

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 01.11.2018)

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 **01.11.2018**, live storage available in these reservoirs is **109.247 BCM**, which is **67%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **110.147 BCM** and the average of last 10 years live storage was **112.354 BCM**. Thus, the live storage available in 91 reservoirs **as per 01.11.2018 Bulletin** is **99%** of the live storage of corresponding period of last year and **97%** 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 **01.11.2018**, the total live storage available in these reservoirs is **15.67 BCM** which is **87%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **74%** and average storage of last ten years during corresponding period was **76%** 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 **01.11.2018**, the total live storage available in these reservoirs is **13.50 BCM** which is **72%** 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 **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 31.26 BCM. As per Reservoir Storage Bulletin dated **01.11.2018**, the total live storage available in these reservoirs is **16.65 BCM** which is **53%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **71%** and average storage of last ten years during corresponding period was **66%** 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 **01.11.2018**, the total live storage available in these reservoirs is **30.92 BCM** which is **73%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **62%** 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 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 (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 **01.11.2018**, the total live storage available in these reservoirs is **32.50 BCM** which is **63%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **66%** and average storage of last ten years during corresponding period was **66%** 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 Indus, Narmada, Mahi, and West Flowing Rivers of South and Cauvery & neighbouring EFRs. Close to Normal in Ganga, Godavari, Krishna and Mahanadi & Neighbouring East Flowing Rivers, Deficient in Tapi and Rivers of Kutch and Highly Deficient in Sabarmati.
- 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 **45**. 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 **1**. The number of reservoirs having storage less than or equal to 50% with respect to last year are **9** and having storage less than or equal to 50% with reference to average of last ten years are **9**.

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 01.11.2018

- 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 **01.11.2018** is **109.247** BCM (**67** percent of the live storage capacity at FRL).The current year's storage is nearly **99** percent of last year's storage and **97** 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			
NORTH (HP,Punjab & Rajasthan), (6 Resv.)	2	-	3	-	-	1	-	-	H.P.	12	%
									PUNJAB	56	%
									RAJASTHAN	1	%
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	-	1	5	3	1	2	1	2	JHARKHAND	-14	%
									ODISHA	-2	%
									W. BENGAL	-28	%
									TRIPURA	40	%
WEST (Guj.& Mah.), (27 Resv.)	1	2	5	3	5	-	3	8	GUJARAT	-22	%
									MAH.	-18	%
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	2	2	1	4	1	2	-	U.P.	11	%
									UTTARAKHAND	3	%
									M.P.	3	%
									CHHATISGARH	-2	%
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	2	4	8	4	3	6	1	3	AP&TG	-34	%
									A,P	2	%
									TG	-30	%
									KARNATAKA	4	%
									KERALA	12	%
									T.N.	61	%
Status of 91 reservoirs	5	9	23	11	13	10	7	13			

4 Basin wise storage position:

Better than normal: Indus Narmada ,Mahi, West Flowing Rivers of South and Cauvery & neighbouring EFRS .

Close to normal: Ganga, Godavari, Krishna and Mahanadi & Neighbouring EFRS

Deficient: Tapi and Rivers of Kutch.

Highly deficient: sabarmati

- 5 Out of 91 reservoirs, **66** reservoirs reported more than 80% of normal storage & **25** reservoirs reported 80% or below of normal storage. Out of these **25** reservoirs **9** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
YELDARI	20		
PENCH (TOTALADOH)	21		
DANTIWADA	23		
VANIVILAS SAGAR	24		
SABARMATI(DHAROI)	36		
BHADAR	45		
UPPER WARDHA	47		
UKAI	47		
SRISAILAM	49		

16 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
4	7	5

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

17 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 :- 01.11.2018

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	17.875	63.62%	19.016	67.68%	18.162	64.64%	-1.58
INDUS	14.730	13.082	88.81%	10.968	74.46%	11.121	75.50%	17.63
NARMADA	21.608	16.240	75.16%	11.641	53.87%	14.309	66.22%	13.50
TAPI	7.394	2.908	39.33%	4.160	56.26%	5.623	76.05%	-48.28
MAHI	4.012	3.428	85.44%	3.464	86.34%	3.092	77.07%	10.87
SABARMATI	0.735	0.189	25.71%	0.675	91.84%	0.529	71.97%	-64.27
RIVERS OF KUTCH	0.887	0.212	23.90%	0.721	81.29%	0.515	58.06%	-58.83
GODAVARI	15.394	8.709	56.57%	9.645	62.65%	9.801	63.67%	-11.14
KRISHNA	32.831	18.598	56.65%	24.299	74.01%	23.184	70.62%	-19.78
MAHANADI & NEIGHBOURING EFRS	13.181	9.081	68.89%	10.610	80.49%	10.540	79.96%	-13.84
CAUVERY& NEIGHBOURING EFRS	8.359	6.246	74.72%	4.916	58.81%	4.519	54.06%	38.22
WEST FLOWING RIVERS OF SOUTH	14.766	12.679	85.87%	10.032	67.94%	10.959	74.22%	15.69
TOTAL	161.993	109.247		110.147		112.354		
PERCENTAGE								-2.77

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 01.11.2018

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	508.45	6.229	5.393	01-11-2018	87	83	83	676	1200
*2	PONG DAM	423.67	422.22	6.157	5.571	30-10-2018	90	72	75	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	524.88	2.344	2.118	01-11-2018	90	58	58	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	280.95	1.711	1.711	31-10-2018	100	100	87	63	140
5	JHAKAM	359.50	359.55	0.132	0.132	31-10-2018	100	100	86	28	-
*6	RANA PRATAP SAGAR	352.81	349.03	1.436	0.746	01-11-2018	52	30	67	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	259.78	0.821	0.408	01-11-2018	50	53	47	-	-
8	MAITHON	146.3	142.89	0.471	0.270	01-11-2018	57	100	89	342	-
*9	PANCHET HILL	124.97	123.84	0.184	0.131	01-11-2018	71	100	91	\$	80
10	KONAR	425.81	432.86	0.176	0.143	31-10-2018	81	81	89	\$	-
11	TILAIYA	368.81	368.45	0.142	0.129	01-11-2018	91	62	85	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	191.22	5.378	4.316	28-10-2018	80	87	90	153	307
*13	BALIMELA	462.08	460.71	2.676	2.413	01-11-2018	90	49	58	-	360
14	SALANADI	82.30	76.28	0.558	0.373	01-11-2018	67	44	36	42	-
*15	RENGALI	123.50	118.70	3.432	1.890	01-11-2018	55	98	85	3	200
*16	MACHKUND(JALPUT)	838.16	837.22	0.893	0.803	01-11-2018	90	96	88	-	115
*17	UPPER KOLAB	858.00	855.93	0.935	0.739	01-11-2018	79	62	64	89	320
*18	UPPER INDRAVATI	642.00	639.40	1.456	1.175	01-11-2018	81	61	72	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	112.11	0.480	0.124	01-11-2018	26	99	45	227	-
20	KANGSABATI	134.14	126.28	0.914	0.336	01-11-2018	37	88	47	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	92.30	0.312	0.254	30-10-2018	81	100	58	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	95.85	6.615	2.410	30-10-2018	36	53	77	348	300
23	SABARMATI(DHAROI)	189.59	182.34	0.735	0.189	31-10-2018	26	92	72	95	1
*24	KADANA	127.7	126.32	1.472	1.050	31-10-2018	71	75	69	200	120
25	SHETRUNJI	55.53	52.42	0.300	0.117	31-10-2018	39	59	72	36	-
26	BHADAR	107.89	103.68	0.188	0.055	31-10-2018	29	89	65	27	-
27	DAMANAGANGA	79.86	77.90	0.502	0.389	30-10-2018	77	96	98	51	1
28	DANTIWADA	184.1	169.27	0.399	0.040	31-10-2018	10	94	44	45	-
29	PANAM	127.41	127.15	0.697	0.535	31-10-2018	77	74	67	36	2
*30	SARDAR SAROVAR	138.68	127.83	5.760	2.725	29-10-2018	47	51	27	2120	1450
31	KARJAN	115.25	112.19	0.523	0.428	29-10-2018	82	92	94	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 01.11.2018

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	459.01	2.171	0.651	31-10-2018	30	100	50	227	-
*33	KOYANA	657.90	655.73	2.652	2.392	31-10-2018	90	100	95	-	1920
34	BHIMA(UJJANI)	496.83	496.04	1.517	1.261	01-11-2018	83	100	83	125	12
35	ISAPUR	441.00	437.38	0.965	0.623	31-10-2018	65	16	58	104	-
36	MULA	552.30	547.81	0.609	0.393	31-10-2018	65	100	83	139	-
37	YELDARI	461.77	450.35	0.809	0.073	29-10-2018	9	14	45	78	-
38	GIRNA	398.07	391.62	0.524	0.244	31-10-2018	47	72	46	79	-
39	KHADAKVASLA	582.47	581.07	0.056	0.038	24-10-2018	68	91	66	78	8
*40	UPPER VAITARNA	603.50	603.08	0.331	0.318	31-10-2018	96	100	92	-	61
41	UPPER TAPI	214.00	213.99	0.255	0.254	31-10-2018	100	100	100	45	-
*42	PENCH (TOTALADOH)	490.00	472.23	1.091	0.147	31-10-2018	13	31	63	127	160
43	UPPER WARDHA	342.50	338.12	0.564	0.240	01-11-2018	43	100	91	70	-
44	BHATSA	142.07	137.04	0.942	0.809	31-10-2018	86	97	91	29.378	15
45	DHOM	747.70	745.05	0.331	0.273	29-10-2018	82	99	92	36.2	2
46	DUDHGANGA	646.00	644.44	0.664	0.627	31-10-2018	94	100	97	2.441	24
47	MANIKDOH (KUKADI)	711.25	704.37	0.288	0.177	31-10-2018	61	83	59	2.2	6
48	BHANDARDARA	744.91	738.13	0.304	0.194	31-10-2018	64	100	93	63.74	46
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	307.09	0.707	0.495	31-10-2018	70	64	73	-	30
*50	RIHAND	268.22	262.65	5.649	3.279	01-11-2018	58	58	51	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	354.99	2.196	1.457	01-11-2018	66	63	71	1897	198
*52	TEHRI	830.00	826.45	2.615	2.474	01-11-2018	95	89	86	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	392.65	6.827	2.911	01-11-2018	43	67	63	220	115
54	TAWA	355.40	352.44	1.944	1.518	01-11-2018	78	77	95	247	-
*55	BARGI	422.76	420.70	3.180	2.646	01-11-2018	83	86	89	157	90
*56	BANSAGAR	341.64	340.63	5.166	4.718	01-11-2018	91	70	71	488	425
*57	INDIRA SAGAR	262.13	260.88	9.745	8.722	01-11-2018	90	38	74	2380	1000
58	BARNA	348.55	344.38	0.456	0.201	01-11-2018	44	50	76	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	354.16	3.046	2.008	01-11-2018	66	65	67	-	120
60	MAHANADI	348.70	345.50	0.767	0.494	31-10-2018	64	39	65	319	10
SOUTHERN REGION											
A.P. & TG											
*61	SRISAILAM	269.75	260.82	8.288	2.553	01-11-2018	31	67	63	0	770
*62	NAGARJUNA SAGAR	179.83	173.68	6.841	3.523	01-11-2018	51	59	58	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	94.70	1.994	1.197	01-11-2018	60	71	59	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	327.11	2.300	1.010	01-11-2018	44	68	63	411	27
65	LOWER MANAIR	280.42	273.35	0.621	0.248	01-11-2018	40	33	58	199	60

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GOVERNMENT OF INDIA

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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	752.28	1.163	1.163	31-10-2018	100	73	76	79	-
*67	TUNGABHADRA	497.74	494.97	3.276	1.969	01-11-2018	60	71	70	529	72
68	GHATAPRABHA	662.95	660.30	1.391	1.195	01-11-2018	86	94	84	317	-
69	BHADRA	657.76	656.59	1.785	1.651	01-11-2018	92	74	82	106	39
70	LINGANAMAKKI	554.43	552.85	4.294	3.816	29-10-2018	89	61	78	-	55
71	NARAYANPUR	492.25	491.36	0.863	0.627	01-11-2018	73	79	82	425	-
72	MALAPRABHA(RENUKA)	633.83	630.39	0.972	0.584	01-11-2018	60	51	61	215	-
73	KABINI(Sancherla Tank)	696.16	695.73	0.444	0.418	31-10-2018	94	91	47	85	-
74	HEMAVATHY	890.63	885.56	0.927	0.623	31-10-2018	67	28	61	265	-
75	HARANGI	871.42	867.43	0.220	0.130	31-10-2018	59	79	58	53	-
76	SUPA	564.00	560.22	4.120	3.668	29-10-2018	89	61	65	-	-
77	VANIVILAS SAGAR	652.28	633.23	0.802	0.030	01-11-2018	4	3	16	123	-
*78	ALMATTI	519.60	515.93	3.105	1.698	01-11-2018	55	100	87	@	290
*79	GERUSOPPA	55.00	50.40	0.130	0.104	31-10-2018	80	88	83	83	240
<u>KERALA</u>											
80	KALLADA(PARAPPAR)	115.82	113.59	0.507	0.431	01-11-2018	85	83	78	62	-
*81	IDAMALAYAR	169.00	158.36	1.018	0.715	01-11-2018	70	77	74	33	75
*82	IDUKKI	732.43	727.62	1.460	1.196	01-11-2018	82	67	65	-	780
*83	KAKKI	981.46	975.24	0.447	0.347	01-11-2018	78	76	77	23	300
*84	PERIYAR	867.41	866.11	0.173	0.139	01-11-2018	80	42	49	84	140
85	MALAPMUZHA	115.06	113.90	0.224	0.195	01-11-2018	87	69	81	21	3
<u>TAMIL NADU</u>											
86	LOWER BHAWANI	278.89	279.27	0.792	0.792	01-11-2018	100	49	44	105	8
*87	METTUR(STANLEY)	240.79	234.11	2.647	1.765	01-11-2018	67	50	43	122	360
88	VAIGAI	279.20	278.59	0.172	0.158	01-11-2018	92	47	44	61	6
89	PARAMBIKULAM	556.26	554.86	0.380	0.350	01-11-2018	92	49	76	101	-
90	ALIYAR	320.04	318.46	0.095	0.085	01-11-2018	89	39	76	#	60
*91	SHOLAYAR	1002.79	1000.48	0.143	0.117	01-11-2018	82	57	74	-	95
TOTAL FOR 91 RESERVOIRS				161.993	109.247						
PERCENTAGE							67	68	69		

Sd/-

Director

* HYDEL POWER CAPACITY HAVING CAPACITY MORE THAN 60MW

\$ TOTAL CCA 342 TH. HA OF DVC SYSTEM

W. M. , CWC

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.