

## **BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 28.12.2017)**

### **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 161.993 BCM which is about 63% of the live storage capacity of 257.812 BCM which is estimated to have been created in the country. As per reservoir storage bulletin dated **28.12.2017**, live storage available in these reservoirs is **87.663 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 **92.584 BCM** and the average of last 10 years live storage was **93.402 BCM**. Thus, the live storage available in 91 reservoirs **as per 28.12.2017 Bulletin** is **95%** of the live storage of corresponding period of last year and **94%** of storage of average of last ten years.

The overall storage position is **less than the** corresponding period of last year in the country as a whole and is also **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 **28.12.2017**, the total live storage available in these reservoirs is **10.01 BCM** which is **56%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **47%** and average storage of last ten years during corresponding period was **55%** 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.

#### **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 **28.12.2017**, the total live storage available in these reservoirs is **13.83 BCM** which is **73%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **79%** and average storage of last ten years during corresponding period was **69%** 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 31.26 BCM. As per Reservoir Storage Bulletin dated **28.12.2017**, the total live storage available in these reservoirs is **17.27 BCM** which is **55%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **60%** 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 less than the storage of last year and is also less 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 **28.12.2017**, the total live storage available in these reservoirs is **21.78 BCM** which is **51%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **75%** and average storage of last ten years during corresponding period was **57%** of live storage capacity of these reservoirs. Thus, storage during current year is less than the storage of last year and is also less 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 (2combined 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 **28.12.2017**, the total live storage available in these reservoirs is **24.77 BCM** which is **48%** 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 **56%** 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 Ganga, Mahi, Indus, Sabarmati, Mahanadi & Neighbouring East Flowing Rivers and Rivers of Kutch. Close to Normal in Godavari, Krishna, and West Flowing Rivers of South. Deficient in Narmada, Tapi and Cauvery & neighbouring EFRs basin and NIL in Highly Deficient.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storage more than last year are **53** and reservoirs having storage more than average of last ten years are **48**. The numbers of reservoirs having storage less than 20% with respect to last year is **0** and having storage less than 20% with reference to average of last ten years is **2**. The number of reservoirs having storage less than or equal to 50% with respect to last year are **4** and having storage less than or equal to 50% with reference to average of last ten years are **9**.

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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 28.12.2017

- 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 28.12.2017 is 87.663 BCM ( 54 percent of the live storage capacity at FRL ).The current year's storage is nearly 95 percent of last year's storage and 94 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	-	2	1	-	2	H.P.	5 %
									PUNJAB	-14 %
									RAJASTHAN	-3 %
<b>EAST</b> (Jharkhand,Odisha, Tripura & W.Bengal ( 15 Resv.)	2	3	2	2	-	3	2	1	JHARKHAND	11 %
									ODISHA	0 %
									W. BENGAL	118 %
									TRIPURA	114 %
<b>WEST</b> (Guj.& Mah.), (27 Resv.)	1	4	6	4	2	5	1	4	GUJARAT	-20 %
									MAH.	15 %
<b>CENTRAL</b> (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	-	2	2	3	3	2	U.P.	13 %
									UTTARAKHAND	-6 %
									M.P.	-15 %
									CHHATISGARH	-9 %
<b>SOUTH</b> (Karnataka,TN,AP&TG,AP, TG, & Kerala), ( 31 Resv.)	-	1	2	2	6	5	4	11	AP&TG	-21 %
									A,P	-22 %
									TG	7 %
									KARNATAKA	-11 %
									KERALA	5 %
									T.N.	-40 %
Status of 91 reservoirs	3	8	11	10	12	17	10	20		

## 4 Basin wise storage position:

**Better than normal:** Ganga,Mahi,Indus,Sabarmati, Mahanadi & Neighbouring EFRS,and Rivers of Kutch .

**Close to normal:** Godavari,Krishna and West Flowing Rivers of South .

**Deficient:** Narmada , Tapi and Cauvery & neighbouring EFRS .

**Highly deficient:** NIL

- Out of 91 reservoirs, 64 reservoirs reported more than 80% of normal storage & 27 reservoirs reported 80% or below of normal storage. Out of these 27 reservoirs 9 having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
SHOLAYAR	4		
VANIVILAS SAGAR	13		
YELDARI	23		
ISAPUR	24		
ALIYAR	36		
PENCH (TOTALADOH)	41		
VAIGAI	45		
RANA PRATAP SAGAR	50		
MALAPRABHA(RENUKA)	50		

18 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
3	6	9

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

18 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 :- 28.12.2017

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	16.041	57.09%	20.165	71.77%	14.885	52.98%	7.77
INDUS	14.730	8.203	55.69%	6.468	43.91%	7.967	54.09%	2.96
NARMADA	21.608	8.035	37.19%	12.895	59.68%	10.930	50.58%	-26.49
TAPI	7.394	3.217	43.51%	5.805	78.51%	4.946	66.89%	-34.96
MAHI	4.012	2.887	71.96%	3.047	75.95%	2.548	63.51%	13.30
SABARMATI	0.735	0.403	54.83%	0.533	72.52%	0.394	53.61%	2.28
RIVERS OF KUTCH	0.887	0.545	61.44%	0.227	25.59%	0.382	43.07%	42.67
GODAVARI	15.394	8.533	55.43%	11.146	72.40%	8.959	58.20%	-4.75
KRISHNA	32.831	17.172	52.30%	12.070	36.76%	18.268	55.64%	-6.00
MAHANADI & NEIGHBOURING EFRS	13.181	10.056	76.29%	10.721	81.34%	9.611	72.92%	4.63
CAUVERY & NEIGHBOURING EFRS	8.359	3.593	42.98%	1.925	23.03%	4.675	55.93%	-23.14
WEST FLOWING RIVERS OF SOUTH	14.766	8.978	60.80%	7.582	51.35%	9.837	66.62%	-8.73
<b>TOTAL</b>	<b>161.993</b>	<b>87.663</b>		<b>92.584</b>		<b>93.402</b>		
<b>PERCENTAGE</b>								<b>-6.14</b>

## WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 28.12.2017

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	499.70	6.229	4.189	28-12-2017	67	45	63	676	1200
*2	PONG DAM	423.67	410.74	6.157	3.148	28-12-2017	51	45	49	-	360
<b><u>PUNJAB</u></b>											
*3	THEIN	527.91	505.22	2.344	0.866	28-12-2017	37	38	43	348	600
<b><u>RAJASTHAN</u></b>											
*4	MAHI BAJAJ SAGAR	280.75	278.25	1.711	1.381	28-12-2017	81	86	65	63	140
5	JHAKAM	359.50	355.10	0.132	0.092	28-12-2017	70	73	55	28	-
*6	RANA PRATAP SAGAR	352.81	346.25	1.436	0.331	27-12-2017	23	36	46	229	172
<b><u>EASTERN REGION</u></b>											
<b><u>JHARKHAND</u></b>											
7	TENUGHAT	269.14	259.83	0.821	0.410	28-12-2017	50	52	43	-	-
8	MAITHON	146.3	148.95	0.471	0.471	28-12-2017	100	100	85	342	-
*9	PANCHET HILL	124.97	128.05	0.184	0.184	28-12-2017	100	100	85	\$	80
10	KONAR	425.81	423.03	0.176	0.128	28-12-2017	73	93	76	\$	-
11	TILAIYA	368.81	366.83	0.142	0.076	28-12-2017	54	99	70	\$	4
<b><u>ODISHA</u></b>											
*12	HIRAKUD	192.02	191.21	5.378	4.305	27-12-2017	80	84	82	153	307
*13	BALIMELA	462.08	451.07	2.676	1.065	27-12-2017	40	77	63	-	360
14	SALANADI	82.30	71.12	0.558	0.240	28-12-2017	43	35	32	42	-
*15	RENGALI	123.50	122.74	3.432	3.187	27-12-2017	93	91	72	3	200
*16	MACHKUND(JALPUT)	838.16	837.47	0.893	0.825	27-12-2017	92	76	82	-	115
*17	UPPER KOLAB	858.00	853.85	0.935	0.565	27-12-2017	60	84	61	89	320
*18	UPPER INDRAVATI	642.00	635.97	1.456	0.840	28-12-2017	58	78	70	128	600
<b><u>WEST BENGAL</u></b>											
19	MAYURAKSHI	121.31	120.43	0.480	0.457	28-12-2017	95	45	43	227	-
20	KANGSABATI	134.14	132.59	0.914	0.811	28-12-2017	89	60	41	341	-
<b><u>TRIPURA</u></b>											
21	GUMTI	93.55	92.65	0.312	0.270	27-12-2017	87	71	40	-	15
<b><u>WESTERN REGION</u></b>											
<b><u>GUJARAT</u></b>											
*22	UKAI	105.16	96.66	6.615	2.700	28-12-2017	41	78	68	348	300
23	SABARMATI(DHAROI)	189.59	185.85	0.735	0.403	28-12-2017	55	73	54	95	1
*24	KADANA	127.7	125.25	1.472	0.947	28-12-2017	64	72	63	200	120
25	SHETRUNJI	55.53	53.32	0.300	0.155	28-12-2017	52	54	66	36	-
26	BHADAR	107.89	105.77	0.188	0.108	28-12-2017	57	8	47	27	-
27	DAMANAGANGA	79.86	79.05	0.502	0.440	28-12-2017	88	77	83	51	1
28	DANTIWADA	184.1	180.83	0.399	0.282	28-12-2017	71	12	24	45	-
29	PANAM	127.41	126.10	0.697	0.467	28-12-2017	67	60	62	36	2
*30	SARDAR SAROVAR	138.68	118.97	5.760	1.071	28-12-2017	19	19	22	2120	1450
31	KARJAN	115.25	111.67	0.523	0.416	28-12-2017	80	60	78	51	3

## WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 28.12.2017

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>MAHARASHTRA</b>											
32	JAYAKWADI(PAITHON)	463.91	463.00	2.171	1.835	28-12-2017	85	70	43	227	-
*33	KOYANA	657.90	656.84	2.652	2.525	27-12-2017	95	73	82	-	1920
34	BHIMA(UJJANI)	496.83	497.09	1.517	1.517	28-12-2017	100	89	69	125	12
35	ISAPUR	441.00	428.71	0.965	0.126	27-12-2017	13	41	54	104	-
36	MULA	552.30	551.39	0.609	0.561	27-12-2017	92	84	66	139	-
37	YELDARI	461.77	450.23	0.809	0.070	28-12-2017	9	27	38	78	-
38	GIRNA	398.07	393.14	0.524	0.297	27-12-2017	57	74	41	79	-
39	KHADAKVASLA	582.47	580.31	0.056	0.029	27-12-2017	52	48	57	78	8
*40	UPPER VAITARNA	603.50	602.82	0.331	0.309	27-12-2017	93	90	84	-	61
41	UPPER TAPI	214.00	213.41	0.255	0.220	27-12-2017	86	88	88	45	-
*42	PENCH (TOTALADOH)	490.00	475.56	1.091	0.242	27-12-2017	22	38	54	127	160
43	UPPER WARDHA	342.50	340.67	0.564	0.411	28-12-2017	73	75	70	70	-
44	BHATSA	142.07	135.18	0.942	0.764	27-12-2017	81	80	77	29.378	15
45	DHOM	747.70	744.51	0.331	0.261	27-12-2017	79	68	66	36.2	2
46	DUDHGANGA	646.00	643.18	0.664	0.586	27-12-2017	88	84	82	2.441	24
47	MANIKDOH (KUKADI)	711.25	708.08	0.288	0.233	27-12-2017	81	49	39	2.2	6
48	BHANDARDARA	744.91	744.48	0.304	0.298	27-12-2017	98	97	78	63.74	46
<b>CENTRAL REGION</b>											
<b>UTTAR PRADESH</b>											
49	MATATILA	308.46	305.47	0.707	0.341	27-12-2017	48	50	55	-	30
*50	RIHAND	268.22	261.21	5.649	2.723	28-12-2017	48	64	41	-	300
<b>UTTRAKHAND</b>											
*51	RAMGANGA	365.30	351.74	2.196	1.273	28-12-2017	58	50	68	1897	198
*52	TEHRI	830.00	812.70	2.615	1.927	24-12-2017	74	71	73	2351	1000
<b>MADHYA PRADESH</b>											
*53	GANDHI SAGAR	399.90	393.99	6.827	3.464	28-12-2017	51	86	49	220	115
54	TAWA	355.40	346.80	1.944	0.801	28-12-2017	41	69	66	247	-
*55	BARGI	422.76	420.10	3.180	2.478	28-12-2017	78	72	70	157	90
*56	BANSAGAR	341.64	336.91	5.166	3.175	28-12-2017	61	86	57	488	425
*57	INDIRA SAGAR	262.13	252.71	9.745	3.108	28-12-2017	32	77	57	2380	1000
58	BARNA	348.55	343.53	0.456	0.161	28-12-2017	35	72	54	546	-
<b>CHHATTIS GARH</b>											
*59	MINIMATA BANGOI	359.66	353.47	3.046	1.909	27-12-2017	63	69	64	-	120
60	MAHANADI	348.70	344.50	0.767	0.415	27-12-2017	54	99	80	319	10
<b>SOUTHERN REGION</b>											
<b>A.P. &amp; TG</b>											
*61	SRISAILAM	269.75	265.18	8.288	3.915	28-12-2017	47	43	58	0	770
*62	NAGARJUNA SAGAR	179.83	166.24	6.841	1.928	28-12-2017	28	8	38	895	810
<b>ANDHRA PRADESH</b>											
63	SOMASILA	100.58	94.13	1.994	1.128	28-12-2017	57	53	72	168	0
<b>TELANGANA</b>											
64	SRIRAMSAGAR	332.54	328.36	2.300	1.287	28-12-2017	56	94	52	411	27
65	LOWER MANAIR	280.42	276.52	0.621	0.408	28-12-2017	66	88	64	199	60

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA CENTRAL WATER COMMISSION

WEEK ENDING :- 28.12.2017

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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><u>KARNATAKA</u></b>											
66	KRISHNARAJA SAGRA	752.50	746.60	1.163	0.651	27-12-2017	56	15	67	79	-
*67	TUNGABHADRA	497.74	492.02	3.276	1.246	28-12-2017	38	7	49	529	72
68	GHATAPRABHA	662.95	656.91	1.391	0.970	27-12-2017	70	58	53	317	-
69	BHADRA	657.76	652.97	1.785	1.266	27-12-2017	71	34	82	106	39
70	LINGANAMAKKI	554.43	546.23	4.294	2.201	28-12-2017	51	49	68	-	55
71	NARAYANPUR	492.25	490.97	0.863	0.582	28-12-2017	67	59	80	425	-
72	MALAPRABHA(RENUKA)	633.83	625.16	0.972	0.199	27-12-2017	20	19	41	215	-
73	KABINI(Sancherla Tank)	696.16	693.31	0.444	0.290	27-12-2017	65	25	31	85	-
74	HEMAVATHY	890.63	876.96	0.927	0.204	27-12-2017	22	11	34	265	-
75	HARANGI	871.42	859.06	0.220	0.060	27-12-2017	27	27	13	53	-
76	SUPA	564.00	546.17	4.120	2.245	28-12-2017	54	52	58	-	-
77	VANIVILAS SAGAR	652.28	632.37	0.802	0.019	28-12-2017	2	4	18	123	-
*78	ALMATTI	519.60	516.56	3.105	1.896	28-12-2017	61	44	55	@	290
*79	GERUSOPPA	55.00	52.69	0.130	0.117	28-12-2017	90	79	80	83	240
<b><u>KERALA</u></b>											
80	KALLADA(PARAPPAR)	115.82	115.42	0.507	0.477	27-12-2017	94	40	79	62	-
*81	IDAMALAYAR	169.00	158.58	1.018	0.721	27-12-2017	71	58	68	33	75
*82	IDUKKI	732.43	723.16	1.460	0.971	27-12-2017	67	39	63	-	780
*83	KAKKI	981.46	978.04	0.447	0.388	27-12-2017	87	54	78	23	300
*84	PERIYAR	867.41	862.85	0.173	0.073	27-12-2017	42	11	56	84	140
85	MALAPMUZHA	115.06	108.40	0.224	0.096	28-12-2017	43	29	58	21	3
<b><u>TAMIL NADU</u></b>											
86	LOWER BHAWANI	278.89	270.19	0.792	0.328	27-12-2017	41	13	54	105	8
*87	METTUR(STANLEY)	240.79	225.11	2.647	0.891	27-12-2017	34	12	55	122	360
88	VAIGAI	279.20	271.38	0.172	0.041	27-12-2017	24	3	53	61	6
89	PARAMBIKULAM	556.26	544.25	0.380	0.148	27-12-2017	39	19	72	101	-
90	ALIYAR	320.04	307.71	0.095	0.025	27-12-2017	26	6	74	#	60
*91	SHOLAYAR	1002.79	966.37	0.143	0.003	27-12-2017	2	0	48	-	95
TOTAL FOR 91 RESERVOIRS				161.993	87.663						
PERCENTAGE							54	57	58		

\* 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.

Sd/-

Director

W. M. , CWC