

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 14.12.2017)

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 161.993 BCM which is about 63% of the live storage capacity of 257.582 BCM which is estimated to have been created in the country. As per reservoir storage bulletin dated **14.12.2017**, live storage available in these reservoirs is **94.053 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 **98.130 BCM** and the average of last 10 years live storage was **98.990 BCM**. Thus, the live storage available in 91 reservoirs **as per 14.12.2017 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 **14.12.2017**, the total live storage available in these reservoirs is **10.99 BCM** which is **61%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **53%** 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 and is equal to the 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 **14.12.2017**, the total live storage available in these reservoirs is **14.13 BCM** which is **75%** 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 **69%** 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 31.26 BCM. As per Reservoir Storage Bulletin dated **14.12.2017**, the total live storage available in these reservoirs is **18.57 BCM** which is **59%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **64%** and average storage of last ten years during corresponding period was **59%** 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 **14.12.2017**, the total live storage available in these reservoirs is **23.14 BCM** which is **55%** 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 **60%** 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 **14.12.2017**, the total live storage available in these reservoirs is **27.23 BCM** which is **53%** 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 **60%** 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 **50**. 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 **4** and having storage less than or equal to 50% with reference to average of last ten years are **6**.

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 14.12.2017

- 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 **14.12.2017** is **94.053** BCM (**58** 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	2	-	1	1	1	H.P.	3 %	
									PUNJAB	-11 %	
									RAJASTHAN	-5 %	
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	2	3	3	1	1	2	3	-	JHARKHAND	9 %	
									ODISHA	2 %	
									W. BENGAL	106 %	
									TRIPURA	85 %	
WEST (Guj.& Mah.), (27 Resv.)	1	7	4	4	5	1	1	4	GUJARAT	-15 %	
									MAH.	14 %	
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	-	2	4	3	1	2	U.P.	18 %	
									UTTARAKHAND	-4 %	
									M.P.	-15 %	
									CHHATISGARH	-11 %	
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	-	1	1	6	5	5	6	7	AP&TG	-15 %	
									A,P	-16 %	
									TG	5 %	
									KARNATAKA	-11 %	
									KERALA	5 %	
									T.N.	-29 %	
Status of 91 reservoirs	3	11	9	15	15	12	12	14			

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, **67** reservoirs reported more than 80% of normal storage & **24** reservoirs reported 80% or below of normal storage. Out of these **24** reservoirs **6** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
VANIVILAS SAGAR	13		
SHOLAYAR	20		
ISAPUR	25		
YELDARI	32		
PENCH (TOTALADOH)	46		
RANA PRATAP SAGAR	48		

18 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
8	3	7

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

17 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 :- 14.12.2017

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	17.057	60.71%	21.159	75.31%	15.635	55.65%	9.09
INDUS	14.730	9.008	61.15%	7.224	49.04%	8.862	60.16%	1.65
NARMADA	21.608	8.949	41.42%	14.005	64.81%	11.806	54.64%	-24.20
TAPI	7.394	3.388	45.82%	5.898	79.77%	5.123	69.29%	-33.87
MAHI	4.012	3.103	77.34%	3.229	80.48%	2.743	68.37%	13.12
SABARMATI	0.735	0.485	65.99%	0.592	80.54%	0.433	58.91%	12.01
RIVERS OF KUTCH	0.887	0.590	66.52%	0.260	29.31%	0.421	47.46%	40.14
GODAVARI	15.394	9.005	58.50%	11.745	76.30%	9.207	59.81%	-2.19
KRISHNA	32.831	18.825	57.34%	13.323	40.58%	19.677	59.93%	-4.33
MAHANADI & NEIGHBOURING EFRS	13.181	10.147	76.98%	10.898	82.68%	9.757	74.02%	4.00
CAUVERY & NEIGHBOURING EFRS	8.359	4.119	49.28%	1.947	23.29%	4.929	58.97%	-16.43
WEST FLOWING RIVERS OF SOUTH	14.766	9.377	63.50%	7.850	53.16%	10.397	70.41%	-9.81
TOTAL	161.993	94.053		98.130		98.990		
PERCENTAGE								-4.99

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 14.12.2017

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	502.29	6.229	4.477	14-12-2017	72	51	69	676	1200
*2	PONG DAM	423.67	412.71	6.157	3.518	14-12-2017	57	50	56	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	507.83	2.344	1.013	13-12-2017	43	42	48	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	279.25	1.711	1.516	13-12-2017	89	93	73	63	140
5	JHAKAM	359.50	356.75	0.132	0.105	13-12-2017	80	82	64	28	-
*6	RANA PRATAP SAGAR	352.81	346.44	1.436	0.359	13-12-2017	25	47	52	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	259.87	0.821	0.411	14-12-2017	50	52	44	-	-
8	MAITHON	146.3	149.29	0.471	0.471	14-12-2017	100	100	85	342	-
*9	PANCHET HILL	124.97	128.12	0.184	0.184	14-12-2017	100	100	85	\$	80
10	KONAR	425.81	423.25	0.176	0.131	14-12-2017	74	95	80	\$	-
11	TILAIYA	368.81	366.87	0.142	0.077	14-12-2017	54	100	77	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	191.36	5.378	4.406	13-12-2017	82	86	84	153	307
*13	BALIMELA	462.08	451.77	2.676	1.150	14-12-2017	43	79	60	-	360
14	SALANADI	82.30	71.12	0.558	0.240	13-12-2017	43	35	38	42	-
*15	RENGALI	123.50	122.88	3.432	3.247	14-12-2017	95	93	72	3	200
*16	MACHKUND(JALPUT)	838.16	837.67	0.893	0.843	14-12-2017	94	80	82	-	115
*17	UPPER KOLAB	858.00	853.96	0.935	0.573	14-12-2017	61	84	59	89	320
*18	UPPER INDRAVATI	642.00	636.12	1.456	0.855	14-12-2017	59	78	71	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	120.44	0.480	0.457	14-12-2017	95	46	43	227	-
20	KANGSABATI	134.14	132.62	0.914	0.814	14-12-2017	89	63	45	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	92.65	0.312	0.270	13-12-2017	87	74	47	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	96.95	6.615	2.808	14-12-2017	42	79	70	348	300
23	SABARMATI(DHAROI)	189.59	186.86	0.735	0.485	13-12-2017	66	81	59	95	1
*24	KADANA	127.7	125.78	1.472	0.997	13-12-2017	68	75	65	200	120
25	SHETRANJI	55.53	53.42	0.300	0.160	13-12-2017	53	56	69	36	-
26	BHADAR	107.89	106.28	0.188	0.125	13-12-2017	66	9	53	27	-
27	DAMANAGANGA	79.86	79.35	0.502	0.454	14-12-2017	90	84	88	51	1
28	DANTIWADA	184.1	181.61	0.399	0.305	13-12-2017	76	19	29	45	-
29	PANAM	127.41	126.40	0.697	0.485	13-12-2017	70	63	64	36	2
*30	SARDAR SAROVAR	138.68	121.73	5.760	1.531	14-12-2017	27	22	23	2120	1450
31	KARJAN	115.25	111.72	0.523	0.417	14-12-2017	80	61	80	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 14.12.2017

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	657.35	2.652	2.586	13-12-2017	98	78	85	-	1920
34	BHIMA(UJJANI)	496.83	497.18	1.517	1.517	13-12-2017	100	100	74	125	12
35	ISAPUR	441.00	428.87	0.965	0.138	13-12-2017	14	46	57	104	-
36	MULA	552.30	551.90	0.609	0.587	14-12-2017	96	93	71	139	-
37	YELDARI	461.77	451.33	0.809	0.104	14-12-2017	13	28	41	78	-
38	GIRNA	398.07	394.48	0.524	0.348	13-12-2017	66	82	44	79	-
39	KHADAKVASLA	582.47	581.50	0.056	0.043	13-12-2017	77	61	61	78	8
*40	UPPER VAITARNA	603.50	603.20	0.331	0.323	13-12-2017	98	94	87	-	61
41	UPPER TAPI	214.00	213.62	0.255	0.232	13-12-2017	91	93	93	45	-
*42	PENCH (TOTALADOH)	490.00	476.80	1.091	0.285	13-12-2017	26	40	56	127	160
43	UPPER WARDHA	342.50	341.03	0.564	0.439	14-12-2017	78	79	76	70	-
44	BHATSA	142.07	136.75	0.942	0.802	13-12-2017	85	84	81	29.378	15
45	DHOM	747.70	744.85	0.331	0.268	13-12-2017	81	61	71	36.2	2
46	DUDHGANGA	646.00	644.00	0.664	0.612	13-12-2017	92	89	86	2.441	24
47	MANIKDOH (KUKADI)	711.25	708.18	0.288	0.235	13-12-2017	82	61	44	2.2	6
48	BHANDARDARA	744.91	744.55	0.304	0.300	13-12-2017	99	98	83	63.74	46
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	306.48	0.707	0.434	13-12-2017	61	49	60	-	30
*50	RIHAND	268.22	261.86	5.649	2.971	14-12-2017	53	68	44	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	353.85	2.196	1.391	14-12-2017	63	54	72	1897	198
*52	TEHRI	830.00	816.05	2.615	2.054	13-12-2017	79	76	76	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	394.56	6.827	3.722	14-12-2017	55	89	51	220	115
54	TAWA	355.40	348.57	1.944	0.989	14-12-2017	51	78	75	247	-
*55	BARGI	422.76	420.35	3.180	2.548	14-12-2017	80	78	75	157	90
*56	BANSAGAR	341.64	337.29	5.166	3.311	14-12-2017	64	90	58	488	425
*57	INDIRA SAGAR	262.13	252.92	9.745	3.281	14-12-2017	34	83	61	2380	1000
58	BARNA	348.55	344.08	0.456	0.183	14-12-2017	40	79	58	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	353.61	3.046	1.929	13-12-2017	63	69	64	-	120
60	MAHANADI	348.70	343.08	0.767	0.325	13-12-2017	42	99	77	319	10
SOUTHERN REGION											
A.P & TG											
*61	SRISAILAM	269.75	265.63	8.288	4.094	14-12-2017	49	47	60	0	770
*62	NAGARJUNA SAGAR	179.83	169.59	6.841	2.618	14-12-2017	38	11	43	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	95.10	1.994	1.249	14-12-2017	63	54	74	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	328.57	2.300	1.337	14-12-2017	58	99	55	411	27
65	LOWER MANAIR	280.42	276.61	0.621	0.414	14-12-2017	67	98	66	199	60

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA CENTRAL WATER COMMISSION

WEEK ENDING :- 14.12.2017

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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	747.33	1.163	0.714	14-12-2017	61	14	70	79	-
*67	TUNGABHADRA	497.74	492.55	3.276	1.360	14-12-2017	42	8	55	529	72
68	GHATAPRABHA	662.95	657.07	1.391	0.981	13-12-2017	71	62	62	317	-
69	BHADRA	657.76	652.96	1.785	1.265	13-12-2017	71	34	80	106	39
70	LINGANAMAKKI	554.43	546.83	4.294	2.320	13-12-2017	54	51	72	-	55
71	NARAYANPUR	492.25	491.00	0.863	0.586	14-12-2017	68	37	76	425	-
72	MALAPRABHA(RENUKA)	633.83	625.94	0.972	0.280	13-12-2017	29	24	51	215	-
73	KABINI(Sancherla Tank)	696.16	693.96	0.444	0.323	14-12-2017	73	28	30	85	-
74	HEMAVATHY	890.63	877.26	0.927	0.214	14-12-2017	23	11	42	265	-
75	HARANGI	871.42	858.66	0.220	0.056	14-12-2017	25	25	20	53	-
76	SUPA	564.00	546.97	4.120	2.315	13-12-2017	56	53	62	-	-
77	VANIVILAS SAGAR	652.28	632.46	0.802	0.020	14-12-2017	2	4	19	123	-
*78	ALMATTI	519.60	517.85	3.105	2.360	14-12-2017	76	59	64	@	290
*79	GERUSOPPA	55.00	48.32	0.130	0.093	14-12-2017	72	79	82	83	240
<u>KERALA</u>											
80	KALLADA(PARAPPAR)	115.82	115.42	0.507	0.477	14-12-2017	94	40	81	62	-
*81	IDAMALAYAR	169.00	159.91	1.018	0.754	14-12-2017	74	60	71	33	75
*82	IDUKKI	732.43	723.65	1.460	0.994	14-12-2017	68	40	65	-	780
*83	KAKKI	981.46	978.55	0.447	0.396	14-12-2017	89	57	80	23	300
*84	PERIYAR	867.41	864.43	0.173	0.104	14-12-2017	60	12	62	84	140
85	MALAPMUZHA	115.06	109.88	0.224	0.119	14-12-2017	53	37	69	21	3
<u>TAMIL NADU</u>											
86	LOWER BHAWANI	278.89	270.54	0.792	0.351	14-12-2017	44	12	58	105	8
*87	METTUR(STANLEY)	240.79	228.37	2.647	1.167	14-12-2017	44	12	57	122	360
88	VAIGAI	279.20	271.78	0.172	0.045	14-12-2017	26	2	52	61	6
89	PARAMBIKULAM	556.26	545.45	0.380	0.169	14-12-2017	44	22	75	101	-
90	ALIYAR	320.04	310.74	0.095	0.040	14-12-2017	42	12	79	#	60
*91	SHOLAYAR	1002.79	973.42	0.143	0.017	14-12-2017	12	0	61	-	95
TOTAL FOR 91 RESERVOIRS				161.993	94.053						
PERCENTAGE							58	61	61		

* 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.

Sd/-

Director

W. M. , CWC