

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 25.04.2019)

1. ALL INDIA STATUS

Central Water Commission is monitoring live storage status of 91 reservoirs of the country on weekly basis and is issuing weekly bulletin on every Thursday. Out of these reservoirs, 37 reservoirs have hydropower benefit with installed capacity of more than 60 MW. The total live storage capacity of these 91 reservoirs is 161.993 BCM which is about 63% of the live storage capacity of 257.812 BCM which is estimated to have been created in the country. As per reservoir storage bulletin dated **25.04.2019**, live storage available in these reservoirs is **42.526 BCM**, which is **26%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **37.314 BCM** and the average of last 10 years live storage was **41.074 BCM**. Thus, the live storage available in 91 reservoirs **as per 25.04.2019 Bulletin** is **114%** of the live storage of corresponding period of last year and **104%** of storage of average of last ten years.

The overall storage position is **more than the** corresponding period of last year in the country as a whole and is also **more than the** average storage of last ten years during the corresponding period.

2. REGION WISE STORAGE STATUS:

a) NORTHERN REGION

The northern region includes States of Himachal Pradesh, Punjab and Rajasthan. There are 6 reservoirs under CWC monitoring having total live storage capacity of 18.01 BCM. As per Reservoir Storage Bulletin dated **25.04.2019**, the total live storage available in these reservoirs is **9.17 BCM** which is **51%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **20%** and average storage of last ten years during corresponding period was **27%** of live storage capacity of these reservoirs. Thus, storage during current year is better than the corresponding period of last year and is also better than the average storage of last ten years during the corresponding period.

b) EASTERN REGION

The Eastern region includes States of Jharkhand, Odisha, West Bengal and Tripura. There are 15 reservoirs under CWC monitoring having total live storage capacity of 18.83 BCM. As per Reservoir Storage Bulletin dated **25.04.2019**, the total live storage available in these reservoirs is **6.56 BCM** which is **35%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **36%** and average storage of last ten years during corresponding period was **33%** of live storage capacity of these reservoirs. Thus, storage during current year is less than the corresponding period of last year but is better than the average storage of last ten years during the corresponding period.

c) WESTERN REGION

The Western region includes States of Gujarat and Maharashtra. There are 27 reservoirs under CWC monitoring having total live storage capacity of 31.26 BCM. As per Reservoir Storage Bulletin dated **25.04.2019**, the total live storage available in these reservoirs is **5.67 BCM** which is **18%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **24%** and average storage of last ten years during corresponding period was **28%** of live storage capacity of these reservoirs. Thus, storage during current year is less than the storage of last year and is also less than the average storage of last ten years during the corresponding period.

d) CENTRAL REGION

The Central region includes States of Uttar Pradesh, Uttarakhand, Madhya Pradesh and Chhattisgarh. There are 12 reservoirs under CWC monitoring having total live storage capacity of 42.30 BCM. As per Reservoir Storage Bulletin dated **25.04.2019**, the total live storage available in these reservoirs is **12.51 BCM** which is **30%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **28%** and average storage of last ten years during corresponding period was **28%** of live storage capacity of these reservoirs. Thus, storage during current year is better than the storage of last year and is also better than the average storage of last ten years during the corresponding period.

e) SOUTHERN REGION

The Southern region includes States of Andhra Pradesh, Telangana, AP&TG (2combined projects in both states), Karnataka, Kerala and Tamil Nadu. There are 31 reservoirs under CWC monitoring having total live storage capacity of 51.59 BCM. As per Reservoir Storage Bulletin dated **25.04.2019**, the total live storage available in these reservoirs is **8.63 BCM** which is **17%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **15%** and average storage of last ten years during corresponding period was **18%** of live storage capacity of these reservoirs. Thus, storage during current year is better than the corresponding period of last year but is less than the average storage of last ten years during the corresponding period.

The region wise and reservoir wise details are given in the following pages of the Bulletin.

BROAD ANALYSIS OF OTHER TABLES IN THE BULLETIN

- Normal storage means average storage of last ten years, Close to normal storage means where shortfall is upto 20% of normal, deficient storage is where shortfall is more than 20% of the normal and upto 60% of the normal, highly deficient means where shortfall is more than 60% of normal.
- In the table on page 5, better than normal storage is available in Indus, Narmada and West Flowing Rivers of South Close to Normal in Ganga, Mahi, and Mahanadi & Neighbouring East Flowing Rivers. Deficient in Tapi, Sabarmati, Godavari, Krishna , Rivers of Kutch and Cauvery & neighbouring EFRs and Nil in Highly Deficient.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storage more than last year are **32** and reservoirs having storage more than average of last ten years are **36**. The numbers of reservoirs having storage less than 20% with respect to last year is **6** and having storage less than 20% with reference to average of last ten years is **12**. The number of reservoirs having storage less than or equal to 50% with respect to last year are **19** and having storage less than or equal to 50% with reference to average of last ten years are **21**.

Disclaimer: The Data contained in this Bulletin is as received from the State Government/Project Authorities.

STORAGE STATUS OF IMPORTANT RESERVOIRS IN THE COUNTRY

AS ON 25.04.2019

- Central Water Commission is monitoring storage status of 91 important reservoirs spread all over the country, in which 37 reservoirs have hydropower benefit each with installed capacity of more than 60 MW. These reservoirs are identified thus(*) in the enclosed weekly report.
- The total live storage in 91 important reservoirs in different parts of the country, monitored by CWC as on **25.04.2019** is **42.526** BCM (**26** percent of the live storage capacity at FRL).The current year's storage is nearly **114** percent of last year's storage and **104** percent of the average of last ten years.

3 Region wise storage status:-

REGION (States), (Monitoring No. of Reservoirs)	Filling position of 91 reservoirs w.r.t. FRL								Departure from Normal storage	
	100%	91%-99%	81%-90%	71%-80%	61%-70%	51%-60%	41%-50%	40% & below		
NORTH (HP, Punjab & Rajasthan), (6 Resv.)	-	-	-	1	-	1	1	3	H.P.	106 %
									PUNJAB	116 %
									RAJASTHAN	6 %
EAST (Jharkhand, Odisha, Tripura & W. Bengal (15 Resv.)	-	-	-	-	-	2	2	11	JHARKHAND	-8 %
									ODISHA	6 %
									W. BENGAL	36 %
									TRIPURA	98 %
WEST (Guj.& Mah.), (27 Resv.)	-	-	-	-	-	-	4	23	GUJARAT	-29 %
									MAH.	-40 %
CENTRAL (MP, UP, Uttarakhand & Chh.), (12 Resv)	-	-	-	-	1	1	2	8	U.P.	-37 %
									UTTARAKHAND	3 %
									M.P.	15 %
									CHHATISGARH	-4 %
SOUTH (Karnataka, TN, AP&TG, AP, TG, & Kerala), (31 Resv.)	-	-	1	-	-	-	1	29	AP&TG	-47 %
									A,P	-84 %
									TG	-28 %
									KARNATAKA	19 %
									KERALA	11 %
									T.N.	-19 %
Status of 91 reservoirs	0	0	1	1	1	4	10	74		

4 Basin wise storage position:

Better than normal: Indus, Narmada, and West Flowing Rivers of South.

Close to normal: Ganga, Mahi and Mahanadi & Neighbouring East Flowing Rivers .

Deficient: Tapi, Sabarmati, Godavari, Krishna, Rivers of Kutch and Cauvery & neighbouring EFRs .

Highly deficient:

- 5 Out of 91 reservoirs, **52** reservoirs reported more than 80% of normal storage & **39** reservoirs reported 80% or below of normal storage. Out of these **39** reservoirs **21** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
YELDARI	0	UKAI	39
BHIMA(UJJANI)	0	DHOM	40
JAYAKWADI(PAITHON)	0	DAMANAGANGA	40
SHOLAYAR	0	MATATILA	45
GANDHI SAGAR	2		
BARNA	5		
PENCH (TOTALADOH)	7		
NAGARJUNA SAGAR	9		
UPPER TAPI	12		
VANIVILAS SAGAR	14		
ALIYAR	15		
SOMASILA	16		
MULA	26		
BHADAR	30		
BHANDARDARA	33		
TAWA	35		
TILAIYA	35		

18 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
4	8	6

- 6 Out of 37 reservoirs with significant(*) hydropower generation, the storage build up is less than or equal to normal in

19 reservoirs.

NOTE : **Normal:** Average of previous ten years, **Close to normal:** Where shortfall is up to 20% of the normal, **Deficient:** Where shortfall is more than 20% of the normal and up to 60% of the normal, **Highly deficient :** Where shortfall is more than 60% of the normal

WEEKLY REPORT - BASINWISE

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 25.04.2019

NAME OF BASIN	LIVE CAP. AT FRL	THIS YEAR'S STORAGE		LAST YEAR'S STORAGE		LAST 10 YEARS' AVG. STORAGE		% DEPARTURE W.R.T. AVE. OF 10 YEARS'
GANGA	28.096	7.212	25.67%	7.508	26.72%	7.767	27.64%	-7.15
INDUS	14.730	8.288	56.27%	2.397	16.27%	3.987	27.07%	107.88
NARMADA	21.608	6.251	28.93%	4.592	21.25%	4.689	21.70%	33.31
TAPI	7.394	0.993	13.43%	1.514	20.48%	2.433	32.91%	-59.19
MAHI	4.012	1.394	34.75%	1.587	39.56%	1.511	37.66%	-7.74
SABARMATI	0.735	0.088	11.97%	0.126	17.14%	0.140	19.05%	-37.14
RIVERS OF KUTCH	0.887	0.066	7.44%	0.190	21.42%	0.108	12.18%	-38.89
GODAVARI	15.394	2.983	19.38%	3.387	22.00%	3.813	24.77%	-21.77
KRISHNA	32.831	3.962	12.07%	4.297	13.09%	5.005	15.24%	-20.84
MAHANADI & NEIGHBOURING EFRS	13.181	5.005	37.97%	5.878	44.59%	5.195	39.41%	-3.66
CAUVERY & NEIGHBOURING EFRS	8.359	1.494	17.87%	1.153	13.79%	2.065	24.70%	-27.65
WEST FLOWING RIVERS OF SOUTH	14.766	4.790	32.44%	4.685	31.73%	4.361	29.53%	9.84
TOTAL	161.993	42.526		37.314		41.074		
PERCENTAGE								3.54

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 25.04.2019

S. NO	NAME OF RESERVOIR	FRL (m)	CURRENT RESERVOIR LEVEL (m)	LIVE CAPACITY AT FRL (BCM)	CURRENT LIVE STORAGE (BCM)	DATE	STORAGE AS % OF LIVE CAPACITY AT FRL			BENEFITS	
							CURRENT YEAR	LAST YEAR	LAST 10 YEARS AVERAGE	IRR. (CCA) IN TH. HA	HYDEL IN MW
1	2	4	6	5	7	8	9	10	11	3A	3B
NORTHERN REGION											
<u>HIMACHAL PRADESH</u>											
*1	GOBIND SAGAR(BHAKRA)	512.06	495.03	6.229	3.504	25-04-2019	56	18	25	676	1200
*2	PONG DAM	423.67	409.37	6.157	2.904	25-04-2019	47	13	25	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	521.67	2.344	1.880	25-04-2019	80	22	37	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	268.30	1.711	0.469	25-04-2019	27	34	25	63	140
5	JHAKAM	359.50	345.50	0.132	0.032	25-04-2019	24	30	20	28	-
*6	RANA PRATAP SAGAR	352.81	346.59	1.436	0.379	25-04-2019	26	36	26	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	257.56	0.821	0.328	25-04-2019	40	42	35	-	-
8	MAITHON	146.3	138.20	0.471	0.102	25-04-2019	22	63	39	342	-
*9	PANCHET HILL	124.97	123.15	0.184	0.103	25-04-2019	56	27	43	\$	80
10	KONAR	425.81	418.49	0.176	0.063	25-04-2019	36	26	44	\$	-
11	TILAIYA	368.81	363.95	0.142	0.009	25-04-2019	6	11	18	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	186.74	5.378	1.992	25-04-2019	37	36	33	153	307
*13	BALIMELA	462.08	451.41	2.676	1.106	24-04-2019	41	12	28	-	360
14	SALANADI	82.30	73.40	0.558	0.295	25-04-2019	53	41	24	42	-
*15	RENGALI	123.50	114.48	3.432	0.855	24-04-2019	25	51	40	3	200
*16	MACHKUND(JALPUT)	838.16	831.01	0.893	0.393	24-04-2019	44	46	41	-	115
*17	UPPER KOLAB	858.00	850.08	0.935	0.284	24-04-2019	30	29	33	89	320
*18	UPPER INDRAVATI	642.00	632.32	1.456	0.525	24-04-2019	36	32	33	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	110.14	0.480	0.082	25-04-2019	17	36	21	227	-
20	KANGSABATI	134.14	126.07	0.914	0.324	25-04-2019	35	46	21	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	88.30	0.312	0.101	24-04-2019	32	53	16	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	88.99	6.615	0.884	25-04-2019	13	21	34	348	300
23	SABARMATI(DHAROI)	189.59	179.80	0.735	0.088	25-04-2019	12	17	19	95	1
*24	KADANA	127.7	121.08	1.472	0.608	25-04-2019	41	46	52	200	120
25	SHETRUNJI	55.53	48.72	0.300	0.031	25-04-2019	10	16	16	36	-
26	BHADAR	107.89	100.37	0.188	0.011	24-04-2019	6	21	20	27	-
27	DAMANAGANGA	79.86	67.50	0.502	0.075	25-04-2019	15	38	37	51	1
28	DANTIWADA	184.1	167.41	0.399	0.024	25-04-2019	6	26	6	45	-
29	PANAM	127.41	122.65	0.697	0.285	25-04-2019	41	41	40	36	2
*30	SARDAR SAROVAR	138.68	119.21	5.760	1.105	25-04-2019	19	0	13	2120	1450
31	KARJAN	115.25	102.78	0.523	0.225	25-04-2019	43	51	46	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 25.04.2019

S. NO	NAME OF RESERVOIR	FRL (m)	CURRENT RESERVOIR LEVEL (m)	LIVE CAPACITY AT FRL (BCM)	CURRENT LIVE STORAGE (BCM)	DATE	STORAGE AS % OF LIVE CAPACITY AT FRL			BENEFITS	
							CURRENT YEAR	LAST YEAR	LAST 10 YEARS AVERAGE	IRR. (CCA) IN TH. HA	HYDEL IN MW
1	2	4	6	5	7	8	9	10	11	3A	3B
MAHARASHTRA											
32	JAYAKWADI(PAITHON)	463.91	455.06	2.171	0.000	25-04-2019	0	43	17	227	-
*33	KOYANA	657.90	640.84	2.652	1.154	25-04-2019	44	51	41	-	1920
34	BHIMA(UJJANI)	496.83	488.17	1.517	0.000	25-04-2019	0	21	15	125	12
35	ISAPUR	441.00	429.44	0.965	0.151	25-04-2019	16	0	24	104	-
36	MULA	552.30	536.28	0.609	0.042	25-04-2019	7	33	27	139	-
37	YELDARI	461.77	445.89	0.809	0.000	25-04-2019	0	0	13	78	-
38	GIRNA	398.07	386.47	0.524	0.097	25-04-2019	19	17	16	79	-
39	KHADAKVASLA	582.47	579.67	0.056	0.022	25-04-2019	39	84	52	78	8
*40	UPPER VAITARNA	603.50	596.07	0.331	0.118	25-04-2019	36	30	43	-	61
41	UPPER TAPI	214.00	208.19	0.255	0.012	25-04-2019	5	24	40	45	-
*42	PENCH (TOTALADOH)	490.00	465.44	1.091	0.018	25-04-2019	2	11	25	127	160
43	UPPER WARDHA	342.50	335.39	0.564	0.104	25-04-2019	18	40	35	70	-
44	BHATSA	142.07	114.77	0.942	0.362	25-04-2019	38	45	44	29.378	15
45	DHOM	747.70	730.32	0.331	0.041	25-04-2019	12	31	31	36.2	2
46	DUDHGANGA	646.00	625.38	0.664	0.156	25-04-2019	23	39	35	2.441	24
47	MANIKDOH (KUKADI)	711.25	686.85	0.288	0.015	25-04-2019	5	21	8	2.2	6
48	BHANDARDARA	744.91	715.39	0.304	0.037	25-04-2019	12	46	37	63.74	46
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	302.70	0.707	0.143	24-04-2019	20	25	45	-	30
*50	RIHAND	268.22	255.85	5.649	0.803	25-04-2019	14	18	21	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	344.44	2.196	0.900	24-04-2019	41	23	44	1897	198
*52	TEHRI	830.00	763.68	2.615	0.483	25-04-2019	18	9	15	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	381.22	6.827	0.030	24-04-2019	0	18	23	220	115
54	TAWA	355.40	337.66	1.944	0.148	25-04-2019	8	9	22	247	-
*55	BARGI	422.76	414.85	3.180	1.326	25-04-2019	42	57	34	157	90
*56	BANSAGAR	341.64	337.43	5.166	3.362	24-04-2019	65	46	38	488	425
*57	INDIRA SAGAR	262.13	253.46	9.745	3.443	24-04-2019	35	23	22	2380	1000
58	BARNA	348.55	338.19	0.456	0.004	24-04-2019	1	8	19	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	351.55	3.046	1.647	25-04-2019	54	55	54	-	120
60	MAHANADI	348.70	341.30	0.767	0.216	24-04-2019	28	38	36	319	10
SOUTHERN REGION											
A.P & TG											
*61	SRISAILAM	269.75	246.46	8.288	0.851	25-04-2019	10	9	11	0	770
*62	NAGARJUNA SAGAR	179.83	155.94	6.841	0.077	25-04-2019	1	2	13	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	79.22	1.994	0.117	25-04-2019	6	19	36	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	320.53	2.300	0.200	25-04-2019	9	9	13	411	27
65	LOWER MANAIR	280.42	269.75	0.621	0.123	25-04-2019	20	18	23	199	60

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							CURRENT YEAR	LAST YEAR	LAST 10 YEARS AVERAGE	IRR. (CCA) IN TH. HA	HYDEL IN MW
1	2	4	6	5	7	8	9	10	11	3A	3B
<u>KARNATAKA</u>											
66	KRISHNARAJA SAGRA	752.50	742.61	1.163	0.368	16-04-2019	32	10	20	79	-
*67	TUNGABHADRA	497.74	481.12	3.276	0.100	25-04-2019	3	3	5	529	72
68	GHATAPRABHA	662.95	638.78	1.391	0.178	25-04-2019	13	19	10	317	-
69	BHADRA	657.76	643.45	1.785	0.503	25-04-2019	28	15	32	106	39
70	LINGANAMAKKI	554.43	539.44	4.294	1.114	25-04-2019	26	21	24	-	55
71	NARAYANPUR	492.25	487.59	0.863	0.253	25-04-2019	29	26	29	425	-
72	MALAPRABHA(RENUKA)	633.83	621.53	0.972	0.056	25-04-2019	6	6	7	215	-
73	KABINI(Sancherla Tank)	696.16	689.42	0.444	0.119	24-04-2019	27	14	8	85	-
74	HEMAVATHY	890.63	873.48	0.927	0.110	24-04-2019	12	11	10	265	-
75	HARANGI	871.42	854.97	0.220	0.031	24-04-2019	14	17	14	53	-
76	SUPA	564.00	538.13	4.120	1.627	25-04-2019	39	37	30	-	-
77	VANIVILAS SAGAR	652.28	632.00	0.802	0.013	25-04-2019	2	1	12	123	-
*78	ALMATTI	519.60	510.30	3.105	0.543	25-04-2019	17	11	9	@	290
*79	GERUSOPPA	55.00	50.88	0.130	0.106	24-04-2019	82	82	88	83	240
<u>KERALA</u>											
80	KALLADA(PARAPPAR)	115.82	104.38	0.507	0.254	24-04-2019	50	71	37	62	-
*81	IDAMALAYAR	169.00	136.70	1.018	0.248	24-04-2019	24	27	27	33	75
*82	IDUKKI	732.43	713.03	1.460	0.539	24-04-2019	37	34	29	-	780
*83	KAKKI	981.46	957.47	0.447	0.162	24-04-2019	36	47	39	23	300
*84	PERIYAR	867.41	859.83	0.173	0.023	24-04-2019	13	13	17	84	140
85	MALAPMUZHA	115.06	101.83	0.224	0.026	25-04-2019	12	13	20	21	3
<u>TAMIL NADU</u>											
86	LOWER BHAWANI	278.89	264.70	0.792	0.150	24-04-2019	19	21	20	105	8
*87	METTUR(STANLEY)	240.79	220.63	2.647	0.575	24-04-2019	22	11	29	122	360
88	VAIGAI	279.20	269.29	0.172	0.024	24-04-2019	14	13	16	61	6
89	PARAMBIKULAM	556.26	543.18	0.380	0.130	24-04-2019	34	6	27	101	-
90	ALIYAR	320.04	302.74	0.095	0.006	24-04-2019	6	0	41	#	60
*91	SHOLAYAR	1002.79	957.43	0.143	0.000	24-04-2019	0	0	3	-	95
TOTAL FOR 91 RESERVOIRS				161.993	42.526						
PERCENTAGE							26	23	25		

Sd/-

Director

W. M. , CWC

* HYDEL POWER CAPACITY HAVING CAPACITY MORE THAN 60MW

\$ TOTAL CCA 342 TH. HA OF DVC SYSTEM

TOTAL CCA 101 TH. HA OF PARAMBIKULAM & ALIYAR

@* TOTAL CCA 425 TH. HA. OF NARAYANPUR AND ALMATTI

† SABARMATI RESERVOIR IS SUPPLEMENTED WITH NARMADA WATER THROUGH PIPELINE.