



Flood Bulletin, 2023

Government of Odisha

Department of Water Resources

Volume No.31

Date: 01.07.2023

Time: 14:00Hr



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Flood Cell

Office of the Engineer-in-Chief, Water Resources, Odisha

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url: dowr.odisha.gov.in & dowrodisha.gov.in

Status of Gauge (in m)

Name of River	Gauge Site	Danger Level (DL)	Warning Level	Time (Hrs)	Present Level	Trend	(wrt DL)	Highest Recorded Level	
								Level	Date
Mahanadi	Khairmal	109.0	108.0	12:00	101.16	S	-7.84	108.31	19.09.08
	Tikarpara	-	-	12:00	56.94	F	-	74.98	30.08.82
	Naraj (IB)	26.41	25.41	12:00	22.52	R	-3.89	27.60	31.08.82
Kusabhadra	Nimapara	10.76	9.85	12:00	2.58	S	-8.18	11.60	31.08.82
Devi	Alipingala	11.76	10.85	12:00	2.37	R	-9.39	13.05	20.09.08
Brahmani	Panposh	178.42	177.51	12:00	171.52	R	-6.9	181.44	24.09.11
	Rengali	88.0	-	12:00	75.86	F	-12.14	92.25	18.08.75
	Talcher	62.91	-	12:00	54.81	F	-8.1	65.53	19.08.75
	Jenapur	23.0	22.0	12:00	18.58	F	-4.42	24.78	20.08.75
	Indupur	8.23	-	12:00	3.06	S	-5.17	-	-
Baitarani	Champua	376.41	375.33	12:00	371.46	S	-4.95	379.06	23.09.11
	Swampatna	311.1	-	12:00	305.06	S	-6.04	315.66	14.08.75
	Anandapur	38.36	37.44	12:00	32.60	S	-5.76	41.80	19.08.75
	Akhuapada	17.83	-	12:00	15.87	S	-1.96	21.95	16.08.60
Budhabalanga	Chandanpur	-	-	12:00	81.06	S	-	85.80	09.11.95
	Baripada	30.92	29.70	12:00	21.28	S	-9.64	37.20	12.10.73
	Balimundali	-	-	12:00	36.06	S	--	42.20	1995
	NH5-Govindapur	8.13	7.21	12:00	1.62	F	-6.51	9.67	12.10.73
Subarnarekha	Jamshedpur	123.5	122.5	12:00	115.20	S	-8.3	129.82	12.10.73
	Jamsolaghat	49.16	48.32	12:00	43.74	S	-5.42	56.91	03.09.78
	Rajghat	10.36	9.45	12:00	3.25	S	-7.11	12.69	19.06.08
Jalaka	Mathani Road Bridge	6.5	6.0	09:00	3.50	S	-3.0	7.31	22.09.21
Rushikulya	Sorada	81.99	80.99	12:00	77.76	S	-4.23	83.21	04.11.90
	Madhabarida	60.65	-	12:00	55.88	S	-4.77	61.44	18.10.99
	Purusottampur	16.84	15.84	12:00	11.45	S	-5.39	19.60	04.11.90
Vansadhara	Gudari	-	-	12:00	113.98	S	-	121.82	17.09.80
	Gunupur	84.0	83.0	12:00	80.02	S	-3.98	88.75	17.09.80
	Kashinagar	54.6	53.6	12:00	52.10	S	-2.5	58.93	18.09.80

Status of Major Reservoirs

Name of the Reservoir	Dead Storage Level	FRL/ MWL	Reservoir Level	LS Available/ Live Storage Capacity (%)	Last Year (2022) Live Storage Avl (%)	Inflow	Total Outflow	Gates Open (Nos)/ Trend
1.Hirakud 12:00Hr	590.0 ft	630.0ft	605.41 ft	<u>1186.0 Mcum</u> 4822.83Mcum (24.6%)	13.9%	123281.0 Cusec	34819.0 Cusec	0/98 Rising
2.Rengali 08:00Hr	109.72 m	<u>123.5 m</u> 125.4 m	110.48 m.	<u>10868.0 Ham</u> 341371.0 Ham (3.2%)	1.5%	57.8 Cumec	8.157 Cumec	0/27 Rising
3.U. Indravati 08:00Hr	625.0 m	<u>642 m</u> 643 m	629.95 m.	<u>33077.0 Ham</u> 148550.0 Ham (22.3%)	21.1%	13.81 Cumec	61.26 Cumec	0/12 Falling
4.UpperKolab 08:00Hr	844.0 m	858 m	849.61 m.	<u>257.65 Mcum</u> 935.0 Mcum (27.6%)	6.0%	22.06 Cumec	22.05 Cumec	0/11 Rising
5.Balimela 08:00Hr	1440.0 ft	<u>1516 ft</u> 1518 ft	1454.70 ft	<u>32925.0 Ham</u> 267600.0 Ham (12.3%)	3.3%	2578.0 Cusec	3538.24 Cusec	0/12 Falling
6.Machhkund (Jalaput) 08:00Hr	2685.0 ft	2750.0 ft	2699.7 ft	<u>8917.0 Ham</u> 89254.7 Ham (10.0%)	1.8%	1457.0 Cusec	2510.0 Cusec	2/12 Falling
7.Salandi 08:00Hr	50.24 m	<u>82.3 m</u> 83.21m	71.97m.	<u>25972.0 Ham</u> 55650.0 Ham (46.7%)	59.2%	15.31 Cumec	3.16 Cumec	0/11 Rising
8.LowerIndra 08:00Hr	251.0 m	<u>265 m</u> 265 m	260.52 m.	<u>17000.30 Ham</u> 31425.2Ham (54.1%)	34.8%	2.97 Cumec	2.97 Cumec	0/9 Constant

Note: Total Outflow consists of Irrigation, Spillway, Sluice, Power generation, Industrial & other supply and Evaporation loss *U Indravati-7 gates, Muran Dam-5 gates (Total-12 Nos)

Average Inflow into & Outflow from Reservoir

Reservoir	Inflow	Outflow	Observation Period
Hirakud	89108.0 Cusec	30036.0 Cusec	During last 24 Hrs ending 08:00Hrs of 01.07.2023
Rengali	226.39 Cumec	431.52 Cumec	During last 24 Hrs ending 06:00Hrs of 01.07.2023

Travel Time of Flow in Mahanadi River

Hirakud Dam	115 km	Khairmal	106 km	Barmul	95 km	Mundali
	12-18 Hrs		12-16 Hrs		12-16 Hrs	

River Discharge

Name of the River	G&D Site	Time (Hrs)	Discharge (cusec)
Mahanadi (Up Stream Hirakud)	Saradihi	12:00	87400
	Kalma	12:00	83836
	Champa	12:00	B.G
	Tarapur	12:00	B.G
	Deogaon	12:00	3610
Mahanadi (Down Stream Hirakud)	Khairmal	12:00	39600
	Barmul	12:00	75000
	Mundali	12:00	67000
Tel	Patharla	12:00	15110
Baitarani	NH-5 Akhuapada	08:00	NR
Brahmani	Pankapal	08:00	17757
Subarnarekha	Rajghat	08:00	874

AVAILABLE LIVE STORAGE CAPACITY OF MAJOR & MEDIUM RESERVOIRS (01.07.2023)

No. of Gates Open:

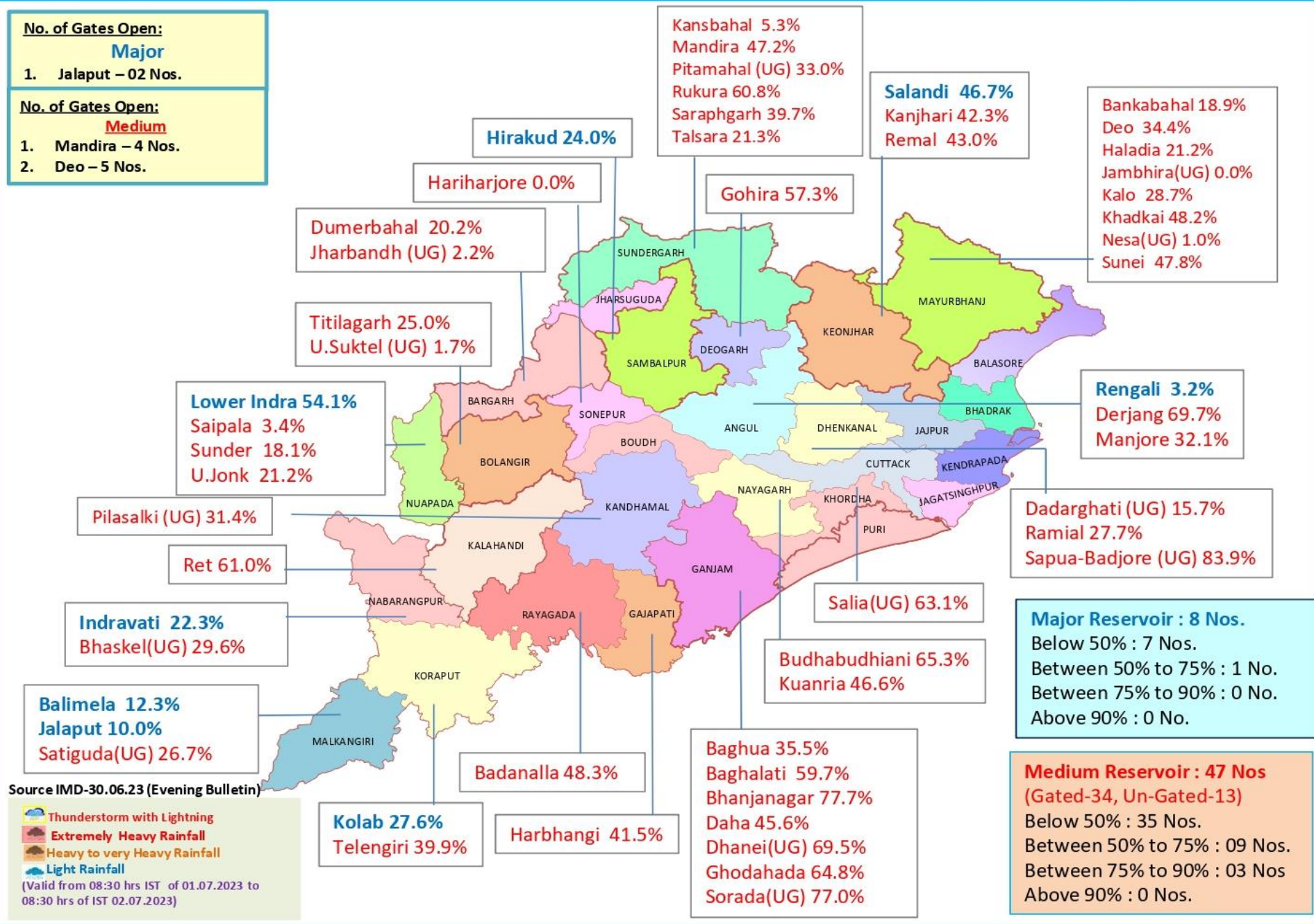
Major

1. Jalaput – 02 Nos.

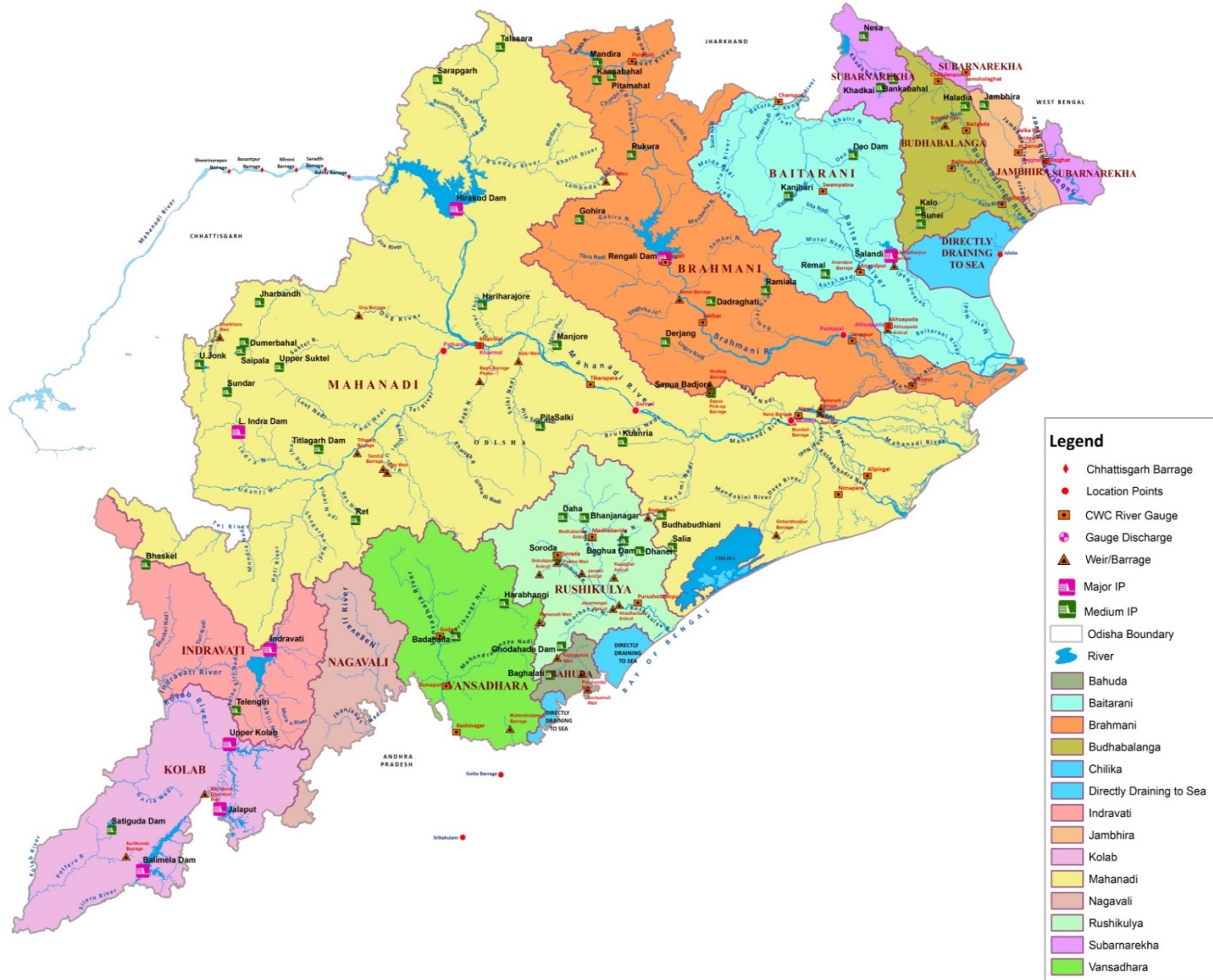
No. of Gates Open:

Medium

1. Mandira – 4 Nos.
2. Deo – 5 Nos.



MAJOR & MEDIUM RESERVOIRS , G & D SITES IN ODISHA



भारत सरकार
भारत मौसम विज्ञान विभाग
(पृथ्वी विज्ञान मंत्रालय)
पता : मौसम विज्ञान केन्द्र, भुवनेश्वर
फोन न. २५९६०१० &
२५९६११६
फैक्स न. २५९६०१० &
२५९६०९३



GOVERNMENT OF INDIA
INDIA METEOROLOGICAL DEPARTMENT
(Ministry of Earth Sciences)
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HYDROMET BULLETIN

1) Synoptic Situation

No Significant System lies over the region.

a) River Sub-basin-wise Quantitative Precipitation Forecast (QPF)

S. No.	Basin Name	Sub-basin Name	QPF (mm)				
			Day-1 (01.07.23)	Day-2 (02.07.23)	Day-3 (03.07.23)	Day-4 (04.07.23)	Day-5 (05.07.23)
1	BAITRANI	BT	0.1-10	11-25	11-25	0.1-10	0.1-10
2	LOWER BRAHMANI	LB	0.1-10	0.1-10	0.1-10	0.1-10	0.1-10
3	UPPER BRAHMANI	UB	0.1-10	0.1-10	0.1-10	0.1-10	0.1-10
4	BHURABALANG	BB	0.1-10	11-25	11-25	0.1-10	0.1-10
5	LOWER MAHANADI	LM	0.1-10	0.1-10	0.1-10	11-25	11-25
6	NAGAVALI	NV	0.1-10	0.1-10	11-25	26-37	11-25
7	RUSHIKULIYA	RK	0.1-10	0.1-10	11-25	11-25	0.1-10
8	SUBERNAREKHA	SR	0.1-10	0.1-10	0.1-10	0.1-10	0.1-10
9	UPPER MAHANADI	UM	0.1-10	0.1-10	0.1-10	0.1-10	0.1-10
10	VAMSDHARA	VD	0.1-10	0.1-10	11-25	26-37	11-25

PF categories (mm)	0	0.1-10	11-25	26-37	38-50	51-75	76-100	>100
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2b) River Sub-basin-wise Intensity and Distribution of QPF

S. No.	Basin Name	Sub-basin Name	Intensity (I) and Spatial Distribution (D)									
			Day-1 (01.07.2023)		Day-2 (02.07.2023)		Day-3 (03.07.2023)		Day-4 (04.07.2023)		Day-5 (05.07.2023)	
			I	D	I	D	I	D	I	D	I	D
1	BAITRANI	BT	L	ISOL	M	SCT	M	FWS	L	FWS	L	SCT
2	LOWER BRAHMANI	LB	L	ISOL	L	ISOL	L	SCT	L	SCT	L	SCT
3	UPPER BRAHMANI	UB	L	ISOL	L	ISOL	L	SCT	L	SCT	L	SCT
4	BHURABALANG	BB	L	ISOL	M	SCT	M	FWS	M	FWS	M	SCT
5	LOWER MAHANADI	LM	L	ISOL	L	ISOL	L	SCT	M	WS	M	FWS
6	NAGAVALI	NV	L	ISOL	L	ISOL	M	WS	M	WS	L	WS
7	RUSHIKULIYA	RK	L	ISOL	L	ISOL	M	WS	L	WS	L	WS
8	SUBERNAREKHA	SR	L	ISOL	L	ISOL	L	SCT	L	FWS	L	SCT
9	UPPER MAHANADI	UM	L	ISOL	L	ISOL	L	SCT	L	SCT	L	SCT
10	VAMSDHARA	VD	L	ISOL	L	ISOL	M	WS	M	WS	M	WS

Spatial Distribution		
DRY	Dry	No station reported rainfall
ISOL	One or two places	25% or less number of stations recorded rainfall 2.5 mm
SCT	At a few places	26%-50% number of stations recorded rainfall 2.5 mm
FWS	At many places	51%-75% number of stations recorded rainfall 2.5 mm
WS	At most places	76%-100% number of stations recorded rainfall 2.5 mm

Intensity					
M.Dry	NIL	0 cm	VL	Very Light Rainfall	Trace
L	Light Rainfall	Upto 1 cm	M	Moderate Rainfall	2-6 cm
H	Heavy Rainfall	7-11 cm	VH	Very Heavy rainfall	12-20 cm
EH	Extremely Heavy Rainfall	21 cm or more			
ExH	Exceptionally Heavy Rainfall	When the amount is a value near about the highest recorded rainfall at or near the station for the month or season. However, this term will be used only when the actual rainfall amount exceeds 12 cm.			

3) River Sub-basin-wise Heavy Rainfall Warning

S. No.	Basin Name	Sub-basin Name	Day-1 (01.07.2023)		Day-2 (02.07.2023)		Day-3 (03.07.2023)		Day-4 (04.07.2023)		Day-5 (05.07.2023)	
			I	D	I	D	I	D	I	D	I	D
1	BAITRANI	BT	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
2	LOWER BRAHMANI	LB	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
3	UPPER BRAHMANI	UB	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
4	BHURABALANG	BB	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
5	LOWER MAHANADI	LM	NIL	NIL	NIL	NIL	NIL	NIL	H	ISOL	H	ISOL
6	NAGAVALI	NV	NIL	NIL	NIL	NIL	H	ISOL	H	ISOL	H	ISOL
7	RUSHIKULIYA	RK	NIL	NIL	NIL	NIL	H	ISOL	H	ISOL	NIL	NIL
8	SUBERNAREKHA	SR	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
9	UPPER MAHANADI	UM	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	H	ISOL
10	VAMSDHARA	VD	NIL	NIL	NIL	NIL	H	ISOL	H	ISOL	NIL	NIL

Spatial Distribution		
DRY	Dry	No station reported rainfall
ISOL	One or two places	25% or less number of stations recorded rainfall 2.5 mm
SCF	At a few places	26%-50% number of stations recorded rainfall 2.5 mm
FWS	At many places	51%-75% number of stations recorded rainfall 2.5 mm
WS	At most places	76%-100% number of stations recorded rainfall 2.5 mm

Intensity				
M.Dry	NIL	0 cm	VL	Very Light Rainfall
L	Light Rainfall	Upto 1 cm	M	Moderate Rainfall
H	Heavy Rainfall	7-11 cm	VH	Very Heavy rainfall
EH	Extremely Heavy Rainfall	21 cm or more		
ExH	Exceptionally Heavy Rainfall	When the amount is a value near about the highest recorded rainfall at or near the station for the month or season. However, this term will be used only when the actual rainfall amount exceeds 12 cm.		

4) River Sub-basin-wise Probabilistic QPF

Basin Name	Su b- bas in Na me	QPF Probability (%)																														
		Day-1 (01.07.2023) (QPF categories)					Day-2 (02.07.2023) (QPF categories)					Day-3 (03.07.2023) (QPF categories)					Day-4 (04.07.2023) (QPF categories)					Day-5 (05.07.2023) (QPF categories)										
		0	0.1-10	11-25	26-50	51-100	>100	0	0.1-10	11-25	26-50	51-100	>100	0	0.1-10	11-25	26-50	51-100	>100	0	0.1-10	11-25	26-50	51-100	>100	0	0.1-10	11-25	26-50	51-100	>100	
BAITRANI	BT																															
LOWER BRAHMANI	LB																															
UPPER BRAHMANI	UB																															
BHURABALA NG	BB																															
LOWER MAHANADI	LM																															
NAGAVALI	NV																															
RUSHIKULIY A	RK																															
SUBERNARE KHA	SR																															
UPPER MAHANADI	UM																															
VAMSDHAR A	VD																															

Probability of occurrence (%)	0-5	5-25	25-50	50-75	75-100
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Probability of occurrence (%)	0-5	5-25	25-50	50-75	75-100
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Outlook for subsequent two days

S No	Basin Name	Sub-basin Name	OUTLOOK	
			Day-6 (06.07.2023)	Day-7 (07.07.2023)
1	BAITRANI	BT	SLIGHT DECREASE IN RAINFALL	SLIGHT DECREASE IN RAINFALL
2	LOWER BRAHMANI	LB	SLIGHT DECREASE IN RAINFALL	SLIGHT DECREASE IN RAINFALL
3	UPPER BRAHMANI	UB	SLIGHT DECREASE IN RAINFALL	SLIGHT DECREASE IN RAINFALL
4	BHURABALANG	BB	SLIGHT DECREASE IN RAINFALL	SLIGHT DECREASE IN RAINFALL
5	LOWER MAHANADI	LM	SLIGHT DECREASE IN RAINFALL	SLIGHT DECREASE IN RAINFALL
6	NAGAVALI	NV	SLIGHT DECREASE IN RAINFALL	SLIGHT DECREASE IN RAINFALL
7	RUSHIKULIYA	RK	SLIGHT DECREASE IN RAINFALL	SLIGHT DECREASE IN RAINFALL
8	SUBERNAREKHA	SR	SLIGHT DECREASE IN RAINFALL	SLIGHT DECREASE IN RAINFALL
9	UPPER MAHANADI	UM	SLIGHT DECREASE IN RAINFALL	SLIGHT DECREASE IN RAINFALL
10	VAMSDHARA	VD	SLIGHT DECREASE IN RAINFALL	SLIGHT DECREASE IN RAINFALL

5) Station-wise significant rainfall recorded at 0830 hrs IST of today

S. NO.	NAME OF SUB-BASIN	NAME OF STATION AND RAINFALL (≥5 CM.)
1	LOWER MAHANADI	NARASINGHPUR(130),KHANDAPADA*(92),KHANDAPADA(89.8),GANIA(81)
2	BAITRANI	BONTH(74)

7) River Sub-basin-wise observed Average Areal Precipitation (AAP) of today

S. No.	Basin Name	Sub-basin Name	AAP (mm)
1	BAITRANI	BT	2.9
2	LOWER BRAHMANI	LB	4.5
3	UPPER BRAHMANI	UB	1.8
4	BHURABALANG	BB	2.6
5	LOWER MAHANADI	LM	3.2
6	NAGAVALI	NV	0.4
7	RUSHIKULIYA	RK	4.1
8	SUBERNAREKHA	SR	2.0
9	UPPER MAHANADI	UM	0.7
10	VAMSDHARA	NV	0.6

(C.Behera, Met-B)
for Scientist-F & Head
FLOOD MET.OFFICE
M.C Bhubaneswar

Source:-Met Centre Bhubaneswar

Date:-01.07.2023

Sl No	Name of Stations	Rainfall (in mm)
UPPER BRAHMANI		
1	MANORA	3.5
2	LAHUNIPARA	0.0
3	PALLAHARA	0.0
4	PANPOSH	0.0
5	RAJGANGA PUR	0.0
6	BARKOTE	0.0
7	BONAI	0.0
8	DEOGARH	0.0
9	MANDIRADAM	0.0
10	TENSA	0.0
11	LATHIKATA	1.0
12	JODA	0.0
13	GURUNDIA	0.0
14	PALKOT	0.0
15	RAIDIH	0.0
16	KURU	0.0
17	LOHARDAGA	0.0
18	MANDAR	0.0
19	KOLEBIRA	8.0
20	KURDEG	0.0
21	SIMDEGA	7.6
22	JASHPURNAGAR	16.4
23	RAURKELA(Airport)	0.0
	AVG	1.6
LOWER BRAHMANI		
1	REAMAL	0.0
2	RENGALI	0.0
3	ALTUMA	29.2
4	ANGUL (IMD)	0.0
5	BATAGAON	0.0
6	CHHENDIPADA	0.0
7	DHENKANAL	9.0
8	DHENKANAL (PTO)	9.0
9	HINDOL	6.0
10	JENAPUR	0.0
11	KAMAKHYA NGR	24.6
12	NAKTIDEUL	0.0
13	SUKINDA	0.0
14	TALCHER	0.0
15	TELKOI	0.0
16	KANKADAHAD	0.0
17	JAJPUR	1.0
18	JAJPUR (PTO)	2.2
19	RAJ KANIKA	0.0
20	AUL	0.0
21	RAJNAGAR	0.0
22	BANARPAL	0.0
23	KANIHA	0.0
24	PARJANG	0.0
25	GONDIA	0.0
26	BHUBAN	38.0
27	DANAGADI	0.0
28	KOREI	0.0
29	CHANDIKHOL	4.2
30	BARI	0.0
31	BINJHARPUR	2.0
	AVG	4.0

Source:-Met Centre Bhubaneswar

[illegible]

Sl No	Name of Stations	Rainfall (in mm)
RUSHIKULYA		
1	BUGUDA	0.0
2	ASKA	0.0
3	BERHAMPUR	0.0
4	BHANJANAGAR	0.0
5	CHHATRAPUR	0.0
6	DARINGIBADI	0.0
7	GOPALPUR (IMD)	0.0
8	MADHABARIDA	0.0
9	PUSOTTAMPUR	0.0
10	DIGAPAHANDI	0.0
11	JAGANNATHPRASAD	0.0
12	SORADA	0.0
13	POLASARA	0.0
14	KODALA	0.0
15	RANGEILUNDA	0.0
16	KUKUDAHANDI	0.0
17	PATRAPUR	0.0
18	SANKHEIMUNDI	0.0
19	DHARAKOTE	0.0
20	SHERAGADA	0.0
21	GANJAM	0.0
22	BELAGUNTHA	0.0
23	HINJILI	0.0
	AVG	0.0
VANSADHARA		
1	AMBADOLA	0.0
2	BISSAM CUTTACK	0.0
3	GOTTA BARRAGE	0.0
4	GUDARI	0.0
5	GUNUPUR	0.0
6	KALINGA-NAM (IMD)	0.0
7	KASHINAGAR	0.0
8	KOTAGARH	0.0
9	KOTRAGUDA	0.0
10	MAHENDRAGARH	0.0
11	MOHANA	0.0
12	PARAKHEMUNDI	0.0
13	R.GUDA	0.0
14	NUAGADA	0.0
15	MUNIGUDA	0.0
16	R.UDAYAGIRI	0.0
17	LANJIGARH	0.0
18	NELIAPUTY	0.0
19	SIRJHOLY	0.0
20	GUMMA	0.0
21	GOSANI	0.0
22	CHADRAPUR	0.0
23	Balajipeta	0.0
	AVG	0.0

Sl No	Name of Stations	Rainfall (in mm)
SUBERNAREKHA		
1	SARASAKANA	6.0
2	BHOGARAI	24.0
3	FEKOGHAT	16.2
4	GHATSILA	0.0
5	JALESWAR	0.0
6	JAMSEDPUR (IMD)	0.0
7	JAMSEDPUR (CWC)	0.0
8	JAMSOLAGHAT	2.0
9	RAIRANG PUR	0.0
10	RAJGHAT	0.0
11	RANCHI	2.2
12	TIRING	3.0
13	BIJATALA	0.0
14	KUSUMI	0.0
15	JAMDA	0.0
16	ARKI	0.0
17	ICAR NAMKUM	0.7
18	ORMANJIHI	0.0
19	CHANDIL	0.0
20	KHARSEMA	0.0
21	NIMDIH	0.0
22	CHAIBASA	0.0
23	CHAKRADHARPUR	0.0
24	BAHALDA	0.0
	AVG	2.3
BUDHABALANGA		
1	BALASORE (IMD)	2.2
2	BALASORE (CWC)	0.0
3	BALIMUNDALI	0.0
4	BANGIRIPOSHI	0.0
5	BARIPADA (IMD)	0.0
6	BARIPADA (CWC)	0.0
7	CHANDANPUR	0.0
8	JAIPUR	0.0
9	NAWANA	0.0
10	NH-5, GOVINDPUR	0.0
11	NILGIRI	0.0
12	SORO	2.0
13	BETANATI	0.0
14	UDALA	0.0
15	BAHANAGA	0.0
16	KHAIRA	14.0
17	MURUDA	0.0
18	SULIAPADA	4.0
19	G.B.NAGAR	3.0
20	REMUNA	0.0
21	SAMAKHUNTA	0.0
22	BASUDEVPUR	0.0
23	CHANDUA(KULIANA)	0.0
24	RASAGOVINDAPUR	0.0
25	OUPADA	28.0
	AVG	2.1