BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 18.07.2019)

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 18.07.2019, live storage available in these reservoirs is 39.319 BCM, which is 24% of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was 51.536 BCM and the average of last 10 years live storage was 44.690 BCM. Thus, the live storage available in 91 reservoirs as per 18.07.2019 Bulletin is 76% of the live storage of corresponding period of last year and 88% 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 18.07.2019, the total live storage available in these reservoirs is 8.04 BCM which is 45% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 20% 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 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 18.07.2019, the total live storage available in these reservoirs is 3.36 BCM which is 18% 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 20% 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 18.07.2019, the total live storage available in these reservoirs is 5.63 BCM which is 18% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 27% and average storage of last ten years during corresponding period was 25% 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 18.07.2019, the total live storage available in these reservoirs is 11.17 BCM which is 26% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 27% and average storage of last ten years during corresponding period was 28% 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.

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 18.07.2019, the total live storage available in these reservoirs is 11.12 BCM which is 22% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 46% and average storage of last ten years during corresponding period was 29% 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, Mahi and Narmada. Close to Normal in Ganga, Krishna and Mahanadi & Neighbouring East Flowing Rivers. Deficient in Godavari, Cauvery & neighbouring EFRs and West Flowing Rivers of South and Highly Deficient in Tapi, Sabarmati and Rivers of Kutch.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storage more than last year are 21 and reservoirs having storage more than average of last ten years are 24. The numbers of reservoirs having storage less than 20% with respect to last year is 17 and having storage less than 20% with reference to average of last ten years is 13. The number of reservoirs having storage less than or equal to 50% with respect to last year are 39 and having storage less than or equal to 50% with reference to average of last ten years are 34.

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 18.07.2019

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 18.07.2019 39.319 BCM (24 percent of the live storage capacity at FRL). The current year's storage 76 percent of last year's storage and 88 percent of the average of last ten years. is nearly

3 Region wise storage status:-

DEGION	(01-1)	Filling position of 91 reservoirs w.r.t. FRL	L									
REGION (Monitoring No. of Reservoirs)	(States),	100%	91%- 99%	81%- 90%	71%- 80%	61%- 70%	51%- 60%	41%- 50%	40% & below	Departure fi stor		
NORTH (HP,Punjab & Ra (6 Resv.)	ajasthan),	-	-	-	-	-	3	-	3	H.P. PUNJAB RAJASTHAN	33 % 13 % 30 %	
EAST (Jharkhand,Odisha W.Bengal) Resv.)	a, Tripura & (15	-	-	-	-	-	1	2	12	JHARKHAND ODISHA W. BENGAL TRIPURA	-20 % -11 % -10 % 6 %	
WEST (Guj.& Mah.), Resv.)	(27	-	-	1	-	-	1	3	22	GUJARAT MAH.	-27 % -29 %	
CENTRAL (MP,UP, & Chh.), Resv)	Uttarakhand (12	-	-	-	-	-	2	1	9	U.P. UTTARAKHAND M.P. CHHATISGARH	-29 % -21 % 1 % -7 %	
SOUTH (Karnataka,TN,AP&TG,A Kerala), 31 Resv.)	NP, TG, &	-	-	1	1	1	-	3	25	AP&TG A,P TG KARNATAKA KERALA T.N.	-53 % -84 % -60 % -3 % -62 % -63 %	
Status of 91 reserve	oirs	0	0	2	1	1	7	9	71			

4 Basin wise storage position:

Better than normal: Indus, Mahi and Narmada

Close to normal: Ganga, Krishna and Mahanadi & Neighbouring East Flowing Rivers

Deficient: Godavari, Cauvery & neighbouring EFRs and West Flowing Rivers of South. .

Highly deficient: Tapi, Sabarmati and Rivers of Kutch.

5 Out of 91 reservoirs. 41 reservoirs reported more than 80% of normal storage & 50 reservoirs reported 80% or below of normal storage. 34 having storage upto 50% of normal Out of these reservoirs

storage.

Name of reservoir	%	Name of reservoir	%
YELDARI	0	PERIYAR	28
BHIMA(UJJANI)	0	VAIGAI	29
JAYAKWADI(PAITHON)	0	SHETRUNJI	29
PENCH (TOTALADOH)	0	IDAMALAYAR	29
NAGARJUNA SAGAR	0	SRIRAMSAGAR	32
ALIYAR	0	MATATILA	32
SHOLAYAR	0	PARAMBIKULAM	32
ISAPUR	2	SABARMATI(DHAROI)	33
BARNA	6	IDUKKI	33
TILAIYA	8	TUNGABHADRA	34
VANIVILAS SAGAR	8	METTUR(STANLEY)	35
UKAI	16	GANDHI SAGAR	35
SOMASILA	16	HARANGI	39
KAKKI	21	KONAR	41
UPPER WARDHA	26	MALAMPUZHA	42
BHADAR	27	RENGALI	48
TAWA	28	BHADRA	49

upio 30 % oi nonnai									
16 reservors									
having storage 51%									
to 80% of normal									
storage.									
51%									
to	to to to								
60% 70% 80%									
0 8 8									
U	U	U							

WEEKLY REPORT - BASINWISE

WEEK ENDING :- 18.07.2019

NAME OF BASIN	LIVE CAP. AT FRL	THIS Y STOR		LAST Y STOR		LAST 10 AVG. ST		% DEPARTURE W.R.T. AVE. OF 10 YEARS'
GANGA	28.096	6.705	23.86%	6.922	24.64%	7.889	28.08%	-15.01
INDUS	14.730	6.702	45.50%	2.313	15.70%	5.198	35.29%	28.93
NARMADA	21.608	5.820	26.93%	4.803	22.23%	4.763	22.04%	22.19
TAPI	7.394	0.371	5.02%	1.155	15.62%	1.850	25.02%	-79.95
MAHI	4.012	1.706	42.52%	1.676	41.77%	1.416	35.29%	20.48
SABARMATI	0.735	0.044	5.99%	0.126	17.14%	0.134	18.23%	-67.16
RIVERS OF KUTCH	0.887	0.053	5.98%	0.290	32.69%	0.150	16.91%	-64.67
GODAVARI	15.394	1.486	9.65%	3.051	19.82%	3.020	19.62%	-50.79
KRISHNA	32.831	7.512	22.88%	12.527	38.16%	8.402	25.59%	-10.59
MAHANADI & NEIGHBOURING EFRS	13.181	3.018	22.90%	3.613	27.41%	3.258	24.72%	-7.37
CAUVERY& NEIGHBOURING EFRS	8.359	1.556	18.61%	5.657	67.68%	3.118	37.30%	-50.10
WEST FLOWING RIVERS OF SOUTH	14.766	4.346	29.43%	9.403	63.68%	5.492	37.19%	-20.87
TOTAL	161.993	39.319		51.536		44.690		
PERCENTAGE								-12.02

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

				WEE	K ENDING :-	18.07.2019					
							STORAGE A	S % OF LIVE (CAPACITY 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	3A	3B
N	IORTHERN REGION										
	HIMACHAL PRADESH										
*1	GOBIND SAGAR(BHAKRA)	512.06	495.85	6.229	3.316	18-07-2019	53	12	39	676	1200
*2	PONG DAM PUNJAB	423.67	405.61	6.157	2.153	18-07-2019	35	10	27	-	360
*3	THEIN	527.91	511.78	2.344	1.233	18-07-2019	53	41	47	348	600
	RAJASTHAN										
*4	MAHI BAJAJ SAGAR	280.75	273.25	1.711	0.873	18-07-2019	51	44	27	63	140
5	JHAKAM	359.50	348.90	0.132	0.048	18-07-2019	36	35	20	28	-
	RANA PRATAP SAGAR EASTERN REGION	352.81	346.83	1.436	0.414	18-07-2019	29	33	37	229	172
	<u>JHARKHAND</u>										
7	TENUGHAT	269.14	257.59	0.821	0.329	18-07-2019	40	32	39	-	-
8	MAITHON	146.3	139.15	0.471	0.130	18-07-2019	28	35	39	342	-
*9	PANCHET HILL	124.97	122.83	0.184	0.091	18-07-2019	49	53	64	\$	80
10	KONAR	425.81	414.92	0.176	0.029	18-07-2019	16	20	40	\$	-
11	TILAIYA	368.81	363.54	0.142	0.003	18-07-2019	2	6	27	\$	4
	<u>ODISHA</u>										
*12	HIRAKUD	192.02	183.06	5.378	0.752	18-07-2019	14	17	14	153	307
*13	BALIMELA	462.08	442.63	2.676	0.271	18-07-2019	10	16	15	-	360
14	SALANADI	82.30	73.30	0.558	0.293	18-07-2019	53	46	26	42	-
*15	RENGALI	123.50	111.04	3.432	0.206	18-07-2019	6	13	12	3	200
*16	MACHKUND(JALPUT)	838.16	826.43	0.893	0.197	17-07-2019	22	15	28	-	115
*17	UPPER KOLAB	858.00	846.97	0.935	0.129	18-07-2019	14	16	15	89	320
*18	UPPER INDRAVATI	642.00	630.12	1.456	0.344	18-07-2019	24	20	21	128	600
	WEST BENGAL										
19	MAYURAKSHI	121.31	111.88	0.480	0.119	18-07-2019	25	29	37	227	-
20	KANGSABATI	134.14	125.81	0.914	0.310	18-07-2019	34	47	32	341	-
	TRIPURA										
	GUMTI	93.55	89.90	0.312	0.155	16-07-2019	50	98	47	-	15
	WESTERN REGION										
***	GUJARAT	40= 1=	0.4 ==			40.07.00:-		. . -			
	UKAI	105.16	84.73			18-07-2019	4	16		348	300
	SABARMATI(DHAROI)	189.59	178.20					17			1
	KADANA	127.7				18-07-2019		41			120
	SHETRUNJI	55.53	48.22			18-07-2019		44			-
	BHADAR	107.89	100.31			18-07-2019		51			-
	DANTIWADA	79.86	71.05			18-07-2019		30			1
	DANTIWADA	184.1	166.36		0.017	18-07-2019		16 38			-
	PANAM SARDAR SAROVAR	127.41 138.68	121.95 120.79			18-07-2019	37 24	აი 1		36 2120	1450
	KARJAN		99.85			18-07-2019		41		2120 51	1450
31	IVALVALI	115.25	99.65	0.523	0.177	18-07-2019	34	41	33	וט	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

				WEE	K ENDING :-	18.07.2019					
							STORAGE A	S % OF LIVE (CAPACITY 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	3A	3B
	MAHARASHTRA										
32	JAYAKWADI(PAITHON)	463.91	453.85	2.171	0.000	18-07-2019	0	21	8	227	-
*33	KOYANA	657.90	641.99	2.652	1.247	18-07-2019	47	80	49	-	1920
34	BHIMA(UJJANI)	496.83	488.46	1.517	0.000	17-07-2019	0	0	4	125	12
35	ISAPUR	441.00	426.17	0.965	0.005	18-07-2019	1	27	27	104	-
36	MULA	552.30	538.88	0.609	0.099	18-07-2019	16	31	19	139	-
37	YELDARI	461.77	446.09	0.809	0.000	18-07-2019	0	0	10	78	-
38	GIRNA	398.07	383.88	0.524	0.038	18-07-2019	7	12	9	79	-
39	KHADAKVASLA	582.47	582.05	0.056	0.050	18-07-2019	89	100	59	78	8
*40	UPPER VAITARNA	603.50	596.19	0.331	0.122	18-07-2019	37	76	45	-	61
41	UPPER TAPI	214.00	209.85	0.255	0.058	18-07-2019	23	18	28	45	-
*42	PENCH (TOTALADOH)	490.00	460.45	1.091	0.000	18-07-2019	0	15	29	127	160
43	UPPER WARDHA	342.50	334.40	0.564	0.065	18-07-2019	12	42	44	70	-
44	BHATSA	142.07	125.90	0.942	0.559	18-07-2019	59	73	51	29.378	15
	DHOM	747.70	734.20	0.331	0.086	18-07-2019	26	55	35	36.2	2
	DUDHGANGA	646.00	631.68	0.664	0.273	18-07-2019	41	83	50	2.441	24
	MANIKDOH (KUKADI) BHANDARDARA	711.25	691.81	0.288	0.044	18-07-2019	15		16	2.2	6
	CENTRAL REGION	744.91	731.71	0.304	0.131	18-07-2019	43	77	39	63.74	46
	UTTAR PRADESH	•									
49	MATATILA	308.46	301.63	0.707	0.087	17-07-2019	12	10	39	_	30
*50	RIHAND	268.22	255.39	5.649	0.669	18-07-2019	12	10	14	_	300
	UTTRAKHAND										
*51	RAMGANGA	365.30	337.50	2.196	0.614	17-07-2019	28	9	28	1897	198
*52	TEHRI	830.00	761.00	2.615	0.421	18-07-2019	16	22	26	2351	1000
	MADHYA PRADESH										
*53	GANDHI SAGAR	399.90	384.51	6.827	0.590	18-07-2019	9	20	25	220	115
54	TAWA	355.40	339.15	1.944	0.224	18-07-2019	12	31	41	247	-
*55	BARGI	422.76	414.75	3.180	1.310	18-07-2019	41	53	31	157	90
*56	BANSAGAR	341.64	335.70	5.166	2.744	18-07-2019	53	43	38	488	425
*57	INDIRA SAGAR	262.13	251.88	9.745	2.738	18-07-2019	28	22	21	2380	1000
58	BARNA	348.55	338.56	0.456	0.010	18-07-2019	2	23	34	546	-
	CHHATTIS GARH										
*59	MINIMATA BANGOI	359.66	351.18	3.046	1.599	18-07-2019	52	59	55	-	120
60	MAHANADI	348.70	340.30	0.767	0.168	17-07-2019	22	27	31	319	10
	OUTHERN REGION										
	A.P & TG										
*61	SRISAILAM	269.75	245.36	8.288	0.796	18-07-2019	10	9	10	0	770
*62	NAGARJUNA SAGAR	179.83	154.47	6.841	0.000	18-07-2019	0	1	13	895	810
	ANDHRA PRADESH										
63	SOMASILA	100.58	76.99	1.994	0.068	18-07-2019	3	16	21	168	0
	<u>TELANGANA</u>										
64	SRIRAMSAGAR	332.54	319.52	2.300	0.150	18-07-2019	7	16	21	411	27
65	LOWER MANAIR	280.42	268.61	0.621	0.095	18-07-2019	15	16	21	199	60

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

WEEK ENDING :- 18.07.2019 STORAGE AS % OF LIVE CAPACITY AT BENEFITS CURRENT LIVE CURRENT LIVE FRL RESERVOIR CAPACITY AT NAME OF RESERVOIR STORAGE DATE LAST 10 IRR. HYDEL NO LEVEL FRI CURRENT (BCM) LAST YEAR YFARS CCA) IN (m) (RCM) YEAR AVFRAGE TH. HA MW ЗА 7 10 3B 2 4 6 5 8 9 11 **KARNATAKA** 66 KRISHNARAJA SAGRA 752.50 742.16 1.163 0.342 18-07-2019 29 100 43 79 *67 TUNGABHADRA 497.74 486.41 3.276 0.423 18-07-2019 13 78 37 529 72 68 GHATAPRABHA 662.95 650.81 0.636 18-07-2019 1.391 46 69 33 317 69 BHADRA 657.76 642.45 1.785 0.442 18-07-2019 25 93 50 106 39 70 LINGANAMAKKI 554.43 538.22 4.294 0.970 18-07-2019 23 59 34 55 71 NARAYANPUR 492.25 491.22 0.863 0.611 18-07-2019 71 69 48 425 72 MALAPRABHA(RENUKA) 633 83 626.36 0.972 0.268 18-07-2019 26 215 28 17 73 KABINI(Sancherla Tank) 696.16 691.63 0.444 0.210 18-07-2019 47 91 55 85 74 HEMAVATHY 880.11 0.927 0.322 18-07-2019 890.63 35 100 51 265 75 HARANGI 859.55 0.064 18-07-2019 871.42 0.220 29 93 74 53 76 SUPA 540.80 564.00 4.120 1.819 18-07-2019 44 57 32 77 VANIVILAS SAGAR 652.28 631.50 0.802 0.007 18-07-2019 1 11 123 *78 ALMATTI 18-07-2019 519.60 518.50 3.105 2.629 85 88 51 @ 290 *79 GERUSOPPA 0.091 18-07-2019 55.00 47.91 0.130 83 240 70 80 83 **KERALA** 80 KALLADA(PARAPPAR) 115.82 99.10 0.507 0.180 18-07-2019 36 88 46 62 *81 IDAMALAYAR 127.25 0.112 18-07-2019 169.00 1.018 11 71 38 33 75 *82 IDUKKI 732.43 702.11 1.460 0.183 18-07-2019 38 13 72 780 *83 KAKKI 981.46 931.99 0.447 0.038 18-07-2019 9 72 41 23 300 *84 PERIYAR 0.021 18-07-2019 867.41 859.71 0.173 12 79 43 84 140 85 MALAPMUZHA 115.06 103.88 0.042 18-07-2019 0.224 19 77 44 21 3 **TAMIL NADU** 86 LOWER BHAWANI 278.89 266.39 0.792 0.196 18-07-2019 25 82 38 105 8 *87 METTUR(STANLEY) 240.79 216.48 2.647 0.346 18-07-2019 13 73 38 122 360 88 VAIGAI 266.01 5 279.20 0.172 0.008 18-07-2019 31 16 61 6 89 PARAMBIKULAM 556.26 538.35 0.380 0.054 18-07-2019 14 77 44 101 90 ALIYAR 320.04 299.47 0.000 18-07-2019 0 75 47 60 0.095 *91 SHOLAYAR 1002.79 961.85 0.143 0.000 18-07-2019 0 96 64 95 TOTAL FOR 91 RESERVOIRS 161.993 39.319 PERCENTAGE 28 24 32

Sd/-

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

Director W. M. . CWC

@' TOTAL CCA 425 TH. HA. OF NARAYANPUR AND ALMATTI

^{*} HYDEL POWER CAPACITY HAVING CAPACITY MORE THAN 60MW

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

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