

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 16.02.2017)

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 **16.02.2017**, live storage available in these reservoirs is **71.683 BCM**, which is **45%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **56.026 BCM** and the average of last 10 years live storage was **69.966 BCM**. Thus, the live storage available in 91 reservoirs **as per 16.02.2017 Bulletin** is **128%** of the live storage of corresponding period of last year and **102%** of storage of average of last ten years.

As per Table-01, the overall storage position is **better than the** corresponding period of last year in the country as a whole and is also **better 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 **16.02.2017**, the total live storage available in these reservoirs is **6.00 BCM** which is **33%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **36%** and average storage of last ten years during corresponding period was **39%** 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.

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 **16.02.2017**, the total live storage available in these reservoirs is **12.74 BCM** which is **68%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **50%** and average storage of last ten years during corresponding period was **55%** 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.

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 **16.02.2017**, the total live storage available in these reservoirs is **16.04 BCM** which is **59%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **31%** and average storage of last ten years during corresponding period was **54%** of live storage capacity of these reservoirs. Thus, storage during current year is better than the storage of last year and is also better 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 **16.02.2017**, the total live storage available in these reservoirs is **24.72 BCM** which is **58%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **46%** and average storage of last ten years during corresponding period was **40%** of live storage capacity of these reservoirs. Thus, storage during current year is better than the storage of last year and is also better 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 **16.02.2017**, the total live storage available in these reservoirs is **12.19 BCM** which is **24%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **24%** and average storage of last ten years during corresponding period was **41%** of live storage capacity of these reservoirs. Thus, storage during current year is equal to 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 Narmada, Mahi, Ganga, Sabarmati, Godavari, Tapi and Mahanadi & neighbouring East Flowing Rivers. NIL in Close to Normal and Deficient in Indus, Rivers of Kutch, West Flowing Rivers of South and Krishna Basin and Highly Deficient in Cauvery & neighbouring EFR basin.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storage more than last year are **58** and reservoirs having storage more than average of last ten years are **46**. The numbers of reservoirs having storage less than 20% with respect to last year is **4** 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 **13** and having storage less than or equal to 50% with reference to average of last ten years are **18**.

STORAGE STATUS OF IMPORTANT RESERVOIRS IN THE COUNTRY

AS ON 16.02.2017

- 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 16.02.2017 is 71.683 BCM (45 percent of the live storage capacity at FRL).The current year's storage is nearly 128 percent of last year's storage and 102 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.)	-	-	-	-	1	-	1	4	H.P.	-28 %	
									PUNJAB	20 %	
									RAJASTHAN	14 %	
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	2	-	1	1	4	3	2	2	JHARKHAND	23 %	
									ODISHA	23 %	
									W. BENGAL	22 %	
									TRIPURA	159 %	
WEST (Guj.& Mah.), (27 Resv.)	-	-	2	2	8	8	-	7	GUJARAT	17 %	
									MAH.	4 %	
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	1	2	1	3	3	2	U.P.	71 %	
									UTTARAKHAND	-23 %	
									M.P.	61 %	
									CHHATISGARH	18 %	
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	-	-	1	-	1	2	3	24	AP&TG	-64 %	
									A,P	-40 %	
									TG	72 %	
									KARNATAKA	-38 %	
									KERALA	-31 %	
									T.N.	-79 %	
Status of 91 reservoirs	2	0	5	5	15	16	9	39			

4 Basin wise storage position:

Better than normal: Ganga,Sabarmati,Godavari,Mahi, Narmada ,Tapi and Mahanadi & Neighbouring EFRS.

Close to normal: NIL

Deficient: Indus, Rivers of Kutch,West Flowing Rivers of South and Krishna

Highly deficient: Cauvery & neighbouring EFRS.

- Out of 91 reservoirs, 57 reservoirs reported more than 80% of normal storage & 34 reservoirs reported 80% or below of normal storage. Out of these 34 reservoirs 18 having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
SHOLAYAR	0	KABINI	31
NAGARJUNA SAGAR	5	BHADRA	35
VAIGAI	9	ALMATTI	40
ALIYAR	9	HEMAVATHY	44
BHADAR	14	PENCH (TOTALADOH)	48
PARAMBIKULAM	15	SRISAILAM	50
TUNGABHADRA	17		
VANIVILAS SAGAR	22		
LOWER BHAWANI	22		
METTUR(STANLEY)	23		
KRISHNARAJA SAGRA	26		
PERIYAR	29		

16 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
4	7	5

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

18 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 :- 16.02.2017

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	16.371	58.27%	12.702	45.21%	11.128	39.61%	47.12
INDUS	14.730	4.455	30.24%	5.266	35.75%	5.690	38.63%	-21.70
NARMADA	17.414	9.594	55.09%	7.186	41.27%	7.251	41.64%	32.31
TAPI	7.394	5.359	72.48%	2.942	39.79%	4.097	55.41%	30.80
MAHI	4.012	2.411	60.09%	1.514	37.74%	2.020	50.35%	19.36
SABARMATI	0.735	0.375	51.02%	0.323	43.95%	0.286	38.91%	31.12
RIVERS OF KUTCH	0.887	0.161	18.15%	0.472	53.21%	0.285	32.13%	-43.51
GODAVARI	15.394	8.631	56.07%	4.588	29.80%	6.886	44.73%	25.34
KRISHNA	32.831	7.132	21.72%	4.858	14.80%	12.829	39.08%	-44.41
MAHANADI & NEIGHBOURING EFRS	13.181	9.482	71.94%	6.429	48.77%	7.810	59.25%	21.41
CAUVERY & NEIGHBOURING EFRS	8.359	1.385	16.57%	3.042	36.39%	3.655	43.73%	-62.11
WEST FLOWING RIVERS OF SOUTH	14.766	6.327	42.85%	6.704	45.40%	8.029	54.37%	-21.20
TOTAL	157.799	71.683		56.026		69.966		
PERCENTAGE								2.45

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 16.02.2017

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**HIMACHAL PRADESH**

*1	GOBIND SAGAR(BHAKRA)	512.06	478.64	6.229	1.788	15-02-2017	29	50	44	676	1200
*2	PONG DAM	423.67	402.78	6.157	1.825	16-02-2017	30	27	36	-	360

PUNJAB

*3	THEIN	527.91	504.40	2.344	0.842	16-02-2017	36	20	30	348	600
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RAJASTHAN

*4	MAHI BAJAJ SAGAR	280.75	275.55	1.711	1.101	16-02-2017	64	45	43	63	140
5	JHAKAM	359.50	351.10	0.132	0.062	16-02-2017	47	24	29	28	-
*6	RANA PRATAP SAGAR	352.81	346.61	1.436	0.385	16-02-2017	27	30	40	229	172

EASTERN REGION**JHARKHAND**

7	TENUGHAT	269.14	259.93	0.821	0.414	16-02-2017	50	40	42	-	-
8	MAITHON	146.3	147.25	0.471	0.471	16-02-2017	100	33	75	342	-
*9	PANCHET HILL	124.97	126.86	0.184	0.184	16-02-2017	100	18	77	\$	80
10	KONAR	425.81	421.72	0.176	0.108	16-02-2017	61	55	66	\$	-
11	TILAIYA	368.81	366.73	0.142	0.073	16-02-2017	51	25	44	\$	4

ODISHA

*12	HIRAKUD	192.02	190.20	5.378	3.687	15-02-2017	69	58	64	153	307
*13	BALIMELA	462.08	456.90	2.676	1.814	15-02-2017	68	55	48	-	360
14	SALANADI	82.30	67.89	0.558	0.173	16-02-2017	31	5	34	42	-
*15	RENGALI	123.50	121.95	3.432	2.910	15-02-2017	85	47	54	3	200
*16	MACHKUND(JALPUT)	838.16	832.73	0.893	0.492	15-02-2017	55	67	67	-	115
*17	UPPER KOLAB	858.00	855.39	0.935	0.688	15-02-2017	74	65	50	89	320
*18	UPPER INDRAVATI	642.00	637.54	1.456	0.994	16-02-2017	68	47	58	128	600

WEST BENGAL

19	MAYURAKSHI	121.31	114.57	0.480	0.194	16-02-2017	40	19	37	227	-
20	KANGSABATI	134.14	126.92	0.914	0.371	16-02-2017	41	25	31	341	-

TRIPURA

21	GUMTI	93.55	90.20	0.312	0.166	15-02-2017	53	63	21	-	15
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WESTERN REGION**GUJARAT**

*22	UKAI	105.16	101.86	6.615	4.910	15-02-2017	74	42	57	348	300
23	SABARMATI(DHAROI)	189.59	185.47	0.735	0.375	16-02-2017	51	44	39	95	1
*24	KADANA	127.7	124.59	1.472	0.887	16-02-2017	60	35	58	200	120
25	SHETRANJI	55.53	52.32	0.300	0.113	16-02-2017	38	51	49	36	-
26	BHADAR	107.89	100.25	0.188	0.011	16-02-2017	6	100	41	27	-
27	DAMANAGANGA	79.86	76.10	0.502	0.317	15-02-2017	63	57	68	51	1
28	DANTIWADA	184.1	163.27	0.399	0.037	16-02-2017	9	33	15	45	-
29	PANAM	127.41	124.25	0.697	0.361	16-02-2017	52	28	56	36	2
*30	SARDAR SAROVAR	121.92	120.54	1.566	1.316	15-02-2017	84	24	69	2120	1450
31	KARJAN	115.25	105.88	0.523	0.278	15-02-2017	53	40	71	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 16.02.2017

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	461.20	2.171	1.239	15-02-2017	57	3	33	227	-
*33	KOYANA	657.90	646.41	2.652	1.462	14-02-2017	55	43	69	-	1920
34	BHIMA(UJJANI)	496.83	495.03	1.517	0.957	16-02-2017	63	0	52	125	12
35	ISAPUR	441.00	432.66	0.965	0.319	15-02-2017	33	20	47	104	-
36	MULA	552.30	548.01	0.609	0.401	15-02-2017	66	16	49	139	-
37	YELDARI	461.77	452.41	0.809	0.149	15-02-2017	18	6	31	78	-
38	GIRNA	398.07	392.56	0.524	0.276	15-02-2017	53	2	29	79	-
39	KHADAKVASLA	582.47	580.86	0.056	0.035	15-02-2017	63	63	52	78	8
*40	UPPER VAITARNA	603.50	600.56	0.331	0.235	14-02-2017	71	43	70	-	61
41	UPPER TAPI	214.00	212.54	0.255	0.173	15-02-2017	68	52	71	45	-
*42	PENCH (TOTALADOH)	490.00	474.72	1.091	0.216	15-02-2017	20	26	42	127	160
43	UPPER WARDHA	342.50	339.50	0.564	0.327	16-02-2017	58	38	49	70	-
44	BHATSA	142.07	129.08	0.942	0.624	15-02-2017	66	55	62	29.378	15
45	DHOM	747.70	739.66	0.331	0.221	15-02-2017	67	38	44	36.2	2
46	DUDHGANGA	646.00	639.15	0.664	0.461	15-02-2017	69	35	67	2.441	24
47	MANIKDOH (KUKADI)	711.25	696.86	0.288	0.088	15-02-2017	31	9	29	2.2	6
48	BHANDARDARA	744.91	741.78	0.304	0.247	15-02-2017	81	22	63	63.74	46
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	305.07	0.707	0.307	15-02-2017	43	26	41	-	30
*50	RIHAND	268.22	262.07	5.649	3.054	16-02-2017	54	27	30	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	340.47	2.196	0.732	16-02-2017	33	100	57	1897	198
*52	TEHRI	830.00	788.20	2.615	1.123	16-02-2017	43	34	44	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	397.05	6.827	4.944	15-02-2017	72	58	36	220	115
54	TAWA	355.40	345.83	1.944	0.718	16-02-2017	37	28	35	247	-
*55	BARGI	422.76	417.00	3.180	1.740	16-02-2017	55	62	52	157	90
*56	BANSAGAR	341.64	338.66	5.166	3.845	15-02-2017	74	45	42	488	425
*57	INDIRA SAGAR	262.13	256.43	9.745	5.316	16-02-2017	55	41	34	2380	1000
58	BARNA	348.55	344.85	0.456	0.226	15-02-2017	50	22	30	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	354.57	3.046	2.069	16-02-2017	68	43	59	-	120
60	MAHANADI	348.70	347.39	0.767	0.643	16-02-2017	84	42	66	319	10
SOUTHERN REGION											
A.P. & TG											
*61	SRISAILAM	269.75	257.04	8.288	1.800	16-02-2017	22	13	44	0	770
*62	NAGARJUNA SAGAR	179.83	156.00	6.841	0.087	16-02-2017	1	0	25	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	89.68	1.994	0.675	16-02-2017	34	61	56	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	328.51	2.300	1.322	16-02-2017	57	7	30	411	27
65	LOWER MANAIR	280.42	276.76	0.621	0.423	16-02-2017	68	14	52	199	60

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

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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	738.42	1.163	0.164	15-02-2017	14	36	54	79	-
*67	TUNGABHADRA	497.74	482.09	3.276	0.138	16-02-2017	4	8	25	529	72
68	GHATAPRABHA	662.95	645.83	1.391	0.416	15-02-2017	30	20	22	317	-
69	BHADRA	657.76	642.62	1.785	0.452	15-02-2017	25	47	72	106	39
70	LINGANAMAKKI	554.43	542.74	4.294	1.578	15-02-2017	37	40	53	-	55
71	NARAYANPUR	492.25	490.26	0.863	0.504	16-02-2017	58	32	74	425	-
72	MALAPRABHA(RENUKA)	633.83	623.86	0.972	0.140	15-02-2017	14	7	17	215	-
73	KABINI(Sancherla Tank)	696.16	687.44	0.444	0.052	15-02-2017	12	35	37	85	-
74	HEMAVATHY	890.63	872.94	0.927	0.098	15-02-2017	11	14	24	265	-
75	HARANGI	871.42	859.67	0.220	0.065	15-02-2017	30	7	14	53	-
76	SUPA	564.00	542.66	4.120	1.959	15-02-2017	48	40	50	-	-
77	VANIVILAS SAGAR	652.28	633.08	0.802	0.028	16-02-2017	3	12	16	123	-
*78	ALMATTI	519.60	508.76	3.105	0.343	16-02-2017	11	12	28	@	290
*79	GERUSOPPA	55.00	52.86	0.130	0.117	16-02-2017	90	93	85	83	240
<u>KERALA</u>											
80	KALLADA(PARAPPAR)	115.82	100.39	0.507	0.197	15-02-2017	39	87	70	62	-
*81	IDAMALAYAR	169.00	149.19	1.018	0.497	15-02-2017	49	48	55	33	75
*82	IDUKKI	732.43	711.67	1.460	0.492	15-02-2017	34	50	54	-	780
*83	KAKKI	981.46	964.37	0.447	0.220	15-02-2017	49	65	68	23	300
*84	PERIYAR	867.41	859.25	0.173	0.014	15-02-2017	8	34	28	84	140
85	MALAPMUZHA	115.06	103.49	0.224	0.039	16-02-2017	17	16	27	21	3
<u>TAMIL NADU</u>											
86	LOWER BHAWANI	278.89	261.28	0.792	0.080	15-02-2017	10	34	45	105	8
*87	METTUR(STANLEY)	240.79	214.25	2.647	0.247	15-02-2017	9	30	41	122	360
88	VAIGAI	279.20	264.45	0.172	0.004	15-02-2017	2	24	27	61	6
89	PARAMBIKULAM	556.26	536.96	0.380	0.034	15-02-2017	9	51	60	101	-
90	ALIYAR	320.04	302.12	0.095	0.004	15-02-2017	4	44	47	#	60
*91	SHOLAYAR	1002.79	955.24	0.143	0.000	15-02-2017	0	0	8	-	95
TOTAL FOR 91 RESERVOIRS				157.799	71.683						
PERCENTAGE							45	36	44		

Sd/-

* HYDEL POWER CAPACITY HAVING CAPACITY MORE THAN 60MW

Director

\$ TOTAL CCA 342 TH. HA OF DVC SYSTEM

W. M. , CWC

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