

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 31.08.2017)

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 157.799 BCM which is about 62% of the live storage capacity of 253.388 BCM which is estimated to have been created in the country. As per reservoir storage bulletin dated **31.08.2017**, live storage available in these reservoirs is **86.629 BCM**, which is **55%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **103.719 BCM** and the average of last 10 years live storage was **103.652 BCM**. Thus, the live storage available in 91 reservoirs **as per 31.08.2017 Bulletin** is **84%** of the live storage of corresponding period of last year and **84%** of storage of average of last ten years.

As per Table-01, the overall storage position is **less than the** corresponding period of last year in the country as a whole and is also **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 **31.08.2017**, the total live storage available in these reservoirs is **15.08 BCM** which is **84%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **76%** and average storage of last ten years during corresponding period was **77%** 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 **31.08.2017**, the total live storage available in these reservoirs is **11.14 BCM** which is **59%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **66%** and average storage of last ten years during corresponding period was **60%** 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 27.07 BCM. As per Reservoir Storage Bulletin dated **31.08.2017**, the total live storage available in these reservoirs is **17.83 BCM** which is **66%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **70%** and average storage of last ten years during corresponding period was **67%** 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 **31.08.2017**, the total live storage available in these reservoirs is **23.88 BCM** which is **56%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **85%** and average storage of last ten years during corresponding period was **65%** 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.

e) SOUTHERN REGION

The Southern region includes States of Andhra Pradesh, Telangana, AP&TG (2 combined 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 **31.08.2017**, the total live storage available in these reservoirs is **18.69 BCM** which is **36%** 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 **64%** 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.

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, Sabarmati, Mahi, Rivers of Kutch and Ganga. Close to Normal in Godavari and Mahanadi & neighbouring East Flowing Rivers. Deficient in Narmada, Tapi, Cauvery & neighbouring EFRs and West Flowing Rivers of South and Krishna basin and NIL in Highly Deficient.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storage more than last year are **35** 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 **3** and having storage less than 20% with reference to average of last ten years is **7**. The number of reservoirs having storage less than or equal to 50% with respect to last year are **9** and having storage less than or equal to 50% with reference to average of last ten years are **16**.

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 31.08.2017

- 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 **31.08.2017** is **86.629** BCM (**55** percent of the live storage capacity at FRL).The current year's storage is nearly **84** percent of last year's storage and **84** 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.)	2	-	2	1	-	1	-	-	H.P.	10	%
									PUNJAB	11	%
									RAJASTHAN	2	%
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	2	1	1	3	2	2	2	2	JHARKHAND	-1	%
									ODISHA	-6	%
									W. BENGAL	42	%
									TRIPURA	76	%
WEST (Guj.& Mah.), (27 Resv.)	4	7	-	6	1	4	2	3	GUJARAT	-7	%
									MAH.	3	%
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	-	2	4	2	-	4	U.P.	32	%
									UTTARAKHAND	-11	%
									M.P.	-20	%
									CHHATISGARH	-14	%
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	-	2	2	-	1	6	6	14	AP&TG	-93	%
									A,P	-45	%
									TG	8	%
									KARNATAKA	-22	%
									KERALA	-29	%
									T.N.	-60	%
Status of 91 reservoirs	8	10	5	12	8	15	10	23			

4 Basin wise storage position:

Better than normal: Ganga,Mahi,Indus,Sabarmati, Rivers of Kutch .

Close to normal: Godavari and Mahanadi & Neighbouring EFRS .

Deficient: Narmada ,Tapi ,Krishna, Cauvery & neighbouring EFRS and West Flowing Rivers of South

Highly deficient: NIL

- 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 **16** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
NAGARJUNA SAGAR	0		
SRISAILAM	11		
VANIVILAS SAGAR	14		
YELDARI	15		
ISAPUR	15		
PENCH (TOTALADOH)	17		
VAIGAI	18		
ALIYAR	22		
MATATILA	29		
PARAMBIKULAM	38		
SHOLAYAR	38		
METTUR(STANLEY)	39		
MALAPRABHA(RENUKA)	42		
INDIRA SAGAR	44		
MAHANADI	45		
LOWER BHAWANI	47		

19 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
5	11	3

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

22 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 :- 31.08.2017

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	18.511	65.88%	23.696	84.34%	16.527	58.82%	12.00
INDUS	14.730	12.457	84.57%	10.489	71.21%	11.315	76.82%	10.09
NARMADA	17.414	8.325	47.81%	15.422	88.56%	13.116	75.32%	-36.53
TAPI	7.394	3.209	43.40%	5.542	74.95%	4.792	64.81%	-33.03
MAHI	4.012	3.512	87.54%	2.342	58.37%	2.694	67.15%	30.36
SABARMATI	0.735	0.693	94.29%	0.676	91.97%	0.418	56.87%	65.79
RIVERS OF KUTCH	0.887	0.663	74.75%	0.167	18.83%	0.394	44.42%	68.27
GODAVARI	15.394	6.900	44.82%	9.051	58.80%	7.648	49.68%	-9.78
KRISHNA	32.831	13.527	41.20%	16.895	51.46%	22.867	69.65%	-40.84
MAHANADI & NEIGHBOURING EFRS	13.181	8.147	61.81%	8.598	65.23%	8.867	67.27%	-8.12
CAUVERY & NEIGHBOURING EFRS	8.359	2.619	31.33%	2.753	32.93%	4.869	58.25%	-46.21
WEST FLOWING RIVERS OF SOUTH	14.766	8.066	54.63%	8.088	54.77%	10.145	68.71%	-20.49
TOTAL	157.799	86.629		103.719		103.652		
PERCENTAGE								-16.42

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 31.08.2017

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	508.91	6.229	5.464	31-08-2017	88	69	81	676	1200
*2	PONG DAM	423.67	420.97	6.157	5.272	31-08-2017	86	71	76	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	520.20	2.344	1.721	31-08-2017	73	77	66	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	281.30	1.711	1.711	31-08-2017	100	100	79	63	140
5	JHAKAM	359.50	360.10	0.132	0.132	31-08-2017	100	100	77	28	-
*6	RANA PRATAP SAGAR	352.81	349.23	1.436	0.780	31-08-2017	54	100	78	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	257.62	0.821	0.330	31-08-2017	40	45	43	-	-
8	MAITHON	146.3	145.01	0.471	0.371	31-08-2017	79	100	84	342	-
*9	PANCHET HILL	124.97	125.35	0.184	0.184	31-08-2017	100	100	89	\$	80
10	KONAR	425.81	422.24	0.176	0.116	31-08-2017	66	82	78	\$	-
11	TILAIYA	368.81	369.05	0.142	0.142	31-08-2017	100	100	74	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	188.84	5.378	2.941	31-08-2017	55	56	66	153	307
*13	BALIMELA	462.08	451.13	2.676	1.073	31-08-2017	40	64	41	-	360
14	SALANADI	82.30	70.98	0.558	0.237	31-08-2017	42	44	44	42	-
*15	RENGALI	123.50	120.90	3.432	2.604	31-08-2017	76	82	68	3	200
*16	MACHKUND(JALPUT)	838.16	833.78	0.893	0.551	31-08-2017	62	67	65	-	115
*17	UPPER KOLAB	858.00	851.67	0.935	0.401	31-08-2017	43	62	47	89	320
*18	UPPER INDRAVATI	642.00	635.14	1.456	0.760	31-08-2017	52	63	63	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	119.50	0.480	0.406	31-08-2017	85	76	59	227	-
20	KANGSABATI	134.14	131.81	0.914	0.730	31-08-2017	80	77	56	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	93.20	0.312	0.296	29-08-2017	95	76	54	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	96.88	6.615	2.782	31-08-2017	42	76	68	348	300
23	SABARMATI(DHAROI)	189.59	189.09	0.735	0.693	31-08-2017	94	92	57	95	1
*24	KADANA	127.7	127.05	1.472	1.124	31-08-2017	76	8	54	200	120
25	SHETRANJI	55.53	53.52	0.300	0.166	31-08-2017	55	21	59	36	-
26	BHADAR	107.89	106.36	0.188	0.128	31-08-2017	68	5	55	27	-
27	DAMANAGANGA	79.86	75.20	0.502	0.284	31-08-2017	57	67	64	51	1
28	DANTIWADA	184.1	183.48	0.399	0.369	31-08-2017	92	24	29	45	-
29	PANAM	127.41	127.30	0.697	0.545	31-08-2017	78	56	66	36	2
*30	SARDAR SAROVAR	121.92	124.43	1.566	1.566	31-08-2017	100	100	91	2120	1450
31	KARJAN	115.25	110.98	0.523	0.397	31-08-2017	76	37	68	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 31.08.2017

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	462.16	2.171	1.544	30-08-2017	71	66	36	227	-
*33	KOYANA	657.90	657.81	2.652	2.495	30-08-2017	94	99	95	-	1920
34	BHIMA(UJJANI)	496.83	496.90	1.517	1.517	31-08-2017	100	62	65	125	12
35	ISAPUR	441.00	427.62	0.965	0.075	29-08-2017	8	34	53	104	-
36	MULA	552.30	549.82	0.609	0.483	30-08-2017	79	98	70	139	-
37	YELDARI	461.77	449.01	0.809	0.036	31-08-2017	4	10	31	78	-
38	GIRNA	398.07	393.21	0.524	0.299	30-08-2017	57	67	31	79	-
39	KHADAKVASLA	582.47	582.47	0.056	0.056	30-08-2017	100	100	70	78	8
*40	UPPER VAITARNA	603.50	603.29	0.331	0.325	30-08-2017	98	96	85	-	61
41	UPPER TAPI	214.00	211.59	0.255	0.128	30-08-2017	50	65	55	45	-
*42	PENCH (TOTALADOH)	490.00	471.50	1.091	0.129	30-08-2017	12	75	69	127	160
43	UPPER WARDHA	342.50	339.52	0.564	0.328	31-08-2017	58	98	84	70	-
44	BHATSA	142.07	140.37	0.942	0.895	30-08-2017	95	92	86	29.378	15
45	DHOM	747.70	744.90	0.331	0.320	30-08-2017	97	100	81	36.2	2
46	DUDHGANGA	646.00	644.61	0.664	0.632	30-08-2017	95	96	94	2.441	24
47	MANIKDOH (KUKADI)	711.25	706.65	0.288	0.211	30-08-2017	73	67	48	2.2	6
48	BHANDARDARA	744.91	744.73	0.304	0.304	30-08-2017	100	95	94	63.74	46
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	303.03	0.707	0.162	30-08-2017	23	86	79	-	30
*50	RIHAND	268.22	263.99	5.649	3.830	31-08-2017	68	80	44	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	343.75	2.196	0.860	31-08-2017	39	48	60	1897	198
*52	TEHRI	830.00	816.90	2.615	2.084	31-08-2017	80	82	77	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	395.95	6.827	4.392	31-08-2017	64	92	53	220	115
54	TAWA	355.40	349.09	1.944	1.051	31-08-2017	54	100	94	247	-
*55	BARGI	422.76	418.90	3.180	2.148	31-08-2017	68	96	80	157	90
*56	BANSAGAR	341.64	338.62	5.166	3.828	31-08-2017	74	98	65	488	425
*57	INDIRA SAGAR	262.13	252.27	9.745	2.899	31-08-2017	30	84	68	2380	1000
58	BARNA	348.55	345.53	0.456	0.264	31-08-2017	58	100	77	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	354.86	3.046	2.111	30-08-2017	69	64	72	-	120
60	MAHANADI	348.70	341.93	0.767	0.254	31-08-2017	33	78	73	319	10
SOUTHERN REGION											
A.P. & TG											
*61	SRISAILAM	269.75	240.49	8.288	0.582	31-08-2017	7	51	65	0	770
*62	NAGARJUNA SAGAR	179.83	152.40	6.841	0.000	31-08-2017	0	2	47	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	84.67	1.994	0.333	31-08-2017	17	11	30	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	327.11	2.300	1.010	31-08-2017	44	44	37	411	27
65	LOWER MANAIR	280.42	272.31	0.621	0.206	31-08-2017	33	22	43	199	60

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA CENTRAL WATER COMMISSION

WEEK ENDING :- 31.08.2017

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>KARNATAKA</u>											
66	KRISHNARAJA SAGRA	752.50	744.30	1.163	0.476	31-08-2017	41	32	78	79	-
*67	TUNGABHADRA	497.74	494.54	3.276	1.849	31-08-2017	56	44	82	529	72
68	GHATAPRABHA	662.95	654.50	1.391	0.827	31-08-2017	59	86	87	317	-
69	BHADRA	657.76	649.99	1.785	0.988	31-08-2017	55	51	87	106	39
70	LINGANAMAKKI	554.43	546.75	4.294	2.305	31-08-2017	54	53	76	-	55
71	NARAYANPUR	492.25	492.08	0.863	0.718	31-08-2017	83	82	85	425	-
72	MALAPRABHA(RENUKA)	633.83	625.94	0.972	0.242	31-08-2017	25	38	59	215	-
73	KABINI(Sancherla Tank)	696.16	693.63	0.444	0.306	31-08-2017	69	68	59	85	-
74	HEMAVATHY	890.63	882.19	0.927	0.429	31-08-2017	46	53	83	265	-
75	HARANGI	871.42	871.04	0.220	0.217	31-08-2017	99	89	95	53	-
76	SUPA	564.00	546.50	4.120	2.273	31-08-2017	55	51	61	-	-
77	VANIVILAS SAGAR	652.28	631.87	0.802	0.012	31-08-2017	1	5	11	123	-
*78	ALMATTI	519.60	519.48	3.105	3.078	31-08-2017	99	100	93	@	290
*79	GERUSOPPA	55.00	52.50	0.130	0.115	30-08-2017	88	82	82	83	240
<u>KERALA</u>											
80	KALLADA(PARAPPAR)	115.82	101.93	0.507	0.208	31-08-2017	41	43	61	62	-
*81	IDAMALAYAR	169.00	151.32	1.018	0.546	31-08-2017	54	54	66	33	75
*82	IDUKKI	732.43	714.35	1.460	0.592	31-08-2017	41	47	58	-	780
*83	KAKKI	981.46	963.70	0.447	0.214	31-08-2017	48	64	68	23	300
*84	PERIYAR	867.41	861.63	0.173	0.052	31-08-2017	30	24	49	84	140
85	MALAPMUZHA	115.06	107.62	0.224	0.085	31-08-2017	38	38	71	21	3
<u>TAMIL NADU</u>											
86	LOWER BHAWANI	278.89	266.75	0.792	0.207	31-08-2017	26	21	55	105	8
*87	METTUR(STANLEY)	240.79	221.63	2.647	0.640	31-08-2017	24	38	61	122	360
88	VAIGAI	279.20	266.93	0.172	0.011	31-08-2017	6	5	35	61	6
89	PARAMBIKULAM	556.26	541.97	0.380	0.110	31-08-2017	29	41	76	101	-
90	ALIYAR	320.04	305.47	0.095	0.016	31-08-2017	17	14	78	#	60
*91	SHOLAYAR	1002.79	983.09	0.143	0.046	31-08-2017	32	50	84	-	95
TOTAL FOR 91 RESERVOIRS				157.799	86.629						
PERCENTAGE							55	66	66		

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.

Sl. No. 30th The FRL of S.S.P. 138.38 M and Live capacity at FRL will be 5.760 BCM. However at present the lowest block of the dam is at the level of 121.92 M. and the live capacity at this level is 1.566 BCM