

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 14.03.2019)

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 **14.03.2019**, live storage available in these reservoirs is **55.923 BCM**, which is **35%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **51.846 BCM** and the average of last 10 years live storage was **56.153 BCM**. Thus, the live storage available in 91 reservoirs **as per 14.03.2019 Bulletin** is **108%** of the live storage of corresponding period of last year and **100%** 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 **equal to 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 **14.03.2019**, the total live storage available in these reservoirs is **9.26 BCM** which is **51%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **26%** and average storage of last ten years during corresponding period was **30%** 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 **14.03.2019**, the total live storage available in these reservoirs is **8.98 BCM** which is **48%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **54%** 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 less than the corresponding period of last year but is more 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 **14.03.2019**, the total live storage available in these reservoirs is **7.40 BCM** which is **24%** 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 **38%** 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 **14.03.2019**, the total live storage available in these reservoirs is **16.42 BCM** which is **39%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **33%** and average storage of last ten years during corresponding period was **36%** 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 **14.03.2019**, the total live storage available in these reservoirs is **13.86 BCM** which is **27%** 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 **28%** 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 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 **34** and reservoirs having storage more than average of last ten years are **38**. The numbers of reservoirs having storage less than 20% with respect to last year is **4** and having storage less than 20% with reference to average of last ten years is **5**. The number of reservoirs having storage less than or equal to 50% with respect to last year are **15** and having storage less than or equal to 50% with reference to average of last ten years are **18**.

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 14.03.2019

- 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 **14.03.2019** is **55.923** BCM (**35** percent of the live storage capacity at FRL).The current year's storage is nearly **108** percent of last year's storage and **100** 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.	71 %
									PUNJAB	149 %
									RAJASTHAN	17 %
EAST (Jharkhand, Odisha, Tripura & W. Bengal (15 Resv.)	-	-	-	1	1	5	3	5	JHARKHAND	-21 %
									ODISHA	3 %
									W. BENGAL	-8 %
									TRIPURA	127 %
WEST (Guj.& Mah.), (27 Resv.)	-	-	-	-	2	3	3	19	GUJARAT	-42 %
									MAH.	-33 %
CENTRAL (MP, UP, Uttarakhand & Chh.), (12 Resv)	-	-	-	1	-	2	3	6	U.P.	-28 %
									UTTARAKHAND	11 %
									M.P.	14 %
									CHHATISGARH	-2 %
SOUTH (Karnataka, TN, AP&TG, AP, TG, & Kerala), (31 Resv.)	-	-	-	1	1	6	3	20	AP&TG	-38 %
									A,P	-71 %
									TG	-18 %
									KARNATAKA	12 %
									KERALA	9 %
									T.N.	19 %
Status of 91 reservoirs	0	0	0	4	4	17	13	53		

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, **56** reservoirs reported more than 80% of normal storage & **35** reservoirs reported 80% or below of normal storage. Out of these **35** reservoirs **18** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
YELDARI	0	MAITHON	50
ALIYAR	0		
JAYAKWADI(PAITHON)	5		
BHIMA(UJJANI)	5		
VANIVILAS SAGAR	16		
PENCH (TOTALADOH)	21		
GANDHI SAGAR	28		
SOMASILA	29		
TAWA	31		
TILAIYA	33		
BARNA	34		
UKAI	39		
MULA	42		
BHADAR	43		
BHANDARDARA	44		
SHETRANJI	50		
DAMANAGANGA	50		

17 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
6	6	5

- 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 :- 14.03.2019

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	9.450	33.63%	9.463	33.68%	9.805	34.90%	-3.62
INDUS	14.730	8.131	55.20%	3.470	23.56%	4.433	30.10%	83.42
NARMADA	21.608	7.445	34.45%	5.140	23.79%	6.306	29.18%	18.06
TAPI	7.394	1.454	19.66%	2.179	29.47%	3.358	45.42%	-56.70
MAHI	4.012	1.690	42.12%	1.863	46.44%	1.731	43.15%	-2.37
SABARMATI	0.735	0.110	14.97%	0.158	21.50%	0.186	25.31%	-40.86
RIVERS OF KUTCH	0.887	0.098	11.05%	0.277	31.23%	0.186	20.97%	-47.31
GODAVARI	15.394	4.722	30.67%	5.344	34.71%	5.380	34.95%	-12.23
KRISHNA	32.831	6.953	21.18%	7.915	24.11%	8.546	26.03%	-18.64
MAHANADI & NEIGHBOURING EFRS	13.181	6.506	49.36%	8.035	60.96%	7.201	54.63%	-9.65
CAUVERY & NEIGHBOURING EFRS	8.359	2.474	29.60%	1.540	18.42%	2.616	31.30%	-5.43
WEST FLOWING RIVERS OF SOUTH	14.766	6.890	46.66%	6.462	43.76%	6.405	43.38%	7.57
TOTAL	161.993	55.923		51.846		56.153		
PERCENTAGE								-0.41

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 14.03.2019

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	495.22	6.229	3.529	14-03-2019	57	30	32	676	1200
*2	PONG DAM	423.67	408.80	6.157	2.802	14-03-2019	46	19	28	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	520.84	2.344	1.800	14-03-2019	77	20	31	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	270.80	1.711	0.668	13-03-2019	39	46	34	63	140
5	JHAKAM	359.50	345.75	0.132	0.034	13-03-2019	26	31	21	28	-
*6	RANA PRATAP SAGAR	352.81	346.90	1.436	0.425	14-03-2019	30	28	25	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	258.23	0.821	0.350	13-03-2019	43	46	42	-	-
8	MAITHON	146.3	140.26	0.471	0.168	13-03-2019	36	100	71	342	-
*9	PANCHET HILL	124.97	123.94	0.184	0.136	13-03-2019	74	72	70	\$	80
10	KONAR	425.81	420.53	0.176	0.090	13-03-2019	51	35	61	\$	-
11	TILAIYA	368.81	364.27	0.142	0.015	13-03-2019	11	15	32	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	188.56	5.378	2.811	14-03-2019	52	54	54	153	307
*13	BALIMELA	462.08	455.55	2.676	1.634	14-03-2019	61	16	33	-	360
14	SALANADI	82.30	73.57	0.558	0.299	14-03-2019	54	41	33	42	-
*15	RENGALI	123.50	115.92	3.432	1.185	14-03-2019	35	79	55	3	200
*16	MACHKUND(JALPUT)	838.16	833.23	0.893	0.519	14-03-2019	58	76	58	-	115
*17	UPPER KOLAB	858.00	851.50	0.935	0.389	14-03-2019	42	48	41	89	320
*18	UPPER INDRAVATI	642.00	635.79	1.456	0.823	14-03-2019	57	43	48	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	110.81	0.480	0.096	13-03-2019	20	68	36	227	-
20	KANGSABATI	134.14	126.19	0.914	0.331	13-03-2019	36	61	32	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	89.30	0.312	0.134	14-03-2019	43	64	19	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	90.79	6.615	1.208	14-03-2019	18	29	47	348	300
23	SABARMATI(DHAROI)	189.59	180.43	0.735	0.110	13-03-2019	15	21	25	95	1
*24	KADANA	127.7	121.46	1.472	0.632	13-03-2019	43	46	54	200	120
25	SHETRUNJI	55.53	49.92	0.300	0.050	13-03-2019	17	21	33	36	-
26	BHADAR	107.89	101.40	0.188	0.020	13-03-2019	11	28	24	27	-
27	DAMANAGANGA	79.86	70.55	0.502	0.142	14-03-2019	28	58	56	51	1
28	DANTIWADA	184.1	167.99	0.399	0.028	13-03-2019	7	40	10	45	-
29	PANAM	127.41	124.15	0.697	0.356	13-03-2019	51	52	46	36	2
*30	SARDAR SAROVAR	138.68	116.02	5.760	0.650	14-03-2019	11	0	14	2120	1450
31	KARJAN	115.25	106.31	0.523	0.292	14-03-2019	56	62	58	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 14.03.2019

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	455.71	2.171	0.027	14-03-2019	1	60	26	227	-
*33	KOYANA	657.90	649.05	2.652	1.825	14-03-2019	69	71	60	-	1920
34	BHIMA(UJJANI)	496.83	491.19	1.517	0.031	14-03-2019	2	72	42	125	12
35	ISAPUR	441.00	432.02	0.965	0.274	14-03-2019	28	5	33	104	-
36	MULA	552.30	539.16	0.609	0.106	14-03-2019	17	59	41	139	-
37	YELDARI	461.77	446.22	0.809	0.000	14-03-2019	0	4	22	78	-
38	GIRNA	398.07	388.21	0.524	0.145	14-03-2019	28	28	22	79	-
39	KHADAKVASLA	582.47	580.92	0.056	0.036	14-03-2019	64	82	55	78	8
*40	UPPER VAITARNA	603.50	598.84	0.331	0.187	14-03-2019	56	53	61	-	61
41	UPPER TAPI	214.00	210.98	0.255	0.101	14-03-2019	40	45	58	45	-
*42	PENCH (TOTALADOH)	490.00	468.81	1.091	0.072	14-03-2019	7	14	31	127	160
43	UPPER WARDHA	342.50	335.84	0.564	0.123	14-03-2019	22	47	41	70	-
44	BHATSA	142.07	121.30	0.942	0.471	14-03-2019	50	58	56	29.378	15
45	DHOM	747.70	735.25	0.331	0.101	14-03-2019	31	54	44	36.2	2
46	DUDHGANGA	646.00	633.33	0.664	0.310	14-03-2019	47	60	54	2.441	24
47	MANIKDOH (KUKADI)	711.25	690.02	0.288	0.032	14-03-2019	11	42	19	2.2	6
48	BHANDARDARA	744.91	723.92	0.304	0.075	14-03-2019	25	74	57	63.74	46
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	303.12	0.707	0.168	14-03-2019	24	20	36	-	30
*50	RIHAND	268.22	257.13	5.649	1.199	14-03-2019	21	23	29	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	347.90	2.196	1.068	14-03-2019	49	25	42	1897	198
*52	TEHRI	830.00	782.44	2.615	0.960	14-03-2019	37	30	35	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	384.36	6.827	0.562	14-03-2019	8	24	30	220	115
54	TAWA	355.40	337.72	1.944	0.152	13-03-2019	8	9	25	247	-
*55	BARGI	422.76	416.20	3.180	1.580	13-03-2019	50	65	50	157	90
*56	BANSAGAR	341.64	338.43	5.166	3.748	14-03-2019	73	49	43	488	425
*57	INDIRA SAGAR	262.13	255.61	9.745	4.739	14-03-2019	49	26	31	2380	1000
58	BARNA	348.55	339.46	0.456	0.032	14-03-2019	7	10	21	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	352.78	3.046	1.812	14-03-2019	59	59	60	-	120
60	MAHANADI	348.70	344.27	0.767	0.399	14-03-2019	52	51	57	319	10
SOUTHERN REGION											
A.P & TG											
*61	SRISAILAM	269.75	252.10	8.288	1.225	14-03-2019	15	16	24	0	770
*62	NAGARJUNA SAGAR	179.83	159.32	6.841	0.639	14-03-2019	9	8	16	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	82.96	1.994	0.245	14-03-2019	12	23	43	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	324.12	2.300	0.506	14-03-2019	22	25	25	411	27
65	LOWER MANAIR	280.42	271.39	0.621	0.174	14-03-2019	28	33	39	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	745.59	1.163	0.570	13-03-2019	49	23	36	79	-
*67	TUNGABHADRA	497.74	484.89	3.276	0.297	14-03-2019	9	6	12	529	72
68	GHATAPRABHA	662.95	643.69	1.391	0.335	13-03-2019	24	25	18	317	-
69	BHADRA	657.76	649.36	1.785	0.934	13-03-2019	52	35	51	106	39
70	LINGANAMAKKI	554.43	544.02	4.294	1.788	14-03-2019	42	32	40	-	55
71	NARAYANPUR	492.25	487.24	0.863	0.225	14-03-2019	26	42	48	425	-
72	MALAPRABHA(RENUKA)	633.83	623.30	0.972	0.117	13-03-2019	12	11	11	215	-
73	KABINI(Sancherla Tank)	696.16	692.32	0.444	0.241	14-03-2019	54	28	24	85	-
74	HEMAVATHY	890.63	874.35	0.927	0.134	14-03-2019	14	16	16	265	-
75	HARANGI	871.42	856.74	0.220	0.042	14-03-2019	19	22	15	53	-
76	SUPA	564.00	544.87	4.120	2.136	14-03-2019	52	47	42	-	-
77	VANIVILAS SAGAR	652.28	632.37	0.802	0.018	12-03-2019	2	1	14	123	-
*78	ALMATTI	519.60	512.09	3.105	0.828	14-03-2019	27	22	17	@	290
*79	GERUSOPPA	55.00	49.19	0.130	0.098	14-03-2019	75	92	84	83	240
<u>KERALA</u>											
80	KALLADA(PARAPPAR)	115.82	109.36	0.507	0.350	14-03-2019	69	86	56	62	-
*81	IDAMALAYAR	169.00	145.22	1.018	0.412	14-03-2019	40	47	44	33	75
*82	IDUKKI	732.43	718.85	1.460	0.773	14-03-2019	53	47	42	-	780
*83	KAKKI	981.46	967.42	0.447	0.250	14-03-2019	56	69	58	23	300
*84	PERIYAR	867.41	860.32	0.173	0.030	13-03-2019	17	16	17	84	140
85	MALAPMUZHA	115.06	102.90	0.224	0.034	14-03-2019	15	15	21	21	3
<u>TAMIL NADU</u>											
86	LOWER BHAWANI	278.89	271.19	0.792	0.370	14-03-2019	47	16	28	105	8
*87	METTUR(STANLEY)	240.79	224.34	2.647	0.832	14-03-2019	31	13	30	122	360
88	VAIGAI	279.20	271.31	0.172	0.040	14-03-2019	23	8	17	61	6
89	PARAMBIKULAM	556.26	547.67	0.380	0.209	14-03-2019	55	10	36	101	-
90	ALIYAR	320.04	299.73	0.095	0.000	14-03-2019	0	0	37	#	60
*91	SHOLAYAR	1002.79	970.21	0.143	0.010	14-03-2019	7	0	4	-	95
TOTAL FOR 91 RESERVOIRS				161.993	55.923						
PERCENTAGE							35	32	35		

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.