

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 30.05.2019)

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 **30.05.2019**, live storage available in these reservoirs is **31.65 BCM**, which is **20%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **27.776 BCM** and the average of last 10 years live storage was **30.774 BCM**. Thus, the live storage available in 91 reservoirs **as per 30.05.2019 Bulletin** is **114%** of the live storage of corresponding period of last year and **103%** 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 **30.05.2019**, the total live storage available in these reservoirs is **7.56 BCM** which is **42%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **14%** and average storage of last ten years during corresponding period was **25%** 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 **30.05.2019**, the total live storage available in these reservoirs is **4.02 BCM** which is **21%** 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 **19%** 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 **30.05.2019**, the total live storage available in these reservoirs is **3.53 BCM** which is **11%** 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 **19%** 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 **30.05.2019**, the total live storage available in these reservoirs is **10.62 BCM** which is **25%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **23%** and average storage of last ten years during corresponding period was **21%** 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 **30.05.2019**, the total live storage available in these reservoirs is **5.91 BCM** which is **11%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **12%** and average storage of last ten years during corresponding period was **15%** of live storage capacity of these reservoirs. Thus, storage during current year is less 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 4, better than normal storage is available in Ganga,Indus, and Narmada Close to Normal in Mahi, and Mahanadi & Neighbouring East Flowing Rivers and West Flowing Rivers of South. Deficient in Sabarmati, Rivers of Kutch, Godavari, Krishna and Cauvery & neighbouring EFRs and Highly Deficient in Tapi.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storage more than last year are **24** and reservoirs having storage more than average of last ten years are **28**. The numbers of reservoirs having storage less than 20% with respect to last year is **9** and having storage less than 20% with reference to average of last ten years is **17**. The number of reservoirs having storage less than or equal to 50% with respect to last year are **23** and having storage less than or equal to 50% with reference to average of last ten years are **27**.

STORAGE STATUS OF IMPORTANT RESERVOIRS IN THE COUNTRY

AS ON 30.05.2019

- 1 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.
- 2 The total live storage in 91 important reservoirs in different parts of the country, monitored by CWC as on **30.05.2019** is **31.650** BCM (**20** percent of the live storage capacity at FRL).The current year's storage is nearly **114** percent of last year's storage and **103** 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	4	H.P.	91 %
									PUNJAB	57 %
									RAJASTHAN	-7 %
EAST (Jharkhand, Odisha, Tripura & W. Bengal (15 Resv.))	-	-	-	-	-	1	-	14	JHARKHAND	-9 %
									ODISHA	13 %
									W. BENGAL	40 %
									TRIPURA	41 %
WEST (Guj. & Mah.), (27 Resv.)	-	-	-	-	-	-	1	26	GUJARAT	-27 %
									MAH.	-60 %
CENTRAL (MP, UP, Uttarakhand & Chh.), (12 Resv)	-	-	-	-	1	-	1	10	U.P.	-18 %
									UTTARAKHAND	46 %
									M.P.	28 %
									CHHATISGARH	-8 %
SOUTH (Karnataka, TN, AP&TG, AP, TG, & Kerala), (31 Resv.)	-	-	-	1	-	-	-	30	AP&TG	-50 %
									A,P	-84 %
									TG	-30 %
									KARNATAKA	4 %
									KERALA	-4 %
									T.N.	-36 %
Status of 91 reservoirs	0	0	0	1	2	1	3	84		

4 Basin wise storage position:

Better than normal: Ganga, Indus and Narmada.

Close to normal: Mahi and Mahanadi & Neighbouring East Flowing Rivers and West Flowing Rivers of South .

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

Highly deficient: Tapi

- 5 Out of 91 reservoirs, **41** reservoirs reported more than 80% of normal storage & **50** reservoirs reported 80% or below of normal storage. Out of these **50** reservoirs **27** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
YELDARI	0	TUNGABHADRA	26
BHIMA(UJJANI)	0	MATATILA	30
JAYAKWADI(PAITHON)	0	DUDHGANGA	33
SHOLAYAR	0	BHANDARDARA	33
UPPER TAPI	0	DAMANAGANGA	36
PENCH (TOTALADOH)	0	TAWA	37
NAGARJUNA SAGAR	0	MANIKDOH	38
GANDHI SAGAR	2	GHATAPRABHA	42
ALIYAR	3	UPPER WARDHA	48
BARNA	4	MULA	48
VANIVILAS SAGAR	11		
ISAPUR	16		
SOMASILA	16		
BHADAR	16		
UKAI	19		
TILAIYA	19		
DHOM	19		

23 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
6	4	13

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

23 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 :- 30.05.2019

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	6.478	23.06%	6.228	22.17%	6.223	22.15%	4.10
INDUS	14.730	6.778	46.01%	1.522	10.33%	3.722	25.27%	82.11
NARMADA	21.608	5.282	24.44%	3.743	17.32%	3.283	15.19%	60.89
TAPI	7.394	0.324	4.38%	0.856	11.58%	1.598	21.61%	-79.72
MAHI	4.012	1.247	31.08%	1.448	36.09%	1.384	34.50%	-9.90
SABARMATI	0.735	0.069	9.39%	0.104	14.15%	0.115	15.65%	-40.00
RIVERS OF KUTCH	0.887	0.047	5.30%	0.136	15.33%	0.064	7.22%	-26.56
GODAVARI	15.394	1.803	11.71%	2.155	14.00%	2.376	15.43%	-24.12
KRISHNA	32.831	2.189	6.67%	2.709	8.25%	3.778	11.51%	-42.06
MAHANADI & NEIGHBOURING EFRS	13.181	3.219	24.42%	4.098	31.09%	3.352	25.43%	-3.97
CAUVERY & NEIGHBOURING EFRS	8.359	1.115	13.34%	1.100	13.16%	1.743	20.85%	-36.03
WEST FLOWING RIVERS OF SOUTH	14.766	3.099	20.99%	3.677	24.90%	3.106	21.03%	-0.23
TOTAL	161.993	31.650		27.776		30.744		
PERCENTAGE								2.95

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 30.05.2019

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
<u>NORTHERN REGION</u>											
<u>HIMACHAL PRADESH</u>											
*1	GOBIND SAGAR(BHAKRA)	512.06	491.69	6.229	2.819	30-05-2019	45	6	23	676	1200
*2	PONG DAM	423.67	407.21	6.157	2.421	30-05-2019	39	9	21	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	516.93	2.344	1.538	30-05-2019	66	25	42	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	267.95	1.711	0.448	30-05-2019	26	32	24	63	140
5	JHAKAM	359.50	345.20	0.132	0.031	30-05-2019	23	29	18	28	-
*6	RANA PRATAP SAGAR	352.81	346.07	1.436	0.305	30-05-2019	21	32	29	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	256.76	0.821	0.303	30-05-2019	37	39	33	-	-
8	MAITHON	146.3	137.70	0.471	0.089	30-05-2019	19	27	25	342	-
*9	PANCHET HILL	124.97	121.82	0.184	0.057	30-05-2019	31	20	41	\$	80
10	KONAR	425.81	416.48	0.176	0.043	30-05-2019	24	20	34	\$	-
11	TILAIYA	368.81	363.64	0.142	0.004	30-05-2019	3	6	15	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	184.07	5.378	1.046	29-05-2019	19	25	20	153	307
*13	BALIMELA	462.08	447.23	2.676	0.666	30-05-2019	25	8	12	-	360
14	SALANADI	82.30	73.75	0.558	0.303	30-05-2019	54	42	27	42	-
*15	RENGALI	123.50	111.65	3.432	0.314	30-05-2019	9	22	13	3	200
*16	MACHKUND(JALPUT)	838.16	828.90	0.893	0.293	29-05-2019	33	24	29	-	115
*17	UPPER KOLAB	858.00	847.64	0.935	0.161	30-05-2019	17	18	18	89	320
*18	UPPER INDRAVATI	642.00	628.84	1.456	0.257	30-05-2019	18	18	20	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	109.85	0.480	0.077	30-05-2019	16	35	20	227	-
20	KANGSABATI	134.14	125.70	0.914	0.305	30-05-2019	33	46	19	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	88.40	0.312	0.104	29-05-2019	33	74	24	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	84.74	6.615	0.276	30-05-2019	4	12	23	348	300
23	SABARMATI(DHAROI)	189.59	179.16	0.735	0.069	30-05-2019	9	14	16	95	1
*24	KADANA	127.7	119.94	1.472	0.527	30-05-2019	36	42	47	200	120
25	SHETRUNJI	55.53	47.97	0.300	0.022	30-05-2019	7	14	10	36	-
26	BHADAR	107.89	99.16	0.188	0.004	30-05-2019	2	15	13	27	-
27	DAMANAGANGA	79.86	64.50	0.502	0.030	30-05-2019	6	22	17	51	1
28	DANTIWADA	184.1	166.91	0.399	0.021	30-05-2019	5	17	3	45	-
29	PANAM	127.41	121.65	0.697	0.241	30-05-2019	35	35	37	36	2
*30	SARDAR SAROVAR	138.68	120.08	5.760	1.232	30-05-2019	21	0	12	2120	1450
31	KARJAN	115.25	99.80	0.523	0.176	30-05-2019	34	38	34	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 30.05.2019

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	454.44	2.171	0.000	30-05-2019	0	27	10	227	-
*33	KOYANA	657.90	623.80	2.652	0.322	30-05-2019	12	27	23	-	1920
34	BHIMA(UJJANI)	496.83	485.77	1.517	0.000	30-05-2019	0	0	3	125	12
35	ISAPUR	441.00	426.69	0.965	0.027	30-05-2019	3	0	18	104	-
36	MULA	552.30	535.32	0.609	0.024	30-05-2019	4	8	8	139	-
37	YELDARI	461.77	445.54	0.809	0.000	30-05-2019	0	0	9	78	-
38	GIRNA	398.07	384.34	0.524	0.048	30-05-2019	9	15	11	79	-
39	KHADAKVASLA	582.47	579.82	0.056	0.023	30-05-2019	41	43	39	78	8
*40	UPPER VAITARNA	603.50	592.65	0.331	0.058	30-05-2019	18	27	31	-	61
41	UPPER TAPI	214.00	207.33	0.255	0.000	30-05-2019	0	2	18	45	-
*42	PENCH (TOTALADOH)	490.00	462.51	1.091	0.000	30-05-2019	0	8	19	127	160
43	UPPER WARDHA	342.50	334.87	0.564	0.083	30-05-2019	15	35	31	70	-
44	BHATSA	142.07	108.78	0.942	0.275	30-05-2019	29	36	34	29.378	15
45	DHOM	747.70	727.12	0.331	0.013	30-05-2019	4	17	21	36.2	2
46	DUDHGANGA	646.00	615.72	0.664	0.044	30-05-2019	7	23	20	2.441	24
47	MANIKDOH (KUKADI)	711.25	683.91	0.288	0.003	30-05-2019	1	5	3	2.2	6
48	BHANDARDARA	744.91	708.01	0.304	0.015	30-05-2019	5	27	15	63.74	46
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	301.02	0.707	0.059	29-05-2019	8	10	27	-	30
*50	RIHAND	268.22	255.64	5.649	0.740	30-05-2019	13	12	14	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	343.83	2.196	0.873	30-05-2019	40	11	25	1897	198
*52	TEHRI	830.00	744.22	2.615	0.070	30-05-2019	3	2	3	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	381.22	6.827	0.030	30-05-2019	0	17	22	220	115
54	TAWA	355.40	337.44	1.944	0.137	30-05-2019	7	9	19	247	-
*55	BARGI	422.76	413.50	3.180	1.124	30-05-2019	35	45	22	157	90
*56	BANSAGAR	341.64	337.59	5.166	3.419	30-05-2019	66	43	35	488	425
*57	INDIRA SAGAR	262.13	251.51	9.745	2.610	30-05-2019	27	20	13	2380	1000
58	BARNA	348.55	338.15	0.456	0.003	30-05-2019	1	5	15	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	349.71	3.046	1.415	30-05-2019	46	51	49	-	120
60	MAHANADI	348.70	339.74	0.767	0.141	29-05-2019	18	27	25	319	10
SOUTHERN REGION											
A.P & TG											
*61	SRISAILAM	269.75	246.07	8.288	0.830	30-05-2019	10	9	9	0	770
*62	NAGARJUNA SAGAR	179.83	155.23	6.841	0.000	30-05-2019	0	1	13	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	78.24	1.994	0.093	30-05-2019	5	17	29	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	319.89	2.300	0.165	30-05-2019	7	8	11	411	27
65	LOWER MANAIR	280.42	269.32	0.621	0.112	30-05-2019	18	17	22	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	739.19	1.163	0.195	30-05-2019	17	10	8	79	-
*67	TUNGABHADRA	497.74	480.28	3.276	0.073	30-05-2019	2	3	8	529	72
68	GHATAPRABHA	662.95	631.23	1.391	0.027	30-05-2019	2	9	5	317	-
69	BHADRA	657.76	639.20	1.785	0.269	30-05-2019	15	6	18	106	39
70	LINGANAMAKKI	554.43	534.30	4.294	0.590	30-05-2019	14	14	15	-	55
71	NARAYANPUR	492.25	487.17	0.863	0.220	30-05-2019	25	31	27	425	-
72	MALAPRABHA(RENUKA)	633.83	620.89	0.972	0.038	30-05-2019	4	5	5	215	-
73	KABINI(Sancherla Tank)	696.16	688.28	0.444	0.079	30-05-2019	18	16	9	85	-
74	HEMAVATHY	890.63	872.95	0.927	0.098	30-05-2019	11	11	8	265	-
75	HARANGI	871.42	855.21	0.220	0.032	30-05-2019	15	0	14	53	-
76	SUPA	564.00	532.86	4.120	1.270	30-05-2019	31	33	24	-	-
77	VANIVILAS SAGAR	652.28	631.71	0.802	0.010	30-05-2019	1	1	11	123	-
*78	ALMATTI	519.60	508.53	3.105	0.317	30-05-2019	10	9	6	@	290
*79	GERUSOPPA	55.00	50.13	0.130	0.103	30-05-2019	79	84	82	83	240
<u>KERALA</u>											
80	KALLADA(PARAPPAR)	115.82	100.47	0.507	0.198	30-05-2019	39	63	25	62	-
*81	IDAMALAYAR	169.00	126.82	1.018	0.107	30-05-2019	11	15	16	33	75
*82	IDUKKI	732.43	705.88	1.460	0.295	30-05-2019	20	25	20	-	780
*83	KAKKI	981.46	940.46	0.447	0.066	30-05-2019	15	28	21	23	300
*84	PERIYAR	867.41	859.71	0.173	0.021	30-05-2019	12	21	20	84	140
85	MALAPMUZHA	115.06	101.56	0.224	0.024	30-05-2019	11	15	18	21	3
<u>TAMIL NADU</u>											
86	LOWER BHAWANI	278.89	264.69	0.792	0.150	30-05-2019	19	19	18	105	8
*87	METTUR(STANLEY)	240.79	218.50	2.647	0.450	30-05-2019	17	11	29	122	360
88	VAIGAI	279.20	268.30	0.172	0.018	30-05-2019	10	12	14	61	6
89	PARAMBIKULAM	556.26	538.83	0.380	0.061	30-05-2019	16	7	24	101	-
90	ALIYAR	320.04	301.28	0.095	0.001	30-05-2019	1	0	38	#	60
*91	SHOLAYAR	1002.79	960.04	0.143	0.000	30-05-2019	0	0	6	-	95
TOTAL FOR 91 RESERVOIRS				161.993	31.650						
PERCENTAGE							20	17	19		

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.