



Government of Odisha

**REPORT
ON
FLOODS & HEAVY RAIN
August, 2022**

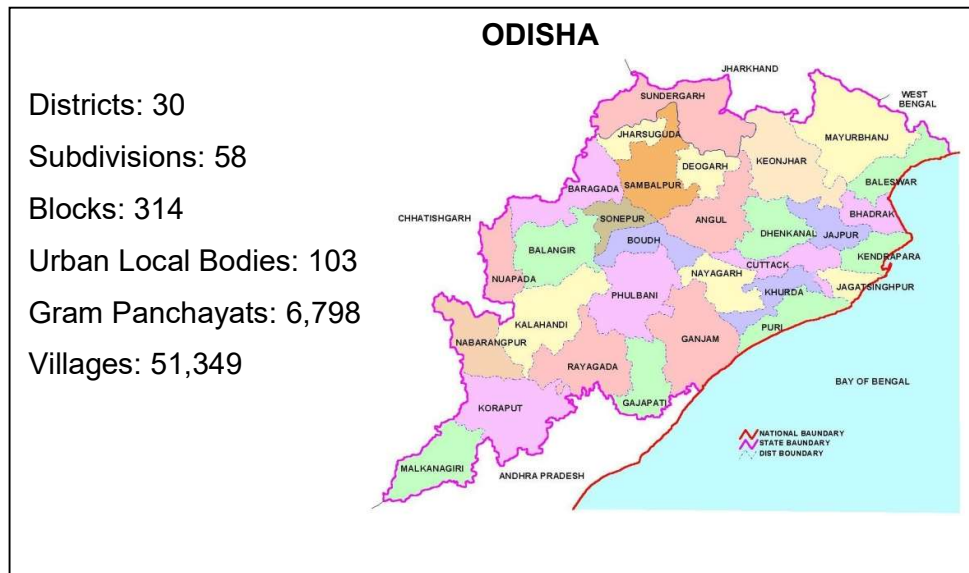
**Special Relief Commissioner, Odisha
Revenue & Disaster Management Department**

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Chapter-I

Overview



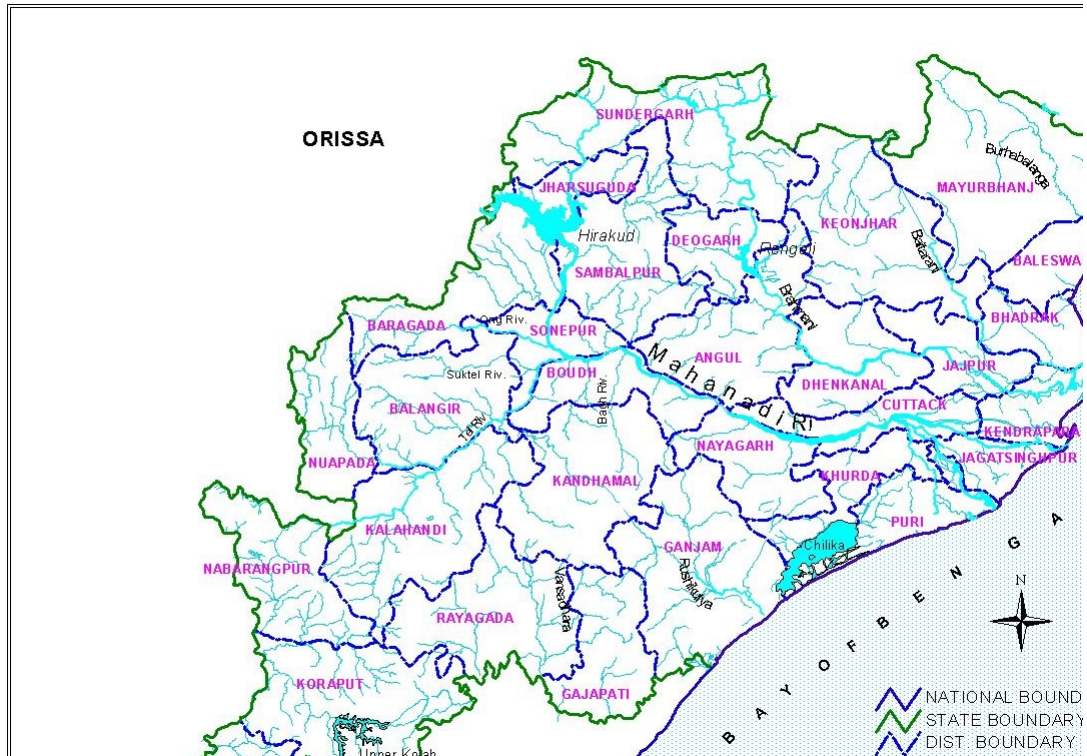
Odisha is located between $17^{\circ} 48' \text{ N}$ and $22^{\circ} 35' \text{ N}$ latitudes, and $81^{\circ} 47' \text{ E}$ & $87^{\circ} 32' \text{ E}$ longitudes. It extends over an area of 1,55,707 square km and is bounded by Bay of Bengal on the east (with coast line of about 480 km); Chhattisgarh on the west; Andhra Pradesh on the south and Jharkhand & West Bengal on the North. According to 2011 Census, the State has a total population (provisional) of 4,19,47,358; the rural population being 3,49,51,234.

The State on account of its unique geo-climatic position is vulnerable to natural disasters. Floods, droughts and cyclones have been a recurrent phenomena in the State. In each year between 1995 and 2011, the State has experienced one calamity or another without respite. In a fairly recent past, the State which suffered a severe drought in 18 districts during 2009 was again affected by drought in 17 districts and unseasonal cyclonic rain in 24 districts during 2010. Now 17 districts of the State are writhing under the destructive impact of floods in the major river systems i.e., Mahanadi, Brahmani, Baitarani, Budhabalanga & Subarnarekha.

The recurring phenomenon of natural disasters in quick succession and its destructive implications on land, labour, livelihood, assets and infrastructure have severely impacted all sectors of socio-economic life.

River Systems of Odisha

The river systems of Odisha comprises the Mahanadi, the Brahmani, the Baitarani, the Subarnarekha, the Budhabalanga, the Vansadhara, the Rusikulya, the Nagabali, the Indravati and their tributaries and distributaries.

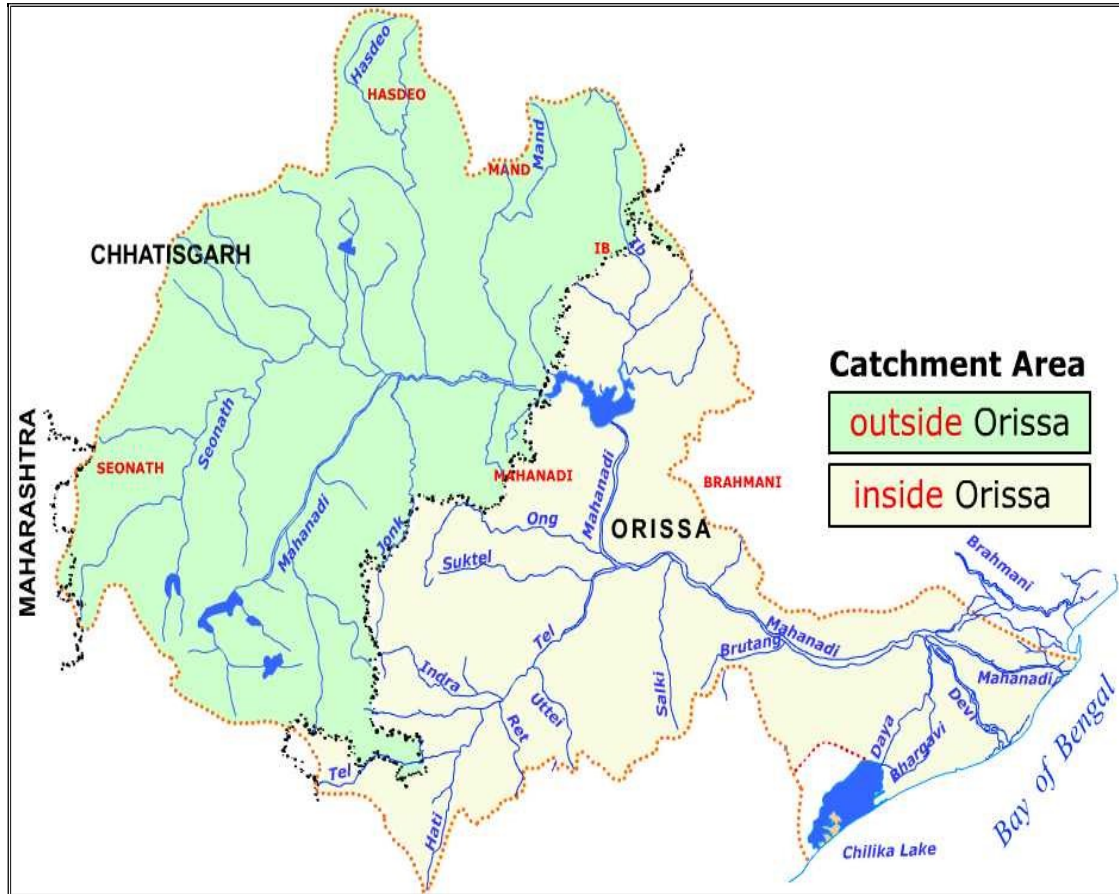


Mahanadi River System:

River Mahanadi is the sixth largest river of India and the largest river in Odisha. It originates from the Amarkantak hills of the Bastar Plateau near Pharasiya village in Raipur district of Chhattisgarh. After entering the old Bilaspur district, it is joined by its first major tributary, the Seonath. Subsequently and before entering into Odisha it is joined by the Jonk and Hasdeo rivers.

This river in its onward journey through erosional plains bifurcates into a number of branches and sub-branches forming the Mahanadi delta (9063 sq. km) before out-falling into the Bay of Bengal. The major tributaries of river Mahanadi in Odisha are Ib, Ong, Tel, Suktel, Jira, Hati etc. The major branches and sub-branches are Kathjori, Kuakhai, Kushabhadra, Bhargavi, Daya, Sirua, Biluakhai, Devi, Chitrotpala, Luna, Karandia, Paika, Birupa and Badagenguti. Daya and Bhargavi fall into the Chilika Lake while the other branches and sub- branches including the river Mahanadi fall into Bay of Bengal.

The catchment area of Mahanadi spreads over 141600 square km (65,628 square km in Odisha). Hirakud dam constructed in 1957 across Mahanadi near Sambalpur drains an area of 83,400 square km. It is the largest earthen dam in the world measuring 24 km including dykes; having reservoir spread of 743 square km and live storage capacity of 5.37×10^9 cum. However, it is the only such structure to moderate the downstream floods.



The Brahmani:

It is the second largest river in Odisha. It originates as two major rivers namely the Sankh and the Koel from the Chhotangpur Plateau and both join at Vedavyasa near Rourkela in Sundargarh district of Odisha forming the major river Brahmani. It flows through Sundargarh, Keonjhar, Dhenkanal and the coastal plains of Kendrapara and Jajpur districts before out-falling into the Bay of Bengal at Dhamra. The Brahmani is 799 km long and its catchment area spreads over 39,033 square km in Odisha. There are 45 major tributaries of the Brahmani.

The Baitarani:

It rises from the Gonasika in the Guptaganga hills of Keonjhar district. It is 365 km long and its catchment area spreads over 12,790 square km. It enters into the Bay of Bengal after joining the Brahmani at Dhamra mouth near Chandabali.

Flood protection works:

The total length of protective embankments provided in all river basins is 6515 km out of which Puri, Kendrapara, Cuttack and Jagatsinghpur districts are having embankments of 1133 km, 1033 km, 713 km, and 597 km respectively. There are 1952 spurs and 253 Km of stone packing in the embankments of the river system.

Information relating to river embankments (length in km) has been summarized below:

Sl. No.	Name of Basin	Length of embankment in Km.				
		Capital Embankment	Other Agricultural Embankment	Test Relief Embankment	Saline Embankment	Total
1	2	3	4	5	6	7
1	Bahuda	0.000	15.100	0.000	0.000	15.100
2	Baitarani	166.316	154.613	321.286	117.350	759.565
3	Brahmani	181.256	312.790	260.975	374.485	1129.506
4	Burhabalanga	0.000	13.300	123.050	17.300	153.650
5	Mahanadi	1267.685	1414.056	445.812	931.610	4059.163
6	Nagavali	0.000	1.370	2.880	0.000	4.250
7	Rushikulya	63.890	548.070	227.820	33.200	872.980
8	Subarnarekha	30.000	27.700	148.650	94.500	300.850
9	Vamsadhara	8.141	9.152	87.349	0.000	104.642
10	Directly out falls to Sea	0.000	0.000	6.000	67.500	73.500
	Total :	1717.288	2496.151	1623.822	1635.945	7473.206

History of High Floods in Odisha

Floods in Mahanadi river system is a recurrent phenomenon. The Mahanadi basin has experienced high floods in 1982, 2001, 2003, 2006, 2008 and also 2011. Incidents of high flood have been summarized in the table below:

Year	Month	Duration (In Days)	Peak Discharge at Naraj (in lakh cusecs)
1958	July	13	12.00
1959	September	9	12.55
1961	July	10	12.85

1980	September	12	12.70
1982	August	6	15.84
1991	August	10	12.71
2001	July	28	14.08
2003	September	18	13.50
2006	Aug/Sept.	6	13.08
2008	September	11	15.81
2011	September	15	13.67
2014	August	5	11.13
2020	September	15	10.26
2022	August	11	12.01

Introduction

The analysis of the history of Natural Disasters shows that the State of Odisha has been a regular victim of major natural disasters like floods, cyclones and drought almost every year. This is because of its vulnerable geo-physical location.

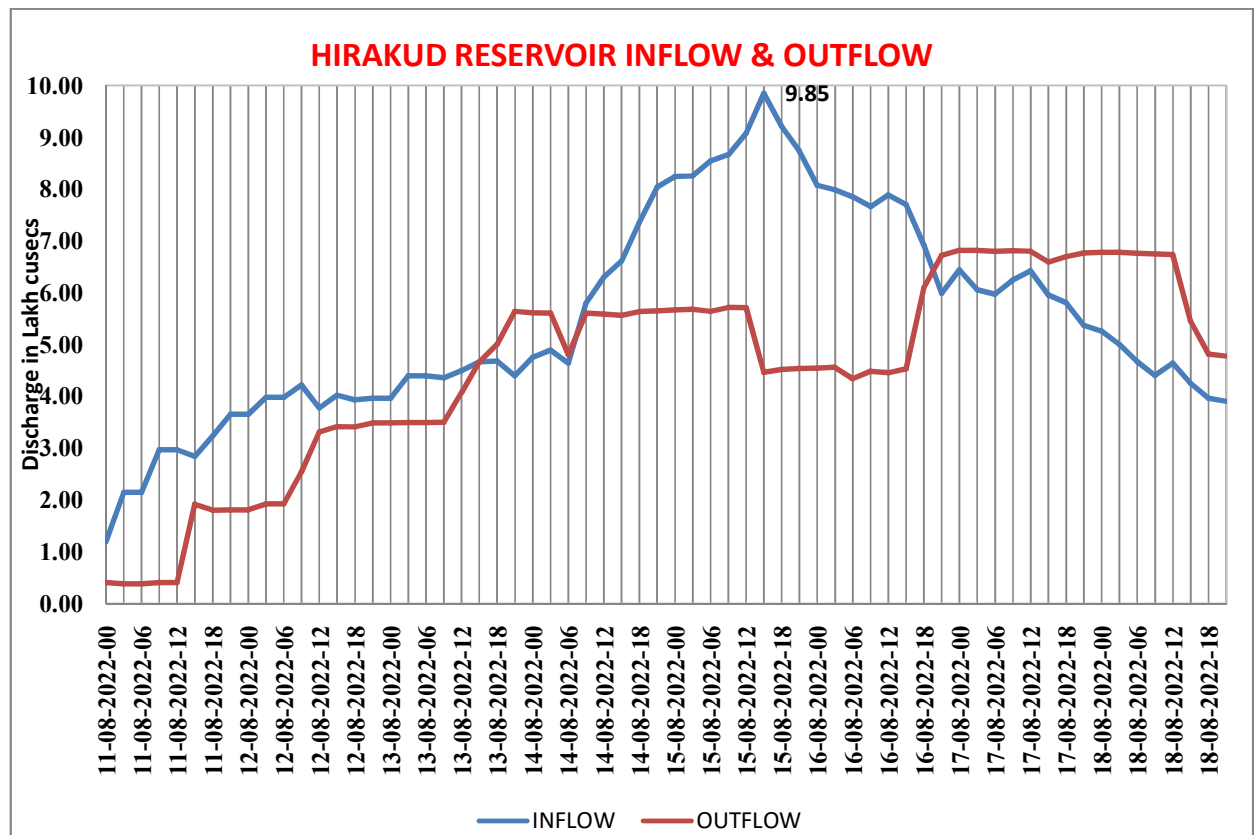
During August, 2022 the State has experienced floods in the Mahanadi , Baitarani, Subarnarekha River System.

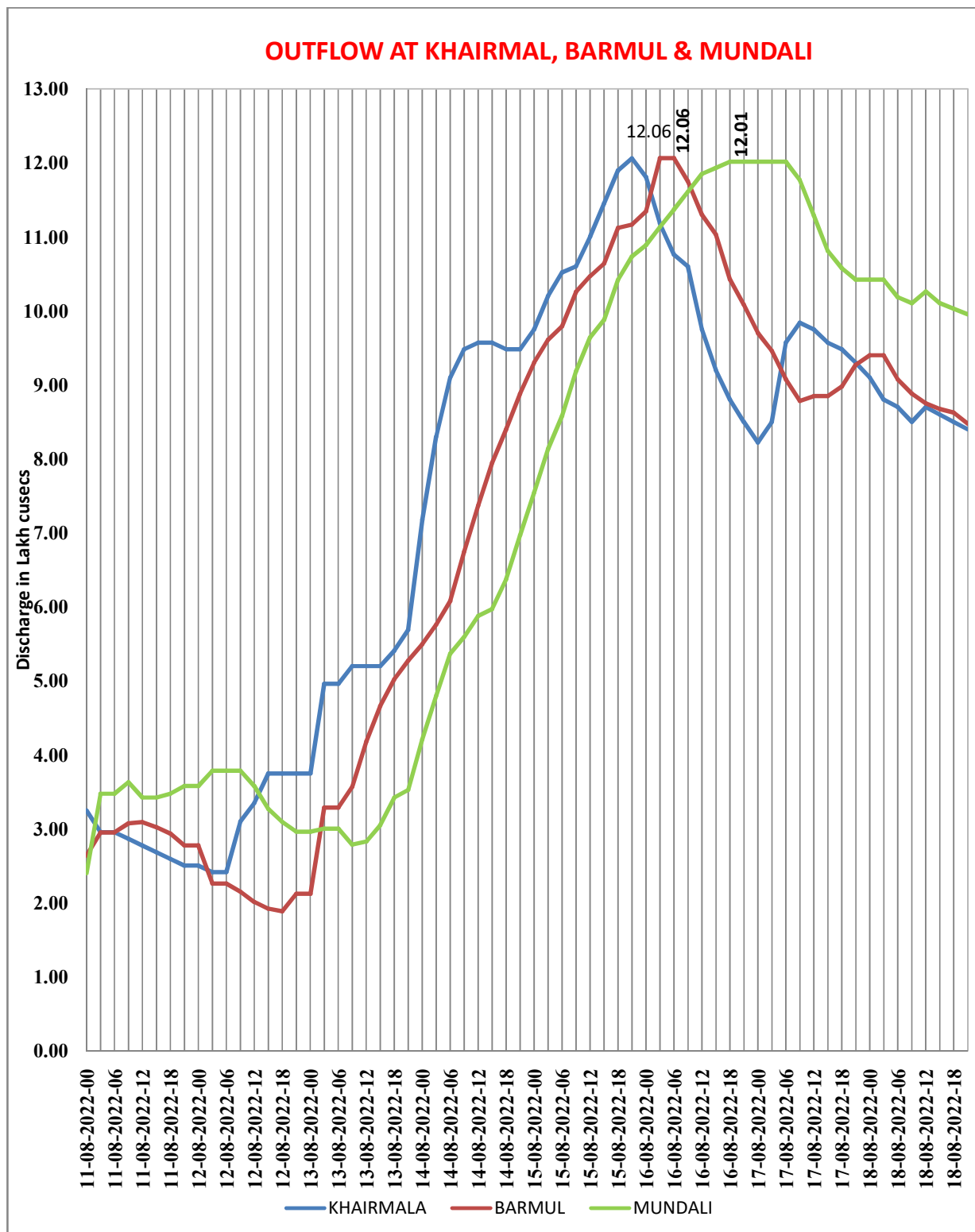
Chapter-II

CAUSE & OCCURRENCE

Causes & Occurrences

The flood in 2nd and 3rd week of August 2022 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 below figures.





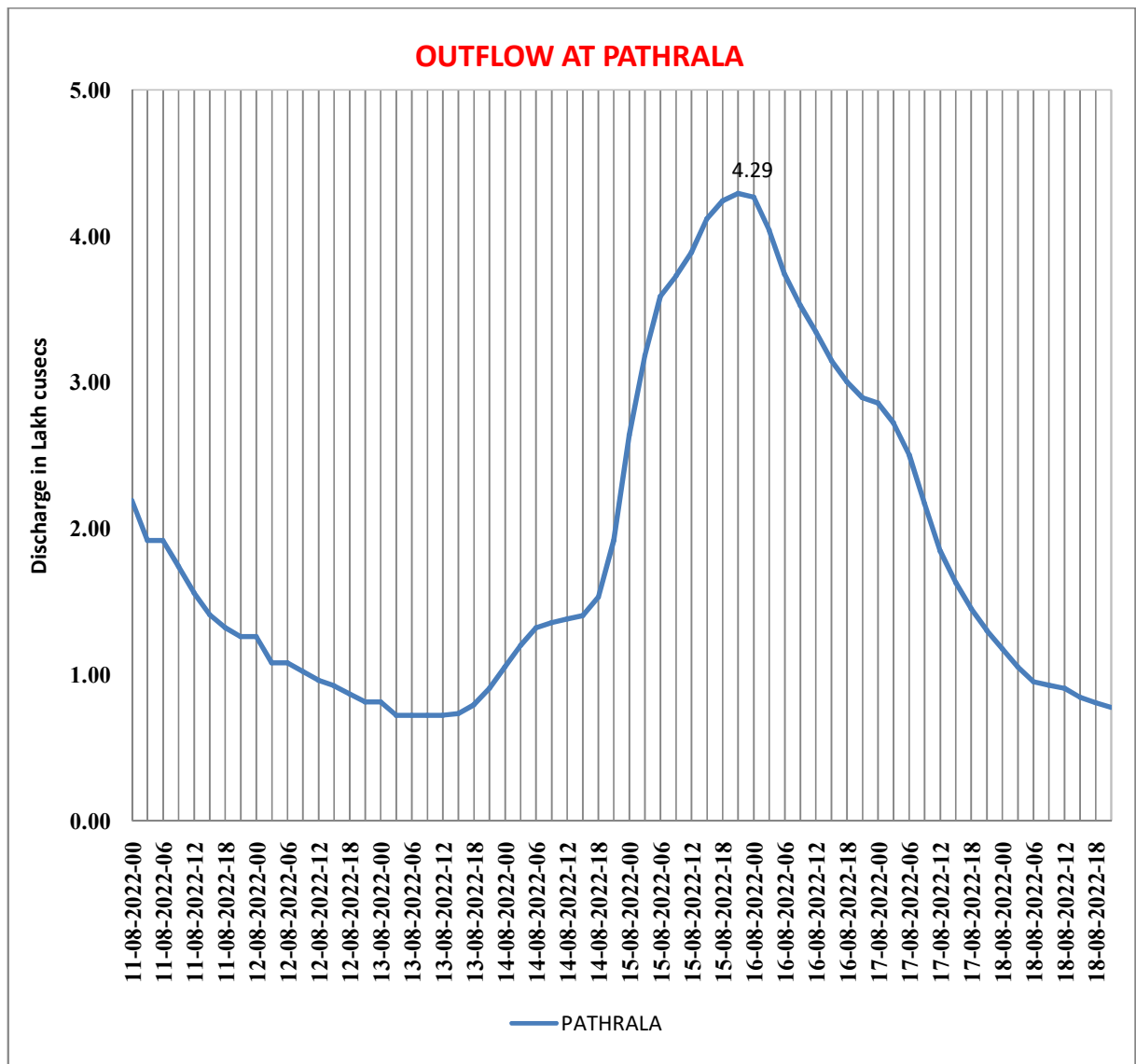
Outflow from tributaries of Mahanadi

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 Chhatisgarh 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 C, 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

Figure- C**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.

Carrying capacity of Mahanadi

The Mahanadi river catchment up to Mundali have the safe carrying capacity of 9 lakhs cusecs.

Rainfall at Upper Mahanadi Basin

Rainfall in M.M

SI	Place	11.8.22	12.8.22	13.8.22	14.8.22	15.8.22	16.8.22	17.8.22	18.8.22	19.8.22	20.8.22	21.8.22	22.8.22
1.	Ambabhona	9.0	15.0	14.0	75.0	174.0	10.4	0.0	0.0	5.0	0.0	19.0	4.0
2	Andhiyakore	9.2	7.6	19.6	3.6	72.8	6.0	0.0	0.0	0.0	3.2	6.4	0.8
3	Baikunthapur	0.0	15.4	13.8	10.6	26.2	7.4	0.0	0.0	0.0	25.0	86.4	2.4
4.	Bamandhi	23.4	29.8	61.4	74.4	80.2	21.8	0.0	0.0	1.6	4.4	43.4	0.2
5.	Bangodam	48.4	83.0	41.0	29.6	37.6	78.0	0.0	0.0	0.0	20.0	26.8	9.6
6.	Bargaon	4.4	40.4	20.6	86.6	107.2	5.4	0.0	0.0	2.6	30.4	90.00	3.7
7.	Basantpur	3.6	17.4	84.8	65.2	53.8	18.6	0.0	0.0	2.8	1.6	12.8	5.0
8.	Bodanda	35.6	1.8	2.2	33.8	91.8	10.0	0.0	0.0	0.0	50.5	0.0	0.0
9.	Champa	25.0	48.0	35.0	55.0	39.0	30.0			0.0	4.0	29.0	
10.	Deogan	11.0	22.0	7.0	94.0	111.0	9.0	3.0	2.0	13.0	8.8	8.4	2.2
11.	Dharmjaygarh	16.6	45.8	39.0	17.8	76.4	18.6	0.0	0.0	0.0	8.8	57.4	7.8
12.	Ghatora	83.2	69.2	65.8	46.0	30.2	4.6	0.0	0.0	3.0	18.4	24.8	0.0
13.	Ghorari	4.2	5.4	6.0	53.4	45.0	9.2			2.2	6.8	6.6	
14.	Hemgiri	14.0	35.2	6.8	200.4	140.0	20.0	0.0	0.0	0.0	2.4	36.2	13.0
15.	Jamadarpalli	20.8	78.4	17.6	108.4	99.8	15.8	0.8	0.0	3.8	3.8	31.2	17.4
16	Jamankira	10.4	52.4	27.0	29.2	116.2	17.6	0.0	10.0	34.4	36	77.2	6.8
17.	Jharsuguda	10.8	22.8	13.6	81.0	159.4	10.7	1.4	0.0	16.2	6.8	16.0	0.2
18.	Kelo	37.2	26.4	38.0	122.0	120.6	18.2	1.2	0.0	0.6	0.4	32.6	2.8
19	Korba	16.4	11.8	55.8	33.2	84.4	44.2	0.0	0.0	0.0	11.0	21.0	12.8
.20	Kuchinda	6.0	90.3	12.3	42.3	115.2	30.0	0.0	80.0	14.2	32.00	45.0	14.0
21.	Kurbhatta	31.4	14.6	30.2	64.4	126.0	25.0	0.0	0.0	8.0	1.6	20.6	2.6
22.	Laikera	13.0	34.0	6.5	85.4	130.0	48.4	0.0	0.0	13.8	8.2	38.6	8.0
23.	Mamemdragar	8.2	44.0	37.0	17.0	17.0	24.6	0.0	0.0	0.0	11.8	52.4	3.2

SI	Place	11.8.22	12.8.22	13.8.22	14.8.22	15.8.22	16.8.22	17.8.22	18.8.22	19.8.22	20.8.22	21.8.22	22.8.22
	h												
24.	Mahupali	6.4	66.0	12.6	52.8	116.2	16.2	0.0	3.6	44.0	36.2	20.6	4.6
25.	Nandaghat	5.8	10.0	29.6	12.2	30.8	12.6			4.4	3.8	5.0	
26.	Nuapara	16.8	6.3	NR	53.8	52.6	28.8	0.0	0.8	1.8	21.00	24.8	0.0
27.	Paramanpur	6.6	38.4	6.4	37.8	105.8	12.0	1.2	0.0	36.2	6.4	21.6	2.6
28.	Pendraroad	12.0	17.0	39.0	NR	43.0	33.0	0.2	0.0	0.5	9.6	72.0	26.0
29.	Raipur	4.0	6.0	6.0	NR	64.0	7.0	0.0	0.0	0.8	12.00	7.4	2.2
30.	Rajim	32.0	2.2	2.4	31.6	88.6	6.4	0.0	0.0	0.0	32.4	0.4	0.0
31.	Rampur	2.8	9.8	64.0	137.6	88.2	21.0	0.0	0.0	0.0	11.4	15.4	3.6
32.	Sankara	17.0	2.2	69.2	43.6	43.8	10.4	0.0	0.0	6.4	11.6	3.6	0.0
33	Saradihi	8.4	15.0	35.0	105.0	93.0	30.6			0.0	0.0	14.0	
34.	Seorianarayan	3.8	21.2	104.0	116.6	56.0	20.8	0.0	0.0	0.0	22.6	7.8	0.0
35.	Simga	11.8	3.0	12.6	13.2	36.4	5.0	0.0	0.0	2.6	4.4	10.0	0.2
36.	Sundergarh	10.1	34.4	4.7	163.4	72.3	24.1	0.0	1.0	7.3	3.8	56.2	0.0
37.	Surajgarh	38.2	17.2	22.0	179.4	127.4	16.2	0.2	0.0	4.2	0	14.8	4.4
38.	Tarapur	18.0	45.0	25.0	111.0	116.0	39.0				40.0	50.0	6.0
39.	Thettang	23.8	13.4	9.4	4.2	49.2	10.6	0.0	0.0	0.0	12.6	45.2	4.0

Rainfall in the State

The average rainfall of these districts from dt.07.08.2022 to dt.15.08.2022 is given below :

DISTRICT AVERAGE RAINFALL FROM 7.8.2022 TO 15.8.2022											
(Rainfall in mm)											
Sl.	District	7	8	9	10	11	12	13	14	15	Total (Cumulative)
1	Kalahandi	24.5	73.6	64.5	38.8	6.5	0.2	26.1	42.9	164.3	441.4
2	Kandhamal	64.7	32.7	61.4	22.0	13.1	1.4	31.0	60.2	132.6	419.1
3	Nawarangpur	32.7	101.6	46.9	36.7	4.5	2.3	4.4	40.4	146.7	416.2
4	Sambalpur	15.7	15.0	4.8	85.7	12.0	45.5	15.8	69.1	102.6	366.2
5	Deogarh	9.1	22.8	9.0	68.1	17.7	72.6	12.3	39.7	104.9	356.2
6	Koraput	34.7	62.2	44.1	35.0	8.1	3.7	0.0	50.9	104.8	343.5
7	Bargarh	20.6	19.1	24.3	57.4	18.4	13.4	34.2	63.3	83.6	334.3
8	Jharsuguda	13.2	4.8	6.7	62.7	9.9	33.6	11.1	57.4	125.8	325.2
9	Boudh	11.9	20.1	40.4	54.0	14.7	4.0	44.6	44.5	86.7	320.9
10	Subarnapur	33.3	12.7	20.5	51.2	13.7	9.4	69.3	75.0	35.9	321.0

11	Jagatsinghpur	51.1	9.4	10.9	14.6	23.4	5.4	24.0	132.8	31.0	302.6
12	Sundargarh	4.6	5.1	1.1	19.7	15.0	45.5	19.0	100.3	86.7	297.0
13	Nayagarh	81.6	11.5	70.7	33.8	12.8	1.9	23.1	39.8	17.6	292.8
14	Balangir	19.3	24.1	49.2	40.3	18.0	1.8	36.4	41.7	58.7	289.5
15	Rayagada	43.8	13.8	57.4	17.4	10.0	3.8	9.6	46.0	81.7	283.5
16	Balasore	43.4	27.3	35.5	40.5	47.3	5.0	13.0	42.8	27.3	282.1
17	Puri	83.6	7.5	32.7	9.4	8.8	6.9	18.6	92.0	8.6	268.1
18	Cuttack	39.9	8.8	39.1	21.6	23.2	8.3	17.1	74.0	34.7	266.7
19	Keonjhar	21.2	17.2	7.9	27.7	39.9	30.4	16.9	62.3	34.9	258.4
20	Ganjam	52.8	37.7	96.0	3.0	2.3	0.5	6.7	30.3	22.8	252.1
21	Kendrapara	55.0	9.6	9.4	17.1	21.7	21.2	16.9	55.8	31.6	238.3
22	Mayurbhanj	11.7	21.1	16.7	23.9	49.6	18.9	20.2	45.7	26.5	234.3
23	Angul	11.6	15.1	6.4	60.0	14.1	18.3	13.7	43.4	49.1	231.7
24	Gajapati	43.8	18.3	69.4	9.1	0.5	2.1	8.2	51.4	28.8	231.6
25	Nuapada	17.9	22.9	50.0	41.2	14.7	1.5	6.5	38.3	29.5	222.5
26	Dhenkanal	31.7	16.4	25.7	31.3	12.9	6.6	16.6	44.1	32.2	217.5
27	Jajpur	39.4	11.3	7.0	27.8	24.8	12.5	10.1	42.6	40.2	215.7
28	Malkanagiri	12.1	84.0	32.1	14.1	0.4	4.1	0.0	17.4	37.7	201.9
29	Bhadrak	45.7	15.8	9.6	50.9	17.1	8.3	6.1	35.4	11.8	200.7
30	Khordha	40.8	8.3	29.5	7.5	18.7	4.1	11.5	54.7	21.2	196.3
State Average		33.7	25.0	32.6	34.1	16.5	13.1	18.1	54.5	60.0	287.6

RAINFALL REPORTS OF DIFFERENT BLOCKS FROM 7.8.2022 TO 15.8.2022												
(Rainfall in mm.)												
Sl.	District	Block	7	8	9	10	11	12	13	14	15	Total
Rainfall above 200 mm (Cumulative)												
1	Angul	Athamalik	17.2	14.2	15.1	73.1	11.0	13.0	26.2	36.4	119.2	325.4
2		Pallahara	9.0	6.0	3.0	24.0	20.0	51.0	40.0	61.0	35.0	249.0
3		Angul	22.0	22.0	11.0	107.0	11.0	18.0	8.0	41.6	6.6	247.2
4		Chhendipada	16.4	15.6	0.0	87.6	8.6	9.6	5.2	32.4	59.6	235.0
5		Kishorenagar	6.4	16.8	3.4	23.0	8.2	10.4	17.8	32.4	111.8	230.2
6		Banarpal	9.0	14.4	11.6	85.4	13.6	13.2	8.4	47.4	13.4	216.4
7		Talcher	10.0	30.0	4.0	50.0	27.0	9.0	0.0	67.0	12.0	209.0
8	Balangir	Gudvella	7.0	32.0	42.0	64.0	27.0	0.0	37.0	28.0	169.0	406.0
9		Deogaon	12.0	27.0	68.0	57.0	19.0	0.0	44.0	48.0	95.0	370.0
10		Belpada	17.0	33.0	58.0	49.0	24.0	2.0	52.0	85.0	27.0	347.0

11		Patnagarh	45.0	43.0	62.0	23.0	20.0	0.0	64.0	37.8	46.0	340.8
12		Saintala	13.0	19.0	55.0	76.0	25.0	0.0	44.0	36.0	63.0	331.0
13		Titilagarh	35.4	19.2	76.0	8.4	13.2	0.0	39.0	53.0	76.4	320.6
14		Balangir	14.6	25.2	72.8	58.2	20.0	0.0	25.0	31.6	68.0	315.4
15		Duduka	39.0	4.0	26.0	48.0	14.0	10.0	62.0	55.0	46.0	304.0
16		Puintala	19.0	19.0	55.0	54.0	17.0	3.0	26.0	32.0	42.0	267.0
17		Khaprakhhol	2.0	32.0	28.0	45.0	14.0	0.0	38.0	36.0	39.0	234.0
18		Muribahal	20.0	17.5	57.5	9.0	16.0	0.0	21.0	36.2	49.0	226.2
19		Tureikela	7.0	39.0	23.0	33.0	15.0	3.0	17.4	38.0	41.0	216.4
20		Bangomunda	25.0	15.0	40.0	22.0	17.0	0.0	17.0	28.0	38.0	202.0
21	Balasore	Oupada	51.0	46.0	42.0	63.0	76.0	5.0	19.0	72.0	14.0	388.0
22		Jaleswar	5.0	37.0	12.0	28.0	57.0	5.0	47.0	67.0	65.0	323.0
23		Nilagiri	55.0	27.0	62.0	40.0	35.0	7.0	27.0	27.0	13.0	293.0
24		Khaira	43.0	21.0	35.0	21.0	79.0	5.0	13.0	57.0	15.0	289.0
25		Bhograi	48.0	14.0	15.0	62.0	54.0	4.0	0.0	15.0	74.0	286.0
26		Baliapal	48.0	31.0	25.0	51.0	23.0	4.0	0.0	23.0	81.0	286.0
27		Remuna	60.0	28.0	39.0	16.0	36.0	4.0	9.0	74.0	12.0	278.0
28		Simulia	94.0	42.0	8.0	62.0	41.0	3.0	12.0	11.0	3.0	276.0
29		Soro	24.0	26.0	81.0	30.0	58.0	0.0	9.0	25.0	5.0	258.0
30		Balasore	33.5	28.0	48.0	17.5	29.0	3.5	8.5	63.0	18.0	249.0
31		Basta	23.0	8.0	24.0	64.0	28.0	9.0	5.0	61.0	22.0	244.0
32		Bahanaga	36.0	20.0	35.0	32.0	51.0	11.0	6.0	18.0	6.0	215.0
33	Bargarh	Ambabhona	5.0	17.2	10.4	80.0	9.0	15.0	14.0	75.0	174.0	399.6
34		Sohela	25.0	14.0	21.0	70.0	14.0	15.0	18.0	72.0	148.0	397.0
35		Bijepur	23.0	14.0	12.0	115.0	22.0	13.0	31.0	80.0	68.0	378.0
36		Bhatli	16.0	20.0	21.0	51.0	22.0	29.0	17.0	70.0	105.0	351.0
37		Barpali	35.0	5.0	45.0	35.0	25.0	10.0	65.0	66.0	52.0	338.0
38		Paikmal	14.0	58.0	36.0	38.0	13.0	2.0	80.0	32.2	64.4	337.6
39		Jharbandh	40.0	24.0	36.0	77.0	22.0	7.0	39.0	65.0	10.0	320.0
40		Gaisilet	41.0	16.0	47.0	44.0	14.0	2.0	25.0	53.0	75.0	317.0
41		Bargarh	15.4	9.6	8.2	45.8	14.4	22.4	30.6	73.6	96.4	316.4
42		Attapura	5.0	15.0	12.2	48.2	19.2	27.4	30.4	75.2	82.4	315.0
43		Padampur	7.0	32.0	23.0	30.0	28.0	8.0	32.0	40.0	74.0	274.0
44		Bheden	20.3	4.3	19.2	54.2	18.2	10.4	28.2	57.9	54.3	267.0
45	Bhadrak	Bonth	15.0	37.0	15.0	55.0	12.0	15.0	12.0	73.0	16.0	250.0
46		Bhandaripokhari	53.0	0.0	12.0	72.0	23.0	9.0	5.0	50.0	5.0	229.0
47		Bhadrak	54.0	14.8	14.4	83.0	21.6	3.2	0.0	31.0	3.0	225.0
48		Chandbali	73.0	10.8	8.6	28.4	20.4	5.0	9.4	34.0	33.4	223.0
49	Boudh	Boudh	9.0	12.0	29.2	41.9	16.2	5.0	41.0	38.2	149.0	341.5
50		Harabhanga	17.0	37.0	42.0	60.0	14.0	4.0	73.0	35.0	46.0	328.0

51		Kantamal	9.6	11.4	50.0	60.2	13.8	3.0	19.8	60.4	65.2	293.4
52	Cuttack	Banki-Dampada	72.0	0.0	110.0	90.0	45.0	0.0	30.0	162.0	12.0	521.0
53		Narasinghpur	76.0	11.0	40.0	58.0	14.0	4.0	6.0	80.0	52.0	341.0
54		Nischintakoili	27.0	23.0	53.0	10.0	25.0	12.0	29.0	63.0	76.0	318.0
55		Kantapada	48.0	6.0	23.0	8.0	17.0	27.0	13.0	122.0	38.0	302.0
56		Niali	53.0	8.0	25.0	10.0	15.0	25.0	13.0	118.0	26.0	293.0
57		Badamba	28.0	7.0	39.0	40.0	44.0	3.0	11.0	49.0	58.0	279.0
58		Tigiria	35.0	4.0	26.0	29.0	28.0	2.0	14.0	67.0	18.0	223.0
59		Salepur	28.0	10.0	40.0	9.0	23.0	10.0	17.0	58.0	20.0	215.0
60		Athagarh	22.0	7.0	26.0	10.0	27.0	5.0	20.0	70.0	24.0	211.0
61		Tangi-Choudwar	20.0	20.0	24.0	5.0	4.0	4.0	27.0	44.0	54.0	202.0
62	Deogarh	Barkote	7.2	6.8	8.6	47.2	17.2	112.8	18.8	62.6	120.0	401.2
63		Deogarh	15.6	28.0	16.2	63.0	22.0	75.0	12.2	38.4	113.0	383.4
64		Reamal	4.6	33.6	2.2	94.2	14.0	30.0	6.0	18.0	81.8	284.4
65	Dhenkanal	Hindol	117.3	5.4	73.8	13.4	8.1	5.0	20.0	48.0	23.0	314.0
66		Bhuban	29.0	36.0	25.0	32.0	23.0	12.0	22.0	27.0	60.0	266.0
67		Kamakhyanagar	16.1	16.4	7.3	65.3	14.2	4.1	29.4	46.3	26.1	225.2
68		Kankadahad	12.2	8.0	2.0	22.0	12.8	9.0	18.2	83.2	49.4	216.8
69	Gajapati	Nuagada	121.8	10.4	141.2	16.2	2.0	8.9	32.2	70.2	41.2	444.1
70		R.Udaygiri	31.4	80.4	90.0	12.0	1.0	0.0	2.2	104.0	59.2	380.2
71		Mohana	30.4	23.2	101.6	1.4	0.0	1.6	22.6	39.6	38.8	259.2
72	Ganjam	Aska	90.8	114.2	82.6	6.2	3.4	0.0	6.0	13.2	13.6	330.0
73		Dharakote	95.0	110.0	85.0	4.0	5.0	1.0	6.0	11.0	12.0	329.0
74		Chikiti	73.1	0.0	185.0	7.2	1.5	0.0	8.4	26.0	26.4	327.6
75		Sanakhemundi	106.0	11.0	136.0	1.0	1.0	0.0	4.0	21.0	14.0	294.0
76		Buguda	36.0	104.0	52.0	0.0	5.0	0.0	8.0	54.0	31.0	290.0
77		Polasara	90.2	60.2	68.8	3.4	1.2	0.0	6.4	35.8	16.6	282.6
78		Bhanjanagar	47.0	52.2	79.0	0.0	6.0	0.0	8.0	38.0	51.0	281.2
79		Chhatrapur	38.0	28.2	142.2	2.4	1.6	2.0	8.4	29.6	14.0	266.4
80		Ganjam	45.0	26.4	128.4	3.0	2.0	3.0	6.4	34.4	15.6	264.2
81		Jagannathprasad	46.0	4.4	47.2	2.3	5.4	0.0	17.2	100.0	41.0	263.5
82		Sheragada	55.4	55.0	113.0	3.0	3.0	0.0	6.4	12.6	14.6	263.0
83		Kabisuryanagar	71.0	56.0	92.0	2.0	0.0	0.0	5.0	17.0	12.0	255.0
84		Hinjilicut	39.0	52.0	128.0	2.0	1.0	0.0	5.0	14.0	14.0	255.0
85		Patrapur	40.4	2.0	128.6	4.6	1.0	1.0	0.0	44.4	27.4	249.4
86		Purusottampur	44.0	30.0	114.0	3.0	1.0	0.0	6.0	30.0	12.0	240.0
87		Digapahandi	60.0	4.0	106.0	3.0	2.0	0.0	10.0	17.0	26.0	228.0
88		Kukudakhandi	18.5	3.0	122.0	4.0	1.0	3.0	6.0	22.0	46.0	225.5
89		Sorada	47.0	42.0	52.0	1.0	3.0	0.0	11.0	19.2	46.0	221.2
90		Khalikot	22.0	38.0	63.0	7.0	0.0	0.0	6.0	52.0	15.0	203.0

91	Jagatsinghpur	Erasama	105.0	55.0	11.0	32.0	23.0	5.0	15.0	215.0	33.0	494.0
92		Naugaon	95.0	0.0	20.0	4.0	24.0	4.0	24.0	135.0	35.0	341.0
93		Balikuda	37.0	0.0	16.0	19.0	29.0	2.0	48.0	154.0	20.0	325.0
94		Jagatsinghpur	46.0	3.0	7.0	8.0	21.0	9.0	32.0	132.0	34.0	292.0
95		Biridi	53.0	0.0	15.0	2.0	22.0	2.0	11.0	112.0	32.0	249.0
96		Tirtol	15.0	2.0	4.0	15.0	21.0	8.0	15.0	135.0	32.0	247.0
97		Raghunathpur	44.0	2.0	6.0	12.0	21.0	8.0	21.0	103.0	28.0	245.0
98		Kujanga	14.0	13.0	8.0	25.0	26.0	5.0	26.0	76.0	34.0	227.0
99	Jajpur	Binjharpur	52.0	7.0	6.0	10.0	26.0	18.0	7.0	87.0	69.0	282.0
100		Jajpur	58.0	9.0	4.0	35.0	40.0	9.0	15.0	56.0	25.0	251.0
101		Bari	37.2	15.2	3.2	10.2	26.8	38.2	4.2	44.8	58.6	238.4
102		Dasarathpur	60.0	1.0	2.0	23.0	20.0	7.0	13.0	53.0	58.0	237.0
103		Badachana	43.0	19.0	11.0	12.0	20.0	5.0	4.0	33.0	80.0	227.0
104		Dharmasala	35.0	15.0	5.0	65.0	20.0	12.0	12.0	40.0	12.0	216.0
105		Sukinda	11.0	20.2	9.0	39.0	32.2	9.0	19.2	25.2	38.0	202.8
106	Jharsuguda	Lakhanpur	15.0	3.0	21.0	136.0	16.0	41.0	38.0	98.0	119.0	487.0
107		Laikera	23.8	8.0	0.0	76.2	13.0	34.0	6.5	55.4	130.0	346.9
108		Jharsuguda	3.0	6.0	7.0	41.0	11.0	26.0	5.0	56.0	146.0	301.0
109		Kirmira	6.0	5.0	0.0	36.0	7.0	36.0	2.0	36.0	120.0	248.0
110		Kolabira	18.2	2.0	5.4	24.2	2.6	31.2	4.0	41.4	114.0	243.0
111	Kalahandi	Thuamul Rampur	33.0	50.2	65.4	91.0	13.0	2.0	11.0	62.0	368.0	695.6
112		Madanpur Rampur	5.0	40.0	98.0	33.0	14.0	0.0	105.0	50.0	203.0	548.0
113		Narla	18.0	97.5	109.0	9.0	7.0	0.0	58.0	54.0	169.0	521.5
114		Kalampur	35.0	110.0	43.0	48.2	8.3	0.0	4.0	44.2	218.2	510.9
115		Jayapatna	122.0	82.0	35.0	8.0	0.0	0.0	10.0	44.0	182.0	483.0
116		Lanjigarh	18.4	74.8	81.2	33.4	8.6	0.0	18.2	59.0	182.4	476.0
117		Bhabanipatna	18.0	90.0	80.0	62.0	2.0	0.0	6.0	45.0	157.0	460.0
118		Karlamunda	9.0	17.0	54.0	80.0	18.0	0.0	70.0	35.0	145.0	428.0
119		Junagarh	0.0	144.0	44.0	49.0	2.0	0.0	0.0	35.0	144.0	418.0
120		Dharmagarh	13.2	73.0	76.0	37.2	3.4	0.0	7.6	22.0	136.6	369.0
121		Kesinga	33.2	59.4	65.0	8.4	6.0	0.0	37.6	50.0	92.2	351.8
122		Kokasara	8.0	71.0	25.0	35.0	0.0	0.0	2.0	31.0	96.0	268.0
123		Golamunda	6.0	48.0	63.0	10.0	2.0	0.0	10.0	26.0	43.0	208.0
124	Kandhamal	Phiringia	55.4	51.8	82.6	36.2	24.8	3.2	7.4	161.6	179.4	602.4
125		Kotagarh	32.2	67.0	105.0	35.0	10.0	2.0	56.0	46.0	142.0	495.2
126		Baliguda	42.0	15.0	63.0	23.0	20.0	0.0	28.0	64.0	212.0	467.0
127		Nuagaon	42.2	30.2	31.2	24.2	6.2	0.0	20.2	76.4	235.4	466.0
128		Tikabali	139.0	10.0	55.0	23.0	15.0	1.0	25.0	49.0	148.0	465.0
129		Chakapad	70.2	17.2	53.2	10.2	15.2	3.2	23.0	53.0	160.0	405.2
130		Raikia	118.6	17.2	39.4	9.8	5.0	0.0	24.8	62.0	117.0	393.8

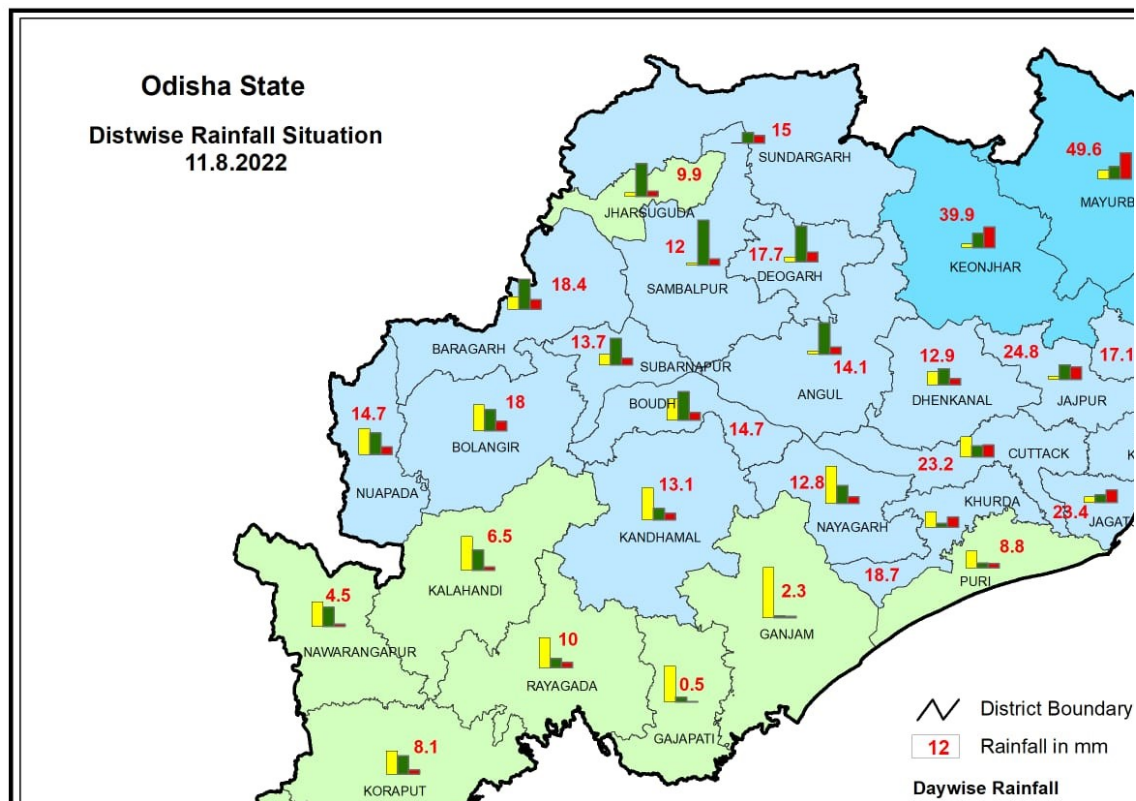
131		Khajuripada	66.4	48.6	70.8	38.8	17.6	2.0	30.8	38.6	62.0	375.6
132		Phulbani	23.4	14.4	47.2	17.0	21.6	2.0	39.8	80.0	105.0	350.4
133		G.Udayagiri	83.0	41.8	46.2	6.0	10.6	2.0	22.2	39.4	96.4	347.6
134		Daringibadi	85.0	40.0	58.0	18.0	6.0	0.0	25.0	22.0	93.0	347.0
135		Tumudibandh	19.2	39.4	84.8	22.2	5.2	1.0	70.2	30.0	41.4	313.4
136	Kendrapara	Marshaghai	68.0	18.0	22.0	6.0	24.0	72.0	63.0	42.0	38.0	353.0
137		Kendrapara	92.0	17.0	8.0	22.0	16.0	6.0	15.0	68.0	29.0	273.0
138		Rajnagar	60.0	5.0	8.0	25.0	20.0	6.0	6.0	83.0	43.0	256.0
139		Mohakalpara	43.0	5.0	0.0	7.0	24.0	53.0	17.0	62.0	18.0	229.0
140		Pattamundai	40.0	9.0	20.0	22.0	24.0	5.0	5.0	56.0	45.0	226.0
141		Derabis	33.0	16.0	20.0	14.0	21.0	9.0	14.0	67.0	31.0	225.0
142		Garadapur	38.0	6.0	3.0	12.0	12.0	28.0	22.0	72.0	21.0	214.0
143		Aul	80.0	8.0	2.0	21.0	26.0	6.0	7.0	31.0	26.0	207.0
144	Keonjhar	Keonjhar	40.1	15.2	7.2	48.2	27.2	33.2	32.2	87.2	36.6	327.1
145		Banspal	17.3	9.1	7.0	34.3	37.5	58.1	32.3	85.1	31.2	311.9
146		Harichandanpur	43.6	41.0	16.0	23.0	38.0	33.0	3.5	86.5	21.1	305.7
147		Joda	2.0	6.2	12.2	25.4	27.4	43.6	32.6	68.2	68.4	286.0
148		Telkoi	12.0	5.0	0.0	4.8	35.3	26.5	48.9	109.0	35.4	276.9
149		Ghasipura	41.1	26.1	9.2	46.1	78.2	11.0	1.1	32.2	16.2	261.2
150		Hatadihi	28.2	33.1	22.1	52.2	37.2	7.1	1.0	67.3	12.3	260.5
151		Champua	2.1	1.1	1.1	17.1	33.1	60.1	12.1	41.1	90.1	257.9
152		Ghatgaon	34.4	48.2	5.6	22.6	36.6	17.6	2.2	71.2	19.4	257.8
153		Jhumpura	7.8	12.4	5.6	15.2	18.6	57.4	3.8	91.2	31.6	243.6
154		Patna	19.6	9.8	3.4	29.2	64.4	21.2	31.2	32.8	26.4	238.0
155	Khordha	Khordha	50.0	10.0	36.0	3.0	35.0	5.0	10.0	70.0	25.0	244.0
156		Balianta	33.0	22.0	20.0	10.0	24.0	3.0	12.0	62.0	43.0	229.0
157		Bhubaneswar	47.0	2.2	38.2	3.0	24.4	2.6	13.8	43.2	54.2	228.6
158		Bolagarh	76.0	13.0	53.0	7.0	21.0	0.0	9.0	24.0	12.0	215.0
159	Koraput	Kotpad	76.0	194.0	104.0	34.0	5.0	6.0	0.0	96.0	293.0	808.0
160		Dasmantpur	63.0	8.0	117.0	49.0	13.0	8.0	0.0	89.0	140.0	487.0
161		Borigumma	15.4	92.8	46.4	26.4	14.0	4.0	0.0	21.8	175.6	396.4
162		Boipariguda	27.0	70.0	59.0	77.0	9.0	2.0	0.0	19.0	121.0	384.0
163		Jeypore	23.4	39.8	50.8	61.6	21.6	5.0	0.0	45.6	128.8	376.6
164		Koraput	31.6	40.4	36.8	61.0	5.2	4.6	0.0	92.0	92.4	364.0
165		Kundra	16.2	80.8	50.4	41.0	5.0	4.2	0.0	37.0	112.0	346.6
166		Similiguda	32.0	71.0	24.6	21.4	2.4	2.0	0.0	68.0	87.0	308.4
167		Lamataput	49.3	52.4	36.2	23.0	18.4	7.2	0.0	45.4	65.4	297.3
168		Pottangi	8.0	149.0	14.0	8.2	1.0	0.0	0.0	45.0	20.0	245.2
169		Nandapur	48.0	41.0	19.0	20.0	10.0	2.0	0.0	35.0	58.0	233.0
170		Laxmipur	23.0	6.0	17.8	39.0	6.0	4.0	0.0	59.0	75.0	229.8

171		Bandhugaon	50.0	16.0	26.0	18.0	1.0	3.0	0.0	46.0	54.0	214.0
172	Malkangiri	Korukonda	35.0	101.0	33.0	20.0	0.0	20.0	0.0	23.0	63.0	295.0
173		Mathili	4.0	131.0	23.0	18.0	0.0	7.0	0.0	29.0	65.0	277.0
174		Chitrakonda	18.0	72.0	109.0	5.0	3.0	0.0	0.0	9.0	12.0	228.0
175		Malkangiri	11.4	103.0	12.4	23.4	0.0	0.0	0.0	22.2	42.0	214.4
176	Mayurbhanj	Kaptipada	39.0	62.0	56.0	46.0	48.0	43.0	28.0	46.0	34.0	402.0
177		Baripada	27.0	13.0	22.0	43.0	56.0	38.0	19.0	68.0	86.0	372.0
178		Thakurmunda	65.0	36.0	14.0	73.0	32.0	10.0	21.0	35.0	54.0	340.0
179		Kusumi	6.0	36.0	41.0	11.0	86.0	12.0	17.0	93.0	22.0	324.0
180		Bijatata	0.0	19.0	14.0	8.0	75.0	13.0	82.0	51.0	28.0	290.0
181		Joshipur	4.2	6.8	7.8	28.8	58.9	17.2	58.8	91.2	11.2	284.9
182		Gopabandhunagar	8.3	39.8	46.3	38.4	49.3	13.0	4.0	39.2	41.0	279.3
183		Udala	30.4	35.6	38.2	23.6	41.2	6.4	9.8	51.2	28.4	264.8
184		Betanati	11.0	28.0	20.0	57.0	69.0	6.0	3.0	51.0	18.0	263.0
185		Sukuruli	2.6	2.2	2.6	4.6	88.6	32.4	15.4	82.6	24.0	255.0
186		Khunta	6.3	36.6	46.3	30.3	34.0	14.2	5.6	38.9	30.5	242.7
187		Besoi	38.0	18.0	21.0	31.0	22.0	19.0	32.0	47.0	14.0	242.0
188		Badasahi	6.0	25.0	33.0	41.0	59.0	4.0	2.0	54.0	15.0	239.0
189		Karanjia	6.0	7.0	4.0	15.0	85.0	24.0	26.0	42.0	28.0	237.0
190		Suliapada	6.1	5.0	4.0	14.0	40.0	15.0	74.0	53.0	22.0	233.1
191		Samakhunta	8.0	36.0	12.0	26.0	52.0	18.0	9.0	35.0	37.0	233.0
192		Raruana	2.0	2.0	4.0	7.0	56.0	31.0	15.0	79.5	17.0	213.5
193		Sarasakana	9.0	12.0	0.0	16.0	56.0	44.0	16.0	37.0	23.0	213.0
194	Nawarangpur	Dabugaon	32.0	225.0	92.3	38.2	9.2	3.2	17.2	44.2	213.3	674.6
195		Kosagumuda	42.4	145.0	161.0	28.2	2.0	0.0	0.0	75.4	171.2	625.2
196		Papadahandi	45.0	190.0	38.0	32.0	8.0	5.0	3.0	35.0	195.0	551.0
197		Nawarangpur	37.0	104.0	40.0	21.0	6.0	4.0	2.0	73.0	167.0	454.0
198		Nandahandi	40.0	93.0	33.0	25.0	3.0	3.5	0.0	52.0	149.0	398.5
199		Tentulikhunti	65.0	65.5	33.4	23.0	2.6	3.4	0.0	34.0	146.0	372.9
200		Jharigaon	32.0	52.0	11.2	57.0	6.2	2.0	0.0	22.4	128.4	311.2
201		Umerkote	4.0	40.0	30.0	38.0	3.0	0.0	16.0	28.2	126.0	285.2
202		Raighar	5.0	44.0	14.2	95.0	5.3	0.0	6.0	25.0	78.0	272.5
203		Chandahandi	25.0	57.0	16.0	10.0	0.0	2.0	0.0	15.0	93.0	218.0
204	Nayagarh	Daspalla	105.4	30.0	84.4	72.6	12.4	0.0	39.6	35.7	12.8	392.9
205		Khandapara	68.2	20.0	109.2	43.0	15.0	0.0	45.0	51.0	22.0	373.4
206		Bhapur	82.3	7.1	160.2	46.0	13.7	4.2	15.3	30.0	7.0	365.8
207		Gania	76.0	8.0	66.0	48.0	14.0	1.0	15.0	38.0	22.0	288.0
208		Odagaon	92.1	6.0	43.1	3.0	5.0	0.0	17.8	79.3	28.4	274.7
209		Nuagaon	54.0	8.0	54.2	54.0	22.0	3.1	30.1	38.0	10.1	273.5
210	Nuapada	Sinapali	22.0	28.4	76.6	82.2	3.0	0.0	5.6	30.6	32.6	281.0

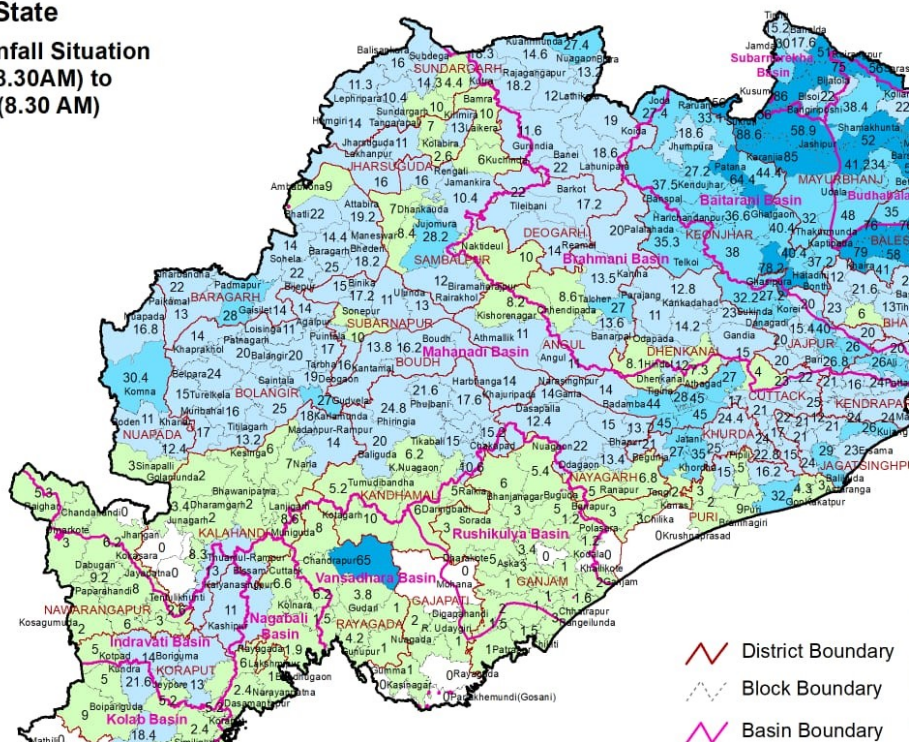
211		Nuapada	8.6	30.2	31.6	50.2	16.8	6.0	9.4	53.8	51.6	258.2
212		Komna	9.0	24.3	73.3	30.0	30.4	1.3	8.0	52.4	26.3	255.0
213	Puri	Astarang	113.0	0.0	36.0	10.0	3.0	0.0	51.0	168.0	5.0	386.0
214		Gop	51.0	22.2	33.2	22.1	32.0	13.0	27.2	140.2	4.0	344.9
215		Kakatpur	78.0	2.8	20.2	47.3	4.3	4.0	28.2	123.0	4.3	312.1
216		Brahmagiri	108.0	2.0	60.0	0.0	2.0	0.0	30.0	66.0	10.0	278.0
217		Puri	115.0	5.0	25.0	6.0	9.0	0.0	5.0	105.0	6.0	276.0
218		Satyabadi	96.0	2.0	62.0	3.0	7.0	4.0	12.0	72.0	18.0	276.0
219		Kanas	115.0	0.0	10.0	3.0	3.0	48.0	8.0	75.0	6.0	268.0
220		Delang	96.0	0.0	45.0	0.0	15.0	3.0	10.0	80.0	0.0	249.0
221		Pipili	91.2	10.3	24.0	10.0	5.0	1.0	10.2	52.3	13.0	217.0
222		Krushnaprasad	24.0	22.0	32.0	2.0	0.0	0.0	10.5	96.4	25.0	211.9
223	Rayagada	Muniguda	13.0	35.4	101.2	27.0	8.0	2.3	20.0	45.3	127.0	379.2
224		Kashipur	13.0	5.6	62.4	34.0	11.0	2.2	9.4	59.0	154.0	350.6
225		Padmapur	180.3	5.4	59.3	8.0	1.0	0.0	10.1	46.4	38.0	348.5
226		Chandrapur	0.0	12.0	45.0	37.0	65.0	35.0	5.7	74.3	55.7	329.7
227		Ramanaguda	136.4	6.6	52.8	8.6	4.2	0.0	9.8	51.4	50.8	320.6
228		Bissam Cuttack	15.2	24.8	72.2	21.4	6.2	0.0	15.2	24.2	85.4	264.6
229		Kalyansingpur	13.4	25.6	55.4	13.6	6.6	1.6	4.6	46.4	96.4	263.6
230		Gudari	16.8	10.6	78.6	8.2	3.8	0.0	2.8	57.0	75.4	253.2
231		Gunupur	57.0	0.0	48.0	10.0	1.0	0.0	20.0	46.0	46.0	228.0
232		Kolnara	16.3	10.4	27.4	12.4	1.5	0.0	2.4	31.2	109.1	210.7
233	Sambalpur	Dhankauda	10.3	10.0	19.0	121.0	7.0	52.0	10.0	159.0	52.0	440.3
234		Jamankira	13.4	25.8	4.2	147.0	10.4	52.4	27.0	29.2	116.2	425.6
235		Maneswar	23.6	15.2	2.4	69.4	8.4	42.8	14.4	130.6	85.4	392.2
236		Rengali	28.6	9.8	4.6	87.6	16.0	70.4	16.2	42.4	99.4	375.0
237		Jujumura	21.6	16.8	4.8	76.0	28.2	12.4	30.4	79.0	82.6	351.8
238		Bamra	2.6	8.6	0.0	78.2	10.0	25.2	3.2	58.8	165.0	351.6
239		Naktideul	2.0	26.0	0.0	90.5	10.0	50.0	11.0	45.0	115.0	349.5
240		Kuchinda	20.3	15.2	6.2	28.4	6.0	90.3	12.3	42.3	115.2	336.2
241		Rairakhol	19.0	8.0	2.0	73.0	12.0	14.0	18.0	36.0	93.0	275.0
242	Subarnapur	Dunguripali	25.0	8.0	60.0	87.0	15.0	11.0	87.0	55.0	61.0	409.0
243		Sonepur	70.0	7.0	4.0	62.0	10.0	20.0	70.0	80.0	26.0	349.0
244		Ullunda	46.0	29.0	3.0	36.0	11.0	7.0	106.4	75.0	27.4	340.8
245		Birmaharajpur	12.0	12.0	8.0	60.0	13.0	12.0	75.0	54.0	46.0	292.0
246		Binika	28.2	6.2	4.1	42.2	17.2	4.1	36.2	132.2	21.1	291.5
247		Tarbha	18.4	14.0	43.8	20.0	16.0	2.0	41.0	54.0	34.0	243.2
248	Sundargarh	Hemgir	19.4	3.4	2.4	22.0	14.0	35.2	6.8	200.4	140.0	443.6
249		Rajgangpur	0.0	13.8	1.2	19.4	18.2	7.4	22.0	167.4	183.2	432.6
250		Bonai	10.0	21.0	0.0	24.0	22.0	107.0	43.0	52.0	75.0	354.0

251		Lephripara	0.0	17.0	0.0	12.4	11.3	40.4	3.2	156.4	101.3	342.0
252		Koira	1.0	4.4	10.0	29.4	19.0	110.0	32.0	84.0	47.2	337.0
253		Sundargarh	0.0	9.3	1.1	31.2	10.0	34.4	4.2	163.4	72.3	325.9
254		Subdega	1.5	0.0	0.0	14.7	14.3	68.5	42.3	112.0	72.6	325.9
255		Balisankara	8.0	0.0	0.0	13.8	16.0	52.2	57.0	97.0	76.6	320.6
256		Tangarpali	1.4	7.2	1.4	14.4	10.4	29.4	4.2	160.4	90.4	319.2
257		Kutra	4.0	0.0	0.0	27.2	18.3	28.0	24.3	66.0	136.3	304.1
258		Bargaon	0.0	0.0	1.0	37.2	4.4	40.4	20.6	86.6	107.2	297.4
259		Gurundia	7.4	4.4	0.0	32.4	11.6	57.0	16.0	56.0	95.0	279.8
260		Lahunipara	10.0	3.0	0.0	15.0	18.6	57.8	22.6	60.8	38.6	226.4
261		Lathikata	2.0	4.0	2.0	21.0	12.0	46.0	5.0	36.0	86.0	214.0

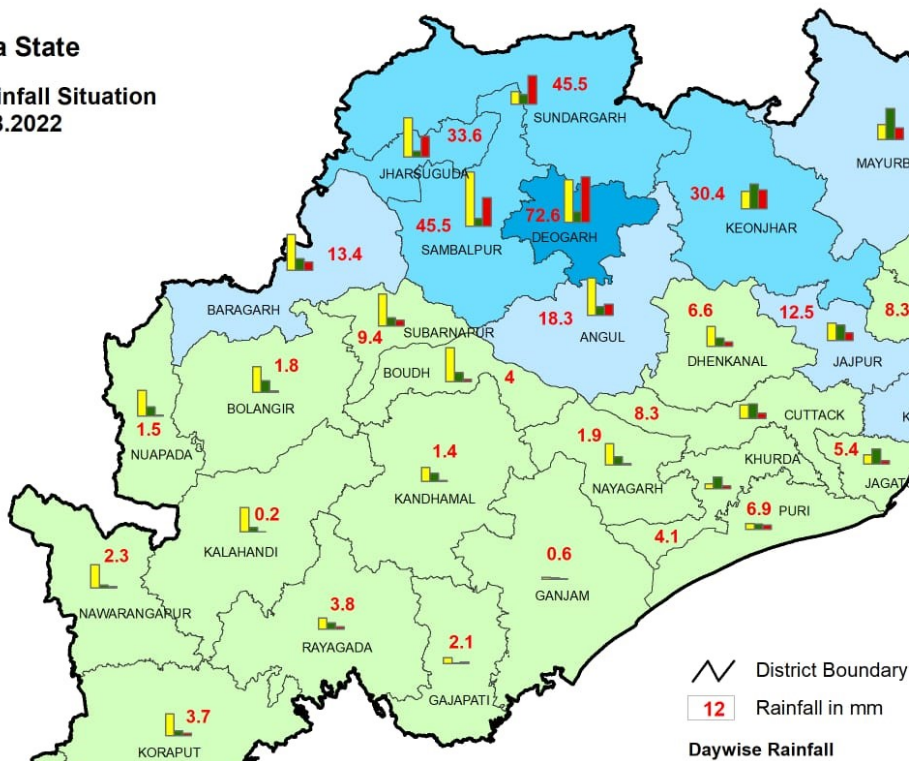
Rainfall Maps



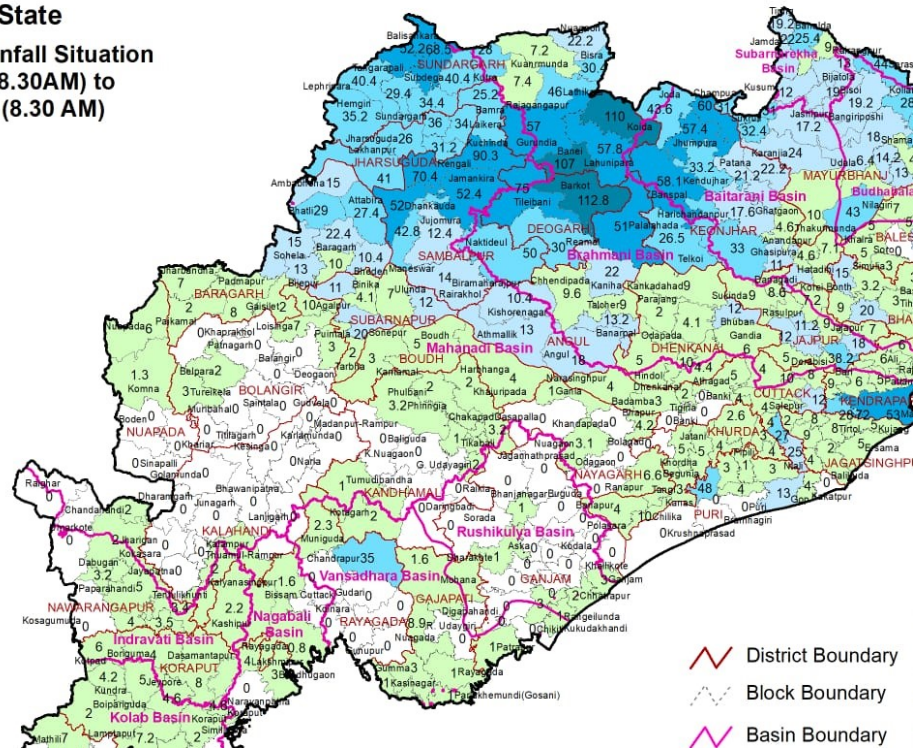
Odisha State
Blockwise Rainfall Situation
10.8.2022 (8.30AM) to
11.8.2022 (8.30 AM)



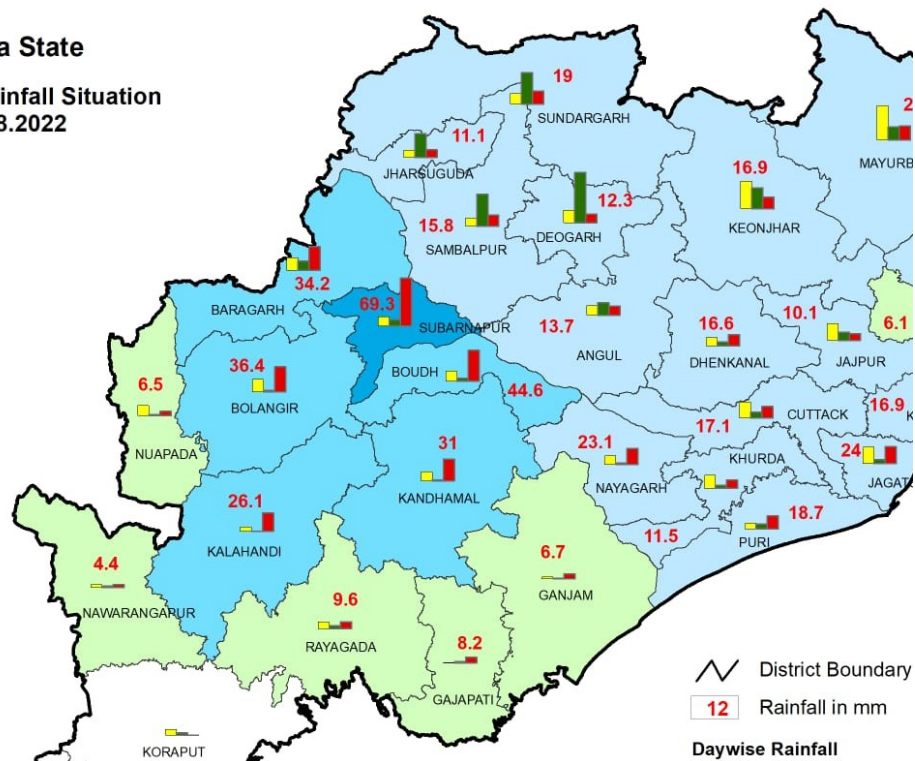
Odisha State
Distwise Rainfall Situation
12.8.2022



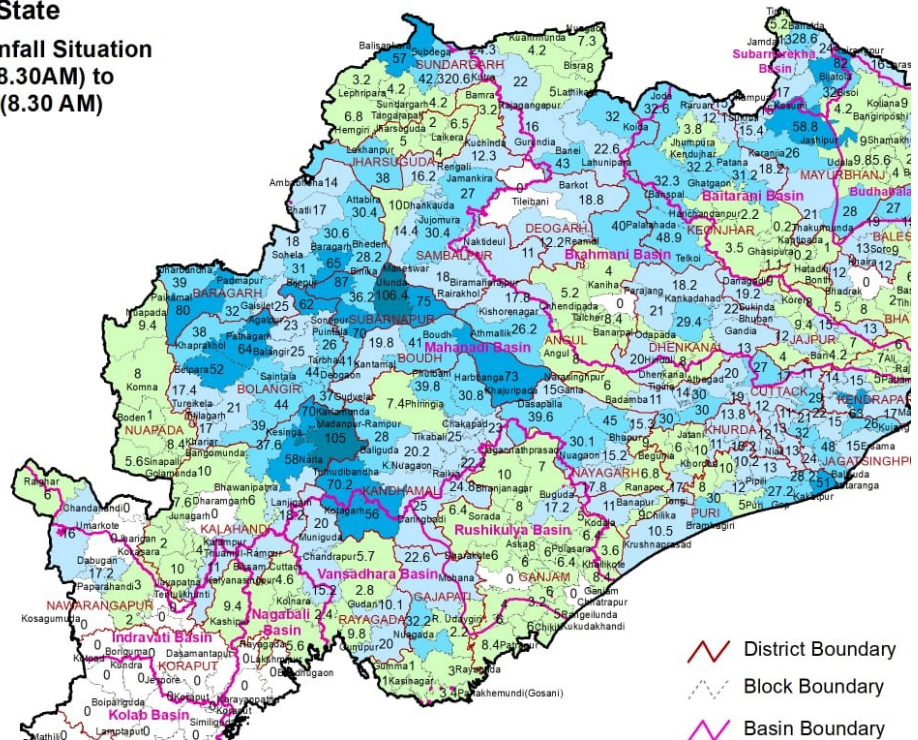
Odisha State
Blockwise Rainfall Situation
11.8.2022 (8.30AM) to
12.8.2022 (8.30 AM)



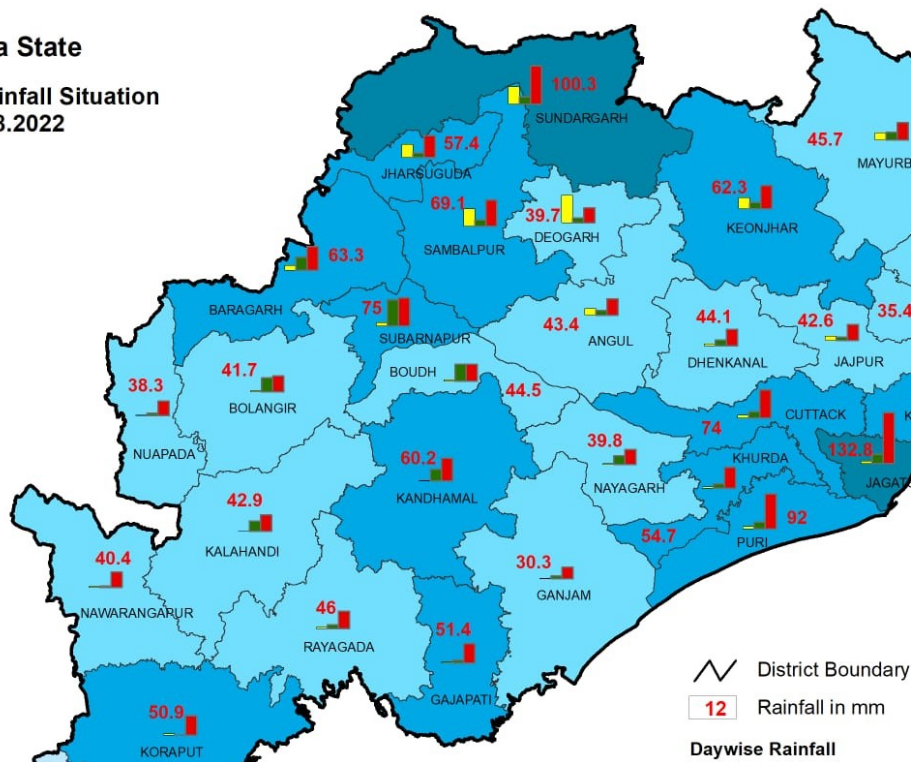
Odisha State
Distwise Rainfall Situation
13.8.2022



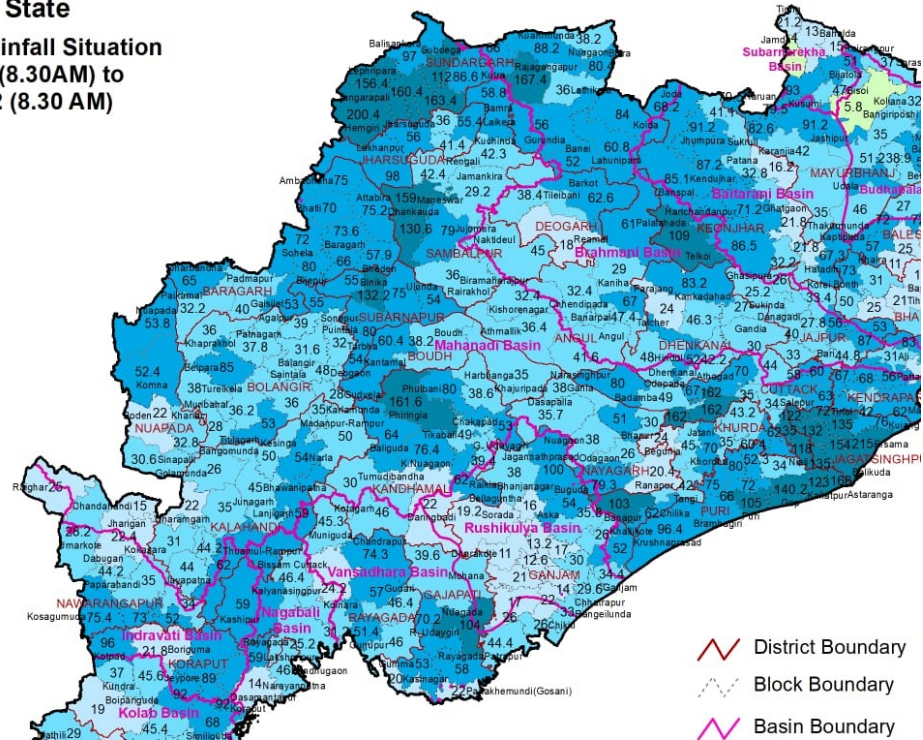
Odisha State
Blockwise Rainfall Situation
12.8.2022 (8.30AM) to
13.8.2022 (8.30 AM)



Odisha State
Distwise Rainfall Situation
14.8.2022

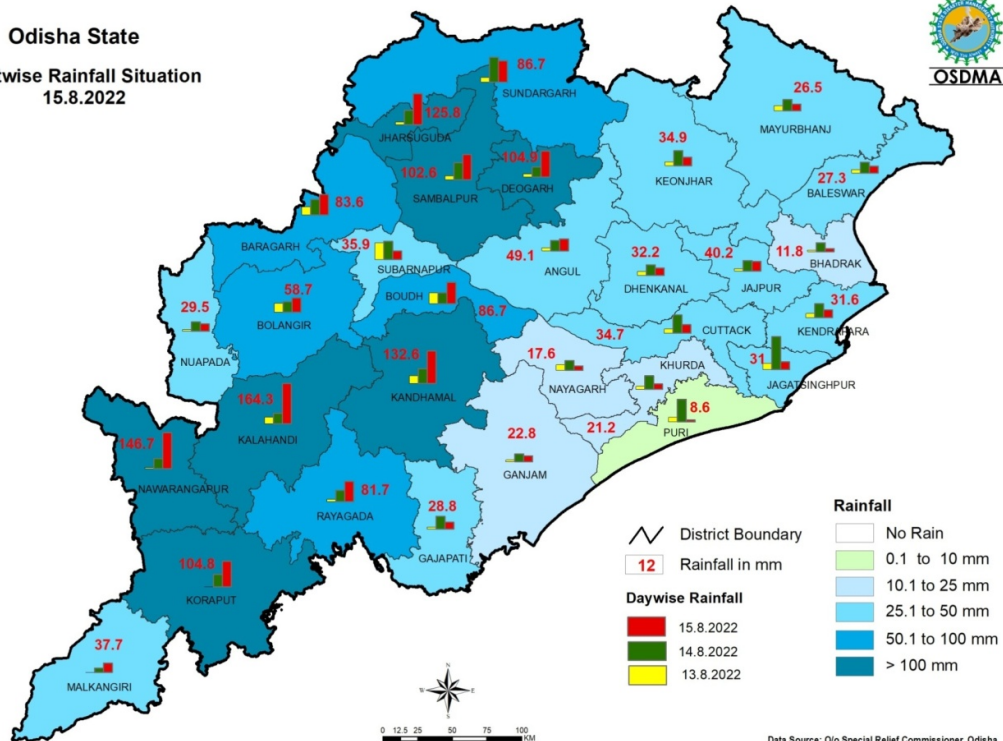


Odisha State
Blockwise Rainfall Situation
13.8.2022 (8.30AM) to
14.8.2022 (8.30 AM)



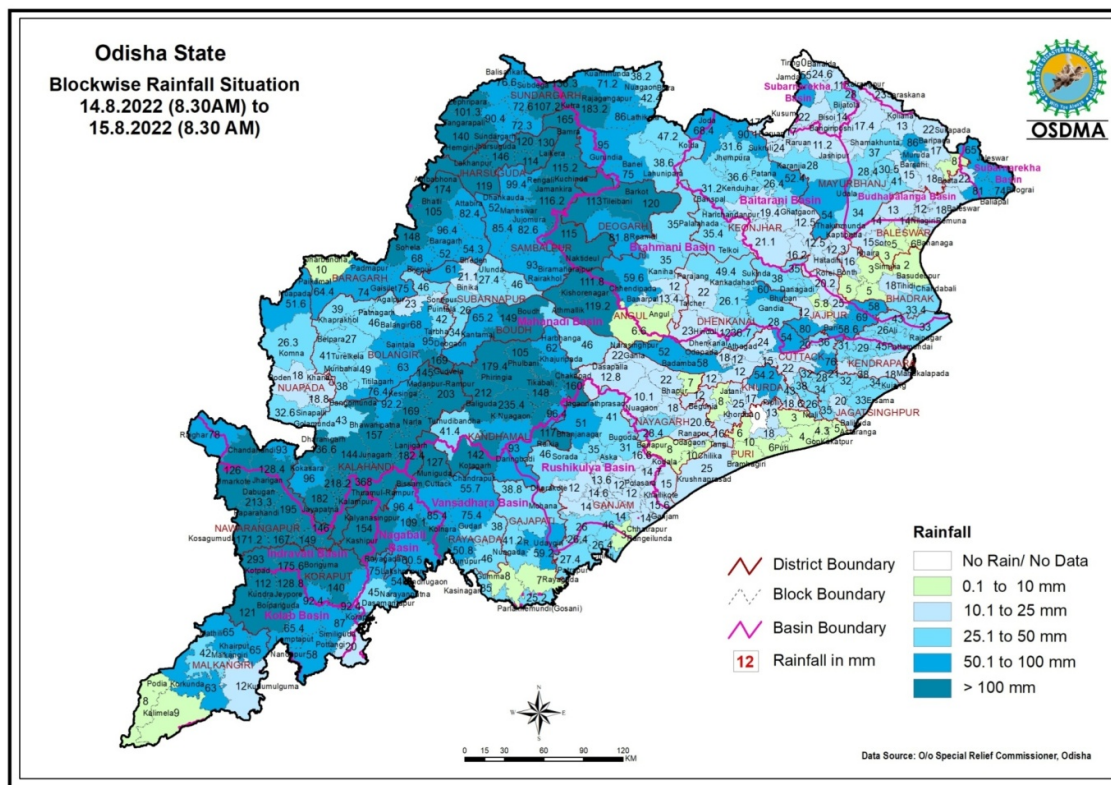
- District Boundary
- Block Boundary
- Basin Boundary

Odisha State
Districtwise Rainfall Situation
15.8.2022



- Rainfall**
- No Rain
 - 0.1 to 10 mm
 - 10.1 to 25 mm
 - 25.1 to 50 mm
 - 50.1 to 100 mm
 - > 100 mm
- Daywise Rainfall**
- 15.8.2022
 - 14.8.2022
 - 13.8.2022
- Rainfall in mm**
- 12

Data Source: O/o Special Relief Commissioner, Odisha



Rainfall in catchment areas of river the Subarnarekha & Baitarani

DISTRICT AVERAGE RAINFALL					
From 19.08.2022 to 21.08.2022					
(Rainfall in mm.)					
Sl. No.	District	19.8.2022	20.08.2022	21.08.2022	Total (Cumulative)
1	Kandhamal	43.2	135.5	45.7	224.4
2	Boudh	71.3	98.8	25.3	195.4
3	Deogarh	50.1	75.5	67.1	192.7
4	Mayurbhanj	13.3	125.2	16.2	154.7
5	Sundargarh	16.6	39.2	69.2	125.0
6	Kalahandi	12.8	92.6	18.8	124.2
7	Angul	36.6	70.7	7.6	114.9
8	Balasore	12.5	97.1	2.9	112.5
9	Koraput	24.9	52.4	14.4	91.7
10	Sambalpur	26.2	30.3	33.4	89.9
11	Keonjhar	8.6	51.7	20.5	80.8
12	Kendrapara	47.1	32.3	0.0	79.4
13	Nawarangpur	14.2	41.4	18.5	74.1
14	Rayagada	7.5	38.9	19.0	65.4
15	Jagatsinghpur	30.5	29.6	0.0	60.1
16	Malkangiri	0.7	39.9	17.9	58.5

17	Subarnapur	27.9	22.6	7.0	57.5
18	Dhenkanal	22.8	28.7	5.1	56.6
19	Nuapada	1.9	33.0	14.2	49.1
20	Balangir	12.6	21.7	14.7	49.0
21	Cuttack	26.5	19.2	1.8	47.5
22	Nayagarh	13.8	28.5	3.1	45.4
23	Jharsuguda	14.0	4.5	19.7	38.2
24	Jajpur	11.8	21.8	0.0	33.6
25	Bhadrak	8.7	23.1	0.0	31.8
26	Puri	26.1	3.9	0.0	30.0
27	Khordha	14.7	8.4	0.0	23.1
28	Bargarh	4.3	7.5	11.2	23.0
29	Gajapati	3.6	3.0	3.3	9.9
30	Ganjam	1.4	4.5	2.6	8.5
State Average		20.2	42.7	15.3	78.2

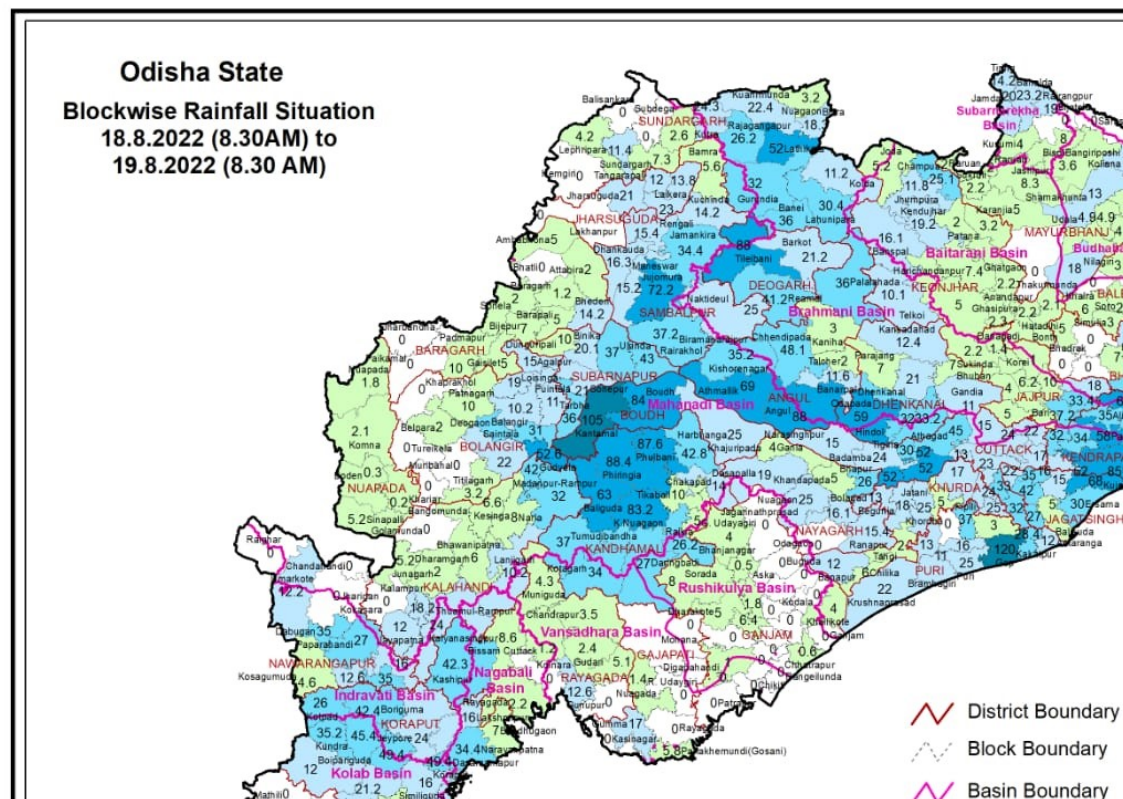
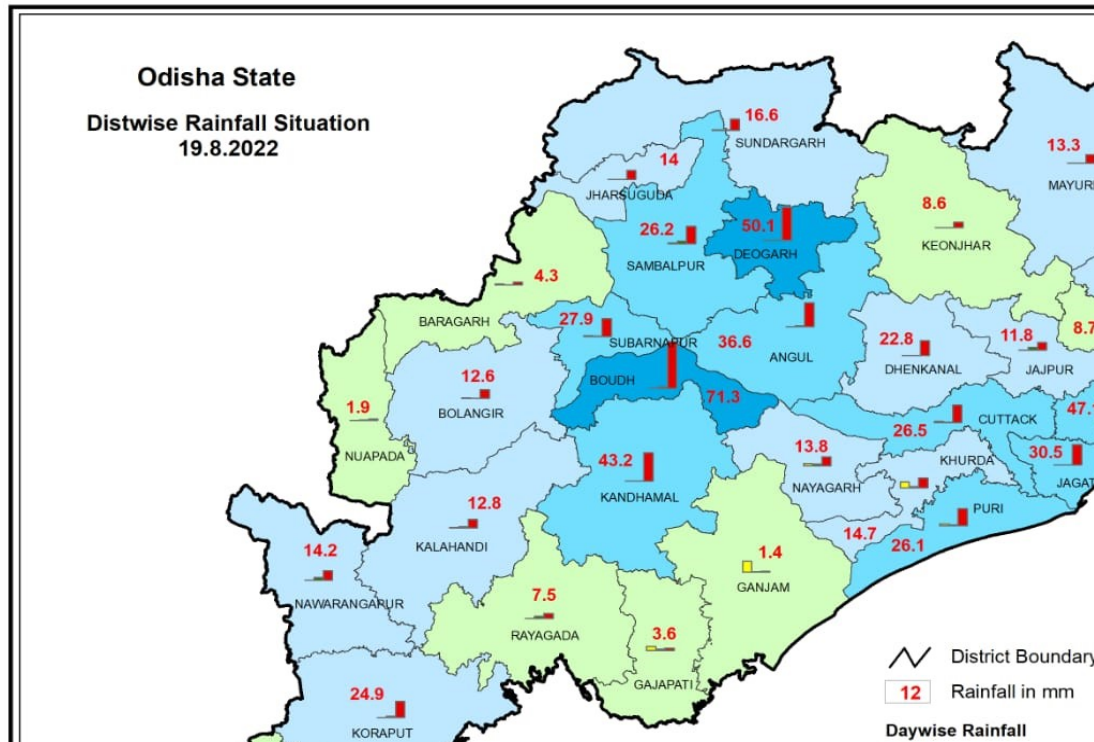
(Note: The rainfall recorded at 08.30 AM for the past 24 hours)

RAINFALL REPORTS OF DIFFERENT BLOCKS FROM 19.08.2022 TO 21.08.2022						
(Rainfall in mm.)						
Sl.	District	Block	19.08.2022	20.08.2022	21.08.2022	Total
Rainfall above 100 mm (Cumulative)						
1	Angul	Chhendipada	48.1	85.0	9.8	142.9
2		Angul	88.0	49.0	2.0	139.0
3		Athamalik	69.0	58.2	2.1	129.3
4		Kishorenagar	35.2	71.8	21.6	128.6
5		Pallahara	36.0	65.0	12.0	113.0
6	Balangir	Gudvella	52.6	28.6	21.0	102.2
7	Balasore	Bhograi	27.0	226.0	0.0	253.0
8		Basta	38.0	130.0	0.0	168.0
9		Baliapal	12.0	153.0	0.0	165.0
10		Remuna	6.0	109.0	35.0	150.0
11		Jaleswar	27.0	118.0	0.0	145.0
12		Balasore	21.5	114.0	0.0	135.5
13	Boudh	Boudh	84.0	136.5	5.0	225.5
14		Kantamal	105.0	37.0	65.0	207.0
15		Harabhanga	25.0	123.0	6.0	154.0
16	Deogarh	Deogarh	88.0	77.8	96.0	261.8
17		Reamal	41.2	77.2	43.2	161.6
18		Barkote	21.2	71.4	62.2	154.8
19	Kalahandi	Lanjigarh	10.2	134.6	49.0	193.8
20		Madanpur Rampur	32.0	126.0	22.0	180.0
21		Junagarh	2.0	161.0	10.0	173.0
22		Thuamul Rampur	24.0	82.0	37.0	143.0

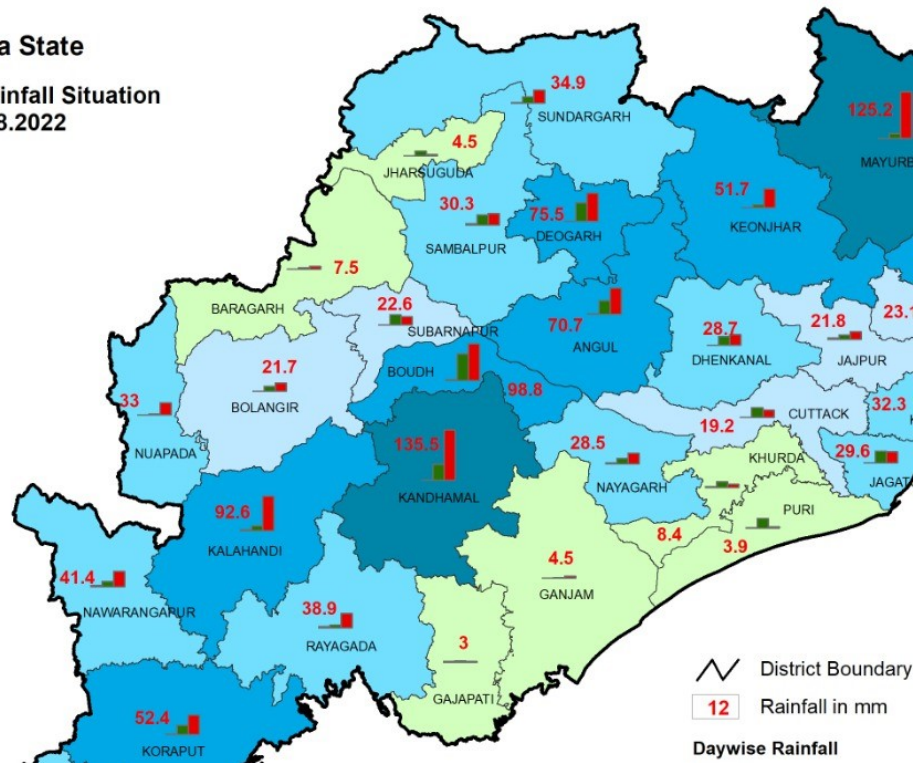
23		Narla	8.0	95.0	32.0	135.0
24		Golamunda	0.0	124.0	2.0	126.0
25		Karlamunda	42.0	70.0	11.0	123.0
26		Kalampur	18.2	85.0	12.3	115.5
27		Kesinga	6.6	67.0	38.0	111.6
28		Dharmagarh	5.2	105.0	0.0	110.2
29		Bhabanipatna	6.0	90.0	10.0	106.0
30	Kandhamal	Phiringia	88.4	211.0	74.2	373.6
31		Phulbani	87.6	168.2	34.8	290.6
32		Nuagaon	83.2	125.3	81.2	289.7
33		Tikabali	10.0	196.0	76.0	282.0
34		Chakapad	14.0	190.0	51.2	255.2
35		Baliguda	63.0	144.0	41.0	248.0
36		Khajuripada	42.8	125.0	45.2	213.0
37		Kotagarh	34.0	136.0	30.0	200.0
38		Tumudibandh	37.0	124.2	8.2	169.4
39		G.Udayagiri	5.0	84.4	52.6	142.0
40		Raikia	26.2	68.4	30.8	125.4
41		Daringibadi	27.0	53.0	23.0	103.0
42	Kendrapara	Mohakalpara	85.0	25.0	0.0	110.0
43	Keonjhar	Jhumpura	11.8	96.4	45.6	153.8
44		Joda	5.2	99.2	35.1	139.5
45		Champua	25.1	71.5	27.7	124.3
46		Banspal	16.1	57.3	33.2	106.6
47	Koraput	Jeypore	45.4	71.8	31.6	148.8
48		Koraput	49.4	46.6	42.6	138.6
49		Lamataput	21.2	102.2	9.4	132.8
50		Dasmantpur	24.0	73.0	14.0	111.0
51		Borigumma	42.4	61.4	2.0	105.8
52		Similiguda	16.0	74.8	12.0	102.8
53	Malkangiri	Korukonda	0.0	80.0	35.0	115.0
54	Mayurbhanj	Baripada	32.0	285.0	19.0	336.0
55		Bahalda	23.2	186.0	41.0	250.2
56		Tiring	14.2	165.0	62.2	241.4
57		Rairangapur	19.0	127.0	59.0	205.0
58		Kusumi	4.0	179.0	21.0	204.0
59		Morda	47.0	119.0	20.0	186.0
60		Joshipur	8.3	160.0	11.6	179.9
61		Udala	4.9	164.6	8.2	177.7
62		Betanati	13.0	147.0	14.0	174.0
63		Kuliana	12.0	148.5	10.0	170.5
64		Rasgovindapur	52.4	110.0	4.0	166.4
65		Besoi	8.0	136.5	9.0	153.5
66		Suliapada	32.0	97.0	22.2	151.2
67		Jamda	20.0	107.0	21.3	148.3
68		Khunta	4.9	131.4	2.5	138.8
69		Badasahi	3.0	134.0	1.0	138.0
70		Gopabandhunagar	4.3	124.0	3.3	131.6
71		Samakhunta	13.0	103.0	6.0	122.0
72		Sukuruli	2.2	90.6	25.8	118.6
73		Sarasakana	0.0	98.0	18.0	116.0

74		Raruana	2.0	93.0	8.0	103.0
75	Nawarangpur	Dabugaon	35.0	65.0	6.0	106.0
76		Umerkote	12.2	45.2	47.0	104.4
77		Jharigaon	0.0	43.0	59.4	102.4
78	Puri	Gop	120.0	0.0	0.0	120.0
79	Rayagada	Muniguda	4.3	95.0	5.2	104.5
80	Sambalpur	Naktideul	25.0	95.0	45.0	165.0
81		Jamankira	34.4	36.0	77.2	147.6
82		Rairakhol	37.2	61.0	21.0	119.2
83		Jujumura	72.2	19.0	16.0	107.2
84	Sundargarh	Bonai	36.0	73.0	140.0	249.0
85		Kuarmunda	22.4	112.3	89.9	224.6
86		Lahunipara	30.4	56.6	81.1	168.1
87		Gurundia	32.0	75.0	56.4	163.4
88		Koira	11.2	96.8	53.2	161.2
89		Lathikata	52.0	42.5	53.5	148.0
90		Rajgangpur	26.2	53.0	65.0	144.2
91		Nuagaon	3.2	31.4	104.6	139.2
92		Bargaon	2.6	30.4	90.0	123.0
93		Bisra	18.3	62.0	42.4	122.7
94		Kutra	24.3	18.2	69.0	111.5

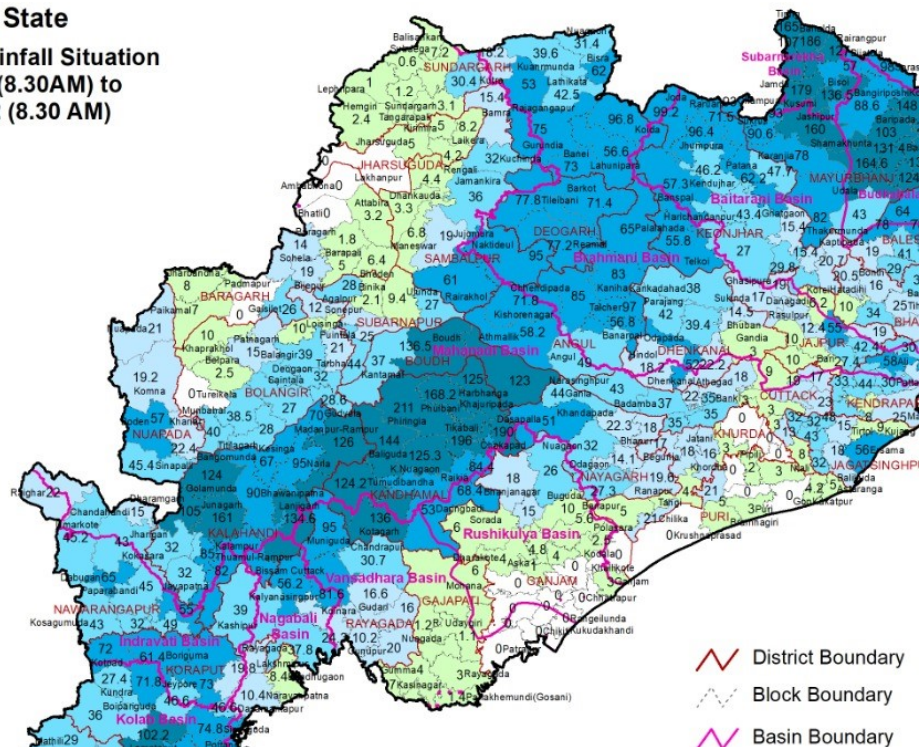
Rainfall Maps



Odisha State
Distwise Rainfall Situation
20.8.2022



Odisha State
Blockwise Rainfall Situation
19.8.2022 (8.30AM) to
20.8.2022 (8.30 AM)



Hirakud Reservoir Position

Commencing from 14th August there was heavy to very heavy rainfall for about 2 days in both the upper and downstream catchments of river Mahanadi. From 14.09.2022, 21 hours the Hirakud reservoir started receiving more than 8 lakh cusecs of water and on 15.08.2022 at 15 hours, the inflow into the reservoir touched 9.85 lakh cusecs (peak). As the reservoir level steadily approached above 621 feet and anticipated average R.L for the next 24 hours would be above 625 feet, commensurable flood water had to be discharged into river Mahanadi. There was also heavy rain in the upper catchment of the tributaries of river Mahanadi and the tributaries rose in flood; adding to the out flow from Hirakud Reservoir.

The intensity of rainfall can be well imagined from the above mentioned weighted average rainfall for upstream and downstream of Hirakud Dam. Due to enormous inflow into the reservoir, the level of the dam was maintained nearing 625 feet upto 18.08.2022, 06 hours with the safety of the dam. In further, The average inflow into the Hirakud reservoir already in reducing stage, the downstream area of the reservoir Khairmal, Barmul & Mundali are also in decreasing trend. The outflow from Hirakud reservoir had to be balanced with the inflow keeping in view the safety of dam and also the flood situation in delta area. Due to heavy discharge of water, the mighty Mahanadi created floods in delta areas. The peak flood discharge at Mundali i.e., delta head was 12.01 lakh cusecs on 16.08.2022 at 18 hours.

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

Date	Time	Water level (in ft.)	Inflow (lakh cusecs)	Out flow (lakh cusecs)	No. of Gate opened
Dt.11.08.2022	6AM	611.19	2.14	0.38	0
	9AM	611.83	2.97	0.40	0
	12Noon	612.47	2.97	0.40	0
	3PM	612.93	2.84	0.99	5
	6PM	613.33	3.24	1.80	10
	9PM	613.79	3.65	1.81	10
	12.00	614.25	3.77	1.92	10

Date	Time	Water level (in ft.)	Inflow (lakh cusecs)	Out flow (lakh cusecs)	No. of Gate opened
Dt.12.08.2022	3AM	614.69	3.69	1.92	10
	6AM	615.17	3.97	1.92	10
	9AM	615.60	4.22	2.54	14
	12Noon	615.89	3.77	2.39	15
	3PM	616.04	4.02	3.30	20
	6PM	616.15	3.93	3.41	20
	9PM	616.25	3.96	3.48	20
	12.00	616.39	4.14	3.47	20
Dt.13.08.2022	3AM	616.54	4.20	3.48	20
	6AM	616.73	4.39	3.49	20
	9AM	616.91	4.35	3.49	20
	12Noon	617.08	4.50	3.68	24
	3PM	617.08	4.40	4.40	28
	6PM	617.06	4.68	4.78	30
	9PM	616.87	4.39	5.30	34
	12.00	616.73	4.95	5.62	34
Dt.14.08.2022	3AM	616.60	4.99	5.61	34
	6AM	616.56	5.42	5.61	34
	9AM	616.60	5.80	5.61	34
	12Noon	616.75	6.30	5.59	34
	3PM	616.97	6.61	5.57	34
	6PM	617.33	7.35	5.64	34
	9PM	617.83	8.04	5.65	34
	12.00	618.37	8.24	5.67	34

Date	Time	Water level (in ft.)	Inflow (lakh cusecs)	Out flow (lakh cusecs)	No. of Gate opened
Dt.15.08.2022	3AM	618.91	8.26	5.68	34
	6AM	619.52	8.55	5.64	34
	9AM	620.12	8.67	5.72	34
	12Noon	620.73	9.08	5.71	34
	3PM	621.54	9.85	4.46	26
	6PM	622.39	9.21	4.52	26
	9PM	623.15	8.73	4.54	26
	12.00	623.79	8.07	4.54	26
Dt.16.08.2022	3AM	624.41	7.98	4.56	26
	6AM	625.04	7.85	4.34	26
	9AM	625.54	7.66	4.48	26
	12Noon	626.08	7.89	4.46	26
	3PM	626.58	7.70	4.53	26
	6PM	626.91	6.92	4.82	36
	9PM	626.87	5.99	6.24	40
	12.00	626.81	5.44	6.82	40
Dt.17.08.2022	3AM	626.69	6.05	6.92	40
	6AM	626.56	5.97	6.80	40
	9AM	626.47	6.24	6.81	40
	12Noon	626.41	6.42	6.80	40
	3PM	626.31	5.95	6.59	40
	6PM	626.17	5.81	6.70	40
	9PM	625.95	5.37	6.77	40
	12.00	625.71	5.25	6.78	40

Date	Time	Water level (in ft.)	Inflow (lakh cusecs)	Out flow (lakh cusecs)	No. of Gate opened
Dt.18.08.2022	3AM	625.43	5.00	6.78	40
	6AM	625.10	4.67	6.76	40
	9AM	624.69	4.40	6.75	40
	12Noon	624.31	4.64	6.74	40
	3PM	623.91	4.25	6.46	36
	6PM	623.60	3.96	5.67	32
	9PM	623.43	3.90	4.84	28
	12.00	623.19	3.45	4.77	28
Dt.19.08.2022	3AM	622.93	3.23	4.77	28
	6AM	622.60	2.95	4.77	28
	9AM	622.27	2.93	4.76	28
	12Noon	622.02	3.23	4.10	24
	3PM	621.81	3.37	3.50	20
	6PM	621.67	2.73	3.51	20
	9PM	621.54	2.78	3.50	20
	12.00	621.41	2.83	3.55	20
Dt.20.08.2022	3AM	621.27	2.72	3.50	20
	6AM	621.02	2.16	3.54	20
	9AM	620.71	1.83	3.54	20
	12Noon	620.47	1.90	2.91	16
	3PM	620.43	1.96	1.02	4
	6PM	620.5	1.4	1.01	4
	9PM	620.62	1.69	1.02	4
	12.00	620.77	1.85	1.02	4

Date	Time	Water level (in ft.)	Inflow (lakh cusecs)	Out flow (lakh cusecs)	No. of Gate opened
Dt.21.08.2022	3AM	620.89	1.67	1.01	4
	6AM	621.02	1.74	1.02	4
	9AM	621.08	1.35	1.02	4
	12Noon	621.15	1.41	1.02	4
	3PM	621.27	1.68	1.02	4
	6PM	621.35	1.47	1.02	4
	9PM	621.47	1.68	1.02	4
	12.00	621.60	1.73	1.02	4
Dt.22.08.2022	3AM	621.60	1.73	1.01	4
	6AM	621.87	1.79	1.02	4
	9AM	622.04	1.96	1.03	4
	12Noon	622.27	2.24	0.97	4
	3PM	622.45	1.91	0.92	4
	6PM	622.65	2.05	0.95	4
	9PM	622.79	1.78	1.00	4
	12.00	622.93	1.80	1.02	4

The Downstream flood water of Hirakud reservoir coupled with huge inflow from the neighbouring State Chhattisgarh caused severe damages in Sambalpur, Baragarh, Boudh, Subarnapur, Nayagarh, Cuttack, Jagatsinghpur, Kendrapara, Puri and Khurda Districts in the Mahanadi basin. It is worth mentioning that the safe carrying capacity of Mahanadi river system is around 9 lakh cusecs at delta head (Naraj / Mundali) against which the peak discharge went up to 11.00 & 12.00 lakh cusecs approximately on 16th & 17th August 2022, which is at par with the severe floods that occurred in the year 2001, 2003, 2006, 2008 & 2011.

Discharge to Coastal Plain

The volume of water discharged at Mundali causes floods in Mahanadi delta areas. The water discharges at Khairmal, Barmul and Mundali in Mahanadi river system since 11.08.2022 are as follows.

Date	TIME	Discharge in lakh cusec during August 2022		
		Khairmal	Barmul	Mundali
11.08.22	6AM	2.96	2.95	3.47
	9AM	2.87	3.08	3.63
	12Noon	2.78	3.09	3.42
	3PM	2.69	3.02	3.42
	6PM	2.60	2.94	3.47
	9PM	2.51	2.78	3.58
12.08.22	12.00	2.42	2.52	3.73
	3AM	2.42	2.32	3.73
	6AM	2.42	2.26	3.79
	9AM	3.10	2.15	3.79
	12Noon	3.35	2.01	3.58
	3PM	3.75	1.92	3.27
	6PM	3.75	1.89	3.09
	9PM	3.75	2.12	2.96
13.08.22	12.00	4.12	2.69	2.92
	3AM	4.54	3.09	2.96
	6AM	4.96	3.29	3.01
	9AM	5.20	3.57	2.79
	12Noon	5.20	4.18	2.83
	3PM	5.20	4.66	3.05
	6PM	5.41	5.03	3.42
	9PM	5.69	5.27	3.53

Date	TIME	Discharge in lakh cusec during August 2022		
		Khairmal	Barmul	Mundali
14.08.22	12.00	7.18	5.50	4.21
	3AM	8.30	5.76	4.80
	6AM	9.10	6.08	5.37
	9AM	9.48	6.75	5.59
	12Noon	9.57	7.37	5.88
	3PM	9.57	7.95	5.97
	6PM	9.48	8.40	6.38
	9PM	9.48	8.88	6.97
15.08.22	12.00	9.75	9.30	7.54
	3AM	10.20	9.61	8.13
	6AM	10.52	9.79	8.58
	9AM	10.60	10.26	9.18
	12Noon	11.00	10.47	9.64
	3PM	11.45	10.64	9.87
	6PM	11.90	11.12	10.41
	9PM	12.06	11.17	10.73
16.08.22	12.00	11.81	11.35	10.89
	3AM	11.18	12.06	11.13
	6AM	10.76	12.06	11.37
	9AM	10.60	11.75	11.61
	12Noon	9.75	11.30	11.85
	3PM	9.20	11.03	11.93
	6PM	11.81	11.35	12.01
	9PM	11.18	12.06	12.01
	12.00	8.22	9.70	12.01

Date	TIME	Discharge in lakh cusec during August 2022		
		Khairmal	Barmul	Mundali
17.08.22	3AM	8.50	9.46	12.01
	6AM	9.57	9.08	12.01
	9AM	9.84	8.78	11.77
	12Noon	9.75	8.85	11.29
	3PM	9.57	8.85	10.81
	6PM	9.48	8.98	10.58
	9PM	9.30	9.27	10.42
18.08.22	12.00	9.10	9.40	10.42
	3AM	8.80	9.40	10.72
	6AM	8.70	9.08	10.18
	9AM	8.50	8.88	10.11
	12Noon	8.70	8.75	10.26
	3PM	8.60	8.68	10.11
	6PM	8.50	8.63	10.03
	9PM	8.40	8.48	9.95
19.08.22	12.00	8.30	8.30	9.87
	3AM	8.14	8.25	9.79
	6AM	7.42	8.50	9.64
	9AM	7.10	8.62	9.56
	12Noon	6.22	8.5	9.56
	3PM	6.30	8.19	9.48
	6PM	6.54	7.75	9.33
	9PM	6.38	7.70	9.33
	12.00	6.30	7.56	9.25
	3AM	6.22	7.48	9.10

Date	TIME	Discharge in lakh cusec during August 2022		
		Khairmal	Barmul	Mundali
20.08.22	6AM	5.55	7.37	8.88
	9AM	5.14	7.48	8.57
	12Noon	5.90	7.86	8.35
	3PM	5.90	7.67	8.35
	6PM	5.90	7.59	8.35
	9PM	5.76	7.59	8.35
21.08.22	12.00	5.62	7.59	8.35
	3AM	5.34	7.59	8.35
	6AM	4.78	7.53	8.28
	9AM	4.54	7.01	8.20
	12Noon	4.24	6.34	8.13
	3PM	3.65	5.76	8.06
	6PM	3.55	5.25	7.71
	9PM	3.45	4.82	7.08
22.08.22	12.00	3.40	4.74	7.36
	3AM	3.3	4.54	6.9
	6AM	3.20	4.20	6.14
	9AM	3.10	4.04	5.59
	12Noon	2.95	3.92	5.42
	3PM	2.77	3.81	4.98
	6PM	2.68	3.70	4.92
	9PM	2.64	3.59	4.77

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.

River	Forecast station	Danger 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

About one third area of Mahanadi delta remained inundated for more than a fortnight causing severe inconvenience to public.

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.

List of breaches

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

Floods in August 2022

The flood of August,2022 in the Mahanadi river system was triggered by enormous precipitation in its upper catchment in Chhattisgarh. The inflow into the Hirakud reservoir was almost twice the full reservoir capacity and the outflow was to be balanced.

Thus flood of August 2022 in the Mahanadi river system was triggered by enormous precipitation in the upper catchment in Chhattisgarh.

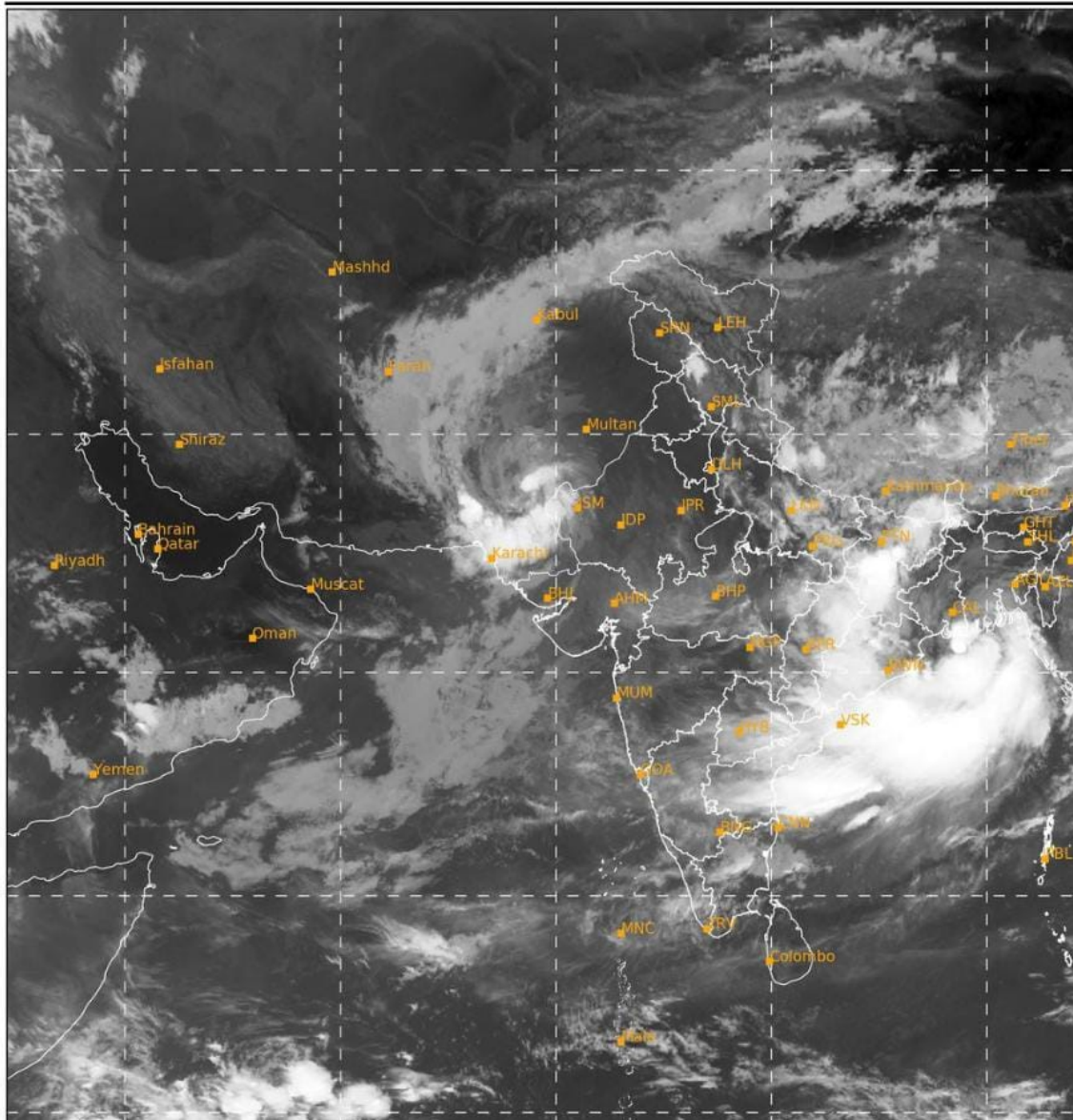
Besides the flood in the Mahanadi system, the State has experienced floods in river Baitarani & Subarnarekha affecting the districts of Balasore, Mayurbhanj, Bhadrak, Jajpur and Keonjhar.

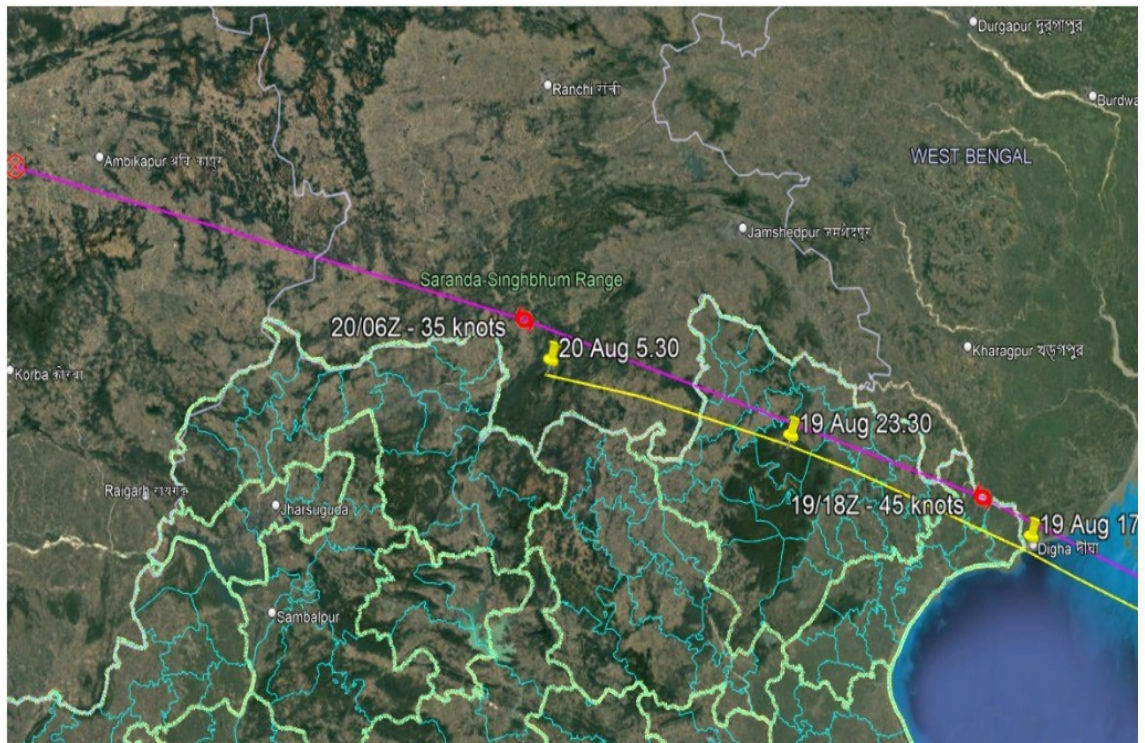
Marooned Population:

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

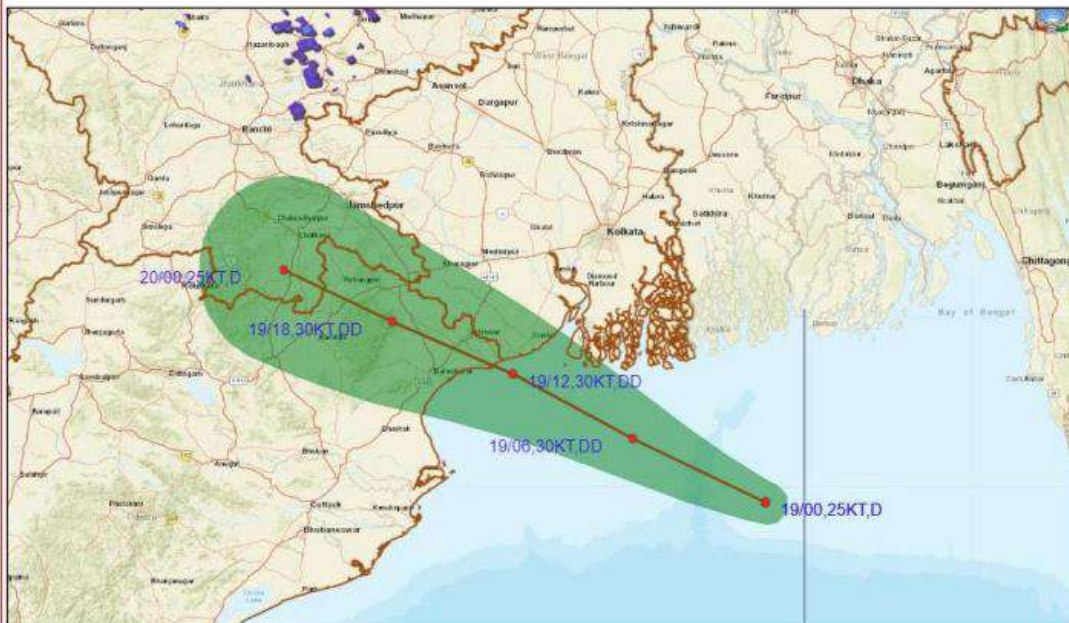
19-08-2022/(0300 to 0326) GMT
19-08-2022/(0830 to 0856) IST







OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEPRESSION OVER NORTHWEST AND ADJOINING NORTHEAST BAY OF BENGAL BASED ON 0000 UTC OF 19th AUGUST, 2022



DATE/TIME IN UTC

IST=UTC + 0530

L: LOW PRESSURE AREA

WML: WELL MARKED LOW PRESSURE AREA

D: DEPRESSION (17-27 KT)

DD: DEEP DEPRESSION (28-33 KT)

CS: CYCLONIC STORM (34-47 KT)

SCS: SEVERE CYCLONIC STORM (48-63KT)

VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)

ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)

SuCS: SUPER CYCLONIC STORM (≥ 120 KT)

● LESS THAN 34 KT

○ 34-47 KT

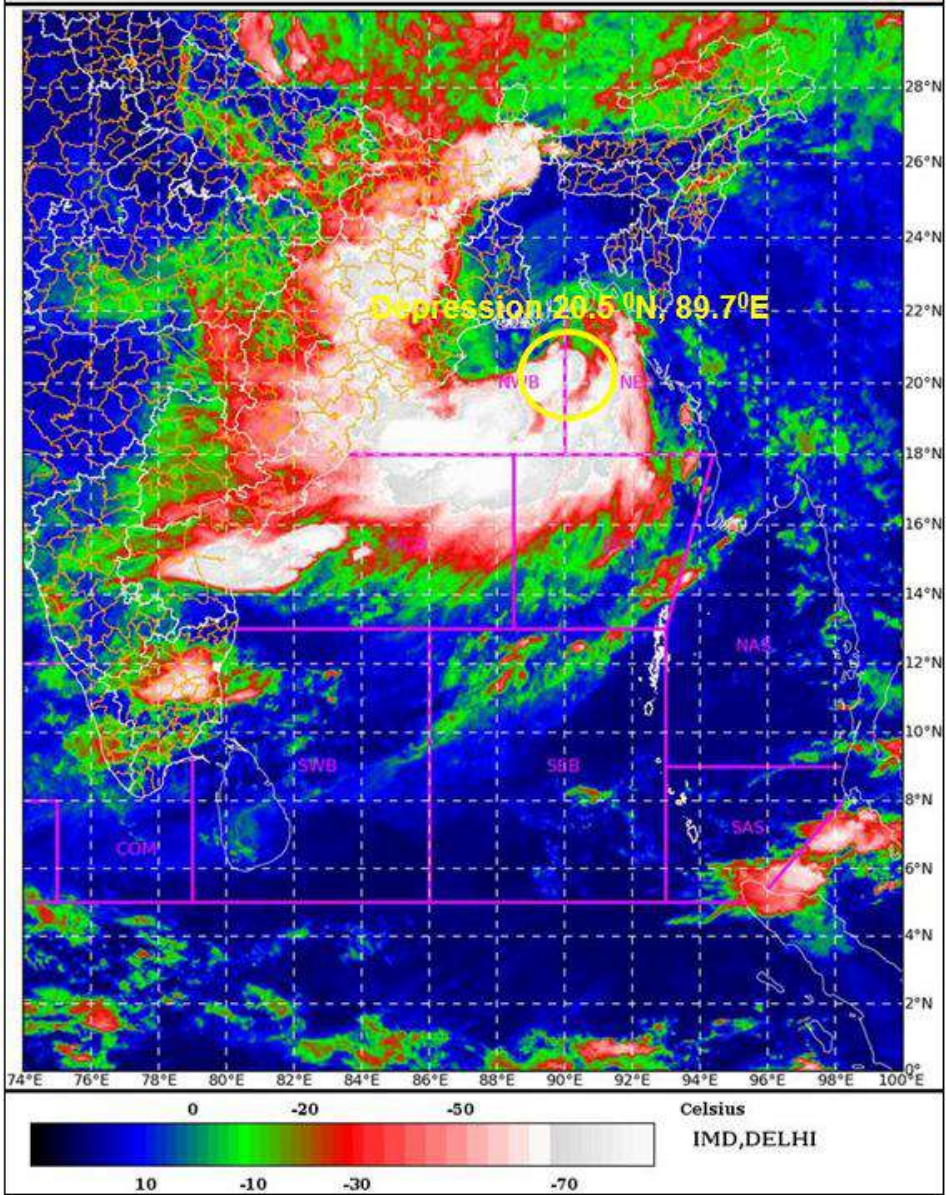
○ ≥ 48 KT

— OBSERVED TRACK

— FORECAST TRACK

▲ CONE OF UNCERTAINTY

SAT : INSAT-3D IMG 19-08-2022/(0030 to 0056) GMT
IMG_TIR1_TEMP 10.8 um 19-08-2022/(0600 to 0626) IST
L1C Mercator





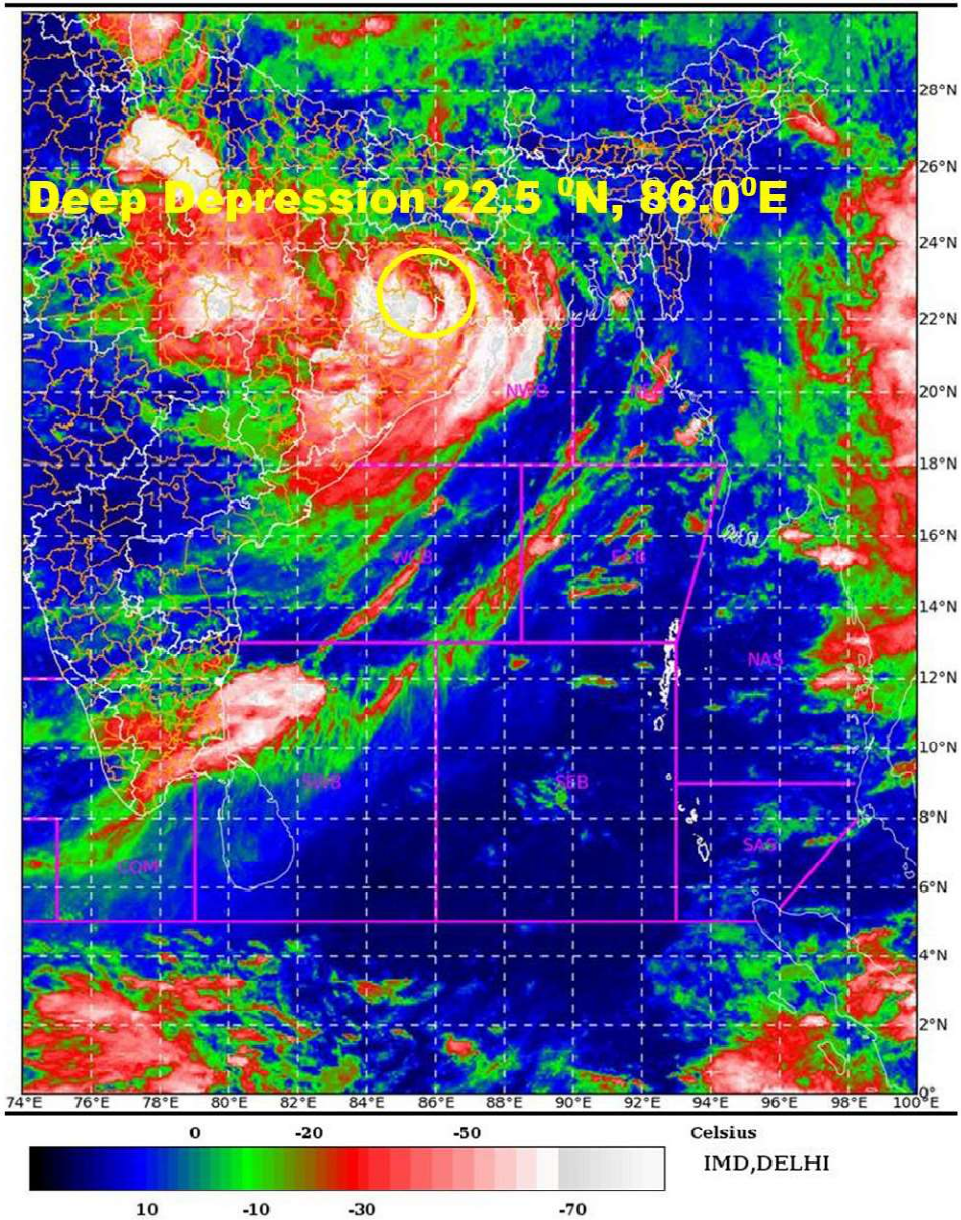
OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEEP DEPRESSION OVER NORTHWEST AND ADJOINING NORTHEAST BAY OF BENGAL BASED ON 0600 UTC OF 19th AUGUST, 2022



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

● LESS THAN 34 KT
 6 34-47 KT
 8 ≥ 48 KT
 — OBSERVED TRACK
 — FORECAST TRACK
 ▲ CONE OF UNCERTAINTY

SAT : INSAT-3D IMG 20-08-2022/(0200 to 0226) GMT
IMG_TIR1_TEMP 10.8 um 20-08-2022/(0730 to 0756) IST
L1C Mercator



Chapter- III

Preparedness & Response

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 reviewing the situation daily with the Collectors and Senior Officers of WR Department.
 - Collectors of Sambalpur, Subarnapur, Boudh, Nayagarh, Angul, Cuttack, Puri, Jagatsinghpur, Khurda & Kendrapara have 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 have been instructed to make prior arrangements for quick restoration of road communications, if damaged or disrupted.
 - Energy Department has been instructed to make necessary prior arrangements for quick restoration of power supply, where damaged.
 - F & ARD department has been instructed to provide cattle feed (as per the requisition of Collector) for the flood affected cattle.
 - Collectors of 10 districts have been instructed to evacuate from vulnerable areas and make adequate free kitchen/ dry food for the flood affected people.
 - Collectors of these 10 districts have been instructed to close educational institution assessing the flood situation.
 - Collectors of these districts have been instructed to cancel the leave of all Govt. employees in their jurisdiction.
- 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
 - Preposition 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.
 - Issue of high alert to Cuttack, Puri, Kendrapara, Jagatsinghpur

- 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 & 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 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 shall be 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 (Juggery) have been distributed as emergent relief to the affected people. In addition to that candles, matchboxes, kerosene oil and other materials have 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 were 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 made an aerial survey of the flood affected areas.

Sanction of Emergent Relief 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 tablets, antibiotics, paracetamol tablets, antacids, ASVs, bleaching powder and ORS packets were provided to all the affected districts. Medical teams were deployed in flood-affected districts. 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

Bleaching Power (Bags) supplied :

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 temporally or permanently. Drinking water supplied through 321 tankers in rural areas. Mobile vans have deployed for disinfections and repair of tube wells. 23.60 lakh water pouches were distributed in the affected rural areas.

Restoration Measures

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

Chapter- IV

Impact

Extent of Damages

Abstract of extent of damages due to floods is indicated below:

	Flood in Mahanadi, Subarnarekha & Baitarani River System	Heavy Rain & Flash Flooding
No. of Districts affected	16	8
No. of Blocks affected	122	86
No. of GPs affected	1194	914
No. of Villages affected	4172	2428
No. of ULBs Affected	23	13
Population affected (In lakh)	23.72	0.99
Population Marooned (in lakh)	1.92	-
Crop Area Affected (in lakh hect)	1.30236	0.05969
Crop Area Sand Cast (in hect)	4779	257.74
No. of Human lives lost	9	4
No. of Houses damaged	8493	5742

FLOOD

SI	District	Blocks Affected	GPs Affected	Villages Affected	No. of ULBs Affected	Population Affected	House Damage
1	Angul	6	84	228	1	31386	986
2	Bargarh	3	38	131	0	3445	417
3	Boudh	3	47	222	2	61753	843
4	Bhadrak	5	52	208	1	248562	75
5	Balasore	6	145	789	0	1139877	1041
6	Jajpur	7	73	326	0	100295	45
7	Keonjhar	13	123	279	5	8601	661
8	Mayurbhanj	26	184	519	2	7312	1074
9	Cuttack	11	137	464	3	323389	1718
10	Jagatsinghpur	7	34	78	0	45618	26
11	Kendrapara	5	31	93	1	90063	218
12	Khordha	5	22	79	0	29826	351
13	Nayagarh	4	12	78	0	21682	140
14	Puri	9	96	434	3	253362	375
15	Sambalpur	9	92	189	3	3120	437
16	Subarnapur	3	24	55	2	3850	86
Total		122	1194	4172	23	2372141	8493

Heavy Rain, 2022

SI	District	Blocks Affected	GPs Affected	Villages Affected	No. of ULBs Affected	Population Affected (in lakh)	House Damage
1	Bolangir	13	117	349	1	4470	370
2	Jharsuguda	5	50	101	2	33055	259
3	Kalahandi	13	222	486		3428	878
4	Kandhamal	12	83	376	3	41400	787
5	Koraput	14	127	275	2	2182	712
6	Nabarangpur	8	117	379	2	5524	1056
7	Nuapada	5	81	141	1	1361	269
8	Sundargarh	17	198	463	2	7068	1411
Total		87	995	2570	13	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 : 25

Small Animal died: 19

No. of poultry birds died; 10105

Crop Damage

The standing kharif crops in the flood affected areas have been severely affected and there is 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	579.73
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	121206.26

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

Sand Cast

Agricultural land of 5036.74 hectares have been sand cast due to flood and heavy rain.

Floods & Heavy Rain :

Sl.	District	Crop Area Sand Cast more than 3 inch (in hect)
1.	Khordha	2150
2.	Puri	2629
3.	Jharsuguda	231.00
4.	Nabarangpur	9.2
5.	Sundargarh	17.54
	Total	5036.74

Loss of livelihood

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

Damage to Nets and Boats of Fishermen

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

Floods:

Sl	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 have been damaged in rural areas.

Chapter – V

Damage to Public Properties

Damage assessment to public properties

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

The damage to public properties in other sectors along with approximate loss is given below:

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
3	Rural Development Department					
	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
4	Housing & Urban Development Dept.					
	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
5	Panchayati Raj & DW Department					
	Anganwadi Center 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
6	Energy Department					
	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
7	Fisheries & Animal Resources Department					
	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
8	Health & Family Welfare Department					
	PHC, CHC, Sub-centers, etc.	37 Nos.	173.50			173.50
	Total		173.50			173.50
9	Forest & Environment Dept.					
	Damage of Infrastructure/ Road/ plantation of PCCF & HOFF	46 Nos.	173.61			173.61
	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
10	Handlooms, Textile & Handicrafts Dept.					
	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

Chapter- VI

Appendix – I

Statement showing up to date district wise actual (average) rainfall during the Month of August, 2022

Sl.	District	Monthly Normal	DATE																															Up to 31st Aug.20
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total (Actual)
1	Angul	357.5	0.2	4.3	4.3	1.8	0	0.3	11.6	15.1	6.4	60	14.1	18.3	13.7	43.4	49.1	0.8	0.3	1.7	36.6	70.7	7.6	3.1	0	0.1	24.7	0	0	3.1	8.1	3.2	0	402.3
2	Balasore	332.1	0.3	0.4	4.7	3.1	1.3	2.9	43.4	27.3	35.5	40.5	47.3	5	13	42.8	27.3	0.4	0	0	12.5	97.1	2.9	6.8	0	7.7	13	0	0.7	21.5	1.8	3.6	0	462.7
3	Bargarh	374.4	0	0.4	0.2	0	0	0	20.6	19.1	24.3	57.4	18.4	13.4	34.2	63.3	83.6	15	1.3	0.4	4.3	7.5	11.2	5.8	8.1	0.3	17.3	0	0	1.4	7.2	0.1	0	414.7
4	Bhadrak	311.7	4.1	6.7	19.6	1.6	1	0	45.7	15.8	9.6	50.9	17.1	8.3	6.1	35.4	11.8	0	2.1	0	8.7	23.1	0	0	0	18	1.2	0	0	13.4	4.4	0	0	304.7
5	Balangir	333.6	1.2	0.9	4.2	0.2	0	0	19.3	24.1	49.2	40.3	18	1.8	36.4	41.7	58.7	5.6	0.3	0	12.6	21.7	14.7	5.2	0.6	3.2	29	0.3	0.4	0	3.3	0.6	0	393.5
6	Boudh	488.8	2.7	0	0.5	19	0	0	11.9	20.1	40.4	54	14.7	4	44.6	44.5	86.7	7	0	1.7	71.3	98.8	25.3	0	0.7	5	21.8	0	0	0	0	1	0	575.9
7	Cuttack	339.1	2	8.3	7.4	1.1	5	8.4	39.9	8.9	39.1	21.6	23.2	8.3	17.1	74	34.7	0	2.4	0.7	26.5	19.2	1.8	23.9	1.2	4.1	6.2	0	0.2	3.9	3.4	0.3	0.7	393.5
8	Deogarh	443.4	0	23.8	0	0	6.7	0	9.1	22.8	9	68.1	17.7	72.6	12.3	39.7	104.9	5.7	0	0.3	50.1	75.5	67.1	5.4	3.3	0	5.5	0	1	0.4	1.9	1.3	0	604.2
9	Dhenkanal	344.8	3.4	1	42.7	8.2	4.8	4.6	31.7	16.4	25.7	31.3	12.9	6.6	16.6	44.1	32.2	0	0	0	22.8	28.7	5.1	6.8	8.8	1	30.1	0	0	4.1	22.4	1.5	0	413.3
10	Gajapati	253.6	1.6	7	8.7	0.3	4.8	11.3	43.8	18.3	69.4	9.1	0.5	2.1	8.2	51.4	28.8	0.4	6.4	2.4	3.6	3	3.3	7.3	0.4	32.7	18	0.8	2.8	4.1	7	3.6	0	360.9
11	Ganjam	246.8	0	3.9	1.6	5.2	2	1.2	52.8	37.7	96	3	2.3	0.6	6.7	30.3	22.8	0	16.4	0.2	1.4	4.5	2.6	19.9	7.9	5.8	15.5	2.5	0.1	3.3	4.5	1.5	0	352.1
12	Jagatsinghpur	379.1	0	3.5	9	0	7	8.4	51.1	9.4	10.9	14.6	23.4	5.4	24	132.8	31	0	0	0	30.5	29.6	0	0	0	9.1	5.3	0	0	0.8	0	0	0	405.6
13	Jaipur	341.2	0	0	3.5	2.6	2.1	5.1	39.4	11.3	7	27.8	24.8	12.5	10.1	42.6	40.2	0	0	4.2	11.8	21.8	0	0	0	27.8	4.6	0	0	36.7	8.6	1.4	0	345.9
14	Jharsuguda	382.9	0	0	2.2	7.6	5.4	5.4	13.2	4.8	6.7	62.7	9.9	33.6	11.1	57.4	125.8	24.8	0.4	0	14	4.5	19.7	3.7	1.2	0	38.6	0.3	0	1.4	33.2	14.7	0	502.4
15	Kalahandi	355.4	6.5	6.3	3.9	5.7	1.9	1.7	24.5	73.6	64.5	38.8	6.5	0.2	26.1	42.9	164.3	14.5	0.3	2	12.8	92.6	18.8	9.8	3.6	3.9	15.7	1.5	0.3	0.5	0	0	0	643.6
16	Kandhamal	330.8	3.3	3.4	8.1	0.2	3.1	3.5	64.7	32.7	61.4	22	13.1	1.4	31	60.2	132.6	2.4	0.2	0.2	43.2	135.5	45.7	2.8	1.6	1.9	33.2	0	0.6	6.5	16.1	0.3	0	730.5
17	Kendrapara	333.3	1.4	20.9	9.9	0	1.9	5	55	9.6	9.4	17.1	21.7	21.2	16.9	55.8	31.6	0	0	2.8	47.1	32.3	0	0	0.3	37.4	5.1	0	0	1.4	0.6	0.8	0.8	406
18	Keonjhar	343.6	0	5.4	8.7	0	3.9	4	21.2	17.2	7.9	27.8	39.9	30.4	16.9	62.3	34.9	0.8	0.1	0.5	8.6	51.7	20.5	5.9	0.2	3.5	9.9	0	0.7	0.3	21.4	0.4	0	404.8
19	Khordha	320.6	3.3	9.2	0	0	9.6	13.7	40.8	8.3	29.5	7.5	18.7	4.1	11.5	54.7	21.2	0	8.9	1.7	14.7	8.4	0	15.8	5	8.1	8.7	0	0.7	5.4	0.2	0.1	0	309.7
20	Koraput	393.6	16.6	6.2	7.6	7.8	3.7	42.9	34.7	62.2	44.1	35	8.1	3.7	0	50.9	104.8	7.9	0.1	1.9	24.9	52.4	14.4	7.6	1.1	8.6	13.5	0.8	2.4	6.9	20.3	4.5	5	600.5
21	Malkanagiri	472.8	6.7	2	3.9	5.4	24.1	36.2	12.1	84	32.1	14.1	0.4	4.1	0	17.4	37.7	6.5	0	4.2	0.7	39.9	17.9	8.9	0	0	12.8	1.2	0	0	1.7	2.6	7.7	384.4
22	Mayurbhanj	359.9	13	0.9	8.4	1.7	3.6	3.4	11.7	21.1	16.7	23.9	49.6	18.9	20.2	45.7	26.5	2.3	0	0	13.3	125.2	16.2	11.3	7.7	11.7	8.6	0.2	0.9	14	8.3	0.5	1.7	487.5
23	Nawarangpur	407.5	5.2	17.6	6.6	4.6	3.9	7.7	32.7	101.6	46.9	36.7	4.5	2.3	4.4	40.4	146.7	10.4	0.2	4	14.2	41.4	18.5	7.3	1	8.7	21.9	1.9	1.4	3	17.5	5.6	0.7	619.8
24	Nayagarh	288.2	5.3	9.1	7.9	0	1.8	0.3	81.5	11.5	70.7	33.8	12.8	1.9	23.1	39.8	17.6	0	3.4	3	13.8	28.5	3.1	19.2	27.5	0	26.8	0	0	9.3	5.9	1.9	0	459.5
25	Nuapara	327.8	0	11.3	14.1	0	0	20.5	17.9	22.9	50	41.2	14.7	1.5	6.5	38.3	29.5	14.3	0	0.4	1.9	33	14.2	1.7	0.4	12.4	36	2.9	2	0.3	14	0	0	401.8
26	Puri	297.9	0	0	0	0.7	5.9	7.7	83.6	7.5	32.7	9.4	8.8	6.9	18.7	92	8.6	0	2.8	1.4	26.1	3.9	0	0.4	0.3	0.7	4.8	0	0	4.1	0	0	0	326.8
27	Rayagada	273.7	0.3	0.2	9.8	5.5	1.6	5.9	43.8	13.8	57.4	17.4	10	3.8	9.6	46	81.7	5	0.2	3.5	7.5	38.9	19	2.8	6.8	11.4	4.6	2.5	2.8	0.6	4	2.9	0	419.1
28	Sambalpur	442.4	0.1	0	0.4	8.4	5	0.1	15.7	15	4.8	85.7	12	45.5	15.8	69.1	102.6	20.2	0.8	3.5	26.2	30.3	33.4	12	8.2	0.4	11.6	0	0	0	15	1.6	0	543.5
29	Sonepur	408.9	2.4	0	0.6	0.2	0	0	33.3	12.7	20.5	51.2	13.7	9.4	69.3	75	35.9	16	1.4	0.9	27.9	22.6	7	5.7	6.6	0	23.6	0	0	0	0	3.5	0	439.2
30	Sundargarh	393.9	1.3	0.1	0.4	16.8	7.5	6.3	4.6	5.2	1.1	19.7	15	45.5	19	100.3	86.7	8.8	0.1	0.3	16.6	39.2	69.2	5.5	3.6	7.3	31.8	0.1	0	0.8	14.4	0.5	0	527.7
Total			81.1	152.84	198.53	107.62	117.61	206.26	1011.41	749.82	978.65	1022.35	493.97	393.14	542.94	1634.07	1800.43	168.92	47.92	41.68	606.14	1281.67	459.2	204.19	106.05	230.87	499.42	15.08	16.96	147.06	245.35	58.07	16.6	13,635.90
State Average		356.0	2.7	5.1	6.6	3.6	3.9	6.9	33.7	25	32.6	34.1	16.5	13.1	18.1	54.5	60	5.6	1.6	1.4	20.2	42.7	15.3	6.8	3.5	7.7	16.6	0.5	0.6	4.9	8.2	1.9	0.6	454.5

Appendix-II

Extent of damage due to natural calamities State-Odisha Nature and period of natural calamity

Sl. No.	Item	Floods (Details)	Heavy Rain (Details)	Total
1	Total number of districts in the state	30	30	30
2	Number of districts affected	16	8	24
3	Number of villages affected	4172	2438	6610
4	Population affected (in lakh)	23.70207	1.04217	24.74424
5	Total land area affected (in lakh ha.)			
6	Cropped area affected (in lakh ha)	1.29922	0.05985	1.35907
	i) Total cropped area affected (Ha)	129049.03	5986.451	135035.481
	ii) Estimated loss to crops (Rs. in lakh)	10134.1	276.44	10410.54
	iii) Area where cropped damage was more than 33%	1,21,272.70	3,201.92	1,24,474.61
7	Percentage of area held by SMF			
	i) In the State as a whole			
	ii) In the affected districts			
8	House damaged			
	a) No. of houses damaged	8493	5764	14257
	i) Fully damaged pucca houses	1	0	1
	ii) Fully damaged kutch houses	12	29	41
	iii) Severely damaged pucca houses	0	1	1
	iv) Severely damaged kutch houses	29	102	131
	v) Partly damaged houses (pucca + kutch)	8313	5584	13897
	vi) No. of huts damaged	138	26	164
	b) Estimated value of damage to houses (Rs. in lakh)	336.853	312.688	649.541
9	No. of human lives lost	9	4	13
	No. of persons with grievous injuries	3	0	3
	No. of persons with minor injuries	0	0	0
10	Animal lost			
	a) No. of big animals lost	17	5	22
	b) No. of small animals lost	26	1	27
	c) No. of poultry (birds) lost	10105	0	10105
11	Damage to public properties	Details given under Chapter- V		
	a) In physical terms (sector wise details should be given – e.g. length of State roads damaged, length of districts roads damaged, length of village roads damaged, No. of bridges damaged, No. of culverts damaged, No. of school buildings damaged etc.)			
	b) Estimated value of the damage to public properties(Rs in Lakh)	41527.48	6569.45	48096.93
12	Estimated total damage to houses, crops and public properties(Rs in Lakh)	51998.43	7158.58	59157.01

Appendix-III (Flood)

Assistance for provision of temporary accommodation, food, clothing medical care etc. of the people affected/ evacuated due to Flood in August 2022 (Operation of Relief Camps);												
Sl. No.	Name of the District	Total no. of relief camps opened	Total no. of people accommodated in relief camps (cumulative)	Average no. (in a day) of relief camps	Average duration of operation of relief camps	Average no. of People accommodated per day in the relief camps	Expenditure incurred on (Rs. In Lakhs)					
							Temporary accommodation	Food	Clothing	Medical care	Other essential items (to be specified)	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Angul	5	4123	14	14	589	0	2.607	0.000	0.000	1.231	3.838
2	Bargarh	4	3585	4	6	515	0.000	3.342	0.000	0.000	0.438	3.780
3	Boudh	8	6368	8	15	6368	0.200	29.480	0.000	0.000	0.430	30.110
4	Bhadrak	6	1230	1	1	1230	0.000	1.175	0.000	0.000	15.220	16.395
5	Balasore	200	84547	8	7	3252	0.000	247.580	0.000	0.000	2.010	249.590
6	Jajpur	2	6000	2	2	6000	0.000	7.200	0.000	0.000	0.000	7.200
7	Keonjhar	16	383	271	6	383	0.000	0.720	0.000	0.000	0.100	0.820
8	Mayurbhanj	70	10137	24	2	8081	0.900	6.090	0.000	0.000	1.210	8.200
9	Cuttack	67	92892	40	7	35041	0.040	182.770	0.000	0.000	19.050	201.860
10	Jagatsinghpur	42	133037	40	10	9284	0.150	79.076	0.000	0.000	4.365	83.591
11	Kendrapara	238	50606	34	28	7229		46.080	0.000	0.000	6.050	52.130
12	Khordha	25	56003	8	22	7297	0.180	107.200	0.000	0.000	7.340	114.720
13	Nayagarh	2	1239	2	3	483	0.000	1.086	0.000	0.000	0.000	1.086
14	Puri	113	201574	42	7	42714	0.000	244.228	0.000	0.000	55.995	300.223
15	Sambalpur	18	9493	1604		1604		3.991	0.000	0.000	15.990	19.981
16	Subarnapur	6	1040	3		289	0.000	0.820	0.000	0.000	0.112	0.932
Grand Total		822	662257	2105		130359	1.47	963.44506	0	0	129.54055	1094.45561

Appendix-III (Heavy Rain)

Assistance for provision of temporary accommodation, food, clothing medical care etc. of the people affected/ evacuated due to Heavy Rain & consequent Flash Flood in August 2022 (Operation of Relief Camps)												
Sl. No.	Name of the block/ ULB	Total no. of relief camps opened	Total no. of people accommodated in relief camps (cumulative)	Average no. (in a day) of relief camps	Average duration of operation of relief camps	Average no. of People accommodated per day in the relief camps	Expenditure incurred on (Rs. In Lakhs)					
							Temporary accommodation	Food	Clothing	Medical care	Other essential items (to be specified)	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Balangir	4	79	2	2	79	0.000	0.158	0.000	0.000	0.000	0.158
2	Jharsuguda	6	253	6	3	149	0.000	0.600	0.000	0.000	0.625	1.225
3	Kalahandi	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
4	Kandhamal	11	348	6	1	348	0.167	0.857	0.000	0.000	0.050	1.074
5	Koraput	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
6	Nabarangpur	3	147	3	3	48	0.000	0.080	0.000	0.000	1.350	1.430
7	Nuapada	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000
8	Sundargarh	3	1322	3	2	879	0.000	0.820	0.000	0.000	0.000	0.820
Total		27	2149	20	11	1503	0.167	2.515	0	0	2.025	4.707

Appendix-IV (Flood)

Agriculture/ Horticulture crop loss and fund required for input subsidy due to Flood in August 2022											
Sl. No.	Name of the District	Total agriculture/ horticulture crop area affected (in Ha.)	Total agriculture/ horticulture crop area where crop loss is >33% (in Ha.)	Total area under crop loss of 33% & above (area in Ha.)				Agriculture input subsidy required in Rs.			
				Rainfed	Irrigated	Perennial	Total	Rainfed @ 6800/- per Hect.	Irrigated @13500/- per Hect.	Perennial @ 18000/- Per hect.	Total fund required in Rs.
1	2	3	4	5	6	7	8	9	10	11	12
1	Angul	1568.65	1568.65	1473.74	94.91	0.00	1568.65	1,00,21,432	12,81,285	-	1,13,02,717
2	Bargarh	675.47	646.17	264.44	381.73	0.00	646.17	17,98,192	51,53,355	-	69,51,547
3	Boudh	3100	1882.6	840.26	1039.27	3.00	1882.53	57,13,768	1,40,30,145	54,000	1,97,97,913
4	Bhadrak	12732.27	12732.27	12102.97	629.30	0.00	12732.27	8,23,00,196	84,95,550	-	9,07,95,746
5	Balasore	8070.4	8070.4	8068.30	0.00	2.10	8070.40	5,48,64,440	-	37,800	5,49,02,240
6	Jajpur	17723	15914	15357.00	557.00	0.00	15914.00	10,44,27,600	75,19,500	-	11,19,47,100
7	Keonjhar	0	0	0.00	0.00	0.00	0.00	-	-	-	-
8	Mayurbhanj	2004.2	949.27	922.25	27.02	0.00	949.27	62,71,300	3,64,770	-	66,36,070
9	Cuttack	35831	34851	34076.00	783.00	0.00	34859.00	23,17,16,800	1,05,70,500	-	24,22,87,300
10	Jagatsinghpur	4372.976	4015.58	3695.78	314.80	5.00	4015.58	2,51,31,277	42,49,800	90,000	2,94,71,077
11	Kendrapara	2202.75	2202.75	2181.75	21.00	0.00	2202.75	1,48,35,900	2,83,500	-	1,51,19,400
12	Khordha	10278.13	10278.13	7192.23	3057.90	28.00	10278.13	4,89,07,164	4,12,81,650	5,04,000	9,06,92,814
13	Nayagarh	4236.65	4113.75	4079.95	20.00	13.80	4113.75	2,77,43,660	2,70,000	2,48,400	2,82,62,060
14	Puri	26781.2	25117.77	13568.41	11422.36	127.00	25117.77	9,22,65,188	15,42,01,860	22,86,000	24,87,53,048
15	Sambalpur	0	0	0.00	0.00	0.00	0.00	-	-	-	-
16	Subarnapur	659.33	605.83	133.50	472.33	0.00	605.83	9,07,800	63,76,455	-	72,84,255
Grand Total		130236.026	122948.166	103956.576	18820.62	178.9	122956.096	70,69,04,717	25,40,78,370	32,20,200	96,42,03,287

Appendix-IV (Heavy Rain)

Agriculture/ Horticulture crop loss and fund required for input subsidy due to Heavy Rain & consequent Flash Flood in August 2022											
Sl. No.	Name of the block/ ULB	Total agriculture/ horticulture crop area affected (in Ha.)	Total agriculture/ horticulture crop area where crop loss is >33% (in Ha.)	Total area under crop loss of 33% & above (area in Ha.)				Agriculture input subsidy required in Rs.			
				Rainfed	Irrigated	Perennial	Total	Rainfed @ 6800/- per Hect.	Irrigated @13500/- per Hect.	Perennial @ 18000/- Per hect.	Total fund required in Rs.
1	2	3	4	5	6	7	8	9	10	11	12
1	Balangir	1425.23	579.73	450.72	129.01	0.00	579.73	3064896	1741635	0	4806531
2	Jharsuguda	2174.52	276.52	276.52	0.00	0.00	276.52	1880336	0	0	1880336
3	Kalahandi	1840.55	1840.55	1485.55	355.00	0.00	1840.55	10101740	4792500	0	14894240
4	Kandhamal	24.261	24.261	17.10	7.16	0.00	24.26	116307	96620	0	212927
5	Koraput	297	297	72.00	225.00	0.00	297.00	489600	3037500	0	3527100
6	Nabarangpur	98.49	98.49	98.49	0.00	0.00	98.49	669732	0	0	669732
7	Nuapada	39.57	27.41	10.17	17.24	0.00	27.41	69156	232740	0	301896
8	Sundargarh	69.66	69.66	64.56	5.10	0.00	69.66	439008	68850	0	507858
Total		5,969	3,214	2,475	739	-	3,214	1,68,30,775	99,69,845	-	2,68,00,620

Appendix-V (Flood)

Agriculture/ horticulture crop loss and fund required for input subsidy due to Flood in August 2022 (Other than SMF); Dist:-															
Sl. No.	Name of the block/ ULB	Total agriculture/ horticulture crop area affected (in Ha.)	Total agriculture/ horticulture crop area where crop loss is >33% (in Ha.)	Out of (4) area belong to farmers other than SMF (in Ha.)				No. of farmers other than SMF affected by the instant calamity				Assistance required in Rs.			
				Rainfed	Irrigated	Perennial	Total	Rainfed	Irrigated	Perennial	Total	Rainfed @ 6800/- per Hect.	Irrigated @13500/- per Hect.	Perennial @ 18000/- Per hect.	Total fund required in Rs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Angul	1568.65	1568.65	0	0	0	0	0	0	0	0	0	0	0	0
2	Bargarh	675.47	646.17	0	0	0	0	0	0	0	0	0	0	0	0
3	Boudh	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Bhadrak	12732.27	12732.27	0	0	0	0	0	0	0	0	0	0	0	0
5	Balasore	8070.4	8070.4	0	0	0	0	0	0	0	0	0	0	0	0
6	Jajpur	17723	15914	0	0	0	0	0	0	0	0	0	0	0	0
7	Keonjhar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Mayurbhanj	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Cuttack	35831	34859	0	0	0	0	0	0	0	0	0	0	0	0
10	Jagatsinghpur	4372.976	4015.576	0	0	0	0	0	0	0	0	0	0	0	0
11	Kendrapara	2202.75	2202.75	0	0	0	0	0	0	0	0	0	0	0	0
12	Khordha	10278.13	10278.13	0	0	0	0	0	0	0	0	0	0	0	0
13	Nayagarh	4236.65	4113.75	0	0	0	0	0	0	0	0	0	0	0	0
14	Puri	26781.2	25117.77	0	0	0	0	0	0	0	0	0	0	0	0
15	Sambalpur	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	Subarnapur	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total		124472.496	119518.466	0	0	0	0	0	0	0	0	0	0	0	0

Appendix-V (Heavy Rain)

Agriculture/ horticulture crop loss and fund required for input subsidy due to Heavy Rain & consequent Flash Flood in August 2022 (Other than SMF)															
Sl. No.	Name of the block/ ULB	Total agriculture/ horticulture crop area affected (in Ha.)	Total agriculture/ horticulture crop area where crop loss is >33% (in Ha.)	Out of (4) area belong to farmers other than SMF (in Ha.)				No. of farmers other than SMF affected by the instant calamity				Assistance required in Rs.			
				Rainfed	Irrigated	Perennial	Total	Rainfed	Irrigated	Perennial	Total	Rainfed @ 6800/- per Hect.	Irrigated @13500/- per Hect.	Perennial @ 18000/- Per hect.	Total fund required in Rs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Balangir	1425.23	579.73	0	0	0	0	0	0	0	0	0	0	0	0
2	Jharsuguda	2174.52	276.52	0	0	0	0	0	0	0	0	0	0	0	0
3	Kalahandi	1840.55	1840.55	0	0	0	0	0	0	0	0	0	0	0	0
4	Kandhamal	24.261	24.261	0	0	0	0	0	0	0	0	0	0	0	0
5	Koraput	297	297	0	0	0	0	0	0	0	0	0	0	0	0
6	Nabarangpur	98.49	98.49	0	0	0	0	0	0	0	0	0	0	0	0
7	Nuapada	39.57	27.41	0	0	0	0	0	0	0	0	0	0	0	0
8	Sundargarh	69.66	69.66	0	0	0	0	0	0	0	0	0	0	0	0
Total		5969.281	3213.621	0	0	0	0	0	0	0	0	0	0	0	0

Appendix-VI (Flood)

Assistance required towards replacement of animals for death of livestock due to Flood in August 2022;																
Sl. No.	Name of the block/ ULB	No of Livestock / Birds lost					No of animals qualifying for relief grant (i.e., subject to ceiling of 3 large milch animal or 30 small milch animals or 3 large draught animal or 6 small draught animal per household				Expenditure incurred (Milch animals @ Rs.30000 for large animal , Rs.3000 for small animals & Draught animals @ Rs 25,000 for large animal, Rs. 16000 for small animals)				Poultry @ 50/- per bird subject to a ceiling of assistance of Rs.5000/- per beneficiary household.	Total fund required in Rs.
		Milch Animal		Draught Animal		Poultry Birds	Milch Animal		Draught Animal		Milch Animal		Draught Animal		Amount required	(12+13+14+15+16)
		Buffalo/ Cow	Sheep/ Goat	Camel/ Horse/ Bullock	Calf/ Donkey/ Pony		Buffalo/ Cow	Sheep/ Goat	Camel/ Horse/ Bullock	Calf/ Donkey/ Pony	Buffalo/ Cow	Sheep/ Goat	Camel/ Horse/ Bullock	Calf/ Donkey/ Pony		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Angul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Bargarh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Boudh	2	0	2	0	0	2	0	2	0	60000	0	50000	0	0	110000
4	Cuttack	0	0	1	0	3600	0	0	0	0	0	0	25000	0	10000	35000
5	Bhadrak	1	0	0	0	0	1	0	0	0	30000	0	0	0	0	30000
6	Balasore	0	0	0	2	1000	0	0	0	2	0	0	0	32000	5000	37000
7	Jajpur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Keonjhar	0	16	0	0	0	0	16	0	0	0	48000	0	0	0	48000
9	Mayurbhanj	1	0	0	0	0	1	0	0	0	30000	0	0	0	0	30000
10	Jagatsinghpur	1	0	0	0	0	1	0	0	0	30000	0	0	0	0	30000
11	Kendrapara	2	0	0	1	0	2	0	0	1	60000	0	0	16000	0	76000
12	Khordha	0	1	0	4	1500	0	1	0	4	0	3000	0	64000	5000	72000
13	Nayagarh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Puri	4	2	0	4	4005	4	2	0	4	120000	6000	0	64000	30000	220000
15	Sambalpur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	Subarnapur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total		11	19	3	11	10105	11	19	2	11	330000	57000	75000	176000	50000	688000

Appendix-VI (Heavy Rain)

Assistance required towards replacement of animals for death of livestock due to Heavy Rain & consequent Flash Flood in August 2022																
Sl. No.	Name of the block/ ULB	No of Livestock / Birds lost					No of animals qualifying for relief grant (i.e., subject to ceiling of 3 large milch animal or 30 small milch animals or 3 large draught animal or 6 small draught animal per household				Expenditure incurred (Milch animals @ Rs.30000 for large animal , Rs.3000 for small animals & Draught animals @ Rs 25,000 for large animal, Rs. 16000 for small animals)				Poultry @ 50/- per bird subject to a ceiling of assistance of Rs.5000/- per beneficiary household.	Total fund required in Rs.
		Milch Animal		Draught Animal		Poultry Birds	Milch Animal		Draught Animal		Milch Animal		Draught Animal		Amount required	(12+13+14+15+16)
		Buffalo/ Cow	Sheep/ Goat	Camel/ Horse/ Bullock	Calf/ Donkey/ Pony		Buffalo/ Cow	Sheep/ Goat	Camel/ Horse/ Bullock	Calf/ Donkey/ Pony	Buffalo/ Cow	Sheep/ Goat	Camel/ Horse/ Bullock	Calf/ Donkey/ Pony		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Balangir	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Jharsuguda	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Kalahandi	1	0	0	0	0	1	0	0	0	30000	0	0	0	0	30000
4	Kandhamal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Koraput	4	1	0	0	0	4	1	0	0	105000	3000	0	0	0	108000
6	Nabarangpur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Nuapada	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Sundargarh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		5	1	0	0	0	5	1	0	0	135000	3000	0	0	0	138000

Appendix-VII (Flood)

Assistance required towards repair /restoration of damaged houses (in Rs.) due to Flood in August 2022																		
Sl. No	Name of the block./ ULB	Fully damaged		Severely damaged		Total fully/ Severely damaged pucca/ kutcha house		Partially damaged				Hut damaged		Total		Cow shed damaged		Grand total
		Pucca house	Kutcha house	Pucca house	Kutcha house	No. of house damaged	Fund required @ Rs 95100/- or Rs.101900/- per house	Pucca house	Funds required @ Rs.5200/- per house	Kutcha house	Funds required @ Rs.3200/- per house	No. of hut	Funds required @ Rs.4100/- per hut	No. of house damaged (7+9+11+13)	Funds required (8+10+12+14)	No. of cow shed	Cow Shed Damaged @ Rs.2100/- per cowshed	
		No.	No.	No.	No.	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No	Amount	No.	Amount	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Angul	0	1	0	2	3	285300	18	93600	964	3084800	1	4100	986	3467800	4	8400	3476200
2	Bargarh	0	0	0	0	0	0	0	0	417	1334400	0	0	417	1334400	0	0	1334400
3	Boudh	0	0	0	0	0	0	1	5200	842	2694400	0	0	843	2699600	0	0	2699600
4	Bhadrak	0	1	0	0	1	95100	0	0	70	224000	4	16400	75	335500	4	8400	343900
5	Balasore	0	0	0	1	1	95100	5	26000	982	3142400	53	217300	1041	3480800	59	123900	3604700
6	Jajpur	0	0	0	3	3	285300	0	0	34	108800	8	32800	45	426900	11	23100	450000
7	Keonjhar	0	0	0	9	9	855900	8	41600	640	2048000	4	16400	661	2961900	44	92400	3054300
8	Mayurbhanj	1	4	0	10	15	1426500	16	83200	991	3171200	52	213200	1074	4894100	65	136500	5030600
9	Cuttack	0	3	0	1	4	380400	2	10400	1709	5468800	3	12300	1718	5871900	619	1299900	7171800
10	Jagatsinghpur	0	0	0	0	0	0	0	0	25	80000	1	4100	26	84100	171	359100	443200
11	Kendrapara	0	0	0	0	0	0	1	5200	208	665600	9	36900	218	707700	27	56700	764400
12	Khordha	0	0	0	0	0	0	1	5200	350	1120000	0	0	351	1125200	72	151200	1276400
13	Nayagarh	0	0	0	0	0	0	0	0	138	441600	2	8200	140	449800	15	31500	481300
14	Puri	0	0	0	1	1	95100	0	0	374	1196800	0	0	375	1291900	21	44100	1336000
15	Sambalpur	0	3	0	2	5	475500	1	5200	430	1376000	1	4100	437	1860800	3	6300	1867100
16	Subarnapur	0	0	0	0	0	0	1	5200	85	272000	0	0	86	277200	0	0	277200
Grand Total		1	12	-	29	42	39,94,200	54	2,80,800	8,259	2,64,28,800	138	5,65,800	8,493	3,12,69,600	1,115	23,41,500	3,36,11,100

Appendix-VII (Heavy Rain)

Assistance required towards repair /restoration of damaged houses (in Rs.) due to Heavy Rain & consequent Flash Flood in August 2022																		
Sl. No	Name of the block./ ULB	Fully damaged		Severely damaged		Total fully/ Severely damaged pucca/ kutcha house		Partially damaged				Hut damaged		Total		Cow shed damaged		Grand total
		Pucca house	Kutcha house	Pucca house	Kutcha house	No. of house damaged	Fund required @ Rs 95100/- or Rs.101900/- per house	Pucca house	Funds required @ Rs.5200/- per house	Kutcha house	Funds required @ Rs.3200/- per house	No. of hut	Funds required @ Rs.4100/- per hut	No. of house damaged (7+9+11+13)	Funds required (8+10+12+14)	No. of cow shed	Cow Shed Damaged @ Rs.2100/- per cowshed	
		No.	No.	No.	No.	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No	Amount	No.	Amount	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Balangir	0	0	0	8	8	815200	0	0	362	1158400	0	0	370	1973600	7	14700	1988300
2	Jharsuguda	0	0	0	6	6	570600	0	0	253	809600	0	0	259	1380200	4	8400	1388600
3	Kalahandi	0	2	0	10	12	1222800	7	36400	850	2720000	9	36900	878	4016100	18	37800	4053900
4	Kandhamal	0	10	0	18	28	2853200	13	67600	735	2352000	11	45100	787	5317900	2	4200	5322100
5	Koraput	0	1	0	0	1	101900	2	10400	703	2249600	6	24600	712	2386500	4	8400	2394900
6	Nabarangpur	0	0	1	0	1	101900	0	0	1055	3376000	0	0	1056	3477900	0	0	3477900
7	Nuapada	0	3	0	4	7	665700	0	0	262	838400	0	0	269	1504100	0	0	1504100
8	Sundargarh	0	13	0	56	69	6561900	10	52000	1332	4262400	0	0	1411	10876300	86	180600	11056900
Grand Total		-	29	1	102	132	1,28,93,200	32	1,66,400	5,552	1,77,66,400	26	1,06,600	5,742	3,09,32,600	121	2,54,100	3,11,86,700

Appendix-VIII (Flood)

Requirement of funds under the head of repair of damaged infrastructure of immediate nature due to "Flood " -2022 (Rs. in Lakh)								
Sl. No.	Sector	Items	Damage in physical terms (Kms/ Nos. etc.)	Actual damage accessed (Total damage in Lakh Rs.)	Requirement of funds for repair of immediate nature	Out of (6), amount available from annual maintenance budget	Out of (6), amount available from related schemes/ programs/ other sources	Out of (6), amount proposed to be met from SDRF/NDRF
1	2	3	4	5	6	7	8	9
1	Road & Breaches	GP/ PS Road damaged	6542 Nos./ 5059.845 Kms	7534.987	7534.987	0	0	7534.987
		PWD Road damaged	181 Nos./ 475.29 Kms	1619.99	739.56	0	0	739.56
		Rural Road including breaches damaged	595 Nos./ 771.601 Kms	8225.40	1447.89	0	0	1447.89
		Urban Road damaged	122 Nos./ 48.345 Kms	681.97	74.96	0	0	74.96
		Total		18062.347	9797.397	0	0	9797.397
2	CD/ Bridges damaged	CD/ Bridges damaged/ washed away in PWD roads	38 Nos.	115.50	42.30	0	0	42.30
		CD/ Bridges damaged/ washed away in GP/PS roads	272 Nos.	406.5	406.5	0	0	406.5
		CD/ Bridges damaged/ washed away in rural roads	215 Nos.	2020.10	655.30	0	0	655.30
		Culvert damaged in urban roads	7 Nos.	15.70	7.50	0	0	7.50
		Total		2557.8	1111.6	0	0	1111.6
3	Drain damaged	Drain damaged of PWD Dept.	6 Nos./ 0.37 Kms	27.66	6.66	0	0	6.66
		Drain damaged of H & UD Dept.	2 Nos./ 2.59 Kms	35.00	35.00	0	0	35.0
		Total		62.66	41.66	0	0	41.66
4	Water Supply System damaged	Pipe Water Supply System/ Tube Well Platform damaged	1174 Nos.	528.87	528.87	0	0	528.87
		Total		528.87	528.87	0	0	528.87

5	River/ Canal Embankments	Damage to River/ Saline Embankment	867 Nos./ 1099.19 Kms	9799.50	2095.47	0	0	2095.47
		Damage to canal Embankment	393 Nos./ 430.03 Kms	3053.25	810.38	0	0	810.38
		Total		12852.75	2905.85	0	0	2905.85
6	Drainage System	Drain damaged of PWD Dept.	6 Nos./ 0.37 Kms	27.66	6.66	0	0	6.66
		Drain damaged of H & UD Dept.	2 Nos./ 2.59 Kms	35.00	35.00	0	0	35.00
		Total		62.66	41.66	0	0	41.66
7	Minor Irrigation/ Lift Irrigation projects	Damage to Embankment road of MI Sector	170 Nos. / 26.74 Kms	861.80	482.80	0	0	482.80
		CD/Bridges Damaged in MI Sector	82 Nos.	257.80	158.80	0	0	158.80
		Lift Irrigation Projects damaged	1886 Nos.	1225.21	1030.11	0	0	1030.11
		Total		2344.81	1671.71	0	0	1671.71
8	School Buildings	Pry. School buildings damaged	601 Nos.	1148.55	1148.55	0	0	1148.55
		Secy. School buildings damaged	15 Nos.	70.00	30.00	0	0	30.00
		Total		1218.55	1178.55	0	0	1178.55
9	Community Health Center	CHCs damaged	13 Nos.	38.00	26.00	0	0	26.00
		Total		38	26	0	0	26
10	Community Buildings/ Assets/ AWC damaged	GP/PS Building & Community Hall damaged	201 Nos.	383.00	383.00	0	0	383.00
		Anganwadi Centres damaged	396 Nos.	682.28	682.28	0	0	682.28
		Total		1065.28	1065.28	0	0	1065.28
11	Power Sector damaged	11 KV Transformer damaged	93 Nos.			0	0	
		11 KV Poles damaged	545 Nos.	21.80	21.80	0	0	21.80
		11 KV conductor damaged	134.45 Kms.	70.04	67.23	0	0	67.23
		Distribution Transformer damaged	255 Nos.	255.00	255.00	0	0	255.00
		LT line poles damaged	906 Nos.	36.24	36.24	0	0	36.24
		LT line conductor damaged	234.49 Kms.	117.82	117.25	0	0	117.25
		Total		500.9	497.51	0	0	497.51
Grand Total				39294.627	18866.087	0	0	18866.087

Appendix-VIII (Heavy Rain)

Requirement of funds under the head of repair of damaged infrastructure of immediate nature due to "Heavy Rain " -2022 (Rs. in Lakh)								
Sl. No.	Sector	Items	Damage in physical terms (Kms/ Nos. etc.)	Actual damage accessed (Total damage in Lakh Rs.)	Requirement of funds for repair of immediate nature	Out of (6), amount available from annual maintenance budget	Out of (6), amount available from related schemes/ programs/ other sources	Out of (6), amount proposed to be met from SDRF/NDRF
1	2	3	4	5	6	7	8	9
1	Road & Breaches	GP/ PS Road damaged	1158 Nons./ 558.65 Kms	837.98	837.98	0	0	837.98
		PWD Road damaged	64 Nos./ 221.16 Kms	1850.25	376.23	0	0	376.23
		Rural Road including breaches damaged	64.365 Kms	792.5	347.4	0	0	347.4
		Total		3480.73	1561.61	0	0	1561.61
2	CD/ Bridges damaged	CD/ Bridges damaged/ washed away in PWD roads	27 Nos.	106.5	38.1	0	0	38.1
		CD/ Bridges damaged/ washed away in rural roads	60 Nons.	1430.0	183.5	0	0	183.5
		Total		1536.5	221.6	0	0	221.6
3	Drain damaged	Drain damaged of PWD Dept.	14 Nos./ 0.54 Kms	100	62.9	0	0	62.9
		Total		100	62.9	0	0	62.9
4	River/ Canal Embankments	Damage to Canal Embankments	3 Nos./ 04.6 Kms	14.45	13.06	0	0	13.06
		Total		14.45	13.06	0	0	13.06
5	Minor Irrigation/ Lift Irrigation projects	Damage to Embankment road of MI Sector	75 Nos. / 20.16 Kms	372.2	213.0	0	0	213.0
		CD/Bridges Damaged in MI Sector	95 Nos.	423.0	110.0	0	0	110.0
		Lift Irrigation Projects damaged	72 Nos.	55.26	51.66	0	0	51.66
		Total		850.46	374.66	0	0	374.66

6	School Buildings	Pry. School buildings damaged	96 Nons..	156.70	156.70	0	0	156.70
		Secy. School buildings damaged	15 Nons.	70.0	70.0	0	0	70.0
		Total		226.7	226.7	0	0	226.7
7	Community Buildings/ Assets/ AWC damaged	GP/PS Building & Community Hall damaged	22 Nons	39.50	39.50	0	0	39.50
		Anganwadi Centres damaged	47 Nons	83.50	83.50	0	0	83.50
		Total		123	123	0	0	123
Grand Total				6331.84	2583.53	0	0	2583.53
