

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 31.01.2019)

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 **31.01.2019**, live storage available in these reservoirs is **72.065 BCM**, which is **44%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **70.362 BCM** and the average of last 10 years live storage was **76.075 BCM**. Thus, the live storage available in 91 reservoirs **as per 31.01.2019 Bulletin** is **102%** of the live storage of corresponding period of last year and **95%** of storage of average of last ten years.

As per Table-01, the overall storage position is **more than the** corresponding period of last year in the country as a whole and but is less **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 **31.01.2019**, the total live storage available in these reservoirs is **10.45 BCM** which is **58%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **42%** and average storage of last ten years during corresponding period was **44%** 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 **31.01.2019**, the total live storage available in these reservoirs is **11.03 BCM** which is **59%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **65%** and average storage of last ten years during corresponding period was **62%** of live storage capacity of these reservoirs. Thus, storage during current year is less than the corresponding period of last year and is also less 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 **31.01.2019**, the total live storage available in these reservoirs is **10.29 BCM** which is **33%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **46%** and average storage of last ten years during corresponding period was **48%** 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 **31.01.2019**, the total live storage available in these reservoirs is **20.92 BCM** which is **49 %** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **42%** and average storage of last ten years during corresponding period was **47%** 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 **31.01.2019**, the total live storage available in these reservoirs is **19.38 BCM** which is **38%** 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 **42%** 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 4, better than normal storage is available in Indus, Narmada, Mahi, and West Flowing Rivers of South. Close to Normal in Ganga, Godavari, Mahanadi & Neighbouring East Flowing Rivers and Cauvery & neighbouring EFRs, Deficient in Tapi, Sabarmati Rivers of Kutch, and Krishna and Nil in Highly Deficient.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storage more than last year are **36** and reservoirs having storage more than average of last ten years are **33**. The numbers of reservoirs having storage less than 20% with respect to last year is **2** and having storage less than 20% with reference to average of last ten years is **2**. The number of reservoirs having storage less than or equal to 50% with respect to last year are **18** and having storage less than or equal to 50% with reference to average of last ten years are **22**.

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 31.01.2019

- 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 **31.01.2019** is **72.065** BCM (**44** percent of the live storage capacity at FRL).The current year's storage is nearly **102** percent of last year's storage and **95** 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.)	-	-	-	-	2	2	1	1	H.P.	31 %
									PUNJAB	83 %
									RAJASTHAN	14 %
EAST (Jharkhand, Odisha, Tripura & W. Bengal (15 Resv.)	-	-	-	4	3	3	2	3	JHARKHAND	-21 %
									ODISHA	-3 %
									W. BENGAL	-22 %
									TRIPURA	98 %
WEST (Guj.& Mah.), (27 Resv.)	-	-	-	2	4	3	2	16	GUJARAT	-35 %
									MAH.	-29 %
CENTRAL (MP, UP, Uttarakhand & Chh.), (12 Resv)	-	-	1	-	3	2	1	5	U.P.	-13 %
									UTTARAKHAND	-4 %
									M.P.	14 %
									CHHATISGARH	-3 %
SOUTH (Karnataka, TN, AP&TG, AP, TG, & Kerala), (31 Resv.)	-	1	1	3	5	2	4	15	AP&TG	-45 %
									A,P	-52 %
									TG	-14 %
									KARNATAKA	1 %
									KERALA	8 %
									T.N.	28 %
Status of 91 reservoirs	0	1	2	9	17	12	10	40		

4 Basin wise storage position:

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

Close to normal: Ganga, Godavari, Mahanadi & Neighbouring East Flowing Rivers and Cauvery & neighbouring EFRs.

Deficient: Tapi, Sabarmati, Rivers of Kutch and Krishna .

Highly deficient:

- 5 Out of 91 reservoirs, **61** reservoirs reported more than 80% of normal storage & **30** reservoirs reported 80% or below of normal storage. Out of these **30** reservoirs **22** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
YELDARI	0	DANTIWADA	47
VANIVILAS SAGAR	17	SOMASILA	48
PENCH (TOTALADOH)	21	BARNA	48
TILAIYA	29	MAYURAKSHI	50
SHETRANJI	35	GANDHI SAGAR	50
NARAYANPUR	36		
ALIYAR	37		
MULA	38		
MANIKDOH	39		
SRISAILAM	41		
BHIMA(UJJANI)	41		
UKAI	43		
TAWA	43		
UPPER WARDHA	44		
SABARMATI(DHAROI)	44		
BHADAR	45		
JAYAKWADI(PAITHON)	47		

8 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
2	4	2

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

20 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 :- 31.01.2019

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	12.166	43.30%	12.904	45.93%	12.216	43.48%	-0.41
INDUS	14.730	8.868	60.20%	6.001	40.74%	6.472	43.94%	37.02
NARMADA	21.608	9.782	45.27%	6.030	27.91%	8.679	40.17%	12.71
TAPI	7.394	1.986	26.86%	2.894	39.14%	4.247	57.44%	-53.24
MAHI	4.012	2.327	58.00%	2.468	61.52%	2.176	54.24%	6.94
SABARMATI	0.735	0.133	18.10%	0.273	37.14%	0.299	40.68%	-55.52
RIVERS OF KUTCH	0.887	0.114	12.85%	0.422	47.58%	0.283	31.91%	-59.72
GODAVARI	15.394	6.646	43.17%	7.017	45.58%	7.456	48.43%	-10.86
KRISHNA	32.831	9.898	30.15%	12.800	38.99%	13.547	41.26%	-26.94
MAHANADI & NEIGHBOURING EFRS	13.181	7.659	58.11%	9.233	70.05%	8.911	67.60%	-14.05
CAUVERY & NEIGHBOURING EFRS	8.359	3.454	41.32%	2.439	29.18%	3.464	41.44%	-0.29
WEST FLOWING RIVERS OF SOUTH	14.766	9.032	61.17%	7.881	53.37%	8.325	56.38%	8.49
TOTAL	161.993	72.065		70.362		76.075		
PERCENTAGE								-5.27

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 31.01.2019

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	499.52	6.229	4.084	31-01-2019	66	50	51	676	1200
*2	PONG DAM	423.67	411.93	6.157	3.368	30-01-2019	55	38	41	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	515.21	2.344	1.416	31-01-2019	60	22	33	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	274.95	1.711	1.043	30-01-2019	61	66	52	63	140
5	JHAKAM	359.50	351.70	0.132	0.065	30-01-2019	49	52	39	28	-
*6	RANA PRATAP SAGAR	352.81	347.23	1.436	0.471	31-01-2019	33	26	32	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	258.53	0.821	0.361	31-01-2019	44	48	46	-	-
8	MAITHON	146.3	142.23	0.471	0.243	31-01-2019	52	100	82	342	-
*9	PANCHET HILL	124.97	123.99	0.184	0.138	31-01-2019	75	100	82	\$	80
10	KONAR	425.81	421.90	0.176	0.111	31-01-2019	63	53	72	\$	-
11	TILAIYA	368.81	364.42	0.142	0.018	31-01-2019	13	30	44	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	189.81	5.378	3.468	30-01-2019	64	69	73	153	307
*13	BALIMELA	462.08	458.27	2.676	2.005	30-01-2019	75	26	49	-	360
14	SALANADI	82.30	73.74	0.558	0.303	31-01-2019	54	42	31	42	-
*15	RENGALI	123.50	117.26	3.432	1.499	30-01-2019	44	88	68	3	200
*16	MACHKUND(JALPUT)	838.16	835.11	0.893	0.646	30-01-2019	72	87	74	-	115
*17	UPPER KOLAB	858.00	854.26	0.935	0.595	30-01-2019	64	54	53	89	320
*18	UPPER INDRAVATI	642.00	638.03	1.456	1.041	30-01-2019	71	53	64	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	111.16	0.480	0.103	31-01-2019	21	94	43	227	-
20	KANGSABATI	134.14	126.25	0.914	0.332	31-01-2019	36	74	38	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	90.30	0.312	0.170	30-01-2019	54	77	28	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	93.08	6.615	1.685	31-01-2019	25	38	59	348	300
23	SABARMATI(DHAROI)	189.59	181.06	0.735	0.133	30-01-2019	18	37	41	95	1
*24	KADANA	127.7	123.42	1.472	0.788	30-01-2019	54	57	59	200	120
25	SHETRUNJI	55.53	50.17	0.300	0.054	30-01-2019	18	41	51	36	-
26	BHADAR	107.89	102.06	0.188	0.029	30-01-2019	15	38	34	27	-
27	DAMANAGANGA	79.86	73.70	0.502	0.233	31-01-2019	46	76	72	51	1
28	DANTIWADA	184.1	168.33	0.399	0.031	30-01-2019	8	57	17	45	-
29	PANAM	127.41	125.50	0.697	0.431	30-01-2019	62	62	54	36	2
*30	SARDAR SAROVAR	138.68	119.31	5.760	1.119	31-01-2019	19	4	18	2120	1450
31	KARJAN	115.25	109.27	0.523	0.354	31-01-2019	68	70	69	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 31.01.2019

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	457.68	2.171	0.371	29-01-2019	17	76	36	227	-
*33	KOYANA	657.90	651.89	2.652	2.060	31-01-2019	78	86	74	-	1920
34	BHIMA(UJJANI)	496.83	492.83	1.517	0.385	30-01-2019	25	82	61	125	12
35	ISAPUR	441.00	433.72	0.965	0.368	31-01-2019	38	6	41	104	-
36	MULA	552.30	540.19	0.609	0.132	31-01-2019	22	75	57	139	-
37	YELDARI	461.77	446.43	0.809	0.000	30-01-2019	0	5	29	78	-
38	GIRNA	398.07	388.54	0.524	0.154	31-01-2019	29	38	30	79	-
39	KHADAKVASLA	582.47	580.52	0.056	0.031	31-01-2019	55	59	54	78	8
*40	UPPER VAITARNA	603.50	600.81	0.331	0.242	31-01-2019	73	76	74	-	61
41	UPPER TAPI	214.00	211.98	0.255	0.147	31-01-2019	58	66	75	45	-
*42	PENCH (TOTALADOH)	490.00	469.98	1.091	0.095	31-01-2019	9	17	41	127	160
43	UPPER WARDHA	342.50	336.23	0.564	0.141	31-01-2019	25	62	56	70	-
44	BHATSA	142.07	126.86	0.942	0.578	31-01-2019	61	71	67	29.378	15
45	DHOM	747.70	738.06	0.331	0.143	31-01-2019	43	69	55	36.2	2
46	DUDHGANGA	646.00	637.81	0.664	0.423	31-01-2019	64	78	72	2.441	24
47	MANIKDOH (KUKADI)	711.25	690.89	0.288	0.038	31-01-2019	13	60	34	2.2	6
48	BHANDARDARA	744.91	730.71	0.304	0.123	31-01-2019	40	92	72	63.74	46
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	303.73	0.707	0.207	30-01-2019	29	29	47	-	30
*50	RIHAND	268.22	259.05	5.649	1.880	31-01-2019	33	37	37	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	347.64	2.196	1.055	31-01-2019	48	42	55	1897	198
*52	TEHRI	830.00	800.14	2.615	1.491	31-01-2019	57	52	56	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	387.11	6.827	1.178	31-01-2019	17	38	34	220	115
54	TAWA	355.40	341.62	1.944	0.359	30-01-2019	18	16	43	247	-
*55	BARGI	422.76	417.75	3.180	1.898	30-01-2019	60	70	63	157	90
*56	BANSAGAR	341.64	339.94	5.166	4.408	31-01-2019	85	56	51	488	425
*57	INDIRA SAGAR	262.13	257.30	9.745	5.961	31-01-2019	61	29	44	2380	1000
58	BARNA	348.55	341.55	0.456	0.091	31-01-2019	20	21	41	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	353.29	3.046	1.884	30-01-2019	62	61	63	-	120
60	MAHANADI	348.70	345.65	0.767	0.505	30-01-2019	66	55	68	319	10
SOUTHERN REGION											
A.P & TG											
*61	SRISAILAM	269.75	254.36	8.288	1.445	31-01-2019	17	35	43	0	770
*62	NAGARJUNA SAGAR	179.83	163.22	6.841	1.343	31-01-2019	20	14	23	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	88.29	1.994	0.565	31-01-2019	28	43	59	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	326.29	2.300	0.848	31-01-2019	37	41	42	411	27
65	LOWER MANAIR	280.42	274.11	0.621	0.281	31-01-2019	45	52	54	199	60

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GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 31.01.2019

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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	748.21	1.163	0.794	30-01-2019	68	41	54	79	-
*67	TUNGABHADRA	497.74	487.61	3.276	0.548	30-01-2019	17	21	29	529	72
68	GHATAPRABHA	662.95	650.61	1.391	0.626	30-01-2019	45	50	34	317	-
69	BHADRA	657.76	653.76	1.785	1.346	30-01-2019	75	56	70	106	39
70	LINGANAMAKKI	554.43	547.60	4.294	2.486	31-01-2019	58	43	55	-	55
71	NARAYANPUR	492.25	487.30	0.863	0.230	31-01-2019	27	58	75	425	-
72	MALAPRABHA(RENUKA)	633.83	624.54	0.972	0.169	30-01-2019	17	17	21	215	-
73	KABINI(Sancherla Tank)	696.16	693.67	0.444	0.308	30-01-2019	69	59	38	85	-
74	HEMAVATHY	890.63	875.74	0.927	0.166	30-01-2019	18	21	22	265	-
75	HARANGI	871.42	856.48	0.220	0.040	30-01-2019	18	29	16	53	-
76	SUPA	564.00	550.28	4.120	2.618	31-01-2019	64	51	52	-	-
77	VANIVILAS SAGAR	652.28	632.66	0.802	0.022	30-01-2019	3	2	16	123	-
*78	ALMATTI	519.60	513.46	3.105	1.089	31-01-2019	35	44	37	@	290
*79	GERUSOPPA	55.00	53.75	0.130	0.123	31-01-2019	95	91	83	83	240
<u>KERALA</u>											
80	KALLADA(PARAPPAR)	115.82	113.60	0.507	0.437	30-01-2019	86	95	73	62	-
*81	IDAMALAYAR	169.00	152.39	1.018	0.571	30-01-2019	56	62	59	33	75
*82	IDUKKI	732.43	723.65	1.460	0.994	30-01-2019	68	60	55	-	780
*83	KAKKI	981.46	970.22	0.447	0.282	30-01-2019	63	82	71	23	300
*84	PERIYAR	867.41	861.34	0.173	0.047	30-01-2019	27	21	30	84	140
85	MALAPMUZHA	115.06	106.16	0.224	0.066	31-01-2019	29	23	32	21	3
<u>TAMIL NADU</u>											
86	LOWER BHAWANI	278.89	275.05	0.792	0.565	30-01-2019	71	20	38	105	8
*87	METTUR(STANLEY)	240.79	225.80	2.647	0.946	30-01-2019	36	15	34	122	360
88	VAIGAI	279.20	273.84	0.172	0.070	30-01-2019	41	19	30	61	6
89	PARAMBIKULAM	556.26	551.41	0.380	0.280	30-01-2019	74	21	54	101	-
90	ALIYAR	320.04	305.38	0.095	0.015	30-01-2019	16	2	43	#	60
*91	SHOLAYAR	1002.79	987.16	0.143	0.060	30-01-2019	42	0	12	-	95
TOTAL FOR 91 RESERVOIRS				161.993	72.065						
PERCENTAGE							44	43	47		

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.