BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 29.11.2018)

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 **29.11.2018**, live storage available in these reservoirs is **98.353 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 **99.290 BCM** and the average of last 10 years live storage was **103.087 BCM**. Thus, the live storage available in 91 reservoirs **as per 29.11.2018 Bulletin** is **99%** of the live storage of corresponding period of last year and **95%** 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 **29.11.2018**, the total live storage available in these reservoirs is **14.36 BCM** which is **80%** 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 **68%** 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 **29.11.2018**, the total live storage available in these reservoirs is **12.62 BCM** which is **67%** 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 **70%** 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 **29.11.2018**, the total live storage available in these reservoirs is **14.72 BCM** which is **47%** 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 **61%** 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 **29.11.2018**, the total live storage available in these reservoirs is **28.79 BCM** which is **68%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **57%** 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 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 **29.11.2018**, the total live storage available in these reservoirs is **27.87 BCM** which is **54%** 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 **61%** 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 **38** and reservoirs having storage more than average of last ten years are **32.** 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 **13** and having storage less than or equal to 50% with reference to average of last ten years are **12.**

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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 29.11.2018**

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 **29.11.2018** is **98.353** BCM (**61** percent of the live storage capacity at FRL).The current year's storage is nearly **99** percent of last year's storage and **95** 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.)	-	1	2	2	-	-	-	1	H.P.	17 %
									PUNJAB	49 %
									RAJASTHAN	4 %
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	-	-	2	7	-	3	1	2	JHARKHAND	-19 %
									ODISHA	-2 %
									W. BENGAL	-32 %
									TRIPURA	43 %
WEST (Guj.& Mah.), (27 Resv.)	-	-	4	3	4	2	3	11	GUJARAT	-22 %
									MAH.	-25 %
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	3	1	4	1	2	1	U.P.	8 %
									UTTARAKHAND	2 %
									M.P.	9 %
									CHHATISGARH	-3 %
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	-	2	6	8	2	2	4	7	AP&TG	-41 %
									A,P	-28 %
									TG	-24 %
									KARNATAKA	-5 %
									KERALA	6 %
									T.N.	41 %
Status of 91 reservoirs	0	3	17	21	10	8	10	22		

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, **60** reservoirs reported more than 80% of normal storage & **31** reservoirs reported 80% or below of normal storage. Out of these **31** reservoirs **12** having storage upto 50% of normal storage.

Name of reservoir	**%**	**Name of reservoir**	**%**
VANIVILAS SAGAR	19		
YELDARI	21		
PENCH (TOTALADOH)	21		
DANTIWADA	24		
NARAYANPUR	32		
SHETRUNJI	34		
SABARMATI(DHAROI)	37		
BHADAR	43		
UPPER WARDHA	44		
BHANDARDARA	46		
SRISAILAM	49		
UKAI	49		

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

51% to 60%	61% to 70%	71% to 80%
5	5	9

6 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 :- 29.11.2018

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	16.685	59.39%	17.674	62.91%	16.311	58.05%	**2.29**
INDUS	14.730	12.098	82.13%	9.773	66.35%	9.996	67.86%	**21.03**
NARMADA	21.608	14.669	67.89%	9.920	45.91%	12.740	58.96%	**15.14**
TAPI	7.394	2.700	36.52%	3.695	49.97%	5.147	69.61%	**-47.54**
MAHI	4.012	3.238	80.71%	3.293	82.08%	2.929	73.01%	**10.55**
SABARMATI	0.735	0.171	23.27%	0.549	74.69%	0.463	62.99%	**-63.07**
RIVERS OF KUTCH	0.887	0.147	16.57%	0.636	71.70%	0.448	50.51%	**-67.19**
GODAVARI	15.394	8.013	52.05%	9.254	60.11%	8.946	58.11%	**-10.43**
KRISHNA	32.831	14.671	44.69%	20.518	62.50%	20.450	62.29%	**-28.26**
MAHANADI & NEIGHBOURING EFRS	13.181	8.564	64.97%	10.225	77.57%	10.084	76.50%	**-15.07**
CAUVERY& NEIGHBOURING EFRS	8.359	5.690	68.07%	4.178	49.98%	4.885	58.44%	**16.48**
WEST FLOWING RIVERS OF SOUTH	14.766	11.707	79.28%	9.575	64.84%	10.688	72.38%	**9.53**
TOTAL	**161.993**	**98.353**		**99.290**		**103.087**		
PERCENTAGE								**-4.59**

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 29.11.2018

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										
	HIMACHAL PRADESH										
*1	GOBIND SAGAR(BHAKRA)	512.06	507.97	6.229	5.317	29-11-2018	85	77	76	676	1200
*2	PONG DAM	423.67	419.50	6.157	4.940	29-11-2018	80	63	65	-	360
	PUNJAB										
*3	THEIN	527.91	521.45	2.344	1.841	29-11-2018	79	46	53	348	600
	RAJASTHAN										
*4	MAHI BAJAJ SAGAR	280.75	279.95	1.711	1.613	27-11-2018	94	97	81	63	140
5	JHAKAM	359.50	357.60	0.132	0.113	27-11-2018	86	85	72	28	-
*6	RANA PRATAP SAGAR	352.81	347.69	1.436	0.536	29-11-2018	37	24	48	229	172
	EASTERN REGION										
	JHARKHAND										
7	TENUGHAT	269.14	259.28	0.821	0.388	29-11-2018	47	50	46	-	-
8	MAITHON	146.3	142.35	0.471	0.247	29-11-2018	52	100	92	342	-
*9	PANCHET HILL	124.97	124.10	0.184	0.143	29-11-2018	78	100	91	$	80
10	KONAR	425.81	423.26	0.176	0.131	29-11-2018	74	77	86	$	-
11	TILAIYA	368.81	367.58	0.142	0.101	29-11-2018	71	55	80	$	4
	ODISHA										
*12	HIRAKUD	192.02	190.72	5.378	3.994	28-11-2018	74	83	86	153	307
*13	BALIMELA	462.08	460.25	2.676	2.325	28-11-2018	87	46	51	-	360
14	SALANADI	82.30	74.28	0.558	0.317	29-11-2018	57	43	37	42	-
*15	RENGALI	123.50	118.23	3.432	1.751	28-11-2018	51	96	78	3	200
*16	MACHKUND(JALPUT)	838.16	836.58	0.893	0.750	28-11-2018	84	97	84	-	115
*17	UPPER KOLAB	858.00	855.46	0.935	0.695	28-11-2018	74	62	55	89	320
*18	UPPER INDRAVATI	642.00	638.54	1.456	1.091	28-11-2018	75	59	70	128	600
	WEST BENGAL										
19	MAYURAKSHI	121.31	111.94	0.480	0.120	29-11-2018	25	95	48	227	-
20	KANGSABATI	134.14	126.28	0.914	0.336	29-11-2018	37	89	49	341	-
	TRIPURA										
21	GUMTI	93.55	91.70	0.312	0.228	28-11-2018	73	91	51	-	15
	WESTERN REGION										
	GUJARAT										
*22	UKAI	105.16	95.49	6.615	2.286	28-11-2018	35	47	71	348	300
23	SABARMATI(DHAROI)	189.59	181.97	0.735	0.171	27-11-2018	23	75	63	95	1
*24	KADANA	127.7	125.76	1.472	0.994	27-11-2018	68	69	68	200	120
25	SHETRUNJI	55.53	50.77	0.300	0.067	27-11-2018	22	55	67	36	-
26	BHADAR	107.89	103.20	0.188	0.046	27-11-2018	24	75	57	27	-
27	DAMANAGANGA	79.86	76.50	0.502	0.332	28-11-2018	66	93	91	51	1
28	DANTIWADA	184.1	168.69	0.399	0.034	27-11-2018	9	82	35	45	-
29	PANAM	127.41	126.90	0.697	0.518	27-11-2018	74	72	64	36	2
*30	SARDAR SAROVAR	138.68	126.58	5.760	2.430	28-11-2018	42	36	24	2120	1450
31	KARJAN	115.25	111.33	0.523	0.405	28-11-2018	77	82	82	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA — CENTRAL WATER COMMISSION

WEEK ENDING :- 29.11.2018

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	458.76	2.171	0.588	29-11-2018	27	94	47	227	-
*33	KOYANA	657.90	654.58	2.652	2.283	29-11-2018	86	100	90	-	1920
34	BHIMA(UJJANI)	496.83	494.62	1.517	0.840	28-11-2018	55	100	78	125	12
35	ISAPUR	441.00	436.33	0.965	0.539	29-11-2018	56	15	55	104	-
36	MULA	552.30	544.93	0.609	0.281	28-11-2018	46	98	79	139	-
37	YELDARI	461.77	450.20	0.809	0.069	29-11-2018	9	13	40	78	-
38	GIRNA	398.07	390.12	0.524	0.198	29-11-2018	38	70	45	79	-
39	KHADAKVASLA	582.47	581.04	0.056	0.037	29-11-2018	66	84	70	78	8
*40	UPPER VAITARNA	603.50	602.33	0.331	0.293	29-11-2018	89	98	89	-	61
41	UPPER TAPI	214.00	213.35	0.255	0.216	29-11-2018	85	95	96	45	-
*42	PENCH (TOTALADOH)	490.00	471.46	1.091	0.128	29-11-2018	12	28	55	127	160
43	UPPER WARDHA	342.50	337.48	0.564	0.204	29-11-2018	36	86	83	70	-
44	BHATSA	142.07	134.02	0.942	0.736	29-11-2018	78	89	84	29.378	15
45	DHOM	747.70	743.08	0.331	0.232	29-11-2018	70	88	78	36.2	2
46	DUDHGANGA	646.00	642.88	0.664	0.576	29-11-2018	87	96	91	2.441	24
47	MANIKDOH (KUKADI)	711.25	696.78	0.288	0.087	29-11-2018	30	82	53	2.2	6
48	BHANDARDARA	744.91	731.08	0.304	0.126	28-11-2018	41	99	91	63.74	46
	CENTRAL REGION										
	UTTAR PRADESH										
49	MATATILA	308.46	305.65	0.707	0.357	28-11-2018	50	48	60	-	30
*50	RIHAND	268.22	261.98	5.649	3.019	29-11-2018	53	55	48	-	300
	UTTRAKHAND										
*51	RAMGANGA	365.30	355.16	2.196	1.467	29-11-2018	67	64	71	1897	198
*52	TEHRI	830.00	822.15	2.615	2.295	29-11-2018	88	83	81	2351	1000
	MADHYA PRADESH										
*53	GANDHI SAGAR	399.90	392.09	6.827	2.702	29-11-2018	40	59	49	220	115
54	TAWA	355.40	350.19	1.944	1.182	29-11-2018	61	60	81	247	-
*55	BARGI	422.76	420.05	3.180	2.464	29-11-2018	77	83	82	157	90
*56	BANSAGAR	341.64	340.40	5.166	4.615	29-11-2018	89	66	66	488	425
*57	INDIRA SAGAR	262.13	259.97	9.745	7.993	27-11-2018	82	35	66	2380	1000
58	BARNA	348.55	344.27	0.456	0.195	29-11-2018	43	46	70	546	-
	CHHATTIS GARH										
*59	MINIMATA BANGOI	359.66	353.93	3.046	1.975	29-11-2018	65	64	67	-	120
60	MAHANADI	348.70	345.93	0.767	0.527	29-11-2018	69	38	71	319	10
	SOUTHERN REGION										
	A.P & TG										
*61	SRISAILAM	269.75	259.63	8.288	2.285	29-11-2018	28	54	57	0	770
*62	NAGARJUNA SAGAR	179.83	168.62	6.841	2.413	29-11-2018	35	47	47	895	810
	ANDHRA PRADESH										
63	SOMASILA	100.58	93.36	1.994	1.039	29-11-2018	52	65	73	168	0
	TELANGANA										
64	SRIRAMSAGAR	332.54	326.93	2.300	0.974	29-11-2018	42	58	54	411	27
65	LOWER MANAIR	280.42	273.22	0.621	0.243	29-11-2018	39	67	57	199	60

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA — CENTRAL WATER COMMISSION

WEEK ENDING :- 29.11.2018

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
	KARNATAKA										
66	KRISHNARAJA SAGRA	752.50	750.15	1.163	0.994	29-11-2018	85	64	72	79	-
*67	TUNGABHADRA	497.74	492.38	3.276	1.323	29-11-2018	40	51	58	529	72
68	GHATAPRABHA	662.95	656.22	1.391	0.928	29-11-2018	67	83	74	317	-
69	BHADRA	657.76	655.53	1.785	1.533	29-11-2018	86	70	80	106	39
70	LINGANAMAKKI	554.43	551.63	4.294	3.469	29-11-2018	81	57	75	-	55
71	NARAYANPUR	492.25	487.18	0.863	0.221	29-11-2018	26	67	80	425	-
72	MALAPRABHA(RENUKA)	633.83	628.16	0.972	0.394	29-11-2018	41	35	55	215	-
73	KABINI(Sancherla Tank)	696.16	694.10	0.444	0.330	29-11-2018	74	79	36	85	-
74	HEMAVATHY	890.63	882.27	0.927	0.433	29-11-2018	47	23	48	265	-
75	HARANGI	871.42	860.08	0.220	0.068	29-11-2018	31	36	33	53	-
76	SUPA	564.00	557.31	4.120	3.342	29-11-2018	81	58	63	-	-
77	VANIVILAS SAGAR	652.28	633.08	0.802	0.027	27-11-2018	3	3	18	123	-
*78	ALMATTI	519.60	515.20	3.105	1.492	29-11-2018	48	79	71	@	290
*79	GERUSOPPA	55.00	49.82	0.130	0.101	29-11-2018	78	75	83	83	240
	KERALA										
80	KALLADA(PARAPPAR)	115.82	113.95	0.507	0.446	29-11-2018	88	92	82	62	-
*81	IDAMALAYAR	169.00	157.20	1.018	0.685	29-11-2018	67	76	72	33	75
*82	IDUKKI	732.43	726.80	1.460	1.151	29-11-2018	79	68	65	-	780
*83	KAKKI	981.46	973.76	0.447	0.328	29-11-2018	73	80	80	23	300
*84	PERIYAR	867.41	865.42	0.173	0.124	29-11-2018	72	41	64	84	140
85	MALAPMUZHA	115.06	112.53	0.224	0.167	29-11-2018	75	61	75	21	3
	TAMIL NADU										
86	LOWER BHAWANI	278.89	278.24	0.792	0.767	29-11-2018	97	41	55	105	8
*87	METTUR(STANLEY)	240.79	235.74	2.647	1.963	29-11-2018	74	41	53	122	360
88	VAIGAI	279.20	275.47	0.172	0.096	29-11-2018	56	40	53	61	6
89	PARAMBIKULAM	556.26	554.44	0.380	0.342	29-11-2018	90	49	73	101	-
90	ALIYAR	320.04	318.70	0.095	0.087	29-11-2018	92	34	78	#	60
*91	SHOLAYAR	1002.79	997.83	0.143	0.104	29-11-2018	73	22	65	-	95
	TOTAL FOR 91 RESERVOIRS			**161.993**	**98.353**						
	PERCENTAGE						**61**	**61**	**64**		

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.