BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 06.07.2016)

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 157.799 BCM which is about 62% of the live storage capacity of 253.388 BCM which is estimated to have been created in the country. As per reservoir storage bulletin dated 06.07.2016, live storage available in these reservoirs is 28.208 BCM, which is 18% of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was 51.307 BCM and the average of last 10 years live storage was 38.304 BCM. Thus, the live storage available in 91 reservoirs as per 06.07.2016 Bulletin is 55% of the live storage of corresponding period of last year and 74% 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 06.07.2016, the total live storage available in these reservoirs is 4.77 BCM which is 27% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 44% and average storage of last ten years during corresponding period was 34% 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.

b) EASTERN REGION

The Eastern region includes States of Jharkhand, Odisha, West Bengal and Tripura. There are 15 reservoirsunder CWC monitoring having total live storage capacity of 18.83 BCM. As per Reservoir Storage Bulletin dated **06.07.2016**, the total live storage available in these reservoirs is **3.50 BCM** which is **19%** 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 **19%** of live storage capacity of these reservoirs. Thus, storage during current year is less than the corresponding period of last year but is equal to 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 27.07 BCM. As per Reservoir Storage Bulletin dated **06.07.2016**, the total live storage available in these reservoirs is **3.16 BCM** which is **12%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **26%** 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 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

06.07.2016, the total live storage available in these reservoirs is **9.22 BCM** which is **22%** 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 **17%** of live storage capacity of these reservoirs. Thus, storage during current year is less than the storage of last year but 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 **06.07.2016**, the total live storage available in these reservoirs is **7.55** BCM which is **15%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **35%** 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 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 8, better than normal storage is available in Ganga, Sabarmati and Narmada. Close to Normal in Godavari and West Flowing rivers of South. Deficient in Indus, Mahi, Rivers of Kutch, Mahanadi & neighbouring East Flowing Rivers and Cauvery & neighbouring EFRs and Highly Deficient in Tapi and Krishna basin.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storagemore than last year are 16 and reservoirs having storage more than average of last ten years are 22. The numbers of reservoirs having storage less than 20% with respect to last year is 12 and having storage less than 20% with reference to average of last ten years is10. The number of reservoirs having storage less than or equal to 50% with respect to last year are 42 and having storage less than or equal to 50% with reference to average of last ten years are 35.

STORAGE STATUS OF IMPORTANT RESERVOIRS IN THE COUNTRY

AS ON 06.07.2016

- 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
 06.07.2016 is 28.208 BCM (18 percent of the live storage capacity at FRL). The current year's storage is nearly
 55 percent of last year's storage and
 74 percent of the average of last ten years.

3 Region wise storage status:-

Region wise storage status:										
Filling position of 91 reservoirs w.r.t. FRL REGION (States),										
REGION (States), (Monitoring No. of Reservoirs)	100%	91%- 99%	81%- 90%	71%- 80%	61%- 70%	51%- 60%	41%- 50%	40% & below	Departure fr	
NORTH (HP,Punjab & Rajasthan), (6 Resv.)	-	1	1	1	1	1	-	5	H.P. PUNJAB RAJASTHAN	-27 % -31 % 12 %
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	-	-	-	-	-	1	1	I 13	JHARKHAND ODISHA W. BENGAL TRIPURA	-19 % 3 % -17 % 60 %
WEST (Guj.& Mah.), (27 Resv.)	-	-	-	-	-	-	1	26	GUJARAT MAH.	-48 % -62 %
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	-	-	-	-	-	12	U.P. UTTARAKHAND M.P. CHHATISGARH	14 % -20 % 68 % -34 %
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	-	-	-	1	1	1	-		AP&TG A,P TG KARNATAKA KERALA T.N.	-84 % -20 % -44 % -36 % 1 % -63 %
Status of 91 reservoirs	0	0	0	1	1	3	2	84		3 2 7 2

4 Basin wise storage position:

Better than normal: Ganga, Sabarmati and Narmada.

Close to normal: Godavari and West Flowing rivers of south.

Deficient: Indus, Mahi, Rivers of Kutch, Mahanadi & Neighbouring EFRS and Cauvery & neighbouring EFRS

Highly deficient: Tapi and Krishna.

5 Out of 91 reservoirs, 34 reservoirs reported more than 80% of normal storage & 57 reservoirs reported 80% or below of normal storage. Out of these 57 reservoirs 35 having storage upto 50% of normal

storage.

Name of reservoir	%	Name of reservoir	%	Name of reservoir	%
NAGARJUNA SAGAR	0	KOYANA	22	PERIYAR	43
BHIMA(UJJANI)	0	VAIGAI	25	TUNGABHADRA	43
JAYAKWADI(PAITHON)	0	DUDHGANGA	26	RAMGANGA	43
GIRNA	0	UKAI	28	KADANA	43
YELDARI	0	SRISAILAM	33	PANCHET HILL	44
MALAPRABHA(RENUKA	0	METTUR(STANLEY)	34	LOWER MANAIR	46
ISAPUR	10	LOWER BHAWANI	35	MALAMPUZHA	46
RENGALI	16	PENCH (TOTALADOH)	35	MAITHON	46
SALANADI	17	GHATAPRABHA	35	VANIVILAS SAGAR	46
BHADAR	20	JHAKAM	36	MATATILA	47
KARJAN	21	NARAYANPUR	39	BARNA	47
ALMATTI	22	PARAMBIKULAM	40		

22 reservors										
having storage 51%										
to 80% of normal										
storage.										
51%	61%	71%								
to	to	to								
60%	70%	80%								
7	9	6								

26

WEEKLY REPORT - BASINWISE

GOVERNMENT OF INDIA

WEEK ENDING :- 06.07.2016

CENTRAL WATER COMMISSION

NAME OF BASIN	LIVE CAP. AT FRL	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	7.735	27.53%	9.370	33.35%	5.575	19.84%	38.74
INDUS	14.730	3.586	24.34%	7.048	47.85%	4.998	33.93%	-28.25
NARMADA	17.414	2.837	16.29%	3.578	20.55%	2.551	14.65%	11.21
TAPI	7.394	0.559	7.56%	1.557	21.06%	1.699	22.98%	-67.10
MAHI	4.012	0.810	20.19%	1.717	42.80%	1.397	34.82%	-42.02
SABARMATI	0.735	0.161	21.90%	0.170	23.13%	0.160	21.77%	0.63
RIVERS OF KUTCH	0.887	0.075	8.46%	0.312	35.17%	0.105	11.84%	-28.57
GODAVARI	15.394	2.432	15.80%	3.926	25.50%	2.784	18.08%	-12.64
KRISHNA	32.831	2.393	7.29%	10.533	32.08%	8.829	26.89%	-72.90
MAHANADI & NEIGHBOURING EFRS	13.181	1.656	12.56%	4.023	30.52%	2.856	21.67%	-42.02
CAUVERY& NEIGHBOURING EFRS	8.359	1.842	22.04%	4.063	48.61%	3.157	37.77%	-41.65
WEST FLOWING RIVERS OF SOUTH	14.766	4.122	27.92%	5.010	33.93%	4.193	28.40%	-1.69
TOTAL	157.799	28.208		51.307		38.304		
PERCENTAGE								-26.36

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

	GOVERNMENT OF INDIA			WEE	K ENDING :-	06.07.2016		OLIVII VIL V	VATER CON		
			CURRENT	LIVE			STORAGE A	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	480.90	6.229	1.977	06-07-2016	32	46	36	676	1200
*2	PONG DAM PUNJAB	423.67	394.37	6.157	0.792	06-07-2016	13	37	25	-	360
*3	THEIN	527.91	504.06	2.344	0.817	06-07-2016	35	82	51	348	600
	RAJASTHAN										
*4	MAHI BAJAJ SAGAR	280.75	266.75	1.711	0.369	06-07-2016	22	33	26	63	140
5	JHAKAM	359.50	337.35	0.132	0.009	06-07-2016	7	17	17	28	-
*6	RANA PRATAP SAGAR	352.81	349.40	1.436	0.809	06-07-2016	56	21	41	229	172
	EASTERN REGION	•									
	<u>JHARKHAND</u>										
7	TENUGHAT	269.14	259.13	0.821	0.383	06-07-2016	47	36	36	-	-
8	MAITHON	146.3	137.99	0.471	0.096	06-07-2016	20	33	45	342	-
*9	PANCHET HILL	124.97	121.74	0.184	0.055	06-07-2016	30	61	68	\$	80
10	KONAR	425.81	417.17	0.176	0.050	06-07-2016	28	23	38	\$	-
11	TILAIYA ODISHA	368.81	364.89	0.142	0.027	06-07-2016	19	35	36	\$	4
*12	HIRAKUD	192.02	181.81	5.378	0.433	05-07-2016	8	16	12	153	307
*13	BALIMELA	462.08	450.71	2.676	1.026	05-07-2016	38	51	14	-	360
14	SALANADI	82.30	55.60	0.558	0.029	05-07-2016	5	40	30	42	-
*15	RENGALI	123.50	110.03	3.432	0.048	05-07-2016	1	18	9	3	200
*16	MACHKUND(JALPUT)	838.16	827.32	0.893	0.231	05-07-2016	26	45	37	-	115
*17	UPPER KOLAB	858.00	848.94	0.935	0.225	05-07-2016	24	43	20	89	320
*18	UPPER INDRAVATI	642.00	630.71	1.456	0.393	04-07-2016	27	33	20	128	600
	WEST BENGAL										
19	MAYURAKSHI	121.31	113.11	0.480	0.150	06-07-2016	31	33	32	227	-
20	KANGSABATI	134.14	122.94	0.914	0.189	06-07-2016	21	23	28	341	-
	<u>TRIPURA</u>										
21	GUMTI	93.55	90.20	0.312	0.166	05-07-2016	53	33	33	-	15
	WESTERN REGION										
*22	GUJARAT UKAI	105 16	96 57	6.615	0.515	05 07 2016	0	22	24	240	200
	SABARMATI(DHAROI)	105.16 189.59	86.57 181.76			05-07-2016 06-07-2016	8 22	22 23	24 22		300 1
	KADANA	127.7	115.52			06-07-2016	19	52			120
	SHETRUNJI	55.53	50.42			06-07-2016	20	93			-
	BHADAR	107.89	99.60			06-07-2016	4	93	19		
	DAMANAGANGA	79.86	69.15			05-07-2016	22	27	16		1
	DANTIWADA	184.1	164.79			06-07-2016	2	4	4		
	PANAM	127.41	117.70			06-07-2016	21	50	39		
	SARDAR SAROVAR	121.92	115.18			06-07-2016	34	45	37	2120	1450
	KARJAN	115.25	86.89	0.523		05-07-2016	7		35		3

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

	GOVERNIMENT OF INDIA			WEE	K ENDING :-	06.07.2016			VATER CON		
			QUEDENT	10.45			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	453.46	2.171	0.000	06-07-2016	0	1	14	227	-
*33	KOYANA	657.90	626.36	2.652	0.272	05-07-2016	10	44	41	-	1920
34	BHIMA(UJJANI)	496.83	485.83	1.517	0.000	05-07-2016	0	0	13	125	12
35	ISAPUR	441.00	426.38	0.965	0.027	05-07-2016	3	22	28	104	-
36	MULA	552.30	536.65	0.609	0.030	29-06-2016	5	5	6	139	-
37	YELDARI	461.77	446.18	0.809	0.000	05-07-2016	0	1	12	78	-
38	GIRNA	398.07	379.53	0.524	0.000	05-07-2016	0	9	10	79	-
39	KHADAKVASLA	582.47	579.91	0.056	0.024	05-07-2016	43	54	39	78	8
*40	UPPER VAITARNA	603.50	595.00	0.331	0.091	05-07-2016	27	27	32	-	61
41	UPPER TAPI	214.00	209.34	0.255	0.044	05-07-2016	17	23	29	45	-
*42	PENCH (TOTALADOH)	490.00	469.21	1.091	0.080	05-07-2016	7	18	21	127	160
43	UPPER WARDHA	342.50	336.57	0.564	0.158	05-07-2016	28	52	38	70	-
44	BHATSA	142.07	114.36	0.942	0.356	05-07-2016	38	34	36	29.378	15
45	DHOM	747.70	729.71	0.331	0.087	05-07-2016	26	44	31	36.2	2
46	DUDHGANGA	646.00	617.80	0.664	0.062	05-07-2016	9	39	34	2.441	24
	MANIKDOH (KUKADI) BHANDARDARA	711.25 342.50	684.90 336.57	0.288 0.304	0.027 0.045	05-07-2016 05-07-2016	9 28	9 52	7 38	2.2 70	6
40	CENTRAL REGION	342.30	330.37	0.304	0.043	03-07-2010	20	32	30	70	_
	UTTAR PRADESH										
49	MATATILA	308.46	302.24	0.707	0.117	05-07-2016	17	53	35	_	30
*50	RIHAND	268.22	255.49	5.649	0.696	06-07-2016	12	9	8	-	300
	<u>UTTRAKHAND</u>										
*51	RAMGANGA	365.30	327.00	2.196	0.251	06-07-2016	11	64	26	1897	198
*52	TEHRI	830.00	763.30	2.615	0.473	06-07-2016	18	11	13	2351	1000
	MADHYA PRADESH										
*53	GANDHI SAGAR	399.90	391.33	6.827	2.427	05-07-2016	36	40	15	220	115
54	TAWA	355.40	341.32	1.944	0.335	06-07-2016	17	32	28	247	-
*55	BARGI	422.76	411.80	3.180	0.895	06-07-2016	28	23	13	157	90
*56	BANSAGAR	341.64	332.79	5.166	1.846	05-07-2016	36	52	21	488	425
*57	INDIRA SAGAR	262.13	246.78	9.745	0.999	06-07-2016	10	13	8	2380	1000
58	BARNA	348.55	339.76	0.456	0.039	05-07-2016	9	22	18	546	-
	CHHATTIS GARH										
	MINIMATA BANGOI	359.66	345.55	3.046	0.956	05-07-2016	31	70	47	-	120
	MAHANADI	348.70	340.77	0.767	0.190	05-07-2016	25	21	39	319	10
;	SOUTHERN REGION	•									
	A.P & TG										
	SRISAILAM	269.75	239.88			06-07-2016	7		20	0	770
[*] 62	NAGARJUNA SAGAR	179.83	153.71	6.841	0.000	06-07-2016	0	2	27	895	810
60	ANDHRA PRADESH	100.50	00.04	4.004	0.400	06 07 0040	00		07	400	•
63	SOMASILA TELANGANA	100.58	86.31	1.994	0.429	06-07-2016	22	14	27	168	0
61	SRIRAMSAGAR	332.54	319.49	2.300	0.149	06-07-2016	6	14	10	411	27
	LOWER MANAIR	280.42	267.22		0.149	06-07-2016	11			199	60
00	- O IVELVING WALL	200.42	201.22	0.021	0.000	00 01 2010	- 11	19	24	100	00

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

				WEE	K ENDING :-	06.07.2016					
							STORAGE AS % OF LIVE CAPACITY AT FRL			BENEFITS	
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			I.							
66	KRISHNARAJA SAGRA	752.50	741.31	1.163	0.296	06-07-2016	25	63	34	79	-
*67	TUNGABHADRA	497.74	486.56	3.276	0.438	06-07-2016	13	100	31	529	72
68	GHATAPRABHA	662.95	636.03	1.391	0.112	06-07-2016	8	22	23	317	-
69	BHADRA	657.76	641.68	1.785	0.398	06-07-2016	22	45	41	106	39
70	LINGANAMAKKI	554.43	540.01	4.294	1.187	06-07-2016	28	26	26	-	55
71	NARAYANPUR	492.25	486.14	0.863	0.151	06-07-2016	17	33	44	425	-
72	MALAPRABHA(RENUKA)	633.83	619.25	0.972	0.000	06-07-2016	0	19	15	215	-
73	KABINI(Sancherla Tank)	696.16	689.98	0.444	0.140	06-07-2016	32	95	41	85	-
74	HEMAVATHY	890.63	879.24	0.927	0.289	06-07-2016	31	69	39	265	-
75	HARANGI	871.42	868.34	0.220	0.148	06-07-2016	67	49	54	53	-
76	SUPA	564.00	528.14	4.120	0.987	06-07-2016	24	35	25	-	-
77	VANIVILAS SAGAR	652.28	634.36	0.802	0.046	06-07-2016	6	6	12	123	-
*78	ALMATTI	519.60	507.60	3.105	0.219	06-07-2016	7	45	32	@	290
*79	GERUSOPPA	55.00	48.63	0.130	0.095	06-07-2016	73	82	77	83	240
	KERALA										
80	KALLADA(PARAPPAR)	115.82	105.64	0.507	0.276	05-07-2016	54	25	32	62	-
*81	IDAMALAYAR	169.00	137.14	1.018	0.256	06-07-2016	25	35	28	33	75
*82	IDUKKI	732.43	708.72	1.460	0.389	06-07-2016	27	45	27	-	780
*83	KAKKI	981.46	958.51	0.447	0.170	06-07-2016	38	34	32	23	300
*84	PERIYAR	867.41	860.56	0.173	0.034	06-07-2016	20	66	46	84	140
85	MALAPMUZHA	867.41	860.56	0.224	0.042	06-07-2016	20	66	46	84	140
	TAMIL NADU										
86	LOWER BHAWANI	278.89	264.16	0.792	0.137	06-07-2016	17	66	50	105	8
*87	METTUR(STANLEY)	240.79	217.46	2.647	0.394	06-07-2016	15	49	43	122	360
88	VAIGAI	279.20	266.26	0.172	0.009	06-07-2016	5	30	20	61	6
89	PARAMBIKULAM	556.26	538.91	0.380	0.062	06-07-2016	16	23	41	101	-
90	ALIYAR	320.04	307.54	0.095	0.024	06-07-2016	25	84	45	#	60
*91	SHOLAYAR	1002.79	982.75	0.143	0.045	06-07-2016	31	71	52	-	95
	TOTAL FOR 91 RESERVOIRS			157.799	28.208						
	PERCENTAGE						18	33	24		

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

 $[\]dagger$ SABARMATI RESERVOIR IS SUPPLEMENTED WITH NARMADA WATER THROUGH PIPELINE.

SI. No. 30th The FRL of S.S.P. 138.38 M and Live capacity at FRL will be 5.760 BCM. However at present the lowest block of the dam is at the level of 121.92 M. and the live capacity at this level is 1.566 BCM