

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 09.02.2017)

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 **09.02.2017**, live storage available in these reservoirs is **74.977 BCM**, which is **48%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **58.971 BCM** and the average of last 10 years live storage was **73.476 BCM**. Thus, the live storage available in 91 reservoirs **as per 09.02.2017 Bulletin** is **127%** 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 **09.02.2017**, the total live storage available in these reservoirs is **6.41 BCM** which is **36%** 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 **41%** 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 **09.02.2017**, the total live storage available in these reservoirs is **13.05 BCM** which is **69%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **51%** and average storage of last ten years during corresponding period was **56%** 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 **09.02.2017**, the total live storage available in these reservoirs is **16.63 BCM** which is **61%** 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 **56%** 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 **09.02.2017**, the total live storage available in these reservoirs is **25.64 BCM** which is **61%** 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 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 **09.02.2017**, the total live storage available in these reservoirs is **13.26 BCM** which is **26%** 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 **43%** 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 Narmada, Mahi, Ganga, Sabarmati, Godavari, Tapi and Mahanadi & neighbouring East Flowing Rivers. Close to Normal Indus and Deficient in Rivers of Kutch, West Flowing Rivers of South and Krishna Basin and Highly Deficient in Cauvery & neighbouring EFR.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storage more than last year are **60** 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 **8**. 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 **16**.

STORAGE STATUS OF IMPORTANT RESERVOIRS IN THE COUNTRY

AS ON 09.02.2017

- 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 09.02.2017 is 74.977 BCM (48 percent of the live storage capacity at FRL).The current year's storage is nearly 127 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.	-25 %	
									PUNJAB	21 %	
									RAJASTHAN	12 %	
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	2	-	1	3	2	4	2	1	JHARKHAND	23 %	
									ODISHA	22 %	
									W. BENGAL	16 %	
									TRIPURA	152 %	
WEST (Guj.& Mah.), (27 Resv.)	-	-	2	6	5	7	1	6	GUJARAT	14 %	
									MAH.	4 %	
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	1	2	1	4	3	1	U.P.	76 %	
									UTTARAKHAND	-23 %	
									M.P.	58 %	
									CHHATISGARH	18 %	
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	-	-	1	-	3	-	3	24	AP&TG	-61 %	
									A,P	-35 %	
									TG	70 %	
									KARNATAKA	-37 %	
									KERALA	-32 %	
									T.N.	-79 %	
Status of 91 reservoirs	2	0	5	11	12	15	10	36			

4 Basin wise storage position:

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

Close to normal: Indus

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

Highly deficient: Cauvery & neighbouring EFRS.

- 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 16 having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
SHOLAYAR	0	KABINI	35
ALIYAR	6	BHADRA	36
VAIGAI	8	HEMAVATHY	43
NAGARJUNA SAGAR	12	PENCH (TOTALADOH)	50
BHADAR	14		
PARAMBIKULAM	15		
TUNGABHADRA	15		
VANIVILAS SAGAR	20		
LOWER BHAWANI	22		
METTUR(STANLEY)	23		
KRISHNARAJA SAGRA	25		
PERIYAR	31		

16 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
7	6	3

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

19 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 :- 09.02.2017

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	16.823	59.88%	13.092	46.60%	11.744	41.80%	43.25
INDUS	14.730	4.788	32.51%	5.757	39.08%	5.980	40.60%	-19.93
NARMADA	17.414	10.157	58.33%	7.705	44.25%	7.590	43.59%	33.82
TAPI	7.394	5.483	74.15%	3.310	44.77%	4.369	59.09%	25.50
MAHI	4.012	2.500	62.31%	1.596	39.78%	2.087	52.02%	19.79
SABARMATI	0.735	0.403	54.83%	0.339	46.12%	0.300	40.82%	34.33
RIVERS OF KUTCH	0.887	0.179	20.18%	0.491	55.36%	0.303	34.16%	-40.92
GODAVARI	15.394	8.985	58.37%	4.774	31.01%	7.215	46.87%	24.53
KRISHNA	32.831	8.022	24.43%	5.078	15.47%	13.749	41.88%	-41.65
MAHANADI & NEIGHBOURING EFRS	13.181	9.657	73.26%	6.606	50.12%	7.990	60.62%	20.86
CAUVERY & NEIGHBOURING EFRS	8.359	1.499	17.93%	3.280	39.24%	3.807	45.54%	-60.63
WEST FLOWING RIVERS OF SOUTH	14.766	6.481	43.89%	6.943	47.02%	8.342	56.49%	-22.31
TOTAL	157.799	74.977		58.971		73.476		
PERCENTAGE								2.04

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 09.02.2017

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											
<u>HIMACHAL PRADESH</u>											
*1	GOBIND SAGAR(BHAKRA)	512.06	480.65	6.229	1.956	08-02-2017	31	54	47	676	1200
*2	PONG DAM	423.67	404.05	6.157	2.015	08-02-2017	33	32	38	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	504.16	2.344	0.817	09-02-2017	35	19	29	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	276.05	1.711	1.149	09-02-2017	67	49	46	63	140
5	JHAKAM	359.50	351.20	0.132	0.062	09-02-2017	47	27	31	28	-
*6	RANA PRATAP SAGAR	352.81	346.80	1.436	0.411	08-02-2017	29	31	43	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	260.01	0.821	0.417	09-02-2017	51	40	43	-	-
8	MAITHON	146.3	147.37	0.471	0.471	09-02-2017	100	35	77	342	-
*9	PANCHET HILL	124.97	126.96	0.184	0.184	09-02-2017	100	18	78	\$	80
10	KONAR	425.81	422.58	0.176	0.121	09-02-2017	69	56	67	\$	-
11	TILAIYA	368.81	367.10	0.142	0.084	09-02-2017	59	25	46	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	190.42	5.378	3.806	09-02-2017	71	61	67	153	307
*13	BALIMELA	462.08	457.14	2.676	1.847	09-02-2017	69	56	50	-	360
14	SALANADI	82.30	67.99	0.558	0.175	08-02-2017	31	5	36	42	-
*15	RENGALI	123.50	122.04	3.432	2.953	09-02-2017	86	48	55	3	200
*16	MACHKUND(JALPUT)	838.16	833.16	0.893	0.516	09-02-2017	58	69	69	-	115
*17	UPPER KOLAB	858.00	855.57	0.935	0.705	09-02-2017	75	67	52	89	320
*18	UPPER INDRAVATI	642.00	637.90	1.456	1.028	08-02-2017	71	48	60	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	114.64	0.480	0.196	09-02-2017	41	19	39	227	-
20	KANGSABATI	134.14	126.92	0.914	0.371	09-02-2017	41	25	33	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	90.40	0.312	0.174	09-02-2017	56	64	22	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	102.07	6.615	5.014	02-02-2017	76	48	61	348	300
23	SABARMATI(DHAROI)	189.59	185.84	0.735	0.403	09-02-2017	55	46	41	95	1
*24	KADANA	127.7	124.92	1.472	0.917	09-02-2017	62	36	59	200	120
25	SHETRUNJI	55.53	52.82	0.300	0.131	09-02-2017	44	52	52	36	-
26	BHADAR	107.89	100.34	0.188	0.011	09-02-2017	6	100	43	27	-
27	DAMANAGANGA	79.86	76.50	0.502	0.332	02-02-2017	66	62	73	51	1
28	DANTIWADA	184.1	163.27	0.399	0.037	09-02-2017	9	37	17	45	-
29	PANAM	127.41	124.45	0.697	0.372	09-02-2017	53	29	57	36	2
*30	SARDAR SAROVAR	121.92	120.74	1.566	1.352	09-02-2017	86	24	72	2120	1450
31	KARJAN	115.25	106.20	0.523	0.284	02-02-2017	54	41	74	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 09.02.2017

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	461.36	2.171	1.286	08-02-2017	59	4	35	227	-
*33	KOYANA	657.90	647.24	2.652	1.531	08-02-2017	58	44	71	-	1920
34	BHIMA(UJJANI)	496.83	495.16	1.517	0.995	08-02-2017	66	0	57	125	12
35	ISAPUR	441.00	432.83	0.965	0.329	08-02-2017	34	21	50	104	-
36	MULA	552.30	548.68	0.609	0.430	09-02-2017	71	17	51	139	-
37	YELDARI	461.77	452.44	0.809	0.150	09-02-2017	19	6	33	78	-
38	GIRNA	398.07	392.84	0.524	0.286	08-02-2017	55	3	31	79	-
39	KHADAKVASLA	582.47	580.86	0.056	0.035	08-02-2017	63	55	52	78	8
*40	UPPER VAITARNA	603.50	600.75	0.331	0.240	08-02-2017	73	44	72	-	61
41	UPPER TAPI	214.00	212.76	0.255	0.183	08-02-2017	72	54	73	45	-
*42	PENCH (TOTALADOH)	490.00	475.50	1.091	0.240	08-02-2017	22	29	44	127	160
43	UPPER WARDHA	342.50	339.63	0.564	0.336	08-02-2017	60	42	53	70	-
44	BHATSA	142.07	129.95	0.942	0.643	08-02-2017	68	57	64	29.378	15
45	DHOM	747.70	740.46	0.331	0.235	08-02-2017	71	38	46	36.2	2
46	DUDHGANGA	646.00	639.88	0.664	0.483	08-02-2017	73	37	69	2.441	24
47	MANIKDOH (KUKADI)	711.25	698.47	0.288	0.104	08-02-2017	36	10	30	2.2	6
48	BHANDARDARA	744.91	742.79	0.304	0.266	08-02-2017	88	25	65	63.74	46
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	305.38	0.707	0.333	08-02-2017	47	33	42	-	30
*50	RIHAND	268.22	262.28	5.649	3.137	09-02-2017	56	28	30	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	340.73	2.196	0.742	09-02-2017	34	100	59	1897	198
*52	TEHRI	830.00	791.75	2.615	1.227	08-02-2017	47	39	48	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	397.21	6.827	5.034	09-02-2017	74	60	38	220	115
54	TAWA	355.40	346.80	1.944	0.802	09-02-2017	41	33	39	247	-
*55	BARGI	422.76	417.40	3.180	1.824	09-02-2017	57	64	54	157	90
*56	BANSAGAR	341.64	338.84	5.166	3.921	09-02-2017	76	45	46	488	425
*57	INDIRA SAGAR	262.13	256.81	9.745	5.658	09-02-2017	58	44	35	2380	1000
58	BARNA	348.55	345.05	0.456	0.237	09-02-2017	52	26	34	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	354.60	3.046	2.073	09-02-2017	68	43	59	-	120
60	MAHANADI	348.70	347.48	0.767	0.650	08-02-2017	85	43	66	319	10
SOUTHERN REGION											
A.P. & TG											
*61	SRISAILAM	269.75	258.17	8.288	1.989	09-02-2017	24	14	46	0	770
*62	NAGARJUNA SAGAR	179.83	156.85	6.841	0.225	09-02-2017	3	0	27	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	90.68	1.994	0.764	09-02-2017	38	65	59	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	328.97	2.300	1.430	09-02-2017	62	7	33	411	27
65	LOWER MANAIR	280.42	276.74	0.621	0.422	09-02-2017	68	14	54	199	60

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA CENTRAL WATER COMMISSION

WEEK ENDING :- 09.02.2017

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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	738.50	1.163	0.167	09-02-2017	14	40	58	79	-
*67	TUNGABHADRA	497.74	482.26	3.276	0.146	09-02-2017	4	8	29	529	72
68	GHATAPRABHA	662.95	648.21	1.391	0.516	08-02-2017	37	20	26	317	-
69	BHADRA	657.76	643.13	1.785	0.483	08-02-2017	27	48	76	106	39
70	LINGANAMAKKI	554.43	543.17	4.294	1.648	09-02-2017	38	42	56	-	55
71	NARAYANPUR	492.25	490.69	0.863	0.551	09-02-2017	64	35	78	425	-
72	MALAPRABHA(RENUKA)	633.83	623.97	0.972	0.144	08-02-2017	15	8	20	215	-
73	KABINI(Sancherla Tank)	696.16	687.71	0.444	0.061	09-02-2017	14	35	39	85	-
74	HEMAVATHY	890.63	873.01	0.927	0.100	09-02-2017	11	15	25	265	-
75	HARANGI	871.42	859.67	0.220	0.065	09-02-2017	30	6	13	53	-
76	SUPA	564.00	542.87	4.120	1.975	09-02-2017	48	41	52	-	-
77	VANIVILAS SAGAR	652.28	633.13	0.802	0.028	09-02-2017	3	12	17	123	-
*78	ALMATTI	519.60	510.40	3.105	0.557	09-02-2017	18	12	31	@	290
*79	GERUSOPPA	55.00	52.13	0.130	0.113	09-02-2017	87	92	82	83	240
<u>KERALA</u>											
80	KALLADA(PARAPPAR)	115.82	100.70	0.507	0.200	09-02-2017	39	89	72	62	-
*81	IDAMALAYAR	169.00	149.82	1.018	0.511	09-02-2017	50	49	58	33	75
*82	IDUKKI	732.43	711.89	1.460	0.499	09-02-2017	34	51	56	-	780
*83	KAKKI	981.46	964.84	0.447	0.225	08-02-2017	50	66	70	23	300
*84	PERIYAR	867.41	859.40	0.173	0.016	09-02-2017	9	41	29	84	140
85	MALAPMUZHA	115.06	103.57	0.224	0.039	09-02-2017	17	17	29	21	3
<u>TAMIL NADU</u>											
86	LOWER BHAWANI	278.89	261.45	0.792	0.083	09-02-2017	10	38	48	105	8
*87	METTUR(STANLEY)	240.79	214.44	2.647	0.255	09-02-2017	10	33	41	122	360
88	VAIGAI	279.20	264.53	0.172	0.004	09-02-2017	2	30	28	61	6
89	PARAMBIKULAM	556.26	537.20	0.380	0.037	09-02-2017	10	54	63	101	-
90	ALIYAR	320.04	301.98	0.095	0.003	09-02-2017	3	48	49	#	60
*91	SHOLAYAR	1002.79	955.11	0.143	0.000	09-02-2017	0	0	10	-	95
TOTAL FOR 91 RESERVOIRS				157.799	74.977						
PERCENTAGE							48	37	47		

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