers were deputed to each of the identified 12 districts since 17.05.2020.
 - All critically vulnerable and vulnerable locations of embankments were restored and sufficient flood fighting materials were kept in position.
 - In view of anticipated rain fall, the major and medium reservoirs were depleted.
 - The field Engineers were on high alert and in touch with District Administrations.
 - 24x7 Control rooms in each Division, Circle and CE Office were operationalised.
- p. Rural Development:** Executive Engineers of vulnerable districts were instructed to take all precautionary measures with men, machine, roller, etc. in vulnerable locations of different roads, so as to avoid any dislocation in road communication system.
- q. Communication:** The Collectors, State Disaster Response Forces and other officers having Satellite Phones were directed to recharge and keep the phones ready for use. The Digital Mobile Radio installed in six coastal districts were also tested and kept ready for use for communication with Collectors, BDOs and others in case the telephone / cell phone networks are down due to cyclone. The V-sat communications at State HQ and in 3 districts (Khordha, Jajpur and Cuttack) were also in readiness.
- r. Dissemination of Warnings:**
- As many as 2.17 crore cyclone warning messages were sent through SMS to the mobile phone subscribers of the likely affected areas.
 - Early warning voice messages were disseminated through Alert Siren Systems installed in coastal areas under Early Warning Dissemination System (EWDS).
 - District Administration disseminated the warning through official channels and PRI members. Public address systems were used for dissemination at local level.
 - Fisheries and ARD Department communicated the warning messages to marine/ Chilika fishermen.
 - All cyclone bulletins and warning messages of IMD were disseminated with key State Level Officers, Collectors and Media.

- Community Level Volunteers and Task Force Team members of Multipurpose Cyclone/ Flood Shelters were engaged for ensuring family preparedness, warning dissemination and expediting evacuation.
- Social Media platforms were effectively used not only for dissemination of warnings but also for sending vital information to the general public for safety and survival.

s. Review Meetings:

- The Hon'ble Chief Minister reviewed the preparedness through Video Conferencing (VC) on 16.05.2020 with the concerned Departments and Collectors of 12 vulnerable districts.
- The Chief Secretary reviewed the preparedness through VC on 19.05.2020 with the concerned Departments and Collectors of Bhadrak, Balasore, Kendrapada and Jagatsinghpur districts.
- Special Relief Commissioner & Additional Chief Secretary, Disaster Management reviewed through video conferencing with Collectors of Balasore, Bhadrak, Kendrapara, Jajpur, Jagatsinghpur, Cuttack, Puri, Khordha and Mayurbhanj regarding preparedness measures taken by them.
- Cabinet Secretary, Govt. of India discussed with the Chief Secretary & Special Relief Commissioner on 16.5.20 and 18.5.20 about preparedness.

2.2.5 Response:

a. Evacuation/ Free Kitchen:

2,00,346 people were evacuated from vulnerable areas to 4314 shelters. They were provided with dry food, drinking water and free kitchen. Besides this, Chuda, Gud, Biscuits, matchbox and candle were also provided.

Sl. No.	Name of the district	No. of Shelters	No. of People Evacuated
1	Balasore	720	49564
2	Bhadrak	561	31017
3	Cuttack	428	10961
4	Gaiapati	14	1547
5	Jagatsinghpur	299	16840
6	Jaipur	171	7140
7	Kendrapara	622	39864
8	Keonihar	2	258
9	Khurdha	103	3172
10	Mayubhani	1029	27216
11	Nayagarh	1	55
12	Puri	364	12712
Total		4314	200346

Administration of Emergent Relief

Sl. No.	Name of the district	Rice in Qtl	Chuda in Qtl	Gur in Qtl	No. of Beneficiary
1	Balasore	85.80	278.00	44.50	2526
2	Bhadrak	0	12.40	2.46	31017
3	Kendrapara	0	1165.43	119.27	39864
4	Jagatsinghpur	0	95.87	20.04	13575
5	Cuttack	16.21	98.45	22.41	10961
6	Khordha	1.48	3.13	0.92	1189
7	Puri	0.0	26.65	5.32	2893
8	Mayurbhanj	150.0	206.0	45.0	3500
Total		253.49	1885.93	259.92	105525

2.2.6 Repair/ Restoration Activities:

a. Restoration of Power:

44,57,182 no. of consumers were affected in Balasore, Bhadrak, Jagatsinghpur and Jajapur, Mayurbhanj, Ganjam Districts. Power was restored in five days in all affected areas.

b. Restoration of Water Supply:

Sl. No.	Name of the district	No. of Tubewells disinfected	No. of PWS affected	PWS operationalized through electrification
1	Balasore	2284	593	593
2	Bhadrak	4992	258	258
3	Kendrapara	2235	295	295
4	Jagatsinghpur	82	272	272
5	Mayurbhanj	1520	299	299
6	Jajpur	122	328	328
7	Cuttack	832	394	394
8	Puri	921	329	329
9	Khordha	102	447	447
Total		13090	3215	3215

2.2.7 Impact & Damages:

The damages caused by the cyclone were mainly due to gusting action of wind and heavy rainfall. As per report received from Collectors, 45.26 lakh people in 9838 villages of 97 Blocks and 272 wards of 22 Urban Local Bodies in 10 Districts have been affected. 10726.18 hectares of agriculture/ horticulture crop have been damaged. The fishing communities have also been affected due to loss to their boats and nets. The handicraft artisans have lost their equipment, accessories and raw materials. Livestock and poultry

farmers have also sustained loss. Besides, substantial damage has been caused to public properties.

a. Extent of Damages

Abstract of extent of damages due to super cyclonic storm "AMPHAN" is indicated below:

Sl. No.	Name of the district	Blocks affected	GPs affected	Villages affected	ULBs affected	Wards affected	Population affected
1	Balasore	12	231	2898	4	44	130000
2	Bhadrak	7	218	1373	4	80	750000
3	Cuttack	7	148	474	0	0	344077
4	Jagatsinghpur	8	198	1308	2	40	1136971
5	Jajpur	10	120	666	2	23	547526
6	Kendrapada	9	249	1592	2	41	1522901
7	Keonjhar	7	11	18	0	0	258
8	Khordha	5	36	62	2	8	3172
9	Mayurbhanj	21	216	983	2	15	49800
10	Puri	11	166	464	4	21	40857
Total		97	1593	9838	22	272	4525562

b. House Damage

19 kutcha houses have been fully damaged, 39 pucca/ kutcha houses have been severely damaged due to the cyclone. Besides, 100 pucca houses and 4397 kutcha houses have been partially damaged. Similarly, 334 huts and 393 cowsheds attached to houses have been damaged. The district-wise details are as follows.

Sl. No.	Name of the district	Fully/ Severely damaged houses				Partially damaged		Hut	Total	Cow shed
		No. of fully damaged Kutcha house	No. of severely damaged Pucca house	No. of severely damaged Kutcha house	Total No.	No. of Pucca house	No. of Kutcha house	No. of hut damaged	No. of house damaged including hut	No. of cow shed damaged
1	Balasore	8		1	9	18	1738	118	1883	32
2	Bhadrak	2			2	37	195	7	241	22
3	Jagatsinghpur					9	378	2	389	75
4	Jajpur						171	2	173	
5	Kendrapara			2	2	20	1112	130	1264	187
6	Keonjhar			1	1		13		14	
7	Mayurbhanj	9	1	32	42	16	731	75	864	73
8	Puri			2	2		59		61	4
Total		19	1	38	58	100	4397	334	4889	393

c. Crop Damage

Out of total 10726.18 hectares of agriculture/ horticulture crop area affected 3393.50 hectare of agriculture, horticulture & perennial crops have sustained crop-loss to the extent of 33% and above due to cyclone associated with heavy rain. The details are as follows.

Sl. No.	Name of the district	Total agriculture/ horticulture crop area affected (in Ha.)	Total area under crop loss of 33% & above (in Ha.)			
			Rainfed	Irrigated	Perennial	Total
1	Balasore	6789.00	97.00	2749.50	141.27	2987.77
2	Bhadrak	111.00		111.00		111.00
3	Cuttack	12.74			12.74	12.74
4	Jagatsinghpu	10.74		50.54	18.78	69.32
5	Kendrapara	478.00		38.90	4.12	43.02
6	Keonjhar	11.00	11.00			11.00
7	Khordha	5.70		5.70		5.70
8	Mayurbhanj	394.00	41.42	83.73		125.15
9	Puri	118.00		11.11	16.69	27.80
Total		10726.18	149.42	3050.48	193.60	3393.50

d. Sand Cast :

589 crop area had been sand cast in Kendrapara (478 hect.) and Bhadrak (111 hect) districts.

e. Livestock affected

1903 livestock and 18875 poultry birds were affected due to cyclone & heavy rain. The district-wise figures of affected livestock are given in following table.

Sl. No.	Name of the district	Livestock affected			Poultry affected
		Large	Small	Total	
1	Balasore	1	4	5	1005
2	Bhadrak	5	2	7	
3	Cuttack	1232	633	1865	
4	Jagatsinghpur	2	6	8	870
5	Jajpur		1	1	17000
6	Kendrapada	9	8	17	
Total		1249	654	1903	18875

f. Livestock Death:

17 nos. of large milch animals, 7 nos. of small milch animals and 14 nos. of small draught animals along with 4685 poultry birds have lost their lives due to Cyclone. The district-wise details are as follows.

Sl. No.	Name of the district	No of Livestock/ Birds lost					
		Milch Animal		Draught Animal		Poultry Birds	Total livestock lost including birds
		Buffalo / Cow	Sheep/ Goat	Camel/ Horse/ Bullock	Calf/ Donkey/ Pony		
1	Balasore	1	2		2	1005	1010
2	Bhadrak	5			2		7
3	Jagatsinghpur	2	4		2	870	878
4	Jajpur				1	2810	2811
5	Kendrapara	9	1		7		17
Total		17	7	0	14	4685	4723

g. Loss of livelihood

Due to cyclone, 5040 traditional craftsmen have been affected causing damage to their equipment and raw materials.

Sl. No.	Name of the district	No. of artisans affected
1	Balasore	1525
2	Bhadrak	215
3	Kendrapara	2350
4	Jagatsinghpur	350
5	Jajpur	600
Total		5040

h. Damage to Energy Sector:

Damage in Physical Terms	Bala-sore	Bha-drak	Kendr-apara	Jagatsi-nghpur	Jajpur	Cutt-ack	Puri	Mayur-bhanj	Keon-jhar
No. of feeder Transformer damaged	2	1	0	0	1	0	0	0	0
No. of 33KV poles damaged	710	632	96	61	190	5	12	281	29
Length of 33KV conductor damaged (in km)	128.54	104.75	32.1	29.8	29.046	3.2	4.5	50.831	5.253
No. of 11KV poles damaged	5056	4279	973	685	1290	48	128	1093	248
Length of 11KV conductor damaged (in km)	1353.1	899.19	339.66	294.5	299.73	28.6	40.5	324.76	44.403
No. of DTs damaged	531	317	30	51	84	5	10	70	21
No. of LT line poles damaged	6374	5057	1281	1331	1745	50	65	1530	261
Length of LT line conductor damaged (in km)	656.7	536.8	530	461.8	214.5	126.6	116.5	159.06	19.03
33KV VCB (No)	11	10	0	0	2		0	3	0
11KV VCB (No)	31	20	0	0	5		0	11	1

i. River/ Saline Embankment damaged

Sl. No.	Name of the district	No. of Embankment damaged	Length in KM damaged
1	Balasore	6	27.90
2	Bhadrak	8	13.10
3	Jagatsinghpur	53	22.03
4	Kendrapara	12	10.18
Total		79	73.21

j. PWD Roads& Buildings damaged

Sl. No.	Name of the district	Length of road damaged (in	No. of Breaches	No. of CDs damaged	No. of Buildings damaged
1	Balasore	18.22	1		6
2	Bhadrak	58.80		1	4
3	Jagatsinghpur	12.53		1	35
4	Jajpur	39.85		1	9
5	Kendrapara	30.05	1		16
6	Khordha	0.69			1
7	Mayurbhanj	49.22			0
Total		209.36	2	3	71

k. Urban roads & drains damaged

Sl. No.	Name of the district	Length of Drain damaged (in km)	Length of road damaged (in km)	No. of culvert damaged
1	Mayurbhanj	0.30	0.50	2
2	Balasore	0.78	0	1
3	Bhadrak	1.50	8.985	8
4	Kendrapara	0.20	6.10	0
5	Jagatsinghpur	0	0.25	0
6	Puri	0	0.968	0
Total		2.78	16.78	11

l. Damage to building & roads of Panchayati Raj Dept.

Sl. No.	Name of the district	No. of Angan Wadi Center	No. of Primary School Building	No. of GP Building/ Community center	No. of PS/ GP Road damag	No. of Rural Water Supply
1	Balasore	24	168	30	420	159
2	Bhadrak	354	709	194	556	145
3	Jajpur	250	471	33	1054	66
4	Jagatsinghpur	0	0	0	0	84
5	Kendrapara	18	194	41	141	58
6	Mayrbhanj	0	10	0	0	105
Total		646	1552	298	2171	617

m. Rural roads damaged

Sl. No.	Name of the district	Length of Road Damaged (in km)	No. of Breaches	No. of CDs Damaged
1	Puri	5.21	1	
2	Kendrapara	70.73		1
3	Balasore	3.042	2	3
4	Mayubhanj	14.8		6
5	Jagatsinghpur	38.62		4
6	Keonjhar	0.20		2
7	Bhadrak	18.45		26
Total		151.05	3	42

n. Total Loss to public & private properties due to Cyclonic Storm "AMPHAN"- 2020

Sl. No.	Departments	Quantity	Loss (Rs. in Lakh)
1	Energy Department		
	Feeder Transformer damaged	4 Nos.	273.44
	33KV pole damaged	2016 Nos.	80.64
	33KV conductor damaged	388.02 kms	194.01
	33KV VCB damaged	26 Nos.	153.4
	11KV poles damaged	13800 Nos.	552.00
	11KV conductor damaged	3624.443kms.	1812.22
	11KV VCB damaged	68 Nos.	224.40
	Distribution Transformer damaged	1119 Nos.	1119.00
	LT line pole damaged	17694 Nos.	707.76
	LT line conductor damaged	2821 kms.	1410.50
	Minor material damaged		172.00
	Civil Works		273.92
	Erection Charges		541.01
	Total		7514.30
2	Fisheries & Animal Resources Department		
	Damage to Infrastructure of ARD Sector	35 Nos.	138.00
	Damage to Infrastructure of Fisheries Sector	6 Nos.	22.40
		Total	
3	Forest & Environment Dept.		
	Avenue plantation damaged	55 RKM	20.00
	Nursery seeding/ infrastructure damaged		40.00
	Tree uprooted	4000 Nos.	25.00
	Infrastructure damaged		35.00
	Other plantation & infrastructure damaged in WL		37.87
		Total	
4	Housing & Urban Development Department		
	Road damaged	16.78 kms.	157.74

	Culverts damaged	11 Nos.	31.00
	Drain damaged	2.78 kms.	74.00
	Debris cleared from roads/ drain	122.80 kms.	24.08
	Street Lights etc. damaged	484 Nos.	25.80
	Other infrastructure damaged		116.50
	Hiring of DG Set	351 Nos	171.15
	Hiring of Water Tanker	206 Nos.	21.88
	Total		622.15
5	Health & Family Welfare Dept.		
	Damage to CHC/ PHC/ Sub-Centre	128 Nos.	256.30
6	Panchayati Raj & DW Department		
	Anganwadi Center damaged	646 Nos.	1297.00
	Primary School Building damaged	1552 Nos.	3008.90
	GP/ PS Building & Community Hall damaged	298 Nos.	609.00
	GP/ PS road damaged	2171 Nos.	4996.00
	Rural Drinking Water Supply System damaged	3832 Nos.	1066.90
	Total		10977.80
7	Rural Development Department		
	Damage to rural roads including breaches	151.17 kms.	493.16
	Damage to CD/ Bridges	42 Nos.	232.5
	Debris cleared on roads/ public area	290 Nos.	50.92
	Secondary School building damaged	77 Nos.	226.01
	Other Hospital building damaged (Res. & non-res.)	12 Nos.	25.00
	RD Dept. building damaged	18 Nos.	65.30
	Revenue Dept. building damaged	23 Nos.	47.70
	ARD Dept building damaged	5 Nos.	10.50
	Home Dept. building damaged	6 Nos.	14.15
	Total		1165.24
8	Water Resources Department		
	Damage to rivers & saline embankment	73.21 kms.	131.77
9	Works Department		
	Damage to PWD Roads	209.36 Kms.	388.50
	Damage to CD/ Bridges	3 Nos.	5.50
	Damage to breaches of PWD	2 Nos.	91.00
	Debris cleared on roads/ public area	153.30 kms.	27.95
	Damage to secondary School Buildings	5 Nos.	8.45
	Damage of Hospital buildings other than PHC & CHC	2 Nos.	3.30
	Damage to Govt. Offices	34 Nos.	73.10
	Damage to flood light of Hockey Stadium, jajpur	1 No.	20.00
	Damage to Govt. Qtrs./ IBs/ Guest Houses/	33 Nos.	62.20
	Damage to NHs maintained by State	1 No.	10.00
	Total		690.00
10	Cooperation Department		
	Damage to Buildings and Godowns	146 Nos.	420.30
	Total (Public Properties)		22096.13
11	Pure Relief Items		
	House Building Assistance	5228 Nos.	223.01
	Clothing & Utensils	392 Nos.	14.90
	Gratuitous Relief		78.48
	Cost of evacuation, search & rescue measure		23.00

	Temporary accommodation		208.25
	Agriculture input subsidy-SMF	3393.50 Ha.	456.82
	De-silting of Agriculture land	589 hect.	71.86
	Replacement of milch/ draught animals & poultry	4723 Nos.	8.20
	Disposal of carcasses	17 nos	0.08
	Assistance to fisherman	29 Nos.	1.24
	Assistance for Artisan-Traditional crafts & Handloom	5040 Nos.	413.28
	Amount spent by Collectors on clearance of debris		73.12
	Total		1572.24
	Grand Total		23668.37

2.2.8 Assistance sought for from Govt. of India:

As per the assessment made by different departments of the state as well as the cyclone "Amphan" affected districts, the total loss to public and private properties on account of the Cyclonic Storm "Amphan"-2020 was **Rs.236.68 crore**. Out of which, the requirement of funds towards different relief measures and immediate repair and restoration of damaged infrastructure in admissible sectors as per the extant norms of SDRF/NDRF comes to **Rs.201.97 crore**.

Similarly, the State Government had submitted proposals amounting to **Rs.16032.83 crore** for resilient energy infrastructure, disaster resilient houses for the poor and strengthening of saline embankment in the four districts affected by cyclone AMPHAN. The sector-wise details are as follows.

Sl. No.	Sector	Name of the Dept.	Estimated amount required in Crore
1	Energy Sector	Energy	11113.68
2	Rural Housing Sector	Panchayati Raj & DW	4152
3	Water Resources Sector	Water Resources	767.15
Total			16032.83

The Govt. of India has allotted an amount of **Rs.500.00crore** from NDRF for the purpose.

2.2.9 Assistance to West Bengal

The Government of Odisha also extended support to the Govt. of West Bengal for mitigating the effects of cyclone AMPHAN which made landfall in that State.

- 10 Units of ODRAF and 300 Fire Service Personnel have been deployed with emergency equipment like inflatable tower light, cutter, power saw etc. to West Bengal for assisting the Government in search/ rescue and road clearance activities.

50,000 pieces of LDPE sheets of size (6mtr X 6 mtr) have been provided to the Government of West Bengal to assist the people affected due to Super Cyclonic storm 'AMPHAN'.

2.3 COVID- 19

The Government of Odisha has responded to the COVID-19 pandemic successfully with large-scale economic relief measures. This being a biological disaster, while Health & Family Welfare Department is the nodal department for coordinating all technical response, the regulatory and other measures are being coordinated by the Special Relief Commissioner.

The Government of Odisha declared COVID- 19 as a "Disaster" under the Disaster Management Act, 2005 and issued various orders and Standard Operating Procedures (SOPs) under the said Act and the Epidemic Diseases Act, 1897 for compliance by citizen and organisations with a view to preventing the spread of the disease. Elaborate arrangements were made for handling the people of Odisha who returned to the State due to pandemic related problems and vice versa. The State was also able to manage the evacuation, adequate health facilities and other measures in response to the Cyclone AMPHAN adhering to COVID-19 safety guidelines and SOPs during the year 2020-21. In response to unlock orders issued by Ministry of Home Affairs, GOI, the State Govt. had allowed reopening of different activities in a phased manner.

SoP was prepared for the Migrant Workers, Pilgrims, Tourist, Students and other persons stranded in Odisha to move their home. Similarly, for smooth movement of such persons stranded outside the State who intend to come to the State was formulated and SoP for border check points have also been formulated and communicated to all concerned officials. Elaborate Protocols for handling the returnees travelling by Rail to the State was also prepared. SoP for return of Indian Nationals (hailing from Odisha) stranded outside the country was also prepared and communicated. Elaborate arrangements on reception, transport, food arrangements, security were made for them.

In view of huge influx of migrants, the Government adopted multi-pronged approaches such as monitoring of migrants' movement, issue of online e-pass, contact tracing and setting up of Border Check Points (BCPs). Arrangement of providing food to all sick, indigent, destitute persons, beggars, stranded migrant workers and other people in distress were made during the lockdown period. Detailed Guidelines for conducting marriage, thread ceremony/ bratopanayana and funeral related rituals were prepared and communicated to all concerns. Relief support and other logistics for the migrant people who returned to the State due to pandemic related problems and vice versa was provided. Procedure for Home/ Institutional Quarantine of returnees to home districts was communicated to the concerned Collectors/ Municipal Commissioners/ Departments. All essential activities were allowed to be continued during the lockdown period.

A detailed guideline for Management of Temporary Medical Camps (TMCs)/ Cluster TMCs/ Covid Care Centres (CCCs)/ Covid Care Homes (CCHs)/ Quarantine Centres etc. was formulated and intimated to all collectors, Municipal Commissioner, Panchayati Raj & Drinking

Water Dept. and Housing & Urban Development Dept. Unit cost towards Food Expenditure, personal hygiene kit, cleaning, sanitation were formulated for running of these centres. A Decision Support System (DSS) Platform was prepared at block level for monitoring the movement of the migrant workers. SoP for return of Indian Nationals (hailing from Odisha) stranded outside the country was also prepared and communicated to concerned Authorities. A detailed Guidelines for expenditure from CMRF and other funds for Management of COVID-19 was prepared and communicated to all Collectors/ Municipal Commissioners/ Departments. A mechanism/strategy for decentralized management of COVID-19 was formulated and also Implemented in the State by delegating the powers of Collectors and the Chairman of DDMA to Sarpanchs and ULB authorities for taking decisions that work best within their jurisdiction to contain the spread of COVID- 19. They had been authorized to make all necessary arrangements for Quarantine facilities for the people who intend to come from outside the State after Lockdown period. The Car Festival (Sri Gundicha and Bahuda Yatra) of Lord Jagannath was conducted smoothly. Prohibition was made for the congregation by Kaudias and Bol Bum Devotees during the month of Shravan (July/August-2020). All Collectors/All Municipal Commissioners were instructed for paying homage to COVID-19 Warriors who succumbed to COVID-19 in line of their duties.

Guidelines for surveillance, containment of COVID- 19 and reopening of activities is being carried out in the State time to time considering the infectious stage of COVID- 19. Religious functions like Chhat Parv/ Puja, Kartika Purnima, Bada Osha and Balijatra/ B2C Exhibitions etc. which usually attract huge crowd, were regulated/ prohibited in the interest of preventing spread of COVID-19.

Early lockdown, effective containment strategy, setting up of the TMCs, Cluster TMCs, CCCs, CCHs, quarantine centres etc. to manage the huge influx of migrants, multi sectoral collaboration, community-based disaster management, community engagement and mentoring support programs are some of the key takeaways of Odisha's response strategy that have contributed to Odisha's success in tackling the COVID- 19 pandemic proactively.

Effective governance in collaboration with different Departments of State Government, district administration, police and other officials & community-based response strategy enabled the resilient state Odisha to contain the spread of the virus. The State's COVID-19 management strategy offers important insights that kept the caseload low despite the huge influx of migrants.

Emphasizing upon Saving lives and livelihood of people during the COVID- 19 pandemic, State Government took and implemented various measures in the State successfully.

Funds amounting to Rs. 106632.43 lakh have been released out of State Disaster Response Fund (SDRF) to the District Collectors and concerned departments for management of COVID-19 for the year 2020-21

2.4 Hailstorm

As many as 2 districts namely Keonjhar and Sundargarh were affected due to hailstorm accompanied by whirlwind and 2 persons lost their lives under the impact of the disaster during the year 2020-21. 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 assistances like agriculture input subsidy, house building assistance, assistance for clothing and utensils to the affected people as per the Norms of assistance from SDRF.

State Specific Disasters

2.5 Heat Wave

Heat-wave condition was prevailed in the State during the month of April and June. Government had taken numbers of precautionary measures to tackle the heat wave situation in the state. 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 "JaIaChhatras" 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 timings 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 16 persons lost their lives due to heat-stroke during the year 2020. Steps are being taken to provide ex-gratia assistance @ Rs.50,000/- to the bereaved families out of the SDRF.

2.6 Lightning

As many as 291 Persons lost their lives due to lightning in 30 districts during the year 2020-21. Steps have been taken to provide ex-gratia assistance @ 400,000/- per deceased to Next of Kins of the victims from SDRF. The district-wise number of human casualties is indicated below:

Sl. No	Name of the District	No. of death	No. of cases where ex-gratia has been paid to the NoKs
1	Angul	12	6
2	Bolangir	9	7
3	Bargarh	11	9
4	Balasore	21	12
5	Bhadrak	9	8
6	Boudh	3	2
7	Cuttack	12	9
8	Deogarh	3	2
9	Dhenkanal	12	11
10	Ganjam	2	2
11	Gajapati	26	12
12	Jagatsinghpur	6	3
13	Jajpur	1	1
14	Jharsuguda	5	5
15	Kalahandi	5	4
16	Kandhamal	3	3
17	Kendrapara	9	8
18	Keonjhar	26	22
19	Khurda	10	7
20	Koraput	9	9
21	Malkangiri	3	3
22	Mayurbhanj	33	19
23	Nawarangpur	11	11
24	Nayagarh	4	3
25	Nuapara	6	5
26	Puri	7	5
27	Rayagada	11	8
28	Sambalpur	4	3
29	Sonepur	4	3
30	Sundergarh	14	13
	TOTAL	291	215

2.7 Boat Accident

As many as 5 Persons lost their lives due to Boat capsized in 2 districts during the year 2020-21. Ex-gratia assistance @ 400,000/- per deceased has been provided to Next of kin of the victims from the SDRF. The district-wise number of human casualties is given below:

Sl.	Name of the District	No. of Death	No. of cases where ex-gratia has been paid to the NoKs
1.	Koraput	4	4
2.	Malkangiri	1	1
	Total	5	5

2.8 Drowning

As many as 1337 persons lost their lives due to drowning in 30 districts during the year 2020-21. 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:

Sl.	District	No. of deaths	No. of cases where ex-gratia has been paid to the NoKs
1	Angul	58	23
2	Balangir	20	16
3	Balasore	77	36
4	Bargarh	22	17
5	Bhadrak	50	32
6	Boudh	3	3
7	Cuttack	52	28
8	Deogarh	18	17
9	Dhenkanal	79	63
10	Gajapati	8	7
11	Ganjam	99	55
12	Jagatsinghpur	16	15
13	Jajpur	67	51
14	Jharsuguda	29	27
15	Kalahandi	26	16
16	Kandhamal	7	5
17	Kendrapara	66	55
18	Keonjhar	104	86
19	Khorda	27	20
20	Koraput	84	74
21	Malkangiri	59	58

22	Mayurbhanj	114	63
23	Nabarangpur	58	49
24	Nayagarh	17	16
25	Nuapada	10	8
26	Puri	21	13
27	Rayagada	9	7
28	Sambalpur	39	37
29	Subarnapur	16	14
30	Sundargarh	82	72
	Total	1337	983

2.9 Snake bite

As many as 1035 persons lost their lives due to snake bite in 30 districts during the year 2020-21. 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:

Sl.	Name of the District	No. of persons died	No. of cases where ex-gratia has been paid to the NoKs
1	Angul	44	30
2	Balangir	26	21
3	Balasore	53	37
4	Bargarh	32	22
5	Bhadrak	37	30
6	Boudh	21	18
7	Cuttack	43	22
8	Deogarh	16	10
9	Dhenkanal	46	42
10	Gajapati	2	1
11	Ganjam	64	31
12	Jagatsinghpur	13	11
13	Jajpur	42	31
14	Jharsuguda	24	14
15	Kalahandi	16	12
16	Kandhamal	9	9
17	Kendrapara	52	43
18	Keonjhar	62	55
19	Khordha	20	16
20	Koraput	13	12

21	Malkangiri	67	60
22	Mayurbhanj	84	50
23	Nabarangpur	43	42
24	Nayagarh	17	15
25	Nuapada	18	9
26	Puri	39	23
27	Rayagada	7	5
28	Sambalpur	38	34
29	Subarnapur	15	12
30	Sundargarh	81	71
Total		1044	788

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 Tahasildars 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 of Government's 5T policy framework in 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 ex-gratia case record is initiated by the Revenue Inspector on DAMPS portal through Mobile App, processed on line with supervisory control at the levels of Tahasildar, Sub- Collector and digitally transmitted by the Collector to Special Relief Commissioner's Office for release of payment to the verified

bank account of the NoK on Direct Benefit Transfer (DBT) principle. The entire process is on paperless digital path. The total time taken from First Information Report (FIR) of death due to disaster to receipt of payment in the bank account is reduced substantially than the old manual system.

The effort is one of its kinds in the true spirit of the 5T policy of the Government. DAMPS is a classic case of use of **Technology** to reduce unnecessary physical processing hassles. It provides a **Transparent** 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 facilitates officers at different levels like Revenue Inspector, Tahasildar, Sub-Collector, Collector, Under Secretary, Additional Commissioner Relief and Special Relief Commissioner to operate as a **Team** to work in tandem to reduce **Time** to have the all- too-precious Last Mile Connectivity in service delivery to the citizen.

Needless to say that the effort has brought **Transformation** in the administrative processing of ex-gratia to the NoK of the persons who lose their lives in disasters.

Due to the introduction of DAMPS, ex-gratia assistance amounting to Rs. 4.00 lakh each has been successfully transferred to the bank accounts of 3000 beneficiaries as on 31st March,2021.

CHAPTER – III

State Disaster Response Fund (SDRF) Status of release of funds out of SDRF Account 2019-20 for State of ODISHA (As on 31.03.2021)

[Rs. in crore]

1	Opening Balance (As on 01.04.2020)	984.220
2	SDRMF releases during the year 2020-21 (Central & State Share)	
	# Central Share	1604.000
	# State Share	535.000
3	NDRF releases during the year 2020-21:	500.000
4	Total funds available in SDRF Account (1+2+3)	3623.220
	Expenditure incurred on calamities	
	# Avalanches	-
	# Cloud Burst	-
	# Cyclone	266.933
	# Drought	0
5	# Earthquake	0
	# Fire	9.763
	# Flood	603.832
	# Hailstorm	17.212
	# Landslides	0
	# Pest attack	0.270
	# Tsunami	-
	# Cold Wave	-
	Sub-Total	898.010
Expenditure incurred during the year 2020-21		
6	Covid-19 expenditure	1066.196
7	Expenditure incurred from SDRMF on procurement of search and rescue equipments etc.	27.765
8	Expenditure incurred from SDRMF Capacity Building Activities	53.647
9	Expenditure incurred from SDRMF on State Specific disasters	105.382
10	Total expenditure incurred on all calamities (5+6+7+8+9)	2152.000
11	Balance available in SDRF Account (4 - 10)	1471.220

Appendix-XII

Statement showing item-wise details of expenditure incurred as per approved items and norms of SDRMF/NDRMF for the year 2020-21

(Rupees in Lakh)

Code No.	Items	Calamity													
		Avalanche	Cloud burst	Cyclone	Drought	Earthquake	Fire	Flood	Hailstorm	Landslide	Pest Attack	Tsunami	Cold wave/frost	Covid-19 Expenditure	State Specific Calamity
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1	Gratuitous Relief														
(a)	Ex-gratia payment to families to deceased persons														
	(i) As per SDRF/NDRF norms	0	0	13.750	0	0	456.000	12.000	0	0	0	0	0	0	10469.000
	(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	7	0	0	114	3	0	0	0	0	0	0	2640
(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
	(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	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	0.551	0	0	0.760	0	0	0	0	0	0	0	1.36
	(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	4	0	0	6	0	0	0	0	0	0	0	13
(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	0
	(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	0	0	0	0	0	0	0	0	0	0	0	0
(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	0.380	0	0	10.190	28.12	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) Total no. of beneficiaries	0	0	10	0	0	269	740	0	0	0	0	0	0	0
(f)	Gratuitous relief for families in dire need of immediate sustenance after a calamity														
	(i) As per SDRF/NDRF norms	0	0	2029.739	0	0	3.495	8970.266	0	0	0	0	0	19240.161	0
	(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	0	0	0	0	0	0	0	0	0	0	0	0
2	Supplementary Nutrition														

	(i) As per SDRF/NDRF norms	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
	(iii) Total no. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Assistance to Small and Marginal Farmers (SMF for														
(a)	Desilting of agriculture land														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	29.950	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 eligibe area (ha.)	0	0	0	0	0	0	2556.16	0	0	0	0	0	0	
	(iv) No. of S&M farmers	0	0	0	0	0	0	264	0	0	0	0	0	0	
(b)	Removal of debris on agricultural land in hilly 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 eligibe area (ha.)	0	0	0	0	0	0	0	0	0	0	0	0	0	
	(iv) No. of S&M farmers	0	0	0	0	0	0	0	0	0	0	0	0	0	
(c)	Desilting/Restoration/Repair of fish farms														
	(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	0
	(iii) Total eligible area (ha.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iv) No. of S&M farmers	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(d)	Loss of substantial portion of land caused by landslide, avalanche, change of course of rivers														
	(i) As per SDRF/NDRF norms	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
	(iii) Total eligible area (ha.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iv) No. of S&M farmers	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(e)	Agriculture input subsidy where crop loss was 50% / 33% and above														
	(i) As per SDRF/NDRF norms	0	0	456.823	0	0	0	20191.754	1710.531	0	26.961	0	0	0	0.323
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total eligible area (ha.)	0	0	2538	0	0	0	39883.426	13398.96	0	211.29	0	0	0	2.400
	(iv) No. of S&M farmers	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Input Subsidy to farmers other than Small & Marginal Farmers														
	(i) As per SDRF/NDRF norms	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
	(iii) Total eligible area (ha.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	(iv) No. of S&M farmers	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Assistance to small and marginal sericulture farmers														
	(i) As per SDRF/NDRF norms	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
	(iii) Total area (ha.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iv) No. of S&M farmers	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Employment Generation														
	(i) As per SDRF/NDRF norms	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
	(iii) No. of man days generated	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iv) Quantum of food grains distributed as part of wage component	0	0	0	0	0	0	0	0	0	0	0	0	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) As per SDRF/NDRF norms	0	0	1.265	0	0	47.810	0.300	3.400	0	0	0	0	0	67.545
	(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	11	0	0	196	1	15	0	0	0	0	0	232

(ii)	Provisions of fodder/feed in cattle camps														
	(i) As per SDRF/NDRF norms	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
	(iii) No. of cattle camps	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
	(v) Qty. of fodder(qtls.) supplied in camp	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(iii)	Water supply in Cattle Camps														
	(i) As per SDRF/NDRF norms	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
	(iii) Total no. of Tanker load	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
(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	0
	(ii) Outside the norms	0	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	432.77	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) Total qty. of fodder transported (Qtls)	0	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	0
	(ii) Outside the norms	0	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	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	9.300	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
(b)	Input Subsidy for fish seed farm														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	7.56	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) Total eligible area (ha.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iv) No. of fish farmers	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9	Assistance to artisans in handicrafts/handloom sectors by way of subsidy for repair/replacement of damaged equipments														
(a)	Traditional Crafts (Handicraft)														
(i)	For replacement of damaged tools / equipments														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	80.278	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) No. of equipments	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iv) No. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(ii)	For loss of raw materials / goods in process/ finished goods														
	(i) As per SDRF/NDRF norms	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
	(iii) Qty. of materials (Qtls.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iv) No. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b)	For Handloom Weavers														
(i)	Repairs/replacement of loom equipments and accessories														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	33.128	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) No. of equipments/ accessories	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	(iv) No. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(ii)	Purchase of yarn and other materials like dyes and chemicals and finished stocks														
	(i) As per SDRF/NDRF norms	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
	(iii) Qty. of materials (Qtls.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iv) No. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Assistance for repair/ restoration of damaged houses														
(a)	Fully damaged/ destroyed Pucca houses														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	189.722	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
	(iii) Number	0	0	0	0	0	197	0	0	0	0	0	0	0	0
(b)	Fully damaged/ destroyed Kutcha houses														
	(i) As per SDRF/NDRF norms	0	0	110.316	0	0	197.186	36.683	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	116	0	0	208	37	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	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	0	0	0	0	0	0	0	0	0
(ii)	Severely damaged Kutcha houses														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	46.579	0.951	0	0	0	0	0	0
	(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	49	2	0	0	0	0	0	0
(d)	Partially damaged houses (both pucca and kutcha)														
	(i) As per SDRF/NDRF norms	0	0	147.892	0	0	29.648	36.658	6.276	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0		0		0	0	0	0	0	0
	(iii) Number	0	0	4562	0	0	906	1117	1893	0	0	0	0	0	0
(e)	Huts damaged/ destroyed														
	(i) As per SDRF/NDRF norms	0	0	13.694	0	0	21.445	1.955	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) Number	0	0	334	0	0	856	55	0	0	0	0	0	0	0
11	Provision of emergency supply of drinking water in rural areas and urban areas														
	(i) As per SDRF/NDRF norms	0	0	2702.322	0	0	0	1134.498	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) Total Qty. of water supplied (No. of Tankers load)	0	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	0
	(ii) No. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	(i) Medical care for cattle and poultry against eqidemics as a sequel to a notified natural calamity	0	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	0
14	(i) Evacuation of people affected/ likely to be affected	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) No. of people evacuated	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
15	Hiring of boats for carrying immediate relief and saving life														
	(i) No. of boat days	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
16	Provisions for temporary accommodation, food, clothing, medical care etc. of people affected/ evacuated (operation of relief camps)														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	55.927	0	0	0	0	0	17807.443	0
	(ii) Outside the norms	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

	(iv) No. of relief camps opened	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
17	Air dropping of essential supplies														
	(i) No. of sorties	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
18	Repair/restoration of immediate nature of the damaged infrastructure in eligible sectors														
(a)	Roads & Bridges														
	(i) As per SDRF/NDRF norms	0	0	7329.618	0	0	0	7503.103	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) Cumulative length of roads repaired (in KMs)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b)	Drinking water supply														
	(i) As per SDRF/NDRF norms	0	0	670.820	0	0	0	78.180	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) Total no. of schemes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(c)	Irrigation														
	(i) As per SDRF/NDRF norms	0	0	256.540	0	0	0	6783.093	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) Total no. of schemes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(d)	Power supply (only limited to immediate restoration of electricity supply in the affected areas)														
	(i) As per SDRF/NDRF norms	0	0	5601.480	0	0	0	600.000	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	
(e)	Primary Education														
	(i) As per SDRF/NDRF norms	0	0	4067.700	0	0	0	959.370	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 primary school buildings repaired	0	0	0	0	0	0	0	0	0	0	0	0	0	
(f)	Primary Health Centre														
	(i) As per SDRF/NDRF norms	0	0	417.280	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 Primary Health Centres buildings repaired	0	0	0	0	0	0	0	0	0	0	0	0	0	
(g)	Community assets owned by Panchayats														
	(i) As per SDRF/NDRF norms	0	0	2830.960	0	0	0	13327.870	0	0	0	0	0	72.038	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	
	(iii) No. of community assets repaired	0	0	0	0	0	0	0	0	0	0	0	0	0	

19	Replacement of damaged medical equipments and lost medicines of Govt.Hospitals/ Health centres	0	0	0	0	0	0	0	0	0	0	0	0	69500.000	0
20	Operational cost (of POL only) for Ambulance Service, Mobile Medical Teams and Temporary Dispensaries														
	(i) As per SDRF/NDRF norms	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
21	Cost of clearance of debris														
	(i) As per SDRF/NDRF norms	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
22	Draining off flood water in affected areas														
		0	0	0	0	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	42.18	0	20.010	23.840	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
24	Disposal of dead bodies/ carcasses														
	(i) As per SDRF/NDRF norms	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
	(iii) Total no. of dead bodies disposed	0	0	0	0	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	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	55.254	0	0	2196.141	3113.075	0	0	0	0	0	0.260	0
	(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	466.215	0	0	2289.209	21.049	0	0	0	0	0	0	0
	TOTAL	0.000	0.000	27214.779	0.000	0.000	5461.616	63517.306	1721.158	0.000	26.961	0.000	0.000	106619.902	10538.228