BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 06.12.2018)

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 **06.12.2018**, live storage available in these reservoirs is **94.994 BCM,** which is **59%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **96.888 BCM** and the average of last 10 years live storage was **100.711 BCM**. Thus, the live storage available in 91 reservoirs **as per 06.12.2018 Bulletin** is **98%** 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 **06.12.2018**, the total live storage available in these reservoirs is **13.91 BCM** which is **77%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **64%** and average storage of last ten years during corresponding period was **65%** 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 **06.12.2018**, the total live storage available in these reservoirs is **12.47 BCM** which is **66%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **76%** 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 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 **06.12.2018**, the total live storage available in these reservoirs is **14.05 BCM** which is **45%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **61%** and average storage of last ten years during corresponding period was **60%** 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 **06.12.2018**, the total live storage available in these reservoirs is **27.63 BCM** which is **65%** 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 **62%** 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 **06.12.2018**, the total live storage available in these reservoirs is **26.93 BCM** which is **52%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **55%** 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 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 **34** and reservoirs having storage more than average of last ten years are **35.** 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 **14** and having storage less than or equal to 50% with reference to average of last ten years are **13.**

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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 06.12.2018**

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 **06.12.2018** is **94.994** BCM (**59** percent of the live storage capacity at FRL).The current year's storage is nearly **98** percent of last year's storage and **94** 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**		
NORTH (HP,Punjab & Rajasthan), (6 Resv.)	-	-	3	2	-	-	-	1	H.P.	20 %
									PUNJAB	44 %
									RAJASTHAN	4 %
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	-	-	2	6	1	2	2	2	JHARKHAND	-17 %
									ODISHA	-5 %
									W. BENGAL	-29 %
									TRIPURA	51 %
WEST (Guj.& Mah.), (27 Resv.)	-	-	4	3	3	2	3	12	GUJARAT	-24 %
									MAH.	-26 %
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	2	2	3	2	1	2	U.P.	6 %
									UTTARAKHAND	3 %
									M.P.	6 %
									CHHATISGARH	-2 %
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	-	1	6	7	4	1	4	8	AP&TG	-43 %
									A,P	-33 %
									TG	-30 %
									KARNATAKA	-3 %
									KERALA	5 %
									T.N.	37 %
Status of 91 reservoirs	0	1	17	20	11	7	10	25		

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

5 Out of 91 reservoirs, **56** reservoirs reported more than 80% of normal storage & **35** reservoirs reported 80% or below of normal storage. Out of these **35** reservoirs **13** having storage upto 50% of normal storage.

Name of reservoir	**%**	**Name of reservoir**	**%**
VANIVILAS SAGAR	19		
PENCH (TOTALADOH)	21		
YELDARI	21		
DANTIWADA	26		
SHETRUNJI	34		
NARAYANPUR	37		
SABARMATI(DHAROI)	37		
UPPER WARDHA	41		
BHADAR	43		
MANIKDOH	46		
SRISAILAM	46		
BHANDARDARA	47		
UKAI	48		

22 reservors having storage 51% to 80% of normal storage.

51% to 60%	61% to 70%	71% to 80%
3	11	8

6 Out of **37** reservoirs with significant(*) hydropower generation, the storage build up is less than or equal to normal in **19** 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 :- 06.12.2018

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	16.063	57.17%	17.364	61.80%	15.994	56.93%	**0.43**
INDUS	14.730	11.743	79.72%	9.436	64.06%	9.559	64.89%	**22.85**
NARMADA	21.608	13.858	64.13%	9.434	43.66%	12.302	56.93%	**12.65**
TAPI	7.394	2.585	34.96%	3.572	48.31%	4.999	67.61%	**-48.29**
MAHI	4.012	3.098	77.22%	3.178	79.21%	2.806	69.94%	**10.41**
SABARMATI	0.735	0.166	22.59%	0.516	70.20%	0.443	60.27%	**-62.53**
RIVERS OF KUTCH	0.887	0.143	16.12%	0.613	69.11%	0.430	48.48%	**-66.74**
GODAVARI	15.394	7.884	51.21%	9.152	59.45%	9.130	59.31%	**-13.65**
KRISHNA	32.831	14.008	42.67%	19.671	59.92%	19.726	60.08%	**-28.99**
MAHANADI & NEIGHBOURING EFRS	13.181	8.444	64.06%	10.159	77.07%	10.092	76.56%	**-16.33**
CAUVERY& NEIGHBOURING EFRS	8.359	5.538	66.25%	4.212	50.39%	4.898	58.60%	**13.07**
WEST FLOWING RIVERS OF SOUTH	14.766	11.464	77.64%	9.581	64.89%	10.332	69.97%	**10.96**
TOTAL	**161.993**	**94.994**		**96.888**		**100.711**		
PERCENTAGE								**-5.68**

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 06.12.2018

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											
	HIMACHAL PRADESH										
*1	GOBIND SAGAR(BHAKRA)	512.06	507.72	6.229	5.279	06-12-2018	85	75	73	676	1200
*2	PONG DAM	423.67	418.75	6.157	4.743	06-12-2018	77	61	62	-	360
	PUNJAB										
*3	THEIN	527.91	520.19	2.344	1.721	06-12-2018	73	44	51	348	600
	RAJASTHAN										
*4	MAHI BAJAJ SAGAR	280.75	279.25	1.711	1.516	05-12-2018	89	92	77	63	140
5	JHAKAM	359.50	357.00	0.132	0.107	05-12-2018	81	82	69	28	-
*6	RANA PRATAP SAGAR	352.81	347.75	1.436	0.544	06-12-2018	38	25	48	229	172
EASTERN REGION											
	JHARKHAND										
7	TENUGHAT	269.14	259.17	0.821	0.384	06-12-2018	47	50	45	-	-
8	MAITHON	146.3	142.32	0.471	0.246	06-12-2018	52	100	86	342	-
*9	PANCHET HILL	124.97	124.12	0.184	0.144	06-12-2018	78	100	85	$	80
10	KONAR	425.81	423.15	0.176	0.130	06-12-2018	74	76	84	$	-
11	TILAIYA	368.81	367.19	0.142	0.089	06-12-2018	63	55	77	$	4
	ODISHA										
*12	HIRAKUD	192.02	190.64	5.378	3.940	04-12-2018	73	82	85	153	307
*13	BALIMELA	462.08	460.25	2.676	2.325	06-12-2018	87	45	56	-	360
14	SALANADI	82.30	74.27	0.558	0.316	06-12-2018	57	43	36	42	-
*15	RENGALI	123.50	118.05	3.432	1.699	06-12-2018	50	95	80	3	200
*16	MACHKUND(JALPUT)	838.16	836.34	0.893	0.735	06-12-2018	82	96	85	-	115
*17	UPPER KOLAB	858.00	855.54	0.935	0.702	06-12-2018	75	62	59	89	320
*18	UPPER INDRAVATI	642.00	638.47	1.456	1.084	06-12-2018	74	59	68	128	600
	WEST BENGAL										
19	MAYURAKSHI	121.31	111.92	0.480	0.120	06-12-2018	25	95	45	227	-
20	KANGSABATI	134.14	126.28	0.914	0.336	06-12-2018	37	89	46	341	-
	TRIPURA										
21	GUMTI	93.55	91.55	0.312	0.222	05-12-2018	71	89	47	-	15
WESTERN REGION											
	GUJARAT										
*22	UKAI	105.16	95.16	6.615	2.176	06-12-2018	33	45	68	348	300
23	SABARMATI(DHAROI)	189.59	181.86	0.735	0.166	05-12-2018	23	70	60	95	1
*24	KADANA	127.7	125.43	1.472	0.964	05-12-2018	65	68	65	200	120
25	SHETRUNJI	55.53	50.72	0.300	0.066	05-12-2018	22	54	66	36	-
26	BHADAR	107.89	103.08	0.188	0.043	05-12-2018	23	70	54	27	-
27	DAMANAGANGA	79.86	76.30	0.502	0.325	06-12-2018	65	90	90	51	1
28	DANTIWADA	184.1	168.65	0.399	0.034	05-12-2018	9	80	33	45	-
29	PANAM	127.41	126.80	0.697	0.511	05-12-2018	73	70	63	36	2
*30	SARDAR SAROVAR	138.68	125.21	5.760	2.162	06-12-2018	38	30	23	2120	1450
31	KARJAN	115.25	111.17	0.523	0.401	06-12-2018	77	80	81	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA — CENTRAL WATER COMMISSION

WEEK ENDING :- 06.12.2018

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	458.71	2.171	0.578	02-12-2018	27	93	47	227	-
*33	KOYANA	657.90	654.36	2.652	2.266	03-12-2018	85	99	89	-	1920
34	BHIMA(UJJANI)	496.83	494.47	1.517	0.800	01-12-2018	53	100	75	125	12
35	ISAPUR	441.00	435.89	0.965	0.510	06-12-2018	53	15	53	104	-
36	MULA	552.30	543.99	0.609	0.248	06-12-2018	41	97	76	139	-
37	YELDARI	461.77	450.16	0.809	0.068	06-12-2018	8	13	40	78	-
38	GIRNA	398.07	390.07	0.524	0.197	06-12-2018	38	70	44	79	-
39	KHADAKVASLA	582.47	580.28	0.056	0.028	05-12-2018	50	93	71	78	8
*40	UPPER VAITARNA	603.50	602.19	0.331	0.289	06-12-2018	87	98	88	-	61
41	UPPER TAPI	214.00	213.26	0.255	0.212	05-12-2018	83	93	94	45	-
*42	PENCH (TOTALADOH)	490.00	471.27	1.091	0.123	06-12-2018	11	28	54	127	160
43	UPPER WARDHA	342.50	337.10	0.564	0.184	06-12-2018	33	82	79	70	-
44	BHATSA	142.07	133.30	0.942	0.719	06-12-2018	76	87	83	29.378	15
45	DHOM	747.70	742.07	0.331	0.213	03-12-2018	64	85	82	36.2	2
46	DUDHGANGA	646.00	642.83	0.664	0.575	03-12-2018	87	95	90	2.441	24
47	MANIKDOH (KUKADI)	711.25	694.52	0.288	0.066	06-12-2018	23	82	50	2.2	6
48	BHANDARDARA	744.91	731.04	0.304	0.125	06-12-2018	41	99	88	63.74	46
	CENTRAL REGION										
	UTTAR PRADESH										
49	MATATILA	308.46	305.10	0.707	0.309	05-12-2018	44	55	62	-	30
*50	RIHAND	268.22	261.85	5.649	2.971	06-12-2018	53	54	47	-	300
	UTTRAKHAND										
*51	RAMGANGA	365.30	355.22	2.196	1.471	05-12-2018	67	64	69	1897	198
*52	TEHRI	830.00	820.75	2.615	2.238	06-12-2018	86	80	79	2351	1000
	MADHYA PRADESH										
*53	GANDHI SAGAR	399.90	391.20	6.827	2.380	06-12-2018	35	57	52	220	115
54	TAWA	355.40	349.61	1.944	1.113	06-12-2018	57	56	77	247	-
*55	BARGI	422.76	419.80	3.180	2.394	06-12-2018	75	82	80	157	90
*56	BANSAGAR	341.64	340.10	5.166	4.479	06-12-2018	87	65	60	488	425
*57	INDIRA SAGAR	262.13	259.65	9.745	7.609	05-12-2018	78	35	64	2380	1000
58	BARNA	348.55	343.95	0.456	0.179	06-12-2018	39	44	65	546	-
	CHHATTIS GARH										
*59	MINIMATA BANGOI	359.66	353.86	3.046	1.965	06-12-2018	65	64	66	-	120
60	MAHANADI	348.70	345.89	0.767	0.524	06-12-2018	68	37	71	319	10
	SOUTHERN REGION										
	A.P & TG										
*61	SRISAILAM	269.75	258.93	8.288	2.138	06-12-2018	26	52	56	0	770
*62	NAGARJUNA SAGAR	179.83	167.67	6.841	2.218	06-12-2018	32	43	44	895	810
	ANDHRA PRADESH										
63	SOMASILA	100.58	92.92	1.994	0.989	06-12-2018	50	65	74	168	0
	TELANGANA										
64	SRIRAMSAGAR	332.54	326.87	2.300	0.962	06-12-2018	42	58	58	411	27
65	LOWER MANAIR	280.42	273.16	0.621	0.240	06-12-2018	39	67	62	199	60

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA — CENTRAL WATER COMMISSION

WEEK ENDING :- 06.12.2018

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	749.76	1.163	0.951	06-12-2018	82	61	70	79	-
*67	TUNGABHADRA	497.74	491.83	3.276	1.208	06-12-2018	37	46	56	529	72
68	GHATAPRABHA	662.95	656.18	1.391	0.925	06-12-2018	66	76	66	317	-
69	BHADRA	657.76	655.55	1.785	1.536	06-12-2018	86	71	79	106	39
70	LINGANAMAKKI	554.43	551.26	4.294	3.373	06-12-2018	79	56	71	-	55
71	NARAYANPUR	492.25	487.53	0.863	0.248	06-12-2018	29	66	77	425	-
72	MALAPRABHA(RENUKA)	633.83	627.49	0.972	0.344	06-12-2018	35	30	47	215	-
73	KABINI(Sancherla Tank)	696.16	693.99	0.444	0.324	06-12-2018	73	75	34	85	-
74	HEMAVATHY	890.63	881.77	0.927	0.407	06-12-2018	44	23	43	265	-
75	HARANGI	871.42	857.96	0.220	0.050	06-12-2018	23	30	28	53	-
76	SUPA	564.00	556.63	4.120	3.268	06-12-2018	79	57	60	-	-
77	VANIVILAS SAGAR	652.28	633.05	0.802	0.027	05-12-2018	3	2	18	123	-
*78	ALMATTI	519.60	514.91	3.105	1.416	06-12-2018	46	78	68	@	290
*79	GERUSOPPA	55.00	52.33	0.130	0.115	06-12-2018	88	85	83	83	240
	KERALA										
80	KALLADA(PARAPPAR)	115.82	113.73	0.507	0.440	06-12-2018	87	93	82	62	-
*81	IDAMALAYAR	169.00	156.91	1.018	0.678	06-12-2018	67	76	71	33	75
*82	IDUKKI	732.43	726.63	1.460	1.142	06-12-2018	78	68	65	-	780
*83	KAKKI	981.46	973.39	0.447	0.322	06-12-2018	72	88	81	23	300
*84	PERIYAR	867.41	865.12	0.173	0.117	06-12-2018	68	69	66	84	140
85	MALAPMUZHA	115.06	111.86	0.224	0.154	06-12-2018	69	56	72	21	3
	TAMIL NADU										
86	LOWER BHAWANI	278.89	278.08	0.792	0.756	06-12-2018	95	46	56	105	8
*87	METTUR(STANLEY)	240.79	235.77	2.647	1.967	06-12-2018	74	43	56	122	360
88	VAIGAI	279.20	275.37	0.172	0.094	06-12-2018	55	56	53	61	6
89	PARAMBIKULAM	556.26	554.26	0.380	0.338	06-12-2018	89	48	72	101	-
90	ALIYAR	320.04	318.09	0.095	0.083	06-12-2018	87	39	77	#	60
*91	SHOLAYAR	1002.79	997.06	0.143	0.101	06-12-2018	71	15	61	-	95
	TOTAL FOR 91 RESERVOIRS			**161.993**	**94.994**						
	PERCENTAGE						**59**	**60**	**62**		

Sd/-

Director

W. M. , CWC

* 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.