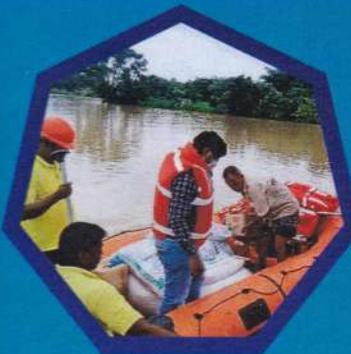




Government of Odisha

ANNUAL REPORT ON NATURAL CALAMITIES 2019-2020



SPECIAL RELIEF COMMISSIONER

Revenue & Disaster Management Department
Government of Odisha



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CHAPTER-I

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,	1408.8

							Luna	
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)
1	Angul	1401.9
2	Balasore	1592.0
3	Bargarh	1367.3
4	Bhadrak	1427.9
5	Balangir	1289.8
6	Boudh	1623.0
7	Cuttack	1424.3
8	Deogarh	1582.5
9	Dhenkanal	1428.8
10	Gajapati	1403.3
11	Ganjam	1276.2
12	Jagatsinghpur	1514.6
13	Jajpur	1559.9
14	Jharsuguda	1362.8
15	Kalahandi	1330.5
16	Kandhamal	1427.9
17	Kendrapada	1556.0
18	Keonjhar	1487.7
19	Khordha	1408.4
20	Koraput	1567.2
21	Malkangiri	1667.6
22	Mayurbhanj	1600.2
23	Nawarangpur	1569.5
24	Nayagarh	1354.3
25	Nuapara	1286.4
26	Puri	1408.8
27	Rayagada	1285.9
28	Sambalpur	1495.7
29	Subarnapur	1418.5
30	Sundargarh	1422.4
State Average		1451.2

District-wise rainfall for the year 2019

The district-wise monthly rainfall statistics from January to December, 2019 including percentage of deviation is indicated in the table below.

Sl. No.	DISTRICT	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE			JULY		
		Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.	Actual	Normal	% of Dev.
1	Angul	0.4	12.6	-96.8	27.0	27.1	-0.4	24.7	24.3	1.4	30.2	27.2	10.8	76.0	52.9	43.6	151.1	225.1	-32.9	226.6	347.7	-34.8
2	Balasore	0.0	14.7	-100.0	48.5	31.8	52.6	30.0	34.4	-12.8	81.7	62.2	31.4	156.9	108.5	44.6	142.8	221.5	-35.5	223.6	308.6	-27.5
3	Bargarh	1.5	12.5	-88.0	13.7	19.1	-28.2	38.8	22.0	76.3	21.8	20.0	9.2	14.6	25.6	-43.0	135.5	205.6	-34.1	412.7	397.2	3.9
4	Bhadrak	0.3	11.8	-97.6	18.9	29.6	-36.3	20.0	36.1	-44.7	35.2	51.2	-31.2	93.9	91.4	2.7	150.7	198.2	-24.0	178.9	293.6	-39.1
5	Balangir	3.4	8.6	-60.4	8.4	13.2	-36.4	23.9	14.6	63.9	28.3	13.4	111.4	8.8	27.8	-68.2	123.3	202.8	-39.2	287.1	360.5	-20.4
6	Boudh	2.3	17.0	-86.3	23.4	26.8	-12.6	34.8	22.4	55.4	34.4	16.5	108.5	26.4	38.4	-31.2	164.5	233.8	-29.6	294.1	418.5	-29.7
7	Cuttack	0.0	9.9	-100.0	36.1	28.6	26.1	18.7	24.7	-24.3	32.7	28.3	15.7	173.7	71.5	142.9	165.2	210.0	-21.3	353.1	308.3	14.5
8	Deogarh	0.5	14.1	-96.5	43.1	27.0	59.6	66.7	20.6	223.9	35.1	21.3	64.8	47.5	41.9	13.3	176.7	242.4	-27.1	246.1	447.7	-45.0
9	Dhenkanal	0.0	10.5	-100.0	23.1	21.9	5.3	21.9	33.7	-35.1	34.8	41.3	-15.8	149.4	69.6	114.6	198.8	225.7	-11.9	213.5	317.9	-32.8
10	Gajapati	0.0	8.1	-100.0	2.1	23.0	-91.0	19.6	41.3	-52.7	81.0	65.2	24.2	124.9	107.8	15.9	59.8	199.7	-70.1	233.9	230.6	1.4
11	Ganjam	0.3	9.4	-96.6	1.8	24.1	-92.5	19.3	32.6	-40.9	40.3	36.6	10.1	137.9	65.4	110.9	112.3	168.3	-33.2	225.1	220.8	1.9
12	Jagatsinghpur	0.0	14.5	-100.0	1.5	21.7	-93.1	11.4	35.5	-68.0	16.8	25.4	-34.1	96.9	78.0	24.2	141.4	202.3	-30.1	297.1	277.3	7.1
13	Jajpur	0.0	12.9	-100.0	14.8	25.1	-41.0	30.5	28.4	7.3	58.7	46.1	27.4	185.2	93.7	97.7	253.7	238.5	6.4	183.7	350.9	-47.7
14	Jharsuguda	0.0	14.1	-100.0	44.0	22.9	92.3	13.9	17.6	-21.0	34.6	15.1	129.1	24.9	27.9	-10.7	172.2	218.8	-21.3	315.6	385.8	-18.2
15	Kalahandi	1.8	10.3	-82.3	6.2	14.4	-56.9	8.6	23.7	-63.6	10.5	25.7	-59.0	23.5	41.8	-43.8	157.0	240.4	-34.7	454.1	327.7	38.6
16	Kandhamal	0.4	10.6	-96.2	30.6	29.7	3.2	31.6	28.0	13.0	21.1	35.7	-41.0	66.3	67.8	-2.2	106.4	207.9	-48.8	284.8	325.1	-12.4
17	Kendrapada	0.0	10.6	-100.0	0.0	30.2	-100.0	33.9	35.0	-3.2	24.2	33.9	-28.5	78.0	94.2	-17.2	127.7	208.3	-38.7	236.8	317.1	-25.3
18	Keonjhar	0.0	14.6	-100.0	55.2	33.8	63.3	40.2	33.1	21.4	59.6	42.1	41.7	116.6	94.8	23.0	143.3	241.4	-40.7	232.2	318.0	-27.0
19	Khordha	1.1	12.4	-91.1	8.1	24.3	-66.8	11.8	22.1	-46.6	24.4	28.0	-12.9	185.6	60.7	205.8	140.5	196.2	-28.4	370.3	304.9	21.4
20	Koraput	0.9	5.7	-84.0	0.0	8.6	-100.0	1.6	18.3	-91.3	50.5	55.2	-8.6	63.8	81.9	-22.1	198.3	206.8	-4.1	543.9	375.6	44.8
21	Malkangiri	1.1	2.7	-57.7	0.0	4.1	-100.0	1.9	8.9	-79.1	5.4	34.8	-84.4	33.7	49.1	-31.3	151.5	212.2	-28.6	633.8	465.7	36.1
22	Mayurbhanj	0.1	10.3	-99.3	77.7	28.0	177.6	49.7	40.2	23.7	97.6	52.5	85.9	176.2	101.2	74.2	176.4	265.8	-33.6	217.4	337.3	-35.5
23	Nawarangpur	6.0	6.7	-10.6	3.3	14.1	-76.5	2.7	15.1	-82.1	43.6	34.1	28.0	79.5	66.1	20.3	216.8	251.8	-13.9	495.3	356.6	38.9
24	Nayagarh	4.6	11.7	-60.4	29.8	28.6	4.2	38.6	30.0	28.7	46.7	39.9	16.9	144.4	58.8	145.5	107.8	203.5	-47.0	272.6	288.5	-5.5
25	Nuapara	0.0	12.0	-100.0	5.7	14.6	-61.1	14.3	19.7	-27.5	30.4	21.8	39.4	0.0	31.2	-100.0	123.6	210.3	-41.2	290.9	347.1	-16.2
26	Puri	0.0	10.9	-100.0	0.0	25.4	-100.0	14.1	15.5	-9.1	11.6	18.5	-37.1	122.8	62.1	97.8	151.4	188.0	-19.5	375.1	292.0	28.4
27	Rayagada	1.2	9.6	-87.3	3.4	22.9	-85.3	11.4	38.0	-70.0	45.4	52.7	-13.9	80.5	87.8	-8.3	72.6	195.3	-62.8	304.8	259.5	17.5
28	Sambalpur	0.7	14.8	-95.3	26.2	24.5	6.9	28.6	18.2	56.9	18.1	16.5	9.8	14.9	32.3	-53.7	140.3	221.0	-36.5	311.9	429.5	-27.4
29	Subarnapur	2.1	12.5	-82.9	17.1	17.2	-0.5	40.1	15.7	155.5	43.6	15.4	183.3	23.3	29.3	-20.4	167.9	217.4	-22.8	344.6	399.6	-13.8
30	Sundargarh	8.4	15.1	-44.1	38.8	24.9	55.9	28.8	16.0	80.1	38.0	16.0	137.4	25.9	40.6	-36.2	119.8	237.4	-49.5	221.8	386.4	-42.6
Total		37.3			608.5			732.0			1136.3			2552.1			4449.3			9281.5		
State Average		1.2	11.4	-89.1	20.3	22.9	-11.4	24.4	25.5	-4.3	37.9	33.1	14.4	85.1	63.3	34.4	148.3	216.5	-31.5	309.4	339.9	-9.0

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	309.4	357.5	-13.5	270.8	217.5	24.5	138.9	86.3	60.9	0.0	20.4	-100.0	3.7	3.3	10.6	1258.5	1401.9	-10.2
2	Balasore	332.4	332.1	0.1	347.5	267.6	29.8	223.6	170.5	31.1	72.9	34.6	110.8	1.9	5.5	-65.2	1661.8	1592.0	4.4
3	Bargarh	449.1	374.4	19.9	429.4	222.6	92.9	64.5	52.8	22.1	0.0	10.4	-100.0	2.4	5.1	-52.6	1584.1	1367.3	15.9
4	Bhadrak	373.7	311.7	19.9	319.2	216.8	47.2	236.9	145.3	63.1	77.7	37.3	108.3	0.8	4.9	-84.5	1506.2	1427.9	5.5
5	Balangir	693.5	333.6	107.9	343.3	237.4	44.6	44.1	68.4	-35.5	0.6	7.2	-92.1	0.8	2.3	-67.1	1565.6	1289.8	21.4
6	Boudh	519.8	488.8	6.3	337.9	244.8	38.0	94.3	90.5	4.2	0.0	21.1	-100.0	0.0	4.4	-100.0	1532.1	1623.0	-5.6
7	Cuttack	389.1	339.1	14.7	399.1	229.2	74.1	302.0	125.6	140.4	10.5	45.0	-76.7	0.0	4.1	-100.0	1880.2	1424.3	32.0
8	Deogarh	347.4	443.4	-21.7	306.7	228.2	34.4	138.9	84.4	64.6	0.0	8.0	-100.0	2.6	3.5	-25.7	1411.3	1582.5	-10.8
9	Dhenkanal	344.9	344.8	0.0	314.9	220.6	42.8	159.6	104.4	52.9	0.0	36.2	-100.0	3.1	2.2	40.9	1463.9	1428.8	2.5
10	Gajapati	323.0	253.6	27.3	329.2	237.9	38.4	326.4	168.6	93.6	12.5	61.8	-79.9	8.3	5.7	45.2	1520.5	1403.3	8.4
11	Ganjam	302.5	246.8	22.5	426.9	216.3	97.4	300.4	177.7	69.0	7.8	71.1	-89.1	0.0	7.1	-99.6	1574.6	1276.2	23.4
12	Jagatsinghpur	305.3	379.1	-19.5	457.8	241.4	89.6	259.6	151.1	71.8	60.3	80.4	-25.1	0.0	7.9	-100.0	1647.9	1514.6	8.8
13	Jajpur	446.9	341.2	31.0	307.2	238.0	29.1	236.5	140.2	68.7	31.0	41.0	-24.5	1.9	3.9	-51.3	1750.0	1559.9	12.2
14	Jharsuguda	723.1	382.9	88.9	372.1	210.7	76.6	123.1	54.9	124.2	0.0	7.7	-100.0	0.2	4.4	-95.5	1823.8	1362.8	33.8
15	Kalahandi	657.0	355.4	84.9	279.2	204.6	36.5	92.0	74.0	24.3	4.5	10.9	-58.6	0.0	1.6	-100.0	1694.4	1330.5	27.4
16	Kandhamal	614.0	330.8	85.6	361.2	239.1	51.1	144.1	117.7	22.4	9.5	31.0	-69.5	1.8	4.5	-60.0	1671.7	1427.9	17.1
17	Kendrapada	388.3	333.3	16.5	343.7	237.3	44.8	249.7	183.7	35.9	100.9	67.2	50.1	0.0	5.2	-100.0	1583.1	1556.0	1.7
18	Keonjhar	327.3	343.6	-4.7	353.6	241.1	46.7	161.6	101.3	59.5	0.8	20.5	-96.0	4.2	3.4	24.9	1494.7	1487.7	0.5
19	Khordha	317.5	320.6	-1.0	426.8	234.5	82.0	328.2	149.3	119.8	2.1	50.4	-95.8	0.0	5.0	-100.0	1816.3	1408.4	29.0
20	Koraput	590.7	393.6	50.1	381.5	256.3	48.8	247.6	126.1	96.4	25.4	32.6	-22.1	0.9	6.5	-86.4	2105.1	1567.2	34.3
21	Malkangiri	763.3	472.8	61.5	339.9	281.2	20.9	170.6	109.5	55.8	2.9	23.6	-87.9	0.0	3.0	-100.0	2104.2	1667.6	26.2
22	Mayurbhanj	407.1	359.9	13.1	274.4	262.0	4.7	180.7	114.1	58.3	17.2	21.6	-20.6	8.2	7.3	12.1	1682.6	1600.2	5.2
23	Nawarangpur	443.4	407.5	8.8	309.5	225.6	37.2	83.4	168.6	-50.5	11.7	18.7	-37.2	0.0	4.6	-100.0	1695.3	1569.5	8.0
24	Nayagarh	368.4	288.2	27.8	446.3	226.8	96.8	254.5	134.5	89.2	0.0	39.0	-100.0	0.0	4.8	-100.0	1713.6	1354.3	26.5
25	Nuapara	355.8	327.8	8.5	277.5	214.5	29.4	62.4	68.9	-9.5	6.9	15.3	-55.0	0.0	3.2	-100.0	1167.4	1286.4	-9.3
26	Puri	287.6	297.9	-3.4	533.2	243.2	119.2	350.1	181.6	92.8	12.2	67.3	-81.9	0.7	6.4	-88.6	1858.9	1408.8	31.9
27	Rayagada	427.0	273.7	56.0	237.1	199.1	19.1	220.6	109.7	101.1	3.1	32.9	-90.6	0.4	4.7	-91.1	1407.6	1285.9	9.5
28	Sambalpur	492.6	442.4	11.3	377.3	224.7	67.9	116.9	54.7	113.6	0.0	12.7	-100.0	1.8	4.4	-58.6	1529.3	1495.7	2.2
29	Subarnapur	552.8	408.9	35.2	475.3	228.0	108.5	53.0	59.8	-11.4	0.0	11.4	-100.0	4.1	3.3	24.7	1724.1	1418.5	21.5
30	Sundargarh	447.8	393.9	13.7	313.3	211.5	48.1	156.8	67.7	131.6	0.0	8.7	-100.0	5.4	4.2	28.2	1404.9	1422.4	-1.2
Total		13300.4			10691.8			5521.1			470.2			53.2			48833.6		
State Average		443.3	356.0	24.5	356.4	231.9	53.7	184.0	114.7	60.4	15.7	31.5	-50.2	1.8	4.5	-60.6	1627.8	1451.2	12.2

Rainfall during Monsoon 2019 (1st June to 30th September)

The State experienced average deficit rainfall of 31.5 percent in June, deficit rainfall of 9.0 percent in July, surplus rainfall of 24.5 percent in August and surplus rainfall of 53.7 percent in September, 2019 compared to the long term average rainfall. The cumulative average rainfall of the State from June to September, 2019 remained 1257.4 mm against the Long Term Average (LTA) of 1144.3 mm registering a surplus of 9.9 percent.

Month	Normal	Rainfall in MM	
		Actual	Deviation in %
June	216.5	148.3	-31.5
July	339.9	309.4	-9.0
August	356.0	443.3	24.5
September	231.9	356.4	53.7
Total:	1144.3	1257.4	9.9

Block-wise analysis of the cumulative rainfall from 1st June, 2019 to 30th September, 2019 indicates that out of 314 Blocks in the State, 103 Blocks received surplus rainfall (above 19%), 169 Blocks received normal rainfall (+19% to -19%), 40 Blocks received deficit rainfall (shortfall of >19% to 39%), 2 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.

STATUS OF RAINFALL (1st June, 2019 to 30th September, 2019)							
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		5	3			
2	Balasore	1	7	4			
3	Bargarh	6	6				
4	Bhadrak	1	5	1			
5	Balangir	8	5	1			
6	Boudh	1		2			
7	Cuttack	4	9				
8	Deogarh		1	2			
9	Dhenkanal	1	5	2			
10	Gajapati	1	6	1			
11	Ganjam	14	8				

12	Jagatsinghpur	2	6			
13	Jajpur	2	8			
14	Jharsuguda	3	2			
15	Kalahandi	8	4	1		
16	Kandhamal	7	5			
17	Kendrapara	1	8			
18	Keonjhar	3	4	4	2	
19	Khordha	4	6			
20	Koraput	11	2	1		
21	Malkanagiri	4	3			
22	Mayurbhanj		17	9		
23	Nawarangpur	6	4			
24	Nayagarh	2	6			
25	Nuapada		5			
26	Puri	5	6			
27	Rayagada	4	7			
28	Sambalpur	1	6	2		
29	Subarnapur	3	3			
30	Sundargarh		10	7		
No. of Blocks		103	169	40	2	0
No. of Districts		25	29	14	1	0

Fig. 1.1. District-wise Rainfall for the year 2019

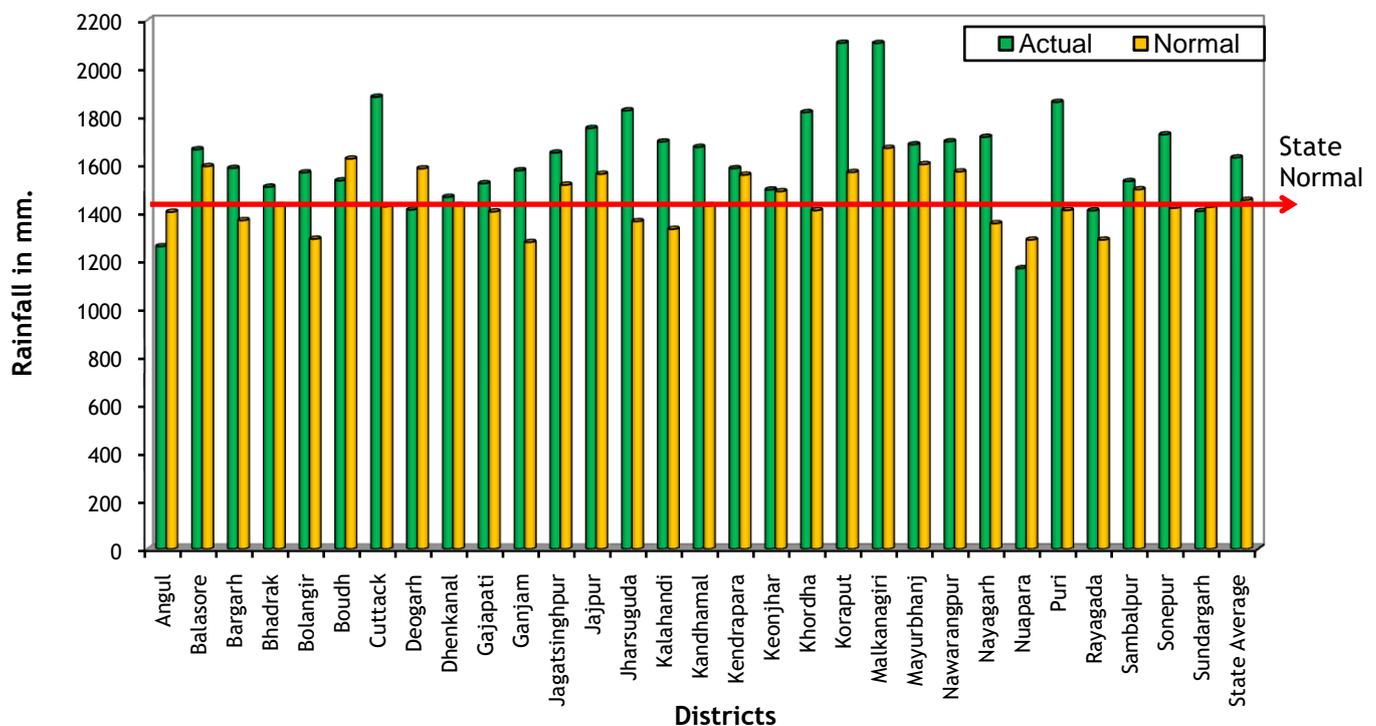


Fig.1.2. Month-wise Rainfall for the year 2019

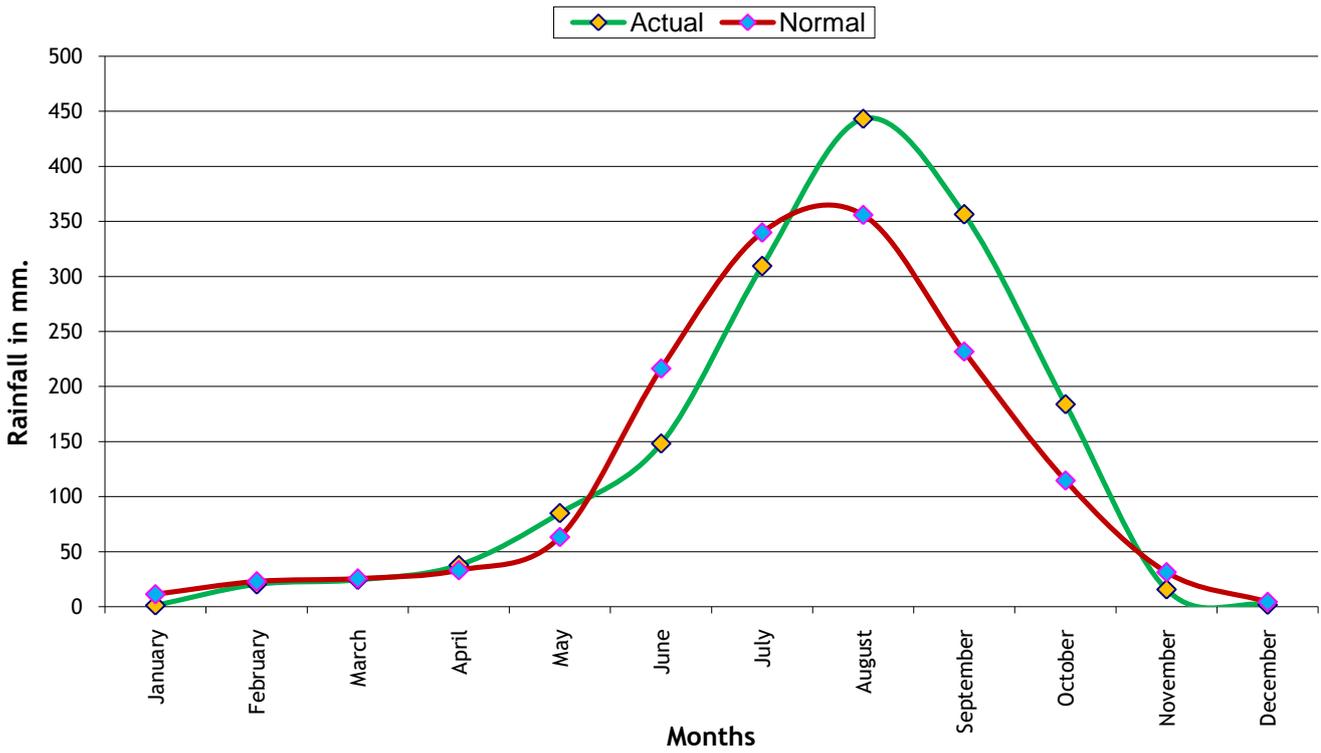
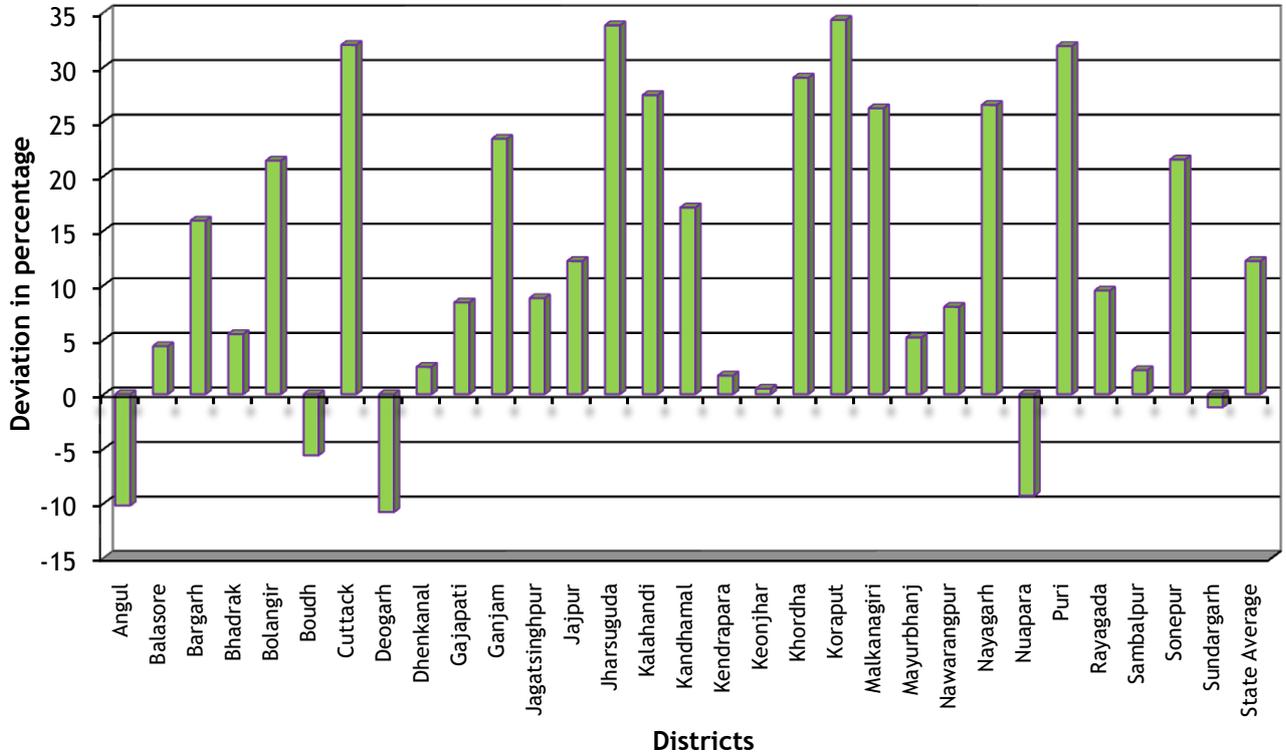


Fig.1.3. Rainfall Deviation of the Districts for the year 2019



CHAPTER – II

Disasters during the year

1. Heavy Rain & Floods

The State experienced flood/ heavy rain during July/ August, 2019 in three phases affecting 21 districts namely Kalahandi, Koraput, Malkangiri, Nawarangpur, Sonapur, Rayagada, Gajapati, Nuapada, Bargarh, Sambalpur, Kandhamal, Bolangir, Boudh, Angul, Kendrapara, Jagatsinghpur, Nayagarh, Khordha, Puri, Cuttack, Jharsuguda. The phase wise occurrence of flood/ heavy rain is shown in the table below.

Phases of Flood/ Heavy Rain	Date of Occurrence	No. of Districts Affected	Name of the Districts Affected
1 st Phase	27.7.19 to 5.8.19	5	Kalahandi, Koraput, Malkangiri, Nawarangpur, Sonapur
2 nd Phase	06.8.19 to 11.8.19	4	Kalahandi, Rayagada, Gajapati, Jharsuguda
3 rd Phase	12.8.19 to 16.8.19	15	Nuapada, Bargarh, Sambalpur, Sonapur, Kandhamal, Kalahandi, Bolangir, Boudh, Angul, Kendrapara, Jagatsinghpur, Nayagarh, Khordha, Puri, Cuttack

Response Activities: The District Administration had undertaken elaborate preparedness to encounter the flood situation. A total no. of 69193 people were evacuated from low lying areas and were kept in multi-purpose flood/ cyclone shelters, school and other safe buildings. Arrangement of food, drinking water, lighting, sanitation and health facilities were made for them.

Relief Camp / Free Kitchen

Sl. No.	District	No. of Persons Evacuated	No. of Shelters Used for accommodation of Evacuees						Duration of Relief Camps		Beneficiaries Covered (Cumulative)		
			Flood Shelter	Cyclone Shelter	School Building	Other Building	Temp. Shelter (Tent)	Total	No. of Days	Persons Covered	Adult	Children	Total
1	Gajapati	1065	0	2	11	1	0	14	2	1065	852	213	1065
2	Kalahandi	2551	0	1	24	13	0	38	11	2659	2107	552	2659
3	Kandhamala	437	0	0	5	11	0	16	5	437	302	135	437

4	Koraput	1190	2	0	2	1	0	5	4	1190	900	290	1190
5	Malkangiri	5511	4	0	14	12	0	30	27	5496	3668	906	4574
6	Raygada	3735	1	0	13	13	0	27	20	3756	3088	638	3726
7	Balangir	23388	0	0	40	56	0	96	7	23388	16408	6980	23388
8	Boudh	19732	2	1	38	1	0	42	14	19732	14637	5095	19732
9	Subarnapur	9534	1	0	32	15	0	48	7	25572	16174	9398	25572
10	Angul	300	0	0	2	0	0	2	3	300	221	79	300
11	Nayagarh	1200	1	0	1	0	0	2	1	1200	1000	200	1200
12	Cuttack	550	0	0	1	0	0	1	1	550	350	200	550
13	Khordha	0	0	0	0	0	0	0	1	500	360	140	500
Total		69193	11	4	183	123	0	321	103	85845	60067	24826	84893

As many as 24 Teams of ODRAF, 3 Teams of NDRF and 39 Local Fire Service Teams with emergency equipment were deployed for search and rescue operation. 20 Boats of ODRAF, 25 Boats of Fire Service along with other govt. & hired private boats were engaged for search & rescue operations. In total 72 boats were used in districts. The district wise deployment of search & rescue team is given below.

Sl. No	District	Disaster Response Force Deployed(No.of Team)				No. of Boats Engaged								No. of Persons Rescued
		Fire Service	ODRAF	NDRF	Total Team Deployed	Boats of Response Force			Other Boats				Total	
						Fire Services	ODRAF	NDRF	Pvt. Country Boat	Pvt. Power Boat	SRC Boat	Other Govt. Boat		
1	Gajapati	2	1	0	3	1	1	0	0	0	0	0	2	0
2	Kalahandi	18	4	0	22	13	6	0	0	0	0	1	20	30
3	Kandhamala	1	1	0	2	0	0	0	0	0	0	0	0	0
4	Koraput	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Malkangiri	2	1	0	3	2	1	0	0	0	0	0	3	158
6	Nawarangpur	0	1	0	1	0	1	0	1	0	0	0	2	0
7	Raygada	5	1	0	6	0	0	0	0	0	0	0	0	0
8	Sambalpur	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Balangir	5	5	0	10	5	4	0	0	0	0	0	9	23388

10	Boudh	3	5	1	9	3	5	2	4	0	0	0	14	34917
11	Subarnapur	2	2	2	6	0	0	0	6	0	1	0	7	680
12	Angul	1	1	0	2	1	0	0	7	0	0	0	8	0
13	Nayagarh	0	1	0	1	0	1	0	0	0	2	0	3	0
14	Cuttack	0	0	0	0	0	0	0	0	0	1	0	1	0
15	Khordha	0	1	0	1	0	1	0	0	2	0	0	3	0
Total		39	24	3	66	25	20	2	18	2	4	1	72	59173

Emergent Relief:

4933.1 kg of Rice, 5657.758 kg of Chuda (flattened rice), 1595.515 kg of Guda (Juggery) were distributed as emergent relief to the affected people. Beides, candles, matchboxes, kerosene oil and other materials were been distributed.

Sl. No.	District	Qty. of Emergent Relief									
		Rice(in kg)	Chuda	Gud	Match Box(in pkt)	Candle(in pkt)	Dal(in kg)	K.Oil (in ltr)	Sugar (in kg)	Milk Powder	Biscuit
1	Kalahandi	3833	0	2	59	110	812.5	87	24	152	7658
2	Kandhamala	0	2	0.3	0	0	0	0	0	0	0
3	Koraput	210	400	98	45	100	70	0	0	0	0
4	Malkangiri	680	238.5	2	60	50	8	15.5	30	0	0
5	Nawarangpur	200	4180	1400	0	0	0	220	0	0	0
6	Raygada	8.6	2.6	0.6	70	70	0.6	0	0.5	0	1625
7	Balangir	0	0	0	0	0	0	0	0	0	0
8	Subarnapur	0	78.658	18.6145	150	220	0	0	0	0	2052
9	Angul	1.5	104	9	0	200	0	0	2	0	1000
10	Nayagarh	0	2	0	50	400	0	50	0	0	1200
11	Cuttack	0	650	65	100	15	0	0	0	0	0
Total		4933.1	5657.758	1595.515	534	1165	891.1	372.5	56.5	152	13535

CM's Package

The Hon'ble Chief Minister during review of the flood and heavy rainfall on 13.08.2019 announced seven days Gratuitous Relief for the affected people in the districts of Bolangir, Kalahandi, Boudh, Kandhamal and Subarnapur at the rate of Rs.60/- per adult per day and Rs.45/- per child per day.

SL. No.	Name of the affected District	No. of Adult	No. of Children	Amount Sanctioned (Rs.)
1	Sonepur	10545	3249	5452335
2	Bolangir	41189	9267	20218485
3	Kandhamal	194	113	117075
4	Boudh	14637	5095	7752465
5	Kalahandi	1646	492	846300
Total		68,211	18,216	343,86,660

Health & Sanitation Measures

Emergency medicines were stocked in districts prior to floods. Essential drugs like halogen tablets, paracetamol tablets, antibiotics were provided to all affected districts. Medical teams were deployed in flood affected districts. Doctors & paramedics were mobilized to serve flood affected areas. Details of health care measures undertaken by Health department are indicated below:

Sl. No	Dist	No. of Medical Relief Center Opened	No. of Doctor Engaged	No. of Mobile Medical Team Deployed	No. of Paramedical staff Engaged	No. of Person Treated	ORS Packets distributed
1	Gajapati	3	3	0	12	58	110
2	Kalahandi	8	2	15	0	534	2835
3	Kandhamala	26	20	16	70	491	1066
4	Koraput	4	4	2	12	330	420
5	Malkangiri	2	3	2	8	339	463
6	Nawarangpur	4	3	3	14	397	1384
7	Raygada	2	2	8	20	262	755
8	Balangir	29	29	29	58	2986	5644
9	Boudh	0	5	4	21	148	563
10	Subarnapur	17	5	5	31	374	5598
11	Cuttack	1	1	1	0	6	650
Total		96	77	85	246	5925	19488

Provision of Drinking Water

Disinfection of drinking water sources were carried out in affected districts. Mobile vans were deployed in heavily affected areas for disinfection and repair of tube wells. Piped water supply sources in rural as well as urban areas of some districts were submerged in flood water and the pumps and pipes in some places filled with sand causing severe damage to the water supply system. Immediate restoration of those piped water supply system were done.

Veterinary Measures

In major affected districts, veterinary camps were opened and mobile veterinary teams were engaged for treatment and vaccination of animals. In total, 44350 cattle were vaccinated and 15112 nos. of cattle were given treatment.

Veterinary Measures

Sl. No	Dist	No. of Veterinary Camp Opened	No. of Mobile Vet. Team Engaged	No. of Vet. Doctor Engaged	No. of Veterinary Staff Engaged	No. of Cattle Vaccinated	No. of Carcasses Disposed	No. of Cattle Treated	Qty. of Cattle Feed Distributed				
									Feed	Green Fodder	No. of Cattle		No. of Days
											Large	Small	
1	Kalahandi	74	20	20	36	3150	22	1236	0	0	0	0	0
2	Malkangiri	13	15	16	55	1150	3	337	0	0	0	0	0
3	Nawarangpur	27	10	20	57	8200	3	1646	0	0	0	0	0
4	Raygada	25	4	8	22	7500	132	495	0	0	0	0	0
5	Balangir	212	14	14	14	18700	0	8501	0	0	0	0	0
6	Boudh	12	4	4	8	300	0	793	0	0	0	0	0
7	Subarnapur	36	5	10	15	2700	0	1507	0	0	0	0	0
8	Angul	0	2	2	0	2000	0	262	0	0	0	0	0
9	Cuttack	3	3	3	6	650	0	335	0	10	350	180	1
Total		402	77	97	213	44350	160	15112	0	10	350	180	1

Area & population affected

1st & 2nd Phase

Sl. No.	Name of the District	No. of affected Block	No. of affected ULB	No. of GPs affected	No. of villages affected	No. of wards affected	Population affected
1	Gajapati	1	1	1	18	5	14,680
2	Kalahandi	13	4	234	599	7	314740
3	Kandhamal	5	0	8	20	0	2250

4	Koraput	14	3	172	606	5	9538
5	Malkangiri	7	0	106	743	0	235602
6	Nawarangpur	7	1	100	217	1	2699
7	Raygada	11	3	132	607	35	83270
8	Sambalpur	1	0	5	10	0	307
	Total	59	12	758	2820	53	6,63,086

3rd Phase:

Sl. No	Name of the District	No. of affected Block	No. of affected ULB	No. of GPs Affected	No. of Villages affeted	No. of Wards affected	Population Affected
1	Balangir	13	3	296	1541	44	215050
2	Kalahandi	5	1	75	440	1	105877
3	Kandhamal	3	1	15	40	2	3000
4	Boudh	3	0	23	73	0	35039
5	Khordha	2	0	4	10	0	1070
6	Cuttack	2	0	3	4	0	8140
7	Subarnapur	6	3	89	416	17	73335
8	Angul	2	0	10	22	0	5019
9	Nayagarh	1	0	1	1	0	1200
	Total	37	8	516	2547	64	447730

Damages to Private Properties:

Human Casualties

Sl. No.	Name of District	No. of Casualty
1	Kalahandi	4
2	Kandhamal	2
3	Koraput	1
4	Malkangiri	3
5	Nawarangpur	1
6	Bolangir	1
7	Cuttack	1
	Total	13

Livestock Casualty

Sl. No.	Name of Dist.	No. of Livestock Lost				Total Livestock Lost	No. of Poultry Lost
		Milch Animal		Draught Animal			
		Big	Small	Big	Small		
1	Kalahandi	21	17	2	2	42	0
2	Koraput	1	3	0	0	4	0
3	Malkangiri	1	1	1	1	4	0
4	Nawarangpur	1	0	0	2	3	0
5	Raygada	181	62	46	23	312	10
6	Sambalpur	0	6	0	0	6	0
7	Balangir	2	56	0	1	59	0
9	Subarnapur	67	182	2	16	267	0
Total		274	327	51	45	697	10

House Damages

Sl. No.	Name of the District	House Damage (in nos)								
		Fully		Severely		Partially		Hut	Cowshed	Total
		Pucca	Kutchra	Pucca	Kutchra	Pucca	Kutchra			
1	Kalahandi	5	38	0	1	75	1424	33	23	1599
2	Kandhamala	0	4	0	1	3	327	16	3	354
3	Koraput	-	3	-	5	4	1113	-	20	1145
4	Malkangiri	-	50	-	96	13	732	5	3	899
5	Nawarangpur	-	1	-	5	-	711	-	5	722
6	Raygada	-	106	1	52	2	1071	2	43	1277
7	Sambalpur	-	1	-	-	18	300	1	-	320
8	Balangir	16	989	17	1716	129	10722	360	202	14151
9	Boudh	0	7	0	0	0	1562	0	0	1569
10	Subarnapur	0	104	0	4	7	3752	50	90	4007
11	Angul	0	0	0	0	0	79	88	0	167
Total		21	1303	18	1880	251	21793	555	389	26210

Crop Area Affected

Sl. No.	Name of District	Cultivated Area affected in Hectare
1	Kalahandi	4611.99
2	Kandhamala	174
3	Koraput	94.6
4	Malkangiri	1732.525

5	Nawarangpur	241
6	Raygada	1599.8
7	Balangir	24319.3
8	Boudh	1911.3
9	Subarnapur	6096.12
10	Khordha	1753
11	Cuttack	2891
	Total	45424.635

Crop loss

An area of 11557.577 hectares in 1236 villages under 259 Gram Panchayats of 31 Blocks and 9 wards of 3 ULBs in 10 Districts suffered crop loss to the extent of 33% and above 33% due to Floods & Heavy Rain. The District-wise break up of crop loss is given in the table below:

SL No.	Name of District	No. of Affected Blocks	No. of Affected GPs	No. of Affected Villages	No. of Affected ULBs	No. of Affected Wards	Crop loss of 33% & above (Area in Hectare)		
							Irrigated	Rainfed	Total
1	Subarnapur	2	9	42	1	1	10.5	762.097	772.597
2	Khordha	2	4	18	0	0	0	258.503	258.503
3	Nabarangpur	1	9	38	0	0	0	241	241
4	Balangir	4	75	389	1	7	45	5590.5	5635.5
5	Koraput	3	6	18	0	0	0	70.222	70.222
6	Raygada	6	37	263	1	1	80.455	540.274	620.729
7	Boudh	2	22	156	0	0	288.98	1414.54	1703.52
8	Kandhamal	3	23	83	0	0	0	77.917	77.917
9	Cuttack	3	22	55	0	0	0	1803.984	1803.984
10	Malkangiri	5	52	174	0	0	49.947	323.658	373.605
	Total	31	259	1236	3	9	474.882	11082.695	11557.577

Crop Area Sand Cast

Sl. No.	Name of District	Area Sand Cast in Hectare
1	Kalahandi	1244.28
2	Koraput	1.31
3	Malkangiri	461.149
4	Raygada	1417.6
5	Balangir	5087.7
6	Boudh	804.45
7	Subarnapur	2165.522
	Total	11182.011

Damages in Handicraft Sector

Sl. No.	Name of District	No. of Artisans affected
1	Kalahandi	23
2	Balangir	366
	Grand Total	389

Heavy Rain October 23-25

Heavy Rain was experienced during October 23 to 25, 2019 in many parts of districts of Balasore, Bhadrak, Cuttack, Gajapati, Ganjam, Jagatsinghpur, Jajpur, Khordha, Mayurbhanj, Nayagarh & Puri. The blocks which witnessed rainfall of more than 100 mm in a single day is given below.

(Rainfall in mm.)					
Sl. No.	District	Block	24.10.2019	25.10.2019	Total
1	Balasore	Bhograi	31.2	156.2	187.4
2	Balasore	Jaleswar	11.0	137.0	148.0
3	Balasore	Baliapal	25.0	148.0	173.0
4	Balasore	Balasore	57.0	145.0	202.0
5	Balasore	Remuna	46.0	175.0	221.0
6	Balasore	Nilagiri	26.0	134.4	160.4
7	Balasore	Soro	23.0	125.0	148.0
8	Balasore	Bahanaga	35.0	131.0	166.0
9	Balasore	Simulia	16.0	113.0	129.0
10	Balasore	Khaira	9.0	110.0	119.0
11	Bhadrak	Bhadrak	35.0	159.0	194.0
12	Bhadrak	Bhandaripokhari	45.0	110.0	155.0
13	Bhadrak	Basudevapur	27.0	223.0	250.0
14	Bhadrak	Bonth	45.3	134.0	179.3
15	Bhadrak	Chandbali	73.7	123.3	197.0
16	Bhadrak	Dhamnagar	82.0	157.0	239.0
17	Bhadrak	Tihidi	35.0	158.0	193.0
18	Cuttack	Athagarh	59.0	131.0	190.0
19	Cuttack	Banki-Dampada	77.0	160.0	237.0
20	Cuttack	Barang	75.0	133.0	208.0
21	Cuttack	Cuttack Sadar	87.0	158.0	245.0

22	Cuttack	Kantapada	87.0	181.0	268.0
23	Cuttack	Mahanga	58.0	172.0	230.0
24	Cuttack	Niali	117.0	132.0	249.0
25	Cuttack	Nischintakoili	42.3	153.2	195.5
26	Cuttack	Salepur	87.0	139.0	226.0
27	Cuttack	Tangi-Choudwar	90.0	122.0	212.0
28	Gajapati	Paralakhemundi	83.0	115.0	198.0
29	Gajapati	Rayagada	141.6	64.8	206.4
30	Gajapati	Gumma	140.0	27.0	167.0
31	Gajapati	R.Udaygiri	105.2	25.3	130.5
32	Gajapati	Gosani	105.0	21.2	126.2
33	Ganjam	Chhatrapur	112.0	71.0	183.0
34	Ganjam	Ganjam	113.0	55.4	168.4
35	Ganjam	Purusottampur	120.0	45.0	165.0
36	Ganjam	Kabisuryanagar	120.0	20.0	140.0
37	Ganjam	Kodala	106.4	51.0	157.4
38	Ganjam	Khalikot	107.0	41.0	148.0
39	Ganjam	Hinjilicut	114.0	26.0	140.0
40	Ganjam	Rangeilunda	192.4	17.0	209.4
41	Ganjam	Kukudakhandi	175.0	53.0	228.0
42	Ganjam	Chikiti	203.0	38.0	241.0
43	Ganjam	Patrapur	185.5	60.4	245.9
44	Ganjam	Sanakhemundi	147.0	23.0	170.0
45	Ganjam	Digapahandi	115.0	31.0	146.0
46	Ganjam	Belaguntha	112.0	33.1	145.1
47	Ganjam	Aska	127.6	15.0	142.6
48	Ganjam	Dharakote	120.0	25.0	145.0
49	Ganjam	Sheragada	142.0	11.0	153.0
50	Ganjam	Sorada	100.0	25.0	125.0
51	Jagatsinghpur	Jagatsinghpur	83.0	100.0	183.0
52	Jagatsinghpur	Biridi	62.0	121.0	183.0
53	Jagatsinghpur	Raghunathpur	67.0	133.0	200.0
54	Jagatsinghpur	Balikuda	93.0	105.0	198.0
55	Jagatsinghpur	Tirtol	100.0	100.0	200.0
56	Jagatsinghpur	Kujanga	120.0	66.0	186.0
57	Jagatsinghpur	Erasama	180.0	93.0	273.0
58	Jajpur	Jajpur	41.0	135.0	176.0
59	Jajpur	Binjharpur	72.6	239.4	312.0
60	Jajpur	Dasarathpur	48.0	171.4	219.4

61	Jajpur	Rasulpur	37.4	134.6	172.0
62	Jajpur	Dharmasala	86.0	110.0	196.0
63	Jajpur	Bari	71.0	154.5	225.5
64	Khordha	Balianta	65.0	193.0	258.0
65	Khordha	Balipatna	95.4	116.6	212.0
66	Khordha	Bhubaneswar	103.6	149.2	252.8
67	Khordha	Jatani	112.0	131.0	243.0
68	Khordha	Banapur	115.0	69.0	184.0
69	Khordha	Begunia	114.0	63.0	177.0
70	Khordha	Bolagarh	115.0	56.0	171.0
71	Khordha	Chilika	110.0	164.0	274.0
72	Khordha	Khordha	122.0	104.0	226.0
73	Khordha	Tangi	104.6	122.4	227.0
74	Koraput	Bandhugaon	114.0	29.0	143.0
75	Mayurbhanj	Badasahi	22.0	108.0	130.0
76	Mayurbhanj	Udala	15.8	100.2	116.0
77	Nayagarh	Bhapur	110.2	57.4	167.6
78	Nayagarh	Ranpur	130.2	140.4	270.6
80	Puri	Brahmagiri	182.0	148.0	330.0
81	Puri	Delang	135.0	142.0	277.0
82	Puri	Gop	132.2	95.1	227.3
83	Puri	Kakatpur	101.5	60.4	161.9
84	Puri	Kanas	112.0	206.0	318.0
85	Puri	Krushnaprasad	249.4	127.7	377.1
86	Puri	Nimapara	122.0	174.0	296.0
87	Puri	Pipili	142.0	165.0	307.0
88	Puri	Puri	135.0	110.0	245.0
89	Puri	Satyabadi	142.0	171.0	313.0

3002 no of houses including cowsheds were damaged by this heavy rain. The district wise details are as follows

No. of Houses Damaged in the Heavy Rain of October 23-25

SI No.	District	Fully/ Severely Pucca or Kutcha	Partially Damaged Pucca	Partially Damaged Kutcha	Hut Damaged	Cowshed Damaged	Total in No.
1	Gajapati	83	24	0	1	38	146
2	Bhadrak	0	0	648	0	248	896
3	Koraput	2	0	27	0	0	29

4	Khordha	288	40	1377	0	99	1804
5	Balasore	2	0	47	1	3	53
6	Keonjhar	2	9	2	0	0	13
7	Angul	1	1	59	0	0	61
Total		378	74	2160	2	388	3002

Croploss

Sl. No.	Name of District	No. of Affected Blocks	No. of Affected GPs	No. of Affected Villages	Sown area damaged to the extent of 33% & above in Hectare		
					Irrigated	Rainfed	Total
1	Gajapati	1	2	7	60	52	112
2	Ganjam	2	19	39	987.5	23	1010.5
3	Khordha	1	6	15	56	94	150
Total		4	27	61	1103.5	169	1272.5

Damage to public properties due to flood & heavy rain- 2019

	Departments	Quantity
1	Water Resources Department	
	Damage to river/ saline embankment	306.41 km
	Breaches in river/ saline embankment	43.17 km
2	Works Department	
	PWD roads damaged	1269.56km
	Breaches in PWD roads	121 Nos
	CD/ Bridges damaged in PWD roads	243Nos
3	Rural Development Department	
	Damage to rural roads	290.44 kms
	Breaches in rural roads	648 Nos
	CD/ Bridges damaged/ washed away	27 Nos
4	Housing & Urban Development Department	
	Road damaged	132.13 km.
	Culverts damaged	149 Nos
5	Panchayati Raj & DW Department	

	Anganwadi Center damaged	103 Nos
	Primary School Buildings damaged	161 Nos
	GP/ PS Building & Community Hall damaged	18 Nos
	GP/ PS road damaged	1567 km.
	Piped Water Supply System damaged	27 Nos
6	Handlooms, Textile & Handicrafts Department	
	Damage to work shed of handloom weaver	5 Nos
	No. of Artisans/ Weavers lost their equipments & Raw materials	396 Nos

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.

Extremely Severe Cyclonic Storm "Fani"

Cyclone "Fani" that made landfall at about 8.30 AM on 3rd May 2019 between Satapada and Puri in Odisha as an Extremely Severe Cyclonic Storm caused extensive damages in 14 districts. As reported by IMD, the maximum sustained surface wind speed of 170-180 kmph gusting to 205 kmph was observed during landfall. After the landfall, the cyclone with nearly same intensity continued for next 06 hours. The Doppler radar image at Paradeep showed that the eye of the storm crossed the coast at 9.42 AM on 3rd May 2019.

After the landfall, the system continued to move north-northeastwards and entered the Khurda district around Bhubaneswar. Then it passed over Cuttack, Jagatsinghpur, Kendrapara, Jajpur, Bhadrak, Balasore and Mayurbhanj. Then, it emerged into Gangetic West Bengal as a Severe Cyclonic Storm with wind speed of 90-100 KMPH gusting to 115 KMPH by early morning of 4th May. Further, it moved north-northeastwards and emerged into Bangladesh on 4th May evening as a Cyclonic Storm with wind speed 60-70 KMPH gusting to 80 KMPH.

Rainfall

Under the influence of the cyclone, very heavy rainfall occurred in many parts of the state on 3rd & 4th May, 2019. As many as 9 districts recorded average rainfall of more than 100 mm. Khordha dist. recorded highest 187.8 mm rainfall followed by Cuttack-171.1 mm, Jajpur- 143.9 mm and Nayagarh- 141.7 mm. Five more districts received average rainfall between 50 mm and 100 mm.

DISTRICT AVERAGE RAINFALL (Rainfall in mm)				
Sl. No.	District	3.5.2019	4.5.2019	Total
1	Khordha	50.8	137.0	187.8
2	Cuttack	55.9	115.2	171.1
3	Jajpur	25.5	118.4	143.9
4	Nayagarh	69.5	72.2	141.7
5	Mayurbhanj	18.2	113.6	131.8
6	Dhenkanal	29.4	98.7	128.1
7	Puri	52.0	76.1	128.1
8	Balasore	39.9	80.6	120.5
9	Ganjam	92.2	19.1	111.3
10	Jagatsinghpur	39.4	53.9	93.3
11	Keonjhar	17.2	72.6	89.8
12	Bhadrak	28.7	41.0	69.7
13	Gajapati	57.9	3.9	61.8
14	Kendrapara	19.7	34.9	54.6
15	Angul	16.5	32.7	49.2
16	Deogarh	4.7	20.7	25.4
17	Kandhamal	17.0	0.0	17.0
18	Rayagada	16.1	0.5	16.6
19	Boudh	7.0	6.7	13.7
20	Sundargarh	1.4	8.1	9.5
21	Sambalpur	1.6	.0	2.6
22	Nawarangpur	0.0	1.5	1.5
23	Koraput	0.0	1.4	1.4
24	Balangir	0.0	0.9	0.9
25	Subarnapur	0.5	0.0	0.5
26	Bargarh	0.0	0.4	0.4
27	Kalahandi	0.3	0.0	0.3
28	Jharsuguda	0.0	0.0	0.0
29	Malkanagiri	0.0	0.0	0.0
30	Nuapada	0.0	0.0	0.0
	State Average	22.0	37.0	59.0

Preparedness

Since the formation of the cyclonic system, the State Government started closely monitoring the situation. Based on the forecast issued by India Meteorological Department and other International Agencies, the system was continuously tracked and analyzed on GIS platform. Massive preparedness measures were undertaken by the Government soon after receipt of warning from IMD and analysis of forecast from different Meteorological Agencies. The districts were alerted based on the probable cyclone track and impact area.

Following measures were taken at State and District levels to face the imminent disaster and to minimize loss of life and property.

- Instructions were issued to all Collectors to keep the district administration in readiness to meet any eventuality.
- Collectors in the six coastal districts namely Ganjam, Puri, Jagatsinghpur, Kendrapada, Bhadrak & Balasore and adjoining districts of Gajapati, Nayagarh, Khordha, Cuttack, Jajpur, Dhenkanal, Keonjhar and Mayurbhanj were advised to identify all vulnerable people living in kutcha houses or living near the coast or in low lying areas and shift them to multipurpose cyclone/ flood shelters and other safe shelters.
- Arrangements were made for free kitchen, safe drinking water, lighting, health and sanitation facilities at the shelters.
- Collectors of the coastal districts were also directed to evacuate the tourists from vulnerable locations.
- District Emergency Operation Centres and control rooms of other offices were activated round the clock.
- 300 Power boats of Special Relief Organisation were readied with crew and POL for emergent relief operation.
- 879 Multi-purpose cyclone/ flood shelters of OSDMA were kept in readiness for sheltering people to be evacuated. Meetings of the Cyclone/ Flood Shelter Management and Maintenance Committees (CSMMCs/FSMMCs) were organised and proper preparedness was ensured at the shelter level.
- Advisory was issued for taking special care of old, differentially abled persons, women and children.
- GO-NGO coordination meetings were conducted at OSDMA, Office of Special Relief Commissioner and in various districts to streamline the involvement of NGOs in managing the disaster.
- Regular Inter-Departmental Coordination meetings with Department Nodal Officers were conducted to assess the preparedness and to ensure timely response.

- 02 numbers of helicopters were requisitioned from Ministry of Defence, Govt. of India and kept ready for the possible rescue and air dropping of relief materials in the cyclone affected areas.
- Work for preparing 1,00,000 number of food packets for air dropping was expedited with the help of ORMAS, IDCO and Food Supplies and Consumer Welfare Department.
- All educational institutions (both private and government) were closed with effect from 02.05.2019 and examinations were re-scheduled.
- Senior IAS and IPS officers from the state level were assigned to districts likely to be severely affected to render all possible support to the District Collectors in managing the cyclone.
- 5,97,006 numbers of Polythene Stocks (1,84,000 buffer stock at the state level and 4,12,541 nos. available in 30 Districts) was kept ready for distribution.
- 55 satellite phones provided to Districts and response forces were kept in readiness for emergency communication.
- Boat operation in Chilika Lake was suspended and traditional fishermen in coastal areas were barred from venturing into the sea.
- Running of 81 Trains was cancelled and Air Services in Bhubaneswar was suspended for 24 hours.

Identification of most severe impact area:

Most vulnerable villages in the coastal area were identified using GIS platform based on forecasted track. 10 km buffer area on the landward side and entire area of the seaward side of the forecasted track were taken as the severe impact areas. A total 9886 villages and 52 towns in 9 districts were identified as severe impact area and the Collectors of the concerned districts were intimated for taking up the preparedness measures.

Shelter Readiness

Odisha State Disaster Management Authority (OSDMA) had constructed 879 Multipurpose Cyclone and Flood Shelters in 25 districts. All cyclone and flood shelters were kept ready to house the evacuated people. Water supply systems, generators, inflatable tower lights, mechanical cutters and other equipment available in shelters were put to test run and the defective ones were immediately repaired. Fuel arrangements for the generators and other equipment were arranged. An emergency meeting of the shelter management committees was organized at the shelter level. The shelter level task force volunteers were mobilized to assist the local community in evacuation and to tackle any eventuality due the

cyclone. Adequate food material and arrangement for free kitchen were ensured at the shelters. Specific instructions were issued to the shelters in Odia language for better understanding of the measures to be taken to encounter the impending disaster.

Dissemination of Warnings

- Cyclone related alert and suggested precautionary measures were delivered by SMSs through Location Based Alert System (LBAS), 1.8 crore nos. of SMS were sent to BSNL subscribers of the likely to be affected districts. Group based alert messages were also disseminated based on threat status to a particular area.
- Early warning sirens were activated and voice messages were disseminated every hour in the coastal area.
- 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.
- 14 SBMDVT under EWDS were also activated for emergency communication.
- All cyclone bulletins and warning messages of IMD were disseminated with key State Level Officers, Collectors and Media.
- Cyclone Preparedness videos, safety tips broadcasted in major TV channels. Safety & preparedness voice messages have also been broadcasted in AIR, FM radios & community radios.
- 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.

Evacuation

- Collectors of the coastal and adjoining districts were instructed to start the evacuation of vulnerable people living near the coast or in low lying areas and complete the process by 02.05.2019 (late night).
- The evacuation process started on 1st May, 2019. A total number of 15,57,170 people were evacuated from vulnerable areas in 19 districts to multi-purpose cyclone/flood shelters, schools and other safe buildings. More than 9000 safe shelters were identified and used in the likely affected area including existing cyclone and flood shelter buildings. Special care was taken to shift the old, differently abled, women and children to shelters much before the cyclone approaches.

- Safety of residential schools, child care institutions, old age homes and similar institutions were checked and the boarders were shifted to safe shelters, wherever necessary. Cooked food through free kitchen, health and sanitation facilities were arranged at the shelters. Basic amenities like lighting arrangement, safe drinking water was also ensured at the shelters.

The district wise details of evacuation taken prior to the disaster are given below:

Sl. No	Name of the district	No. of Person evacuated	Sl. No	Name of the district	No. of Person evacuated
1	Angul	5587	11	Khordha	84987
2	Balasore	238520	12	Mayurbhanj	84687
3	Bhadrak	62475	13	Nayagarh	52850
4	Cuttack	197744	14	Puri	129800
5	Dhenkanal	6147	15	Kandhamal	15255
6	Ganjam	301460	16	Gajapati	48975
7	Jagatsinghpur	92326	17	Rayagada	15375
8	Jajpur	96156	18	Koraput	691
9	Kendrapara	116693	19	Boudh	1090
10	Keonjhar	6352		Total	1557170

- As a precautionary measure, 24,889 no. of tourists were evacuated from Puri, Ganjam, Cuttack and Balasore. 23 number of trains and 18 number of OSRTC busses were pressed into service for the purpose in addition to other local transports.
- The cattle population was also shifted to safer places and cattle feed/ fodder arrangement was made.

Deployment of Response Forces:

- 20 units of Odisha Disaster Rapid Action Force (ODRAF) and 28 teams of National Disaster Response Force (NDRF) were prepositioned/ kept ready with requisite equipment at strategic locations of 14 districts for immediate response.
- Anticipating the severity of the event, request was made to IG, NDRF, NewDelhi for mobilisation of additional 20 NDRF teams from the neighbouring NDRF battalions.
- Fire Service in all the districts with equipment were kept in readiness for immediate response. Fire Service personnel from districts not likely to be affected were deputed forthwith to coastal Fire Stations in order to augment the strength. The trainees from OFDRA, Bhubaneswar; OFDRI, Naraj and OSWALI, Ramchandi were detailed to Puri district & Bhubaneswar to undertake operations. In order to meet likely flood including inundation of low lying and urban areas, power boats, lifebuoys etc. were

kept ready for rescue. 30 numbers of high pressure pumps were detailed to Puri, 30 pumps to Bhubaneswar and 20 pumps to Cuttack for possible dewatering operations. Senior Officers of Odisha Fire Service were sent to likely to be affected districts to supervise the operations. Altogether 2984 Fire Service personnel along with 371 power saws, 292 tower lights and 95 numbers of power boats were deployed to different districts which were likely to be affected.

- Cutters with manpower of Odisha Forest Development Corporation (OFDC) were kept ready for immediate deployment in the cyclone affected areas for clearance of roads.

Stockpile of relief materials:

Considering the fact that after the abatement of cyclone, required food assistance in shape of rice, chuda (flattened rice), gur (jaggery), etc. and other essential items would be provided to the affected people, prior arrangement for the same was ensured to avoid delay in providing assistance to the cyclone victims. To provide temporary shelter materials for the households whose houses expected to be damaged in the cyclone/ heavy rain, 5,97,006 Polythene Stocks were kept ready at the State and District levels for emergency requirement. 1,00,000 food packets were made ready for air dropping. Adequate dry food stocks at the district and state level were also kept ready for emergent relief.

Department Level Preparedness and Advisories

Panchayati Raj & DW Department

- 734 numbers of PVC tanks and 668 numbers of vehicles were kept ready.
- 337 numbers of DG sets with fuel arranged for PWS.
- 3840 numbers of overhead tanks were filled up with water.
- 3201100 numbers of water pouches were kept ready for distribution.
- 203 numbers of electricians were kept ready for immediate deployment.
- 373 numbers of mobile repairing units were kept ready.
- Adequate stocking of THR and Food Stuff in all AWCs, NGO run institutions such as Child Care Institutions, Swadhar and Ujjwala Homes was ensured.
- Instruction was issued for giving THR (Chhatua & dry provisions) and eggs for children of the age group 6 month-3 year and pregnant & nursing women in advance for 7 days.
- Prior arrangement was made for shifting of pregnant women with Early Expected Date of Delivery (EDD), preferably through ambulance service.
- Medical check-ups of high risk pregnant women, expecting mothers and severely underweight/ severely acute malnourished children were conducted in coordination with the local ANMs and ASHAs.

- Instructions were given for closure of AWCs and for safe upkeep of provisions/ rations and all essential items/ registers etc. and to undertake safety inspection of all AWC buildings.

Department of Energy

- Skilled man power and materials like steel poles, cement concrete poles, conductors, cross arms, distribution transformers and other accessories were prepositioned for quick restoration of power supply in case of any eventuality.
- Control rooms were set up at Department, State Load Despatch Centre, Utility Corporate Offices and Circle & Division Offices.
- Existing stock of material like poles, transformers & lines etc. were diverted to vulnerable locations for early restoration.
- ERS gangs & towers were kept ready by OPTCL.
- Transport vehicles with adequate oil and other T & P like diesel gen-sets, cutters, emergency lights were arranged locally at Divisions.
- Enlisted vendor were coordinated for despatch of materials at short notice.
- Existing EPC contractors, rate contract holders & utility workmen were placed at strategic locations to speed up restoration works.
- Financial delegations were enhanced at Circle & Division level for taking up emergency procurement.
- Advance funds were placed with Divisions to meet contingent expenses.
- As a safety measure, it was decided to switch off power supply of respective feeders, when wind speed exceeds 50 Km. per hour.
- Plan of action for restoration priorities/ protocols were chalked out in advance and expenditure modalities were finalised for restoration works.

Department of Rural Development

- All Rural Works Divisions were readied with men, material and machineries for immediate closure of breaches and resolve dislocation of traffic during the cyclone/ flood in their respective divisions.

Works Department

- Sensitization of the entire field Executive Engineers was done for water-tightness of the EVM strong rooms and post cyclone restoration works of all PWD roads and Govt. buildings.

- Arrangement of materials, manpower and machineries was done for deployment in vulnerable locations.
- All pregnant women whose expected date of delivery was around 15 days as on 3rd May and critical patients were shifted to nearby hospitals to avoid any emergency. Prior to cyclone 1945 pregnant women in advance stage of pregnancy were shifted to nearby hospitals.
- Odisha State Medical Corporation Limited (OSMCL) supplied all emergency logistics (Antipyretic, antibiotics, Anti diarrheals, ORS, Halazone/chlorine tablets, Anti snake venom, IV fluids etc) in sufficient quantity to all 14 districts.
- Alternative water & power supply to the hospitals, storage of adequate rations for in-patients in hospitals, storage of DOL for generators etc. were ensured before the actual landfall of cyclone.
- In order to support and guide the vulnerable districts, senior officials from the Health Directorate were deployed to priority districts.
- 302 numbers of RRTs/ mobile teams were readied and plan for opening 936 numbers of MRCs was done.
- Power back up arrangement was made for 242 numbers of public health institutions and 494 numbers of ambulances were kept ready.
- Vaccines and other heat sensitive medicines shifted to district/ block head quarters for cold chain maintenance.
- All the Addl. Fisheries Officers (Marine) and District Fisheries Officers in the six coastal districts of Odisha were instructed to sensitise the marine fishers on the high intensity wind associated with the cyclone and possible storm surges.
- Due to uniform fishing ban imposed by GoI for east coast of the country, the state Government had issued one time notification on fishing ban for its territorial water from 15th April – 14th June every year. Hence, during this period, fishing by all types of vessels was completely banned.
- Mike announcement was started from 30.04.2019 at all Fishing Harbours & Fish Landing Centres of the State to sensitize the fishermen not to venture into sea for fishing. The field staffs of the department were deployed to all the landing centres to ensure that not a single fishing vessel ventured into sea for fishing. The Traditional Boat Owners Association was also involved in the effort and including community mobilization.
- All the fishing vessels were safely berthed at fishing harbours and fish landing centres by the boat owners. The traditional fishermen were also advised to shift their fishing boats to safer places in view of high tidal amplitude.

- The field officers were in close contact with the District Administration in evacuation work to shift the fishermen living near the sea shore and also in low lying areas to nearby cyclone shelters and other safer places.
- Instructions were issued to field veterinarians to aware dairy farmers and small animal owners to take immediate measures by shifting their animals to safe places to avoid livestock loss.
- 635 animal shelter such as school premises and multipurpose cyclone shelters in the respective districts were identified with the help of District Administration and over 40,000 large animals like cow, buffalo, bullock, etc. were shifted to such shelter points.
- The department mobilised and stocked 300 MT of cattle feed at strategic locations at block level to meet the exigencies.
- Around 80,000 livestock farmers of such districts were made aware about safeguarding of animals and severity of the cyclone through sending of mobile voice messages under Mobile Advisory Programme.
- The control rooms at Department and District levels were made functional.
- All CDVOs were contacted well in advance to work out the requirement of cattle feed in the areas to be affected by the cyclone and to store cattle feed at strategic locations to prevent any situation of shortage of feed and distress to animals.
- Besides steps for health care services, measures for carcass disposal were also ensured.
- All necessary medicines and quick response teams were kept ready.
- Instructions were issued to all companies to extend all necessary cooperation as regards to supply of earth movers, fire extinguishers and other necessary rescue equipment available with organisations to the district administration as well as to other response agencies.
- Instructions were also made for safe storage of the hazardous materials within industry/ factory campus to avoid spilling or leakage.

Agriculture and Farmers' Empowerment Department

- Agro based crop advisory prepared by OUAT and Directorate of Agriculture on crop management during and before the cyclonic storm was issued to the district level officers for wide circulation among the field functionaries and farmers.
- The same crop advisory was also disseminated through All India Radio, 15 Community Radio Stations across the state and Door Darshan Kendras.

- PADIF and m-Kissan platforms also delivered the voice response and SMSs to 26.88 lakh farmers.
- A detailed crop management programme was telecasted through "Palishree" Programme of DD Odia.
- Control Rooms was opened at the State Headquarters and also at the districts levels in the office of the PA, ITDA, office of the DWOs and office of the Special Officers of Micro Projects for coordination.
- Instructions were issued for closing of all educational institutions including Higher Secondary Schools, EMRS and Teacher Training Schools under the department w.e.f 2nd May 2019.
- Instruction were also issued to ensure safety and security of the student boarders staying in residential schools, including urban hostels, post-matric hostels and hostels of higher secondary schools, EMRS and teacher training schools.
- All Headmasters, Headmistress and Assistant Hostel Superintendents were directed to ensure sufficient stock of food grains, vegetables, other food stuff, fuel wood etc. in the Hostels.
- All logistics, chemicals required for smooth management of Water Supply in ULBs were arranged well in advance.
- 211 Tankers were readied and pre positioned. 1356 PVC tanks along with chemical were also prepositioned.
- 171 DG sets were prepositioned immediately along with sufficient stock of POL to meet exigencies.
- Around 5000 sanitation workers and 600 senior officers were mobilised in 42 ULBs for pre-cyclone management.
- Control rooms were setup in all ULBs to manage drinking water issues.
- All the storage reservoirs were kept full by continuous pumping operation to ensure availability of adequate stock in the 24 hours immediately after the cyclone.
- Rescue machineries and equipment were made available in the ULBS as precautionary measure.
- Arrangements were made in all ULBs for announcement over mike for evacuation from low lying areas in case of need.
- School, Colleges, Community Centre and other public buildings were identified and preparations made for sheltering people.
- WATSAN committee members were sensitized for required assistance.
- Removal of blockages & de-silting of critical drains were undertaken for ensuring free flow of storm water. High capacity diesel pump sets were in readiness for draining out water from low lying areas.

- Advisory for tourists were issued by the department to evacuate from the coastal destinations of Odisha from 02.05.2019 till situation normalizes.
- District and Department level control rooms were set up to assist the tourists.

Forest and Environment Department

- Control Rooms in the division offices of the vulnerable districts as well as in the office of the PCCF, Odisha and PCCF (Wild Life), were functional on 24X7 basis.
- Precautionary steps were taken by DFO, Puri Wild Life Division to sensitize the villagers located in and around the Balukhand- Konark sanctuary area. Deployment of special squads in vulnerable areas for protection and rescue of Wild animals was also made.
- Adequate quantity of feed and fodder, medicines, storage of drinking water, provision of Gen-set was ensured in Nandankanan and other captive facilities. The Nandankanan Zoo was closed from 2nd May to 4th May 2019.
- The DFO, Rajnagar Wildlife Division and Puri Wildlife Division were specifically asked to ensure safety of the Wild animals and also to take prompt action for rescue and rehabilitation of wild animals coming towards human habitations.
- The accommodation in Nature Camps/ Eco-tourism destinations in the coastal divisions were closed for tourists from 1st May to 6th May 2019.
- All power chain saws available with the department were made ready for cutting of uprooted trees for road clearance.

Review of Preparedness

- Honourable Chief Minister reviewed the preparedness of the departments and likely to be affected districts for the impending cyclone on 01.05.2019 and 02.05.2019.
- Inter departmental coordination meeting were held regularly from 1st May 2019 onwards.
- The Chief Secretary took review of preparedness of the departments and likely to be affected districts regularly from 29th April 2019 onwards.
- GO-NGO coordination meeting were conducted regularly from 1st May 2019 to create massive public awareness and early warning dissemination, expediting evacuation, extend support in relief distribution and search and rescue activities.

Impact & Damages

The damage caused by the cyclone was mainly due to gusting action of wind and heavy rainfall. As per report received from Collectors, 159.85 lakh people in 159 Blocks, 51 Urban Local Bodies and 20367 villages in 14 Districts have been affected. 64 persons have lost their lives due to cyclone. Agriculture and horticulture crops including orchards in 1.49

lakh hectares have been damaged. The fishing communities have been severely affected due to huge loss to their boats and nets. The handloom and handicraft artisans have lost their looms, equipment, accessories and raw materials. Livestock and poultry farmers have also sustained huge loss. Massive damage has been caused to public properties.

Extent of Damages

Abstract of extent of damages due to cyclone "Fani" is indicated below:

Sl. No.	Name of the district	Nos. of block affected	Nos. of village affected	Nos. of ULB affected	Nos. of population affected	Nos. of human casualty
1	Angul	5	67	0	5709	
2	Balasore	12	2535	4	1133374	
3	Bhadrak	7	910	4	1015742	
4	Cuttack	14	2062	4	1689432	6
5	Dhenkanal	8	961	4	302461	
6	Ganjam	22	2673	12	2000000	
7	Jagatsinghpur	8	1321	2	1136971	
8	Jajpur	10	1865	2	2192630	3
9	Kendrapada	9	1592	2	1522901	4
10	Keonjhar	9	163	1	7200	
11	Khordha	10	1669	5	2502008	4
12	Mayurbhanj	26	1400	2	173095	4
13	Nayagarh	8	1377	5	344100	
14	Puri	11	1772	4	1968228	43
Total		159	20367	51	15993851	64

House Damage

5,56,761 number of houses and 1,19,694 cow sheds have been damaged due to cyclone "Fani" The district-wise details are as follows.

Sl. No.	Name of the district	No. of house damaged					Nos. of cow shed damaged
		Fully/ severely damaged pucca/ kutcha house	Partly damaged		Hut damaged	Total nos. of house damaged	
			Pucca house	kutcha house			
1	Angul	0	13	506	0	519	0
2	Balasore	5	7	1064	67	1143	45

3	Bhadrak	20	45	5455	149	5669	626
4	Cuttack	13304	10761	68557	27	92649	28075
5	Dhenkanal	5	11	4284	8	4308	22
6	Ganjam	53	207	937	19	1216	86
7	Jagatsinghpur	1348	1517	12240	2031	17136	17602
8	Jajpur	187	3	14861	798	15849	5079
9	Kendrapara	4	442	16990	656	18092	5906
10	Keonjhar	5	3	597	0	605	10
11	Khurda	7056	14461	90776	1339	113632	16566
12	Mayurbhanj	97	25	1115	213	1450	72
13	Nayagarh	18	6	5645	62	5731	1227
14	Puri	113774	113281	49529	2178	278762	44378
Total		135876	140782	272556	7547	556761	119694

Crop Damage

146311.38 hectare of agriculture, horticulture and perennial crops have sustained crop-loss to the extent of 33% and above due to cyclone associated with heavy rain. The district-wise details are given under.

Sl. No.	Name of the district affected	Total agriculture area affected (in ha.)	Total agricultural area, where crop loss is >33% (in hect.)			
			Rainfed	Irrigated	Perennial	Total
1	Balasore	17775.00		7743.00		7743.00
2	Bhadrak	5907.00	439.00	4052.00		4491.00
3	Cuttack	15868.00	7449.00	4324.00	1822.00	13595.00
4	Dhenkanal	2063.00		200.00	2401.00	2601.00
5	Ganjam	15.00		15.00		15.00
6	Jagatsinghpur	31959.00	20529.00	2667.00	19.00	23215.00
7	Jajpur	23961.00	3949.00	19596.48	424.00	23969.48
8	Kendrapada	11060.00	2931.00	3619.50	20.02	6570.52
9	Khurdha	12385.00	1601.00	6394.00	2748.00	10743.00
10	Mayurbhanj	62.40		62.40		62.40
11	Nayagarh	317.00		72.00	110.00	182.00
12	Puri	60339.00		34912.00	18212.00	53124.00
Total		181711.40	36898.00	82650.90	23825.02	146311.40

Livestock affected

34.39 lakh livestock and 53.71 lakh 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	Nos. of livestock affected			Poultry affected
		Large	Small	Total	
1	Balasore	46355	15913	62268	0
2	Bhadrak	2762	1995	4757	1488
3	Cuttack	326659	151669	478328	1195462
4	Ganjam	64715	56224	120939	52770
5	Jagatsinghpur	302800	130466	433266	426016
6	Jaipur	508600	197050	705650	196166
7	Kendrapada	365590	123587	489177	61023
8	Keonihar	568	735	1303	4500
9	Khurdha	359440	116749	476189	650787
10	Mavubhani	450	324	774	550
11	Nayagarh	66869	25287	92156	374611
12	Puri	398521	176054	574575	2408000
Total		2443329	996053	3439382	5371373

Livestock Death

6281 animals and 5326905 poultry birds have lost their lives due to the cyclone. The district-wise details are as given in following table.

Nos. of livestock/ birds lost							
Sl. No.	Name of the district	Milch animal		Draught animal		Total nos. of animal lost	Poultry Birds
		Cow/ buffalo	Sheep/ goat	Camel/ horse/ bullock	Calf/ donkey/ pony		
1	Angul	0	0	0	0	0	0
2	Balasore	3	12	1	1	17	15
3	Bhadrak	9	12	0	7	28	1502
4	Cuttack	253	773	10	64	1100	1186303
5	Dhenkanal	7	6	1	1	15	4500
6	Ganjam	14	21	3	20	58	4897
7	Jagatsinghpur	18	8	0	8	34	83142
8	Jajpur	9	9	0	8	26	18435
9	Kendrapara	44	15	0	11	70	14248
10	Keonjhar	0	0	0	0	0	0
11	Khurda	354	669	21	170	1214	1325639
12	Mayurbhanj	0	1	0	0	1	0
13	Nayagarh	3	5	1	4	13	20000
14	Puri	1796	1400	103	406	3705	2668224
Total		2510	2931	140	700	6281	5326905

Loss of livelihood

Due to cyclone, 71060 traditional craftsmen have been affected causing damage to their equipments and raw materials. Similarly, 42488 handloom weavers & 12135 sericulture farmers have been affected.

Loss to public properties due to cyclonic Storm "Fani"

Sl.	Departments	Quantity	Loss (Rs. in lakh)
1	Water Resources Department		
	Damage to rivers & saline embankment	785.28 Kms	17423.72
	Clearance of drainage channels & other cannels	509.20 Kms.	673.96
	Damage to CDs/ Bridges & Breaches	232 Nos.	120.4
	Damage to other infrastructure of Drainage Sector	43 Nos.	144
	Damage to Minor Irrigation Project		50
	Damage to Lift Irrigation Projects	1779 Nos.	4881.8
	Damaged to other Infrastructure Lift Irrigation sector	10 Nos.	55
	Damage to river & canal embankment roads	1524.16	6862
	Damage to damaged buildings of Major, Medium & Minor irrigation		6879.62
	Total		37090.5
2	Works Department		
	Damage to Roads of PWD	5393.35 Kms.	25973.73
	Damage to Culverts of PWD	377 Nos.	2238.5
	Damage to breaches of PWD	151 Nos.	75.5
	No. of road blocked due to uprooted trees, electric poles etc.	583 Nos.	1223.83
	Damage to IBs	185 Nos.	2560
	Damage to Electrical Installation	1 No.	60
	Damage to residential buildings	11612 Nos.	31590.72
	Damage to non-residential buildings	1801 Nos.	21970.55
	Damage to NHs maintained by State	272.619 Kms.	553.8
	Damage to Culverts of NHs division	6 Nos.	138
	Damage to Infrastructure of NH Division	151 Nos.	442
	Total		86826.63
3	Rural Development Department		
	Damage to Educational Buildings	1334 Nos.	14150.70
	RD Dept. Buildings	323 Nos.	1529.20

	F& ARD Dept. Buildings	194 Nos.	899.00
	Home Dept. Buildings	165 Nos.	793.00
	Agriculture Dept. Buildings	72 Nos.	310.00
	Other Dept. Buildings	24 Nos.	114.50
	Damage to EI & PH		3433.00
	Damage to Rural roads including breaches	6251.28 kms	20714.42
	Damage to CD/ Bridges	229 Nos.	1633.85
	Total		43577.67
4	Housing & Urban Development Department		
	Damage to Roads	750.44 Kms.	16275.93
	Damage to Drainage	291.124 Kms.	2964.04
	Damage to Culverts	267 Nos.	906.40
	Damage to water supply system in Urban areas	258 Projects	9800.35
	Damage to street light in all ULBs		4609.55
	Damage to Aahhar Centres in 52 ULBs		1620.00
	Damage to other infrastructure		13645.86
	Total		49822.13
5	Panchayati Raj & DW Department		
	Damage to Rural Drinking Water Supply System	1397 Nos.	2346.02
	Damage to GP/ PS Building & Community Hall	2397 Nos.	6989.66
	Damage to Primary School Buildings	7105 Nos.	38093.85
	Damage to RWSS Buildings	87 Nos.	169.00
	Total		47598.53
6	Agriculture & FE Department		
	Agriculture Dept. Buildings	229 Nos.	17569.32
7	Energy Department		
	Damage to 220KV/ 132 KV tower & lines (OPTCL)		9100.00
	Damage to Power Transformer	26 Nos.	1777.36
	33 KV line damaged	6078 Kms.	2450.00
	Damage to conductor up to 11 KV	107132 Kms	53565.51
	Damage to Distribution Transformer	12042 Nos.	12042.00
	Damage to Poles (up to 11 KV)	202690 Nos.	8107.60
	Damage to Poles (33 KV)	16715 Nos.	668.60
	Damage to VCB, insulators, switches, lightning arrestors & labour cost etc.		28266.00
	Total		115977.07

8	Fisheries & Animal Resources Department		
	Damage to Infrastructure of Fisheries Sector		1053.00
	Damage to Veterinary Institutions like VD, LAC etc.		2039.00
	Damage to OPOLFED, Feed Plant & Chicken fresh outlets		99.00
	Damage to OMFED Plant & Building/ Cattle Feed Plant		152.85
	Total		3343.85
9	ST & SC Dev., Minorities & Backward Classes Department		
	Damage to Schools & its infrastructure	138 Nos.	592.24
	Damage to infrastructure of different Offices	09 Nos.	274.05
	Total		866.29
10	Women & Child Dev. Dept.		
	Repair of Anganwadi Centres & other buildings	3039 Nos.	7248.50
	Food stock under SNP	357.66 MTs	18.18
	THR producing SHG units	39 Nos.	68.93
	Govt. run Child Care Institutes	3 Nos.	34.65
	HETC, Bhubaneswar		61.45
	Total		7431.71
11	Handlooms, Textile & Handicrafts Dept.		
	Loss to infrastructure in Handicraft sector		652.12
	Loss to infrastructure in Handloom Sector		781.38
	Loss to Sericulture Sector including infrastructure		308.00
	Total		1741.50
12	Cooperation Department		
	Damage to Buildings & other infrastructure of Primary Societies		2084.53
	Damage to Buildings & other infrastructure of Cooperative Banks		452.25
	Damage to Buildings & other infrastructure of Central & apex Cooperative Institutions		641.81
	Composite Cooperative Building, Puri		110.00
	Total		3288.59
13	Higher Education Department		
	Govt./ Aided Colleges & University Buildings	388 Nos.	29600.00
14	Health & Family Welfare Dept.		
	Medical Colleges & Hospitals/ DHQ Hospitals	12 Nos	2981.50
	Primary Health Centres, Community Health Centres, Su-Centres, etc.	1031 Nos.	12485.20

	Damage to equipment/ instrument & furniture		857.27
	Total		16323.97
15	SSEPD Department		
	Dwelling House, Hospital, Spl. School & Hostel Building, Leprosy Home, Old Age Home and Training Centres		1827.41
16	Labour & ESI Department		
	Office/ Hospital/ Staff Quarters		78.00
17	Forest & Environment Dept.		
	Damage to Infrastructure		7830.00
	Damage to uprooting trees inside forest area	9 lakh	27000.00
	Damage to trees outside forest area	5 lakh	15000.00
	Damage to Plantation,avenue plantation, plantation urban	7.90 lakh	3950.00
	Total		53780.00
18	Tourism Dept.		
	Buildings & other properties		2402.93
	Damage to Hotel Industries		50000.00
	Total		52402.93
19	Skill Development & Technical Education Dept.		
	Govt. ITI	22 Nos.	2572.00
	Govt. Polytechnic/ Engineering Schools	18 Nos.	2200.00
	Govt. Engineering & Management Colleges	04 Nos.	864.00
	Directorate of Employment	01 No.	50.00
	Directorate of Employment Exchange	01 No.	10.00
	Skill Development Centre	05 Nos.	60.00
	Total		5756.00
20	Damage to properties of E & IT Dept.		
	Damage to SHQ, DHQ & BHQ infrastructure & building		1411.02
21	Science & Technology Department		
	Institute of Mathematics & Applications		130.00
	Odisha Bigyan Accademy		10.00
	Pathani Samanta Planetarium		182.00
	Odisha Space Application		17.30
	Odisha Renewable Energy Development Agency		323.89
	Total		663.19
22	Home Department		
	Damage to infrastructure of Odisha Police		8385.95

	Damage to infrastructure of Fire Service		200.23
	Damage to infrastructure of OS&TI, Bhubaneswar		1.50
	Damage to infrastructure of High Court		733.19
	Damage to infrastructure of other sub-ordinate Courts		1177.14
	Damage to infrastructure of Sate Guest House, BBBSR		2.73
	Damage to infrastructure of Odisha Police Housing Corporation		897.02
	Total		11397.76
23	Industries Department		
	IDCOL		35.37
	IDCO		15233.7
	Total		15269.07
24	Odia language, Literature and Culture Dept.		
	Damage to Infrastructure		7834.00
25	Commerce & Transport Department		
	Commerce		262.00
	Directorate of Ports & IWT		11.64
	O/o the Transport Commissioner		47.79
	RTO Cuttack		44.32
	RTO Puri		46.05
	Maltipatapur Bus Stand, Puri		693.10
	Barmunda Bus Stand		39.50
	Badambadi Bus Stand		18.80
	Jatni Bus Stand		7.50
	OSRTC Press office		41.00
	OSRTC		7.50
	Total		1219.20
26	Revenue & DM Department		
	Buildings of Revenue & DM Departments		10000.00
27	General Administration & PG Department		
	Non-residential buildings (civil & electrical)		2089.14
	Residential buildings (civil & electrical)		21463.49
	Non-residential & residential buildings (PH)		2041.76
	Total		25594.39
28	Micro, Small & Medium Enterprises Department		
	Damage to MSME Units/ Buildings(Civil/ Machinery)	573 Nos.	10556.18

	Damage caused to salt industries		1.50
	Total		10557.68
29	Damage to Multipurpose flood/ cyclone Shelters	770 Nos.	5005.00
30	Damage to properties of Shree Jagannath Temple, Puri		510.00
	Total (Public Properties)		664363.41

Response

After abatement of the cyclone, emergency communication was established with the extremely severely affected districts using HAM, VHF & Satellite phones and other affected districts with the traditional communication systems and a quick assessment of the situation was made at the state level. The response forces were immediately mobilized to the extremely affected areas for search & rescue of the stranded people and transporting casualties for medical treatment. Restoration of road communication, electricity, drinking water supply, telecommunication and other critical services were taken up by the concerned District Administrations and Departments in the affected areas on war footing. To ameliorate the suffering of the affected people, Gratuitous Relief (GR) was extended in the extremely severely affected districts.

The situation in different districts and areas were reviewed from time to time at different level of the Government and necessary manpower and materials were mobilized to restore critical services and bringing life back to normalcy. To streamline the relief rendered by the Non Government Organizations (NGOs), Philanthropic and others and for ensuring proper delivery, the GO-NGO platform at the State and District levels were activated. Nodal Officers were appointed and regular coordination meetings were conducted for the purpose. The Office of the Special Relief Commissioner also coordinated with the Office of the Chief Resident Commissioner-Odisha in New Delhi, Airport and Indian Railways Authorities for free transportation of relief materials, medicines and other essential supplies from various locations across the country. Considering the plight of the people whose livelihood had been severely affected due to the cyclone, special packages were also announced both for farm and non-farm sector for ensuring speedy recovery.

Gratuitous Relief

Considering the fact that food reserve of the people were wiped out in the cyclone & associated heavy rain and in the immediate aftermath of the cyclone and food stuff was not available in the market for purchase, it was decided to provide GR in shape of grain i.e., rice along with cash and temporary shelter material (polythene sheet). Further, since the banking services were paralyzed due to power and internet failure, funds towards gratuitous

relief was disbursed among the beneficiaries in cash with due approval of the Government of India

District wise details of gratuitous relief extended to families under different categories were as follows:

1. Puri:

- For all families covered under food security, Fifty (50) Kg. of rice plus Rs. 2000/- (rupees two thousand) and polythene or Rs. 1000/- in lieu of polythene if the same is not available.
- 50 Kg. of rice and Rs. 2000/- to all families in the district of Puri not covered under food security (i.e. non- cardholders).
- Additional gratuitous relief amounting to Rs. 1000/- to all families in Puri district.

2. Khordha:

- For all families covered under food security, Fifty (50) Kg. of rice plus Rs. 2000/- (Rupees two thousand) and polythene or Rs. 500/- in lieu of polythene if the same is not available.
- Fifty (50) Kg. of rice plus Rs. 2000/- and Polythene or Rs. 500/- thereof also to the families living in various slums in Bhubaneswar Municipal Corporation (BMC), who do not possess card under NFSA/SFSS.
- Fifty (50) Kg. of rice to the non-card holders in the district of Khordha except BMC area.

3. Cuttack, Kendrapada and Jagatsinghpur:

- Rs. 500/- plus additional one month quota of rice for all families covered under food security.

4. Niali and Kantapada Blocks of Cuttack District:

- For all families covered under food security, 50 Kg of rice plus Rs. 2000/- and polythene or Rs. 500 in lieu of polythene if the stock is not available.
- 50 Kg. of rice to the families not covered under food security (i.e. non-cardholders.)

5. Ranapur Block of Nayagr District:

- For all families covered under food security, 50 Kg of rice plus Rs. 2000/- and polythene or Rs. 500 in lieu of polythene if the stock is not available.

- 50 Kg. of rice to the families not covered under food security (i.e. non-cardholders.)

6. For all other affected districts, relief distributed as per NDRF/ SDRF norms.

Additional Gratuitous Relief to Pensioners:

Considering the vulnerability of the old, widow and differently-abled persons in the aftermath of the disaster, additional Gratuitous Relief, equal to one month's pension has been provided to all pensioners under various pension schemes of the Central and State Government in the extremely and severely affected districts of Puri, Khurdha, Cuttack, Jagatsinghpur and Kendrapada.

Information and Awareness through SMSs:

In the aftermath of the cyclone, between 7th and 20th May 2019, about **3,63,13,750** number of informative and awareness SMSs were sent through Location Based Alert System (LBAS) to BSNL subscribers of the 14 affected districts. The messages were advisories on health & hygiene, drinking water & sanitation, taking proper care of old, children & specially abled persons, taking care of domestic animals and information on provision of the gratuitous relief, provisions of SDRF norms towards input subsidy for agriculture, poultry loss, replacement of animals and as well as special packages announced by Govt. of Odisha for different sectors and the process and time line of damage assessment being conducted by the district administration.

Group Based Messages were also sent to Multipurpose Cyclone/ Flood Shelter Maintenance & Management Committee members and officials of the district and block administration for reporting the status of evacuees staying in the shelters and free kitchens and as well as for taking measures for cleaning the premises and repairing of the minor damages caused due to the cyclone.

Deployment of Response Forces for Search & Rescue and Post Cyclone Clearance

In addition to the 20 units of Odisha Disaster Rapid Action (ODRAF), 28 teams of National Disaster Response Force (NDRF) and teams of Odisha Fire Service prepositioned at strategic locations prior to the disaster, additional NDRF teams were mobilized from other battalions and engaged for search and rescue and clearance of roads. The teams of Odisha Forest Development Corporation (OFDC) were also engaged for fallen tree cutting and clearance of roads. At its peak the deployment of response forces in severely affected districts was as follows.

ODRAF Units	NDRF Teams	Odisha Fire Service Teams	OFDC Teams
20	50	265 (1584 personnel)	233 (233 cutters & 740 laborers)

06 NDRF teams from 2nd Bn. Kolkata, equipped with plasma cutters were engaged for clearing of fallen electric poles and assisting the teams of Energy Department for restoration of electricity in Puri district. NDRF teams have rescued 81 persons, cleared 4333 Km road, 19426 no. of uprooted trees, 2477 no. of electric poles and provided medical assistance to 1872 persons.

The ODRAF teams were engaged for clearing of uprooted trees and restoring important relief lines. The teams also assisted departments for clearing of fallen trees for restoring of electricity, pipe water supply and functioning of other critical services.

The fire service teams were engaged for clearing of roads to facilitate traffic and movement of relief goods. The teams also assisted Government departments to clear fallen trees from streets, public places like hospitals, airport premises, bus stands, railway station, parks, several Govt. offices. In the evening due to disruption of electricity, inflatable tower lights were also provided to the main streets, hospital and other important public places for illuminating the areas. Apart from clearing of fallen trees the Fire Tenders were also pressed into service for providing water to people in the affected areas and for sprinkling water on the dumping yards where debris of fallen trees were kept.

Health and Sanitation Measures:

Following health and sanitation measures were taken up in the affected areas after the cyclone.

- Among the affected districts, all districts except Puri ensured 24X7 running water supply, alternative power back up and started critical services within 48 hours. Puri district took 7 days to restore these facilities.
- Around 20 state level officials were deployed to 5 worst affected districts and were stationed there for 15 days to oversee the restoration and disease surveillance activities with real time feedback to state. For Puri, one nodal officer from the state

was deployed to the 6 worst affected blocks to oversee the restoration and disease surveillance activities with real time feedback to state.

- 281 numbers of Mobile Health Teams (MHT) were deployed.
- 778 numbers of Medical Relief Centres (MRCs) were opened in the affected areas.
- 74 number of doctors were deployed from outside to Puri, Cuttack, Jagatsinghpur, Kendrapada, and Khordha districts.
- 1,55,146 number of minor ailment/ injured treated by MRC/ mobile teams/ public health facilities.
- OSMCL ensured adequate supply of emergency drugs, consumables and other logistics to the affected areas.
- 24 lakh sanitary napkins were distributed free of cost to all adolescent girls and women in Puri district for 2 months.
- Daily disease surveillance reports as per SOPs were generated from each sub-centre and district wise reports were compiled and analysed at the state surveillance unit. Three EWS were raised, investigated by RRT. None of these were marked as outbreak after detailed investigation.
- Accredited Social Health Activist (ASHA) were engaged for shifting of women to the nearest hospital, disinfection of open wells, distribution of halazone/chlorine tablets, ORS and sanitary napkins. They were also engaged to raise awareness among the community regarding personal hygiene, safe drinking water, use of mosquito net and village cleaning.
- ASHA spearheaded in disinfection of 2,13,698 number of open wells in affected areas, distribution of 31,69,154 number of ORS sachets and 54,40,583 number of Halazone/ Chlorine Tablets.
- Additional funds @ Rs. 10,000/- were allocated to all Gram Kalyan Samiti (GKS) to take up special cleanliness drives and sanitation work in each village. GKS conducted 23,006 numbers of cleanliness drives in the villages of the affected districts which helped in preventing outbreaks.
- 83 unsafe water bodies (ponds with animal carcasses and decomposed organic matters) were barred from public use by putting appropriate signage and public awareness.
- State Institute of Health and Family Welfare (SIHFW) generated massive awareness regarding effect of FANI on public health through print, electronic and social media (Twitter, Facebook and WhatsApp). Till date 265 TV spots, 244 radio spots and 82 newspaper advertisement were given on health awareness.
- 6,16,000 health awareness leaflets were distributed at household level by ASHAs in 5 highly affected districts including Bhubaneswar and Cuttack Urban.

Animal Care/ Veterinary Measures:

Following measures were taken by the F & ARD department in the immediate aftermath of the cyclone.

a. Supply of feed and fodder:

- A total of 2006.5 MT of cattle feed were supplied to the severely affected districts, i.e., 99 MT to Cuttack, 1326.5 MT to Puri, 211 MT to Jagatsinghpur, 367 MT in Jajpur & 3 MT to Kendrapada district.
- Steps have been taken for supply two thousand quintals of green fodder from the departmental fodder farms to the affected areas.
- Efforts have been taken to procure 100 MT fodder from NDDB for supply to affected areas.

a. Veterinary health care:

- Mobile Veterinary Unit consisting of one Veterinary Doctor, one Livestock Inspector and one attendant was deployed in each affected block at the veterinary dispensary level to move about in the affected areas for treatment of animals. 115 Rapid Response Teams were used for conducting veterinary camps in the affected areas wherever necessary at District level by concerned CDVOs.
- Additional 64 Rapid Response Teams (RRTs) from nearby districts not affected by cyclone were deployed (61 in Puri district, 3 in Khordha), to carry out animal health camps, carcass disposal, distribution of cattle feed and fodder. 359 Veterinary Doctors, 1177 Para-Vets and support staff were engaged for ensuring Health Care measures in cyclone affected areas.
- 4105 number of Animal Health Camps were organised and 5.08 lakh animals were treated. The Department had ensured supply of required medicine for treatment of sick and injured animals at the door step of farmers in the cyclone affected villages.
- All blocks of severely affected districts of Puri, Khordha and Cuttack were kept under the supervision of senior officers to look after the restoration activities in Animal Husbandry sector.

b. Carcass disposal:

- Pro- active measures were taken by the department with the help of revenue authorities and NGOs and local people for disposal of animal carcasses including dead poultry birds to avert any public health problems. Arrangements of necessary logistics like JCBs were also made to facilitate quick disposal of carcasses.

- Carcasses of 3333 Large Animals, 2924 Sheep & Goats and over 53 lakh birds were disposed off.
- After recession of water in Chilika Lake, carcass of nearly 90 buffaloes were retrieved from Chilika near Gamhari of Krushnaprasad block and promptly disposed.
- All the carcasses have been disposed as per the standard protocol to prevent epidemic.

Education:

- School fees and School examination fees up to High School level in Government Schools have been waived off in the cyclone affected areas.
- It has also been decided to provide two extra pairs of school uniforms in the extremely affected areas and one extra pair in the severely affected areas to the children up to Elementary School level.
- Appeal has been made to all the private educational institutions to consider waving the school fee of the students for one month in the severely affected districts of Puri, Khordha, Cuttack, Jagtsinghpur and Kendrapada.

ST & SC Development Department:

- Funds @ Rs. 25,000/- each was provided to High Schools, Ashram Schools and Higher Secondary Schools. Similarly, Rs. 15,000/- each was provided to Sevashrams for taking up urgent repair works for pipeline maintenance, sanitary maintenance, minor electrical repairing etc. A total amount of Rs. 46.0 lakh was released to DWOs and PA, ITDAS of the affected districts to take up the restoration work out of the State Plan Funds.

Women and Child Development and Mission Shakti:

Additional Provision of Chhatua for Puri district:

- Additional quantity of chhatua for a month has been provided to the children of the age group 6 months- 3 years (normal/ severely under weight), 3-6 years (severely under weight) and pregnant & nursing women of Puri district, covered under SNP, during month of May, 2019.

Districts were instructed for

- Taking up repair and maintenance of AWC buildings in convergence with MGNREGS, out of CFC/ SFC funds wherever necessary.
- Making toilets in AWCs functional for use by the pre- school children and inspection and disinfection of water sources.

- Assessment of damage of food stock, replacement of damaged stock with fresh ones and making THR producing SHGs functional.
- Early resumption of AWCs, provision of supplementary nutrition and resumption of Early Child Care & Education (ECCE).
- Operation of AWCs in the nearest school building, wherever damage has been occurred.
- Provision of THR and eggs to all the children of the age group 6 months-3 years and pregnant and nursing women as per norms under SNP.
- Strengthening convergent activities like weight measurement of children, sensitization on proper washing of hands and maintenance of hygiene, conduct of VHND/ MAMATA Diwas and ensure immunization, health check-ups, referrals and health & nutrition education.
- Safety and well being women/ adolescent girls to prevent violence or abuse and ensure facility for privacy at shelters and provision of dignity kits.
- Psycho-social care & support and counselling to the distressed children with support of OSCPS functionaries. Passing on information on missing/ found children to the local police/ child line/ DCPO.
- Vigil on trafficking of women/ adolescent girls by sensitization of the community at large, particularly socio-economically vulnerable women/ adolescent girls to prevent trafficking; bolstering anti trafficking operations and deployment of adequate police personnel, particularly lady officers, in strategic locations such as railway stations, bus stands, local markets and any such vulnerable areas; tracking traffickers already booked in the past.
- Monitoring of CCIs/ Women's Homes (Swadhar/ Ujjwal) to ensure safety & security of children/ women.

Provisions made through partner agencies:

- Distribution of one lakh dignity kits, containing toiletries, sanitary napkins etc. amongst adolescent girls/ women with support from UNFPA.
- Distribution of Five lakh tetra packs of flavoured milk from NDDB.

Restoration Measures

Electricity (Department of Energy):

Extensive damage occurred to both electrical transmission and distribution infrastructure starting from extra high tension towers, extra high voltage grid stations, high voltage lines and poles, primary sub-stations to low tension poles and lines, which require fresh construction.

- Immediately after the cyclone receded, restoration works were taken up on war footing basis. Manpower was mobilized from other DISCOMs, Electrical Contractors, CPSUs like NTPC, PGCIL & NALCO, Corporate houses like Tata Power and L& T and other State Power Companies from West Bengal, Andhra Pradesh, Kerala & Karnataka.
- Around 6000 nos. of workmen were engaged for restoration of distribution infrastructure and around 800 nos. of workmen were engaged in reviving the transmission infrastructure.
- Materials were diverted from on-going schemes in the State and taken on loan from other DISCOMs.
- Immediate procurement of 60,000 steel (RS Joist) poles from SAIL and 40,000 PSC (cement) poles from State based manufacturers and from neighbouring states were taken up. Distribution transformers and other major materials were arranged through Odisha based manufacturers. Other minor materials were also arranged from local sources. Partial Turnkey contracts were devised to expedite rectification works.
- Department of Energy has specially approved higher labour rates @1.5 times of the existing rates for un-skilled, semi-skilled and skilled labourers and Rs. 150 per day as footing charges for the workmen engaged in cyclone restoration works. Hiring charges of vehicle were also been communicated to executing agencies.
- As on date, restoration works in districts under SOUTHCO (Ganjam, Gajapati, Rayagada & Kandhamal) & NESCO (Jajpur, Bhadrak, Balasore, Keonjhar & Mayurbhanj) are completed. Rectification works are being taken up.
- As regards to districts affected under CESU, restoration in Angul, Dhenkanal, Nayagarh, Kendrapada, Jagatsinghpur are completed and are near completion in Khurdha (including Bhubaneswar) and Cuttack. Restoration works in Puri are being expedited and works will be completed within the targeted period.
- So far, power supply to 45.22 lakh consumers has been restored as against the affected 46.27 lakh. As against, affected EHV Grids all 31 nos. have been restored and further 1849 HT feeders and 57,264 DTRs are restored till now.

Drinking Water and Sanitation in ULBs (Housing and Urban Development Department):

- PHEO ensured water supply in the evening of 3rd May 2019 from the stored reservoirs by gravity and from Water Tankers and PVC tanks at different places to ensure availability of water in adequate volumes.
- Pre-positioned DG sets were made operational immediately after the cyclone to commence pumping from the production wells. Additional heavy duty DG sets, water

tankers and PVC tanks were arranged from neighbouring States, Central & State PSUs and Private sector organisations and required technicians were airlifted from Kolkata by IAF Helicopter in view of the emergent need for additional water.

- With the mobilization additional tankers and DG sets water supply was brought back to normalcy in 48 out of 53 affected ULBs (90%) within 48 hours.
- Normal water supply was restored in all cyclone affected 53 Urban Local Bodies in Odisha using DG sets, tankers and PVC tanks since 09.05.2019
- For clearing of roads, removal of fallen trees and piled up garbage and for maintaining sanitation in the urban areas, 5000 sanitation workers and 600 senior officers from within the ULBs and brought from various ULBs were working round the clock including night sweeping & cleaning.
- More than 860 JCBs, Dumpers, Tractors and Tata ACEs were pressed into service in these cleaning operations. Disinfectants are also used extensively in sanitation works to ensure preventive health care.

Pipe Water Supply in Rural Areas (Panchayati Raj & DW Department):

- All 2298 affected PWS in Puri, Khordha, Kendrapada, Jagatsinghpur, Cuttack, Bhadrak and Jajpur districts were restored and fully operationalized. Out of 2298 affected PWS, 611 have been operationalized through Gensets and 1687 have been operationalized through electrification or solar.
- Water supply was also ensured through 526 no. of water tankers.

Restoration of Roads:

- All PWD and NH roads affected due to the Cyclone were cleared and traffic was restored within 72 hours.
- All 1977 blocked roads under RW divisions were cleared and 144741 no. of fallen trees were removed.
- The uprooted trees in all rural roads including GP/PS roads were cleared within a week time.
- For clearing of GP/ PS roads in the cyclone affected Gram Panchayat areas the concerned GPs were advised to clear all roads within 2 days and were allowed to spend up to Rs. 1.00 lakh out of the CFC/ SFC funds of the GP for such clearing works.

Interventions for Livelihoods Support and Recovery:

A. Hon'ble Chief Minister's Package for Livelihoods Support for the Persons Affected by Cyclone 'FANI'

Considering extensive damage caused by the cyclone to the standing crops, fruit orchards, vegetable crops, plantation crops and various other cash crops along with severe damage to assets and infrastructure in the farmer's fields, thereby adversely affecting the farmers and the livelihoods of people depended upon animal husbandry, fisheries, and handlooms & handicrafts sectors, the State Government has decided to implement the following package for livelihood support:

Agriculture Sector:

1. Agriculture input subsidy will 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.
2. Agricultural input subsidy to any affected farmer shall not be less than Rs.2000/- for perennial crops and Rs.1000/- for other crops.
3. One lakh nos. of Vegetable Minikits shall be supplied to the FANI affected districts during Kharif 2019-20.
4. 50,000 acres of demonstration programmes of different crops will be taken up in affected districts in the current Kharif season.
5. Special assistance will be provided to the affected area of about 5,000 hectares under sugarcane for demonstration on Sustainable Sugarcane Initiative @ Rs.20,000/- per Ha. or Ratoon Crop Management @ Rs.12,500/- based on the farmer's requirement.
6. 5000 pump sets shall be provided with 50% subsidy limited to a maximum of Rs.15,000/-.
7. 10,000 sprayers will be made available to the affected farmers in the "FANI" affected areas at a subsidy of 50% limited to maximum of Rs.3800/- for battery operated sprayers and Rs.600/- for hand operated sprayers.
8. 2 lakh nos. of farmers will be trained in 2000 number of camps to adopt seed treatment with free supply of seed treatment chemicals to cover 2 lakh acres for increasing production in Kharif crops.
9. Immediate steps will be taken to arrange and distribute quality seeds and other inputs in sufficient quantity for the Kharif season.
10. Farm Mechanisation Subsidy of Rs 150 crores will be disbursed to the affected districts.

11. An incentive of Rs. 15,000 per farmer will be provided to 5000 farmers / WSHGs for Betel Vine cultivation (Pan Baroj).
12. Rs. 40,000/Unit will be provided for construction of Shade Net / thatched structure for development of 1000 Mushroom Units for farmers / WSHGs and Rs. 2,000/ Box will be provided to 500 farmers / WSHGs for livelihood support to honey bee growers.
13. Distribution of fruit seedlings @5 Mango grafts and 5 Coconut seedlings to each farmer will be provided for 50,000 affected farmers for their livelihood sustenance. 4 lakh numbers of Nutri-Gardens will be promoted in the affected households.
14. 10,000 Ha. of Fruit Tree Plantation (Cashew, Mango and Coconut, etc.) will be taken up along with support for inter-cropping package for three years, in order to provide income support in the initial period to the farmers, while the plantations reach the fruit-bearing stage.
15. Incentive of Rs. 25000/ Ha will be provided to banana farmers covering 1650 hectares.

Farm Credit:

16. Short Term Rabi Loans advanced in the affected areas during Rabi 2019 having crop loss of 33% and above shall be converted into Medium Term (Conversion) Loans.
17. Due date of Rabi Short Term Loans advanced in the affected areas shall be extended up to 30th June, 2020 to facilitate conversion of such loans into Medium Term (Conversion) Loans.
18. Expeditious steps will be taken to organise Joint Liability Groups (JLGs) by covering maximum number of share croppers / oral lessees to provide them credit during the current Kharif season.
19. Expeditious steps will be taken to conduct crop cutting experiments to settle the claims of the affected insured farmers under crop insurance scheme, PMFBY, with risks of localized calamity and mid-season adversity.
20. Government of India will be requested to provide interest incentive of 3% for Medium Term (Conversion) Loans i.e. at par with crop loans for prompt paying farmers.
21. Farmers affected by FANI shall be provided fresh finance for Kharif cultivation during current Kharif season, which has commenced from 1.4.2019.

Animal Resources Development Sector:

22. Assistance to farmers for replacement of animals - Compensation shall be provided towards loss of animals @ Rs.30,000/- per milch cow and buffalo, Rs.25,000/- per

draught animal (up to 3 animals), Rs.16,000/- per calf (up to 6 animals), Rs.3,000/- per goat (up to 30 animals), Rs.50/- per bird (maximum Rs.5,000/-).

23. Construction of cow sheds damaged during cyclone - 50,000 affected farmers / WSHGs will be supported with construction of cow shed @ Rs. 0.50 lakh per shed.

24. Construction of goat sheds damaged during cyclone - 20,000 affected farmers / WSHGs will be supported with construction of goat shed @ Rs. 0.30 lakh per shed.

25. Support to Dairy Farmers

i. Cattle Feed Assistance to Dairy farmers - Support will be provided for nourishing 50,000 milch animals to overcome the stress with 40 Kgs of cattle feed per animal @ Rs. 32/- per Kg. (4 Kgs per cattle per day for 10 days) in the affected areas (maximum 2 animals per farmer).

ii. Deworming medicine, mineral mixture and nutritional supplementation for dairy animals - 50,000 dairy animals will be provided with deworming medicine, mineral mixture and nutritional supplementation @ Rs. 3000/- per animal (maximum 2 animals per farmer).

iii. Assistance for fodder cultivation to farmers - 1 lakh dairy farmers will be supported for seasonal fodder cultivation in the affected districts.

26. Livelihood support through goat farming - 5000 farmers / WSHGs will be assisted with 4 goats and 1 buck with unit cost of Rs. 20,000/- under Odisha livelihood Mission.

27. Livelihood support through backyard poultry - 30,000 farmers / WSHGs in the affected areas will be provided with 50 nos. of 4 weeks old chicks @ Rs. 50/- per chick and Rs. 500/- towards night shelter under Odisha Livelihood Mission. 30,000 farmers in the affected area will also be supported with poultry shed @ Rs. 15,000/-.

28. Support to farmers who have lost dairy animals - 3000 graded/ crossbred dairy cows and buffaloes will be provided to those dairy farmers who have lost dairy cattle for restoring their livelihood. Each such farmer will get assistance for only one dairy cow / buffalo @ 75% of the cost of milch animal limited to Rs. 37,500/- per milch animal.

29. Support to entrepreneurs for poultry farming - 3000 poultry farmers / WSHGs will be supported for renovation of the damaged poultry broiler unit under Mukhya Mantri Krushi Udyog Yozana (MKUY). Each farmer will be provided subsidy up to 50% of the unit cost, limited up to Rs. 4 lakhs per unit.

Fisheries sector:

30. Assistance to the Marine & Chilika Fishermen for Boat & Net: Financial assistance @50% of Rs.80,000/- for a new FRP boat on replacement basis and @50% of Rs.20,000/- for

net will be provided for fully & partially damaged boats & nets (6000 boats & 3000 nets) to the affected marine and Chilika fishermen.

31. Assistance to the Inland Fishermen for Boat & Net: Financial assistance @50% of Rs.30,000/- for a new FRP boat on replacement basis and @50% of Rs.20,000/- for net will be provided for fully/partially damaged boats & nets (500 boats & 500 nets) to the affected inland fishermen.

32. Assistance to the Fish Farmers for Freshwater/Brackishwater Aquaculture:

(a) Financial assistance of Rs.12,200/- per Ha. shall be provided to the fish farmers (freshwater & brackishwater) for repair of damaged dykes of 500 Ha.

(b) Financial assistance of @Rs.0.75 lakh per Ha. shall be provided to the fish farmers (freshwater & brackishwater) as input assistance for 200 Ha.

Handicrafts sector

33. Under Handicrafts sector, assistance of Rs.4100/- per artisan for replacement of tools/equipment and Rs.4100/- per artisan for loss of raw materials/goods in process/finished goods shall be provided to 70,000 artisans in the affected districts.

34. Under Handlooms sector, assistance of Rs.4100/- per weaver for replacement of tools/equipment and Rs.4100/- per weaver for loss of raw materials/goods in process/finished goods shall be provided to 60,000 weavers in the affected districts.

Support to Groups:

35. Additional seed money of Rs.10,000/- will be given to the affected women SHGs in the affected areas who had taken up livelihood activities.

36. Common Facility Centre (CFC) - 268 CFCs will be provided at Gram Panchayat level @Rs.4 lakh per CFC in the extremely affected districts.

37. Financial inclusion - Community Investment Fund (CIF) @ 1 lakh per SHG to 15,000 SHGs will be provided to facilitate loans for needy households for livelihoods activities in the extremely affected districts.

38. Social security coverage - Over 10 lakh SHG members / households will be enrolled under Aam Admi Bima Yojana (AABY) in the affected districts.

39. Promotion of Livelihoods Value Chain and Cluster Promotion- 100 numbers of potential cluster formation will be supported for value addition and market linkage @Rs.2 lakh per cluster in the extremely affected districts.

40. Rs 50,000 will be provided to those THR (Take Home Ration) producing WSHGs whose infrastructure / machines have been damaged in the extremely affected districts.

Land Revenue:

41. 100 percent remission in respect of cess on land revenue for 2019-20 will be given to all cyclone affected villages.

42. 100 percent exemption of Water Rate will be given to farmers where the crop loss is 33% or more during Rabi season, 2019.

Education:

43. School fees and School examination fees up to High School level in Government Schools shall be waived in the affected areas.

44. Two extra pairs of School uniform shall be provided in the extremely affected areas and one extra pair in the severely affected areas to the children up to Elementary School level.

B. Special Package for Street Vendors, Coconut Growers and Poultry Farmers affected due to extremely Severe Cyclonic Storm "FANI"

- About 30,000 Street Vendors whose livelihood has been severely affected in 11 Urban Local Bodies due to cyclone "FANI" will be provided with a cash assistance @ Rs. 10,000 each to support the loss of livelihood.
- Cash assistance @ Rs. 500 per damaged coconut tree will be provided to the affected farmers, subject to a limit of 25 trees per farmer, to support their immediate livelihood.
- To revive the broiler units in the cyclone affected areas, each farmer will be provided an
- assistance of 75% subsidy, limited to Rs. one lakh per unit of 500 birds. 2000 small broiler poultry units will be supported through this intervention.

C. Advisory to Banks to assist MSMEs:

In the Special SLBC meeting held on 10.05.2019 and Sub-Committee of SLBC on MSME held on 15.05.2019, bankers have been advised to take appropriate remedial measures to assist MSMEs.

Bankers have been requested to:

- Consider rescheduling/ restructuring of the existing loan availed by micro, small/ medium units, traders, rural artisans, service providers etc. affected by FANI.

- To grant consumption loan up to Rs. 10,000/- to existing borrowers without any collateral, which may be enhanced beyond Rs.10,000/- at the banks discretion.
- Consider sanction of fresh loans/ loan repair of enterprise up to Rs. 10 lakh without any collateral under CGTMSE Scheme, which can be enhanced up to Rs. 25 lakh depending on credit assessment by financing bank.
- Expeditiously process, sanction and disburse assistance against pending and fresh application under PMEGP Stand-up, MUDRA/MSME loan.
- Banks have also been requested not to charge penal interest on current dues and penal interest on the restructured loans and wherever eligible fresh loan shall be sanctioned.
- Collectors have been advised to convene DCC meetings and also organize special camps for disbursement of loans.

D. Tree Plantation and Greening Programme for ' FANI' affected areas:

- Extensive damage has been caused to forest and green cover due to cyclone FANI. In order to restore the green cover, a Five Year Action Plan on revival of Coastal Shelter Belt and Afforestation Programme shall be implemented in Mission Mode at a cost of about Rs. 200 crore.
- Tree plantation programme will be taken up over an area of more than 8000 hectares over a period of 5 years.
- In FANI affected areas plantation and distribution of seedlings would be doubled from 65 lakh in 2018-19 to 130 lakh in 2019-20.
- 50 lakh seedlings shall be distributed to the public and institutions free of cost in the affected areas during this year.
- Five lakh trees will be planted under Urban Tree Plantation Programme during next 5 years, over one lakh tree to be planted this year.
- About 30,000 partially uprooted but surviving trees to be restored on war footing.
- For restoration of the livelihoods of people affected due to cyclone FANI, fruit tree plantations will be taken over 12000 hectares with the support for inter-cropping package for 3 years. Besides, 5 lakh fruit saplings will be supplied and 4 lakh nutri-gardens will also be promoted for the affected households.

DAMAGE IN BANKING SECTOR AND RELIEF & REMEDIAL MEASURES

Fani had a devastating effect on the banking sector in the affected districts. Particularly Puri, Khurda and Cuttack. V-SAT sets mostly got damaged rendering the ATMs

out of operation. No bank was in a position to carry on normal transaction. Physical infrastructures of as many as 242 branches of Odisha Gramya Bank in 6 worst affected districts were severely damaged.

State Government took immediate pro-active steps to bring back normalcy in the banking sector in the affected districts. Principal Secretary, Finance held a discussion with the Regional Director, RBI and Controlling Heads of the major banks on 6th May, 2019. A detailed action plan was drawn up to bring the bank branches and ATMs to function normally in the affected areas. It was decided to closely monitor the functioning of the bank branches and ATMs at the level of SLBC, RBI and State Government on day today basis and take remedial steps wherever required. District Collectors were requested to extend cooperation to banks to resume functioning. Subsequently, a Special SLBC was convened on 10th May, 2019, which was attended by Chief Secretary, Senior Officers of the State Government, Deputy Governor, RBI and senior level officers of major banks. It took stock of the damages in the banking sector and issued suitable directions for smooth operation of the banks and ATMs, advised to press mobile ATMs into service and constituted a Special Task Force under the chairmanship of Principal Secretary, Finance. Additional Secretary, FID, Ministry of Finance visited Bhubaneswar on 16.05.2019 and reviewed the status of banking sector in the aftermath of Fani. He was glad to find the banking sector bouncing back to normalcy very fast in the affected districts.

First meeting of the Special Task Force was held on the same day. Additional Secretary, FID also participated in the meeting as a special invitee. It was observed that out of 2004 bank branches in six severely affected districts 1934 branches were operational. Similarly, out of 2915 ATMs in these districts 1974 ATMs had started functioning. The progress was found quite satisfactory. The Special Task Force made some recommendations to the banks as per Master Direction of RBI in respect of restructuring of loans and grant of fresh loans in the affected districts. There was a perceptible improvement in functioning of banks by this time in the affected districts except in Puri district. However, in order to tide over the situation, mobile ATMs were put in such places for disbursement of cash. The second meeting of the Special Task Force was held on 30th May, 2019 and reviewed the developments in restoration of banking sector in the cyclone affected districts. It was observed that there was significant improvement in normal operation of the banks and ATMs except in few places in Puri district owing to non-availability of electricity. Instructions were issued to fast track the operation of these branches and ATMs and not to withdraw the mobile ATMs from these places until normalcy is restored. As on 6th June, 2019 all the bank branches have been made operational and 88% of the ATMs have become functional.

Assistance sought for from Govt. of India

As per the assessment made by different departments of the state as well as the cyclone "Fani" affected districts, the total loss to public and private properties on account of Extremely Severe Cyclonic Storm "FANI"-2019 was **Rs.9336.27 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.5227.68 crore**. The detail is as follows.

(Rs. in lakh)

Sl. No.		Amount required/spent
1	Ex-gratia for loss of life	256.00
2	Clothing & Utensils	5163.29
3	GR kind for dire need of sustenance	60656.55
4	Cost of evacuation, search & Rescue measure	2521.24
5	Temporary accommodation	3009.91
6	Temporary shelter	8570.82
7	Emergence supply of drinking water	4563.03
8	Clearance of debris	7314.88
9	Draining of flood water	33
10	Disposal of dead bodies/Carcasses	437.56
11	Repair/restoration of fish ponds	4.13
12	Agriculture input subsidy-SMF	14889.99
13	Agriculture input subsidy-other than SMF	429.74
14	Replacement of Milch/ Draught animals	950.92
15	Provision of fodder and cattle health care	2432.85
16	Assistance to fisherman	631.89
17	Input subsidy-Fish seed farm	3.55
18	Assistance for Artisan-Traditional crafts & Handloom weavers	9310.94
19	HB assistance	148083.53
20	Repair of Roads & Bridges	71474.17
21	Repair of Rural/ Urban Water Supply System	13088.79
22	Repair of Irrigation works	29287.92
23	Repair of Community assets owned by Panchayat	13560
24	Repair of PHC/CHC buildings	2062
25	Repair of Primary & Secondary School Buildings	17154
26	Restoration of Power supply	106877.07
	Grand Total	522767.77

Accordingly, the state Govt. sought for an assistance of Rs.5227.68 crore from National Disaster Response Fund (NDRF) of Govt. of India to meet the expenditure for relief & restoration work. The Govt. of India has allotted an amount of Rs.3114.46 crore from NDRF for the purpose.

VERY SEVERE CYCLONIC STORM "BULBUL"

Barely after 6 months of Extremely Severe Cyclonic Storm 'Fani' affected the State in May, 2019, Odisha had faced yet another Very Severe Cyclone 'Bulbul' in the month of November, 2019. Cyclone Bulbul although did not make its landfall in the territory of Odisha, it passed near Odisha coast during 8th to 10th November 2019. The wind and the cyclonic rain due to the effect of cyclone Bulbul caused extensive damage to the standing paddy & other crops. The cyclone also caused severe damage to private and public properties in the coastal districts of the Odisha.

Impacts

Due the cyclone, Gale wind speed reaching 70-80 kmph gusting to 90 kmph was experienced along & off Kendrapara, Jagatsinghpur, Balasore, and Bhadrak districts on 9.11.2019. Puri and Ganjam districts experienced squally wind speed reaching 40-50 kmph gusting to 60 kmph. Wind speed of 110 kmph was recorded at Dhamara.

Rainfall:

Under the impacts of cyclone, heavy rainfall was experienced in different Blocks of Kendrapara, Bhadrak, Jagatsinghpur, Balasore, Jajpur, Puri, Cuttack, and Mayurbhanj districts. In these districts, at least 8 Blocks recorded rainfall of more than 100 mm and 25 more Blocks rainfall between 50 mm and 100 mm during 2 days 9.11.2019 and 10.11.2019.

Rainfall status of six districts 9.11.2019 and 10.11.2019 (Rainfall in mm, 50mm & above)

Sl. No.	District	Block/ Station	DATE		Total
			9.11.2019	10.11.2019	
1	Kendrapara	Rajnagar	180.0	34.0	214.0
2	Bhadrak	Chandbali	150.1	28.7	178.8
3	Kendrapara	Rajkanika	136.0	39.0	175.0
4	Balasore	Bhogarai	52.2	86.0	138.2
5	Kendrapara	Aul	89.0	41.0	130.0
6	Jagatsinghpur	Tirtol	100.0	15.0	115.0
7	Balasore	Baliapal	51.0	56.0	107.0
8	Kendrapara	Mohakalpara	75.0	30.0	105.0
9	Jajpur	Binjharpur	51.0	39.2	90.2
10	BhadFdk	Bhadrak	72.0	18.0	90.0

11	Jagatsinghpur	Kujanga	64.0	23.0	87.0
12	Jagatsinghpur	Erasama	81.0	6.0	87.0
13	Balasore	Ialeswar	41.0	45.0	86.0
14	Bhadrak	Dhamnagar	35.0	50.0	85.0
15	Balasore	Nilagiri	48.0	25.0	73.0
16	Bhadrak	Basudevapur	45.0	28.0	73.0
17	Balasore	Balasore	35.0	37.0	72.0
18	Balasore	Basta	32.0	39.0	71.0
19	Mayurbhanj	Betanati	34.0	36.0	70.0
20	Balasore	Remuna	40.0	27.0	67.0
21	Kendrapara	Pattamundai	37.0	30.0	67.0
22	Balasore	Bahanaga	41.0	22.0	63.0
23	Jajpur	Bari	45.0	16.0	61.0
24	Mayurbhanj	Morda	33.0	28.0	61.0
25	Kendrapara	Derabis	44.0	16.0	60.0
26	Kendrapara	Garadapur	46.0	14.0	60.0
27	Jagatsinghpur	Balikuda	56.0	3.0	59.0
28	Jajpur	Dasarathpur	40.4	18.0	58.4
29	Balasore	Soro	33.0	24.0	57.0
30	Kendrapara	Marshaghai	44.0	9.0	53.0
31	Mayurbhanj	Suliapada	18.0	34.5	52.5
32	Balasore	Khaira	32.0	20.0	52.0
33	Bhadrak	Tihidi	29.0	21.0	50.0

Preparedness

Soon after receipt of warning from IMD and analysis of forecasts, the State Government took all required preparedness measures to combat the possible situation. Different measures undertaken are briefly indicated below.

1. Detailed instructions were issued to the Collectors of the coastal and adjoining districts such as Ganjam, Puri, Jagatsinghpur, Kendrapada, Bhadrak, Balasore, Khordha, Cuttack, Jajpur and Mayurbhanj to keep the administrative machinery fully prepared to meet the possible situation on account the impending cyclone 'Bulbul'. District Administrations of other districts were kept on alert to meet any eventuality.
2. Collectors of coastal districts were instructed to make advance arrangements to identify people living in kutcha houses and low lying areas in vulnerable conditions and evacuate them to safe shelters and to provide them adequate food, safe

drinking water, lighting, health and sanitation facilities at the shelters/ relief camps.

3. Cyclone and flood shelters in the coastal districts were kept in readiness for sheltering people.
4. The departments in charge of roads were instructed to make advance arrangements for cutting of fallen trees and clearance of roads.
5. Advance arrangements were made by the concerned department for immediate restoration of electricity supply.
6. Collectors and concerned departments were instructed to make advance back-up power arrangement (generator with adequate fuel) in the different offices including health and other lifeline institutions.
7. Advisory was issued to the fishermen not to venture into the sea from 8th November and the fishermen on sea to return to the shore by 7th evening positively. The officials Fisheries & ARD Department camped at the fishing harbours/ fish landing centres and ensured implementation of the said instructions in coordination with the Fishermen Associations. All 19,653 fishing trawlers and boats returned to base by 7th November, 2019.
8. Detailed crop advisory issued by the Agriculture & FE Department/ OUAT for the farmers to save the paddy and other crops and the same was disseminated through media as well as Agriculture and Horticulture field officials. Mike announcements were made to communicate the advisory to the farmers.
9. Schools and Anganwadi Centres of the districts likely to be affected were closed on 8th/ 9th November 2019.
10. District Emergency Operation Centres in all the districts and control rooms of different departments were made functional round the clock.
11. People were advised through media to remain indoor and beach movement was restricted during the cyclone.

Deployment of Disaster Response Force:

20 Units of ODRAF, 6 Units of NDRF and 150 Units of Fire Service Teams were prepositioned in the districts for search & rescue operation. The details of deployment are indicated below.

Sl. No	District	ODRAF	NDRF	Fire Services	Total
1	Puri	2	1	25	18
2	Jagatsinghpur	2	1	18	21

3	Kendrapara	2	1	20	23
4	Jajpur	2	1	22	25
5	Cuttack	2	0	0	2
6	Khordha	2	0	0	2
7	Bhadrak	2	1	16	19
8	Balasore	2	1	23	26
9	Mayurbhanj	2	0	0	2
10	Ganjam	2	0	0	2
Total		20	6	124	150

Review Meeting

1. Special Relief Commissioner & Principal Secretary, Disaster Management reviewed the preparedness measures undertaken by the district authorities through video conferencing with Collectors of Balasore, Bhadrak, Kendrapara, Jajpur, Jagatsinghpur, Cuttack, Puri, Khordha and Mayurbhanj on 6.11.2019.
2. Chief Secretary reviewed the situation and status of preparedness for the impending cyclone with Secretaries of Departments on 7.11.2019.
3. Cabinet Secretary, Govt. of India reviewed the situation through video conferencing with the Chief Secretary & Special Relief Commissioner during 7th to 11th November.

Immediate Response

Evacuation/ Free Kitchen:

As many as 11,458 people were evacuated from vulnerable areas and sheltered in 100 relief camps. They were provided with dry food, drinking water and free kitchen. Besides this Chuda, Gud, Biscuits, matchbox and candle were provided. District wise details of evacuation and relief camps are indicated below.

SI. No.	Name of the affected district	No. of Relief camps	No. of People accommodated per day in the relief camps
1	Balasore	5	1208
2	Bhadrak	19	1025
3	Jagatsinghpur	16	576
4	Kendrapara	59	8477
5	Mayurbhanj	1	172
Total		100	11,458

Administration of Emergent Relief:

SI. No.	District	Chuda (in Qtl)	Gur (in Qtl)	Polythene distributed (in Pieces)	Other material
1	Balasore	6.0	0.60	563	
2	Bhadrak	2.19	0.22	0	
3	Jagatsinghpur	0.50	0.05	0	Biscuit- 200pkt
4	Mayurbhanj	0.27	0.07	150	Biscuit- 110pkt,
Total		8.96	0.94	713	

Repair/ Restoration Activities:

Clearance of Roads:

SI. No.	Name of the district	No. of road blocked	No. of road cleared
1	Kendrapara	15	15
2	Bhadrak	156	156
3	Balasore	13	13
4	Jagatsinghpur	25	25
5	Jajpur	3	3
Total		212	212

Restoration of Power:

SI. No.	Name of the district	Consumers affected	Electricity restored
1	Balasore	487448	487448
2	Jagatsinghpur	120181	120181
3	Bhadrak	279488	279488
4	Kendrapara	273000	273000
5	Mayurbhanj	112792	112792
6	Jajpur	189400	189400
Total		1462309	1462309

Restoration of Water Supply:

Sl. No.	Name of the district	PWS affected (nos.)	Nos. of PWS operationalized
1	Bhadrak	124	124
2	Balasore	457	457
3	Kendrapara	72	72
Total		653	653

Impact & Damages

The damage caused by the cyclone "Bulbul" was mainly due to gusting action of wind and heavy rainfall. The details of damage caused due to the cyclone are given bellow.

Area and Population Affected

Sl. No.	Name of the district	No. of Blocks affected	No. of ULBs affected	No. of Villages affected	Population affected	No. of persons injured
1	Balasore	12	4	1069	516900	
2	Bhadrak	7	4	1300	550000	
3	Jagatsinghpur	8	2	1321	1136971	
4	Jajpur	4	1	569	81516	
5	Kendrapara	9	2	1592	1522901	6
6	Playurbhanj	10	0	734	293	2
Total		50	13	6585	3808581	8

House Damaged:-

A total number of 8687 houses including huts and 1464 cowsheds were damaged due to cyclone "Bulbul". The district-wise details are as follows.

Sl. No.	Name of the district affected	Nos. of houses damaged					Cowshed damaged	Grand Total
		Fully/severely damaged pucca/kutch a	Partly damaged		Hut damaged	Total		
			pucc a house	kutch a house				
1	Balasore	3	2	546	12	563	6	569
2	Bhadrak	3		2359	12	2374	22	2396

3	Jagatsinghpur			31		31	1	32
4	Kendrapara		428	4183	958	5569	1435	7004
5	Mayurbhanj			147	3	150		150
Total		6	430	7266	985	8687	1464	10151

Crop Damaged

169258.15 hectares of agricultural crops had sustained crop-loss to the extent of 33% and above due to the cyclone. The details are given as bellow.

Sl. No.	Name of the district	Total agriculture area affected	Total crop loss of 33% & above (area in Hect.)			
			Irrigated	Rainfed	perennial	Total
1	Balasore	28542.20	7944.70	20566.20	802.30	29313.20
2	Bhadrak	67166.21	22305.50	41948.22	0.00	64253.72
3	Jagatsinghpur	9077.00	5074.00	1245.00	0.00	6319.00
4	Jajpur	38398.00	11452.00	14249.00	0.00	25701.00
5	Kendrapara	72007.00	6.85	4044.86	11.38	4063.08
6	Mayurbhnaj	7305.74	244.30	4179.44	0.00	4423.74
Total		222496.15	47027.35	86232.71	813.68	134073.74

Livestock Affected:-

A total number of 27344 large animals, 3894 small animals and 6125 poultry birds were affected due to cyclone "Bulbul". The district-wise details are given below.

Sl. No	Name of the district	No. of Livestock Affected			
		Large Animal	Small animal	Poultry	Total
1	Bhadrak	978	314	125	1417
2	Kendrapara	26366	3580	6000	35946
Total		27344	3894	6125	37363

Loss of livestock

10 no. of large milch animals, 4 no. of small draught animals, 5 no. of small milch animals and 429 poultry birds have perished due to the cyclone. The district wise details are given bellow.

SI. No.	Name of the district	No of livestock / birds lost					
		Milch animal		Draught animal		Poultry birds	Total
		Buffalo/ Com	Sheep/ Goat	Camel/ Horse/ Bullock	Calf/ Donkey/ Pony		
1	Bhadrak	3	2	0	3	389	397
2	Kendrapara	7	3	0	1	40	51
Total		10	5	0	4	429	448

Damage to Fishery Sector

The severe cyclonic storm " Bulbul" has caused severe damage to the fishing boats and nets in Kendrapara, Jagatsinghpur, Balasore and Bhadrak districts. 3.7hect. of fish seed farm were damaged. The district wise details are given below.

SI. No	Name of the district	No. of Boats fully damaged	No. of boats partially damaged	No. of nets fully damaged	No. of nets partially damaged	Fish seed farm damage	
						Nos.	Area in hect.
1	Balasore	1					
2	Bhadrak	1	1				
3	Kendrapara	67	125	36	48	17	3.7
4	Jagatsinghpur		8				
Total		69	134	36	48	17	3.7

Total loss/ damage to private and public properties:

SI. No.	Departments	Quantity	Loss (Rs. in lakh)
1	Water Resources Department		
	Damage to Lift Irrigation Projects	92 Nos.	150.63
	Damage to Cluster Shallow Tube Well	2 Nos.	11.00
	Total		161.63
2	Works Department		
	Clearance of Debris		3.22
	Total		3.22
3	Rural Development Department		
	Damage to Residential Buildings	5 Nos.	7.50
	RD Dept. Buildings	2 Nos.	9.00
	Revenue Dept. Buildings	4 Nos.	7.00
	PHC Buildings	1 Nos.	1.50

	School Buildings	14 Nos.	43.00
	Other Infrastructure	1 Nos.	1.00
	Damage to road/ embankment including breaches	4.00 kms	60.00
	Damage to CD/ Bridges	1 No.	10.00
	Clearance of Debris		22.08
	Total		161.08
4	Housing & Urban Development Department		
	Damage to Roads	16.33 Kms.	100.00
	Damage to Drainage	0.8 Kms.	8.00
	Damage to Culverts	7 Nos.	16.20
	Clearance of debris		1.65
	Operation of Free Kitchen		0.77
	Total		126.62
5	Panchayati Raj & DW Department		
	Repair of Anganwadi Centres	613 Nos.	1010.53
	Damage to GP/ PS Building & Community Hall	123 Nos.	199.51
	Damage to Primary School Buildings	1243 Nos.	2264.02
	Damage to GP/ PS roads	1499 nos	2272.35
	Total		5746.41
6	Energy Department		
	Damage to Conductor (HT/ LT)	336 Kms	338.75
	Damage to Distribution Transformer	126 Nos.	135.62
	Damage to Poles (HT/ LT)	1523 Nos.	86.36
	Power Transformer damaged	1 No.	65.33
	Total		626.05
7	Agriculture & FE Dept.		
	Damage to Plantation	10 Hacts.	4.00
	Damage to Avenue Plantation	9571 plants	25.84
	Total		29.84
	Total (Public Properties)		6854.85
8	Pure Relief Items		
	Ex-gratia payment to the injuries persons	8 Nos.	0.51
	Clothing & Utensils	8 Nos.	0.30
	Cost of evacuation, search & Rescue measure		10.00
	Temporary shelter		11.41
	Emergence supply of drinking water		2.50
	Agriculture input subsidy-SMF	169258.15Ha.	15197.56
	Replacement of milch/ draught animals		4.00

	Provision of cattle health care	312 Nos.	15.60
	Assistance to fisherman	287 Nos.	14.06
	Input subsidy-FISH seed farm	3.70 Ha.	0.30
	House building assistance	10151 Nos.	331.71
	Total		15587.95
	Grand Total		22442.80

Package of assistance for Cyclone Victims

A comprehensive package of assistance was announced by the Hon'ble Chief Minister and implemented for the affected people.

Agriculture Sector:

1. Agriculture input subsidy 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, betel vine, etc. The assistance shall be provided to the actual cultivators.

[Action: SRC / Agriculture & FE Department]

2. Minimum Agricultural input subsidy to be Rs.2,000/- for perennial crops and Rs.1,000/- for other crops.

[Action: SRC]

3. 50,000 seed minikits of pulses and oilseeds to be supplied to the affected farmers during Rabi 2019-20.

[Action: Agriculture & FE Department]

4. 45,000 acres of demonstration programmes of different crops to be taken up in affected districts in the Rabi season.

[Action: Agriculture & FE Department]

5. 3,000 sprayers to be made available to the affected farmers in the cyclone affected areas at a subsidy of 50% limited to maximum of Rs.3800/- for battery operated sprayers and Rs.750/- for hand operated sprayers.

[Action: Agriculture & FE Department]

6. 10,000 nos. of vegetable minikits to be supplied to the affected farmers during Rabi 2019-20.

[Action: Agriculture & FE Department]

7. An incentive of Rs.15,000 per farmer to be provided to 30 units for repair and renovation of betel vine cultivation (Pan Baraja).

[Action: Agriculture & FE Department]

8. Rs.40,000/Unit for repair and renovation of shade net/ thatched structure for restoration of Mushroom Units to 50 units.

[Action: Agriculture & FE Department]

9. Immediate steps to be taken to arrange and distribute quality seeds and other inputs in sufficient quantity for the Rabi season.

[Action: Agriculture & FE Department]

10. Expeditious steps to be taken to conduct crop cutting experiments to settle the claims of the affected insured farmers under crop insurance scheme (PMFBY).

[Action: Agriculture & FE Deptt./ Cooperation Dept./ P&C Dept.]

Farm Credit:

11. Short Term Rabi Loans advanced in the affected areas during Rabi 2019 having crop loss of 33% and above to be converted into Medium Term (Conversion) Loans.

[Action: Cooperation Department]

Animal Resources Development Sector:

12. Assistance to farmers for replacement of animals lost due to the disaster @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/ sheep (upto 30 animals), Rs.50/- per poultry bird (maximum Rs.5,000/-).

[Action: SRC /F & ARD Department]

Fisheries sector:

13. Financial assistance @ Rs.4,100/- for repair of partially damaged

boats, Rs.2,100/- for repair of partially damaged net, Rs.9,600/- for replacement of fully damaged boat and Rs,2,600/- for replacement of fully damaged net.

[Action: F & ARD Department]

14. Assistance for repair of Fish Farms/ Fish Seed Farms @ Rs.12,200/- per ha. for de-silting, restoration of fish farms. Input subsidy @Rs.8,200/- per ha. for damaged fish seed farms.

[Action: F & ARD Department]

Financial assistance sought for from Govt. of India

As per the assessment made by different departments of the state as well as the cyclone "Bulbul" affected districts, the total loss to public and private properties on account of Very Severe Cyclonic Storm "Bulbul"-2019 was **Rs.224.43 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.219.04 crore**. The details are as follows.

Assistance required (Rs. in lakh)		
Sl. No.	Item	Amount required/spent
1	Ex-gratia Payment to the grievous injuries persons	0.51
2	Clothing & Utensils	0.30
3	GR kind cost of chuda & gur	0.40
4	Cost of evacuation, search & rescue measure	10.00
5	Temporary shelter	11.41
6	Emergence supply of drinking water	2.50
7	Clearance of debris	26.95
8	Agriculture input subsidy-SMF	15197.56
9	Replacement of Milch/ Draught animals	4.00
10	Provision of cattle health care	15.60
11	Assistance to fisherman	14.06
12	Input subsidy-Fish seed farm	0.30

13	HB assistance	331.71
14	Repair of Roads & Bridges	2458.55
15	Repair of GP Building/ Panchayat Ghar owned by Panchayat	199.51
16	Repair of PHC/CHC buildings	1.50
17	Repair of Primary/ Secondary School Buildings	2264.02
18	Repair of Anganwadi Centres	1010.53
19	Restoration of Power supply	354.92
Grand Total		21904.33

Accordingly, the state Govt. sought an assistance of Rs.219.04 crore from National Disaster Response Fund (NDRF) of Govt. of India to meet the expenditure for relief & restoration work.

Visit of Inter-Ministerial Central Team

The Govt. of India has sent an Inter-Ministerial Central Team led by Ms. Saheli Ghosh Roy, Joint Secretary (CIC), Ministry of Home Affairs, Government of India visited the State from 14.11.2019 to 16.11.2019 for an on the spot assessment of the damages and requirement of assistance in the wake of Very Severe Cyclonic Storm "Bulbul" in November,2019. The Central Team visited the cyclone affected areas of Bhadrak, Jagatsinghpur, Kendrapara districts.

On the recommendation of Inter-Ministerial Central Team, Govt. of India had allotted an amount of **Rs.179.64 crore** from NDRF for the purpose.

Drought

Though deficit rain was experienced in the month of June in different parts of the State, good rainfall was received in subsequent months during Monsoon for which no drought like situation was observed in the State.

Pest Attack

Crop area of 18.59 Ha. in 5 villages of 5 GPs under 3 blocks of 3 districts (Bargarh, Nuapada and Subarnapur) were affected due to pest attack where farmers sustained crop loss to the extent of 33% and above during Kharif 2019-20.

An amount of Rs. 2.15 lakh was released towards Agricultural Input Subsidy to the affected districts for disbursement among farmers who have sustained crop loss of 33% and above due to pest attack. The list of the affected districts is as follows.

**List of blocks affected due to pest attack
during kharif 2019**

Sl. No.	District	No. of affected Blocks	No. of affected GPs	No. of affected Villages	No. of affected ULBs	No. of affected wards	Sown area with damage between 33% to 50% to crops (in Ha.)	Sown area with damage above 50% to crops (in Ha.)	Total sown area with damage >33% to crops (in Ha.)
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>
1	Bargarh	1	3	3	0	0	11.26	0.00	11.26
2	Nuapada	1	1	1	0	0	2.00	0.00	2.00
3	Subarnapur	1	1	1	0	0	5.33	0.00	5.33
TOTAL		3	5	5	0	0	18.59	0.00	18.59

Fire Accident and other Disasters

As many as 124 persons lost their lives due to fire accidents during the year 2019-20. Steps were taken to provide ex-gratia assistance @ Rs 400,000/- per deceased to Next of kins out of the SDRF. Besides, funds were provided to different Collectors for disbursement of house building assistance along with assistance for clothing and utensils as per the Norms of Assistance from SDRF.

Loss of life due to Fire Accident during the year 2019-20

Sl.No.	Name of the District	No. of persons died
1	Angul	3
2	Balasore	3
3	Bargarh	5
4	Bhadrak	8
5	Bolangir	3
6	Boudh	0
7	Cuttack	3
8	Deogarh	0

9	Dhenkanal	12
10	Gajapati	1
11	Ganjam	15
12	Jagatsinghpur	1
13	Jajpur	1
14	Jharsuguda	2
15	Kalahandi	5
16	Kandhamal	2
17	Kendrapara	6
18	Keonjhar	5
19	Khordha	1
20	Koraput	3
21	Malkanagiri	3
22	Mayurbhanj	10
23	Nawarangpur	6
24	Nayagargh	3
25	Nuapara	3
26	Puri	0
27	Rayagada	2
28	Sambalpur	8
29	Subarnapur	3
30	Sundargarh	7
Total		124

Hailstorm

As many as 9 districts namely Mayurbhanj, Keonjhar, Kandhamal, Kalahandi, Balangir, Kendrapara, Nabarangpur, Nayagarh and Nuapada were affected due to hailstorm accompanied by whirlwind and 11 persons lost their lives under the impacts of the disaster during the year 2019-20. 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.

Landslide

One person died due to landslide occurred in the month of March in Mayurbhanj district. Ex-gratia assistance of Rs.400,000/- has been paid from SDRF to the Next of kins of the deceased.

State Specific Disasters

Heat Wave

Preparatory measures on Heat wave

In 2019, heat-wave condition prevailed in the State in the months of April, May and June. In order to encounter such condition, the State Government undertook various preparedness/ preventive measures as follows:

- Public Awareness Campaign through electronic and print media was undertaken. Civil Society Organizations and PRI members were involved in awareness campaign and other measures to tackle the situation arising out of Heat Wave. The general public were made alert to the set of "Do's and Don'ts" issued by Health & Family Welfare Department through print and electronic media.
- Women & Child Development Department launched public awareness campaign with special focus on children, pregnant and lactating mothers in order to protect them from dehydration. Similarly, Fisheries and Animal Resources Department launched public awareness campaign on protection of animal resources the heat wave. School & Mass Education Department issued suitable instructions for orientation of the school children on heat wave preventive measures.
- Water scarcity areas were identified in advance and supply of water for drinking and other uses through tanker to those areas was ensured.
- "Paniya Jala Jogana Kendra" were opened by Urban Local Bodies/ Gram Panchayats at market places, bus stands and other congregation points. Construction/ repair of vats were also ensured for roaming livestock. Provision of drinking water in all Schools and Colleges were made instantly. Wherever required, tube wells inside the school campus were also repaired to ensure uninterrupted drinking water supply. The timing of classes and examinations in schools & colleges during summer were rescheduled and conducted between 6.30 am and 10.30 am.
- Life saving medicines, saline, ORS was stored in dispensaries, PHCs, CHCs and District Headquarters Hospitals sufficiently to meet the crisis. Special arrangement was made and separate beds were earmarked for treatment of heat stroke patients in different hospitals. The ESI Dispensaries were also asked to treat the general public as additional measures.
- The officers of Forest & Environment Department were asked to assess the availability of water for animals in reserved/ protected forests and make necessary additional

provision, where necessary. Drinking water was provided through tanker to human habitations facing water scarcity inside reserved forests.

- Provision of portable water and ORS packets were made available in public transport vehicles. During severe heat wave condition, timings of public transport services were rescheduled and plying of buses during peak hour i.e. between 11.00 AM to 3.00 PM was restricted.
- The timing for engagement of labourers/ workmen at worksites was rescheduled. No work was executed during peak hours from 11.00 am to 3.30 pm. The employers were advised to make necessary arrangements for supply of drinking water, ORS packets and provision of rest shed at the worksite.
- The Energy Department issued instructions to the Distribution Companies to maintain uninterrupted power supply during summer months.
- Panchayati Raj Institutions in the districts were also impressed upon to remain alert to meet the exigencies.
- The control rooms at the State level and the District level were functioning round the clock during the period of heat wave.
- A meeting of the District Disaster Management Authority were convened to discuss and plan out different preparedness measures to be taken different officials/ agencies to manage the possible heat wave and water scarcity situation in the district.

Despite all the measures taken by the Government, as many as 37 persons lost their lives due to sunstroke during the year 2019. Steps have been taken to provide ex-gratia assistance @ Rs.50,000/- to each of the bereaved families from SDRF. The district-wise number of human casualties is given below:

Sl. No.	Name of the District	No. of Death
1	Angul	6
2	Balangir	1
3	Balasore	2
4	Bhadrak	1
5	Cuttack	3
6	Dhenkanal	7
7	Ganjam	1
8	Jagatsinghpur	1

9	Jajpur	2
10	Jharsuguda	1
11	Keonjhar	1
12	Nuapada	1
13	Puri	1
14	Sambalpur	6
15	Subarnapur	1
16	Sundargarh	2
Total		37

Lightning

As many as 351 Persons lost their lives due to lightning in 30 districts during the year 2019-20. 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
1	Angul	14
2	Bolangir	12
3	Bargarh	17
4	Balasore	14
5	Bhadrak	5
6	Boudh	3
7	Cuttack	15
8	Deogarh	7
9	Dhenkanal	18
10	Ganjam	27
11	Gajapati	1
12	Jagatsinghpur	3
13	Jajpur	15
14	Jharsuguda	8
15	Kalahandi	14
16	Kandhamal	6
17	Kendrapara	15
18	Keonjhar	21
19	Khurda	9

20	Koraput	20
21	Malkangiri	6
22	Mayurbhanj	28
23	Nawarangpur	23
24	Nayagarh	3
25	Nuapara	4
26	Puri	8
27	Rayagada	5
28	Sambalpur	9
29	Sonepur	4
30	Sundergarh	17
	TOTAL	351

Boat Accident

As many as 16 persons lost their lives due to boat capsizing in 5 districts during the year 2019-20. 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
1.	Bhadrak	1
2.	Cuttack	1
3.	Dhenkanal	4
4.	Khordha	6
5.	Malkangiri	4
	Total	16

Drowning

As many as 1200 persons lost their lives due to drowning in 30 districts during the year 2019-20. 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 Death
1	Angul	45
2	Balangir	20
3	Balasore	85
4	Bargarh	23
5	Bhadrak	67
6	Boudh	3
7	Cuttack	60
8	Deogarh	16
9	Dhenkanal	57
10	Gajapati	6
11	Ganjam	92
12	Jagatsinghpur	16
13	Jajpur	65
14	Jharsuguda	31
15	Kalahandi	14
16	Kandhamal	18
17	Kendrapara	65
18	Keonjhar	74
19	Khorda	28
20	Koraput	60
21	Malkangiri	37
22	Mayurbhanj	79
23	Nabarangpur	50
24	Nayagarh	15
25	Nuapada	11
26	Puri	48
27	Rayagada	14
28	Sambalpur	44
29	Subarnapur	12
30	Sundargarh	45
Total		1200

Snake bite

As many as 951 persons lost their lives due to snake bite in 30 districts during the year 2019-20. 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
1	Angul	42
2	Balangir	15
3	Balasore	56
4	Bargarh	27
5	Bhadrak	42
6	Boudh	10
7	Cuttack	37
8	Deogarh	19
9	Dhenkanal	33
10	Gajapati	4
11	Ganjam	69
12	Jagatsinghpur	15
13	Jajpur	53
14	Jharsuguda	8
15	Kalahandi	18
16	Kandhamal	5
17	Kendrapara	33
18	Keonjhar	72
19	Khordha	19
20	Koraput	21
21	Malkangiri	40
22	Mayurbhanj	82
23	Nabarangpur	43
24	Nayagarh	14
25	Nuapada	12
26	Puri	45
27	Rayagada	8
28	Sambalpur	40
29	Subarnapur	14
30	Sundargarh	55
Total		951

CHAPTER –III

Preparedness for Tsunami and Capacity Building Report

Tsunami Preparedness in Odisha 2019-20

Odisha State Disaster Management Authority (OSDMA), Odisha is implementing the IOC-UNESCO Indian Ocean Tsunami Ready programme in six coastal villages in six coastal districts of the state. This is a community performance-based Programme that facilitates tsunami preparedness as active collaboration of the community, community leaders, and national & local emergency management agencies. The main objective of this programme is to improve coastal community preparedness for tsunami emergencies, to minimize the loss of life and property and to ensure structural and systematic approach in building community preparedness. The list of villages is as under.



International Delegates and National Board Members on Tsunami Ready Programme at Noliasahi Village of Jagatsinghpur district

Sl No	District	Block	Villages
1	Balasure	Balasure Sadar	Jayadevkasaba Pahi
2	Bhadrak	Basudevapur	Podhuan
3	Kendrapara	Mahakalpada	Tantiapal Sasan
4	Jagatsinghpur	Ersama	Noliasahi
5	Puri	Astaranga	Keutajanga
6	Ganjam	Rangeilunda	Venkatraipur

To implement and monitor the Tsunami Ready in India, Ministry of Earth Sciences established a National Board under the chairmanship of Director, INCOIS with members drawn from MoES, National Disaster Management Authority (NDMA), Ministry of Home Affairs (MHA), and states. Based on the recommendations of the National Board, INCOIS has initiated capacity building programme to familiarize the Coastal States and UTs for implementation the Tsunami Ready Programme in India.



International Delegates and the National Board members on Tsunami Ready Programme at Venkatarapur village of Ganjam

The National Board of GOI along with Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS) and Indian Ocean Tsunami Information Centre (IOTIC) of IOC-UNESCO delegates visited two Tsunami Ready villages of Boxipalli (Venkatraipur) in Ganjam District, Noliasahi in Jagatsingpur District of Odisha during 13-14 December 2019 and evaluated the different indicators. After the verification of implementation of the indicators at those villages as per guidelines, the Board recommended to IOC-UNESCO for the recognition. These two villages would also be recognized by IOC-UNESCO for tsunami ready community. Odisha became the first state in the country as well as the entire Indian Ocean region for successful implementation of Tsunami ready

Odisha coast located in the eastern parts of India is vulnerable to tsunami. The Sumatra fault zone and tectonic plate setting along the Andaman & Nicobar Islands and Burma Micro plate boundaries remaining in the eastern part of the Bay of Bengal pose potential threats of tsunami for the coast of Odisha. As per the scientific study conducted by IIT, Kharapur, the state can experience tsunami within 4 hour, if the tsunami occurs at the nearest point in the Indo-Burman plate.

The tsunami travel time atlas, published by IIT, Kharagpur, has identified Odisha coast to be prone to tsunami. The Atlas gives the basic information on expected times of arrival of the first tsunami wave at selected coastal locations from the area of tsunami generation in the ocean. This advance knowledge of travel times for the first tsunami wave provides information on time required for evacuation of people and invocation of disaster-mitigation procedures during a real tsunami event. The travel time charts are prepared in the Atlas for pre-selected coastal locations with the assumption that the epicenter is located at this site. The tsunami travel times are exactly the same, no matter in which direction the tsunami travels on a given chart i.e. from an epicenter in the ocean to a coastal site or vice versa. The tsunami travel time charts in the atlas are with hourly contours for the Indian Ocean region.

Since there is no specific tsunami event off Odisha coast in the recent past, the coast is under threat. 22 blocks are vulnerable to tsunami. There are many low-lying deltaic coastal plains, which are likely to be submerged with 3 to 5 meters amplitude of the waves.

As per the literature available on past tsunami events, the tsunami wave can affect upto 1.5 km from the coastline. However, in certain areas like estuaries and other water bodies, low lying area it can travel beyond 1.5 km. As per the preliminary assessment, 328

villages/ULBs in 22 blocks covering 6 coastal districts are identified as the tsunami vulnerable area.

Activity Report for the year 2019-20

Following capacity building activities have been taken up with SDRF support by OSDMA

1. Training and Capacity Building Activities:

- 200 ODRAF personnel were trained on 'Breathing Apparatus & Fire Fighting' at OFDRA, Bhubaneswar.
- 60 ODRAF personnel were trained in Flood Rescue Boat (FRB) Operation in 2 batches at DMTC, ROTI, Bhubaneswar.
- 03 Batches of FRB refresher courses were organized at DMTC, ROTI, Bhubaneswar and 90 ODRAF personnel were trained.
- 20 ODRAF personnel received Training of Trainers (ToT) course in CBRN at 5th Bn. NDRF, Pune.
- 05 ODRAF personnel received Training of Trainers (ToT) course in MFR-CSSR at FSTI, NISA, Hyderabad.
- 19 ODRAF personnel received Training of Trainers (ToT) course in MFR-CSSR at 7th Bn. NDRF, Bhatinda.
- 18 ODRAF and Fire Service personnel received basic MFR & CSSR training at NITSDR, ITBP, Haryana.
- 16 ODRAF personnel received Disaster Management Basic Course at FSTI, NISA, Hyderabad.
- 20 ODRAF and Fire Service Personnel received Basic MFR/ CSSR training at CTC, CRFP, Coimbatore.
- 18 ODRAF & Fire Service personnel trained in basic NBC/CBRN training at FSTI, NISA, Hyderabad.
- 320 ODRAF personnel received First- Aid Voucher Course training at different ODRAF battalions.
- 38 ODRAF personnel were trained in 'Under Water Life Saving and Salvage Operations' at SEI, Kolkata.
- 90 ODRAF personnel and 20 Fire Service Personnel trained in 'Rope Rescue' at DMTC, ROTI, Bhubaneswar.

- A 03 days training programme on 'Disaster Management and Decision Support System' was organized for District Emergency Officers and District Project Officers of OSDMA.
- A one-day workshop and interactive session of SCUBA Divers of ODRAF and Fire Service was organized at ROTI.
- Familiarization Exercise (FAMEX)/ Community Awareness Programmes (CAP) were conducted by ODRAF and Odisha Fire Service Units in different blocks of 30 districts of the state.
- 91 no. of community volunteers from Gajapati district were trained in 'Disaster Response' in 03 batches at DMTC, ROTI under the UNDP Programme- Recovery Support to the Government in the aftermath of Cyclone- 'TITLI'
- Under 'Aapda Mitra'scheme of NDMA, 400 numbers of community volunteers have been trained in disaster response in two flood prone- Jagatsingjpur & Puri districts of Odisha.
- 60 number of Red Cross counsellors have been trained in Disaster Management and Basic Disaster Survival Skills.
- A 02 days training programme on 'Child Centric Disaster Risk Reduction' was organized for district and state level officials in Bhubaneswar in collaboration with NIDM.
- A 03 days training programme on ' Disaster Management for First Responders' was organized at DMTC, ROTI in collaboration with NIDM.
- One day training programme of Nodal NGOs on preparation of Tsunami Contingency Plan in 328 Tsunami prone Villages in six coastal districts was organized.
- Mock Exercise on Cyclone / Flood was conducted across the state covering 30 districts. The exercise was conducted in 879 MCS/MFS involving district administration, community members, CSMMC/FSMMC, Task Force volunteers, PRI representatives, NGO partners, NDRF, Fire Service and ODRAF.
- Mock exercise for emergency management was also organized by OSDMA on the occasion of world-famous Car Festival in Puri.
- Mock Exercise on Chemical, Biological, Radiological and Nuclear (CBRN) disaster was organized in Esplanade mall of Bhubaneswar in collaboration with NDRF.
- Mock Exercises have also been organized on Industrial (Chemical) disaster management in association with Directorate of Factories & Boilers, Odisha.
- 02 days International Seminar on 'Disaster Risk Reduction and Community Resilience' was organized in collaboration with Utkal University, Bhubaneswar in the month of September 2019.

- One day workshop on 'Mainstreaming DRR and CCA in Development Planning' was organized in Gajapati district under UNDP programme.
- 05 number of Regional Workshops were organized involving district level officials of various departments for finalization of the State Road Map in line with Sendai Framework for Disaster Risk Reduction (SFDRR).
- The On-Site Emergency Plan and Disaster Control Mechanism of 11 Major Accident Hazard (MAH) Installations of Jagatsinghpur, Dhenkanal, Ganjam, Jajpur, Jharsuguda, Rayagada, Sambalpur and Sundargarh districts were reviewed at OSDMA level.
- Consultations were held at OSDMA level and the Draft Action Plan for Chemical Disaster Management in the State has been prepared.
- Workshop on 'Chemical Disaster Management' was organized involving Disaster Management Nodal Offices of various Departments of the State Government.
- State level competitions among shelter level Task Force Volunteers on Search and Rescue and First-Aid were organized at ROTI, Gothapatana, Bhubaneswar and the winners were felicitated during the State level function on 29.10.2020 on the occasion of Disaster Preparedness Day.
- 03 batches of training programmes were organized in collaboration with W & CD and Mission Shakti Department and in total 150 no. of WSHG members were trained in Disaster Management.
- Table Top Exercises for Air Crash incident conducted at Biju Pattnaik International involving all stakeholders.
- Capacity building activities for DRR and risk mitigation taken up in Cuttack City under the UNDP project 'Enhancing Institutional and Community Resilience to Disasters and Climate Change'.
- Preparatory meeting for 2nd BIMSTEC Disaster Management Exercise was organized in Puri in collaboration with NDRF.
- Mass Rescue Operation Plan has been prepared and submitted to Indian Coast Guard.

2. Preparation of Disaster Management Plans.

OSDMA facilitated the preparation and implementation of following plans during 2019-20:

- District Disaster Management Plans (DDMP) in all the 30 districts of Odisha.
- Disaster Management Plans by 23 Departments of Government of Odisha.
- State Disaster Management Plan (SDMP).
- Heat Wave Action Plan for 2019.

- Village Disaster Management Plan (VDMP): With an aim to ensure community participation and community ownership in disaster management, OSDMA has initiated the programme for preparation of Village Disaster Management Plans (VDMPs) in all the 30 districts of the state. In this connection, as per approval of the SEC, funds have already been released to the districts for preparation of VDMP in 10,000 number of villages in the first phase engaging NGO partners.

The districts have already selected the NGO partners and completed their orientation. The process of community mobilization, formation of Village Disaster Management Committee (VDMC), formation of Disaster Management Teams and the process of preparation of Village Disaster Management Plan (VDMP) is under progress.

- Tsunami Management Plan: Considering the vulnerability of Odisha coast to Tsunami and enhance the preparedness and response capacities at the community level, OSDMA has initiated the preparation of Tsunami Management Plan for the 328 Tsunami prone villages/ ULBs of 06 coastal districts. The local NGOs have been engaged by the district administrations for preparation of the plan at community level.

3. Awareness Generation Activities:

- Massive awareness created through print and electronic media on safety and survival related to Heat Wave, Lightning, Flood, Urban flooding, Cyclone, Tsunami, Drowning Prevention, Boat Safety, Snake Bite, Cold Wave etc. and preparation of emergency kit at family level.
- Awareness on the norms of ex-gratia and assistances under SDRF also done through print media.

4. Research and Studies:

- In the aftermath of the landslides triggered by heavy rainfall during Cyclone-TITLI, OSDMA with technical support from Indian Institute of Technology (IIT), Bombay conducting a study for landslide vulnerability assessment of Gajapati district.
- OSDMA in collaboration with IIT, Bombay is conducting a study and technical intervention to analyze the existing gaps, and to devise the best structurally designed Multipurpose Cyclone Shelters (MCS) and Multipurpose Flood Shelters (MFS) that can withstand the hydrometeorological disasters and tsunami, in the coastal Odisha. The institute has already submitted its interim report to OSDMA in December 2019.
- In the aftermath of Cyclone-FANI, OSDMA facilitated the collaborative effort of Government of Odisha, The World Bank, Asian Development Bank and the United

Nations for detailed assessment of the damage and recovery needs. The report entitled 'Cyclone Fani- Damage, Loss and Needs Assessment' was released by the Hon'ble Chief Minister on 06.08.2019 in a function at the State Secretariat.

5. Documentation and Publication:

- The Monthly News Letters of OSDMA for April, May, June, July, August and September 2019 were published during the year.
- A special monthly issue on Cyclone-FANI was also published in the month of May 2019.
- The Process Documentation for 'FANI' was conducted and published by OSDMA.
- The 'Flood Hazard Zonation Atlas-Odisha' prepared by National Remote Sensing Center, Indian Space Research Organization in association with Odisha State Disaster Management Authority (OSDMA), Government of Odisha and in coordination with National Disaster Management Authority (NDMA), Government of India was released during the year 2019.
- Three State Level Workshops sponsored by NIDM were organized by OSDMA for documentation on 'Managing Cyclone FANI- Lessons learnt and way forward'. The draft report is under review for finalization.
- Video Documentation on Management of Cyclone 'FANI' was done by OSDMA.

Other Activities:

- Physical audit of all OSDMA Shelter Buildings and shelter level Emergency Equipment was done to ascertain the readiness and assess the requirement for maintenance and upgradation.

CHAPTER – IV

State Disaster Response Fund (SDRF)

**Status of release of funds out of SDRF Account 2019-20
for State of ODISHA
(As on 31.03.2020)
[Rs. in crore]**

1	Opening Balance (As on 01.04.2019)	447.520
2	SDRF releases during the year 2019-20 (Central & State Share)	
	# Central Share	552.000
2	# State Share	357.000
3	NDRF releases during the year 2019-20:	3294.100
4	Total funds available in SDRF Account (1+2+3)	4650.620
5	Expenditure incurred on calamities	
	# Avalanches	-
	# Cloud Burst	-
	# Cyclone	3046.740
	# Drought	136.853
	# Earthquake	-
	# Fire	17.287
	# Flood	17.677
	# Hailstorm	8.832
	# Landslides	0.12
	# Pest attack	9.532
	# Tsunami	-
	# Cold Wave	-
	Sub-Total	3237.041
Expenditure incurred during 2019-20		
6	Covid-19 expenditure	225.000
7	Expenditure incurred from SDRF up to 10% on procurement of search and rescue equipments etc.	30.176
8	Expenditure incurred from SDRF up to 5 % on Capacity Building Activities	12.659
9	Expenditure incurred from SDRF up to 10 % on State Specific disasters	164.302
10	Total expenditure incurred on all calamities (5+6+7+8+9)	3669.178
11	Balance available in SDRF Account (4 - 10)	981.442

Statement showing item-wise details of expenditure incurred as per approved items and norms of SDRF/NDRF

(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	264.000	0	0	462.500	0.000	12.000	12.000	0	0	0	0	8740.000
	(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	66	0	0	130	0	3	3	0	0	0	0	2185
(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	2.637	0	0	0.000	0	0	0	0	0	0	0	3.96

	(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	39	0	0	0	0	0	0	0	0	0	0	51
(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	
	(iii) Total no. of beneficiaries	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	383.486	0	0	49.760	0.700	0	0	0	0	0	0	80.33
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	
	(iii) Total no. of beneficiaries	0	0	10092	0	0	1310	19	0	0	0	0	0	2114	
(f)	Gratuitous relief for families in dire need of immediate sustenance after a calamity														
	(i) As per SDRF/NDRF norms	0	0	64647.080	0	0	54.520	3.490	0	0	0	0	0	0	311.25
	(ii) Outside the norms	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	
2	Supplementary Nutrition														
	(i) As per SDRF/NDRF	0	0	0	0	0	0	0	0	0	0	0	0	0	

	norms														
	(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	504.750	0	0	0	0	0	0	959.420
	(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
(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	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
(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	12183.464	13685.310				845.303		953.15			0	2760.32
	(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
	(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	702.400	0	0	418.560	143.260	0	0	0	0	0	0	218.210

	(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	6911	0	0	4402	2138	0	0	0	0	0	0	3156
(ii)	Provisions of fodder/feed in cattle camps														
	(i) As per SDRF/NDRF norms	0	0	2067.600	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	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 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	718.528					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	8.424	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 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	3352.693	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 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	742.760	0	0	0	32.430	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	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 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	21.780	0	0	7.608	0	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	0
	(iii) Number	0	0	23	0	0	8	0	1	0	0	0	0	0	0
(b)	Fully damaged/ destroyed Kutcha houses														
	(i) As per SDRF/NDRF norms	0	0	10632.843	0	0	225.93	0	0	0	0	0	0	173.238	0

	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Number	0	0	11183	0	0	238	0	0	0	0	0	0	761	0
(c)	Severely damaged houses														
(i)	Severely damaged Pucca houses														
	(i) As per SDRF/NDRF norms	0	0	28.432	0	0	0	0	0	0	0	0	0	18.069	
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Number	0	0	38	0	0	0	0	0	0	0	0	0	19	
(ii)	Severely damaged Kutcha houses														
	(i) As per SDRF/NDRF norms	0	0	46927.210	0	0	97.002	0	0	0	0	0	0	25.999	202.230
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Number	0	0	46052	0	0	102	0	0	0	0	0	0	1031	199
(d)	Partially damaged houses (both pucca and kutcha)														
	(i) As per SDRF/NDRF norms	0	0	49875.28	0	0	289.44	302.865	24.889	0	0	0	0	217.833	359.23
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Number	0	0	593753	0	0	3447	360554	296	0	0	0	0	4210	4278
(e)	Huts damaged/ destroyed														

	(i) As per SDRF/NDRF norms	0	0	438.54	0	0	1.113	3.255	0	0	0	0	0	55.731	33.56
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Number	0	0	10841	0	0	53	155	0	0	0	0	0	2331	800
11	Provision of emergency supply of drinking water in rural areas and urban areas														
	(i) As per SDRF/NDRF norms	0	0	3862.480	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 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 epidemics 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	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 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	15580.520	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) 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	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 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	0.000	0	0	0	223.380	0	0	0	0	0	0	586.450
	(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	70147.000	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
(e)	Primary Education														
	(i) As per SDRF/NDRF norms	0	0	2846.200	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 primary school buildings repaired	0	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	346.500	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 Primary Health Centres buildings repaired	0	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	17019.270	0	0	0	0	0	0	0	0	0	0	2175.25
	(ii) Outside the norms	0	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	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	22500.00	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	1208.440	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	666.455	0	0	122.290	553.535	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
	(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	538.53	0	0	109.180	618.220	0	0	0	0	0	0	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	0.000	0	0	2472.360	545.26	0	0	0	0	0	0	0
	TOTAL	0.000	0.000	305212.552	13685.310	0.000	4310.258	2931.145	883.143	12.000	953.153	0.000	0.000	22500.000	16430.210

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