BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 07.03.2019)

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 07.03.2019, live storage available in these reservoirs is 58.723 BCM, which is 36% of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was 54.784 BCM and the average of last 10 years live storage was 59.458 BCM. Thus, the live storage available in 91 reservoirs as per 07.03.2019 Bulletin is 107% of the live storage of corresponding period of last year and 99% 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 but is **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 07.03.2019, the total live storage available in these reservoirs is 9.63 BCM which is 53% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 29% and average storage of last ten years during corresponding period was 32% 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 **07.03.2019**, the total live storage available in these reservoirs is **9.46 BCM** which is **50%** 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 **49%** of live storage capacity of these reservoirs. Thus, storage during current year is less than the corresponding period of last year but is more 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 07.03.2019, the total live storage available in these reservoirs is 8.01 BCM which is 26% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 37% and average storage of last ten years during corresponding period was 40% 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 **07.03.2019**, the total live storage available in these reservoirs is **16.94 BCM** which is **40%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **34%** and average storage of last ten years during corresponding period was **39%** 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 **07.03.2019**, the total live storage available in these reservoirs is **14.69 BCM** which is **28%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **25%** and average storage of last ten years during corresponding period was **30%** 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 **34** and reservoirs having storage more than average of last ten years are **38**. The numbers of reservoirs having storage less than 20% with respect to last year is **6** and having storage less than 20% with reference to average of last ten years is **5**. 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 **18**.

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 07.03.2019

- 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
 07.03.2019 is 58.723 BCM (36 percent of the live storage capacity at FRL). The current year's storage is nearly 107 percent of last year's storage and 99 percent of the average of last ten years.

3 Region wise storage status:

		Filling	positio	n of 91	reserv	oirs w	.r.t. FR	L			
REGION (States), (Monitoring No. of Reservoirs)	100%	91%- 99%	81%- 90%	71%- 80%	61%- 70%	51%- 60%	41%- 50%	40% & below	Departure fr stor		
NORTH (HP,Punjab & Rajasthan), (6 Resv.)	1	1	1	1	-	1	2	2	H.P. PUNJAB RAJASTHAN	65 % 154 % 16 %	
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	1	-	-	1	2	5	2	5	JHARKHAND ODISHA W. BENGAL TRIPURA	-19 % 6 % -9 % 128 %	
WEST (Guj.& Mah.), (27 Resv.)	1	-	-	1	2	3	3	18	GUJARAT MAH.	-40 % -31 %	
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	-	1	-	4	2	5	U.P. UTTARAKHAND M.P. CHHATISGARH	-27 % 8 % 9 % -4 %	
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	-	-	-	2	-	7	3	19	AP&TG A,P TG KARNATAKA KERALA T.N.	-38 % -68 % -19 % 9 % 8 % 21 %	
Status of 91 reservoirs	0	0	0	6	4	20	12	49		=: //	

4 Basin wise storage position:

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

Ganga, Mahi, Godavari , Krishna, Mahanadi & Neighbouring East Flowing Riversand Cauvery & neighbouring

Close to normal: 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
18 having storage upto 50% of normal

Name of reservoir	%	Name of reservoir	%
YELDARI	0	MANIKDOH	50
ALIYAR	0		
VANIVILAS SAGAR	2		
JAYAKWADI(PAITHON)	12		
BHIMA(UJJANI)	19	_	
PENCH (TOTALADOH)	24		
GANDHI SAGAR	25		
BARNA	29		
TAWA	30		
SOMASILA	32		
TILAIYA	40		
MULA	42		
UKAI	43		
BHADAR	44		
SHETRUNJI	47		
BHANDARDARA	49		
NARAYANPUR	50		

upto 50% of normal								
18 reservors								
having storage 51%								
to 80%	to 80% of normal							
storage	storage.							
51%	61%	71%						
to	to	to						
60%	70%	80%						
7	5	6						

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

WEEKLY REPORT - BASINWISE

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION WEEK ENDING: 07.03.2019

NAME OF BASIN	LIVE CA		AT THIS YEAR'S STORAGE		LAST YEAR'S STORAGE		LAST 10 YEARS' AVG. STORAGE		% DEPARTURE W.R.T. AVE. OF 10 YEARS'
GANGA	28.0	096	9.667	34.41%	10.050	35.77%	10.486	37.32%	-7.81
INDUS	14.7	730	8.430	57.23%	3.937	26.73%	4.723	32.06%	78.49
NARMADA	21.6	808	7.773	35.97%	5.221	24.16%	6.631	30.69%	17.22
TAPI	7.3	94	1.651	22.33%	2.216	29.97%	3.509	47.46%	-52.95
MAHI	4.0	12	1.764	43.97%	1.928	48.06%	1.794	44.72%	-1.67
SABARMATI	0.7	35	0.113	15.37%	0.174	23.67%	0.203	27.62%	-44.33
RIVERS OF KUTCH	0.8	87	0.101	11.39%	0.299	33.71%	0.199	22.44%	-49.25
GODAVARI	15.3	394	5.130	33.32%	5.572	36.20%	5.614	36.47%	-8.62
KRISHNA	32.8	331	7.563	23.04%	8.633	26.30%	9.380	28.57%	-19.37
MAHANADI & NEIGHBOURING EFRS	13.1	181	6.706	50.88%	8.287	62.87%	7.450	56.52%	-9.99
CAUVERY& NEIGHBOURING EFRS	8.3	59	2.591	31.00%	1.680	20.10%	2.721	32.55%	-4.78
WEST FLOWING RIVERS OF SOUTH	14.7	766	7.234	48.99%	6.787	45.96%	6.748	45.70%	7.20
TOTAL	161.	993	58.723		54.784		59.458		
PERCENTAGE									-1.24

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

	GOVERNMENT OF INDIA			WEE	K ENDING :-	07.03.2019		CLIVITAL			
			CURRENT	LIVE			STORAGE AS	S % OF LIVE C FRL	APACITY AT	BENE	FITS
S. NO	NAME OF RESERVOIR	FRL (m)	RESERVOIR LEVEL (m)	CAPACITY AT FRL (BCM)	CURRENT LIVE STORAGE (BCM)	DATE	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	496.38	6.229	3.678	07-03-2019	59	33	35	676	1200
*2	PONG DAM PUNJAB	423.67	409.41	6.157	2.911	07-03-2019	47	22	30	-	360
*3	THEIN	527.91	521.65	2.344	1.841	07-03-2019	79	20	31	348	600
	RAJASTHAN										
*4	MAHI BAJAJ SAGAR	280.75	271.55	1.711	0.717	07-03-2019	42	49	37	63	140
5	JHAKAM	359.50	346.25	0.132	0.036	07-03-2019	27	31	23	28	-
*6	RANA PRATAP SAGAR	352.81	347.04	1.436	0.446	07-03-2019	31	27	25	229	172
	EASTERN REGION										
	<u>JHARKHAND</u>										
7	TENUGHAT	269.14	258.27	0.821	0.352	07-03-2019	43	46	42	-	-
8	MAITHON	146.3	140.56	0.471	0.179	07-03-2019	38	100	71	342	-
*9	PANCHET HILL	124.97	123.98	0.184	0.138	07-03-2019	75	74	72	\$	80
10	KONAR	425.81	420.75	0.176	0.093	07-03-2019	53	38	60	\$	-
11	TILAIYA	368.81	364.31	0.142	0.016	07-03-2019	11	15	28	\$	4
	<u>ODISHA</u>										
*12	HIRAKUD	192.02	188.78	5.378	2.912	07-03-2019	54	57	56	153	307
*13	BALIMELA	462.08	456.32	2.676	1.736	06-03-2019	65	15	34	-	360
14	SALANADI	82.30	73.57	0.558	0.299	06-03-2019	54	41	29	42	-
*15	RENGALI	123.50	116.22	3.432	1.253	06-03-2019	37	82	56	3	200
*16	MACHKUND(JALPUT)	838.16	833.57	0.893	0.538	06-03-2019	60	81	61	-	115
*17	UPPER KOLAB	858.00	852.81	0.935	0.487	06-03-2019	52	44	42	89	320
*18	UPPER INDRAVATI	642.00	636.39	1.456	0.881	06-03-2019	61	45	48	128	600
	WEST BENGAL										
19	MAYURAKSHI	121.31	110.86	0.480	0.097	07-03-2019	20	68	36	227	-
20	KANGSABATI	134.14	126.20	0.914	0.332	07-03-2019	36	62	33	341	-
	TRIPURA										
21	GUMTI	93.55	89.65	0.312	0.146	06-03-2019	47	66	21	-	15
	WESTERN REGION	•									
	<u>GUJARAT</u>										
	UKAI	105.16	91.73			07-03-2019	21	29	49	348	300
	SABARMATI(DHAROI)	189.59	180.52		0.113	07-03-2019	15	24	28	95	1
	KADANA	127.7	121.64			07-03-2019	44	47	55	200	120
	SHETRUNJI	55.53	49.97			07-03-2019	17	25	36	36	-
	BHADAR	107.89	101.51	0.188		07-03-2019	11	29	26		
	DAMANAGANGA	79.86	71.25			07-03-2019	32	62	59		1
	DANTIWADA	184.1	168.05		0.029	07-03-2019	7	43	11	45	-
	PANAM	127.41	124.35			07-03-2019	53	53	47	36	
	SARDAR SAROVAR	138.68	116.03			07-03-2019	11	0	15	2120	1450
31	KARJAN	115.25	106.44	0.523	0.294	07-03-2019	56	64	60	51	3

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

	GOVERNMENT OF INDIA				K ENDING :-	07.03.2019	CENTRAL WATER COMMISSION					
			CUDDENT			01.00.2010	STORAGE A	S % OF LIVE C FRL	APACITY AT	BENE	FITS	
S. NO	NAME OF RESERVOIR	FRL (m)	CURRENT RESERVOIR LEVEL (m)	LIVE CAPACITY AT FRL (BCM)	CURRENT LIVE STORAGE (BCM)	DATE	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	ЗА	3B	
	MAHARASHTRA											
32	JAYAKWADI(PAITHON)	463.91	455.97	2.171	0.071	07-03-2019	3	62	28	227	-	
*33	KOYANA	657.90	650.27	2.652	1.925	28-02-2019	73	77	65	-	1920	
34	BHIMA(UJJANI)	496.83	491.68	1.517	0.132	07-03-2019	9	74	45	125	12	
35	ISAPUR	441.00	432.10	0.965	0.278	07-03-2019	29	5	35	104	-	
36	MULA	552.30	539.40	0.609	0.112	07-03-2019	18	64	44	139	-	
37	YELDARI	461.77	446.25	0.809	0.000	07-03-2019	0	5	23	78	-	
38	GIRNA	398.07	388.28	0.524	0.147	07-03-2019	28	29	23	79	-	
39	KHADAKVASLA	582.47	580.83	0.056	0.035	07-03-2019	63	80	55	78	8	
*40	UPPER VAITARNA	603.50	599.68	0.331	0.212	26-02-2019	64	62	66	-	61	
41	UPPER TAPI	214.00	211.12	0.255	0.108	07-03-2019	42	47	62	45	-	
*42	PENCH (TOTALADOH)	490.00	469.44	1.091	0.084	07-03-2019	8	15	32	127	160	
43	UPPER WARDHA	342.50	335.91	0.564	0.126	07-03-2019	22	49	43	70	-	
44	BHATSA	142.07	122.25	0.942	0.489	07-03-2019	52	60		29.378	15	
45	DHOM	747.70	735.77	0.331	0.108	07-03-2019	33	54	44	36.2	2	
46	DUDHGANGA	646.00	634.29	0.664	0.333	07-03-2019	50	63	58	2.441	24	
	MANIKDOH (KUKADI) BHANDARDARA	711.25 744.91	690.18 726.07	0.288 0.304	0.033 0.088	07-03-2019 07-03-2019	11 29	49 79	23 59	2.2 63.74	6 46	
40	CENTRAL REGION	744.51	720.07	0.304	0.000	07 00 2010	25	75	33	00.74	40	
	UTTAR PRADESH	•										
49	MATATILA	308.46	302.85	0.707	0.151	06-03-2019	21	20	37	_	30	
*50	RIHAND	268.22	257.37	5.649	1.282	07-03-2019	23	25	30	-	300	
	<u>UTTRAKHAND</u>											
*51	RAMGANGA	365.30	347.79	2.196	1.063	07-03-2019	48	28	44	1897	198	
*52	TEHRI	830.00	786.12	2.615	1.062	07-03-2019	41	34	38	2351	1000	
	MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	384.36	6.827	0.562	07-03-2019	8	26	33	220	115	
54	TAWA	355.40	337.72	1.944	0.152	07-03-2019	8	9	26	247	-	
*55	BARGI	422.76	416.45	3.180	1.630	07-03-2019	51	65	52	157	90	
*56	BANSAGAR	341.64	338.43	5.166	3.748	07-03-2019	73	52	47	488	425	
*57	INDIRA SAGAR	262.13	255.89	9.745	5.014	07-03-2019	51	26	33	2380	1000	
58	BARNA	348.55	339.46	0.456	0.032	07-03-2019	7	10	24	546	-	
	CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	352.86	3.046	1.823	07-03-2019	60	59	62	-	120	
	MAHANADI	348.70	344.55	0.767	0.419	06-03-2019	55	52	59	319	10	
	SOUTHERN REGION	-										
	A.P & TG											
	SRISAILAM	269.75	252.34		1.245	07-03-2019	15		27	0	770	
*62	NAGARJUNA SAGAR	179.83	160.39	6.841	0.826	07-03-2019	12	8	17	895	810	
	ANDHRA PRADESH	400 =		, == -		07.00		_				
63	SOMASILA TELANGANA	100.58	84.00	1.994	0.292	07-03-2019	15	25	45	168	0	
64	TELANGANA SDIDAMSACAD	220 54	204.05	0.000	0.500	07.00.0040	00	07	00	444	07	
	SRIRAMSAGAR	332.54	324.25		0.522	07-03-2019	23	27 38	28 42	411	27 60	
00	LOWER MANAIR	280.42	272.32	0.621	0.207	07-03-2019	33	38	42	199	60	

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

	GOVERNMENT OF INDIA			WEE	K ENDING :-	07.03.2019	CENTRAL WATER COMMISSION					
			QUEENT	1075			STORAGE A	S % OF LIVE C FRL	APACITY AT	BENE	EFITS	
S. NO	NAME OF RESERVOIR	FRL (m)	CURRENT RESERVOIR LEVEL (m)	LIVE CAPACITY AT FRL (BCM)	CURRENT LIVE STORAGE (BCM)	DATE	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	745.83	1.163	0.588	07-03-2019	51	27	38	79	-	
*67	TUNGABHADRA	497.74	485.37	3.276	0.333	07-03-2019	10	7	15	529	72	
68	GHATAPRABHA	662.95	643.83	1.391	0.340	07-03-2019	24	27	20	317	-	
69	BHADRA	657.76	649.96	1.785	0.986	07-03-2019	55	38	53	106	39	
70	LINGANAMAKKI	554.43	544.63	4.294	1.898	07-03-2019	44	34	42	-	55	
71	NARAYANPUR	492.25	487.37	0.863	0.235	07-03-2019	27	39	55	425	-	
72	MALAPRABHA(RENUKA)	633.83	623.77	0.972	0.136	07-03-2019	14	11	13	215	-	
73	KABINI(Sancherla Tank)	696.16	692.63	0.444	0.256	07-03-2019	58	36	27	85	-	
74	HEMAVATHY	890.63	874.36	0.927	0.134	07-03-2019	14	17	17	265	-	
75	HARANGI	871.42	856.79	0.220	0.042	07-03-2019	19	22	15	53	-	
76	SUPA	564.00	545.70	4.120	2.205	07-03-2019	54	48	44	-	-	
77	VANIVILAS SAGAR	652.28	631.21	0.802	0.002	07-03-2019	0	2	14	123	-	
*78	ALMATTI	519.60	512.46	3.105	0.894	07-03-2019	29	26	18	@	290	
*79	GERUSOPPA	55.00	49.33	0.130	0.098	07-03-2019	75	83	82	83	240	
	KERALA											
80	KALLADA(PARAPPAR)	115.82	110.23	0.507	0.365	07-03-2019	72	88	60	62	-	
*81	IDAMALAYAR	169.00	146.44	1.018	0.437	07-03-2019	43	51	47	33	75	
*82	IDUKKI	732.43	719.74	1.460	0.811	07-03-2019	56	50	45	-	780	
*83	KAKKI	981.46	968.40	0.447	0.261	07-03-2019	58	73	62	23	300	
*84	PERIYAR	867.41	860.38	0.173	0.031	07-03-2019	18	16	18	84	140	
85	MALAPMUZHA	115.06	102.70	0.224	0.032	06-03-2019	14	16	22	21	3	
	TAMIL NADU											
86	LOWER BHAWANI	278.89	271.57	0.792	0.386	07-03-2019	49	16	28	105	8	
*87	METTUR(STANLEY)	240.79	224.60	2.647	0.851	07-03-2019	32	14	31	122	360	
88	VAIGAI	279.20	271.51	0.172	0.042	07-03-2019	24	9	18	61	6	
89	PARAMBIKULAM	556.26	548.55	0.380	0.226	07-03-2019	59	12	38	101	-	
90	ALIYAR	320.04	299.83	0.095	0.000	07-03-2019	0	4	35	#	60	
*91	SHOLAYAR	1002.79	969.84	0.143	0.009	07-03-2019	6	0	4	-	95	
	TOTAL FOR 91 RESERVOIRS			161.993	58.723							
	PERCENTAGE						36	34	37			

Sd/-

 $\$ TOTAL CCA 342 TH. HA OF DVC SYSTEM

Director W. M. , CWC

 $^{^{\}star}$ HYDEL POWER CAPACITY HAVING CAPACITY MORE THAN 60MW

[#] TOTAL CCA 101 TH. HA OF PARAMBIKULAM & ALIYAR

 $^{@^{\}scriptscriptstyle |}$ TOTAL CCA 425 TH. HA. OF NARAYANPUR AND ALMATTI

[†] SABARMATI RESERVOIR IS SUPPLEMENTED WITH NARMADA WATER THROUGH PIPELINE.