

## **BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 21.09.2017)**

### **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 **21.09.2017**, live storage available in these reservoirs is **96.952 BCM**, which is **61%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **110.383 BCM** and the average of last 10 years live storage was **117.991 BCM**. Thus, the live storage available in 91 reservoirs **as per 21.09.2017 Bulletin** is **88%** of the live storage of corresponding period of last year and **82%** 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 **21.09.2017**, the total live storage available in these reservoirs is **15.10 BCM** which is **84%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **78%** and average storage of last ten years during corresponding period was **82%** 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 **21.09.2017**, the total live storage available in these reservoirs is **12.00 BCM** which is **64%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **80%** and average storage of last ten years during corresponding period was **75%** 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.

#### **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 **21.09.2017**, the total live storage available in these reservoirs is **19.97 BCM** which is **74%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **77%** and average storage of last ten years during corresponding period was **78%** 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 **21.09.2017**, the total live storage available in these reservoirs is **25.66 BCM** which is **61%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **88%** and average storage of last ten years during corresponding period was **74%** 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 (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 **21.09.2017**, the total live storage available in these reservoirs is **24.23 BCM** which is **47%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **45%** and average storage of last ten years during corresponding period was **71%** 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 Indus, Sabarmati, Mahi, Rivers of Kutch and Ganga. Close to Normal in Godavari, Mahanadi & neighbouring East Flowing Rivers and West Flowing Rivers of South. Deficient in Narmada, Tapi, Cauvery & neighbouring EFRs and Krishna 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 **39** 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 **1** 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 **6** and having storage less than or equal to 50% with reference to average of last ten years are **11**.

\*\*\*\*\*

**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 21.09.2017

- 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 **21.09.2017** is **96.952** BCM ( **61** percent of the live storage capacity at FRL ).The current year's storage is nearly **88** percent of last year's storage and **82** 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			
<b>NORTH</b> (HP,Punjab & Rajasthan), (6 Resv.)	2	-	2	1	-	1	-	-	H.P.	2	%
									PUNJAB	14	%
									RAJASTHAN	-4	%
<b>EAST</b> (Jharkhand,Odisha, Tripura & W.Bengal ( 15 Resv.)	-	2	2	3	3	2	2	1	JHARKHAND	-2	%
									ODISHA	-20	%
									W. BENGAL	25	%
									TRIPURA	67	%
<b>WEST</b> (Guj.& Mah.), (27 Resv.)	8	6	5	2	2	-	1	3	GUJARAT	-15	%
									MAH.	4	%
<b>CENTRAL</b> (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	1	1	1	5	1	1	2	U.P.	11	%
									UTTARAKHAND	-6	%
									M.P.	-24	%
									CHHATISGARH	-19	%
<b>SOUTH</b> (Karnataka,TN,AP&TG,AP, TG, & Kerala), ( 31 Resv.)	3	-	1	3	5	8	3	8	AP&TG	-71	%
									A,P	-38	%
									TG	-8	%
									KARNATAKA	-19	%
									KERALA	-9	%
									T.N.	-26	%
Status of 91 reservoirs	13	9	11	10	15	12	7	14			

## 4 Basin wise storage position:

**Better than normal:** Ganga,Mahi,Indus,Sabarmati, Rivers of Kutch .

**Close to normal:** Godavari ,Mahanadi & Neighbouring EFRS and West Flowing Rivers of South .

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

**Highly deficient:** NIL

- Out of 91 reservoirs, **57** reservoirs reported more than 80% of normal storage & **34** reservoirs reported 80% or below of normal storage. Out of these **34** reservoirs **11** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
NAGARJUNA SAGAR	0		
VANIVILAS SAGAR	13		
ISAPUR	20		
YELDARI	25		
MATATILA	28		
INDIRA SAGAR	38		
VAIGAI	38		
PENCH (TOTALADOH)	39		
HEMAVATHY	42		
MALAPRABHA(RENUKA)	47		
SRISAILAM	48		

<b>23</b> reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
4	6	13

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

**23** 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

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

[illegible]

## WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 21.09.2017

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	508.64	6.229	5.423	21-09-2017	87	74	88	676	1200
*2	PONG DAM	423.67	421.03	6.157	5.286	21-09-2017	86	73	82	-	360
<b><u>PUNJAB</u></b>											
*3	THEIN	527.91	520.36	2.344	1.760	21-09-2017	75	73	66	348	600
<b><u>RAJASTHAN</u></b>											
*4	MAHI BAJAJ SAGAR	280.75	281.50	1.711	1.711	21-09-2017	100	100	86	63	140
5	JHAKAM	359.50	359.70	0.132	0.132	21-09-2017	100	100	84	28	-
*6	RANA PRATAP SAGAR	352.81	349.27	1.436	0.788	20-09-2017	55	99	79	229	172
<b><u>EASTERN REGION</u></b>											
<b><u>JHARKHAND</u></b>											
7	TENUGHAT	269.14	260.13	0.821	0.422	21-09-2017	51	48	44	-	-
8	MAITHON	146.3	145.93	0.471	0.420	21-09-2017	89	100	92	342	-
*9	PANCHET HILL	124.97	123.67	0.184	0.124	21-09-2017	67	100	89	\$	80
10	KONAR	425.81	422.74	0.176	0.123	21-09-2017	70	100	89	\$	-
11	TILAIYA	368.81	368.45	0.142	0.129	21-09-2017	91	100	85	\$	4
<b><u>ODISHA</u></b>											
*12	HIRAKUD	192.02	189.44	5.378	3.264	20-09-2017	61	78	88	153	307
*13	BALIMELA	462.08	450.77	2.676	1.026	21-09-2017	38	75	59	-	360
14	SALANADI	82.30	71.50	0.558	0.249	20-09-2017	45	54	52	42	-
*15	RENGALI	123.50	122.10	3.432	2.956	21-09-2017	86	92	81	3	200
*16	MACHKUND(JALPUT)	838.16	835.61	0.893	0.681	21-09-2017	76	82	82	-	115
*17	UPPER KOLAB	858.00	852.24	0.935	0.445	21-09-2017	48	77	64	89	320
*18	UPPER INDRAVATI	642.00	635.65	1.456	0.809	21-09-2017	56	76	76	128	600
<b><u>WEST BENGAL</u></b>											
19	MAYURAKSHI	121.31	118.89	0.480	0.377	21-09-2017	79	82	61	227	-
20	KANGSABATI	134.14	131.22	0.914	0.676	21-09-2017	74	91	60	341	-
<b><u>TRIPURA</u></b>											
21	GUMTI	93.55	93.35	0.312	0.303	19-09-2017	97	83	58	-	15
<b><u>WESTERN REGION</u></b>											
<b><u>GUJARAT</u></b>											
*22	UKAI	105.16	97.99	6.615	3.201	21-09-2017	48	78	82	348	300
23	SABARMATI(DHAROI)	189.59	189.58	0.735	0.735	21-09-2017	100	96	71	95	1
*24	KADANA	127.7	127.66	1.472	1.186	21-09-2017	81	76	72	200	120
25	SHETRUNJI	55.53	53.82	0.300	0.182	21-09-2017	61	48	72	36	-
26	BHADAR	107.89	107.59	0.188	0.175	21-09-2017	93	6	64	27	-
27	DAMANAGANGA	79.86	78.90	0.502	0.433	21-09-2017	86	91	88	51	1
28	DANTIWADA	184.1	184.05	0.399	0.385	21-09-2017	96	32	41	45	-
29	PANAM	127.41	127.45	0.697	0.556	21-09-2017	80	60	73	36	2
*30	SARDAR SAROVAR	121.92	130.00	1.566	1.566	21-09-2017	100	97	96	2120	1450
31	KARJAN	115.25	113.50	0.523	0.474	21-09-2017	91	46	86	51	3

## WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 21.09.2017

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	463.23	2.171	1.913	19-09-2017	88	66	48	227	-
*33	KOYANA	657.90	659.39	2.652	2.652	21-09-2017	100	100	97	-	1920
34	BHIMA(UJJANI)	496.83	497.10	1.517	1.517	21-09-2017	100	69	74	125	12
35	ISAPUR	441.00	428.65	0.965	0.119	21-09-2017	12	37	61	104	-
36	MULA	552.30	551.18	0.609	0.550	20-09-2017	90	94	80	139	-
37	YELDARI	461.77	450.89	0.809	0.089	21-09-2017	11	13	44	78	-
38	GIRNA	398.07	394.21	0.524	0.337	21-09-2017	64	69	44	79	-
39	KHADAKVASLA	582.47	582.47	0.056	0.056	21-09-2017	100	100	79	78	8
*40	UPPER VAITARNA	603.50	603.47	0.331	0.330	21-09-2017	100	100	92	-	61
41	UPPER TAPI	214.00	213.54	0.255	0.227	21-09-2017	89	88	79	45	-
*42	PENCH (TOTALADOH)	490.00	478.50	1.091	0.349	21-09-2017	32	66	83	127	160
43	UPPER WARDHA	342.50	341.90	0.564	0.511	21-09-2017	91	100	92	70	-
44	BHATSA	142.07	141.53	0.942	0.928	21-09-2017	99	99	95	29.378	15
45	DHOM	747.70	746.43	0.331	0.302	21-09-2017	91	100	88	36.2	2
46	DUDHGANGA	646.00	640.00	0.664	0.664	21-09-2017	100	100	97	2.441	24
47	MANIKDOH (KUKADI)	711.25	707.61	0.288	0.226	21-09-2017	78	69	56	2.2	6
48	BHANDARDARA	744.91	744.73	0.304	0.304	21-09-2017	100	100	97	63.74	46
<b>CENTRAL REGION</b>											
<b>UTTAR PRADESH</b>											
49	MATATILA	308.46	303.28	0.707	0.178	20-09-2017	25	91	89	-	30
*50	RIHAND	268.22	263.50	5.649	3.629	21-09-2017	64	79	50	-	300
<b>UTTRAKHAND</b>											
*51	RAMGANGA	365.30	350.06	2.196	1.180	20-09-2017	54	52	69	1897	198
*52	TEHRI	830.00	824.05	2.615	2.373	21-09-2017	91	92	86	2351	1000
<b>MADHYA PRADESH</b>											
*53	GANDHI SAGAR	399.90	396.59	6.827	4.702	21-09-2017	69	92	62	220	115
54	TAWA	355.40	351.47	1.944	1.368	21-09-2017	70	100	97	247	-
*55	BARGI	422.76	420.55	3.180	2.604	21-09-2017	82	95	91	157	90
*56	BANSAGAR	341.64	338.84	5.166	3.921	21-09-2017	76	100	71	488	425
*57	INDIRA SAGAR	262.13	252.52	9.745	3.020	21-09-2017	31	93	82	2380	1000
58	BARNA	348.55	346.16	0.456	0.301	21-09-2017	66	97	86	546	-
<b>CHHATTIS GARH</b>											
*59	MINIMATA BANGOI	359.66	354.22	3.046	2.017	20-09-2017	66	68	75	-	120
60	MAHANADI	348.70	343.76	0.767	0.363	20-09-2017	47	89	84	319	10
<b>SOUTHERN REGION</b>											
<b>A.P. &amp; TG</b>											
*61	SRISAILAM	269.75	262.77	8.288	3.088	21-09-2017	37	53	77	0	770
*62	NAGARJUNA SAGAR	179.83	153.41	6.841	0.000	21-09-2017	0	3	64	895	810
<b>ANDHRA PRADESH</b>											
63	SOMASILA	100.58	87.80	1.994	0.530	21-09-2017	27	30	43	168	0
<b>TELANGANA</b>											
64	SRIRAMSAGAR	332.54	328.06	2.300	1.216	21-09-2017	53	61	53	411	27
65	LOWER MANAIR	280.42	272.25	0.621	0.204	21-09-2017	33	30	53	199	60

## WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 21.09.2017

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><u>KARNATAKA</u></b>											
66	KRISHNARAJA SAGRA	752.50	746.31	1.163	0.627	21-09-2017	54	22	80	79	-
*67	TUNGABHADRA	497.74	495.13	3.276	2.015	21-09-2017	62	35	81	529	72
68	GHATAPRABHA	662.95	657.65	1.391	1.016	20-09-2017	73	79	90	317	-
69	BHADRA	657.76	651.59	1.785	1.132	20-09-2017	63	51	87	106	39
70	LINGANAMAKKI	554.43	547.73	4.294	2.513	21-09-2017	59	56	82	-	55
71	NARAYANPUR	492.25	491.80	0.863	0.681	21-09-2017	79	78	84	425	-
72	MALAPRABHA(RENUKA)	633.83	626.87	0.972	0.301	20-09-2017	31	35	66	215	-
73	KABINI(Sancherla Tank)	696.16	696.16	0.444	0.444	21-09-2017	100	49	57	85	-
74	HEMAVATHY	890.63	880.13	0.927	0.323	21-09-2017	35	18	82	265	-
75	HARANGI	871.42	871.15	0.220	0.220	21-09-2017	100	50	88	53	-
76	SUPA	564.00	547.50	4.120	2.361	21-09-2017	57	54	68	-	-
77	VANIVILAS SAGAR	652.28	631.86	0.802	0.012	21-09-2017	1	5	12	123	-
*78	ALMATTI	519.60	519.60	3.105	3.105	21-09-2017	100	100	94	@	290
*79	GERUSOPPA	55.00	50.62	0.130	0.105	21-09-2017	81	90	82	83	240
<b><u>KERALA</u></b>											
80	KALLADA(PARAPPAR)	115.82	109.62	0.507	0.355	20-09-2017	70	33	67	62	-
*81	IDAMALAYAR	169.00	158.96	1.018	0.731	20-09-2017	72	57	75	33	75
*82	IDUKKI	732.43	720.16	1.460	0.822	20-09-2017	56	47	66	-	780
*83	KAKKI	981.46	970.54	0.447	0.286	20-09-2017	64	63	76	23	300
*84	PERIYAR	867.41	864.46	0.173	0.104	21-09-2017	60	16	48	84	140
85	MALAPMUZHA	115.06	110.25	0.224	0.125	21-09-2017	56	40	78	21	3
<b><u>TAMIL NADU</u></b>											
86	LOWER BHAWANI	278.89	272.39	0.792	0.425	21-09-2017	54	19	52	105	8
*87	METTUR(STANLEY)	240.79	228.14	2.647	1.146	21-09-2017	43	53	61	122	360
88	VAIGAI	279.20	269.54	0.172	0.025	21-09-2017	15	4	38	61	6
89	PARAMBIKULAM	556.26	545.78	0.380	0.175	21-09-2017	46	38	80	101	-
90	ALIYAR	320.04	310.62	0.095	0.039	21-09-2017	41	5	79	#	60
*91	SHOLAYAR	1002.79	996.77	0.143	0.099	21-09-2017	69	45	90	-	95
TOTAL FOR 91 RESERVOIRS				157.799	96.952						
PERCENTAGE							61	70	75		

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