

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 28.09.2017)

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 **28.09.2017**, live storage available in these reservoirs is **103.429 BCM**, which is **66%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **116.590 BCM** and the average of last 10 years live storage was **119.015 BCM**. Thus, the live storage available in 91 reservoirs **as per 28.09.2017 Bulletin** is **89%** of the live storage of corresponding period of last year and **87%** 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 **28.09.2017**, the total live storage available in these reservoirs is **15.02 BCM** which is **83%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **77%** and average storage of last ten years during corresponding period was **82%** 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 **28.09.2017**, the total live storage available in these reservoirs is **14.03 BCM** which is **75%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **83%** 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 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 **28.09.2017**, the total live storage available in these reservoirs is **20.79 BCM** which is **77%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **82%** and average storage of last ten years during corresponding period was **80%** 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 **28.09.2017**, the total live storage available in these reservoirs is **27.35 BCM** which is **65%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **91%** and average storage of last ten years during corresponding period was **74%** 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 **28.09.2017**, the total live storage available in these reservoirs is **26.23 BCM** which is **51%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **52%** and average storage of last ten years during corresponding period was **72%** 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, Mahanadi & neighbouring East Flowing Rivers, Cauvery & neighbouring EFRs and West Flowing Rivers of South. Deficient in Narmada, Tapi 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 **44** and reservoirs having storage more than average of last ten years are **45**. The numbers of reservoirs having storage less than 20% with respect to last year is **0** 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 **8** and having storage less than or equal to 50% with reference to average of last ten years are **8**.

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 28.09.2017

- 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 **28.09.2017** is **103.429** BCM (**66** percent of the live storage capacity at FRL).The current year's storage is nearly **89** percent of last year's storage and **87** 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.	2 %
									PUNJAB	9 %
									RAJASTHAN	-2 %
EAST (Jharkhand, Odisha, Tripura & W. Bengal (15 Resv.)	1	3	3	2	1	1	3	1	JHARKHAND	4 %
									ODISHA	-6 %
									W. BENGAL	18 %
									TRIPURA	51 %
WEST (Guj.& Mah.), (27 Resv.)	9	9	2	1	2	1	-	3	GUJARAT	-15 %
									MAH.	7 %
CENTRAL (MP, UP, Uttarakhand & Chh.), (12 Resv)	-	2	1	3	3	1	1	1	U.P.	26 %
									UTTARAKHAND	-3 %
									M.P.	-20 %
									CHHATISGARH	-15 %
SOUTH (Karnataka, TN, AP&TG, AP, TG, & Kerala), (31 Resv.)	1	2	2	4	4	7	4	7	AP&TG	-58 %
									A,P	-41 %
									TG	-25 %
									KARNATAKA	-18 %
									KERALA	-7 %
									T.N.	-10 %
Status of 91 reservoirs	13	16	10	11	10	11	8	12		

4 Basin wise storage position:

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

Close to normal: Godavari , Mahanadi & Neighbouring EFRS, Cauvery & neighbouring EFRS and West Flowing Rivers of Sout

Deficient: Narmada , Tapi and Krishna .

Highly deficient: NIL

- 5 Out of 91 reservoirs, **62** reservoirs reported more than 80% of normal storage & **29** reservoirs reported 80% or below of normal storage. Out of these **29** reservoirs **8** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
NAGARJUNA SAGAR	6		
VANIVILAS SAGAR	13		
ISAPUR	23		
YELDARI	25		
HEMAVATHY	41		
INDIRA SAGAR	44		
PENCH (TOTALADOH)	48		
MALAPRABHA (RENUKA)	50		

21 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
4	4	13

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

21 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 :- 28.09.2017

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	20.234	72.02%	24.616	87.61%	18.594	66.18%	8.82
INDUS	14.730	12.382	84.06%	10.536	71.53%	11.999	81.46%	3.19
NARMADA	17.414	10.123	58.13%	16.984	97.53%	15.185	87.20%	-33.34
TAPI	7.394	4.066	54.99%	6.208	83.96%	6.074	82.15%	-33.06
MAHI	4.012	3.588	89.43%	3.739	93.20%	3.290	82.00%	9.06
SABARMATI	0.735	0.735	100.00%	0.712	96.87%	0.536	72.93%	37.13
RIVERS OF KUTCH	0.887	0.748	84.33%	0.300	33.82%	0.527	59.41%	41.94
GODAVARI	15.394	8.665	56.29%	11.813	76.74%	9.989	64.89%	-13.25
KRISHNA	32.831	18.288	55.70%	19.071	58.09%	25.295	77.05%	-27.70
MAHANADI & NEIGHBOURING EFRS	13.181	10.838	82.22%	10.853	82.34%	11.100	84.21%	-2.36
CAUVERY & NEIGHBOURING EFRS	8.359	4.085	48.87%	3.065	36.67%	5.003	59.85%	-18.35
WEST FLOWING RIVERS OF SOUTH	14.766	9.677	65.54%	8.693	58.87%	11.423	77.36%	-15.28
TOTAL	157.799	103.429		116.590		119.015		
PERCENTAGE								-13.10

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 28.09.2017

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
<u>NORTHERN REGION</u>											
<u>HIMACHAL PRADESH</u>											
*1	GOBIND SAGAR(BHAKRA)	512.06	508.86	6.229	5.457	28-09-2017	88	73	88	676	1200
*2	PONG DAM	423.67	420.82	6.157	5.235	28-09-2017	85	70	81	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	519.56	2.344	1.690	28-09-2017	72	69	66	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	281.50	1.711	1.711	28-09-2017	100	100	87	63	140
5	JHAKAM	359.50	359.65	0.132	0.132	28-09-2017	100	100	85	28	-
*6	RANA PRATAP SAGAR	352.81	349.32	1.436	0.797	27-09-2017	56	98	77	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	259.87	0.821	0.411	28-09-2017	50	52	44	-	-
8	MAITHON	146.3	146.72	0.471	0.466	28-09-2017	99	100	94	342	-
*9	PANCHET HILL	124.97	125.65	0.184	0.184	28-09-2017	100	100	95	\$	80
10	KONAR	425.81	423.10	0.176	0.129	28-09-2017	73	100	90	\$	-
11	TILAIYA	368.81	368.34	0.142	0.125	28-09-2017	88	100	86	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	192.02	5.378	4.823	27-09-2017	90	84	93	153	307
*13	BALIMELA	462.08	450.74	2.676	1.029	26-09-2017	38	76	54	-	360
14	SALANADI	82.30	71.56	0.558	0.250	27-09-2017	45	56	56	42	-
*15	RENGALI	123.50	122.91	3.432	3.257	26-09-2017	95	92	83	3	200
*16	MACHKUND(JALPUT)	838.16	836.07	0.893	0.714	26-09-2017	80	87	86	-	115
*17	UPPER KOLAB	858.00	852.43	0.935	0.459	26-09-2017	49	81	65	89	320
*18	UPPER INDRAVATI	642.00	635.89	1.456	0.832	26-09-2017	57	77	78	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	119.80	0.480	0.422	28-09-2017	88	84	65	227	-
20	KANGSABATI	134.14	130.75	0.914	0.638	28-09-2017	70	89	64	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	93.05	0.312	0.289	26-09-2017	93	82	61	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	98.67	6.615	3.472	28-09-2017	52	85	85	348	300
23	SABARMATI(DHAROI)	189.59	189.58	0.735	0.735	28-09-2017	100	97	73	95	1
*24	KADANA	127.7	127.69	1.472	1.189	28-09-2017	81	100	80	200	120
25	SHETRUNJI	55.53	53.82	0.300	0.182	28-09-2017	61	53	77	36	-
26	BHADAR	107.89	107.68	0.188	0.179	28-09-2017	95	6	69	27	-
27	DAMANAGANGA	79.86	79.50	0.502	0.461	28-09-2017	92	92	93	51	1
28	DANTIWADA	184.1	184.08	0.399	0.387	28-09-2017	97	32	42	45	-
29	PANAM	127.41	127.45	0.697	0.556	28-09-2017	80	61	74	36	2
*30	SARDAR SAROVAR	121.92	130.70	1.566	1.566	28-09-2017	100	96	94	2120	1450
31	KARJAN	115.25	113.80	0.523	0.485	28-09-2017	93	52	90	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 28.09.2017

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	463.88	2.171	2.159	26-09-2017	99	71	49	227	-
*33	KOYANA	657.90	659.33	2.652	2.652	27-09-2017	100	100	97	-	1920
34	BHIMA(UJJANI)	496.83	497.35	1.517	1.517	27-09-2017	100	94	77	125	12
35	ISAPUR	441.00	428.86	0.965	0.138	27-09-2017	14	39	63	104	-
36	MULA	552.30	552.22	0.609	0.605	27-09-2017	99	100	82	139	-
37	YELDARI	461.77	451.11	0.809	0.095	28-09-2017	12	16	46	78	-
38	GIRNA	398.07	394.35	0.524	0.343	27-09-2017	65	77	47	79	-
39	KHADAKVASLA	582.47	582.47	0.056	0.056	27-09-2017	100	100	77	78	8
*40	UPPER VAITARNA	603.50	603.49	0.331	0.330	27-09-2017	100	100	93	-	61
41	UPPER TAPI	214.00	213.94	0.255	0.251	27-09-2017	98	80	87	45	-
*42	PENCH (TOTALADOH)	490.00	480.30	1.091	0.425	27-09-2017	39	62	81	127	160
43	UPPER WARDHA	342.50	342.50	0.564	0.564	28-09-2017	100	100	93	70	-
44	BHATSA	142.07	141.78	0.942	0.936	27-09-2017	99	100	95	29.378	15
45	DHOM	747.70	746.86	0.331	0.311	27-09-2017	94	100	88	36.2	2
46	DUDHGANGA	646.00	646.00	0.664	0.664	27-09-2017	100	100	97	2.441	24
47	MANIKDOH (KUKADI)	711.25	708.02	0.288	0.232	27-09-2017	81	71	57	2.2	6
48	BHANDARDARA	744.91	744.73	0.304	0.304	27-09-2017	100	100	97	63.74	46
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	308.46	0.707	0.641	27-09-2017	91	91	89	-	30
*50	RIHAND	268.22	263.75	5.649	3.729	28-09-2017	66	80	50	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	352.08	2.196	1.292	28-09-2017	59	53	70	1897	198
*52	TEHRI	830.00	824.75	2.615	2.402	28-09-2017	92	91	87	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	396.67	6.827	4.745	28-09-2017	70	94	61	220	115
54	TAWA	355.40	352.20	1.944	1.480	28-09-2017	76	100	98	247	-
*55	BARGI	422.76	421.20	3.180	2.786	28-09-2017	88	100	93	157	90
*56	BANSAGAR	341.64	338.94	5.166	3.964	28-09-2017	77	100	72	488	425
*57	INDIRA SAGAR	262.13	253.67	9.745	3.517	28-09-2017	36	99	82	2380	1000
58	BARNA	348.55	345.97	0.456	0.289	28-09-2017	63	95	83	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	355.15	3.046	2.155	25-09-2017	71	69	75	-	120
60	MAHANADI	348.70	343.53	0.767	0.353	27-09-2017	46	99	88	319	10
SOUTHERN REGION											
A.P & TG											
*61	SRISAILAM	269.75	265.79	8.288	4.155	28-09-2017	50	67	75	0	770
*62	NAGARJUNA SAGAR	179.83	157.12	6.841	0.270	28-09-2017	4	10	64	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	88.06	1.994	0.548	28-09-2017	27	40	47	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	327.72	2.300	1.138	28-09-2017	49	100	61	411	27
65	LOWER MANAIR	280.42	272.22	0.621	0.203	28-09-2017	33	100	62	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	747.23	1.163	0.705	28-09-2017	61	26	80	79	-
*67	TUNGABHADRA	497.74	495.03	3.276	1.982	27-09-2017	61	37	81	529	72
68	GHATAPRABHA	662.95	659.30	1.391	1.113	27-09-2017	80	80	89	317	-
69	BHADRA	657.76	651.92	1.785	1.163	27-09-2017	65	52	87	106	39
70	LINGANAMAKKI	554.43	547.97	4.294	2.567	28-09-2017	60	58	84	-	55
71	NARAYANPUR	492.25	492.18	0.863	0.731	28-09-2017	85	83	86	425	-
72	MALAPRABHA(RENUKA)	633.83	627.20	0.972	0.324	27-09-2017	33	36	66	215	-
73	KABINI(Sancherla Tank)	696.16	695.55	0.444	0.408	28-09-2017	92	52	54	85	-
74	HEMAVATHY	890.63	879.80	0.927	0.310	28-09-2017	33	20	81	265	-
75	HARANGI	871.42	871.04	0.220	0.217	28-09-2017	99	75	87	53	-
76	SUPA	564.00	548.25	4.120	2.423	28-09-2017	59	57	69	-	-
77	VANIVILAS SAGAR	652.28	631.96	0.802	0.013	28-09-2017	2	5	13	123	-
*78	ALMATTI	519.60	519.60	3.105	3.105	28-09-2017	100	100	93	@	290
*79	GERUSOPPA	55.00	51.31	0.130	0.109	28-09-2017	84	83	78	83	240
<u>KERALA</u>											
80	KALLADA(PARAPPAR)	115.82	110.54	0.507	0.373	28-09-2017	74	32	69	62	-
*81	IDAMALAYAR	169.00	159.50	1.018	0.746	28-09-2017	73	57	76	33	75
*82	IDUKKI	732.43	720.88	1.460	0.864	28-09-2017	59	47	67	-	780
*83	KAKKI	981.46	971.90	0.447	0.303	28-09-2017	68	62	77	23	300
*84	PERIYAR	867.41	863.91	0.173	0.093	28-09-2017	54	13	47	84	140
85	MALAPMUZHA	115.06	110.79	0.224	0.134	28-09-2017	60	41	79	21	3
<u>TAMIL NADU</u>											
86	LOWER BHAWANI	278.89	273.07	0.792	0.458	28-09-2017	58	19	50	105	8
*87	METTUR(STANLEY)	240.79	230.77	2.647	1.399	28-09-2017	53	46	57	122	360
88	VAIGAI	279.20	271.29	0.172	0.040	28-09-2017	23	4	36	61	6
89	PARAMBIKULAM	556.26	546.57	0.380	0.189	28-09-2017	50	37	81	101	-
90	ALIYAR	320.04	310.84	0.095	0.040	28-09-2017	42	6	80	#	60
*91	SHOLAYAR	1002.79	998.76	0.143	0.109	28-09-2017	76	41	90	-	95
TOTAL FOR 91 RESERVOIRS				157.799	103.429						
PERCENTAGE							66	74	75		

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.

SI. 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