

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 30.03.2017)

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 **30.03.2017**, live storage available in these reservoirs is **52.632 BCM**, which is **33%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **39.641 BCM** and the average of last 10 years live storage was **51.575 BCM**. Thus, the live storage available in 91 reservoirs **as per 30.03.2017 Bulletin** is **133%** of the live storage of corresponding period of last year and **102%** of storage of average of last ten years.

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 **30.03.2017**, the total live storage available in these reservoirs is **4.13 BCM** which is **23%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **25%** and average storage of last ten years during corresponding period was **30%** 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 **30.03.2017**, the total live storage available in these reservoirs is **10.19 BCM** which is **54%** 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 **40%** 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 **30.03.2017**, the total live storage available in these reservoirs is **11.59 BCM** which is **43%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **22%** and average storage of last ten years during corresponding period was **42%** 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 **30.03.2017**, the total live storage available in these reservoirs is **19.54 BCM** which is **46%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **32%** and average storage of last ten years during corresponding period was **31%** 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 **30.03.2017**, the total live storage available in these reservoirs is **7.18 BCM** which is **14%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **17%** and average storage of last ten years during corresponding period was **27%** 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 Narmada, Mahi, Ganga, Sabarmati, Godavari, Tapi and Mahanadi & neighbouring East Flowing Rivers. NIL in Close to Normal and Deficient in Indus, West Flowing Rivers of South and Krishna Basin and Highly Deficient in Rivers of Kutch and Cauvery & neighbouring EFR basin.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storage more than last year are **55** and reservoirs having storage more than average of last ten years are **41**. The numbers of reservoirs having storage less than 20% with respect to last year is **5** and having storage less than 20% with reference to average of last ten years is **10**. 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 **23**.

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 30.03.2017

- 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 **30.03.2017** is **52.632** BCM (**33** percent of the live storage capacity at FRL).The current year's storage is nearly **133** percent of last year's storage and **102** 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.)	-	-	-	-	-	-	2	4	H.P.	-46 %
									PUNJAB	24 %
									RAJASTHAN	16 %
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	-	2	-	1	-	3	3	6	JHARKHAND	38 %
									ODISHA	32 %
									W. BENGAL	34 %
									TRIPURA	262 %
WEST (Guj.& Mah.), (27 Resv.)	-	-	1	-	1	4	8	13	GUJARAT	15 %
									MAH.	-11 %
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	-	-	4	-	2	6	U.P.	92 %
									UTTARAKHAND	-39 %
									M.P.	60 %
									CHHATISGARH	22 %
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	-	-	-	1	-	-	-	30	AP&TG	-74 %
									A,P	-61 %
									TG	52 %
									KARNATAKA	-40 %
									KERALA	-27 %
									T.N.	-80 %
Status of 91 reservoirs	0	2	1	2	5	7	15	59		

4 Basin wise storage position:

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

Close to normal: NIL

Deficient: Indus, West Flowing Rivers of South and Krishna

Highly deficient: Rivers of Kutch and Cauvery & neighbouring EFRS.

- 5 Out of 91 reservoirs, **49** reservoirs reported more than 80% of normal storage & **42** reservoirs reported 80% or below of normal storage. Out of these **42** reservoirs **23** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
SHOLAYAR	0	BHADRA	28
NAGARJUNA SAGAR	0	HEMAVATHY	37
ALMATI	4	PERIYAR	37
BHADAR	11	SOMASILA	39
DANTIWADA	11	YELDARI	41
VAIGAI	14	KRISHNARAJA SAGRA	42
KABINI	14	TUNGABHADRA	42
PARAMBIKULAM	14	PENCH (TOTALADOH)	42
METTUR(STANLEY)	19	SRISAILAM	44
VANIVILAS SAGAR	19	MANIKDOH	47
ALIYAR	25	GOBIND SAGAR(BHAKR)	50
LOWER BHAWANI	26		

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

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

20 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 :- 30.03.2017

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	13.561	48.27%	8.811	31.36%	8.846	31.48%	53.30
INDUS	14.730	2.941	19.97%	3.598	24.43%	4.438	30.13%	-33.73
NARMADA	17.414	6.881	39.51%	5.284	30.34%	5.250	30.15%	31.07
TAPI	7.394	4.088	55.29%	1.958	26.48%	3.210	43.41%	27.35
MAHI	4.012	1.935	48.23%	1.044	26.02%	1.653	41.20%	17.06
SABARMATI	0.735	0.256	34.83%	0.212	28.84%	0.191	25.99%	34.03
RIVERS OF KUTCH	0.887	0.072	8.12%	0.302	34.05%	0.181	20.41%	-60.22
GODAVARI	15.394	5.901	38.33%	2.870	18.64%	4.921	31.97%	19.91
KRISHNA	32.831	3.496	10.65%	3.301	10.05%	8.001	24.37%	-56.31
MAHANADI & NEIGHBOURING EFRS	13.181	8.062	61.16%	5.230	39.68%	6.192	46.98%	30.20
CAUVERY & NEIGHBOURING EFRS	8.359	0.878	10.50%	2.078	24.86%	2.888	34.55%	-69.60
WEST FLOWING RIVERS OF SOUTH	14.766	4.561	30.89%	4.953	33.54%	5.804	39.31%	-21.42
TOTAL	157.799	52.632		39.641		51.575		
PERCENTAGE								2.05

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 30.03.2017

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	466.52	6.229	0.948	22-03-2017	15	33	31	676	1200
*2	PONG DAM	423.67	396.63	6.157	1.029	30-03-2017	17	17	28	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	506.90	2.344	0.964	30-03-2017	41	21	33	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	271.65	1.711	0.739	30-03-2017	43	26	28	63	140
5	JHAKAM	359.50	346.95	0.132	0.039	30-03-2017	30	8	17	28	-
*6	RANA PRATAP SAGAR	352.81	346.81	1.436	0.412	30-03-2017	29	33	36	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	259.37	0.821	0.392	30-03-2017	48	37	36	-	-
8	MAITHON	146.3	146.21	0.471	0.436	30-03-2017	93	23	54	342	-
*9	PANCHET HILL	124.97	124.68	0.184	0.170	30-03-2017	92	16	63	\$	80
10	KONAR	425.81	418.25	0.176	0.061	30-03-2017	35	43	53	\$	-
11	TILAIYA	368.81	365.69	0.142	0.045	30-03-2017	32	23	27	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	188.40	5.378	2.727	28-03-2017	51	45	46	153	307
*13	BALIMELA	462.08	453.02	2.676	1.306	29-03-2017	49	40	35	-	360
14	SALANADI	82.30	67.56	0.558	0.167	29-03-2017	30	4	27	42	-
*15	RENGALI	123.50	121.11	3.432	2.671	30-03-2017	78	36	43	3	200
*16	MACHKUND(JALPUT)	838.16	830.21	0.893	0.354	30-03-2017	40	51	53	-	115
*17	UPPER KOLAB	858.00	853.46	0.935	0.536	30-03-2017	57	44	36	89	320
*18	UPPER INDRAVATI	642.00	635.10	1.456	0.756	30-03-2017	52	4	40	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	112.96	0.480	0.146	30-03-2017	30	18	28	227	-
20	KANGSABATI	134.14	125.32	0.914	0.284	30-03-2017	31	25	21	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	89.50	0.312	0.141	28-03-2017	45	48	13	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	99.41	6.615	3.782	29-03-2017	57	28	45	348	300
23	SABARMATI(DHAROI)	189.59	183.66	0.735	0.256	30-03-2017	35	29	26	95	1
*24	KADANA	127.7	124.23	1.472	0.856	30-03-2017	58	30	55	200	120
25	SHETRUNJI	55.53	50.47	0.300	0.061	30-03-2017	20	17	27	36	-
26	BHADAR	107.89	99.73	0.188	0.007	28-03-2017	4	100	34	27	-
27	DAMANAGANGA	79.86	73.05	0.502	0.212	29-03-2017	42	38	53	51	1
28	DANTIWADA	184.1	163.28	0.399	0.004	30-03-2017	1	16	9	45	-
29	PANAM	127.41	123.00	0.697	0.301	30-03-2017	43	20	48	36	2
*30	SARDAR SAROVAR	121.92	119.03	1.566	1.079	29-03-2017	69	22	53	2120	1450
31	KARJAN	115.25	103.77	0.523	0.236	29-03-2017	45	30	61	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 30.03.2017

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	460.26	2.171	0.960	23-03-2017	44	0	25	227	-
*33	KOYANA	657.90	640.21	2.652	0.958	29-03-2017	36	31	55	-	1920
34	BHIMA(UJJANI)	496.83	492.36	1.517	0.278	30-03-2017	18	0	33	125	12
35	ISAPUR	441.00	430.96	0.965	0.233	29-03-2017	24	14	38	104	-
36	MULA	552.30	543.15	0.609	0.220	29-03-2017	36	13	36	139	-
37	YELDARI	461.77	450.40	0.809	0.075	29-03-2017	9	5	23	78	-
38	GIRNA	398.07	389.63	0.524	0.185	29-03-2017	35	0	21	79	-
39	KHADAKVASLA	582.47	581.92	0.056	0.049	29-03-2017	88	34	38	78	8
*40	UPPER VAITARNA	603.50	598.11	0.331	0.167	29-03-2017	50	41	56	-	61
41	UPPER TAPI	214.00	211.43	0.255	0.121	29-03-2017	47	29	55	45	-
*42	PENCH (TOTALADOH)	490.00	472.23	1.091	0.147	29-03-2017	13	16	32	127	160
43	UPPER WARDHA	342.50	338.36	0.564	0.254	30-03-2017	45	29	37	70	-
44	BHATSA	142.07	123.46	0.942	0.511	29-03-2017	54	45	49	29.378	15
45	DHOM	747.70	737.42	0.331	0.133	29-03-2017	40	33	37	36.2	2
46	DUDHGANGA	646.00	633.68	0.664	0.318	29-03-2017	48	21	49	2.441	24
47	MANIKDOH (KUKADI)	711.25	688.19	0.288	0.022	29-03-2017	8	8	16	2.2	6
48	BHANDARDARA	744.91	735.57	0.304	0.166	29-03-2017	55	15	45	63.74	46
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	304.71	0.707	0.279	28-03-2017	39	16	39	-	30
*50	RIHAND	268.22	261.12	5.649	2.686	30-03-2017	48	22	22	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	332.98	2.196	0.446	30-03-2017	20	16	40	1897	198
*52	TEHRI	830.00	763.40	2.615	0.476	30-03-2017	18	11	24	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	395.61	6.827	4.200	23-03-2017	62	47	31	220	115
54	TAWA	355.40	342.99	1.944	0.476	29-03-2017	24	18	26	247	-
*55	BARGI	422.76	415.05	3.180	1.360	29-03-2017	43	51	39	157	90
*56	BANSAGAR	341.64	337.50	5.166	3.387	23-03-2017	66	42	39	488	425
*57	INDIRA SAGAR	262.13	253.75	9.745	3.581	30-03-2017	37	28	23	2380	1000
58	BARNA	348.55	343.25	0.456	0.149	23-03-2017	33	8	18	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	354.24	3.046	2.020	29-03-2017	66	41	54	-	120
60	MAHANADI	348.70	345.28	0.767	0.477	29-03-2017	62	38	52	319	10
SOUTHERN REGION											
A.P. & TG											
*61	SRISAILAM	269.75	246.28	8.288	0.841	30-03-2017	10	9	23	0	770
*62	NAGARJUNA SAGAR	179.83	154.99	6.841	0.000	30-03-2017	0	0	19	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	84.94	1.994	0.348	30-03-2017	17	45	45	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	325.31	2.300	0.683	30-03-2017	30	6	16	411	27
65	LOWER MANAIR	280.42	272.43	0.621	0.211	30-03-2017	34	13	36	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
KARNATAKA											
66	KRISHNARAJA SAGRA	752.50	738.23	1.163	0.157	28-03-2017	13	19	33	79	-
*67	TUNGABHADRA	497.74	481.32	3.276	0.108	30-03-2017	3	5	8	529	72
68	GHATAPRABHA	662.95	640.84	1.391	0.240	29-03-2017	17	9	13	317	-
69	BHADRA	657.76	638.80	1.785	0.250	29-03-2017	14	29	50	106	39
70	LINGANAMAKKI	554.43	537.61	4.294	0.904	30-03-2017	21	30	36	-	55
71	NARAYANPUR	492.25	486.96	0.863	0.205	30-03-2017	24	25	46	425	-
72	MALAPRABHA(RENUKA)	633.83	621.55	0.972	0.057	29-03-2017	6	5	9	215	-
73	KABINI(Sancherla Tank)	696.16	686.02	0.444	0.012	28-03-2017	3	18	20	85	-
74	HEMAVATHY	890.63	870.73	0.927	0.056	28-03-2017	6	12	17	265	-
75	HARANGI	871.42	855.76	0.220	0.036	28-03-2017	16	7	15	53	-
76	SUPA	564.00	536.90	4.120	1.541	30-03-2017	37	30	37	-	-
77	VANIVILAS SAGAR	652.28	632.72	0.802	0.022	30-03-2017	3	10	14	123	-
*78	ALMATTI	519.60	505.01	3.105	0.015	30-03-2017	0	8	11	@	290
*79	GERUSOPPA	55.00	48.74	0.130	0.096	30-03-2017	74	71	80	83	240
KERALA											
80	KALLADA(PARAPPAR)	115.82	94.90	0.507	0.127	30-03-2017	25	68	46	62	-
*81	IDAMALAYAR	169.00	143.50	1.018	0.377	30-03-2017	37	34	38	33	75
*82	IDUKKI	732.43	708.52	1.460	0.381	30-03-2017	26	36	38	-	780
*83	KAKKI	981.46	958.61	0.447	0.171	30-03-2017	38	51	50	23	300
*84	PERIYAR	867.41	859.25	0.173	0.014	30-03-2017	8	9	22	84	140
85	MALAPMUZHA	115.06	101.99	0.224	0.027	28-03-2017	12	13	24	21	3
TAMIL NADU											
86	LOWER BHAWANI	278.89	260.96	0.792	0.075	30-03-2017	9	12	37	105	8
*87	METTUR(STANLEY)	240.79	212.67	2.647	0.188	30-03-2017	7	24	38	122	360
88	VAIGAI	279.20	265.33	0.172	0.006	30-03-2017	3	12	26	61	6
89	PARAMBIKULAM	556.26	536.08	0.380	0.022	30-03-2017	6	26	41	101	-
90	ALIYAR	320.04	304.34	0.095	0.011	30-03-2017	12	17	46	#	60
*91	SHOLAYAR	1002.79	955.00	0.143	0.000	30-03-2017	0	1	3	-	95
TOTAL FOR 91 RESERVOIRS				157.799	52.632						
PERCENTAGE							33	25	33		

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