BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 27.06.2019)

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 27.06.2019, live storage available in these reservoirs is 26.272 BCM, which is 16% of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was 29.612 BCM and the average of last 10 years live storage was 30.708 BCM. Thus, the live storage available in 91 reservoirs as per 27.06.2019 Bulletin is 89% of the live storage of corresponding period of last year and 86% 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 27.06.2019, the total live storage available in these reservoirs is 6.58 BCM which is 37% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 13% and average storage of last ten years during corresponding period was 26% 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

There are 15 reservoirs under CWC monitoring having total live storage capacity of 18.83 BCM. As per Reservoir Storage Bulletin dated 27.06.2019, the total live storage available in these reservoirs is 2.83 BCM which is 15% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 17% and average storage of last ten years during corresponding period was 16% 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 27.06.2019, the total live storage available in these reservoirs is 2.88 BCM which is 9% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 13% and average storage of last ten years during corresponding period was 17% 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 27.06.2019, the total live storage available in these reservoirs is 8.80 BCM which is 21% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 21% 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 equal to the storage of last year and is 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 27.06.2019, the total live storage available in these reservoirs is 5.18 BCM which is 10% 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 18% 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 and Narmada. Close to Normal in Ganga, Mahi and Mahanadi & Neighbouring East Flowing Rivers. Deficient in Sabarmati, Rivers of Kutch, Godavari, Cauvery & neighbouring EFRs and West Flowing Rivers of South and Highly Deficient in Tapi and Krishna.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storage more than last year are 19 and reservoirs having storage more than average of last ten years are 21. The numbers of reservoirs having storage less than 20% with respect to last year is 21 and having storage less than 20% with reference to average of last ten years is 22. The number of reservoirs having storage less than or equal to 50% with respect to last year are 43 and having storage less than or equal to 50% with reference to average of last ten years are 44.

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 27.06.2019

- 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
 27.06.2019 is 26.272 BCM (16 percent of the live storage capacity at FRL). The current year's storage is nearly 89 percent of last year's storage and 86 percent of the average of last ten years.

3 Region wise storage status:

		Filling	positio									
REGION (States), (Monitoring No. of Reservoirs)	100%	91%- 99%	81%- 90%	71%- 80%	61%- 70%	51%- 60%	41%- 50%	40% & below	l storage			
NORTH (HP,Punjab & Rajasthan), (6 Resv.)	1	1	1	1	-	1	-	5	H.P. PUNJAB RAJASTHAN	65 % 18 % -8 %		
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	-	-	-	-	-	1	-	14	JHARKHAND ODISHA W. BENGAL TRIPURA	-27 % -5 % 7 % -23 %		
WEST (Guj.& Mah.), (27 Resv.)	1	-	-	-	-	-	-	27	GUJARAT MAH.	-23 % -77 %		
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	-	-	-	-	2	10	U.P. UTTARAKHAND M.P. CHHATISGARH	-13 % -5 % 16 % -12 %		
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	-	-	1	-	-	-	-	30	AP&TG A,P TG KARNATAKA KERALA T.N.	-52 % -84 % -36 % -36 % -47 %		
Status of 91 reservoirs	0	0	1	0	0	2	2	86				

4 Basin wise storage position:

Better than normal: Indus and Narmada

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

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

Highly deficient: Tapi and Krishna

5 Out of 91 reservoirs, 29 reservoirs reported more than 80% of normal storage & 62 reservoirs reported 80% or below of normal storage. Out of these 62 reservoirs 44 having storage upto 50% of normal

36

storage.

ABHA 9	1	
SAGAR 10		
SAGAN 10		
15		
. 16		
18		
ITARNA 21		
ANGA 22		
23		
24	PERIYAR	38
26	MALAMPUZHA	39
29	HARANGI	43
31	BHADRA	47
HILL 31	HEMAVATHY	48
33 (RENUKA)		
JI 34		
AR 35		
35		
	15 16 18 ITARNA 21 ANGA 22 24 26 29 31 HILL 31 BHA(RENUKA) 33 JI 34 AR 35	15 16 18 ITARNA 21 ANGA 22 23 24 PERIYAR 26 MALAMPUZHA 29 HARANGI 31 BHADRA HILL 31 HEMAVATHY BHA(RENUKA) 33 JI 34

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

23 reservoirs.

18 reservors having storage 51% to 80% of normal

61%

to

70%

2

71%

to

80%

7

storage.

to

60%

9

WEEKLY REPORT - BASINWISE

WEEK ENDING :- 27.06.2019

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	28.0	28.096		18.31%	5.939	21.14%	6.279	22.35%	-18.06	
INDUS	14.7	7 30	5.783	39.26%	1.442	9.79%	3.795	25.76%	52.38	
NARMADA	21.6	808	4.678	21.65%	3.172	14.68%	2.452	11.35%	90.78	
TAPI	7.39	94	0.237	3.21%	0.627	8.48%	1.386	18.74%	-82.90	
MAHI	4.012		1.196	29.81%	1.336	33.30%	1.306	32.55%	-8.42	
SABARMATI	0.735		0.054	7.35%	0.089	12.11%	0.106	14.42%	-49.06	
RIVERS OF KUTCH	0.887		0.042	4.74%	0.118	13.30%	0.097	10.94%	-56.70	
GODAVARI	15.394		1.237	8.04%	1.657	10.76%	2.191	14.23%	-43.54	
KRISHNA	32.8	32.831		5.49%	3.941	12.00%	4.835	14.73%	-62.73	
MAHANADI & NEIGHBOURING EFRS	13.181		2.553	19.37%	3.007	22.81%	2.807	21.30%	-9.05	
CAUVERY& NEIGHBOURING EFRS	8.359		1.039	12.43%	3.146	37.64%	2.128	25.46%	-51.17	
WEST FLOWING RIVERS OF SOUTH	14.766		2.506	16.97%	5.138	34.80%	3.326	22.52%	-24.65	
TOTAL	161.993		26.272	•	29.612		30.708			
PERCENTAGE		•		•					-14.45	

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

				WEE	K ENDING :-	27.06.2019					
							STORAGE A	S % OF LIVE C	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
	NORTHERN REGION	•									
	HIMACHAL PRADESH										
*1	GOBIND SAGAR(BHAKRA)	512.06	489.01	6.229	2.519	27-06-2019	40	6	25	676	1200
*2	PONG DAM PUNJAB	423.67	405.10	6.157	2.072	27-06-2019	34	6	20	-	360
*3	THEIN	527.91	511.51	2.344	1.192	27-06-2019	51	30	43	348	600
	RAJASTHAN										
*4	MAHI BAJAJ SAGAR	280.75	267.75	1.711	0.437	27-06-2019	26	31	22	63	140
5	JHAKAM	359.50	345.30	0.132	0.032	27-06-2019	24	29	17	28	-
*6	RANA PRATAP SAGAR EASTERN REGION	352.81	346.25	1.436	0.331	27-06-2019	23	29	33	229	172
	JHARKHAND	•									
7	TENUGHAT	269.14	256.70	0.821	0.301	27-06-2019	37	29	34	-	_
8	MAITHON	146.3	136.58	0.471	0.065	27-06-2019	14	29	28	342	-
*9	PANCHET HILL	124.97	120.72	0.184	0.026	27-06-2019	14	66	46	\$	80
10	KONAR	425.81	414.53	0.176	0.027	27-06-2019	15	17	31	\$	-
11	TILAIYA	368.81	363.31	0.142	0.000	27-06-2019	0	12	19	\$	4
	<u>ODISHA</u>										
*12	HIRAKUD	192.02	182.56	5.378	0.620	27-06-2019	12	15	11	153	307
*13	BALIMELA	462.08	444.00	2.676	0.379	27-06-2019	14	6	14	-	360
14	SALANADI	82.30	73.63	0.558	0.301	27-06-2019	54	43	26	42	-
*15	RENGALI	123.50	110.50	3.432	0.119	27-06-2019	3	6	10	3	200
*16	MACHKUND(JALPUT)	838.16	826.82	0.893	0.212	27-06-2019	24	8	25	-	115
*17	UPPER KOLAB	858.00	846.18	0.935	0.090	27-06-2019	10	8	14	89	320
*18	UPPER INDRAVATI	642.00	628.31	1.456	0.221	27-06-2019	15	9	16	128	600
	WEST BENGAL										
19	MAYURAKSHI	121.31	109.77	0.480	0.075	27-06-2019	16	33	24	227	-
20	KANGSABATI	134.14	125.65	0.914	0.302	27-06-2019	33	46	26	341	-
	TRIPURA										
21	WESTERN REGION	93.55	88.05	0.312	0.093	26-06-2019	30	100	39	-	15
	<u>GUJARAT</u>										
*22	UKAI	105.16	84.10	6.615	0.198	27-06-2019	3	9	20	348	300
23	SABARMATI(DHAROI)	189.59	178.64	0.735	0.054	27-06-2019	7	12	14	95	1
*24	KADANA	127.7	119.36	1.472	0.490	27-06-2019	33	36	43	200	120
25	SHETRUNJI	55.53	47.62	0.300	0.018	27-06-2019	6	12	18	36	-
26	BHADAR	107.89	99.48	0.188	0.006	27-06-2019	3	11	18	27	-
27	DAMANAGANGA	79.86	63.25	0.502	0.016	27-06-2019	3	25	15	51	1
28	DANTIWADA	184.1	166.57	0.399	0.018	27-06-2019	5	16	3	45	-
29	PANAM	127.41	121.50	0.697	0.237	27-06-2019	34	35	37	36	2
*30	SARDAR SAROVAR	138.68	119.68	5.760	1.172	27-06-2019	20	0	8	2120	1450
31	KARJAN	115.25	97.89	0.523	0.148	27-06-2019	28	33	29	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

				WEE	K ENDING :-	27.06.2019					
							STORAGE A	S % OF LIVE C	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	3A	3B
	MAHARASHTRA									l	
32	JAYAKWADI(PAITHON)	463.91	454.12	2.171	0.000	27-06-2019	0	22	7	227	
	KOYANA	657.90	618.44	2.652		27-06-2019	6		26	_	1920
34	BHIMA(UJJANI)	496.83	485.12		0.000	27-06-2019	0	0	4	125	12
35	ISAPUR	441.00	425.39	0.965	0.000	27-06-2019	0	1	18	104	-
36	MULA	552.30	534.46	0.609	0.009	27-06-2019	1	1	4	139	-
37	YELDARI	461.77	445.39	0.809	0.000	27-06-2019	0	0	8	78	-
38	GIRNA	398.07	383.94	0.524	0.039	27-06-2019	7	10	8	79	-
39	KHADAKVASLA	582.47	578.39	0.056	0.009	27-06-2019	16	14	27	78	8
*40	UPPER VAITARNA	603.50	588.90	0.331	0.018	27-06-2019	5	31	26	-	61
41	UPPER TAPI	214.00	205.36	0.255	0.000	27-06-2019	0	3	17	45	-
*42	PENCH (TOTALADOH)	490.00	458.65	1.091	0.000	27-06-2019	0	5	16	127	160
43	UPPER WARDHA	342.50	334.45	0.564	0.067	27-06-2019	12	34	32	70	-
44	BHATSA	142.07	103.64	0.942	0.208	27-06-2019	22	34	33	29.378	15
45	DHOM	747.70	725.71	0.331	0.002	27-06-2019	1	15	20	36.2	2
46	DUDHGANGA	646.00	610.14	0.664	0.011	26-06-2019	2	24	22	2.441	24
47	MANIKDOH (KUKADI)	711.25	683.34	0.288	0.001	27-06-2019	0	7	5	2.2	6
48	BHANDARDARA	744.91	697.17	0.304	0.000	27-06-2019	0	32	14	63.74	46
	CENTRAL REGION	•									
	UTTAR PRADESH										
	MATATILA	308.46	300.72		0.047	26-06-2019	7		25	-	30
*50	RIHAND	268.22	255.30	5.649	0.643	27-06-2019	11	10	11	-	300
	UTTRAKHAND							_			
	RAMGANGA	365.30	337.33	2.196	0.607	27-06-2019	28		23	1897	198
*52	TEHRI	830.00	742.88	2.615	0.045	27-06-2019	2	2	7	2351	1000
	MADHYA PRADESH						_				
	GANDHI SAGAR	399.90	380.43	6.827	0.000	27-06-2019	0		22	220	115
	TAWA	355.40	337.29			27-06-2019	7		22		-
	BARGI	422.76	412.75			27-06-2019	32		17		90
	BANSAGAR	341.64	335.23			27-06-2019	50		34		425
	INDIRA SAGAR	262.13	250.15			27-06-2019	23		9		1000
58	BARNA CHHATTIS GARH	348.55	337.00	0.456	0.000	27-06-2019	0	4	16	546	-
*50	MINIMATA BANGOI	250.66	240.46	2.046	1 205	25.06.2010	45	EO	50		120
	MAHANADI	359.66 348.70	349.46 339.32			25-06-2019	45 17		50 23		120
	SOUTHERN REGION	346.70	339.32	0.767	0.126	26-06-2019	17	20	23	319	10
		•									
*61	A.P & TG	260.75	245.64	0 200	0.000	27-06 2040	10	0	0	0	770
	SRISAILAM NAGARJUNA SAGAR	269.75	245.64			27-06-2019	10		9		770 810
02	ANDHRA PRADESH	179.83	154.75	0.041	0.000	27-06-2019	0	1	13	იყე	010
63	SOMASILA	100.58	77.54	1.994	0.077	27-06-2019	4	17	24	168	0
JJ	TELANGANA	100.00	11.54	1.334	0.077	21 00-2019	4	17	24	100	U
64	SRIRAMSAGAR	332.54	319.67	2.300	0.157	27-06-2019	7	13	12	411	27
	LOWER MANAIR	280.42	268.90		0.102		16				60

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

WEEK ENDING :-27.06.2019 STORAGE AS % OF LIVE CAPACITY AT BENEFITS CURRENT LIVE CURRENT LIVE FRL RESERVOIR CAPACITY AT NAME OF RESERVOIR DATE STORAGE LAST 10 IRR. HYDEL NO LEVEL FRI CURRENT (BCM) LAST YEAR YEARS (CCA) IN (RCM) (m) YEAR AVERAGE TH. HA MW 1 2 4 6 5 7 8 9 10 11 3В **KARNATAKA** 66 KRISHNARAJA SAGRA 752.50 738.76 1.163 0.177 27-06-2019 15 56 18 79 *67 TUNGABHADRA 497.74 479.65 3.276 0.056 27-06-2019 2 24 20 529 72 68 GHATAPRABHA 662.95 629.85 0.009 27-06-2019 7 317 1.391 1 11 69 BHADRA 657.76 638.19 1.785 0.223 27-06-2019 12 31 27 106 39 70 LINGANAMAKKI 554.43 531.42 4.294 0.376 27-06-2019 9 24 16 55 71 NARAYANPUR 0.238 492 25 487.40 0.863 27-06-2019 28 43 34 425 72 MALAPRABHA(RENUKA) 633.83 620.20 0.972 0.020 27-06-2019 2 215 6 6 KABINI(Sancherla Tank) 696.16 688.05 0.444 0.072 27-06-2019 16 91 34 85 74 HEMAVATHY 890.63 873.08 0.927 0.101 27-06-2019 11 63 23 265 75 HARANGI 871.42 855.67 0.220 0.035 27-06-2019 37 16 48 53 76 SUPA 564.00 531.38 4.120 1.177 27-06-2019 29 34 21 77 VANIVILAS SAGAR 652.28 631.64 0.802 0.009 27-06-2019 1 11 123 *78 ALMATTI 519.60 507.96 3.105 0.256 27-06-2019 @ 8 10 15 290 *79 GERUSOPPA 55.00 0.130 0.109 27-06-2019 83 83 51.41 84 78 240 **KERALA** 80 KALLADA(PARAPPAR) 115.82 98 80 0.507 0.176 27-06-2019 35 74 34 62 *81 IDAMALAYAR 0.079 169.00 27-06-2019 37 124.30 1.018 8 22 33 75 *82 IDUKKI 732.43 0.204 780 702.83 1.460 27-06-2019 14 44 26 *83 KAKKI 981.46 931.77 0.447 0.037 27-06-2019 8 50 28 23 300 *84 PERIYAR 867.41 859.77 0.022 27-06-2019 0.173 13 56 84 140 34 85 MALAPMUZHA 115.06 0.224 0.026 27-06-2019 12 29 21 3 101.80 43 **TAMIL NADU** 86 LOWER BHAWANI 278.89 265.23 0.792 0.164 27-06-2019 21 49 28 105 8 *87 METTUR(STANLEY) 240.79 217.59 2.647 0.401 27-06-2019 24 122 360 15 29 VAIGAI 279.20 267.06 0.172 0.012 27-06-2019 30 13 61 6 89 PARAMBIKULAM 556.26 538.64 0.380 0.058 27-06-2019 15 26 27 101 90 ALIYAR 320.04 300.12 0.095 0.000 27-06-2019 0 17 36 # 60 *91 SHOLAYAR 0.000 0 1002.79 960.88 0.143 27-06-2019 95 TOTAL FOR 91 RESERVOIRS 26.272 161.993 PERCENTAGE 16 18 19

Sd/-

\$ TOTAL CCA 342 TH. HA OF DVC SYSTEM

Director W. M., CWC

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

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

^{@&#}x27;TOTAL CCA 425 TH. HA. OF NARAYANPUR AND ALMATTI

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