

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 23.03.2017)

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 **23.03.2017**, live storage available in these reservoirs is **54.962 BCM**, which is **35%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **41.704 BCM** and the average of last 10 years live storage was **54.354 BCM**. Thus, the live storage available in 91 reservoirs **as per 23.03.2017 Bulletin** is **132%** of the live storage of corresponding period of last year and **101%** 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 **23.03.2017**, the total live storage available in these reservoirs is **4.02 BCM** which is **22%** 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 **31%** 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 **23.03.2017**, the total live storage available in these reservoirs is **10.53 BCM** which is **56%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **40%** and average storage of last ten years during corresponding period was **44%** 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 **23.03.2017**, the total live storage available in these reservoirs is **12.29 BCM** which is **45%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **23%** and average storage of last ten years during corresponding period was **44%** 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 **23.03.2017**, the total live storage available in these reservoirs is **20.12 BCM** which is **48%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **33%** and average storage of last ten years during corresponding period was **33%** 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 **23.03.2017**, the total live storage available in these reservoirs is **8.00 BCM** which is **16%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **18%** and average storage of last ten years during corresponding period was **29%** 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, 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 **55** and reservoirs having storage more than average of last ten years are **40**. 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 **9**. The number of reservoirs having storage less than or equal to 50% with respect to last year are **15** and having storage less than or equal to 50% with reference to average of last ten years are **22**.

STORAGE STATUS OF IMPORTANT RESERVOIRS IN THE COUNTRY

AS ON 23.03.2017

- 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 **23.03.2017** is **54.962** BCM (**35** percent of the live storage capacity at FRL).The current year's storage is nearly **132** percent of last year's storage and **101** 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	5	H.P.	-47 %	
									PUNJAB	10 %	
									RAJASTHAN	14 %	
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	-	2	-	1	-	3	3	6	JHARKHAND	36 %	
									ODISHA	23 %	
									W. BENGAL	22 %	
									TRIPURA	235 %	
WEST (Guj.& Mah.), (27 Resv.)	-	-	-	1	1	8	7	10	GUJARAT	15 %	
									MAH.	-8 %	
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	-	-	4	-	2	6	U.P.	88 %	
									UTTARAKHAND	-37 %	
									M.P.	60 %	
									CHHATISGARH	21 %	
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	-	-	-	1	-	-	2	28	AP&TG	-73 %	
									A,P	-59 %	
									TG	57 %	
									KARNATAKA	-37 %	
									KERALA	-26 %	
									T.N.	-80 %	
Status of 91 reservoirs	0	2	0	3	5	11	15	55			

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.

- 5 Out of 91 reservoirs, **50** reservoirs reported more than 80% of normal storage & **41** reservoirs reported 80% or below of normal storage. Out of these **41** reservoirs **22** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
SHOLAYAR	0	TUNGABHADRA	32
NAGARJUNA SAGAR	0	BHADRA	34
DANTIWADA	10	HEMAVATHY	36
VAIGAI	13	YELDARI	38
PARAMBIKULAM	14	KRISHNARAJA SAGRA	41
KABINI	15	SOMASILA	41
ALIYAR	16	SRISAILAM	43
BHADAR	16	MANIKDOH	45
METTUR(STANLEY)	20	PENCH (TOTALADOH)	46
ALMATTI	21	GOBIND SAGAR(BHAKR)	50
VANIVILAS SAGAR	21		
LOWER BHAWANI	25		

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

- 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 :- 23.03.2017

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	13.735	48.89%	8.963	31.90%	9.111	32.43%	50.75
INDUS	14.730	2.819	19.14%	3.654	24.81%	4.483	30.43%	-37.12
NARMADA	17.414	7.235	41.55%	5.505	31.61%	5.534	31.78%	30.74
TAPI	7.394	4.255	57.55%	2.059	27.85%	3.345	45.24%	27.20
MAHI	4.012	1.998	49.80%	1.064	26.52%	1.687	42.05%	18.44
SABARMATI	0.735	0.268	36.46%	0.216	29.39%	0.201	27.35%	33.33
RIVERS OF KUTCH	0.887	0.086	9.70%	0.165	18.60%	0.181	20.41%	-52.49
GODAVARI	15.394	6.234	40.50%	3.589	23.31%	5.493	35.68%	13.49
KRISHNA	32.831	4.076	12.42%	3.525	10.74%	8.621	26.26%	-52.72
MAHANADI & NEIGHBOURING EFRS	13.181	8.346	63.32%	5.435	41.23%	6.514	49.42%	28.12
CAUVERY & NEIGHBOURING EFRS	8.359	0.951	11.38%	2.279	27.26%	3.002	35.91%	-68.32
WEST FLOWING RIVERS OF SOUTH	14.766	4.959	33.58%	5.250	35.55%	6.182	41.87%	-19.78
TOTAL	157.799	54.962		41.704		54.354		
PERCENTAGE								1.12

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 23.03.2017

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	396.62	6.157	1.029	23-03-2017	17	17	29	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	504.42	2.344	0.842	23-03-2017	36	22	33	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	272.35	1.711	0.801	23-03-2017	47	28	29	63	140
5	JHAKAM	359.50	346.95	0.132	0.039	23-03-2017	30	8	17	28	-
*6	RANA PRATAP SAGAR	352.81	346.44	1.436	0.359	22-03-2017	25	30	36	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	259.49	0.821	0.396	23-03-2017	48	37	37	-	-
8	MAITHON	146.3	146.58	0.471	0.458	23-03-2017	97	24	58	342	-
*9	PANCHET HILL	124.97	124.74	0.184	0.173	23-03-2017	94	16	66	\$	80
10	KONAR	425.81	418.90	0.176	0.069	23-03-2017	39	45	55	\$	-
11	TILAIYA	368.81	365.73	0.142	0.046	23-03-2017	32	23	29	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	188.72	5.378	2.886	22-03-2017	54	47	49	153	307
*13	BALIMELA	462.08	454.03	2.676	1.439	22-03-2017	54	41	42	-	360
14	SALANADI	82.30	67.61	0.558	0.162	23-03-2017	29	4	30	42	-
*15	RENGALI	123.50	121.34	3.432	2.751	23-03-2017	80	38	47	3	200
*16	MACHKUND(JALPUT)	838.16	830.70	0.893	0.377	22-03-2017	42	54	57	-	115
*17	UPPER KOLAB	858.00	830.70	0.935	0.377	22-03-2017	40	47	43	89	320
*18	UPPER INDRAVATI	642.00	635.75	1.456	0.819	22-03-2017	56	41	46	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	113.14	0.480	0.151	23-03-2017	31	18	30	227	-
20	KANGSABATI	134.14	125.32	0.914	0.284	23-03-2017	31	25	24	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	89.60	0.312	0.144	21-03-2017	46	50	14	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	99.76	6.615	3.934	22-03-2017	59	30	47	348	300
23	SABARMATI(DHAROI)	189.59	183.84	0.735	0.268	23-03-2017	36	29	27	95	1
*24	KADANA	127.7	124.11	1.472	0.846	23-03-2017	57	29	55	200	120
25	SHETRANJI	55.53	51.07	0.300	0.074	23-03-2017	25	21	31	36	-
26	BHADAR	107.89	99.79	0.188	0.008	23-03-2017	4	16	26	27	-
27	DAMANAGANGA	79.86	73.70	0.502	0.233	22-03-2017	46	40	55	51	1
28	DANTIWADA	184.1	163.28	0.399	0.004	23-03-2017	1	18	10	45	-
29	PANAM	127.41	123.25	0.697	0.312	23-03-2017	45	21	49	36	2
*30	SARDAR SAROVAR	121.92	119.05	1.566	1.082	22-03-2017	69	23	55	2120	1450
31	KARJAN	115.25	103.92	0.523	0.239	22-03-2017	46	31	63	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 23.03.2017

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	641.96	2.652	1.100	20-03-2017	41	34	59	-	1920
34	BHIMA(UJJANI)	496.83	492.69	1.517	0.353	23-03-2017	23	0	38	125	12
35	ISAPUR	441.00	431.63	0.965	0.266	20-03-2017	28	17	40	104	-
36	MULA	552.30	544.78	0.609	0.275	15-03-2017	45	14	40	139	-
37	YELDARI	461.77	450.45	0.809	0.076	23-03-2017	9	6	24	78	-
38	GIRNA	398.07	389.84	0.524	0.189	20-03-2017	36	0	23	79	-
39	KHADAKVASLA	582.47	581.50	0.056	0.043	20-03-2017	77	55	41	78	8
*40	UPPER VAITARNA	603.50	598.72	0.331	0.184	20-03-2017	56	41	56	-	61
41	UPPER TAPI	214.00	211.69	0.255	0.132	20-03-2017	52	31	59	45	-
*42	PENCH (TOTALADOH)	490.00	472.98	1.091	0.166	20-03-2017	15	17	33	127	160
43	UPPER WARDHA	342.50	338.46	0.564	0.260	23-03-2017	46	30	38	70	-
44	BHATSA	142.07	124.73	0.942	0.536	20-03-2017	57	47	52	29.378	15
45	DHOM	747.70	738.19	0.331	0.197	20-03-2017	60	34	39	36.2	2
46	DUDHGANGA	646.00	635.33	0.664	0.349	20-03-2017	53	23	52	2.441	24
47	MANIKDOH (KUKADI)	711.25	688.57	0.288	0.024	20-03-2017	8	8	18	2.2	6
48	BHANDARDARA	744.91	737.03	0.304	0.182	20-03-2017	60	22	50	63.74	46
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	304.71	0.707	0.279	22-03-2017	39	16	39	-	30
*50	RIHAND	268.22	261.31	5.649	2.758	23-03-2017	49	23	24	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	333.55	2.196	0.466	23-03-2017	21	17	42	1897	198
*52	TEHRI	830.00	767.25	2.615	0.565	23-03-2017	22	14	27	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	23-03-2017	24	18	26	247	-
*55	BARGI	422.76	415.35	3.180	1.416	23-03-2017	45	53	41	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	254.11	9.745	3.873	23-03-2017	40	30	25	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	354.32	3.046	2.032	23-03-2017	67	41	55	-	120
60	MAHANADI	348.70	345.77	0.767	0.515	22-03-2017	67	38	54	319	10
SOUTHERN REGION											
A.P. & TG											
*61	SRISAILAM	269.75	247.59	8.288	0.912	23-03-2017	11	9	26	0	770
*62	NAGARJUNA SAGAR	179.83	155.39	6.841	0.000	23-03-2017	0	0	19	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	85.58	1.994	0.384	23-03-2017	19	47	46	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	325.92	2.300	0.780	23-03-2017	34	6	18	411	27
65	LOWER MANAIR	280.42	273.57	0.621	0.257	23-03-2017	41	13	39	199	60

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA CENTRAL WATER COMMISSION

WEEK ENDING :- 23.03.2017

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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
KARNATAKA											
66	KRISHNARAJA SAGRA	752.50	738.69	1.163	0.174	20-03-2017	15	21	37	79	-
*67	TUNGABHADRA	497.74	481.39	3.276	0.110	23-03-2017	3	6	10	529	72
68	GHATAPRABHA	662.95	640.91	1.391	0.242	22-03-2017	17	10	14	317	-
69	BHADRA	657.76	640.08	1.785	0.317	23-03-2017	18	34	52	106	39
70	LINGANAMAKKI	554.43	538.81	4.294	1.040	23-03-2017	24	31	39	-	55
71	NARAYANPUR	492.25	487.64	0.863	0.257	23-03-2017	30	25	46	425	-
72	MALAPRABHA(RENUKA)	633.83	621.62	0.972	0.059	23-03-2017	6	5	9	215	-
73	KABINI(Sancherla Tank)	696.16	686.11	0.444	0.015	20-03-2017	3	20	22	85	-
74	HEMAVATHY	890.63	870.91	0.927	0.059	20-03-2017	6	13	17	265	-
75	HARANGI	871.42	855.86	0.220	0.036	20-03-2017	16	7	14	53	-
76	SUPA	564.00	538.20	4.120	1.632	23-03-2017	40	32	39	-	-
77	VANIVILAS SAGAR	652.28	632.79	0.802	0.024	23-03-2017	3	10	14	123	-
*78	ALMATTI	519.60	506.08	3.105	0.089	23-03-2017	3	8	14	@	290
*79	GERUSOPPA	55.00	49.41	0.130	0.099	23-03-2017	76	73	78	83	240
KERALA											
80	KALLADA(PARAPPAR)	115.82	95.98	0.507	0.138	20-03-2017	27	73	52	62	-
*81	IDAMALAYAR	169.00	145.24	1.018	0.412	20-03-2017	40	37	42	33	75
*82	IDUKKI	732.43	709.62	1.460	0.420	20-03-2017	29	38	42	-	780
*83	KAKKI	981.46	960.89	0.447	0.190	20-03-2017	43	55	55	23	300
*84	PERIYAR	867.41	859.49	0.173	0.018	20-03-2017	10	11	20	84	140
85	MALAPMUZHA	115.06	102.03	0.224	0.027	23-03-2017	12	13	24	21	3
TAMIL NADU											
86	LOWER BHAWANI	278.89	261.05	0.792	0.076	20-03-2017	10	20	39	105	8
*87	METTUR(STANLEY)	240.79	213.07	2.647	0.202	20-03-2017	8	26	38	122	360
88	VAIGAI	279.20	264.65	0.172	0.005	20-03-2017	3	10	23	61	6
89	PARAMBIKULAM	556.26	536.21	0.380	0.023	20-03-2017	6	30	43	101	-
90	ALIYAR	320.04	303.26	0.095	0.007	20-03-2017	7	18	46	#	60
*91	SHOLAYAR	1002.79	955.13	0.143	0.000	20-03-2017	0	1	6	-	95
TOTAL FOR 91 RESERVOIRS				157.799	54.962						
PERCENTAGE							35	26	34		

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