



Government of Odisha

**ANNUAL REPORT
ON
NATURAL CALAMITIES
2022-23**

**SPECIAL RELIEF COMMISSIONER
Revenue and 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, PriyaKalam, Taptadhara	1667.6
22	Mayurbhanj	10418	3950	2514	63.98	449.50	Kala, Budhabalang	1600.6
23	Nawarangpur	5291	891	1219	48.20	261.60	Indravati, Tel, Vaskel	1569.5
24	Nayagarh	3890	1692	962	79.17	190.29	Mahanadi, Brutanga, Kaligiri, Kusumi, Malaguni, BudhaBudhari, Kuairia	1354.3
25	Nuapada	3852	668	606	58.20	269.72	Udanti, Jalka	1286.4
26	Puri	3479	1707	1698	85.37	259.04	Kadua, Dhanua, Bhadua, Ratnachira, Malaguni, Devi, Daya, Kusabhadra, Bhargavi, Prachi, Luna	1408.8
27	Rayagada	7073	2665	962	50.88	234.77	Bansadhara, Nagabali	1285.9
28	Sambalpur	6657	1313	1044	76.91	249.11	Mahanadi	1495.7
29	Subarnapur	2337	962	652	74.42	217.75	Mahanadi, Tel	1418.5
30	Sundargarh	9712	1762	2081	74.13	349.86	Brahmani, Ib	1422.4
Total (State)		155707	51313	41947	73.45	8167.60		1451.2

CHAPTER- II

Rainfall

Normal rainfall (Long Term Average):

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

Sl. No.	District	Annual Normal Rainfall (in mm)	Sl. No.	District	Annual Normal Rainfall (in mm)
1	Angul	1401.9	26	Puri	1408.8
2	Balasore	1592.0	27	Rayagada	1285.9
3	Bargarh	1367.3	28	Sambalpur	1495.7
4	Bhadrak	1427.9	29	Subarnapur	1418.5
5	Balangir	1289.8	30	Sundargarh	1422.4
6	Boudh	1623.0		State Average	1451.2
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	Nuapada	1286.4			

DISTRICT-WISE RAINFALL FOR THE YEAR 2022

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	35.8	12.6	183.9	2.4	27.1	-91.1	0.0	24.3	-100.0	0.4	27.2	-98.5	65.6	52.9	23.9	164.2	225.1	-27.1	295.1	347.7	-15.1
2	Balasore	17.7	14.7	20.2	35.9	31.8	12.9	0.0	34.4	-100.0	3.4	62.2	-94.6	80.5	108.5	-25.8	173.3	221.5	-21.7	342.5	308.6	11.0
3	Bargarh	32.1	12.5	156.9	5.1	19.1	-73.2	0.1	22.0	-99.7	5.4	20.0	-73.0	19.3	25.6	-24.5	123.7	205.6	-39.8	439.7	397.2	10.7
4	Bhadrak	33.5	11.8	184.0	27.0	29.6	-8.8	0.0	36.1	-100.0	0.0	51.2	-100.0	103.7	91.4	13.4	94.9	198.2	-52.1	285.5	293.6	-2.8
5	Balangir	43.1	8.6	400.7	0.3	13.2	-97.8	0.4	14.6	-97.0	9.6	13.4	-28.7	22.0	27.8	-20.9	93.4	202.8	-53.9	320.1	360.5	-11.2
6	Boudh	38.2	17.0	124.7	0.7	26.8	-97.5	0.0	22.4	-100.0	0.0	16.5	-100.0	109.7	38.4	185.6	284.7	233.8	21.8	408.5	418.5	-2.4
7	Cuttack	40.7	9.9	311.3	15.8	28.6	-44.6	0.0	24.7	-100.0	0.0	28.3	-100.0	101.2	71.5	41.6	132.7	210.0	-36.8	377.6	308.3	22.5
8	Deogarh	40.8	14.1	189.4	11.9	27.0	-56.0	1.1	20.6	-94.5	0.0	21.3	-100.0	103.7	41.9	147.4	124.8	242.4	-48.5	456.3	447.7	1.9
9	Dhenkanal	52.1	10.5	396.1	8.7	21.9	-60.1	0.0	33.7	-100.0	3.4	41.3	-91.8	101.1	69.6	45.3	198.8	225.7	-11.9	352.3	317.9	10.8
10	Gajapati	57.9	8.1	614.8	0.0	23.0	-100.0	12.3	41.3	-70.2	25.6	65.2	-60.7	108.1	107.8	0.2	138.2	199.7	-30.8	313.1	230.6	35.8
11	Ganjam	37.0	9.4	293.4	3.0	24.1	-87.7	0.0	32.6	-100.0	10.1	36.6	-72.5	75.5	65.4	15.4	95.2	168.3	-43.4	244.9	220.8	10.9
12	Jagatsinghpur	11.9	14.5	-18.1	6.1	21.7	-71.8	0.0	35.5	-100.0	0.0	25.4	-100.0	34.0	78.0	-56.4	74.8	202.3	-63.0	422.0	277.3	52.2
13	Jajpur	47.7	12.9	269.5	26.0	25.1	3.5	0.0	28.4	-100.0	0.0	46.1	-100.0	137.7	93.7	47.0	179.2	238.5	-24.9	341.3	350.9	-2.7
14	Jharsuguda	69.6	14.1	393.6	36.4	22.9	58.8	0.0	17.6	-100.0	0.0	15.1	-100.0	46.4	27.9	66.4	102.0	218.8	-53.4	366.8	385.8	-4.9
15	Kalahandi	60.3	10.3	485.0	0.0	14.4	-100.0	0.0	23.7	-100.0	3.2	25.7	-87.5	43.0	41.8	2.8	145.9	240.4	-39.3	411.2	327.7	25.5
16	Kandhamal	67.6	10.6	537.9	3.5	29.7	-88.4	0.0	28.0	-100.0	26.8	35.7	-25.0	89.5	67.8	32.0	169.7	207.9	-18.4	500.6	325.1	54.0
17	Kendrapara	15.0	10.6	41.5	18.1	30.2	-40.0	0.0	35.0	-100.0	0.0	33.9	-100.0	72.1	94.2	-23.4	67.9	208.3	-67.4	366.3	317.1	15.5
18	Keonjhar	32.7	14.6	123.7	17.6	33.8	-48.0	0.4	33.1	-98.7	17.9	42.1	-57.4	90.9	94.8	-4.1	137.7	241.4	-43.0	326.9	318.0	2.8
19	Khordha	32.9	12.4	165.1	13.7	24.3	-43.5	0.0	22.1	-100.0	0.5	28.0	-98.2	132.0	60.7	117.4	73.8	196.2	-62.4	443.7	304.9	45.5
20	Koraput	34.2	5.7	500.0	0.2	8.6	-97.5	0.7	18.3	-96.1	35.2	55.2	-36.2	108.2	81.9	32.1	131.9	206.8	-36.2	451.9	375.6	20.3
21	Malkangiri	17.3	2.7	541.3	0.0	4.1	-100.0	0.0	8.9	-100.0	32.7	34.8	-6.0	69.5	49.1	41.5	110.0	212.2	-48.1	541.2	465.7	16.2
22	Mayurbhanj	28.8	10.3	179.9	22.8	28.0	-18.4	4.6	40.2	-88.4	23.7	52.5	-54.9	89.2	101.2	-11.8	164.7	265.8	-38.0	294.0	337.3	-12.8
23	Nawarangpur	82.2	6.7	1127.3	0.0	14.1	-100.0	0.0	15.1	-100.0	27.8	34.1	-18.5	59.2	66.1	-10.5	124.0	251.8	-50.8	482.4	356.6	35.3
24	Nayagarh	37.9	11.7	223.5	0.0	28.6	-100.0	0.0	30.0	-100.0	14.7	39.9	-63.2	103.2	58.8	75.4	149.2	203.5	-26.7	370.8	288.5	28.5
25	Nuapada	69.5	12.0	479.3	0.0	14.6	-100.0	0.0	19.7	-100.0	9.4	21.8	-56.9	20.4	31.2	-34.7	157.1	210.3	-25.3	386.4	347.1	11.3
26	Puri	10.9	10.9	0.3	2.0	25.4	-92.1	0.0	15.5	-100.0	0.0	18.5	-100.0	57.1	62.1	-8.1	14.8	188.0	-92.1	343.7	292.0	17.7
27	Rayagada	66.2	9.6	589.3	0.0	22.9	-100.0	0.0	38.0	-100.0	12.4	52.7	-76.5	98.9	87.8	12.6	169.2	195.3	-13.4	328.6	259.5	26.6
28	Sambalpur	40.8	14.8	175.5	14.0	24.5	-42.9	0.0	18.2	-100.0	0.4	16.5	-97.6	76.3	32.3	136.3	126.1	221.0	-43.0	327.3	429.5	-23.8
29	Subarnapur	46.7	12.5	273.6	0.0	17.2	-100.0	0.0	15.7	-100.0	0.0	15.4	-100.0	25.7	29.3	-12.3	136.2	217.4	-37.4	406.0	399.6	1.6
30	Sundargarh	45.3	15.1	199.8	36.1	24.9	44.9	0.0	16.0	-100.0	3.5	16.0	-78.3	59.6	40.6	46.7	83.5	237.4	-64.8	265.7	386.4	-31.2
State Average		41.5	11.4	264.4	10.2	22.9	-55.3	0.7	25.5	-97.4	8.9	33.1	-73.2	76.8	63.3	21.3	131.4	216.5	-39.3	373.7	339.9	10.0

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	402.3	357.5	12.5	100.5	217.5	-53.8	94.4	86.3	9.3	0.0	20.4	-100.0	0.0	3.3	-100.0	1160.6	1401.9	-17.2
2	Balasore	462.7	332.1	39.3	187.3	267.6	-30.0	179.4	170.5	5.2	0.0	34.6	-100.0	0.0	5.5	-100.0	1482.7	1592.0	-6.9
3	Bargarh	414.7	374.4	10.8	156.6	222.6	-29.7	71.4	52.8	35.3	0.0	10.4	-100.0	0.0	5.1	-100.0	1268.1	1367.3	-7.3
4	Bhadrak	304.7	311.7	-2.2	159.3	216.8	-26.5	212.1	145.3	46.0	0.0	37.3	-100.0	1.5	4.9	-69.1	1222.3	1427.9	-14.4
5	Balangir	393.5	333.6	18.0	162.2	237.4	-31.7	65.5	68.4	-4.3	0.0	7.2	-100.0	0.0	2.3	-100.0	1110.0	1289.8	-13.9
6	Boudh	575.9	488.8	17.8	154.3	244.8	-37.0	103.2	90.5	14.0	0.0	21.1	-100.0	0.0	4.4	-100.0	1675.1	1623.0	3.2
7	Cuttack	393.5	339.1	16.0	245.9	229.2	7.3	189.5	125.6	50.8	0.0	45.0	-100.0	0.0	4.1	-100.0	1497.0	1424.3	5.1
8	Deogarh	604.2	443.4	36.3	121.3	228.2	-46.9	81.2	84.4	-3.8	0.0	8.0	-100.0	0.0	3.5	-100.0	1545.2	1582.5	-2.4
9	Dhenkanal	413.3	344.8	19.9	172.9	220.6	-21.6	119.2	104.4	14.1	0.0	36.2	-100.0	0.0	2.2	-100.0	1421.7	1428.8	-0.5
10	Gajapati	360.9	253.6	42.3	302.2	237.9	27.0	208.1	168.6	23.4	5.6	61.8	-91.0	6.0	5.7	4.8	1537.9	1403.3	9.6
11	Ganjam	352.1	246.8	42.7	262.8	216.3	21.5	257.5	177.7	44.9	0.6	71.1	-99.1	0.0	7.1	-99.5	1338.6	1276.2	4.9
12	Jagatsinghpur	405.6	379.1	7.0	291.4	241.4	20.7	222.1	151.1	47.0	0.0	80.4	-100.0	0.0	7.9	-100.0	1467.9	1514.6	-3.1
13	Jajpur	345.9	341.2	1.4	189.9	238.0	-20.2	152.3	140.2	8.7	0.0	41.0	-100.0	0.0	3.9	-100.0	1419.9	1559.9	-9.0
14	Jharsuguda	502.4	382.9	31.2	115.6	210.7	-45.1	84.7	54.9	54.2	0.0	7.7	-100.0	0.0	4.4	-100.0	1323.8	1362.8	-2.9
15	Kalahandi	643.6	355.4	81.1	171.3	204.6	-16.3	76.6	74.0	3.5	0.0	10.9	-100.0	0.0	1.6	-100.0	1555.1	1330.5	16.9
16	Kandhamal	730.5	330.8	120.8	276.2	239.1	15.5	152.9	117.7	29.9	4.8	31.0	-84.6	0.8	4.5	-83.3	2022.9	1427.9	41.7
17	Kendrapara	406.0	333.3	21.8	240.2	237.3	1.2	219.6	183.7	19.5	0.0	67.2	-100.0	0.0	5.2	-100.0	1405.2	1556.0	-9.7
18	Keonjhar	404.8	343.6	17.8	175.5	241.1	-27.2	87.4	101.3	-13.8	0.0	20.5	-100.0	0.0	3.4	-100.0	1291.7	1487.7	-13.2
19	Khordha	309.7	320.6	-3.4	243.4	234.5	3.8	157.6	149.3	5.5	0.0	50.4	-100.0	0.0	5.0	-100.0	1407.2	1408.4	-0.1
20	Koraput	600.5	393.6	52.6	377.9	256.3	47.4	165.5	126.1	31.2	12.0	32.6	-63.2	1.5	6.5	-77.0	1919.6	1567.2	22.5
21	Malkangiri	384.4	472.8	-18.7	343.3	281.2	22.1	60.7	109.5	-44.6	0.0	23.6	-100.0	0.2	3.0	-94.3	1559.3	1667.6	-6.5
22	Mayurbhanj	487.5	359.9	35.4	178.8	262.0	-31.8	119.3	114.1	4.6	0.0	21.6	-100.0	0.0	7.3	-100.0	1413.5	1600.2	-11.7
23	Nawarangpur	619.8	407.5	52.1	253.6	225.6	12.4	65.4	168.6	-61.2	0.0	18.7	-100.0	0.0	4.6	-100.0	1714.3	1569.5	9.2
24	Nayagarh	459.4	288.2	59.4	186.6	226.8	-17.7	174.4	134.5	29.7	0.0	39.0	-100.0	0.0	4.8	-100.0	1496.2	1354.3	10.5
25	Nuapada	401.8	327.8	22.6	157.6	214.5	-26.5	41.5	68.9	-39.8	0.0	15.3	-100.0	1.9	3.2	-40.6	1245.6	1286.4	-3.2
26	Puri	326.8	297.9	9.7	233.1	243.2	-4.1	210.8	181.6	16.1	0.0	67.3	-100.0	0.0	6.4	-100.0	1199.2	1408.8	-14.9
27	Rayagada	419.1	273.7	53.1	173.1	199.1	-13.0	114.3	109.7	4.2	11.4	32.9	-65.4	0.1	4.7	-97.7	1393.3	1285.9	8.3
28	Sambalpur	543.5	442.4	22.9	173.7	224.7	-22.7	87.9	54.7	60.6	0.0	12.7	-100.0	0.0	4.4	-100.0	1389.9	1495.7	-7.1
29	Subarnapur	439.2	408.9	7.4	93.0	228.0	-59.2	44.9	59.8	-25.0	0.0	11.4	-100.0	0.0	3.3	-100.0	1191.7	1418.5	-16.0
30	Sundargarh	527.7	393.9	34.0	147.2	211.5	-30.4	82.3	67.7	21.6	0.0	8.7	-100.0	0.0	4.2	-100.0	1250.8	1422.4	-12.1
	State Average	454.5	356.0	27.7	201.6	231.9	-13.1	130.0	114.7	13.4	1.1	31.5	-96.4	0.4	4.5	-91.1	1430.9	1451.2	-1.4

Rainfall during Monsoon 2022 (1st June to 30th September)

The State experienced average deficit rainfall of 39.3 percent in June, surplus rainfall of 10.0 percent in July, surplus rainfall of 27.7 percent in August and deficit rainfall of 13.1 percent in September, 2022 compared to the long term average rainfall. The cumulative average rainfall of the State from June to September, 2022 remained 1161.2 mm against the Long Term Average (LTA) of 1144.3 mm registering a surplus of 1.5 percent.

Month	Normal	Rainfall in MM	
		Actual	Deviation in %
June	216.5	131.4	-39.3
July	339.9	373.7	10.0
August	356.0	454.5	27.7
September	231.9	201.6	-13.1
Total:	1144.3	1161.2	1.5

Block-wise analysis of the cumulative rainfall from 1st June, 2022 to 30th September, 2022 indicates that out of 314 Blocks in the State, 71 Blocks received surplus rainfall (above 19%), 186 Blocks received normal rainfall (+19% to -19%), 44 Blocks received deficit rainfall (shortfall of >19% to 39%), 13 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, 2022 to 30th September, 2022)

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%)	Not Reported
1	2	3	4	5	6	7	8
1	Angul	1	4	2	1		
2	Balasore	1	11				
3	Bargarh		10	2			
4	Bhadrak		3	4			
5	Balangir		10	2	2		
6	Boudh	1	1	1			
7	Cuttack	3	10				
8	Deogarh		3				
9	Dhenkanal	3	4	1			
10	Gajapati	3	4	1			
11	Ganjam	9	9	2	2		

12	Jagatsinghpur	3	4	1		
13	Jajpur		8	2		
14	Jharsuguda	1	2	1	1	
15	Kalahandi	5	8			
16	Kandhamal	12				
17	Kendrapara	1	6	2		
18	Keonjhar	2	9	1	1	
19	Khordha	2	6	1	1	
20	Koraput	6	8			
21	Malkanagiri	1	5	1		
22	Mayurbhanj	3	14	8	1	
23	Nawarangpur	4	5		1	
24	Nayagarh	3	4	1		
25	Nuapada	1	4			
26	Puri	1	6	3	1	
27	Rayagada	5	6			
28	Sambalpur		7	2		
29	Subarnapur		5		1	
30	Sundargarh		10	6	1	
No. of Blocks		71	186	44	13	0
No. of Districts		22	29	20	11	0

Fig.1.1. District-wise Rainfall for the year 2022

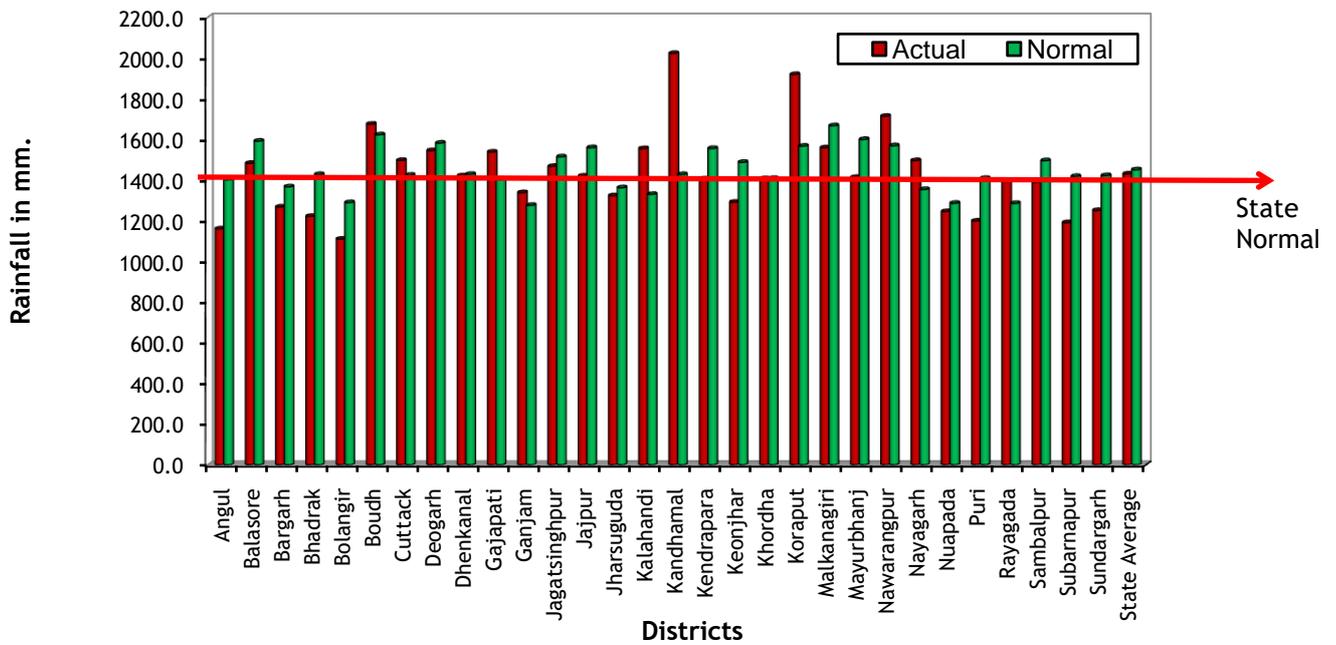


Fig.1.2. Month-wise Rainfall for the year 2022

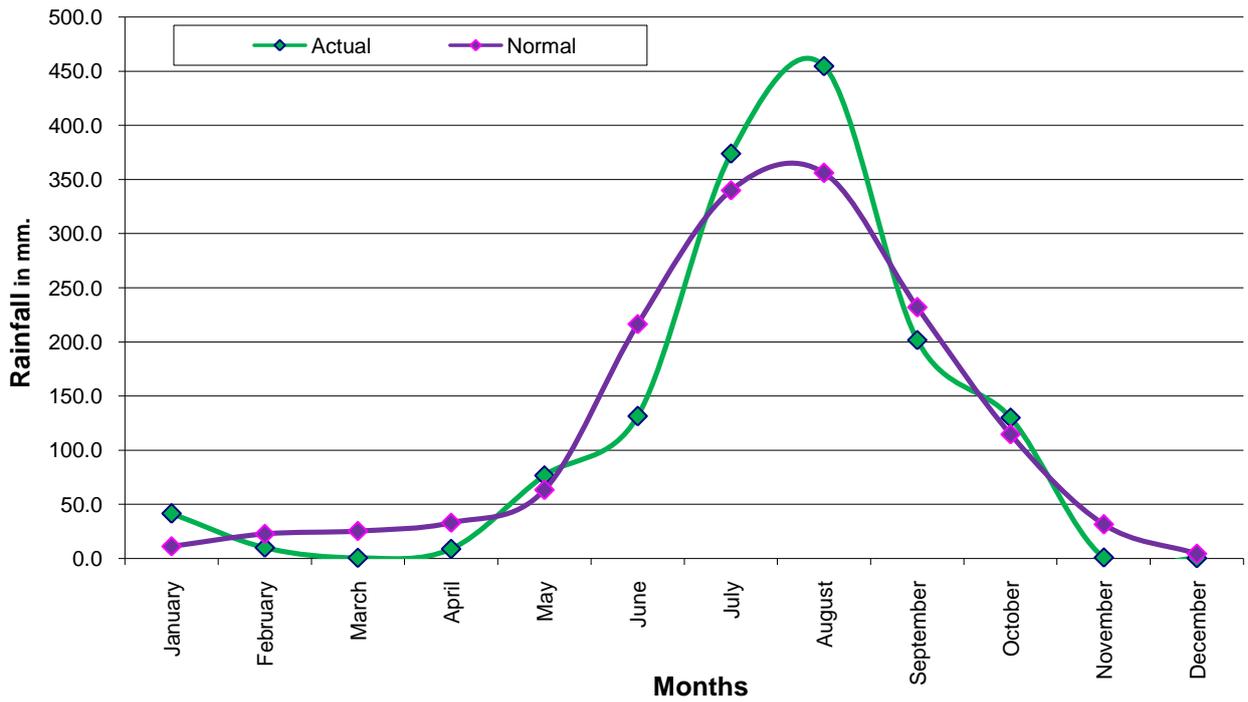
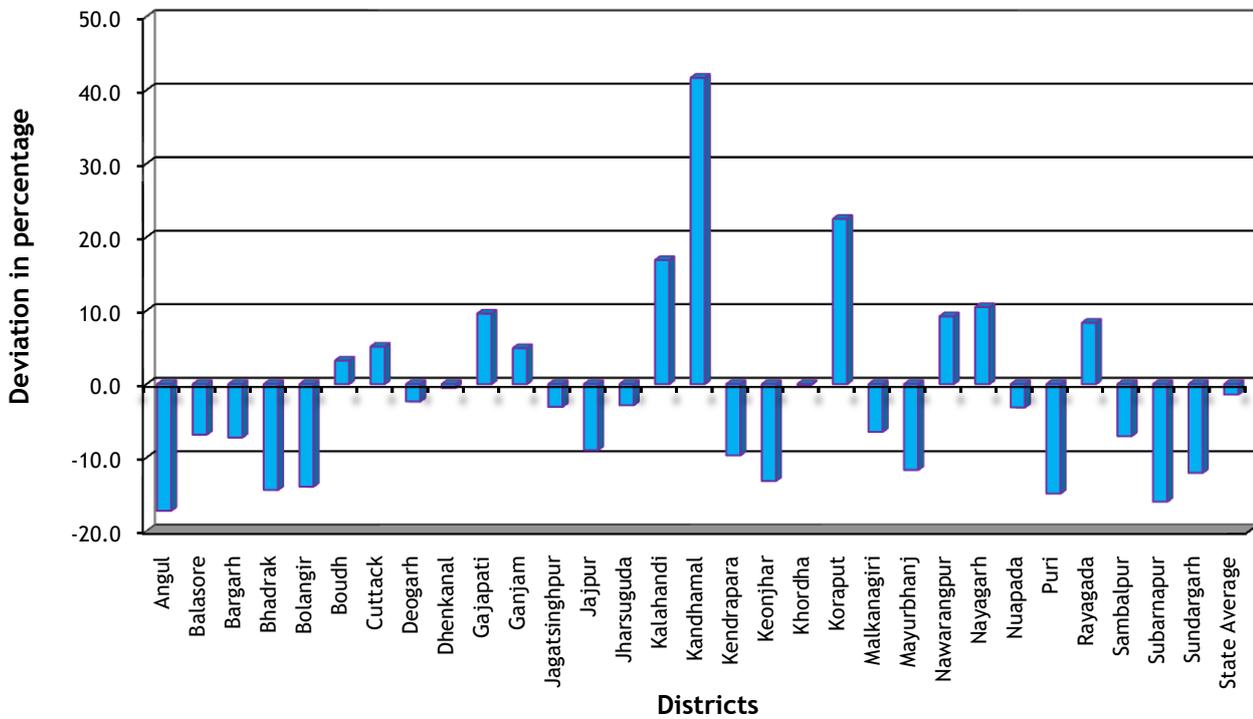


Fig.1.3. Rainfall Deviation of the Districts for the year 2022



CHAPTER – III

Disasters during the Year

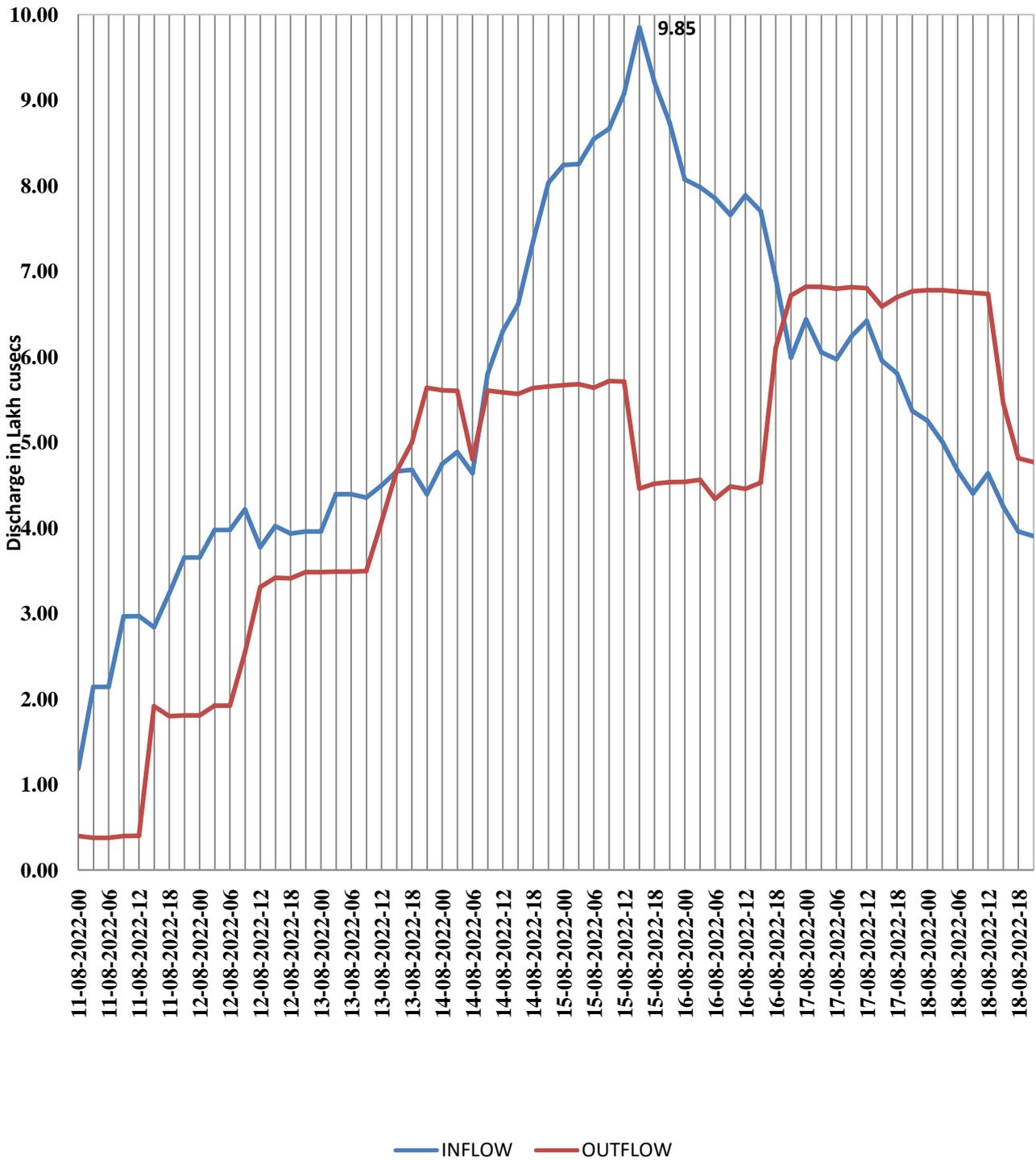
Flood & Heavy Rain

The state was affected by a medium Flood in the Mahanadi river system during the month of August 2022. Besides the flood in the Mahanadi system, the State also experienced floods in river Baitarani & Subarnarekha affecting the districts of Balasore, Mayurbhanj, Bhadrak, Jajpur and Keonjhar along with heavy rain in various parts of the state.

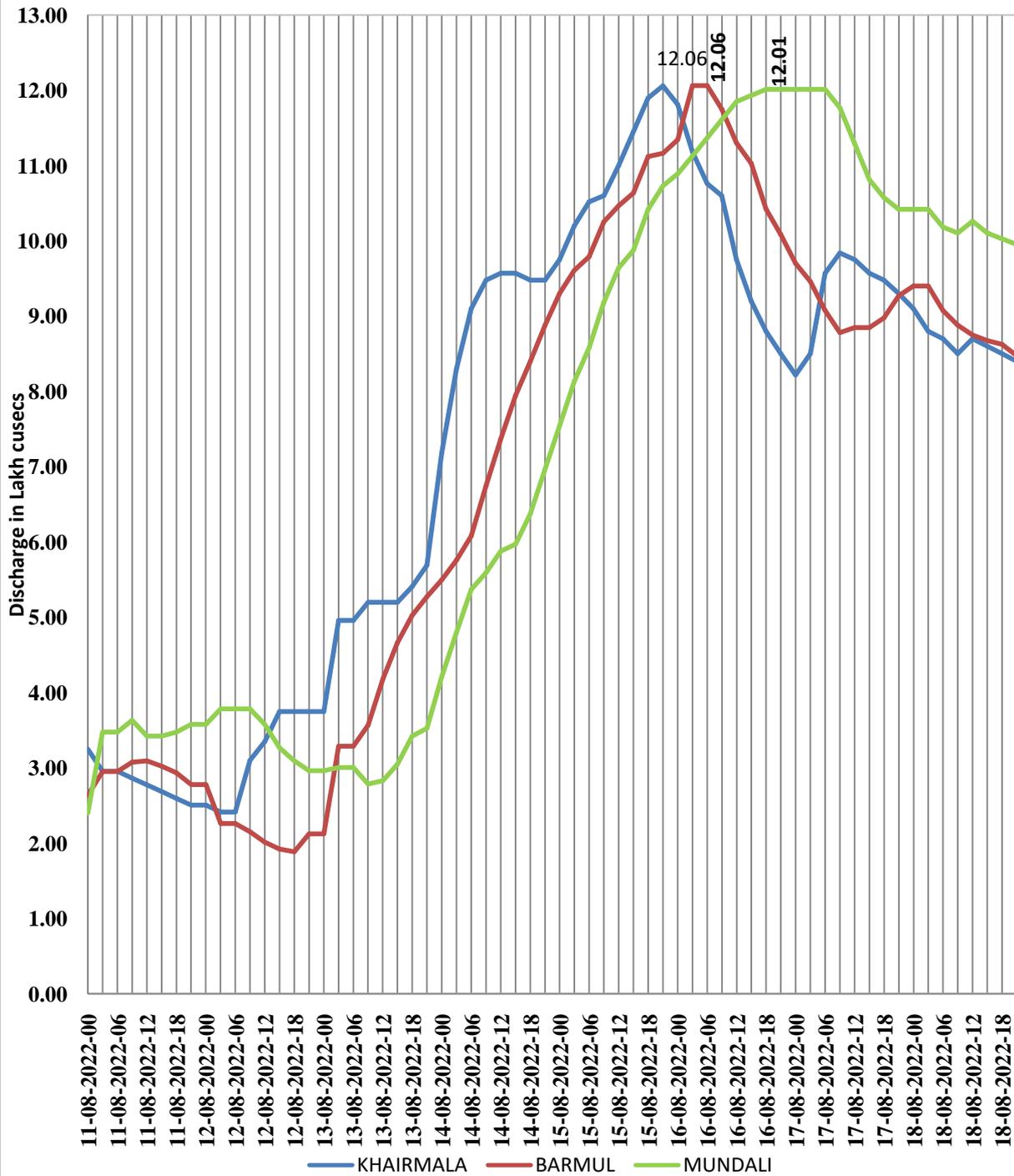
Causes & Occurrence

The flood in the Mahanadi River System was triggered mostly by enormous precipitation in its upper catchment in Chhattisgarh and downstream catchment in Odisha. This rainfall multiplied the miseries to the affected people. The magnitude of the flood and the severity of its impact are comparable to the high floods of 2001, 2003, 2006, 2008, 2011 & 2020. Against the safe carrying capacity of Mahanadi River System of around 9 lakh cusecs at delta head (Naraj / Mundali), the peak discharge went up to 12.01 lakh cusecs on 16th August 2022. The Mundali peak discharge remained for long 15 hours and Mahanadi delta remained inundated for three days and causing severe inconvenience to the people. The flood occurrence hydrograph at Hirakud and downstream area are shown in following figures.

HIRAKUD RESERVOIR INFLOW & OUTFLOW



OUTFLOW AT KHAIRMAL, BARMUL & MUNDALI



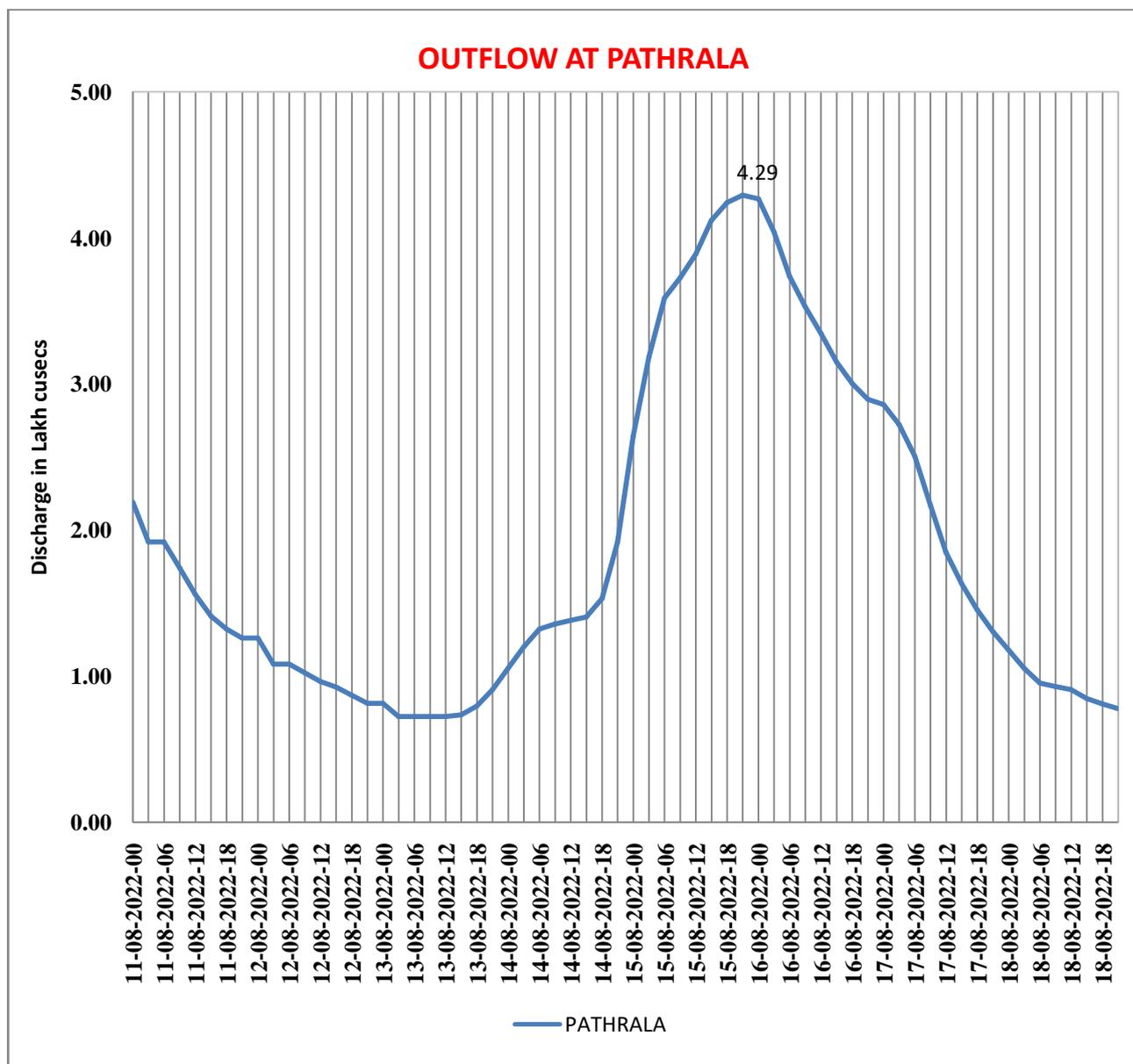
Outflow from tributaries of Mahanadi

There are 14 Major tributaries of river Mahanadi. Out of these, three lie in Odisha namely Ong, Tel and Iband other 11 (eleven) tributaries lie in Chhatishgarh state namely Pairi, Jonk, Sukha, Kanki, Lilar, Lath, Seonath, Hasdeo, Mand, Kelo and Birai. The date wise 6-Hourly outflows of the river Tel are tabulated in **Table A** and represented graphically in **Figure B**, as it has major contribution in the River Mahanadi in comparison to the others.

Table- A

Date &Time	Out flow in lakh cusec
11-08-2022-00	2.19
11-08-2022-06	1.92
11-08-2022-12	1.56
11-08-2022-18	1.32
12-08-2022-00	1.2
12-08-2022-06	1.08
12-08-2022-12	0.96
12-08-2022-18	0.87
13-08-2022-00	0.78
13-08-2022-06	0.72
13-08-2022-12	0.72
13-08-2022-18	0.79
14-08-2022-00	1.05
14-08-2022-06	1.32
14-08-2022-12	1.38
14-08-2022-18	1.53
15-08-2022-00	2.64
15-08-2022-06	3.59
15-08-2022-12	3.89
15-08-2022-18	4.24
16-08-2022-00	4.27
16-08-2022-06	3.74
16-08-2022-12	3.35
16-08-2022-18	3.00
17-08-2022-00	2.86
17-08-2022-06	2.5
17-08-2022-12	1.85
17-08-2022-18	1.45
18-08-2022-00	1.18
18-08-2022-06	0.95
18-08-2022-12	0.91
18-08-2022-18	0.81

Figure- B



Importance of river level at Patharala&Saradihi

The catchment area of Tel (21285 Km²) tributaries i.e. Pathrala junction contribute 32.28% of the catchment area of the river Mahanadi in Odisha.

Saradihi is the main junction of Mahanadi river in the Mahanadi sub basin catchment before KALMA barrage. Hasdeo, Ghorari, Seonath& main Mahanadi river contribute to Saradihi and Saradihi directly contribute to Hirakud as runoff during the monsoon if and when the upstream storage structures gates are opened or the flood relief received.

Rivers

Due to heavy discharge at coastal plains in river Mahanadi, the water level of Mahanadi and its tributaries at coastal districts rose and crossed the danger level. The water

level above danger level continued for 7 days. About one third area of Mahanadi delta remained inundated for more than a fortnight causing severe inconvenience to public.

The water level in various rivers from 13th August to 19th August of 2022 is shown below.

River	Forecast station	Dang er Level	Warning Level	Water Level in Mtrs						
				Dt. 13.08.22	Dt. 14.08.22	Dt. 15.08.22	Dt. 16.08.22	Dt. 17.08.22	Dt. 18.08.22	Dt. 19.08.22
Mahanadi	Naraj/ Mundali	26.41	25.41	24.8	25.97	27.03	27.45	27.49	27	26.88
Devi	Alipingal	11.76	10.85	6.49	9.14	11.04	11.95	12.06	11.51	11.16
Kushabadra	Nimapada	10.76	9.85	3.92	4.08	9.22	10.3	10.58	10.5	10.1
Brahmani	Jenapur	23.00	22.00	19.12	19.84	20.48	20.67	20.02	19.41	19.2
Baitarani	Anandapur	38.36	37.45	36.44	38.02	38.24	36.29	35.31	34.74	34.25
	Akhuapada	17.83	16.83	18.04	18.28	18.75	18.54	17.73	17.26	17.06
Burhabalanga	N.H-5 (Govindpur)	8.13	7.21	6.58	6.62	7.42	7.3	5.68	4.18	2.92
Subarnarekha	Rajghat	10.36	9.45	7.18	7.4	7.4	7.94	7.95	6.89	6
	Jamsholaghat	49.15	48.10	46.46	46.46	47.1	47.22	46.22	45.4	45.26
Vamsadhara	Gunupur	84.00	83.00	81.5	82.78	83.61	82.75	82.5	82.21	81.92
	Kashinagar	54.60	53.60	53.56	54.75	55.37	54.63	54.17	54.16	53.78
Rushikulya	Purushottampur	16.83	15.83	13.01	13.02	15.01	14.68	14.04	13.94	13.01

Breaches

Due to floods, heavy damages occurred to river and canal embankments, service roads on embankments. All necessary preventive measures were taken at identified vulnerable points along river embankments prior to floods. Vast area of Mahanadi delta remained inundated for more than a week. The breaches that occurred in river embankments submerged human habitation and vast area of the agricultural land.

BREACH REPORT FOR FLOOD IN AUGUST 2022

Sl. No.	Name of Division	Time & Date of occurrence	Basin	River	District	Type of Embankment (CE/OAE/ TRE /SE)	Location of Breach with RD/ village	Approximate Length of Breach in"m"
1	Jajpur Irrigation Division	2.20 PM/ 15.08.2022	Baitarani	Kani	Jajpur	OAE	RD: 500m from Kani offtake point / Village: Brahamacharipatna	15
2	Mahanadi North Division	7.30PM/ 15-08-2022	Mahanadi	Mahanadi	Cuttack	TRE	RD150 m of Kanthapada Gherry Village: Kanthapada, Sankhamari	20
3	Khurda Irrigation Division	9.35 AM/ 16.08.2022	Mahanadi	Makara	Puri	OAE	RD 3.60km near Pahilundi	6
4	Mahanadi North Division	4.10PM/ 16.08.2022	Mahanadi	Luna	Kendrapada	TRE	Near village Karandipatana from RD 740mtr to 800mtr	60
5	Khurda Irrigation Division	7.30 PM/ 16.08.2022	Mahanadi	Rajua	Khurda	OAE	RD 2.10 KM near village Tirumal	60
6	Nimapada Irrigation Division	5.00 AM/ 17.08.2022	Mahanadi	Kusabhadra	Puri	CE	RD 53.00 km near Khandiakuda	12
7	Mahanadi South Division	11.10 AM/ 17.08.2022	Mahanadi	Mahanadi	Jagatsinghpur	TRE	Teramanapur Gherry	25
8	Mahanadi South Division	3.30 P.M/ 17.08.2022	Mahanadi	Paika	Jagatsinghpur	OAE	RD 23.650 Km/ KATHAKHOT	22

Marooned Population:

There were total 8,05,525 people marooned in 1363 villages.

Sl. No.	District	No. of villages marooned	No. of people marooned
1.	Angul	11	2086
2.	Bargarh	4	1165
3.	Bhadrak	104	71207
4.	Boudh	105	28022
5.	Cuttack	171	227948
6.	Jagatsinghpur	36	21466
7.	Kendrapara	106	45710
8.	Khordha	47	45711
9.	Nayagarh	47	21682
10.	Puri	376	245135
11.	Subarnapur	3	900
12.	Balasore	353	94493
	Total	1363	8,05,525

PREPAREDNESS ACTIVITIES

- Hon'ble Chief Minister reviewed the flood situation and preparedness measures with Collectors of 10 districts, Chief Secretary, SRC and Secretaries of line departments on 16.08.2022.
- Special Relief Commissioner reviewed the situation daily with the Collectors and Senior Officers of WR Department.
- Collectors of Sambalpur, Subarnapur, Boudh, Nayagarh, Angul, Cuttack, Puri, Jagatsinghpur, Khurda&Kendrapara (10 districts) had been instructed to remain watchful keeping in view the adverse effect of possible floods and take all preparedness measures to meet any eventuality.
- WR, PR &DW, Food Supplies & CW, F &ARD, Women &CD, Agriculture &FE, Health & FW Departments have been instructed to take necessary measures in the flood affected areas.
- Engineering Departments had been instructed to make prior arrangements for quick restoration of road communications, if damaged or disrupted.
- Energy Department had been instructed to make necessary prior arrangements for quick restoration of power supply, where damaged.
- F & ARD department had been instructed to provide cattle feed (as per the requisition of Collector) for the flood affected cattle.
- Collectors of the 10 districts had been instructed to evacuate from vulnerable areas and make adequate free kitchen/ dry food for the flood affected people.

- Collectors of these 10 districts had been instructed to close educational institution assessing the flood situation.
- Collectors of these districts had been instructed to cancel the leave of all Govt. employees in their jurisdiction.

Preparedness activities revolved around following points:

- Timely information on Low pressure to all Collectors/ Departments / Blocks / Tahashil / Gram Panchayats
- Instruction to District Collectors to hold advance preparedness meeting
- Authorization to District Collectors for requisition of all type of boats (country and motorized) for rescue and relief operation
- Prepositioning of foodstuff in inaccessible, vulnerable and strategic locations
- Detailed and continuous IEC activities in Newspapers and Print Media to create awareness among people by WR Deptt.
- Evacuation of people of low lying areas of Cuttack, Puri, Kendrapara, Jagatsinghpur to nearby school buildings and cyclone/ flood shelters
- Coordination with the IMD, Flood Cell of DoWR, CWC and with the authority of the Hirakud Dam Division
- Mobilization of ODRAF, NDRF, Fire Service units

RELIEF AND RESCUE OPERATION

Evacuation:

2.7 lakh People were evacuated to safer places as their dwelling houses were inundated/marooned due to flood. Evacuated persons were sheltered in multipurpose cyclone/ flood shelters and provided with dry/cooked food in 664 free kitchen centers.

Deployment of Boats:

For relief and rescue operation, NDRF/ODRAF /State Fire Service personnel with their equipment were pressed into action. 238 power Boats of State Port Engineering Organization were also deployed in the flood affected districts. Besides, hired boats have been utilized for rescue and relief operation by the district authorities.

Pre-positioning of Response forces for Rescue Operation:

17 units of ODRAF, 16 Teams of NDRF and 55 Units of Fire Services were deployed to the affected districts for rescue & relief operation. The district wise deployment done is given below.

Sl. No.	Name of the District where Deployment is made	NDRF	ODRAF	Additional Fire Services Teams	Total Teams
1.	Jagatsinghpur	02	01	04	07
2.	Puri	01	02	04	07
3.	Cuttack	-	01	02	03
4.	Khordha	-	01	01	02
5.	Kendrapada	02	03	10	15
6.	Boudh	-	01	-	01
7.	Mayurbhanj	01	01	08	10
8.	Balasore	05	04	11	20
9.	Bhadrak	02	02	05	09
10.	Keonjhar	01	-	03	04
11.	Jajpur	02	01	07	10
Grand Total		16	17	55	88

Besides all Fire Service units at local level were engaged in relief & rescue operation in the districts.

Delegation of Power of SRC:

In view of the flood in river Subarnarekha, Government had delegated the powers of SRC to Collector, Balasore as per Paragraph-12(1) of Odisha Relief Code to exercise administrative powers for various kind of relief & rescue operations in flood management in Balasore district.

Emergent Relief (flood):

20.69 Qtl. of rice, 5349.13 Qtl. of Chuda (flattened rice), 696.22 Qtl. of Guda (Jaggery) had been distributed as emergent relief to the affected people. In addition to that candles, matchboxes, kerosene oil and other materials had also been distributed.

FLOOD:

Sl. No.	District	Emergent Relief Distributed		
		Rice (in Qtl)	Chuda(in Qtl)	Gud(in Qtl)
1	Angul	12.1	11.5	2.5
2	Bargarh	0	0	0
3	Boudh	0	0	0
4	Bhadrak	0	224	8.14
5	Balasore	0	443	40.5
6	Jajpur	0	120	20
7	Keonjhar	0	3	0.8
8	Mayurbhanj	2.14	28.2	5.64
9	Cuttack	0.2	802.77	178.3
10	Jagatsinghpur	0	340.7	78.06
11	Kendrapara	0	387.75	34.75
12	Khordha	6	216.85	12.37
13	Nayagarh	0	308.16	67.7

14	Puri	0.25	2442.35	237.71
15	Sambalpur	0	18	9
16	Subarnapur	0	2.85	0.75
	TOTAL	20.69	5349.13	696.22

Provision of Sanitary/ Hygienic kit for women/girls:

Collectors had been requested to instruct CDMO to procure sanitary/ hygienic kit as emergency sanitation measures (Emergent Relief) and distribute to women/girls in the marooned areas.

Aerial Survey of Flood affected areas:

On 18.08.2022, Hon'ble Chief Minister had made an aerial survey of the flood affected areas and declared emergent relief to alleviate sufferings of the marooned population.

Sanction of Emergent Relief as declared by Hon'ble Chief Minister

- 15 days Emergent Relief (Gratuitous Relief) for marooned people of Khordha/ Puri/ Cuttack/ Kendrapara/ Jagatsinghpur districts due to flood in river the Mahanadi.
- 7(seven) days Emergent Relief (Gratuitous Relief) for marooned people of Sambalpur/ Bargarh/ Subarnapur/ Boudh/ Angul/ Nayagarh districts.
- 7(seven) days Emergent Relief (Gratuitous Relief) for marooned people of Balasore/ Bhadrak/ Jajpur/ Keonjhar/ Mayurbhanj districts. Temporary Shelters

52678 polythene sheets have been distributed to the affected families for temporary shelters.

Health and Sanitation Measures:

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

Medical Relief Centers opened	:	319
Mobile Team with Doctor Deployed	:	153
Tube well disinfected	:	8,954
ORS packet distributed	:	2,02,671
Halogen tablets distributed	:	10,13,235

Drinking Water Measures:

No. of Water Tanker Deployed	:	321
Water Pouches distributed	:	23,60,300
Water bottle distributed	:	4,86,920

Animal Care

Due to flood, the entire livestock and poultry population of 14 districts were severely affected. As per the preliminary estimation, 5.46 lakh livestock have been affected. To meet the requirement of cattle feed in the affected areas. The measures undertaken in veterinary sector is as follows.

Cattle feed arranged for distribution	:	1465.86 MT
Animal vaccinated	:	2,63,145
Animals treated	:	92,728
Veterinary Team deployed	:	198
No. of veterinary camps organized	:	1,564

Drinking Water

Piped water supply sources in rural as well as urban area were submerged under floodwater. The pumps and pipes were filled with sand in some places causing severe damage to the water supply system. However, efforts were made to restore the system either temporarily or permanently. Drinking water supplied through 321 tankers in rural areas. Mobile vans were deployed for disinfections and repair of tube wells. 23.60 lakh water pouches were distributed in the affected rural areas.

Restoration Measures

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

Damage to private properties:

Abstract of extent of damages due to Flood & Heavy Rain 2022 is given below:

	Flood in Mahanadi, Subarnarekha & Baitarani River System	Heavy Rain & Flash Flooding	Total
No. of Districts affected	16	8	24
No. of Blocks affected	122	81	203
No. of GPs affected	1329	997	2326
No. of Villages affected	4580	2892	7472
No. of ULBs Affected	21	19	40
Population affected (In lakh)	23.72	0.98	24.7
Population Marooned (in lakh)	8.05	0	8.05
Crop Area Affected (in lakh hect)	1.30236	0.05969	1.36205
Crop Area sustained crop loss of 33% & above (in lakh hect)	1.21	0.03	1.24
No. of Human lives lost	5	10	15
No. of Houses damaged	8493	5742	14235

FLOOD:

SI	District	Blocks Affected	GPs Affected	Villages Affected	No. of ULBs Affected	Population Affected	House Damage
1	Angul	6	85	245	1	31386	986
2	Balasore	4	121	690	0	1139877	1041
3	Bargarh	3	40	131	0	3445	417
4	Bhadrak	5	61	227	1	248562	75
5	Boudh	3	47	215	1	61753	843
6	Cuttack	11	147	499	3	323389	1718
7	Jagatsinghpur	7	72	235	0	45618	26
8	Jajpur	7	73	326	0	100295	45
9	Kendrapara	6	31	93	1	90063	218
10	Keonjhar	13	143	357	5	8601	661

11	Khordha	7	53	214	0	29826	351
12	Mayurbhanj	26	212	519	2	7312	1074
13	Nayagarh	4	19	83	0	21682	140
14	Puri	8	102	457	1	253362	375
15	Sambalpur	9	97	213	4	3120	437
16	Subarnapur	3	26	76	2	3850	86
Total		122	1329	4580	21	2372141	8493

Heavy Rain 2022:

SI	District	Blocks Affected	GPs Affected	Villages Affected	No. of ULBs Affected	Population Affected	House Damage
1	Bolangir	12	120	307	1	4470	370
2	Jharsuguda	5	52	97	2	33055	259
3	Kalahandi	12	221	861	4	3428	878
4	Kandhamal	12	99	355	3	41400	787
5	Koraput	13	132	333	4	2182	712
6	Nabarangpur	8	135	428	1	5524	1056
7	Nuapada	3	47	94	2	1361	269
8	Sundargarh	16	191	417	2	7068	1411
Total		81	997	2892	19	98488	5742

Livestock Affected:

Floods :

SI No	Name of the District	No. of animals affected			
		LA	SA	Poultry	Total
1.	Angul	868	1256	70	2194
2.	Balasore	47345	22996	33909	104250
3.	Bargarh	920	1340	0	2260
4.	Bhadrak	46606	14053	1164	61823
5.	Boudh	5134	6160	35	11329
6.	Cuttack	104857	69824	11704	186385
7.	Jagatsinghpur	18840	9401	0	28241
8.	Jajpur	21614	8204	6550	36368
9.	Jharsuguda	1370	1790	0	3160
10.	Kendrapara	21885	9930	250	32065

11.	Khordha	12363	4707	1700	18770
12.	Mayurbhanj	365	229	300	894
13.	Nayagarh	7017	6654	11200	24871
14.	Puri	74447	26013	70000	170460
Total		363631	182557	136882	683070

Livestock Causality:

Large Animal died : 19

Small Animal died: 31

No. of poultry birds died: 10105

Crop Damage

The standing kharif crops in the flood affected areas were severely affected and there was very low chance of revival of crops as it was completely submerged for more than a week.

Floods:

Agriculture & Horticulture Crop Damage:

Sl. No.	Name of the district	Total Agriculture crop area including horticulture crops affected (in Ha.)	Total agriculture crop area where crop loss is >33% in Ha
1.	Angul	1568.65	1568.65
2.	Bargarh	675.47	646.17
3.	Boudh	3100	1762.43
4.	Bhadrak	12732.27	12732.27
5.	Balasore	8070.4	6566.1
6.	Jajpur	17723	15914
7.	Mayurbhanj	2004.2	949.27
8.	Cuttack	35831	34859
9.	Jagatsinghpur	4372.976	4015.58
10.	Kendrapara	2202.75	2202.75
11.	Khordha	10278.13	10278.13
12.	Nayagarh	4236.65	4113.75
13.	Puri	26781.2	25058.77
14.	Subarnapur	659.33	605.83
Total		130236.026	121272.70

HEAVY RAIN:**Agriculture Crop Damage:**

Sl. No.	Name of the district	Total Agriculture crop area including horticulture crops affected (in Ha.)	Total agriculture crop area where crop loss is >33% in Ha
1	Bolangir	1425.23	579.73
2	Jharsuguda	2174.52	265.02
3	Kalahandi	1840.55	1840.55
4	Kandhamal	24.261	24.05
5	Koraput	297.00	297.00
6	Nabarangpur	98.49	98.49
7	Nuapada	39.57	27.41
8	Sundargarh	69.66	69.66
	Total	5969.281	3201.91

The State Government had declared crop area of 124,474.61 hectares in 3224 villages under 901 Gram Panchayats of 93 Blocks and 29 wards of 7 ULBs in 22 Districts as affected by Floods & Heavy Rain occurred in August, 2022 having sustained crop loss of 33% and above based on the field verification reports received from the Collectors

Loss of livelihood

Due to floods & heavy rain, 5109 traditional craftsmen had been affected with damages to their equipment and raw materials. Similarly, 4 handloom weavers & 1351 sericulture farmers had been affected.

Damage to Nets and Boats of Fishermen

294 boats and 831 fishing nets had been damaged due to floods.

Floods:

SI	District	No. of Boats damaged		No. of nets damaged	
		Fully	Partially	Fully	Partially
1	Cuttack	42	224	418	286
2	Nayagarh	1	0	2	0
3	Jharsuguda	0	3	17	0
4	Subarnapur	19	1	108	0
5	Boudh	4	0	0	0
	Total	66	228	545	286

Drinking Water Problem

There was damage to the rural water supply and urban water supply systems. 1174 piped water supply systems / tube wells structures were damaged in rural areas.

Damage to public properties

Damage happened to public properties like canal / river embankments, roads, bridges, culverts, drains, water works, tube wells, electrical installations, Government buildings etc. The flood had caused breaches in the canal and river embankments.

The damage to public properties in different sectors along with approximate loss is as follows:

Loss to public properties due to "Floods & Heavy Rain" - 2022						
Sl.	Departments/ damaged Property	Flood		Heavy Rain		Total loss due to Flood & Heavy Rain (Rs. In Lakh)
		Quantity	Total Loss	Quantity	Total Loss	
			(Rs. in lakh)		(Rs. in lakh)	
1	Water Resources Department					
	Damage to River Embankment	867 Nos./ 1099.19 Kms.	9799.50			9799.50
	Damage to Canal Embankment	393 Nos./ 430.03 Kms.	3053.25	3 Nos./ 0.46 Kms	14.45	3067.70
	Clearance of Drainage channels	227 Nos. / 811.57 kms.	867.84			867.84
	CD/Bridges damaged/Washed away in Drainage Channel	3 Nos.	3.00			3
	Damage to embankment road of MI sector including Breaches	170 Nos./ 26.74 Kms.	861.80	75 Nos./ 20.16 Kms.	372.2	1234.0
	CD/ Bridges damaged/ washed away in MI Sector	82 Nos.	257.80	95 Nos.	423	680.8
	Damage to Lift Irrigation Projects	1886 Nos.	1225.21	72 Nos.	55.26	1280.47
	Total		16068.40		864.91	16933.31
2	Works Department					
	Damage of Roads of PWD	181 Nos./ 475.29 Kms	1619.99	64 Nos. / 221.16 Kms	1850.25	3470.24
	Damage to CD/ Bridges/ Culverts of PWD	38 Nos.	115.50	27 Nos.	106.50	222.00
	Damage to Drains of PWD	6 Nos. / 0.37 Kms	27.66	14 Nos./ 0.54 Km	100.0	127.66

	Damage to Secondary School Buildings	15 Nos.	70.00	1 No.	2.95	72.95
	Damage to Community Health Centers	13 Nos.	38.00			38.00
	Damaged to Other Hospital Building	5 Nos.	8.00	1 No.	4.9	12.90
	Damage to other Buildings	138 Nos.	416.10	10 Nos.	47.85	463.95
	Damage to NHs maintained by State	3 No./5.3 Kms	250.75			250.75
	Damage to CD/ Bridges/ Culverts of NHs division	2 Nos.				
	Total		2546.00		2112.45	4658.45
	Rural Development Department					
3	Damage of Rural roads including breaches	595 Nos./ 771.601 Kms	8225.40	64.365 Kms	792.5	9017.90
	CD/ Bridges damaged/ washed away	215 Nos.	2020.10	60 Nos.	1430	3450.10
	Total		10245.50		2222.5	12468.00
	Housing & Urban Development Dept.					
4	Damage to Roads	122 Nos./ 48.345 Kms.	681.97			681.97
	Damage to Drainage	2 Nos. /2.59 Kms.	35.00			35.00
	Damaged to Culverts/ Bridges	7 Nos.	15.70			15.70
	Total		732.67			732.67
	Panchayati Raj & DW Department					
5	AnganwadiCenter damaged	396 Nos.	682.28	47 Nos.	83.50	765.78
	Primary School Buildings damaged	601 Nos.	1148.55	96 Nos.	156.70	1305.25
	GP/ PS Building & Community Hall damaged	201 Nos.	383	22 Nos.	39.50	422.50
	GP/ PS road damaged	6542 Nos. / 5059.845 Kms.	7534.98	1158 Nos. / 558.65 Kms.	837.98	8372.96
	Water Supply System/ Tube well & plat form damaged	1173 Nos.	527.37	1	1.5	528.87
	CD/Bridges/ Culverts damaged	116 Nos.	172.5	156 Nos.	234.0	406.50
	Total		10448.68		1353.18	11801.86
	Energy Department					
6	Damage to Power/ Feeder Transformer	16 Nos.	0			0
	Damage to 33 KV line	3.7 Kms.	1.85			1.85
	Damage to 33 KV Poles	16 Nos.	0.64			0.64

	Damage to 11 KV Transformer/ Feeder	93 Nos.	0			0
	Damage to 11 KV Poles	545 Nos.	21.80			21.80
	Damage to 11 KV conductor	134.45 Kms.	70.04			70.04
	Damage to LT Line Poles	906 Nos.	36.24			36.24
	Damage to LT Line conductor	234.49 Kms.	117.82			117.82
	Damage to Distribution Transformer	255 Nos.	255.00			255.00
	Total		503.39			503.39
	Fisheries & Animal Resources Department					
7	Damage to veterinary institutions like VD, LAC etc.	7 Nos.	36.00			36.00
	Damage to Govt. Fish Seed Farm	1 No.	1.40			1.40
	Total		37.4			37.4
	Health & Family Welfare Department					
8	PHC, CHC, Sub-centers, etc.	37 Nos.	173.50			173.50
	Total		173.50			173.50
	Forest & Environment Dept.					
	Damage of Infrastructure/ Road/ plantation of PCCF & HOFF	46 Nos.	173.61			173.61
9	Damage of Infrastructure/ Road/ plantation of PCCF (Wildlife) and CWLW		74.24			74.24
	Damage of Infrastructure/ Road/ plantation of Chilika Development Authority		22.00			22.00
	Total		269.85			269.85
	Handlooms, Textile & Handicrafts Dept.					
10	Damage to tools equipments of handloom weaver	4 Nos	0.29			0.29
	Damage to tools equipments of handicraft artisans	5109 Nos	418.94			418.94
	Loss to Sericulture Sector		82.86		16.41	99.27
	Total		502.09		16.41	518.5
	Total (Public Properties)		41527.48		6569.45	48096.93

FUNDS RELEASED:

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

Funds released to Collector (Rs. in Lakh)

SI No.	Name of District	GR in Cash	House Building Assistance	Clothing	Utensils	Assistance for Desilting Sandcast	Agriculture Input Subsidy	Assistance for Boat & Net	Assistance for Fish Pond	Assistance for Fish Seed Farm	GR in Kind	Total
Flood Affected Districts												
1	Angul	8.625	34.762	0.018	0.02		113.027				3.838	160.290
2	Balasore	998.121	36.047				549.022		0.0244	3.77364	249.59	1836.578
3	Bargarh	1.747	13.334				69.515				3.81781	88.414
4	Bhadrak	419.329	3.439	0.018	0.02		907.957				16.395	1347.158
5	Boudh	39.334	26.996				197.98	0.384	0.0732	0.1722	30.11	295.049
6	Cuttack	3007.491	71.718	0.072	0.08		2422.873	30.09	1.98274	4.29811	201.86	5740.465
7	Jagatsinghpur	515.394	4.432				294.71		0.061	0.542	83.46	898.599
8	Jajpur		4.5	0.054	0.06		1119.471			1.7899	7.2	1133.075
9	Kendrapara	382.296	7.644				151.194		0.0488	0.1968	52.13	593.510
10	Keonjhar		30.543	0.162	0.18		0				0.82	31.705
11	Khordha	139.798	12.764				906.928		0.12444	4.50336	114.72	1178.838
12	Mayurbhanj		50.306	0.27	0.3		66.36				8.2	125.436
13	Nayagarh	175.03	4.813				282.62	0.148		0.5248	1.086	464.222
14	Puri	3305.829	13.36	0.018	0.02		2487.53		0.78202	23.78426	300.223	6131.546
15	Sambalpur		18.67	0.09	0.1		0				19.981	38.841
16	Subarnapur	1.852	2.772				72.842	4.673			0.932	83.071
Total		8994.846	336.1	0.702	0.78	0	9642.029	35.295	3.0966	39.58507	1094.363	20146.796

Heavy Rain Affected Districts

1	Balangir	0	19.883	0.144	0.16	0	48.065				0.158	68.410
2	Jharsuguda	0	13.886	0.108	0.12		18.803	0.565			1.225	34.707
3	Kalahandi	0	40.539	0.216	0.24	0	148.942				0	189.937
4	Kandhamal	0	53.221	0.504	0.56	0	2.129		0.366	0.0656	1.074	57.920
5	Koraput	0	23.949	0.018	0.02	0	35.271				0	59.258
6	Nabarangpur	0	34.78	0.018	0.02	1.1224	6.7				1.43	44.070
7	Nuapada	0	15.041	0.126	0.14	0	3.019				0	18.326
8	Sundargarh	0	110.569	1.242	1.38	2.14	5.078				0.82	121.229
Total		0	311.868	2.376	2.64	3.2624	268.007	0.565	0.366	0.0656	4.707	593.857
Grand Total		8994.846	647.968	3.078	3.42	3.2624	9910.036	35.86	3.4626	39.65067	1099.07	20740.653

Funds Released to Departments (Rs.in Lakh)

SI No.	Department	Purpose	Allotment in Rs Lakh
1	Energy	Repair & Restoration of electrical distribution infrastructure	497.510
2	Water Resources	Repair & Restoration of river embankment, canals, OLIC projects and clearance of drainage channel	5,579.190
3	Works	Repair & Restoration of PWD roads, NHs maintained by State Works dept, CD/ Bridges, School buildings, CHCs	1,367.250
4	Panchayati Raj & DW	Repair & Restoration of GP/PS roads & CD/ Bridges/ Culverts, Primary School building, AWC, Piped Water Supply/TW structure and cost of emergent drinking water supply	11,262.685
5	Rural Development	Repair & Restoration of Rural roads and CD/ Bridges	2,414.370
6	Housing &UD	Repair & Restoration of Urban roads and Culverts/ Bridges	82.460
7	Handloom, Textile & Handicraft	Assistance to Handicraft artisans, weavers and to sericulture farmers	421.620
8	Fisheries & ARD	Supply of cattle feed for affected bovine population	374.460
Total			21,999.545

The State Government successfully managed the flood situation.

Hailstorm

As many as 3 districts namely Bargarh, Keonjhar and Mayurbhanj were affected due to hailstorm accompanied by whirlwind and 3 persons lost their lives under the impacts of the disaster during the year 2022-23. 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.

CHAPTER-IV

State Specific Disasters

Heat Wave

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

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

Despite all the precautionary measures taken to meet the possible heat wave situation, as many as 17 persons lost their lives due to heat wave during the year 2022. Steps are being taken to provide ex-gratia assistance @ Rs.50,000/- to the bereaved families out of the SDRF.

Lightning

As many as 291Persons lost their lives due to lightning in 30 districts during the year 2022-23. Steps have been taken to provide ex-gratia assistance @ 4,00,000/- per deceased to Next of Kins of the victims from SDRF. The district-wise number of human casualties is indicated below:

Sl. No	Name of the District	No. of death	No. of cases where ex-gratia has been paid to the NoKs
1	Angul	12	11
2	Bolangir	18	16
3	Balasore	20	17

4	Baragarh	8	8
5	Bhadrak	11	9
6	Boudh	2	1
7	Cuttack	12	12
8	Deogarh	2	2
9	Dhenkanal	13	12
10	Gajapati	3	3
11	Ganjam	18	14
12	Jagatsinghpur	5	4
13	Jajpur	11	10
14	Jharsuguda	7	6
15	Kalahandi		
16	Kandhamal	1	1
17	Kendrapada	5	3
18	Keonjhar	20	16
19	Khordha	6	5
20	Koraput	14	14
21	Malkangiri	7	7
22	Mayurbhanj	32	29
23	Nabarangapur	15	14
24	Nayagarh	4	4
25	Nuapada	9	8
26	Puri	4	2
27	Rayagada	5	3
28	Sambalpur	5	5
29	Subarnapur	6	6
30	Sundargarh	16	15
	TOTAL	291	257

Boat Accident

As many as 2 Persons lost their lives due to Boat capsizing in 2 districts during the year 2022-23. 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.	Khordha	1
2	Malkangiri	1
	Total	2

Drowning

As many as 1738 persons lost their lives due to drowning in 30 districts during the year 2022-23. Steps have been taken to provide ex-gratia assistance @ 4,00,000/- per deceased to Next of Kins of the victims from SDRF. The district-wise number of human casualties is given below:

Sl.	District	No. of deaths	No. of cases where ex-gratia has been paid to the NoKs
1	Angul	57	46
2	Balangir	20	16
3	Balasore	123	107
4	Bargarh	31	29
5	Bhadrak	70	52
6	Boudh	5	4
7	Cuttack	90	63
8	Deogarh	25	18
9	Dhenkanal	77	60
10	Gajapati	14	8
11	Ganjam	141	105
12	Jagatsinghpur	27	17
13	Jajpur	63	39
14	Jharsuguda	27	24
15	Kalahandi	22	18
16	Kandhamal	35	31
17	Kendrapara	75	56
18	Keonjhar	119	107
19	Khorda	47	31
20	Koraput	87	79
21	Malkangiri	63	62
22	Mayurbhanj	139	120
23	Nabarangpur	66	57
24	Nayagarh	36	31
25	Nuapada	16	13
26	Puri	61	48
27	Rayagada	17	10
28	Sambalpur	69	54
29	Subarnapur	17	13
30	Sundargarh	99	93

Snake bite

As many as 1000 persons lost their lives due to snake bite in 30 districts during the year 2022-23. 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. No.	Name of the District	No. of persons died	No. of cases where ex-gratia has been paid to the NoKs
1	Angul	26	21
2	Balangir	15	10
3	Balasore	83	79
4	Bargarh	22	22
5	Bhadrak	41	35
6	Boudh	11	9
7	Cuttack	61	53
8	Deogarh	17	15
9	Dhenkanal	47	38
10	Gajapati	9	9
11	Ganjam	73	65
12	Jagatsinghpur	14	13
13	Jajpur	33	29
14	Jharsuguda	6	5
15	Kalahandi	22	22
16	Kandhamal	14	14
17	Kendrapara	40	28
18	Keonjhar	75	67
19	Khordha	28	27
20	Koraput	21	20
21	Malkangiri	45	41
22	Mayurbhanj	79	73
23	Nabarangpur	29	29
24	Nayagarh	23	23
25	Nuapada	13	13
26	Puri	43	38
27	Rayagada	5	4
28	Sambalpur	29	25
29	Subarnapur	11	10
30	Sundargarh	66	57
	Total	1001	894

CHAPTER – V

Disaster Assistance Monitoring and Payment System (DAMPS)

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

The Special Relief Commissioner on 10.06.2020 has instructed the Collectors to stop sanction of ex-gratia in physical files and introduced an administrative initiative in the true spirit of Government's 5T policy framework in augmenting service delivery to the citizen in distress in the remotest parts of the State. It is a digital platform developed by National Informatics Centre, Bhubaneswar on the design parameters for online processing, monitoring and payment of ex-gratia to the NoK of the disaster victims. DAMPS has been integrated with both CCTNS and IFMS to streamline the process of disbursement of ex-gratia assistance. The entire process is on paperless digital path. The total time taken from First Information Report (FIR) of death due to disaster to receipt of payment in the bank account is reduced substantially than the old manual system.

The effort is one of its kinds in the true spirit of the 5T policy of the Government. DAMPS is a classic case of use of Technology to reduce unnecessary physical processing hassles. It provides a Transparent platform to the citizen to know the time lapse of processing at each level as well as to administrative hierarchy to have better monitoring and control on service delivery. It's comparable to OSWAS at the State level with the uniqueness of connecting the field level administrative reporting machinery and control at each level to ensure better accountability of the Government functionaries. The DAMPS facilitates officers at different levels like Revenue Inspector, Tahasildar, Sub-Collector, Collector, Under Secretary, Additional Commissioner Relief and Special Relief Commissioner to operate as a Team to work in tandem to reduce Time to have the all- too-precious Last Mile Connectivity in service delivery to the citizen. Needless to say, the effort has brought Transformation in the administrative processing of ex-gratia to the NoK of the persons who lose their lives in

disasters. To sum up, the implementation of DAMPS has come a long way in realising the core principle of 5T of the state administration.

On an analysis of the disposal of ex-gratia cases processed through DAMPS during the year 2022-23, it reveals that the number of cases disposed of is more than the number of cases instituted that minimises the pendency created due to physical process of files for sanction of ex-gratia. The district wise institution and disposal data is given below:

Sl. No.	District	No. of cases instituted during the year 2022-23	No. of cases disposed of during the year 2022-23
1	Anugul	112	160
2	Balangir	53	50
3	Balasore	270	305
4	Baragarh	90	89
5	Bhadrak	145	181
6	Boudh	17	11
7	Cuttack	194	193
8	Deogarh	51	41
9	Dhenkanal	137	137
10	Gajapati	26	20
11	Ganjam	253	287
12	Jagatsinghpur	70	69
13	Jajpur	128	120
14	Jharsuguda	67	79
15	Kalahandi	58	123
16	Kandhamal	58	61
17	Kendrapada	143	143
18	Keonjhar	232	245
19	Khordha	106	98
20	Koraput	130	137
21	Malkanagiri	114	107
22	Mayurbhanj	341	428
23	Nabarangpur	123	119
24	Nayagarh	70	79
25	Nuapada	55	62
26	Puri	121	151
27	Rayagada	48	39
28	Sambalpur	118	101
29	Subarnapur	36	46
30	Sundergarh	2169	217
	TOTAL	3585	3898

CHAPTER-VI

State Disaster Response Fund (SDRF)

Status of release of funds out of SDRMF Account 2022-23 for State of ODISHA

(As on 31.03.2023)
[Rs. in Crore]

1	Opening Balance (As on 01.04.2022)	2410.460
2	SDRMF releases during the year 2022-23 (Central & State Share)	
	# Central Share (SDRF)	1348.000
	# State Share (SDRF)	448.800
3	NDRF releases during the year 2022-23:	0.000
4	Total funds available in SDRF Account (1+2+3)	4207.260
	Expenditure incurred on calamities	
	# Avalanches	-
	# Cloud Burst	-
	# Cyclone	2.809
	# Drought	1.567
	# Earthquake	-
	# Fire	14.641
	# Flood	342.876
	# Hailstorm	1.127
5	# Landslides	0.128
	# Pest attack	0.052
	# Tsunami	-
	# Cold Wave	-
	Sub-Total	363.200
	Expenditure incurred during the year 2022-23	
6	Covid-19 expenditure	17.980
7	Expenditure incurred from SDRF on procurement of search and rescue equipments etc.	1.324
8	Expenditure incurred from SDRF Capacity Building Activities	87.577
9	Expenditure incurred from SDRF on State Specific disasters	217.121
10	Expenditure incurred from SDMF on State Specific disasters	308.286
11	Total expenditure incurred on all calamities (5+6+7+8+9+10)	995.448
12	Balance available in SDRF Account (4 - 11)	3211.812

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

Appendix-XII

Statement showing item-wise details of expenditure incurred as per approved items and norms of SDRF/NDRF for the year 2022-23

(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	16
1	Gratuitous Relief														
(a)	Ex-gratia payment to families to deceased persons														
	(i) As per SDRF/NDRF norms	0	0	1.50	0.00	0.00	940.00	12.00	0.00	8.00	0.00	0.00	0.00	1763.00	14420.00
	(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	1	0	0	235	3	0	2	0	0	0	3526	3605
(b)	Ex-gratia payment for loss of a limb or eyes														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total no. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(c) Grievous injury requiring hospitalization															
(i) As per SDRF/NDRF norms	0	0	0.127	0	0	1.881	0	0	0	0	0	0	0	0	3.999
(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(iii) Total no. of beneficiaries	0	0	1	0	0	15	0	0	0	0	0	0	0	0	97
(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	0
(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(iii) Total no. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(e) Clothing and utensils/household goods for families whose houses have been washed away/fully damaged/severely inundated for more than a week due to a natural calamity															
(i) As per SDRF/NDRF norms	0	0	0	0	0	17.764	0	0	0	0	0	0	0	0	5.054
(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(iii) Total no. of beneficiaries	0	0	0	0	0	469	0	0	0	0	0	0	0	0	135
(f) Gratuitous relief for families in dire need of immediate sustenance after a calamity															
(i) As per SDRF/NDRF norms	0	0	33.428	0	0	15.982	9939.801	0	4.805	0	0	0	0	0	89.770
(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	(iii) Total no. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Supplementary Nutrition														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total no. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Assistance to Small and Marginal Farmers (SMF for														
(a)	Desilting of agriculture land														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0.236	0	0	0	0	0	0	52.487
	(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	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	0	156.72	0	0	8514.27	112.68	0.00	5.18	0.00	0.00	0.00	268.48
	(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

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	component														
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	0	0	0	19.450	6.880	0	0	0	0	0	0	92.535
	(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	86	49		0	0	0	0	0	477
(ii)	Provisions of fodder/feed in cattle camps														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) No. of cattle camps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iv) Number of cattle kept in camps	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(v) Qty. of fodder(qtls.) supplied in camp	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(iii)	Water supply in Cattle Camps														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(iii) Total no. of Tanker load	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(iv) No. of cattle camps and cattle kept therein	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(iv) Additional cost of medicines and vaccine (calamity related requirements)														
(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(v) Supply of fodder outside Cattle Camps														
(i) As per SDRF/NDRF norms	0	0	0	0	0	0	243.581	0	0	0	0	0	0	130.921
(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(iii) Total qty. of fodder transported (Qtls)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(vi) Movement of useful cattle to other areas														
(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	(iii) No. of cattle moved	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Assistance to Fishermen														
(a)	For repair/replacement of boats, nets (damaged or lost)														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	35.860	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b)	Input Subsidy for fish seed farm														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	15.525	0	0	0	0	0	0	27.075
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Total eligible area (ha.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iv) No. of fish farmers	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Assistance to artisans in handicrafts/handloom sectors by way of subsidy for repair/replacement of damaged equipments														
(a)	Traditional Crafts (Handicraft)														
(i)	For replacement of damaged tools / equipments														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0.287	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	(iii) No. of equipments	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iv) No. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(ii)	For loss of raw materials / goods in process/ finished goods														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Qty. of materials (Qtls.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iv) No. of beneficiaries	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b)	For Handloom Weavers														
(i)	Repairs/replacement of loom equipments and accessories														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	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	0	0	0	3.804	1.902	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Number	0	0	0	0	0	4	2	0	0	0	0	0	0	0
(b)	Fully damaged/ destroyed Kutcha houses														
	(i) As per SDRF/NDRF norms	0	0		0	0	297.038	218.148	0	0	0	0	0	0	2.038
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Number	0	0		0	0	327	213	0	0	0	0	0	0	2
(c)	Severely damaged houses														
(i)	Severely damaged Pucca houses														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0

(ii)	Severely damaged Kutcha houses														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	100.89	0	0	0	0	0	0	0	38.040
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Number	0	0	0	0	0	93	0	0	0	0	0	0	0	40
(d)	Partially damaged houses (both pucca and kutcha)														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	52.326	66.23	0	0	0	0	0	0	276.391
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Number	0	0	0	0	0	1563	1889	0	0	0	0	0	0	9312
(e)	Huts damaged/ destroyed														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	14.946	14.865	0	0	0	0	0	0	13.26
	(ii) Outside the norms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(iii) Number	0	0	0	0	0	678	655	0	0	0	0	0	0	586
11	Provision of emergency supply of drinking water in rural areas and urban areas														
	(i) As per SDRF/NDRF norms	0	0	0	0	0	0	346.150	0	0	0	0	0	0	528.230
	(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	245.880	0	0	0	9524.230	0	0	0	0	0	0	3241.683
	(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
	(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	0	0	0	4337.611	0	0	0	0	0	0	1060.105
	(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	0	0	0	0	219.320	0	0	0	0	0	0	278.190
	(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	0	0	0	0	533.190	0	0	0	0	0	0	533.310

	(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	0	0	0	0	0	0	0	0	0	0	0	25.545
	(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	0.000	0	0	0	257.500	0	0	0	0	0	0	624.980
	(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	0	0

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

	(iv) Total no. of carcasses disposed	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	Training to specialist multi-disciplinary groups/ teams of the State personnel drawn from different cadres/ services/ personnel involved in management of disaster in the State														
	(i) No. of training organized	0	0	1165.34	0.00	0.00	1352.32	6240.00	0.00	0.00	0.00	0.00	0.00	34.98	0.00
	(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	132.400	0	0	0	0	0	0	0	0
	TOTAL	0.000	0.000	1446.279	156.721	0.000	2948.803	40527.587	112.683	12.805	5.178	0.000	0.000	1797.98	21712.09598

STATE DISASTER MITIGATION FUND

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

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

The Government of Odisha has constituted an Appraisal Committee on 06.12.2022 headed by the Special Relief Commissioner (Member of SDMA) with members from line Departments of the State Government and State entities for appraisal of the proposals/projects under SDMF. The recommendations of the Appraisal Committee are being placed before the SEC for sanction of mitigation projects for funding out of SDMF.

During the Financial Year 2022-23, different mitigation projects of Water Resources Department, Works Department and Energy Department have been sanctioned and funds to the tune of Rs. 308.286 Crore have been released out of SDMF for execution of these projects. SRC & ACS is monitoring the progress of these projects regularly. The list of projects sanctioned from SDMF is given below.

Information on SDMF during 2022-23

SI No.	Name of the Department	Mitigation Project Name	Amount Released from SDMF (Rs. in Crore)	Name of the Calamity
1	Water Resources	Construction of Groynes and River mouth Dredging of Bahadanalla at Haripur.	50.000	Flood
		Construction of Groynes and River mouth Dredging of Bahananalla at Markandi.	50.000	Flood
2	Works	Construction of Flood Resilient Roads Baruan-Bari-Kalamatia Road from 0/000 Km to 25/875 Km in Panikoili division, Jajpur.	50.000	Flood
		Construction of Flood Resilient Roads Balichandrapur-Bari via Benipur Road from 0/000 Km to 24/500 Km in Panikoili division, Jajpur.	50.000	Flood
		Construction of Flood Resilient Roads Gopapur-Budhabhuin Road such as construction of Box Cell Culvert over TankajoraNallah at 4/500 Km in Deogarh.	7.986	Flood
3	Energy	Strengthening of 33KV, 11KV & below, LT network in 1st 20 KM of coastal area, Installing RLP Poles, Elivatedplingth mounted DTs	100.200	Cyclone
		Training, Workshop & Awareness programs	0.100	Non Structural
TOTAL:-			308.286	