

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 04.04.2019)

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 **04.04.2019**, live storage available in these reservoirs is **48.319 BCM**, which is **30%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **43.196 BCM** and the average of last 10 years live storage was **47.537 BCM**. Thus, the live storage available in 91 reservoirs **as per 04.04.2019 Bulletin** is **112%** of the live storage of corresponding period of last year and **102%** 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 **04.04.2019**, the total live storage available in these reservoirs is **8.59 BCM** which is **48%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **21%** and average storage of last ten years during corresponding period was **26%** 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 **04.04.2019**, the total live storage available in these reservoirs is **7.87 BCM** which is **42%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **44%** and average storage of last ten years during corresponding period was **40%** 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 **04.04.2019**, the total live storage available in these reservoirs is **6.83 BCM** which is **22%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **30%** 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 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 **04.04.2019**, the total live storage available in these reservoirs is **13.93 BCM** which is **33%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **30%** and average storage of last ten years during corresponding period was **32%** 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 **04.04.2019**, the total live storage available in these reservoirs is **11.10 BCM** which is **22%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **18%** and average storage of last ten years during corresponding period was **22%** of live storage capacity of these reservoirs. Thus, storage during current year is better than the corresponding period of last year and is equal to 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 Indus, Narmada and West Flowing Rivers of South Close to Normal in Ganga, Mahi, Godavari, Krishna, Mahanadi & Neighbouring East Flowing Rivers and Cauvery & neighbouring EFRs. Deficient in Tapi, Sabarmati and Rivers of Kutch and Nil in Highly Deficient.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storage more than last year are **33** and reservoirs having storage more than average of last ten years are **39**. 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 **9**. The number of reservoirs having storage less than or equal to 50% with respect to last year are **17** and having storage less than or equal to 50% with reference to average of last ten years are **20**.

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 04.04.2019

- 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 **04.04.2019** is **48.319** BCM (**30** percent of the live storage capacity at FRL).The current year's storage is nearly **112** percent of last year's storage and **102** percent of the average of last ten years.

3 Region wise storage status:-

REGION (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.	93 %
									PUNJAB	130 %
									RAJASTHAN	6 %
EAST (Jharkhand, Odisha, Tripura & W. Bengal (15 Resv.)	-	-	-	-	1	2	5	7	JHARKHAND	-15 %
									ODISHA	4 %
									W. BENGAL	19 %
									TRIPURA	122 %
WEST (Guj.& Mah.), (27 Resv.)	-	-	-	-	-	3	4	20	GUJARAT	-32 %
									MAH.	-35 %
CENTRAL (MP, UP, Uttarakhand & Chh.), (12 Resv)	-	-	-	-	1	1	3	7	U.P.	-33 %
									UTTARAKHAND	10 %
									M.P.	11 %
									CHHATISGARH	-3 %
SOUTH (Karnataka, TN, AP&TG, AP, TG, & Kerala), (31 Resv.)	-	-	-	1	-	1	4	25	AP&TG	-37 %
									A,P	-80 %
									TG	-25 %
									KARNATAKA	19 %
									KERALA	10 %
									T.N.	5 %
Status of 91 reservoirs	0	0	0	2	2	8	17	62		

4 Basin wise storage position:

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

Ganga, Mahi, Godavari, Krishna, Mahanadi & Neighbouring East Flowing Rivers and Cauvery & neighbouring EFRs.

Close to normal:

Deficient:

Tapi, Sabarmati and Rivers of Kutch .

Highly deficient:

- 5 Out of 91 reservoirs, **55** reservoirs reported more than 80% of normal storage & **36** reservoirs reported 80% or below of normal storage. Out of these **36** reservoirs **20** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
YELDARI	0	DAMANAGANGA	43
BHIMA(UJJANI)	0	MULA	46
JAYAKWADI(PAITHON)	0	MANIKDOH	47
SHOLAYAR	0		
GANDHI SAGAR	3		
BARNA	9		
PENCH (TOTALADOH)	14		
VANIVILAS SAGAR	15		
SOMASILA	20		
ALIYAR	22		
NAGARJUNA SAGAR	24		
BHANDARDARA	27		
TILAIYA	27		
TAWA	32		
BHADAR	37		
UKAI	38		
SHETRANJI	40		

16 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
3	8	5

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

16 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 :- 04.04.2019

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	7.948	28.29%	8.254	29.38%	8.573	30.51%	-7.29
INDUS	14.730	7.634	51.83%	2.497	16.95%	3.820	25.93%	99.84
NARMADA	21.608	6.925	32.05%	4.804	22.23%	5.376	24.88%	28.81
TAPI	7.394	1.191	16.11%	1.944	26.29%	2.929	39.61%	-59.34
MAHI	4.012	1.499	37.36%	1.729	43.10%	1.619	40.35%	-7.41
SABARMATI	0.735	0.099	13.47%	0.139	18.91%	0.158	21.50%	-37.34
RIVERS OF KUTCH	0.887	0.078	8.79%	0.232	26.16%	0.165	18.60%	-52.73
GODAVARI	15.394	3.792	24.63%	4.204	27.31%	4.661	30.28%	-18.64
KRISHNA	32.831	5.508	16.78%	5.441	16.57%	6.379	19.43%	-13.65
MAHANADI & NEIGHBOURING EFRS	13.181	5.885	44.65%	6.976	52.92%	6.249	47.41%	-5.82
CAUVERY & NEIGHBOURING EFRS	8.359	1.940	23.21%	1.320	15.79%	2.277	27.24%	-14.80
WEST FLOWING RIVERS OF SOUTH	14.766	5.820	39.41%	5.656	38.30%	5.331	36.10%	9.17
TOTAL	161.993	48.319		43.196		47.537		
PERCENTAGE								1.65

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 04.04.2019

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
<u>NORTHERN REGION</u>											
<u>HIMACHAL PRADESH</u>											
*1	GOBIND SAGAR(BHAKRA)	512.06	492.48	6.229	3.193	04-04-2019	51	21	25	676	1200
*2	PONG DAM	423.67	408.52	6.157	2.751	04-04-2019	45	12	25	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	519.62	2.344	1.690	04-04-2019	72	20	31	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	268.90	1.711	0.515	03-04-2019	30	38	29	63	140
5	JHAKAM	359.50	345.70	0.132	0.033	03-04-2019	25	30	20	28	-
*6	RANA PRATAP SAGAR	352.81	346.76	1.436	0.405	04-04-2019	28	38	26	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	257.94	0.821	0.340	04-04-2019	41	43	38	-	-
8	MAITHON	146.3	139.16	0.471	0.131	04-04-2019	28	87	54	342	-
*9	PANCHET HILL	124.97	123.56	0.184	0.120	04-04-2019	65	30	55	\$	80
10	KONAR	425.81	419.63	0.176	0.078	04-04-2019	44	30	53	\$	-
11	TILAIYA	368.81	364.11	0.142	0.012	04-04-2019	8	13	31	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	187.82	5.378	2.455	04-04-2019	46	45	43	153	307
*13	BALIMELA	462.08	453.21	2.676	1.331	03-04-2019	50	14	32	-	360
14	SALANADI	82.30	73.48	0.558	0.297	04-04-2019	53	41	18	42	-
*15	RENGALI	123.50	115.35	3.432	1.053	03-04-2019	31	64	49	3	200
*16	MACHKUND(JALPUT)	838.16	832.26	0.893	0.463	03-04-2019	52	61	51	-	115
*17	UPPER KOLAB	858.00	851.22	0.935	0.368	03-04-2019	39	35	38	89	320
*18	UPPER INDRAVATI	642.00	634.25	1.456	0.684	03-04-2019	47	38	44	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	110.31	0.480	0.086	04-04-2019	18	51	25	227	-
20	KANGSABATI	134.14	126.13	0.914	0.328	04-04-2019	36	46	25	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	88.95	0.312	0.122	03-04-2019	39	57	18	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	89.78	6.615	1.019	04-04-2019	15	26	41	348	300
23	SABARMATI(DHAROI)	189.59	180.13	0.735	0.099	03-04-2019	13	19	21	95	1
*24	KADANA	127.7	121.44	1.472	0.630	03-04-2019	43	49	55	200	120
25	SHETRUNJI	55.53	49.12	0.300	0.037	03-04-2019	12	18	31	36	-
26	BHADAR	107.89	100.96	0.188	0.015	03-04-2019	8	24	22	27	-
27	DAMANAGANGA	79.86	68.85	0.502	0.102	04-04-2019	20	50	47	51	1
28	DANTIWADA	184.1	167.72	0.399	0.026	03-04-2019	7	33	8	45	-
29	PANAM	127.41	123.45	0.697	0.321	03-04-2019	46	46	43	36	2
*30	SARDAR SAROVAR	138.68	119.36	5.760	1.127	04-04-2019	20	0	13	2120	1450
31	KARJAN	115.25	105.25	0.523	0.271	04-04-2019	52	58	52	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 04.04.2019

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	455.31	2.171	0.000	04-04-2019	0	52	22	227	-
*33	KOYANA	657.90	646.20	2.652	1.591	04-04-2019	60	63	52	-	1920
34	BHIMA(UJJANI)	496.83	488.90	1.517	0.000	04-04-2019	0	38	27	125	12
35	ISAPUR	441.00	430.58	0.965	0.203	04-04-2019	21	3	29	104	-
36	MULA	552.30	538.73	0.609	0.095	04-04-2019	16	43	34	139	-
37	YELDARI	461.77	446.11	0.809	0.000	03-04-2019	0	0	16	78	-
38	GIRNA	398.07	386.72	0.524	0.104	04-04-2019	20	25	19	79	-
39	KHADAKVASLA	582.47	580.37	0.056	0.029	04-04-2019	52	61	50	78	8
*40	UPPER VAITARNA	603.50	597.51	0.331	0.153	04-04-2019	46	41	53	-	61
41	UPPER TAPI	214.00	210.13	0.255	0.068	04-04-2019	27	33	50	45	-
*42	PENCH (TOTALADOH)	490.00	467.15	1.091	0.043	04-04-2019	4	12	28	127	160
43	UPPER WARDHA	342.50	335.63	0.564	0.114	04-04-2019	20	43	37	70	-
44	BHATSA	142.07	118.22	0.942	0.418	04-04-2019	44	52	50	29.378	15
45	DHOM	747.70	733.21	0.331	0.073	04-04-2019	22	44	36	36.2	2
46	DUDHGANGA	646.00	629.82	0.664	0.235	04-04-2019	35	50	45	2.441	24
47	MANIKDOH (KUKADI)	711.25	687.22	0.288	0.017	04-04-2019	6	23	13	2.2	6
48	BHANDARDARA	744.91	715.50	0.304	0.037	04-04-2019	12	60	45	63.74	46
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	303.34	0.707	0.182	03-04-2019	26	25	40	-	30
*50	RIHAND	268.22	256.40	5.649	0.962	04-04-2019	17	19	25	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	344.57	2.196	0.906	03-04-2019	41	23	38	1897	198
*52	TEHRI	830.00	773.40	2.615	0.719	01-04-2019	27	20	25	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	381.32	6.827	0.044	04-04-2019	1	18	23	220	115
54	TAWA	355.40	337.72	1.944	0.152	04-04-2019	8	9	25	247	-
*55	BARGI	422.76	415.50	3.180	1.445	04-04-2019	45	61	42	157	90
*56	BANSAGAR	341.64	337.85	5.166	3.513	04-04-2019	68	47	43	488	425
*57	INDIRA SAGAR	262.13	254.17	9.745	3.922	04-04-2019	40	24	25	2380	1000
58	BARNA	348.55	338.41	0.456	0.008	04-04-2019	2	9	19	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	352.32	3.046	1.750	04-04-2019	57	58	58	-	120
60	MAHANADI	348.70	343.15	0.767	0.330	03-04-2019	43	49	48	319	10
SOUTHERN REGION											
A.P & TG											
*61	SRISAILAM	269.75	250.94	8.288	1.131	04-04-2019	14	10	14	0	770
*62	NAGARJUNA SAGAR	179.83	156.94	6.841	0.240	04-04-2019	4	4	15	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	80.61	1.994	0.157	04-04-2019	8	20	39	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	322.48	2.300	0.326	04-04-2019	14	13	18	411	27
65	LOWER MANAIR	280.42	269.92	0.621	0.128	04-04-2019	21	22	31	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	743.63	1.163	0.431	03-04-2019	37	16	25	79	-
*67	TUNGABHADRA	497.74	483.14	3.276	0.188	04-04-2019	6	4	5	529	72
68	GHATAPRABHA	662.95	642.02	1.391	0.279	04-04-2019	20	23	14	317	-
69	BHADRA	657.76	646.24	1.785	0.719	04-04-2019	40	22	42	106	39
70	LINGANAMAKKI	554.43	541.84	4.294	1.442	04-04-2019	34	27	31	-	55
71	NARAYANPUR	492.25	487.11	0.863	0.216	04-04-2019	25	27	33	425	-
72	MALAPRABHA(RENUKA)	633.83	622.26	0.972	0.079	04-04-2019	8	8	9	215	-
73	KABINI(Sancherla Tank)	696.16	690.80	0.444	0.174	03-04-2019	39	25	17	85	-
74	HEMAVATHY	890.63	874.03	0.927	0.124	03-04-2019	13	14	13	265	-
75	HARANGI	871.42	855.24	0.220	0.032	03-04-2019	15	17	15	53	-
76	SUPA	564.00	541.69	4.120	1.886	04-04-2019	46	42	35	-	-
77	VANIVILAS SAGAR	652.28	632.20	0.802	0.016	01-04-2019	2	1	13	123	-
*78	ALMATTI	519.60	511.31	3.105	0.695	04-04-2019	22	12	11	@	290
*79	GERUSOPPA	55.00	50.40	0.130	0.104	02-04-2019	80	88	83	83	240
<u>KERALA</u>											
80	KALLADA(PARAPPAR)	115.82	107.00	0.507	0.303	03-04-2019	60	78	46	62	-
*81	IDAMALAYAR	169.00	140.96	1.018	0.328	03-04-2019	32	38	35	33	75
*82	IDUKKI	732.43	715.88	1.460	0.653	03-04-2019	45	42	36	-	780
*83	KAKKI	981.46	962.46	0.447	0.204	03-04-2019	46	64	48	23	300
*84	PERIYAR	867.41	859.92	0.173	0.024	03-04-2019	14	14	16	84	140
85	MALAPMUZHA	115.06	102.18	0.224	0.029	04-04-2019	13	15	21	21	3
<u>TAMIL NADU</u>											
86	LOWER BHAWANI	278.89	268.39	0.792	0.260	03-04-2019	33	19	24	105	8
*87	METTUR(STANLEY)	240.79	222.92	2.647	0.728	03-04-2019	28	11	29	122	360
88	VAIGAI	279.20	270.70	0.172	0.034	03-04-2019	20	8	16	61	6
89	PARAMBIKULAM	556.26	545.26	0.380	0.166	03-04-2019	44	7	31	101	-
90	ALIYAR	320.04	303.41	0.095	0.008	03-04-2019	8	0	38	#	60
*91	SHOLAYAR	1002.79	962.82	0.143	0.000	03-04-2019	0	0	2	-	95
TOTAL FOR 91 RESERVOIRS				161.993	48.319						
PERCENTAGE							30	27	29		

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.