

## **BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 13.04.2017)**

### **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 **13.04.2017**, live storage available in these reservoirs is **48.42 BCM**, which is **31%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **36.654 BCM** and the average of last 10 years live storage was **45.682 BCM**. Thus, the live storage available in 91 reservoirs **as per 13.04.2017 Bulletin** is **132%** of the live storage of corresponding period of last year and **106%** 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 **13.04.2017**, the total live storage available in these reservoirs is **4.23 BCM** which is **23%** 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 **30%** of live storage capacity of these reservoirs. Thus, storage during current year is equal to the corresponding period of last year and is 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 **13.04.2017**, the total live storage available in these reservoirs is **9.21 BCM** which is **49%** 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 **35%** 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 **13.04.2017**, the total live storage available in these reservoirs is **10.59 BCM** which is **39%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **20%** and average storage of last ten years during corresponding period was **38%** 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 **13.04.2017**, the total live storage available in these reservoirs is **18.16 BCM** which is **43%** 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 **27%** 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 **13.04.2017**, the total live storage available in these reservoirs is **6.23 BCM** which is **12%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **15%** and average storage of last ten years during corresponding period was **23%** 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. Close to Normal in West Flowing Rivers of South and Deficient in Indus, Rivers of Kutch 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 **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 **11**. 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 **22**.

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**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 13.04.2017

- 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 **13.04.2017** is **48.420** BCM ( **31** percent of the live storage capacity at FRL ).The current year's storage is nearly **132** percent of last year's storage and **106** 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			
<b>NORTH</b> (HP,Punjab & Rajasthan), (6 Resv.)	-	-	-	-	-	1	-	5	H.P.	-44 %	
									PUNJAB	36 %	
									RAJASTHAN	9 %	
<b>EAST</b> (Jharkhand,Odisha, Tripura & W.Bengal ( 15 Resv.)	-	-	-	2	-	2	5	6	JHARKHAND	36 %	
									ODISHA	40 %	
									W. BENGAL	52 %	
									TRIPURA	225 %	
<b>WEST</b> (Guj.& Mah.), (27 Resv.)	-	-	1	1	-	2	5	18	GUJARAT	17 %	
									MAH.	-13 %	
<b>CENTRAL</b> (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	-	-	2	2	1	7	U.P.	99 %	
									UTTARAKHAND	-42 %	
									M.P.	78 %	
									CHHATISGARH	21 %	
<b>SOUTH</b> (Karnataka,TN,AP&TG,AP, TG, & Kerala), ( 31 Resv.)	-	-	1	-	-	-	-	30	AP&TG	-71 %	
									A,P	-65 %	
									TG	50 %	
									KARNATAKA	-39 %	
									KERALA	-30 %	
									T.N.	-81 %	
Status of 91 reservoirs	0	0	2	3	2	7	11	66			

## 4 Basin wise storage position:

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

**Close to normal:** West Flowing Rivers of South

**Deficient:** Indus, Rivers of Kutch 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	PERIYAR	27
NAGARJUNA SAGAR	0	SOMASILA	35
ALMATTI	0	ALIYAR	37
BHADAR	10	TUNGABHADRA	40
KABINI	13	KRISHNARAJA SAGRA	40
PARAMBIKULAM	13	HEMAVATHY	41
DANTIWADA	14	PENCH (TOTALADOH)	42
VAIGAI	14	NARAYANPUR	45
METTUR(STANLEY)	17	YELDARI	48
BHADRA	20	RAMGANGA	49
VANIVILAS SAGAR	20		
LOWER BHAWANI	27		

<b>19</b> reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
9	7	3

- 6 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 :- 13.04.2017**

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## WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 13.04.2017

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
<b>NORTHERN REGION</b>											
<b><u>HIMACHAL PRADESH</u></b>											
*1	GOBIND SAGAR(BHAKRA)	512.06	465.41	6.229	0.883	12-04-2017	14	30	27	676	1200
*2	PONG DAM	423.67	396.92	6.157	1.063	12-04-2017	17	15	29	-	360
<b><u>PUNJAB</u></b>											
*3	THEIN	527.91	511.52	2.344	1.192	13-04-2017	51	20	37	348	600
<b><u>RAJASTHAN</u></b>											
*4	MAHI BAJAJ SAGAR	280.75	270.30	1.711	0.624	12-04-2017	36	24	25	63	140
5	JHAKAM	359.50	346.80	0.132	0.038	12-04-2017	29	8	17	28	-
*6	RANA PRATAP SAGAR	352.81	346.92	1.436	0.429	12-04-2017	30	33	38	229	172
<b><u>EASTERN REGION</u></b>											
<b><u>JHARKHAND</u></b>											
7	TENUGHAT	269.14	259.13	0.821	0.383	13-04-2017	47	36	35	-	-
8	MAITHON	146.3	145.00	0.471	0.370	13-04-2017	79	17	45	342	-
*9	PANCHET HILL	124.97	123.26	0.184	0.107	13-04-2017	58	13	48	\$	80
10	KONAR	425.81	417.61	0.176	0.054	13-04-2017	31	36	48	\$	-
11	TILAIYA	368.81	365.57	0.142	0.042	12-04-2017	30	21	20	\$	4
<b><u>ODISHA</u></b>											
*12	HIRAKUD	192.02	187.58	5.378	2.339	12-04-2017	43	39	41	153	307
*13	BALIMELA	462.08	452.11	2.676	1.191	12-04-2017	45	38	30	-	360
14	SALANADI	82.30	67.43	0.558	0.165	12-04-2017	30	4	20	42	-
*15	RENGALI	123.50	120.76	3.432	2.563	12-04-2017	75	31	34	3	200
*16	MACHKUND(JALPUT)	838.16	829.06	0.893	0.299	12-04-2017	33	48	49	-	115
*17	UPPER KOLAB	858.00	852.72	0.935	0.481	12-04-2017	51	37	32	89	320
*18	UPPER INDRAVATI	642.00	634.18	1.456	0.674	12-04-2017	46	38	35	128	600
<b><u>WEST BENGAL</u></b>											
19	MAYURAKSHI	121.31	112.33	0.480	0.130	12-04-2017	27	17	25	227	-
20	KANGSABATI	134.14	125.32	0.914	0.284	12-04-2017	31	20	17	341	-
<b><u>TRIPURA</u></b>											
21	GUMTI	93.55	89.20	0.312	0.130	12-04-2017	42	47	13	-	15
<b><u>WESTERN REGION</u></b>											
<b><u>GUJARAT</u></b>											
*22	UKAI	105.16	98.56	6.615	3.426	12-04-2017	52	25	40	348	300
23	SABARMATI(DHAROI)	189.59	183.24	0.735	0.233	12-04-2017	32	27	24	95	1
*24	KADANA	127.7	124.00	1.472	0.837	12-04-2017	57	29	54	200	120
25	SHETRUNJI	55.53	50.37	0.300	0.058	12-04-2017	19	15	20	36	-
26	BHADAR	107.89	99.52	0.188	0.006	12-04-2017	3	100	32	27	-
27	DAMANAGANGA	79.86	71.55	0.502	0.168	12-04-2017	33	29	48	51	1
28	DANTIWADA	184.1	163.28	0.399	0.004	12-04-2017	1	12	7	45	-
29	PANAM	127.41	122.50	0.697	0.278	12-04-2017	40	19	46	36	2
*30	SARDAR SAROVAR	121.92	119.98	1.566	1.215	12-04-2017	78	28	54	2120	1450
31	KARJAN	115.25	102.36	0.523	0.210	12-04-2017	40	25	58	51	3

## WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 13.04.2017

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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
<b>MAHARASHTRA</b>											
32	JAYAKWADI(PAITHON)	463.91	459.59	2.171	0.794	12-04-2017	37	0	22	227	-
*33	KOYANA	657.90	637.59	2.652	0.805	12-04-2017	30	26	49	-	1920
34	BHIMA(UJJANI)	496.83	492.06	1.517	0.214	10-04-2017	14	0	24	125	12
35	ISAPUR	441.00	430.27	0.965	0.200	12-04-2017	21	12	36	104	-
36	MULA	552.30	542.69	0.609	0.205	10-04-2017	34	11	33	139	-
37	YELDARI	461.77	450.33	0.809	0.073	12-04-2017	9	0	19	78	-
38	GIRNA	398.07	389.44	0.524	0.179	12-04-2017	34	0	19	79	-
39	KHADAKVASLA	582.47	581.92	0.056	0.049	12-04-2017	88	36	38	78	8
*40	UPPER VAITARNA	603.50	597.24	0.331	0.146	12-04-2017	44	37	49	-	61
41	UPPER TAPI	214.00	211.12	0.255	0.108	12-04-2017	42	22	48	45	-
*42	PENCH (TOTALADOH)	490.00	471.67	1.091	0.133	12-04-2017	12	14	29	127	160
43	UPPER WARDHA	342.50	338.14	0.564	0.241	12-04-2017	43	27	35	70	-
44	BHATSA	142.07	121.46	0.942	0.474	12-04-2017	50	42	46	29.378	15
45	DHOM	747.70	735.65	0.331	0.106	12-04-2017	32	31	34	36.2	2
46	DUDHGANGA	646.00	631.44	0.664	0.268	12-04-2017	40	15	43	2.441	24
47	MANIKDOH (KUKADI)	711.25	687.89	0.288	0.020	11-04-2017	7	7	13	2.2	6
48	BHANDARDARA	744.91	732.49	0.304	0.140	12-04-2017	46	12	43	63.74	46
<b>CENTRAL REGION</b>											
<b>UTTAR PRADESH</b>											
49	MATATILA	308.46	304.56	0.707	0.267	12-04-2017	38	16	39	-	30
*50	RIHAND	268.22	260.73	5.649	2.529	13-04-2017	45	21	20	-	300
<b>UTTRAKHAND</b>											
*51	RAMGANGA	365.30	332.02	2.196	0.413	13-04-2017	19	16	38	1897	198
*52	TEHRI	830.00	757.75	2.615	0.348	13-04-2017	13	6	18	2351	1000
<b>MADHYA PRADESH</b>											
*53	GANDHI SAGAR	399.90	395.14	6.827	3.987	12-04-2017	58	46	23	220	115
54	TAWA	355.40	342.90	1.944	0.469	12-04-2017	24	15	24	247	-
*55	BARGI	422.76	414.35	3.180	1.246	12-04-2017	39	47	34	157	90
*56	BANSAGAR	341.64	336.93	5.166	3.182	12-04-2017	62	42	33	488	425
*57	INDIRA SAGAR	262.13	252.85	9.745	3.224	13-04-2017	33	26	20	2380	1000
58	BARNA	348.55	343.13	0.456	0.144	12-04-2017	32	8	17	546	-
<b>CHHATTIS GARH</b>											
*59	MINIMATA BANGOI	359.66	353.79	3.046	1.955	11-04-2017	64	40	52	-	120
60	MAHANADI	348.70	344.20	0.767	0.395	11-04-2017	51	36	46	319	10
<b>SOUTHERN REGION</b>											
<b>A.P. &amp; TG</b>											
*61	SRISAILAM	269.75	245.12	8.288	0.784	12-04-2017	9	8	18	0	770
*62	NAGARJUNA SAGAR	179.83	154.26	6.841	0.000	12-04-2017	0	0	18	895	810
<b>ANDHRA PRADESH</b>											
63	SOMASILA	100.58	84.05	1.994	0.299	12-04-2017	15	41	43	168	0
<b>TELANGANA</b>											
64	SRIRAMSAGAR	332.54	324.80	2.300	0.601	06-04-2017	26	6	14	411	27
65	LOWER MANAIR	280.42	271.94	0.621	0.193	06-04-2017	31	13	33	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
<b>KARNATAKA</b>											
66	KRISHNARAJA SAGRA	752.50	737.31	1.163	0.123	12-04-2017	11	17	26	79	-
*67	TUNGABHADRA	497.74	480.58	3.276	0.082	13-04-2017	3	3	6	529	72
68	GHATAPRABHA	662.95	639.41	1.391	0.196	12-04-2017	14	6	11	317	-
69	BHADRA	657.76	636.48	1.785	0.153	12-04-2017	9	21	44	106	39
70	LINGANAMAKKI	554.43	535.85	4.294	0.727	11-04-2017	17	27	32	-	55
71	NARAYANPUR	492.25	485.86	0.863	0.136	12-04-2017	16	24	35	425	-
72	MALAPRABHA(RENUKA)	633.83	621.28	0.972	0.049	12-04-2017	5	4	8	215	-
73	KABINI(Sancherla Tank)	696.16	685.84	0.444	0.008	12-04-2017	2	11	14	85	-
74	HEMAVATHY	890.63	870.34	0.927	0.050	12-04-2017	5	11	13	265	-
75	HARANGI	871.42	855.61	0.220	0.035	12-04-2017	16	7	14	53	-
76	SUPA	564.00	535.64	4.120	1.454	11-04-2017	35	27	30	-	-
77	VANIVILAS SAGAR	652.28	632.59	0.802	0.022	12-04-2017	3	8	14	123	-
*78	ALMATTI	519.60	504.65	3.105	0.000	13-04-2017	0	7	10	@	290
*79	GERUSOPPA	55.00	52.28	0.130	0.114	13-04-2017	88	72	82	83	240
<b>KERALA</b>											
80	KALLADA(PARAPPAR)	115.82	92.65	0.507	0.103	12-04-2017	20	61	39	62	-
*81	IDAMALAYAR	169.00	140.76	1.018	0.324	12-04-2017	32	29	33	33	75
*82	IDUKKI	732.43	706.67	1.460	0.319	12-04-2017	22	31	34	-	780
*83	KAKKI	981.46	954.46	0.447	0.139	12-04-2017	31	46	43	23	300
*84	PERIYAR	867.41	859.07	0.173	0.011	12-04-2017	6	9	24	84	140
85	MALAPMUZHA	115.06	101.85	0.224	0.026	11-04-2017	12	11	23	21	3
<b>TAMIL NADU</b>											
86	LOWER BHAWANI	278.89	260.67	0.792	0.071	12-04-2017	9	11	34	105	8
*87	METTUR(STANLEY)	240.79	212.11	2.647	0.170	12-04-2017	6	23	37	122	360
88	VAIGAI	279.20	265.28	0.172	0.006	12-04-2017	3	11	25	61	6
89	PARAMBIKULAM	556.26	535.78	0.380	0.018	12-04-2017	5	20	36	101	-
90	ALIYAR	320.04	305.82	0.095	0.017	12-04-2017	18	16	48	#	60
*91	SHOLAYAR	1002.79	955.63	0.143	0.000	12-04-2017	0	0	3	-	95
TOTAL FOR 91 RESERVOIRS				157.799	48.420						
PERCENTAGE							31	23	29		

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 &amp; 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