

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 07.12.2017)

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 **07.12.2017**, live storage available in these reservoirs is **96.444 BCM**, which is **61%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **100.438 BCM** and the average of last 10 years live storage was **101.720 BCM**. Thus, the live storage available in 91 reservoirs **as per 07.12.2017 Bulletin** is **96%** of the live storage of corresponding period of last year and **95%** 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 **07.12.2017**, the total live storage available in these reservoirs is **11.44 BCM** which is **64%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **56%** and average storage of last ten years during corresponding period was **63%** 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 **07.12.2017**, the total live storage available in these reservoirs is **14.22 BCM** which is **76%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **81%** and average storage of last ten years during corresponding period was **70%** of live storage capacity of these reservoirs. Thus, storage during current year is less than the corresponding period of last year but is better 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 **07.12.2017**, the total live storage available in these reservoirs is **18.96 BCM** which is **70%** 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 **70%** of live storage capacity of these reservoirs. Thus, storage during current year is less than the storage of last year and is equal to 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 **07.12.2017**, the total live storage available in these reservoirs is **23.62 BCM** which is **56%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **81%** and average storage of last ten years during corresponding period was **63%** 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 **07.12.2017**, the total live storage available in these reservoirs is **28.20 BCM** which is **55%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **39%** and average storage of last ten years during corresponding period was **61%** 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 Ganga, Mahi, Indus, Sabarmati, Mahanadi & Neighbouring East Flowing Rivers and Rivers of Kutch. Close to Normal in Godavari, Krishna, Cauvery & neighbouring EFRs and West Flowing Rivers of South. Deficient in Narmada and Tapi 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 **53** and reservoirs having storage more than average of last ten years are **49**. 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 **1**. The number of reservoirs having storage less than or equal to 50% with respect to last year are **4** 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 07.12.2017

- 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 07.12.2017 is 96.444 BCM (61 percent of the live storage capacity at FRL).The current year's storage is nearly 96 percent of last year's storage and 95 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.)	-	1	1	1	1	-	1	1	H.P.	4 %
									PUNJAB	-12 %
									RAJASTHAN	-6 %
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	2	3	3	1	1	2	3	-	JHARKHAND	8 %
									ODISHA	2 %
									W. BENGAL	106 %
									TRIPURA	89 %
WEST (Guj.& Mah.), (27 Resv.)	2	8	5	2	5	1	1	3	GUJARAT	-14 %
									MAH.	13 %
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	1	1	3	4	1	2	U.P.	16 %
									UTTARAKHAND	-4 %
									M.P.	-17 %
									CHHATISGARH	-12 %
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	-	1	2	5	6	6	5	6	AP&TG	-12 %
									A,P	-15 %
									TG	4 %
									KARNATAKA	-12 %
									KERALA	4 %
									T.N.	-29 %
Status of 91 reservoirs	4	13	12	10	16	13	11	12		

4 Basin wise storage position:

Better than normal: Ganga,Mahi,Indus,Sabarmati, Mahanadi & Neighbouring EFRS,and Rivers of Kutch .

Godavari,Krishna, Cauvery & neighbouring EFRS and West Flowing Rivers

Close to normal: of South .

Deficient: Narmada and Tapi. .

Highly deficient: NIL

- Out of 91 reservoirs, 68 reservoirs reported more than 80% of normal storage & 23 reservoirs reported 80% or below of normal storage. Out of these 23 reservoirs 8 having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
VANIVILAS SAGAR	13		
SHOLAYAR	21		
ISAPUR	25		
YELDARI	31		
RANA PRATAP SAGAR	47		
ALIYAR	48		
HEMAVATHY	48		
MAHANADI	49		

15 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
3	5	7

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

16 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 :- 07.12.2017

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	17.346	61.74%	21.569	76.77%	16.150	57.48%	7.41
INDUS	14.730	9.411	63.89%	7.617	51.71%	9.213	62.55%	2.15
NARMADA	17.414	9.218	52.93%	14.443	82.94%	12.255	70.37%	-24.78
TAPI	7.394	3.572	48.31%	5.994	81.07%	5.262	71.17%	-32.12
MAHI	4.012	3.156	78.66%	3.297	82.18%	2.810	70.04%	12.31
SABARMATI	0.735	0.510	69.39%	0.607	82.59%	0.447	60.82%	14.09
RIVERS OF KUTCH	0.887	0.606	68.32%	0.271	30.55%	0.436	49.15%	38.99
GODAVARI	15.394	9.104	59.14%	11.915	77.40%	9.351	60.74%	-2.64
KRISHNA	32.831	19.613	59.74%	13.835	42.14%	20.275	61.76%	-3.27
MAHANADI & NEIGHBOURING EFRS	13.181	10.145	76.97%	10.963	83.17%	9.778	74.18%	3.75
CAUVERY & NEIGHBOURING EFRS	8.359	4.211	50.38%	1.949	23.32%	5.141	61.50%	-18.09
WEST FLOWING RIVERS OF SOUTH	14.766	9.552	64.69%	7.978	54.03%	10.602	71.80%	-9.90
TOTAL	157.799	96.444		100.438		101.720		
PERCENTAGE								-5.19

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 07.12.2017

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	503.31	6.229	4.624	07-12-2017	74	53	71	676	1200
*2	PONG DAM	423.67	413.91	6.157	3.750	04-12-2017	61	53	59	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	508.34	2.344	1.037	07-12-2017	44	44	50	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	279.60	1.711	1.561	07-12-2017	91	95	76	63	140
5	JHAKAM	359.50	357.10	0.132	0.108	07-12-2017	82	83	67	28	-
*6	RANA PRATAP SAGAR	352.81	346.46	1.436	0.361	06-12-2017	25	48	54	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	259.84	0.821	0.410	07-12-2017	50	52	44	-	-
8	MAITHON	146.3	149.40	0.471	0.471	07-12-2017	100	100	86	342	-
*9	PANCHET HILL	124.97	128.17	0.184	0.184	07-12-2017	100	100	85	\$	80
10	KONAR	425.81	423.35	0.176	0.133	07-12-2017	76	97	81	\$	-
11	TILAIYA	368.81	366.88	0.142	0.077	07-12-2017	54	100	80	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	191.39	5.378	4.421	07-12-2017	82	87	85	153	307
*13	BALIMELA	462.08	452.08	2.676	1.188	07-12-2017	44	80	61	-	360
14	SALANADI	82.30	71.11	0.558	0.240	06-12-2017	43	37	39	42	-
*15	RENGALI	123.50	122.94	3.432	3.263	07-12-2017	95	94	72	3	200
*16	MACHKUND(JALPUT)	838.16	837.77	0.893	0.853	07-12-2017	96	83	84	-	115
*17	UPPER KOLAB	858.00	853.99	0.935	0.576	07-12-2017	62	83	62	89	320
*18	UPPER INDRAVATI	642.00	636.14	1.456	0.857	07-12-2017	59	78	70	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	120.43	0.480	0.457	07-12-2017	95	46	43	227	-
20	KANGSABATI	134.14	132.62	0.914	0.814	07-12-2017	89	63	45	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	92.80	0.312	0.278	05-12-2017	89	82	47	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	97.39	6.615	2.968	06-12-2017	45	81	72	348	300
23	SABARMATI(DHAROI)	189.59	187.15	0.735	0.510	07-12-2017	69	83	61	95	1
*24	KADANA	127.7	125.81	1.472	0.999	07-12-2017	68	76	65	200	120
25	SHETRUNJI	55.53	53.42	0.300	0.160	07-12-2017	53	57	70	36	-
26	BHADAR	107.89	106.44	0.188	0.131	07-12-2017	70	10	55	27	-
27	DAMANAGANGA	79.86	79.35	0.502	0.454	06-12-2017	90	88	90	51	1
28	DANTIWADA	184.1	181.93	0.399	0.315	07-12-2017	79	21	31	45	-
29	PANAM	127.41	126.45	0.697	0.488	07-12-2017	70	64	66	36	2
*30	SARDAR SAROVAR	121.92	123.02	1.566	1.566	06-12-2017	100	81	83	2120	1450
31	KARJAN	115.25	111.76	0.523	0.418	06-12-2017	80	64	82	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 07.12.2017

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	463.41	2.171	1.980	07-12-2017	91	78	46	227	-
*33	KOYANA	657.90	657.58	2.652	2.613	05-12-2017	99	82	88	-	1920
34	BHIMA(UJJANI)	496.83	497.23	1.517	1.517	07-12-2017	100	100	75	125	12
35	ISAPUR	441.00	428.92	0.965	0.141	05-12-2017	15	48	59	104	-
36	MULA	552.30	551.96	0.609	0.591	05-12-2017	97	96	76	139	-
37	YELDARI	461.77	451.38	0.809	0.106	05-12-2017	13	29	43	78	-
38	GIRNA	398.07	394.93	0.524	0.366	05-12-2017	70	80	44	79	-
39	KHADAKVASLA	582.47	582.17	0.056	0.052	05-12-2017	93	75	64	78	8
*40	UPPER VAITARNA	603.50	603.28	0.331	0.325	05-12-2017	98	96	88	-	61
41	UPPER TAPI	214.00	213.73	0.255	0.238	05-12-2017	93	97	95	45	-
*42	PENCH (TOTALADOH)	490.00	477.26	1.091	0.301	05-12-2017	28	42	55	127	160
43	UPPER WARDHA	342.50	341.25	0.564	0.457	07-12-2017	81	83	79	70	-
44	BHATSA	142.07	137.60	0.942	0.823	05-12-2017	87	86	83	29.378	15
45	DHOM	747.70	745.41	0.331	0.280	05-12-2017	85	66	77	36.2	2
46	DUDHGANGA	646.00	644.45	0.664	0.627	05-12-2017	94	91	88	2.441	24
47	MANIKDOH (KUKADI)	711.25	708.22	0.288	0.236	05-12-2017	82	66	47	2.2	6
48	BHANDARDARA	744.91	744.59	0.304	0.301	05-12-2017	99	99	86	63.74	46
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	306.08	0.707	0.395	06-12-2017	56	45	62	-	30
*50	RIHAND	268.22	262.04	5.649	3.042	07-12-2017	54	70	45	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	354.14	2.196	1.407	07-12-2017	64	55	73	1897	198
*52	TEHRI	830.00	817.25	2.615	2.100	07-12-2017	80	78	78	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	394.88	6.827	3.866	07-12-2017	57	91	55	220	115
54	TAWA	355.40	349.30	1.944	1.077	07-12-2017	55	82	79	247	-
*55	BARGI	422.76	420.55	3.180	2.604	07-12-2017	82	83	78	157	90
*56	BANSAGAR	341.64	337.40	5.166	3.351	07-12-2017	65	91	60	488	425
*57	INDIRA SAGAR	262.13	253.06	9.745	3.356	07-12-2017	34	85	64	2380	1000
58	BARNA	348.55	344.30	0.456	0.197	07-12-2017	43	80	63	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	353.68	3.046	1.939	06-12-2017	64	69	64	-	120
60	MAHANADI	348.70	342.38	0.767	0.282	06-12-2017	37	99	76	319	10
SOUTHERN REGION											
A.P. & TG											
*61	SRISAILAM	269.75	266.03	8.288	4.250	07-12-2017	51	49	61	0	770
*62	NAGARJUNA SAGAR	179.83	170.96	6.841	2.914	07-12-2017	43	12	45	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	95.39	1.994	1.288	07-12-2017	65	53	76	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	328.57	2.300	1.337	07-12-2017	58	100	56	411	27
65	LOWER MANAIR	280.42	276.65	0.621	0.416	07-12-2017	67	99	65	199	60

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GOVERNMENT OF INDIA

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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
KARNATAKA											
66	KRISHNARAJA SAGRA	752.50	747.24	1.163	0.706	06-12-2017	61	14	73	79	-
*67	TUNGABHADRA	497.74	493.15	3.276	1.496	07-12-2017	46	8	58	529	72
68	GHATAPRABHA	662.95	658.19	1.391	1.052	06-12-2017	76	62	65	317	-
69	BHADRA	657.76	652.92	1.785	1.261	06-12-2017	71	34	81	106	39
70	LINGANAMAKKI	554.43	547.15	4.294	2.388	07-12-2017	56	52	74	-	55
71	NARAYANPUR	492.25	490.87	0.863	0.571	07-12-2017	66	44	78	425	-
72	MALAPRABHA(RENUKA)	633.83	626.67	0.972	0.295	06-12-2017	30	21	52	215	-
73	KABINI(Sancherla Tank)	696.16	694.13	0.444	0.331	06-12-2017	75	30	30	85	-
74	HEMAVATHY	890.63	877.32	0.927	0.216	06-12-2017	23	11	48	265	-
75	HARANGI	871.42	859.94	0.220	0.067	06-12-2017	30	25	28	53	-
76	SUPA	564.00	547.20	4.120	2.335	07-12-2017	57	53	63	-	-
77	VANIVILAS SAGAR	652.28	632.50	0.802	0.020	06-12-2017	2	4	19	123	-
*78	ALMATTI	519.60	518.02	3.105	2.429	07-12-2017	78	61	67	@	290
*79	GERUSOPPA	55.00	52.07	0.130	0.113	07-12-2017	87	82	83	83	240
KERALA											
80	KALLADA(PARAPPAR)	115.82	115.22	0.507	0.471	07-12-2017	93	40	81	62	-
*81	IDAMALAYAR	169.00	160.26	1.018	0.768	07-12-2017	75	60	72	33	75
*82	IDUKKI	732.43	723.77	1.460	0.999	07-12-2017	68	41	66	-	780
*83	KAKKI	981.46	978.44	0.447	0.394	07-12-2017	88	57	81	23	300
*84	PERIYAR	867.41	865.10	0.173	0.117	07-12-2017	68	12	66	84	140
85	MALAPMUZHA	115.06	110.31	0.224	0.126	07-12-2017	56	42	74	21	3
TAMIL NADU											
86	LOWER BHAWANI	278.89	271.21	0.792	0.371	07-12-2017	47	12	61	105	8
*87	METTUR(STANLEY)	240.79	228.12	2.647	1.144	07-12-2017	43	13	59	122	360
88	VAIGAI	279.20	275.02	0.172	0.088	07-12-2017	51	2	52	61	6
89	PARAMBIKULAM	556.26	546.14	0.380	0.182	07-12-2017	48	23	76	101	-
90	ALIYAR	320.04	310.07	0.095	0.037	07-12-2017	39	7	81	#	60
*91	SHOLAYAR	1002.79	974.36	0.143	0.020	07-12-2017	14	0	67	-	95
TOTAL FOR 91 RESERVOIRS				157.799	96.444						
PERCENTAGE							61	64	64		

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