

BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 27.12.2018)

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 **27.12.2018**, live storage available in these reservoirs is **86.373 BCM**, which is **53%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **88.010 BCM** and the average of last 10 years live storage was **93.331 BCM**. Thus, the live storage available in 91 reservoirs **as per 27.12.2018 Bulletin** is **98%** of the live storage of corresponding period of last year and **93%** of storage of average of last ten years.

As per Table-01, 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 **27.12.2018**, the total live storage available in these reservoirs is **12.57 BCM** which is **70%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **56%** 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 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 **27.12.2018**, the total live storage available in these reservoirs is **12.19 BCM** which is **65%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **73%** 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 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 **27.12.2018**, the total live storage available in these reservoirs is **12.49 BCM** which is **40%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **56%** 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 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 **27.12.2018**, the total live storage available in these reservoirs is **25.02 BCM** which is **59%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **52%** and average storage of last ten years during corresponding period was **59%** of live storage capacity of these reservoirs. Thus, storage during current year is better than the storage of last year and is equal to 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 **27.12.2018**, the total live storage available in these reservoirs is **24.11 BCM** which is **47%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **48%** and average storage of last ten years during corresponding period was **54%** 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 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 **38** and reservoirs having storage more than average of last ten years are **34**. The numbers of reservoirs having storage less than 20% with respect to last year is **2** 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 **15** and having storage less than or equal to 50% with reference to average of last ten years are **13**.

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 27.12.2018

- 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 **27.12.2018** is **86.373** BCM (**53** percent of the live storage capacity at FRL).The current year's storage is nearly **98** percent of last year's storage and **93** 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.	25 %
									PUNJAB	52 %
									RAJASTHAN	9 %
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	-	-	2	4	2	2	2	3	JHARKHAND	-18 %
									ODISHA	-4 %
									W. BENGAL	-27 %
									TRIPURA	49 %
WEST (Guj.& Mah.), (27 Resv.)	-	-	2	4	2	3	3	13	GUJARAT	-29 %
									MAH.	-27 %
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	1	2	4	-	2	3	U.P.	2 %
									UTTARAKHAND	1 %
									M.P.	1 %
									CHHATISGARH	-3 %
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	-	1	4	5	4	3	6	8	AP&TG	-45 %
									A,P	-40 %
									TG	-24 %
									KARNATAKA	-4 %
									KERALA	5 %
									T.N.	24 %
Status of 91 reservoirs	0	1	9	17	15	8	13	28		

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 and Mahanadi & Neighbouring EFRS

Deficient: Tapi and Krishna .

Highly deficient: Sabarmati and Rivers of Kutch

- Out of 91 reservoirs, **60** reservoirs reported more than 80% of normal storage & **31** reservoirs reported 80% or below of normal storage. Out of these **31** reservoirs **13** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%
VANIVILAS SAGAR	17		
PENCH (TOTALADOH)	20		
YELDARI	22		
DANTIWADA	32		
MANIKDOH	34		
SHETRANJI	34		
NARAYANPUR	34		
MULA	38		
SRISAILAM	39		
SABARMATI(DHAROI)	40		
UPPER WARDHA	40		
UKAI	42		
BHADAR	43		

18 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
9	5	4

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

21 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 :- 27.12.2018

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	14.615	52.02%	16.098	57.30%	15.403	54.82%	-5.12
INDUS	14.730	10.641	72.24%	8.210	55.74%	8.272	56.16%	28.64
NARMADA	21.608	12.265	56.76%	8.112	37.54%	10.992	50.87%	11.58
TAPI	7.394	2.170	29.35%	3.224	43.60%	4.686	63.38%	-53.69
MAHI	4.012	2.778	69.24%	2.901	72.31%	2.536	63.21%	9.54
SABARMATI	0.735	0.153	20.82%	0.408	55.51%	0.383	52.11%	-60.05
RIVERS OF KUTCH	0.887	0.133	14.99%	0.548	61.78%	0.377	42.50%	-64.72
GODAVARI	15.394	7.551	49.05%	8.563	55.63%	8.784	57.06%	-14.04
KRISHNA	32.831	12.541	38.20%	17.283	52.64%	18.028	54.91%	-30.44
MAHANADI & NEIGHBOURING EFRS	13.181	8.338	63.26%	10.056	76.29%	9.815	74.46%	-15.05
CAUVERY& NEIGHBOURING EFRS	8.359	4.582	54.82%	3.614	43.23%	4.383	52.43%	4.54
WEST FLOWING RIVERS OF SOUTH	14.766	10.606	71.83%	8.993	60.90%	9.672	65.50%	9.66
TOTAL	161.993	86.373		88.010		93.331		
PERCENTAGE								-7.46

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 27.12.2018

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	505.47	6.229	4.933	27-12-2018	79	66	65	676	1200
*2	PONG DAM	423.67	415.95	6.157	4.170	27-12-2018	68	52	52	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	517.04	2.344	1.538	27-12-2018	66	38	43	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	277.60	1.711	1.317	27-12-2018	77	81	66	63	140
5	JHAKAM	359.50	355.20	0.132	0.092	27-12-2018	70	70	58	28	-
*6	RANA PRATAP SAGAR	352.81	347.56	1.436	0.517	27-12-2018	36	23	40	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	258.90	0.821	0.375	27-12-2018	46	50	45	-	-
8	MAITHON	146.3	142.52	0.471	0.254	27-12-2018	54	100	85	342	-
*9	PANCHET HILL	124.97	124.18	0.184	0.147	27-12-2018	80	100	85	\$	80
10	KONAR	425.81	422.71	0.176	0.123	27-12-2018	70	73	80	\$	-
11	TILAIYA	368.81	365.82	0.142	0.048	27-12-2018	34	54	67	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	190.51	5.378	3.863	27-12-2018	72	80	82	153	307
*13	BALIMELA	462.08	459.79	2.676	2.246	27-12-2018	84	40	58	-	360
14	SALANADI	82.30	74.20	0.558	0.315	27-12-2018	56	43	36	42	-
*15	RENGALI	123.50	117.88	3.432	1.655	27-12-2018	48	93	77	3	200
*16	MACHKUND(JALPUT)	838.16	836.34	0.893	0.734	27-12-2018	82	92	82	-	115
*17	UPPER KOLAB	858.00	855.23	0.935	0.673	27-12-2018	72	60	61	89	320
*18	UPPER INDRAVATI	642.00	638.66	1.456	1.103	27-12-2018	76	58	69	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	111.80	0.480	0.117	27-12-2018	24	95	45	227	-
20	KANGSABATI	134.14	126.26	0.914	0.333	27-12-2018	36	89	44	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	91.05	0.312	0.201	26-12-2018	64	87	43	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	93.66	6.615	1.792	27-12-2018	27	41	64	348	300
23	SABARMATI(DHAROI)	189.59	181.57	0.735	0.153	27-12-2018	21	56	52	95	1
*24	KADANA	127.7	124.66	1.472	0.893	27-12-2018	61	65	63	200	120
25	SHETRUNJI	55.53	50.57	0.300	0.063	27-12-2018	21	52	62	36	-
26	BHADAR	107.89	102.69	0.188	0.037	27-12-2018	20	59	46	27	-
27	DAMANAGANGA	79.86	75.30	0.502	0.287	27-12-2018	57	88	84	51	1
28	DANTIWADA	184.1	168.55	0.399	0.033	27-12-2018	8	71	26	45	-
29	PANAM	127.41	126.25	0.697	0.476	27-12-2018	68	67	59	36	2
*30	SARDAR SAROVAR	138.68	123.68	5.760	1.870	27-12-2018	32	19	21	2120	1450
31	KARJAN	115.25	110.45	0.523	0.383	27-12-2018	73	80	77	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 27.12.2018

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	458.24	2.171	0.483	27-12-2018	22	85	44	227	-
*33	KOYANA	657.90	653.34	2.652	2.180	27-12-2018	82	95	83	-	1920
34	BHIMA(UJJANI)	496.83	493.97	1.517	0.667	27-12-2018	44	100	72	125	12
35	ISAPUR	441.00	435.24	0.965	0.465	27-12-2018	48	13	48	104	-
36	MULA	552.30	541.17	0.609	0.159	27-12-2018	26	92	68	139	-
37	YELDARI	461.77	450.06	0.809	0.065	27-12-2018	8	9	36	78	-
38	GIRNA	398.07	389.95	0.524	0.193	27-12-2018	37	57	39	79	-
39	KHADAKVASLA	582.47	580.71	0.056	0.033	27-12-2018	59	52	61	78	8
*40	UPPER VAITARNA	603.50	601.80	0.331	0.276	25-12-2018	83	94	85	-	61
41	UPPER TAPI	214.00	212.80	0.255	0.185	27-12-2018	73	86	87	45	-
*42	PENCH (TOTALADOH)	490.00	470.60	1.091	0.108	27-12-2018	10	22	50	127	160
43	UPPER WARDHA	342.50	336.55	0.564	0.157	27-12-2018	28	73	70	70	-
44	BHATSA	142.07	130.95	0.942	0.665	27-12-2018	71	81	77	29.378	15
45	DHOM	747.70	740.69	0.331	0.188	27-12-2018	57	79	68	36.2	2
46	DUDHGANGA	646.00	640.76	0.664	0.510	27-12-2018	77	88	83	2.441	24
47	MANIKDOH (KUKADI)	711.25	691.48	0.288	0.042	27-12-2018	15	81	43	2.2	6
48	BHANDARDARA	744.91	730.93	0.304	0.125	27-12-2018	41	98	80	63.74	46
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	304.77	0.707	0.283	26-12-2018	40	48	56	-	30
*50	RIHAND	268.22	260.97	5.649	2.626	27-12-2018	46	48	44	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	353.76	2.196	1.386	26-12-2018	63	59	67	1897	198
*52	TEHRI	830.00	815.23	2.615	2.020	26-12-2018	77	74	73	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	389.76	6.827	1.915	27-12-2018	28	51	51	220	115
54	TAWA	355.40	347.38	1.944	0.851	27-12-2018	44	42	64	247	-
*55	BARGI	422.76	419.05	3.180	2.184	27-12-2018	69	78	73	157	90
*56	BANSAGAR	341.64	339.63	5.166	4.270	27-12-2018	83	62	62	488	425
*57	INDIRA SAGAR	262.13	258.61	9.745	6.833	26-12-2018	70	32	57	2380	1000
58	BARNA	348.55	343.12	0.456	0.144	27-12-2018	32	36	57	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	353.78	3.046	1.953	27-12-2018	64	63	66	-	120
60	MAHANADI	348.70	346.24	0.767	0.552	27-12-2018	72	54	77	319	10
SOUTHERN REGION											
A.P. & TG											
*61	SRISAILAM	269.75	256.46	8.288	1.714	26-12-2018	21	47	54	0	770
*62	NAGARJUNA SAGAR	179.83	167.12	6.841	2.106	26-12-2018	31	29	37	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	91.48	1.994	0.837	26-12-2018	42	58	70	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	326.75	2.300	0.938	27-12-2018	41	57	54	411	27
65	LOWER MANAIR	280.42	274.40	0.621	0.295	27-12-2018	48	66	61	199	60

WEEK ENDING :- 27.12.2018

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
KARNATAKA											
66	KRISHNARAJA SAGRA	752.50	749.44	1.163	0.917	27-12-2018	79	56	63	79	-
*67	TUNGABHADRA	497.74	490.16	3.276	0.901	27-12-2018	28	38	47	529	72
68	GHATAPRABHA	662.95	655.22	1.391	0.869	26-12-2018	62	70	61	317	-
69	BHADRA	657.76	655.62	1.785	1.542	26-12-2018	86	71	80	106	39
70	LINGANAMAKKI	554.43	550.03	4.294	3.051	27-12-2018	71	51	66	-	55
71	NARAYANPUR	492.25	487.23	0.863	0.225	26-12-2018	26	68	76	425	-
72	MALAPRABHA(RENUKA)	633.83	625.94	0.972	0.242	26-12-2018	25	21	43	215	-
73	KABINI(Sancherla Tank)	696.16	693.85	0.444	0.317	27-12-2018	71	65	33	85	-
74	HEMAVATHY	890.63	878.53	0.927	0.263	27-12-2018	28	22	30	265	-
75	HARANGI	871.42	855.32	0.220	0.033	27-12-2018	15	27	14	53	-
76	SUPA	564.00	554.44	4.120	3.035	27-12-2018	74	55	57	-	-
77	VANIVILAS SAGAR	652.28	632.90	0.802	0.025	20-12-2018	3	2	18	123	-
*78	ALMATTI	519.60	514.42	3.105	1.297	26-12-2018	42	61	57	@	290
*79	GERUSOPPA	55.00	53.33	0.130	0.120	27-12-2018	92	90	81	83	240
KERALA											
80	KALLADA(PARAPPAR)	115.82	114.06	0.507	0.448	27-12-2018	88	94	79	62	-
*81	IDAMALAYAR	169.00	155.44	1.018	0.643	27-12-2018	63	71	67	33	75
*82	IDUKKI	732.43	725.76	1.460	1.094	27-12-2018	75	67	62	-	780
*83	KAKKI	981.46	972.37	0.447	0.307	27-12-2018	69	87	78	23	300
*84	PERIYAR	867.41	863.52	0.173	0.086	27-12-2018	50	42	53	84	140
85	MALAPMUZHA	115.06	109.91	0.224	0.119	27-12-2018	53	43	57	21	3
TAMIL NADU											
86	LOWER BHAWANI	278.89	276.96	0.792	0.681	27-12-2018	86	41	48	105	8
*87	METTUR(STANLEY)	240.79	231.27	2.647	1.450	27-12-2018	55	34	50	122	360
88	VAIGAI	279.20	274.78	0.172	0.084	27-12-2018	49	24	46	61	6
89	PARAMBIKULAM	556.26	553.53	0.380	0.323	27-12-2018	85	39	67	101	-
90	ALIYAR	320.04	315.35	0.095	0.066	27-12-2018	69	26	67	#	60
*91	SHOLAYAR	1002.79	993.81	0.143	0.086	27-12-2018	60	2	41	-	95
TOTAL FOR 91 RESERVOIRS				161.993	86.373						
PERCENTAGE							53	54	58		

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.