

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 07.09.2017)

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 **07.09.2017**, live storage available in these reservoirs is **91.201 BCM**, which is **58%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **108.065 BCM** and the average of last 10 years live storage was **108.794 BCM**. Thus, the live storage available in 91 reservoirs **as per 07.09.2017 Bulletin** is **84%** of the live storage of corresponding period of last year and **84%** of storage of average of last ten years.

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 **07.09.2017**, the total live storage available in these reservoirs is **15.52 BCM** which is **86%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **79%** and average storage of last ten years during corresponding period was **79%** 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 **07.09.2017**, the total live storage available in these reservoirs is **11.74 BCM** which is **62%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **75%** and average storage of last ten years during corresponding period was **66%** 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 **07.09.2017**, the total live storage available in these reservoirs is **18.81 BCM** which is **69%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **75%** and average storage of last ten years during corresponding period was **71%** 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 **07.09.2017**, the total live storage available in these reservoirs is **24.97 BCM** which is **59%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **87%** 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.

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 **07.09.2017**, the total live storage available in these reservoirs is **20.18 BCM** which is **39%** 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 **67%** 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, 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 **38** and reservoirs having storage more than average of last ten years are **43**. The numbers of reservoirs having storage less than 20% with respect to last year is **1** 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 **8** and having storage less than or equal to 50% with reference to average of last ten years are **14**.

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 07.09.2017

- 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 **07.09.2017** is **91.201** BCM (**58** 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 (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.	10 %
									PUNJAB	16 %
									RAJASTHAN	2 %
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	2	1	2	2	3	1	4	-	JHARKHAND	1 %
									ODISHA	-12 %
									W. BENGAL	42 %
									TRIPURA	77 %
WEST (Guj.& Mah.), (27 Resv.)	5	4	6	4	2	2	1	3	GUJARAT	-10 %
									MAH.	4 %
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	1	2	3	2	2	2	U.P.	26 %
									UTTARAKHAND	-1 %
									M.P.	-19 %
									CHHATISGARH	-16 %
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	1	1	2	1	2	5	8	11	AP&TG	-91 %
									A,P	-47 %
									TG	0 %
									KARNATAKA	-20 %
									KERALA	-23 %
									T.N.	-48 %
Status of 91 reservoirs	10	6	13	10	10	11	15	16		

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, **54** reservoirs reported more than 80% of normal storage & **37** reservoirs reported 80% or below of normal storage. Out of these **37** reservoirs **14** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
NAGARJUNA SAGAR	0		
YELDARI	13		
VANIVILAS SAGAR	13		
SRISAILAM	15		
ISAPUR	15		
PENCH (TOTALADOH)	25		
VAIGAI	25		
MATATILA	29		
ALIYAR	32		
MALAPRABHA(RENUKA)	43		
PARAMBIKULAM	44		
INDIRA SAGAR	45		
SHOLAYAR	50		
HEMAVATHY	50		

23 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
8	4	11

- 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 :- 07.09.2017

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	19.148	68.15%	24.118	85.84%	16.590	59.05%	15.42
INDUS	14.730	12.901	87.58%	10.978	74.53%	11.681	79.30%	10.44
NARMADA	17.414	8.885	51.02%	16.003	91.90%	13.907	79.86%	-36.11
TAPI	7.394	3.468	46.90%	5.631	76.16%	5.162	69.81%	-32.82
MAHI	4.012	3.563	88.81%	3.429	85.47%	2.980	74.28%	19.56
SABARMATI	0.735	0.708	96.33%	0.696	94.69%	0.441	60.00%	60.54
RIVERS OF KUTCH	0.887	0.675	76.10%	0.193	21.76%	0.426	48.03%	58.45
GODAVARI	15.394	7.320	47.55%	9.402	61.08%	8.262	53.67%	-11.40
KRISHNA	32.831	14.385	43.82%	16.616	50.61%	23.827	72.57%	-39.63
MAHANADI & NEIGHBOURING EFRS	13.181	8.580	65.09%	9.772	74.14%	9.756	74.02%	-12.05
CAUVERY & NEIGHBOURING EFRS	8.359	3.019	36.12%	2.955	35.35%	5.017	60.02%	-39.82
WEST FLOWING RIVERS OF SOUTH	14.766	8.549	57.90%	8.272	56.02%	10.745	72.77%	-20.44
TOTAL	157.799	91.201		108.065		108.794		
PERCENTAGE								-16.17

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 07.09.2017

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	509.89	6.229	5.617	07-09-2017	90	73	84	676	1200
*2	PONG DAM	423.67	421.69	6.157	5.443	06-09-2017	88	75	79	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	521.69	2.344	1.841	07-09-2017	79	79	67	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	281.50	1.711	1.711	07-09-2017	100	100	83	63	140
5	JHAKAM	359.50	359.85	0.132	0.132	07-09-2017	100	100	80	28	-
*6	RANA PRATAP SAGAR	352.81	349.19	1.436	0.774	06-09-2017	54	99	73	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	259.03	0.821	0.379	07-09-2017	46	49	46	-	-
8	MAITHON	146.3	145.28	0.471	0.385	07-09-2017	82	100	86	342	-
*9	PANCHET HILL	124.97	124.98	0.184	0.184	07-09-2017	100	100	84	\$	80
10	KONAR	425.81	422.35	0.176	0.117	07-09-2017	66	87	83	\$	-
11	TILAIYA	368.81	368.93	0.142	0.142	07-09-2017	100	100	80	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	189.47	5.378	3.281	06-09-2017	61	75	77	153	307
*13	BALIMELA	462.08	451.29	2.676	1.092	06-09-2017	41	68	46	-	360
14	SALANADI	82.30	71.56	0.558	0.250	06-09-2017	45	47	44	42	-
*15	RENGALI	123.50	121.15	3.432	2.683	06-09-2017	78	85	74	3	200
*16	MACHKUND(JALPUT)	838.16	834.30	0.893	0.586	06-09-2017	66	70	70	-	115
*17	UPPER KOLAB	858.00	851.81	0.935	0.412	06-09-2017	44	69	50	89	320
*18	UPPER INDRAVATI	642.00	635.27	1.456	0.772	07-09-2017	53	70	68	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	118.78	0.480	0.370	07-09-2017	77	70	56	227	-
20	KANGSABATI	134.14	132.19	0.914	0.772	07-09-2017	84	85	59	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	93.50	0.312	0.310	05-09-2017	99	81	56	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	97.25	6.615	2.917	07-09-2017	44	77	73	348	300
23	SABARMATI(DHAROI)	189.59	189.24	0.735	0.708	07-09-2017	96	95	60	95	1
*24	KADANA	127.7	127.48	1.472	1.168	07-09-2017	79	79	66	200	120
25	SHETRUNJI	55.53	53.77	0.300	0.179	07-09-2017	60	21	64	36	-
26	BHADAR	107.89	106.30	0.188	0.126	06-09-2017	67	5	58	27	-
27	DAMANAGANGA	79.86	77.75	0.502	0.383	07-09-2017	76	74	75	51	1
28	DANTIWADA	184.1	183.59	0.399	0.370	07-09-2017	93	30	32	45	-
29	PANAM	127.41	127.40	0.697	0.552	07-09-2017	79	60	69	36	2
*30	SARDAR SAROVAR	121.92	125.67	1.566	1.566	07-09-2017	100	100	94	2120	1450
31	KARJAN	115.25	112.29	0.523	0.434	07-09-2017	83	40	75	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 07.09.2017

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	462.77	2.171	1.754	04-09-2017	81	65	40	227	-
*33	KOYANA	657.90	658.34	2.652	2.652	07-09-2017	100	100	97	-	1920
34	BHIMA(UJJANI)	496.83	497.23	1.517	1.517	07-09-2017	100	59	71	125	12
35	ISAPUR	441.00	427.72	0.965	0.079	07-09-2017	8	34	54	104	-
36	MULA	552.30	550.59	0.609	0.520	06-09-2017	85	96	73	139	-
37	YELDARI	461.77	449.02	0.809	0.036	07-09-2017	4	11	34	78	-
38	GIRNA	398.07	393.93	0.524	0.326	07-09-2017	62	67	35	79	-
39	KHADAKVASLA	582.47	582.02	0.056	0.050	07-09-2017	89	100	77	78	8
*40	UPPER VAITARNA	603.50	603.40	0.331	0.328	07-09-2017	99	97	89	-	61
41	UPPER TAPI	214.00	213.50	0.255	0.225	07-09-2017	88	71	60	45	-
*42	PENCH (TOTALADOH)	490.00	474.30	1.091	0.203	07-09-2017	19	75	76	127	160
43	UPPER WARDHA	342.50	339.64	0.564	0.336	07-09-2017	60	98	87	70	-
44	BHATSA	142.07	141.02	0.942	0.913	07-09-2017	97	95	91	29.378	15
45	DHOM	747.70	745.38	0.331	0.279	07-09-2017	84	100	84	36.2	2
46	DUDHGANGA	646.00	645.64	0.664	0.664	07-09-2017	100	98	96	2.441	24
47	MANIKDOH (KUKADI)	711.25	707.08	0.288	0.218	07-09-2017	76	68	51	2.2	6
48	BHANDARDARA	744.91	744.70	0.304	0.303	07-09-2017	100	95	96	63.74	46
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	303.12	0.707	0.168	06-09-2017	24	86	82	-	30
*50	RIHAND	268.22	263.96	5.649	3.818	07-09-2017	68	82	45	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	348.54	2.196	1.101	07-09-2017	50	50	63	1897	198
*52	TEHRI	830.00	822.70	2.615	2.315	07-09-2017	89	87	80	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	396.09	6.827	4.447	07-09-2017	65	91	48	220	115
54	TAWA	355.40	349.24	1.944	1.069	07-09-2017	55	100	96	247	-
*55	BARGI	422.76	419.50	3.180	2.310	07-09-2017	73	94	85	157	90
*56	BANSAGAR	341.64	338.71	5.166	3.866	07-09-2017	75	100	67	488	425
*57	INDIRA SAGAR	262.13	252.86	9.745	3.232	07-09-2017	33	91	73	2380	1000
58	BARNA	348.55	345.70	0.456	0.274	07-09-2017	60	100	82	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	354.45	3.046	2.051	07-09-2017	67	65	74	-	120
60	MAHANADI	348.70	342.91	0.767	0.315	06-09-2017	41	73	72	319	10
SOUTHERN REGION											
A.P. & TG											
*61	SRISAILAM	269.75	246.58	8.288	0.858	07-09-2017	10	50	69	0	770
*62	NAGARJUNA SAGAR	179.83	152.40	6.841	0.000	07-09-2017	0	2	53	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	85.10	1.994	0.356	07-09-2017	18	20	34	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	327.17	2.300	1.022	07-09-2017	44	47	41	411	27
65	LOWER MANAIR	280.42	272.28	0.621	0.205	07-09-2017	33	22	47	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	745.37	1.163	0.553	06-09-2017	48	34	79	79	-
*67	TUNGABHADRA	497.74	495.25	3.276	2.051	07-09-2017	63	40	81	529	72
68	GHATAPRABHA	662.95	656.27	1.391	0.931	07-09-2017	67	87	90	317	-
69	BHADRA	657.76	650.75	1.785	1.055	07-09-2017	59	52	88	106	39
70	LINGANAMAKKI	554.43	547.12	4.294	2.379	07-09-2017	55	54	80	-	55
71	NARAYANPUR	492.25	492.18	0.863	0.731	07-09-2017	85	72	83	425	-
72	MALAPRABHA(RENUKA)	633.83	626.27	0.972	0.262	07-09-2017	27	37	63	215	-
73	KABINI(Sancherla Tank)	696.16	694.30	0.444	0.340	06-09-2017	77	70	59	85	-
74	HEMAVATHY	890.63	881.47	0.927	0.391	06-09-2017	42	48	85	265	-
75	HARANGI	871.42	870.88	0.220	0.211	06-09-2017	96	81	94	53	-
76	SUPA	564.00	546.63	4.120	2.285	07-09-2017	55	52	64	-	-
77	VANIVILAS SAGAR	652.28	631.82	0.802	0.012	07-09-2017	1	5	11	123	-
*78	ALMATTI	519.60	519.60	3.105	3.105	07-09-2017	100	100	91	@	290
*79	GERUSOPPA	55.00	50.75	0.130	0.108	07-09-2017	83	84	83	83	240
<u>KERALA</u>											
80	KALLADA(PARAPPAR)	115.82	104.22	0.507	0.251	07-09-2017	50	40	64	62	-
*81	IDAMALAYAR	169.00	154.08	1.018	0.610	07-09-2017	60	56	71	33	75
*82	IDUKKI	732.43	716.31	1.460	0.671	07-09-2017	46	48	62	-	780
*83	KAKKI	981.46	966.49	0.447	0.239	07-09-2017	53	64	72	23	300
*84	PERIYAR	867.41	862.70	0.173	0.071	07-09-2017	41	20	50	84	140
85	MALAPMUZHA	115.06	108.23	0.224	0.093	07-09-2017	42	39	74	21	3
<u>TAMIL NADU</u>											
86	LOWER BHAWANI	278.89	268.08	0.792	0.249	07-09-2017	31	19	56	105	8
*87	METTUR(STANLEY)	240.79	225.27	2.647	0.903	07-09-2017	34	41	63	122	360
88	VAIGAI	279.20	267.91	0.172	0.016	07-09-2017	9	5	37	61	6
89	PARAMBIKULAM	556.26	543.28	0.380	0.132	07-09-2017	35	41	78	101	-
90	ALIYAR	320.04	307.38	0.095	0.024	07-09-2017	25	9	80	#	60
*91	SHOLAYAR	1002.79	987.84	0.143	0.062	07-09-2017	43	49	87	-	95
TOTAL FOR 91 RESERVOIRS				157.799	91.201						
PERCENTAGE							58	68	69		

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