

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 15.11.2018)

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 **15.11.2018**, live storage available in these reservoirs is **103.735 BCM**, which is **64%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **104.886 BCM** and the average of last 10 years live storage was **107.430 BCM**. Thus, the live storage available in 91 reservoirs **as per 15.11.2018 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 **15.11.2018**, the total live storage available in these reservoirs is **14.99 BCM** which is **83%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **70%** and average storage of last ten years during corresponding period was **72%** 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 **15.11.2018**, the total live storage available in these reservoirs is **12.97 BCM** which is **69%** 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 **73%** 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 **15.11.2018**, the total live storage available in these reservoirs is **15.92 BCM** which is **51%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **67%** and average storage of last ten years during corresponding period was **64%** 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 **15.11.2018**, the total live storage available in these reservoirs is **29.82 BCM** which is **70%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **59%** and average storage of last ten years during corresponding period was **67%** 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 **15.11.2018**, the total live storage available in these reservoirs is **30.03 BCM** which is **58%** 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 **63%** 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 Ganga, Indus, Narmada, Mahi, and West Flowing Rivers of South and Cauvery & neighbouring EFRs. Close to Normal in Godavari and Mahanadi & Neighbouring East Flowing Rivers, Deficient in Tapi and Krishna and Highly Deficient in Sabarmati and Rivers of Kutch.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storage more than last year are **36** and reservoirs having storage more than average of last ten years are **37**. 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 **0**. The number of reservoirs having storage less than or equal to 50% with respect to last year are **10** 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 15.11.2018

- 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 **15.11.2018** is **103.735** BCM (**64** 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.	14	%
									PUNJAB	50	%
									RAJASTHAN	3	%
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	-	-	3	6	-	3	1	2	JHARKHAND	-14	%
									ODISHA	-4	%
									W. BENGAL	-28	%
									TRIPURA	38	%
WEST (Guj.& Mah.), (27 Resv.)	-	3	2	6	2	1	3	10	GUJARAT	-19	%
									MAH.	-22	%
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	1	3	-	4	2	2	-	U.P.	9	%
									UTTARAKHAND	2	%
									M.P.	6	%
									CHHATISGARH	-2	%
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	1	2	8	5	3	4	5	3	AP&TG	-37	%
									A,P	-11	%
									TG	-24	%
									KARNATAKA	1	%
									KERALA	5	%
									T.N.	45	%
Status of 91 reservoirs	1	8	19	17	9	10	11	16			

4 Basin wise storage position:

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

Close to normal: Godavari and Mahanadi & Neighbouring EFRS

Deficient: Tapi and Krishna .

Highly deficient: Sabarmati and Rivers of Kutch

- Out of 91 reservoirs, **63** reservoirs reported more than 80% of normal storage & **28** reservoirs reported 80% or below of normal storage. Out of these **28** reservoirs **11** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
YELDARI	21		
PENCH (TOTALADOH)	22		
VANIVILAS SAGAR	22		
DANTIWADA	22		
SABARMATI(DHAROI)	36		
SHETRANJI	42		
BHADAR	43		
UPPER WARDHA	44		
BHANDARDARA	46		
UKAI	48		
SRISAILAM	49		

17 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
3	5	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 :- 15.11.2018

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	17.201	61.22%	18.339	65.27%	16.957	60.35%	1.44
INDUS	14.730	12.600	85.54%	10.377	70.45%	10.666	72.41%	18.13
NARMADA	21.608	15.674	72.54%	10.720	49.61%	13.603	62.95%	15.22
TAPI	7.394	2.782	37.63%	3.791	51.27%	5.331	72.10%	-47.81
MAHI	4.012	3.405	84.87%	3.425	85.37%	3.025	75.40%	12.56
SABARMATI	0.735	0.178	24.22%	0.602	81.90%	0.492	66.94%	-63.82
RIVERS OF KUTCH	0.887	0.171	19.28%	0.670	75.54%	0.479	54.00%	-64.30
GODAVARI	15.394	8.352	54.25%	9.447	61.37%	9.372	60.88%	-10.88
KRISHNA	32.831	16.530	50.35%	22.612	68.87%	21.622	65.86%	-23.55
MAHANADI & NEIGHBOURING EFRS	13.181	8.769	66.53%	10.366	78.64%	10.315	78.26%	-14.99
CAUVERY& NEIGHBOURING EFRS	8.359	5.984	71.59%	4.686	56.06%	4.767	57.03%	25.53
WEST FLOWING RIVERS OF SOUTH	14.766	12.089	81.87%	9.851	66.71%	10.801	73.15%	11.92
TOTAL	161.993	103.735		104.886		107.430		
PERCENTAGE								-3.44

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 15.11.2018

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	508.09	6.229	5.337	15-11-2018	86	80	80	676	1200
*2	PONG DAM	423.67	421.11	6.157	5.304	12-11-2018	86	68	71	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	522.89	2.344	1.959	15-11-2018	84	51	56	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	280.55	1.711	1.697	15-11-2018	99	100	85	63	140
5	JHAKAM	359.50	358.85	0.132	0.126	15-11-2018	95	95	81	28	-
*6	RANA PRATAP SAGAR	352.81	347.93	1.436	0.569	15-11-2018	40	22	53	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	259.52	0.821	0.398	15-11-2018	48	54	47	-	-
8	MAITHON	146.3	142.45	0.471	0.251	15-11-2018	53	100	88	342	-
*9	PANCHET HILL	124.97	123.97	0.184	0.137	15-11-2018	74	100	84	\$	80
10	KONAR	425.81	423.55	0.176	0.136	15-11-2018	77	78	88	\$	-
11	TILAIYA	368.81	368.36	0.142	0.126	15-11-2018	89	56	82	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	190.87	5.378	4.091	15-11-2018	76	85	86	153	307
*13	BALIMELA	462.08	460.37	2.676	2.347	15-11-2018	88	47	58	-	360
14	SALANADI	82.30	74.37	0.558	0.319	15-11-2018	57	42	36	42	-
*15	RENGALI	123.50	118.50	3.432	1.829	15-11-2018	53	97	84	3	200
*16	MACHKUND(JALPUT)	838.16	836.97	0.893	0.780	15-11-2018	87	98	86	-	115
*17	UPPER KOLAB	858.00	855.67	0.935	0.715	15-11-2018	76	61	60	89	320
*18	UPPER INDRAVATI	642.00	639.06	1.456	1.142	15-11-2018	78	59	70	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	112.01	0.480	0.122	15-11-2018	25	97	45	227	-
20	KANGSABATI	134.14	126.28	0.914	0.336	15-11-2018	37	88	46	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	92.05	0.312	0.242	14-11-2018	78	96	56	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	95.66	6.615	2.344	15-11-2018	35	48	73	348	300
23	SABARMATI(DHAROI)	189.59	182.13	0.735	0.178	15-11-2018	24	82	67	95	1
*24	KADANA	127.7	126.39	1.472	1.057	15-11-2018	72	73	69	200	120
25	SHETRUNJI	55.53	51.52	0.300	0.087	15-11-2018	29	56	69	36	-
26	BHADAR	107.89	103.39	0.188	0.049	15-11-2018	26	83	61	27	-
27	DAMANAGANGA	79.86	77.30	0.502	0.364	15-11-2018	73	96	96	51	1
28	DANTIWADA	184.1	168.78	0.399	0.035	15-11-2018	9	87	40	45	-
29	PANAM	127.41	127.00	0.697	0.525	15-11-2018	75	73	65	36	2
*30	SARDAR SAROVAR	138.68	128.42	5.760	2.860	15-11-2018	50	45	26	2120	1450
31	KARJAN	115.25	111.49	0.523	0.409	15-11-2018	78	86	86	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 15.11.2018

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	459.05	2.171	0.662	15-11-2018	30	98	48	227	-
*33	KOYANA	657.90	654.99	2.652	2.317	15-11-2018	87	100	93	-	1920
34	BHIMA(UJJANI)	496.83	495.27	1.517	1.027	14-11-2018	68	100	80	125	12
35	ISAPUR	441.00	437.09	0.965	0.600	15-11-2018	62	15	57	104	-
36	MULA	552.30	545.98	0.609	0.319	15-11-2018	52	99	81	139	-
37	YELDARI	461.77	450.28	0.809	0.071	15-11-2018	9	14	43	78	-
38	GIRNA	398.07	390.20	0.524	0.200	15-11-2018	38	71	46	79	-
39	KHADAKVASLA	582.47	581.44	0.056	0.042	15-11-2018	75	84	70	78	8
*40	UPPER VAITARNA	603.50	602.71	0.331	0.306	15-11-2018	92	99	90	-	61
41	UPPER TAPI	214.00	213.72	0.255	0.238	15-11-2018	93	100	100	45	-
*42	PENCH (TOTALADOH)	490.00	471.78	1.091	0.136	15-11-2018	12	29	58	127	160
43	UPPER WARDHA	342.50	337.71	0.564	0.217	15-11-2018	38	93	88	70	-
44	BHATSA	142.07	135.43	0.942	0.770	15-11-2018	82	93	88	29.378	15
45	DHOM	747.70	743.71	0.331	0.245	13-11-2018	74	96	84	36.2	2
46	DUDHGANGA	646.00	643.86	0.664	0.608	15-11-2018	92	100	94	2.441	24
47	MANIKDOH (KUKADI)	711.25	700.72	0.288	0.129	15-11-2018	45	83	58	2.2	6
48	BHANDARDARA	744.91	731.38	0.304	0.128	15-11-2018	42	100	92	63.74	46
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	306.23	0.707	0.410	14-11-2018	58	59	64	-	30
*50	RIHAND	268.22	262.22	5.649	3.113	15-11-2018	55	56	49	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	355.07	2.196	1.462	14-11-2018	67	64	70	1897	198
*52	TEHRI	830.00	824.55	2.615	2.394	15-11-2018	92	86	85	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	392.45	6.827	2.832	15-11-2018	41	64	54	220	115
54	TAWA	355.40	351.34	1.944	1.349	15-11-2018	69	67	88	247	-
*55	BARGI	422.76	420.40	3.180	2.562	15-11-2018	81	85	86	157	90
*56	BANSAGAR	341.64	340.53	5.166	4.673	15-11-2018	90	68	67	488	425
*57	INDIRA SAGAR	262.13	260.43	9.745	8.297	13-11-2018	85	35	71	2380	1000
58	BARNA	348.55	344.31	0.456	0.197	15-11-2018	43	49	74	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	354.06	3.046	1.993	15-11-2018	65	65	67	-	120
60	MAHANADI	348.70	346.05	0.767	0.537	14-11-2018	70	38	70	319	10
SOUTHERN REGION											
A.P. & TG											
*61	SRISAILAM	269.75	260.24	8.288	2.414	15-11-2018	29	59	60	0	770
*62	NAGARJUNA SAGAR	179.83	171.08	6.841	2.940	15-11-2018	43	55	52	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	94.09	1.994	1.125	15-11-2018	56	70	63	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	326.99	2.300	0.986	15-11-2018	43	63	56	411	27
65	LOWER MANAIR	280.42	273.38	0.621	0.249	15-11-2018	40	47	54	199	60

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA CENTRAL WATER COMMISSION

WEEK ENDING :- 15.11.2018

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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	751.13	1.163	1.106	15-11-2018	95	71	75	79	-
*67	TUNGABHADRA	497.74	493.64	3.276	1.614	15-11-2018	49	61	64	529	72
68	GHATAPRABHA	662.95	659.01	1.391	1.106	13-11-2018	80	90	80	317	-
69	BHADRA	657.76	655.84	1.785	1.567	13-11-2018	88	74	78	106	39
70	LINGANAMAKKI	554.43	552.18	4.294	3.624	15-11-2018	84	59	74	-	55
71	NARAYANPUR	492.25	489.08	0.863	0.385	15-11-2018	45	72	78	425	-
72	MALAPRABHA(RENUKA)	633.83	629.63	0.972	0.515	13-11-2018	53	41	54	215	-
73	KABINI(Sancherla Tank)	696.16	694.80	0.444	0.366	15-11-2018	82	87	43	85	-
74	HEMAVATHY	890.63	883.85	0.927	0.516	15-11-2018	56	24	56	265	-
75	HARANGI	871.42	864.22	0.220	0.092	15-11-2018	42	43	43	53	-
76	SUPA	564.00	558.69	4.120	3.495	15-11-2018	85	59	65	-	-
77	VANIVILAS SAGAR	652.28	633.18	0.802	0.029	06-11-2018	4	3	16	123	-
*78	ALMATTI	519.60	515.56	3.105	1.592	15-11-2018	51	95	77	@	290
*79	GERUSOPPA	55.00	49.52	0.130	0.100	15-11-2018	77	81	80	83	240
<u>KERALA</u>											
80	KALLADA(PARAPPAR)	115.82	113.65	0.507	0.438	15-11-2018	86	86	80	62	-
*81	IDAMALAYAR	169.00	157.55	1.018	0.694	15-11-2018	68	78	74	33	75
*82	IDUKKI	732.43	726.78	1.460	1.150	15-11-2018	79	69	66	-	780
*83	KAKKI	981.46	973.81	0.447	0.328	15-11-2018	73	79	79	23	300
*84	PERIYAR	867.41	864.66	0.173	0.108	15-11-2018	62	44	58	84	140
85	MALAPMUZHA	115.06	113.22	0.224	0.181	15-11-2018	81	70	81	21	3
<u>TAMIL NADU</u>											
86	LOWER BHAWANI	278.89	278.76	0.792	0.792	15-11-2018	100	44	51	105	8
*87	METTUR(STANLEY)	240.79	234.75	2.647	1.842	15-11-2018	70	50	50	122	360
88	VAIGAI	279.20	278.04	0.172	0.145	15-11-2018	84	54	53	61	6
89	PARAMBIKULAM	556.26	554.61	0.380	0.345	15-11-2018	91	53	74	101	-
90	ALIYAR	320.04	317.51	0.095	0.079	15-11-2018	83	40	79	#	60
*91	SHOLAYAR	1002.79	998.41	0.143	0.107	15-11-2018	75	41	71	-	95
TOTAL FOR 91 RESERVOIRS				161.993	103.735						
PERCENTAGE							64	65	66		

* 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