

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 11.08.2016)

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 **11.08.2016**, live storage available in these reservoirs is **85.324 BCM**, which is **54%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **83.932 BCM** and the average of last 10 years live storage was **86.331 BCM**. Thus, the live storage available in 91 reservoirs **as per 11.08.2016 Bulletin** is **102%** of the live storage of corresponding period of last year and **99%** 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 but is **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 **11.08.2016**, the total live storage available in these reservoirs is **10.46 BCM** which is **58%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **83%** 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 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 **11.08.2016**, the total live storage available in these reservoirs is **8.71 BCM** which is **46%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **48%** 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 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 **11.08.2016**, the total live storage available in these reservoirs is **17.92 BCM** which is **66%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **52%** 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 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

11.08.2016, the total live storage available in these reservoirs is **27.87 BCM** which is **66%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **67%** and average storage of last ten years during corresponding period was **50%** of live storage capacity of these reservoirs. Thus, storage during current year is less than the storage of last year but is 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 **11.08.2016**, the total live storage available in these reservoirs is **20.36 BCM** which is **39%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **34%** 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 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 8, better than normal storage is available in Narmada, Mahi, Godavari, Ganga, Sabarmati, Tapi and Rivers of Kutch. Close to Normal in Mahanadi & neighbouring East Flowing Rivers and Indus and Deficient in West Flowing Rivers of South, Krishna and Cauvery & neighbouring EFRs basin.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storage more than last year are **39** and reservoirs having storage more than average of last ten years are **38**. The numbers of reservoirs having storage less than 20% with respect to last year is **3** and having storage less than 20% with reference to average of last ten years is **3**. The number of reservoirs having storage less than or equal to 50% with respect to last year are **10** and having storage less than or equal to 50% with reference to average of last ten years are **15**.

STORAGE STATUS OF IMPORTANT RESERVOIRS IN THE COUNTRY

AS ON 11.08.2016

- 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 11.08.2016 is 85.324 BCM (54 percent of the live storage capacity at FRL).The current year's storage is nearly 102 percent of last year's storage and 99 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	2	-	-	-	1	2	-	H.P.	-19 %	
									PUNJAB	-1 %	
									RAJASTHAN	54 %	
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	-	-	1	1	3	3	2	5	JHARKHAND	-2 %	
									ODISHA	13 %	
									W. BENGAL	-20 %	
									TRIPURA	88 %	
WEST (Guj.& Mah.), (27 Resv.)	1	4	5	4	-	4	2	7	GUJARAT	15 %	
									MAH.	10 %	
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	2	3	2	2	-	1	2	U.P.	0 %	
									UTTARAKHAND	-3 %	
									M.P.	51 %	
									CHHATISGARH	-19 %	
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	-	1	1	2	3	4	7	13	AP&TG	-47 %	
									A,P	-42 %	
									TG	31 %	
									KARNATAKA	-30 %	
									KERALA	-17 %	
									T.N.	-57 %	
Status of 91 reservoirs	2	9	10	9	8	12	14	27			

4 Basin wise storage position:

Better than normal: Narmada, Mahi, Godavari, Ganga,sabarmati, Tapi and rivers of Kutch.

Close to normal: Mahanadi & Neighbouring EFRS and Indus.

Deficient: West Flowing Rivers of South,Krishna and Cauvery & neighbouring EFRS.

Highly deficient: NIL

- 5 Out of 91 reservoirs, 59 reservoirs reported more than 80% of normal storage & 32 reservoirs reported 80% or below of normal storage. Out of these 32 reservoirs 15 having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
NAGARJUNA SAGAR	0	VANIVILAS SAGAR	48
BHADAR	8	MALAMPUZHA	49
VAIGAI	13	KRISHNARAJA SAGRA	50
MALAPRABHA(RENUKA)	24		
ALIYAR	28		
YELDARI	29		
SHETRANJI	36		
KARJAN	40		
LOWER BHAWANI	42		
METTUR(STANLEY)	43		
UPPER TAPI	45		
PARAMBIKULAM	46		

17 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
6	4	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 :- 11.08.2016

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	15.815	56.29%	19.393	69.02%	12.360	43.99%	27.95
INDUS	14.730	7.248	49.21%	11.673	79.25%	8.633	58.61%	-16.04
NARMADA	17.414	14.854	85.30%	12.446	71.47%	10.614	60.95%	39.95
TAPI	7.394	5.073	68.61%	4.828	65.30%	4.243	57.38%	19.56
MAHI	4.012	3.287	81.93%	2.349	58.55%	2.366	58.97%	38.93
SABARMATI	0.735	0.427	58.10%	0.647	88.03%	0.352	47.89%	21.31
RIVERS OF KUTCH	0.887	0.382	43.07%	0.763	86.02%	0.381	42.95%	0.26
GODAVARI	15.394	8.608	55.92%	4.165	27.06%	6.389	41.50%	34.73
KRISHNA	32.831	14.181	43.19%	9.704	29.56%	20.363	62.02%	-30.36
MAHANADI & NEIGHBOURING EFRS	13.181	5.408	41.03%	6.402	48.57%	6.285	47.68%	-13.95
CAUVERY & NEIGHBOURING EFRS	8.359	2.788	33.35%	4.587	54.87%	5.039	60.28%	-44.67
WEST FLOWING RIVERS OF SOUTH	14.766	7.253	49.12%	6.975	47.24%	9.306	63.02%	-22.06
TOTAL	157.799	85.324		83.932		86.331		
PERCENTAGE								-1.17

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 11.08.2016

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	490.37	6.229	2.953	08-08-2016	47	79	65	676	1200
*2	PONG DAM	423.67	409.55	6.157	2.935	08-08-2016	48	77	52	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	513.75	2.344	1.360	11-08-2016	58	87	59	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	280.90	1.711	1.711	11-08-2016	100	100	66	63	140
5	JHAKAM	359.50	358.85	0.132	0.126	11-08-2016	95	100	61	28	-
*6	RANA PRATAP SAGAR	352.81	352.45	1.436	1.372	10-08-2016	96	95	61	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	258.90	0.821	0.374	11-08-2016	46	50	40	-	-
8	MAITHON	146.3	143.31	0.471	0.288	11-08-2016	61	92	63	342	-
*9	PANCHET HILL	124.97	124.39	0.184	0.156	11-08-2016	85	88	81	\$	80
10	KONAR	425.81	421.05	0.176	0.098	11-08-2016	56	84	69	\$	-
11	TILAIYA	368.81	365.69	0.142	0.045	11-08-2016	32	100	63	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	186.67	5.378	1.966	10-08-2016	37	35	42	153	307
*13	BALIMELA	462.08	455.98	2.676	1.690	10-08-2016	63	50	26	-	360
14	SALANADI	82.30	67.80	0.558	0.172	10-08-2016	31	53	37	42	-
*15	RENGALI	123.50	116.11	3.432	1.228	10-08-2016	36	55	39	3	200
*16	MACHKUND(JALPUT)	838.16	833.81	0.893	0.552	10-08-2016	62	40	58	-	115
*17	UPPER KOLAB	858.00	853.29	0.935	0.523	10-08-2016	56	33	36	89	320
*18	UPPER INDRAVATI	642.00	635.57	1.456	0.801	11-08-2016	55	21	56	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	115.92	0.480	0.242	11-08-2016	50	80	52	227	-
20	KANGSABATI	134.14	126.19	0.914	0.331	11-08-2016	36	69	51	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	91.80	0.312	0.248	10-08-2016	79	80	42	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	101.53	6.615	4.751	10-08-2016	72	71	61	348	300
23	SABARMATI(DHAROI)	189.59	186.17	0.735	0.427	11-08-2016	58	88	48	95	1
*24	KADANA	127.7	127.20	1.472	1.140	11-08-2016	77	7	52	200	120
25	SHETRUNJI	55.53	50.62	0.300	0.064	11-08-2016	21	90	59	36	-
26	BHADAR	107.89	99.97	0.188	0.009	11-08-2016	5	77	57	27	-
27	DAMANAGANGA	79.86	74.00	0.502	0.242	10-08-2016	48	49	42	51	1
28	DANTIWADA	184.1	168.31	0.399	0.309	11-08-2016	77	87	24	45	-
29	PANAM	127.41	123.20	0.697	0.310	11-08-2016	44	57	57	36	2
*30	SARDAR SAROVAR	121.92	125.89	1.566	1.566	10-08-2016	100	99	85	2120	1450
31	KARJAN	115.25	96.21	0.523	0.120	10-08-2016	23	67	58	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 11.08.2016

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	460.90	2.171	1.148	11-08-2016	53	6	29	227	-
*33	KOYANA	657.90	655.65	2.652	2.238	10-08-2016	84	77	87	-	1920
34	BHIMA(UJJANI)	496.83	493.52	1.517	0.553	10-08-2016	36	0	50	125	12
35	ISAPUR	441.00	432.79	0.965	0.315	10-08-2016	33	23	55	104	-
36	MULA	552.30	551.50	0.609	0.566	11-08-2016	93	39	58	139	-
37	YELDARI	461.77	450.22	0.809	0.070	11-08-2016	9	1	30	78	-
38	GIRNA	398.07	392.63	0.524	0.279	10-08-2016	53	4	25	79	-
39	KHADAKVASLA	582.47	582.29	0.056	0.053	10-08-2016	95	21	73	78	8
*40	UPPER VAITARNA	603.50	602.71	0.331	0.306	10-08-2016	92	60	76	-	61
41	UPPER TAPI	214.00	209.31	0.255	0.043	10-08-2016	17	31	38	45	-
*42	PENCH (TOTALADOH)	490.00	486.95	1.091	0.794	10-08-2016	73	18	54	127	160
43	UPPER WARDHA	342.50	341.77	0.564	0.500	11-08-2016	89	91	68	70	-
44	BHATSA	142.07	137.17	0.942	0.813	10-08-2016	86	64	75	29.378	15
45	DHOM	747.70	746.70	0.331	0.308	10-08-2016	93	49	69	36.2	2
46	DUDHGANGA	646.00	641.60	0.664	0.536	10-08-2016	81	67	86	2.441	24
47	MANIKDOH (KUKADI)	711.25	703.82	0.288	0.169	11-08-2016	59	22	41	2.2	6
48	BHANDARDARA	342.50	341.77	0.304	0.289	11-08-2016	89	91	68	70	-
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	307.54	0.707	0.544	10-08-2016	77	86	70	-	30
*50	RIHAND	268.22	258.02	5.649	1.499	11-08-2016	27	34	27	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	340.90	2.196	0.749	11-08-2016	34	78	44	1897	198
*52	TEHRI	830.00	804.15	2.615	1.624	11-08-2016	62	66	56	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	396.02	6.827	4.412	11-08-2016	65	91	41	220	115
54	TAWA	355.40	353.75	1.944	1.732	11-08-2016	89	95	83	247	-
*55	BARGI	422.76	421.25	3.180	2.800	11-08-2016	88	57	64	157	90
*56	BANSAGAR	341.64	338.63	5.166	3.833	11-08-2016	74	63	46	488	425
*57	INDIRA SAGAR	262.13	260.29	9.745	8.221	10-08-2016	84	67	52	2380	1000
58	BARNA	348.55	347.98	0.456	0.415	11-08-2016	91	70	68	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	348.80	3.046	1.307	11-08-2016	43	70	66	-	120
60	MAHANADI	348.70	348.36	0.767	0.735	10-08-2016	96	27	67	319	10
SOUTHERN REGION											
A.P. & TG											
*61	SRISAILAM	269.75	264.84	8.288	3.781	11-08-2016	46	9	51	0	770
*62	NAGARJUNA SAGAR	179.83	154.44	6.841	0.000	11-08-2016	0	0	42	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	83.87	1.994	0.283	11-08-2016	14	13	25	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	328.15	2.300	1.237	11-08-2016	54	8	35	411	27
65	LOWER MANAIR	280.42	269.72	0.621	0.123	11-08-2016	20	18	37	199	60

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA
GOVERNMENT OF INDIA CENTRAL WATER COMMISSION

WEEK ENDING :- 11.08.2016

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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	744.21	1.163	0.470	10-08-2016	40	58	80	79	-
*67	TUNGABHADRA	497.74	492.57	3.276	1.363	11-08-2016	42	60	80	529	72
68	GHATAPRABHA	662.95	658.12	1.391	1.047	11-08-2016	75	36	82	317	-
69	BHADRA	657.76	648.00	1.785	0.823	11-08-2016	46	66	85	106	39
70	LINGANAMAKKI	554.43	545.01	4.294	1.965	11-08-2016	46	44	71	-	55
71	NARAYANPUR	492.25	491.09	0.863	0.596	11-08-2016	69	63	80	425	-
72	MALAPRABHA(RENUKA)	633.83	623.88	0.972	0.141	11-08-2016	15	26	59	215	-
73	KABINI(Sancherla Tank)	696.16	693.68	0.444	0.308	10-08-2016	69	88	62	85	-
74	HEMAVATHY	890.63	884.30	0.927	0.543	10-08-2016	59	84	88	265	-
75	HARANGI	871.42	870.89	0.220	0.212	10-08-2016	96	100	94	53	-
76	SUPA	564.00	540.64	4.120	1.808	11-08-2016	44	45	57	-	-
77	VANIVILAS SAGAR	652.28	634.24	0.802	0.044	11-08-2016	5	5	11	123	-
*78	ALMATTI	519.60	518.26	3.105	2.529	11-08-2016	81	55	83	@	290
*79	GERUSOPPA	55.00	48.81	0.130	0.096	11-08-2016	74	75	82	83	240
KERALA											
80	KALLADA(PARAPPAR)	115.82	104.56	0.507	0.259	11-08-2016	51	25	56	62	-
*81	IDAMALAYAR	169.00	148.94	1.018	0.491	11-08-2016	48	46	58	33	75
*82	IDUKKI	732.43	715.34	1.460	0.631	11-08-2016	43	54	51	-	780
*83	KAKKI	981.46	968.73	0.447	0.264	11-08-2016	59	43	59	23	300
*84	PERIYAR	867.41	861.96	0.173	0.062	11-08-2016	36	32	54	84	140
85	MALAPMUZHA	867.41	861.96	0.224	0.077	11-08-2016	36	32	54	84	140
TAMIL NADU											
86	LOWER BHAWANI	278.89	267.13	0.792	0.219	11-08-2016	28	68	66	105	8
*87	METTUR(STANLEY)	240.79	223.17	2.647	0.746	11-08-2016	28	63	66	122	360
88	VAIGAI	279.20	265.72	0.172	0.007	11-08-2016	4	34	31	61	6
89	PARAMBIKULAM	556.26	543.23	0.380	0.131	11-08-2016	34	46	76	101	-
90	ALIYAR	320.04	306.74	0.095	0.021	11-08-2016	22	88	78	#	60
*91	SHOLAYAR	1002.79	994.03	0.143	0.087	11-08-2016	61	79	84	-	95
TOTAL FOR 91 RESERVOIRS				157.799	85.324						
PERCENTAGE							54	53	55		

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