BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 28.03.2019)

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 **28.03.2019**, live storage available in these reservoirs is **50.307 BCM,** which is **31%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **45.827 BCM** and the average of last 10 years live storage was **50.046 BCM**. Thus, the live storage available in 91 reservoirs **as per 28.03.2019 Bulletin** is **110%** of the live storage of corresponding period of last year and **101%** of storage of average of last ten years.

The overall storage position is **more than the** corresponding period of last year in the country as a whole and is also **more 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 **28.03.2019**, the total live storage available in these reservoirs is **8.59 BCM** which is **48%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **22%** and average storage of last ten years during corresponding period was **27%** 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 **28.03.2019**, the total live storage available in these reservoirs is **8.27 BCM** which is **44%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **47%** and average storage of last ten years during corresponding period was **43%** of live storage capacity of these reservoirs. Thus, storage during current year is less than the corresponding period of last year but is better 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 **28.03.2019**, the total live storage available in these reservoirs is **6.91 BCM** which is **22%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **32%** and average storage of last ten years during corresponding period was **35%** 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 **28.03.2019**, the total live storage available in these reservoirs is **14.52 BCM** which is **34%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **31%** and average storage of last ten years during corresponding period was **33%** 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 **28.03.2019**, the total live storage available in these reservoirs is **12.02 BCM** which is **23%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **19%** and average storage of last ten years during corresponding period was **24%** of live storage capacity of these reservoirs. Thus, storage during current year is better than the corresponding period of last year but is 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 and West Flowing Rivers of South Close to Normal in Ganga, Mahi, Godavari,Krishna, Mahanadi & Neighbouring East Flowing Rivers and Cauvery & neighbouring EFRs. Deficient in Tapi, Sabarmati and Rivers of Kutch and Nil in Highly Deficient.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storage more than last year are **30** and reservoirs having storage more than average of last ten years are **39.** The numbers of reservoirs having storage less than 20% with respect to last year is **5** and having storage less than 20% with reference to average of last ten years is **9.** The number of reservoirs having storage less than or equal to 50% with respect to last year are **17** and having storage less than or equal to 50% with reference to average of last ten years are **19.**

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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 28.03.2019**

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 **28.03.2019** is **50.307** BCM (**31** percent of the live storage capacity at FRL).The current year's storage is nearly **110** percent of last year's storage and **101** 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	-	1	1	3	H.P.	85 %
									PUNJAB	121 %
									RAJASTHAN	13 %
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	-	-	-	-	1	3	5	6	JHARKHAND	-16 %
									ODISHA	4 %
									W. BENGAL	11 %
									TRIPURA	135 %
WEST (Guj.& Mah.), (27 Resv.)	-	-	-	-	1	1	5	20	GUJARAT	-37 %
									MAH.	-35 %
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	-	-	1	1	4	6	U.P.	-32 %
									UTTARAKHAND	15 %
									M.P.	11 %
									CHHATISGARH	-3 %
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	-	-	-	1	1	-	7	22	AP&TG	-38 %
									A,P	-79 %
									TG	-25 %
									KARNATAKA	18 %
									KERALA	10 %
									T.N.	11 %
Status of 91 reservoirs	0	0	0	2	4	6	22	57		

4 Basin wise storage position:

Better than normal: Indus, Narmada, and West Flowing Rivers of South.

Close to normal: Ganga,Mahi, Godavari ,Krishna, Mahanadi & Neighbouring East Flowing Riversand Cauvery & neighbouring EFRs.

Deficient: Tapi, Sabarmati and Rivers of Kutch .

Highly deficient:

5 Out of 91 reservoirs, **55** reservoirs reported more than 80% of normal storage & **36** reservoirs reported 80% or below of normal storage. Out of these **36** reservoirs **19** having storage upto 50% of normal storage.

Name of reservoir	**%**	**Name of reservoir**	**%**
YELDARI	0	MULA	45
BHIMA(UJJANI)	0	SHETRUNJI	46
JAYAKWADI(PAITHON)	0		
SHOLAYAR	0		
GANDHI SAGAR	3		
BARNA	10		
ALIYAR	11		
VANIVILAS SAGAR	15		
PENCH (TOTALADOH)	17		
SOMASILA	21		
TAWA	32		
BHANDARDARA	33		
NAGARJUNA SAGAR	34		
TILAIYA	35		
UKAI	37		
BHADAR	40		
DAMANAGANGA	42		

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

51% to 60%	61% to 70%	71% to 80%
3	8	6

6 Out of **37** reservoirs with significant(*) hydropower generation, the storage build up is less than or equal to normal in **16** 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 :- 28.03.2019

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	8.198	29.18%	8.542	30.40%	8.795	31.30%	**-6.79**
INDUS	14.730	7.578	51.45%	2.647	17.97%	3.953	26.84%	**91.70**
NARMADA	21.608	7.060	32.67%	4.930	22.82%	5.654	26.17%	**24.87**
TAPI	7.394	1.234	16.69%	2.058	27.83%	3.080	41.66%	**-59.94**
MAHI	4.012	1.547	38.56%	1.771	44.14%	1.653	41.20%	**-6.41**
SABARMATI	0.735	0.102	13.88%	0.143	19.46%	0.165	22.45%	**-38.18**
RIVERS OF KUTCH	0.887	0.090	10.15%	0.245	27.62%	0.178	20.07%	**-49.44**
GODAVARI	15.394	4.073	26.46%	4.571	29.69%	4.869	31.63%	**-16.35**
KRISHNA	32.831	5.952	18.13%	6.316	19.24%	7.032	21.42%	**-15.36**
MAHANADI & NEIGHBOURING EFRS	13.181	6.131	46.51%	7.295	55.34%	6.597	50.05%	**-7.06**
CAUVERY& NEIGHBOURING EFRS	8.359	2.137	25.57%	1.359	16.26%	2.377	28.44%	**-10.10**
WEST FLOWING RIVERS OF SOUTH	14.766	6.205	42.02%	5.950	40.30%	5.693	38.55%	**8.99**
TOTAL	**161.993**	**50.307**		**45.827**		**50.046**		
PERCENTAGE								**0.52**

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA — CENTRAL WATER COMMISSION

WEEK ENDING :- 28.03.2019

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	492.75	6.229	3.224	28-03-2019	52	23	27	676	1200
*2	PONG DAM	423.67	408.19	6.157	2.694	28-03-2019	44	13	25	-	360
	PUNJAB										
*3	THEIN	527.91	519.19	2.344	1.660	28-03-2019	71	20	32	348	600
	RAJASTHAN										
*4	MAHI BAJAJ SAGAR	280.75	269.50	1.711	0.554	27-03-2019	32	40	30	63	140
5	JHAKAM	359.50	345.75	0.132	0.034	27-03-2019	26	30	20	28	-
*6	RANA PRATAP SAGAR	352.81	346.89	1.436	0.423	28-03-2019	29	38	25	229	172
EASTERN REGION											
	JHARKHAND										
7	TENUGHAT	269.14	258.07	0.821	0.345	28-03-2019	42	44	39	-	-
8	MAITHON	146.3	139.51	0.471	0.142	28-03-2019	30	96	59	342	-
*9	PANCHET HILL	124.97	123.74	0.184	0.127	28-03-2019	69	30	59	$	80
10	KONAR	425.81	419.95	0.176	0.082	28-03-2019	47	32	56	$	-
11	TILAIYA	368.81	364.17	0.142	0.013	28-03-2019	9	14	26	$	4
	ODISHA										
*12	HIRAKUD	192.02	188.11	5.378	2.595	28-03-2019	48	48	46	153	307
*13	BALIMELA	462.08	453.91	2.676	1.423	28-03-2019	53	14	32	-	360
14	SALANADI	82.30	73.52	0.558	0.298	28-03-2019	53	41	26	42	-
*15	RENGALI	123.50	115.58	3.432	1.106	28-03-2019	32	67	52	3	200
*16	MACHKUND(JALPUT)	838.16	832.58	0.893	0.482	28-03-2019	54	68	51	-	115
*17	UPPER KOLAB	858.00	851.56	0.935	0.394	28-03-2019	42	37	39	89	320
*18	UPPER INDRAVATI	642.00	634.66	1.456	0.718	28-03-2019	49	39	46	128	600
	WEST BENGAL										
19	MAYURAKSHI	121.31	110.69	0.480	0.093	28-03-2019	19	58	30	227	-
20	KANGSABATI	134.14	126.17	0.914	0.330	28-03-2019	36	46	26	341	-
	TRIPURA										
21	GUMTI	93.55	88.95	0.312	0.122	27-03-2019	39	60	17	-	15
WESTERN REGION											
	GUJARAT										
*22	UKAI	105.16	89.98	6.615	1.054	28-03-2019	16	28	43	348	300
23	SABARMATI(DHAROI)	189.59	180.22	0.735	0.102	27-03-2019	14	19	22	95	1
*24	KADANA	127.7	121.39	1.472	0.626	27-03-2019	43	48	55	200	120
25	SHETRUNJI	55.53	49.67	0.300	0.046	27-03-2019	15	18	34	36	-
26	BHADAR	107.89	101.12	0.188	0.017	27-03-2019	9	25	23	27	-
27	DAMANAGANGA	79.86	69.05	0.502	0.106	28-03-2019	21	53	50	51	1
28	DANTIWADA	184.1	167.79	0.399	0.027	27-03-2019	7	36	9	45	-
29	PANAM	127.41	123.70	0.697	0.333	27-03-2019	48	48	44	36	2
*30	SARDAR SAROVAR	138.68	117.82	5.760	0.907	28-03-2019	16	0	13	2120	1450
31	KARJAN	115.25	105.79	0.523	0.282	28-03-2019	54	61	55	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA — CENTRAL WATER COMMISSION

WEEK ENDING :- 28.03.2019

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	455.43	2.171	0.000	28-03-2019	0	54	23	227	-
*33	KOYANA	657.90	647.32	2.652	1.683	28-03-2019	63	66	55	-	1920
34	BHIMA(UJJANI)	496.83	489.98	1.517	0.000	28-03-2019	0	54	33	125	12
35	ISAPUR	441.00	431.09	0.965	0.229	28-03-2019	24	4	30	104	-
36	MULA	552.30	538.87	0.609	0.099	28-03-2019	16	48	36	139	-
37	YELDARI	461.77	446.15	0.809	0.000	28-03-2019	0	0	18	78	-
38	GIRNA	398.07	386.79	0.524	0.105	28-03-2019	20	27	20	79	-
39	KHADAKVASLA	582.47	580.25	0.056	0.028	28-03-2019	50	61	50	78	8
*40	UPPER VAITARNA	603.50	598.03	0.331	0.165	28-03-2019	50	45	56	-	61
41	UPPER TAPI	214.00	210.34	0.255	0.075	28-03-2019	29	35	53	45	-
*42	PENCH (TOTALADOH)	490.00	467.85	1.091	0.055	28-03-2019	5	14	29	127	160
43	UPPER WARDHA	342.50	335.70	0.564	0.117	28-03-2019	21	45	38	70	-
44	BHATSA	142.07	119.13	0.942	0.433	28-03-2019	46	54	52	29.378	15
45	DHOM	747.70	734.05	0.331	0.083	28-03-2019	25	47	38	36.2	2
46	DUDHGANGA	646.00	630.96	0.664	0.258	28-03-2019	39	54	48	2.441	24
47	MANIKDOH (KUKADI)	711.25	689.52	0.288	0.029	28-03-2019	10	29	14	2.2	6
48	BHANDARDARA	744.91	718.64	0.304	0.050	28-03-2019	16	64	50	63.74	46
	CENTRAL REGION										
	UTTAR PRADESH										
49	MATATILA	308.46	303.34	0.707	0.182	27-03-2019	26	26	39	-	30
*50	RIHAND	268.22	256.61	5.649	1.025	28-03-2019	18	20	26	-	300
	UTTRAKHAND										
*51	RAMGANGA	365.30	345.71	2.196	0.960	28-03-2019	44	23	36	1897	198
*52	TEHRI	830.00	775.27	2.615	0.767	28-03-2019	29	22	27	2351	1000
	MADHYA PRADESH										
*53	GANDHI SAGAR	399.90	381.33	6.827	0.046	28-03-2019	1	19	24	220	115
54	TAWA	355.40	337.72	1.944	0.152	28-03-2019	8	9	25	247	-
*55	BARGI	422.76	415.85	3.180	1.512	28-03-2019	48	62	45	157	90
*56	BANSAGAR	341.64	337.93	5.166	3.541	28-03-2019	69	48	45	488	425
*57	INDIRA SAGAR	262.13	254.74	9.745	4.198	28-03-2019	43	25	27	2380	1000
58	BARNA	348.55	338.44	0.456	0.009	28-03-2019	2	9	19	546	-
	CHHATTIS GARH										
*59	MINIMATA BANGOI	359.66	352.53	3.046	1.778	27-03-2019	58	59	59	-	120
60	MAHANADI	348.70	343.54	0.767	0.354	27-03-2019	46	50	52	319	10
	SOUTHERN REGION										
	A.P & TG										
*61	SRISAILAM	269.75	251.49	8.288	1.172	28-03-2019	14	10	17	0	770
*62	NAGARJUNA SAGAR	179.83	157.55	6.841	0.340	28-03-2019	5	7	15	895	810
	ANDHRA PRADESH										
63	SOMASILA	100.58	80.96	1.994	0.168	28-03-2019	8	21	40	168	0
	TELANGANA										
64	SRIRAMSAGAR	332.54	322.78	2.300	0.355	28-03-2019	15	18	20	411	27
65	LOWER MANAIR	280.42	270.69	0.621	0.151	28-03-2019	24	26	34	199	60

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA — CENTRAL WATER COMMISSION

WEEK ENDING :- 28.03.2019

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	744.62	1.163	0.498	27-03-2019	43	16	28	79	-
*67	TUNGABHADRA	497.74	483.87	3.276	0.229	28-03-2019	7	4	7	529	72
68	GHATAPRABHA	662.95	642.11	1.391	0.281	28-03-2019	20	24	16	317	-
69	BHADRA	657.76	647.35	1.785	0.773	28-03-2019	43	25	44	106	39
70	LINGANAMAKKI	554.43	542.74	4.294	1.578	28-03-2019	37	29	34	-	55
71	NARAYANPUR	492.25	487.19	0.863	0.222	28-03-2019	26	36	40	425	-
72	MALAPRABHA(RENUKA)	633.83	622.45	0.972	0.086	28-03-2019	9	6	9	215	-
73	KABINI(Sancherla Tank)	696.16	691.34	0.444	0.197	27-03-2019	44	27	19	85	-
74	HEMAVATHY	890.63	874.30	0.927	0.132	27-03-2019	14	14	14	265	-
75	HARANGI	871.42	855.88	0.220	0.036	27-03-2019	16	20	15	53	-
76	SUPA	564.00	542.94	4.120	1.981	28-03-2019	48	44	37	-	-
77	VANIVILAS SAGAR	652.28	632.22	0.802	0.016	28-03-2019	2	1	13	123	-
*78	ALMATTI	519.60	511.65	3.105	0.752	28-03-2019	24	14	12	@	290
*79	GERUSOPPA	55.00	49.71	0.130	0.100	27-03-2019	77	89	80	83	240
	KERALA										
80	KALLADA(PARAPPAR)	115.82	108.04	0.507	0.324	27-03-2019	64	81	50	62	-
*81	IDAMALAYAR	169.00	142.55	1.018	0.359	27-03-2019	35	41	39	33	75
*82	IDUKKI	732.43	716.93	1.460	0.696	27-03-2019	48	44	38	-	780
*83	KAKKI	981.46	964.36	0.447	0.220	27-03-2019	49	63	51	23	300
*84	PERIYAR	867.41	860.03	0.173	0.026	27-03-2019	15	15	16	84	140
85	MALAPMUZHA	115.06	102.34	0.224	0.030	28-03-2019	13	15	21	21	3
	TAMIL NADU										
86	LOWER BHAWANI	278.89	268.84	0.792	0.276	27-03-2019	35	18	25	105	8
*87	METTUR(STANLEY)	240.79	223.83	2.647	0.794	27-03-2019	30	12	29	122	360
88	VAIGAI	279.20	270.92	0.172	0.036	27-03-2019	21	8	16	61	6
89	PARAMBIKULAM	556.26	546.22	0.380	0.183	27-03-2019	48	8	32	101	-
90	ALIYAR	320.04	302.30	0.095	0.004	27-03-2019	4	0	37	#	60
*91	SHOLAYAR	1002.79	963.88	0.143	0.000	27-03-2019	0	0	3	-	95
	TOTAL FOR 91 RESERVOIRS			**161.993**	**50.307**						
	PERCENTAGE						**31**	**28**	**31**		

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.