BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 06.10.2016)

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 **06.10.2016**, live storage available in these reservoirs is **118.431 BCM**, which is **75%** of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was **95.067 BCM** and the average of last 10 years live storage was **120.966 BCM**. Thus, the live storage available in 91 reservoirs **as per 06.10.2016 Bulletin** is **125%** of the live storage of corresponding period of last year and **98%** of storage of average of last ten years.

The overall storage position is **better 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 06.10.2016, the total live storage available in these reservoirs is 13.54 BCM which is 75% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 85% and average storage of last ten years during corresponding period was 82% 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 **06.10.2016**, the total live storage available in these reservoirs is **16.03 BCM** which is **85%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **71%** and average storage of last ten years during corresponding period was **79%** 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.

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 **06.10.2016**, the total live storage available in these reservoirs is **22.87 BCM** which is **84%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **61%** and average storage of last ten years during corresponding period was **80%** 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.

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 **06.10.2016**, the total live storage available in these reservoirs is **38.57 BCM** which is **91%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **76%** and average storage of last ten years during corresponding period was **72%** 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 **06.10.2016**, the total live storage available in these reservoirs is **27.42 BCM** which is **53%** 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 **76%** 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 8, better than normal storage is available in Narmada, Mahi, , Ganga, Sabarmati, Godavari and Tapi. Close to Normal in Indus, Mahanadi & neighbouring East Flowing Rivers and Deficient in Rivers of Kutch, West Flowing Rivers of South, Krishna and Cauvery & neighbouring EFRs Basin.
- Table on page 5-7of the bulletin. The numbers of reservoirs having storage more than last year are **59** and reservoirs having storage more than average of last ten years are **48**. The numbers of reservoirs having storage less than 20% with respect to last year is **3** and having storage less than 20% with reference to average of last ten years is **3**. The number of reservoirs having storage less than or equal to 50% with respect to last year are **7** and having storage less than or equal to 50% with reference to average of last ten years are **16**.

STORAGE STATUS OF IMPORTANT RESERVOIRS IN THE COUNTRY

AS ON 06.10.2016

- 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
 06.10.2016 is 118.431 BCM (75 percent of the live storage capacity at FRL). The current year's storage is nearly 125 percent of last year's storage and 98 percent of the average of last ten years.

3 Region wise storage status:-

	Filling position of 91 reservoirs w.r.t. FRL										
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.)	2	1	1	1	2	-	-	-	H.P. PUNJAB RAJASTHAN	-17 % 3 % 18 %	
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	4	1	7	1	-	2	-	-	JHARKHAND ODISHA W. BENGAL TRIPURA	10 % 5 % 33 % 50 %	
WEST (Guj.& Mah.), (27 Resv.)	10	4	3	2	2	2	1	3	GUJARAT MAH.	4 % 6 %	
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	4	5	-	2	-	1	-		U.P. UTTARAKHAND M.P. CHHATISGARH	48 % -2 % 31 % 5 %	
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	3	-	2	2	2	5	2	15	AP&TG A,P TG KARNATAKA KERALA T.N.	-40 % -12 % 57 % -30 % -36 % -44 %	
Status of 91 reservoirs	23	11	12	8	6	10	3	18	-	,,,	

4 Basin wise storage position:

Better than normal: Ganga, Sabarmati, Godavari, Mahi, Narmada and Tapi.

Close to normal: Indus and Mahanadi & Neighbouring EFRS.

Deficient: Rivers of Kutch, West Flowing Rivers of South, Krishna and Cauvery & neighbouring EFRS.

Highly deficient: NIL

5 Out of 91 reservoirs, 61 reservoirs reported more than 80% of normal storage & 30 reservoirs reported 80% or below of normal storage. Out of these 30 reservoirs 16 having storage upto 50% of normal

42

47

48

%

storage.

Name of reservoir	%	Name of reservoir
VAIGAI	9	YELDARI
ALIYAR	14	TUNGABHADRA
BHADAR	17	MALAMPUZHA
PERIYAR	22	MALAPRABHA(RENUKA)
NAGARJUNA SAGAR	23	_
HEMAVATHY	25	
KRISHNARAJA SAGRA	30	
LOWER BHAWANI	33	
VANIVILAS SAGAR	34	
PARAMBIKULAM	40	
SHOLAYAR	40	
KALLADA(PARAPPAR)	41	

14	reserve	14 reservors									
having storage 51%											
to 80% of normal											
storage.											
51%	61%	71%									
to	to	to									
60%	70%	80%									
1	7	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 :- 06.10.2016

	WEEK ENDING 00.10.2010											
NAME OF BASIN	LIVE CAP. AT FRI	_	THIS YEAR'S STORAGE		LAST YEAR'S STORAGE		YEARS' ORAGE	% DEPARTURE W.R.T. AVE. OF 10 YEARS'				
GANGA	28.096	24.501	87.20%	19.008	67.65%	18.132	64.54%	35.13				
INDUS	14.730	10.284	69.82%	12.353	83.86%	12.063	81.89%	-14.75				
NARMADA	17.414	17.184	98.68%	15.477	88.88%	14.731	84.59%	16.65				
TAPI	7.394	6.648	89.91%	5.342	72.25%	6.109	82.62%	8.82				
MAHI	4.012	3.523	87.81%	3.050	76.02%	3.212	80.06%	9.68				
SABARMATI	0.735	0.712	96.87%	0.665	90.48%	0.544	74.01%	30.88				
RIVERS OF KUTCH	0.887	0.321	36.19%	0.801	90.30%	0.584	65.84%	-45.03				
GODAVARI	15.394	12.354	80.25%	7.305	47.45%	10.542	68.48%	17.19				
KRISHNA	32.831	19.935	60.72%	10.808	32.92%	26.581	80.96%	-25.00				
MAHANADI & NEIGHBOURING EFRS	13.181	11.226	85.17%	9.300	70.56%	11.255	85.39%	-0.26				
CAUVERY& NEIGHBOURING EFRS	8.359	3.025	36.19%	2.877	34.42%	5.209	62.32%	-41.93				
WEST FLOWING RIVERS OF SOUTH	14.766	8.718	59.04%	8.081	54.73%	12.004	81.29%	-27.37				
TOTAL	157.799	118.431		95.067		120.966						
PERCENTAGE								-2.10				

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

	GOVERNMENT OF INDIA			WEE	K ENDING :-	06.10.2016		CENTRALV	VATER CON	MINISSIO	IN
			011555			200000	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
	NORTHERN REGION										
	HIMACHAL PRADESH	_									
*1	GOBIND SAGAR(BHAKRA)	512.06	502.52	6.229	4.510	06-10-2016	72	93	88	676	1200
*2	PONG DAM	423.67	416.27	6.157	4.236	06-10-2016	69	85	82	-	360
	<u>PUNJAB</u>										
*3	THEIN	527.91	517.13	2.344	1.538	06-10-2016	66	56	64	348	600
	RAJASTHAN										
*4	MAHI BAJAJ SAGAR	280.75	281.50	1.711	1.711	06-10-2016	100	99	87	63	140
5	JHAKAM	359.50	359.65	0.132	0.132	06-10-2016	100	92	85	28	-
*6	RANA PRATAP SAGAR	352.81	352.64	1.436	1.410	06-10-2016	98	76	80	229	172
	EASTERN REGION										
_	JHARKHAND										
	TENUGHAT	269.14	259.99	0.821	0.416	06-10-2016	51	52	44		-
8	MAITHON	146.3	148.54	0.471	0.471	06-10-2016	100	51	94	342	-
*9	PANCHET HILL	124.97	127.10		0.184	06-10-2016	100	48	94	\$	80
	KONAR	425.81	425.93		0.176	06-10-2016	100	84	90	\$	-
11	TILAIYA ODISHA	368.81	371.12	0.142	0.142	06-10-2016	100	100	86	\$	4
*12	HIRAKUD	192.02	192.05	5.378	4.839	05-10-2016	90	90	96	153	307
	BALIMELA	462.08	459.64			05-10-2016	83	71	59	-	360
	SALANADI	82.30	74.17		0.314	06-10-2016	56	36	62		
	RENGALI	123.50	122.42			05-10-2016	90	60	84		200
	MACHKUND(JALPUT)	838.16	837.42		0.821	05-10-2016	92	94	88	-	115
	UPPER KOLAB	858.00	856.44	0.935	0.787	05-10-2016	84	84	67	89	320
	UPPER INDRAVATI	642.00	639.33		1.168	05-10-2016	80	59	80	128	600
	WEST BENGAL										
19	MAYURAKSHI	121.31	119.65	0.480	0.414	06-10-2016	86	51	66	227	_
20	KANGSABATI	134.14	131.93	0.914	0.747	06-10-2016	82	29	61	341	-
	TRIPURA										
21	GUMTI	93.55	92.35	0.312	0.256	05-10-2016	82	99	55	-	15
	WESTERN REGION										
	<u>GUJARAT</u>										
*22	UKAI	105.16	103.91	6.615	6.002	06-10-2016	91	76	85	348	300
23	SABARMATI(DHAROI)	189.59	189.27	0.735	0.712	06-10-2016	97	90	74	95	1
*24	KADANA	127.7	127.66	1.472	1.244	06-10-2016	85	59	73	200	120
25	SHETRUNJI	55.53	53.57	0.300	0.168	06-10-2016	56	100	80	36	-
26	BHADAR	107.89	101.68	0.188	0.024	06-10-2016	13	85	77	27	-
27	DAMANAGANGA	79.86	79.85	0.502	0.478	06-10-2016	95	100	95	51	1
28	DANTIWADA	184.1	175.08	0.399	0.129	06-10-2016	32	85	50	45	-
29	PANAM	127.41	125.60	0.697	0.436	06-10-2016	63	52	78	36	2
*30	SARDAR SAROVAR	121.92	122.54	1.566	1.566	06-10-2016	100	81	83	2120	1450
31	KARJAN	115.25	107.20	0.523	0.328	06-10-2016	63	68	96	51	3

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

	GOVERNMENT OF INDIA		WEEK ENDING :- 06.10.2016				MISSIO	IN			
			CURRENT				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	462.62	2.171	1.702	06-10-2016	78	7	53	227	-
*33	KOYANA	657.90	659.41	2.652	2.652	05-10-2016	100	74	97	-	1920
34	BHIMA(UJJANI)	496.83	497.26	1.517	1.517	05-10-2016	100	6	80	125	12
35	ISAPUR	441.00	434.66	0.965	0.439	05-10-2016	45	36	70	104	-
36	MULA	552.30	552.28	0.609	0.608	06-10-2016	100	52	83	139	-
37	YELDARI	461.77	453.32	0.809	0.187	06-10-2016	23	15	56	78	-
38	GIRNA	398.07	396.35	0.524	0.426	05-10-2016	81	11	50	79	-
39	KHADAKVASLA	582.47	582.26	0.056	0.053	05-10-2016	95	34	75	78	8
*40	UPPER VAITARNA	603.50	603.50	0.331	0.331	05-10-2016	100	72	93	-	61
41	UPPER TAPI	214.00	213.41	0.255	0.220	05-10-2016	86	100	94	45	-
*42	PENCH (TOTALADOH)	490.00	484.32	1.091	0.631	05-10-2016	58	80	83	127	160
43	UPPER WARDHA	342.50	342.50	0.564	0.564	06-10-2016	100	100	94	70	-
44	BHATSA	142.07	142.00	0.942	0.942	05-10-2016	100	85	95	29.378	15
45	DHOM	747.70	747.67	0.331	0.330	05-10-2016	100	53	89	36.2	2
46	DUDHGANGA	646.00	646.01	0.664	0.664	05-10-2016	100	76	97	2.441	24
	MANIKDOH (KUKADI)	711.25	706.51	0.288	0.208	05-10-2016	72	27	60	2.2	6
48	BHANDARDARA CENTRAL REGION	342.50	342.50	0.304	0.304	06-10-2016	100	100	94	70	-
_	UTTAR PRADESH										
49	MATATILA	308.46	308.46	0.707	0.641	05-10-2016	91	71	89	_	30
	RIHAND	268.22	265.21	5.649	4.348	06-10-2016	77	38	48	_	300
00	UTTRAKHAND	200.22	200.2	0.0.0		00 10 2010		00	.0		000
*51	RAMGANGA	365.30	350.32	2.196	1.195	06-10-2016	54	71	70	1897	198
	TEHRI	830.00	824.70	2.615	2.398	06-10-2016	92	87	81	2351	1000
	MADHYA PRADESH										
*53	GANDHI SAGAR	399.90	399.76	6.827	6.537	06-10-2016	96	91	60	220	115
54	TAWA	355.40	355.49	1.944	1.944	06-10-2016	100	100	98	247	-
*55	BARGI	422.76	422.76			06-10-2016	100	92	92	157	90
*56	BANSAGAR	341.64	341.62	5.166	5.166	06-10-2016	100	65	68	488	425
*57	INDIRA SAGAR	262.13	262.13	9.745	9.745	04-10-2016	100	89	79	2380	1000
58	BARNA	348.55	348.06	0.456	0.421	06-10-2016	92	77	79	546	-
	CHHATTIS GARH										
*59	MINIMATA BANGOI	359.66	355.68	3.046	2.236	05-10-2016	73	59	73	-	120
60	MAHANADI	348.70	348.65	0.767	0.762	05-10-2016	99	58	83	319	10
	SOUTHERN REGION										
	<u>A.P & TG</u>										
*61	SRISAILAM	269.75	269.08	8.288	5.664	06-10-2016	68	22	76	0	770
*62	NAGARJUNA SAGAR	179.83	162.61	6.841	1.229	06-10-2016	18	1	77	895	810
	ANDHRA PRADESH										
63	SOMASILA	100.58	92.30	1.994	0.924	06-10-2016	46	17	53	168	0
	<u>TELANGANA</u>										
64	SRIRAMSAGAR	332.54	352.54	2.300	2.300	06-10-2016	100	10	64	411	27
65	LOWER MANAIR	280.42	280.42	0.621	0.621	06-10-2016	100	18	64	199	60

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

				WEE	K ENDING :-	06.10.2016					
			OURRENT				STORAGE A	S % OF LIVE C	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			I.							
66	KRISHNARAJA SAGRA	752.50	741.37	1.163	0.299	05-10-2016	26	55	85	79	-
*67	TUNGABHADRA	497.74	492.24	3.276	1.293	06-10-2016	39	60	84	529	72
68	GHATAPRABHA	662.95	660.01	1.391	1.175	06-10-2016	84	38	90	317	-
69	BHADRA	657.76	649.15	1.785	0.916	06-10-2016	51	67	93	106	39
70	LINGANAMAKKI	554.43	547.66	4.294	2.500	06-10-2016	58	52	89	-	55
71	NARAYANPUR	492.25	492.18	0.863	0.731	06-10-2016	85	59	87	425	-
72	MALAPRABHA(RENUKA)	633.83	627.69	0.972	0.359	06-10-2016	37	28	73	215	-
73	KABINI(Sancherla Tank)	696.16	692.16	0.444	0.234	05-10-2016	53	53	51	85	-
74	HEMAVATHY	890.63	876.93	0.927	0.203	05-10-2016	22	40	87	265	-
75	HARANGI	871.42	869.40	0.220	0.170	05-10-2016	77	41	84	53	-
76	SUPA	564.00	547.45	4.120	2.357	06-10-2016	57	44	73	-	-
77	VANIVILAS SAGAR	652.28	633.94	0.802	0.039	06-10-2016	5	9	14	123	-
*78	ALMATTI	519.60	519.60	3.105	3.105	06-10-2016	100	51	92	@	290
*79	GERUSOPPA	55.00	48.79	0.130	0.096	06-10-2016	74	72	78	83	240
	KERALA										
80	KALLADA(PARAPPAR)	115.82	97.99	0.507	0.163	05-10-2016	32	38	78	62	-
*81	IDAMALAYAR	169.00	153.32	1.018	0.592	05-10-2016	58	53	80	33	75
*82	IDUKKI	732.43	716.42	1.460	0.675	05-10-2016	46	56	68	-	780
*83	KAKKI	981.46	969.59	0.447	0.275	05-10-2016	62	49	78	23	300
*84	PERIYAR	867.41	859.53	0.173	0.018	05-10-2016	10	33	48	84	140
85	MALAPMUZHA	867.41	859.53	0.224	0.093	05-10-2016	10	33	48	84	140
	TAMIL NADU										
86	LOWER BHAWANI	278.89	264.51	0.792	0.146	05-10-2016	18	32	55	105	8
*87	METTUR(STANLEY)	240.79	226.98	2.647	1.043	05-10-2016	39	34	55	122	360
88	VAIGAI	279.20	265.19	0.172	0.006	05-10-2016	3	32	38	61	6
89	PARAMBIKULAM	556.26	543.30	0.380	0.132	05-10-2016	35	72	87	101	-
90	ALIYAR	320.04	304.50	0.095	0.012	05-10-2016	13	87	87	#	60
*91	SHOLAYAR	1002.79	965.57	0.143	0.054	05-10-2016	38	68	94	-	95
	TOTAL FOR 91 RESERVOIRS			157.799	118.431						
	PERCENTAGE						75	60	77		

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

 $^{@^{\}scriptscriptstyle |}$ 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