BRIEF NOTE ON STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 31.03.2016)

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 31.03.2016, live storage available in these reservoirs is 39.651 BCM, which is 25% of total live storage capacity of these reservoirs. This storage is 69% of the storage of corresponding period of last year and 75% of storage of average of last ten years.

As per Table-01, 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 31.03.2016, the total live storage available in these reservoirs is 4.48 BCM which is 25% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 32% 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 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 31.03.2016, the total live storage available in these reservoirs is 7.15 BCM which is 38% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 49% and average storage of last ten years during corresponding period was 42% 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 27.07 BCM. As per Reservoir Storage Bulletin dated 31.03.2016, the total live storage available in these reservoirs is 5.82 BCM which is 21% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 40% and average storage of last ten years during corresponding period was 44% 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 **31.03.2016**, the total live storage available in these reservoirs is **13.58 BCM**

which is 32% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 42% 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 less than the storage of last year but 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 **31.03.2016**, the total live storage available in these reservoirs is **8.62** BCM which is **17%** 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 **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.
- Table on page 4: IMD has divided India in 36 meteorological sub-divisions. The data in respect of reservoir storage as compared with observed rainfall in sub-divisions having rainfall less than 80% of normal is given in the table.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storage more than last year are 16 and reservoirs having storage more than average of last ten years are 15. 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 6. The number of reservoirs having storage less than or equal to 50% with respect to last year are 32 and having storage less than or equal to 50% with reference to average of last ten years are 32.

STORAGE STATUS OF IMPORTANT RESERVOIRS IN THE COUNTRY

- 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
 31.03.2016 is 39.651 BCM (25 percent of the live storage capacity at FRL). The current year's storage is nearly 69 percent of last year's storage and 75 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 (Stat (Monitoring No. of Reservoirs)	(States),		91%- 99%	81%- 90%	71%- 80%	61%- 70%	51%- 60%	41%- 50%	40% & below	Departure fr stor	
NORTH (HP,Punjab & Rajasthan) (6 Resv.)	,	-	-	-	1	-	-	-	6	H.P. PUNJAB RAJASTHAN	-18 % -34 % -8 %
EAST (Jharkhand,Odisha, Tripu W.Bengal (15 Resv.)	ıra &	1	-	-	-	-	1	4	10	JHARKHAND ODISHA W. BENGAL TRIPURA	-33 % -9 % -5 % 469 %
WEST (Guj.& Mah.), (27 Resv.)		-	-	-	-	-	-	2	25	GUJARAT MAH.	-43 % -59 %
CENTRAL (MP,UP,Uttarakhand & C (12 Resv)	hh.),	-	-	-	-	-	1	3	8	U.P. UTTARAKHAND M.P. CHHATISGARH	-17 % -60 % 37 % -26 %
SOUTH (Karnataka,TN,AP&TG,Al TG, & Kerala), (31 Resv.)	Ρ,	-	-	-	-	2	1	1	27	AP&TG A,P TG KARNATAKA KERALA T.N.	-80 % -1 % -62 % -30 % -3 % -50 %
Status of 91 reservoirs		0	0	0	0	2	3	10	76		

4 Basin wise storage position:

Better than normal: Ganga, Sabarmati and Narmada.

Close to normal: Mahanadi & Neighbouring EFRS and West Flowing rivers of south.

Deficient: Indus, Tapi, Mahi, Rivers of Kutch, Godavari and Cauvery & neighbouring EFRS

Highly deficient: 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 32 having storage upto 50% of normal

storage.

Name of reservoir	%	Name of reservoir	%	Name of reservoir	%
NAGARJUNA SAGAR	0	ALIYAR	34	DUDHGANGA	40
BHIMA(UJJANI)	0	MULA	34	MAITHON	40
JAYAKWADI(PAITHON)	0	LOWER MANAIR	34	SARDAR SAROVAR	40
GIRNA	0	SRISAILAM	35	SRIRAMSAGAR	41
SALANADI	14	ISAPUR	36	TEHRI	42
YELDARI	17	MANIKDOH	38	BARNA	44
PANCHET HILL	24	PANAM	39	KARJAN	45
LOWER BHAWANI	25	RAMGANGA	39	HARANGI	46
BHANDARDARA	28	MATATILA	39	MALAPRABHA(RENUKA)	46
PERIYAR	33	VAIGAI	39	JHAKAM	46
	•	UPPER TAPI	49	NARAYANPUR	50

30 reservors								
having storage 51%								
to 80% of normal								
storage.								
61%	71%							
to	to							
70%	80%							
11	8							
	storage of normal storage of stor							

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

28 reservoirs

WEEKLY REPORT - BASINWISE

GOVERNMENT OF INDIA

WEEK ENDING :- 31.03.2016

CENTRAL WATER COMMISSION

NAME OF BASIN	LIVE CAP. AT FRL	_	ÆAR'S RAGE	LAST Y STOR	_	LAST 10 AVG. ST	_	% DEPARTURE W.R.T. AVE. OF 10 YEARS'
GANGA	28.096	8.779	31.25%	11.479	40.86%	8.363	29.77%	4.97
INDUS	14.730	3.546	24.07%	4.713	32.00%	4.467	30.33%	-20.62
NARMADA	17.414	5.216	29.95%	6.383	36.65%	4.997	28.70%	4.38
TAPI	7.394	1.934	26.16%	2.832	38.30%	3.322	44.93%	-41.78
MAHI	4.012	1.044	26.01%	1.947	48.53%	1.746	43.52%	-40.23
SABARMATI	0.735	0.212	28.84%	0.127	17.28%	0.208	28.30%	1.92
RIVERS OF KUTCH	0.887	0.143	16.12%	0.107	12.06%	0.181	20.41%	-20.99
GODAVARI	15.394	3.363	21.85%	5.621	36.51%	5.277	34.28%	-36.27
KRISHNA	32.831	3.261	9.93%	7.876	23.99%	8.763	26.69%	-62.79
MAHANADI & NEIGHBOURING EFRS	13.181	5.164	39.18%	7.501	56.91%	6.307	47.85%	-18.12
CAUVERY& NEIGHBOURING EFRS	8.359	2.055	24.58%	2.455	29.37%	3.122	37.35%	-34.18
WEST FLOWING RIVERS OF SOUTH	14.766	4.934	33.41%	6.140	41.58%	5.982	40.51%	-17.52
TOTAL	157.799	39.651	·	57.181		52.735		
PERCENTAGE								-24.81

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

	GOVERNMENT OF INDIA			WEE	K ENDING :-	31.03.2016		CENTRAL	VATER CON	/IIVII33IU	IN
			oups =::=				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	3A	3B
	NORTHERN REGION										
	HIMACHAL PRADESH	•									
*1	GOBIND SAGAR(BHAKRA)	512.06	481.11	6.229	1.995	28-03-2016	32	31	29	676	1200
*2	PONG DAM	423.67	396.75	6.157	1.044	28-03-2016	17	29	31	-	360
	<u>PUNJAB</u>										
*3	THEIN	527.91	497.25	2.344	0.507	24-03-2016	22	42	33	348	600
	RAJASTHAN										
*4	MAHI BAJAJ SAGAR	280.75	268.05	1.711	0.453	29-03-2016	26	36	30	63	140
5	JHAKAM	359.50	338.20		0.011	29-03-2016	8	20	17	28	-
*6	RANA PRATAP SAGAR	352.81	347.24	1.436	0.472	31-03-2016	33	27	34	229	172
	EASTERN REGION	•									
	JHARKHAND										
	TENUGHAT	269.14	256.84		0.306	26-03-2016	37	43	36	-	-
8	MAITHON	146.3	138.38		0.107	26-03-2016	23	37	57	342	-
*9	PANCHET HILL	124.97	120.76		0.029	26-03-2016	16	28	66	\$	80
	KONAR	425.81	419.48		0.076	26-03-2016	43	67	52	\$	-
11	TILAIYA ODISHA	368.81	365.14	0.142	0.032	26-03-2016	23	58	33	\$	4
*12	HIRAKUD	192.02	187.65	5.378	2.373	31-03-2016	44	41	46	153	307
	BALIMELA	462.08	451.10			31-03-2016	40	61	38	-	360
	SALANADI	82.30	54.35		0.024	30-03-2016	4	40	31	42	-
	RENGALI	123.50	116.14			31-03-2016	36	65	46	3	200
	MACHKUND(JALPUT)	838.16	832.18		0.459	31-03-2016	51	52	54	-	115
	UPPER KOLAB	858.00	851.70			31-03-2016	43	60	40	89	320
	UPPER INDRAVATI	642.00	633.00		0.581	31-03-2016	40	60	44	128	600
	WEST BENGAL										
19	MAYURAKSHI	121.31	110.33	0.480	0.086	26-03-2016	18	16	29	227	_
20	KANGSABATI	134.14	123.87	0.914	0.224	26-03-2016	25	26	21	341	-
	TRIPURA										
21	GUMTI	93.55	89.70	0.312	0.148	30-03-2016	47	0	8	-	15
	WESTERN REGION										
	<u>GUJARAT</u>										
*22	UKAI	105.16	94.04	6.615	1.863	31-03-2016	28	38	46	348	300
23	SABARMATI(DHAROI)	189.59	182.86	0.735	0.212	29-03-2016	29	17	28	95	1
*24	KADANA	127.7	118.52	1.472	0.439	29-03-2016	30	64	58	200	120
25	SHETRUNJI	55.53	49.97	0.300	0.051	29-03-2016	17	17	30	36	-
26	BHADAR	107.89	102.11	0.188	0.029	29-03-2016	15	22	26	27	-
27	DAMANAGANGA	79.86	72.20	0.502	0.187	31-03-2016	37	37	54	51	1
28	DANTIWADA	184.1	171.30	0.399	0.063	29-03-2016	16	4	11	45	-
29	PANAM	127.41	118.45	0.697	0.141	29-03-2016	20	50	52	36	2
*30	SARDAR SAROVAR	121.92	113.61	1.566	0.319	31-03-2016	20	73	50	2120	1450
31	KARJAN	115.25	98.66	0.523	0.152	31-03-2016	29	51	65	51	3

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

	GOVERNMENT OF INDIA	WEEK ENDING :- 31.03.2016				MISSIO	IN				
			CUDDENT	LIVE			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	3A	3B
	MAHARASHTRA			I							
32	JAYAKWADI(PAITHON)	463.91	455.13	2.171	0.000	31-03-2016	0	13	30	227	-
*33	KOYANA	657.90	637.85	2.652	0.820	30-03-2016	31	62	57	-	1920
34	BHIMA(UJJANI)	496.83	488.39	1.517	0.000	30-03-2016	0	27	38	125	12
35	ISAPUR	441.00	428.83	0.965	0.135	30-03-2016	14	31	39	104	-
36	MULA	552.30	537.94	0.609	0.077	30-03-2016	13	20	37	139	-
37	YELDARI	461.77	448.92	0.809	0.033	30-03-2016	4	15	24	78	-
38	GIRNA	398.07	380.45	0.524	0.000	30-03-2016	0	16	23	79	-
39	KHADAKVASLA	582.47	579.27	0.056	0.018	30-03-2016	32	73	36	78	8
*40	UPPER VAITARNA	603.50	596.77	0.331	0.135	29-03-2016	41	50	58	-	61
41	UPPER TAPI	214.00	210.23	0.255	0.071	30-03-2016	28	89	57	45	-
*42	PENCH (TOTALADOH)	490.00	473.28	1.091	0.174	30-03-2016	16	18	31	127	160
43	UPPER WARDHA	342.50	336.63	0.564	0.161	31-03-2016	29	37	40	70	-
44	BHATSA	142.07	118.60	0.942	0.424	30-03-2016	45	48	51	29.378	15
45	DHOM	747.70	731.75		0.107	30-03-2016	32	63	43	36.2	2
	DUDHGANGA	646.00	624.35	0.664	0.140	30-03-2016	21	56	53	2.441	24
	MANIKDOH (KUKADI) BHANDARDARA	711.25 342.50	683.71 336.63	0.288 0.304	0.022 0.045	30-03-2016 31-03-2016	8 29	28 37	20 40	2.2 70	6
40	CENTRAL REGION	342.50	330.03	0.304	0.045	31-03-2010	29	31	40	70	-
	UTTAR PRADESH	•									
49	MATATILA	308.46	302.21	0.707	0.115	30-03-2016	16	36	42	_	30
*50	RIHAND	268.22	257.28	5.649	1.251	28-03-2016	22	25	24	-	300
	<u>UTTRAKHAND</u>										
*51	RAMGANGA	365.30	330.12	2.196	0.349	31-03-2016	16	63	41	1897	198
*52	TEHRI	830.00	754.20	2.615	0.272	31-03-2016	10	28	25	2351	1000
	MADHYA PRADESH										
*53	GANDHI SAGAR	399.90	393.28	6.827	3.167	31-03-2016	46	40	25	220	115
54	TAWA	355.40	341.38	1.944	0.338	31-03-2016	17	34	26	247	-
*55	BARGI	422.76	416.35	3.180	1.610	31-03-2016	51	42	36	157	90
*56	BANSAGAR	341.64	333.76	5.166	2.145	31-03-2016	42	67	34	488	425
*57	INDIRA SAGAR	262.13	252.00	9.745	2.761	31-03-2016	28	30	22	2380	1000
58	BARNA	348.55	339.63	0.456	0.036	31-03-2016	8	25	18	546	-
	CHHATTIS GARH										
	MINIMATA BANGOI	359.66	348.26	3.046	1.245	31-03-2016	41	81	55	-	120
	MAHANADI	348.70	342.47	0.767	0.287	30-03-2016	37	49	54	319	10
	SOUTHERN REGION	•									
	<u>A.P & TG</u>										
	SRISAILAM	269.75	244.88		0.773	31-03-2016	9	30	26	0	770
*62	NAGARJUNA SAGAR	179.83	154.90	6.841	0.000	31-03-2016	0	7	24	895	810
00	ANDHRA PRADESH	400 ==	6: 5-		2 22-	04.00.001				400	-
63	SOMASILA TELANGANA	100.58	91.93	1.994	0.885	31-03-2016	44	18	45	168	0
64	TELANGANA SPIRAMSAGAR	220 54	240.27	0.200	0.444	21 02 2040	^	47	45	444	07
	SRIRAMSAGAR LOWER MANAIR	332.54	319.37		0.144	31-03-2016	6	17 27		411	27 60
00	LOWER INWINIL	280.42	267.92	0.621	0.081	31-03-2016	13	27	38	199	60

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

				WEE	K ENDING :-	31.03.2016					
			CHDDENT	LIVE			STORAGE A	STORAGE AS % OF LIVE CAPACITY AT FRL			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	739.79	1.163	0.221	31-03-2016	19	41	32	79	
*67	TUNGABHADRA	497.74	482.74	3.276	0.168	31-03-2016	5	7	7	529	72
68	GHATAPRABHA	662.95	636.87	1.391	0.130	31-03-2016	9	21	12	317	
69	BHADRA	657.76	643.51	1.785	0.506	31-03-2016	28	53	51	106	39
70	LINGANAMAKKI	554.43	540.58	4.294	1.263	31-03-2016	29	34	37	-	55
71	NARAYANPUR	492.25	487.07	0.863	0.213	31-03-2016	25	25	49	425	
72	MALAPRABHA(RENUKA)	633.83	621.08	0.972	0.043	31-03-2016	4	12	10	215	
73	KABINI(Sancherla Tank)	696.16	688.11	0.444	0.074	31-03-2016	17	57	19	85	
74	HEMAVATHY	890.63	873.43	0.927	0.109	31-03-2016	12	15	18	265	
75	HARANGI	871.42	851.99	0.220	0.016	31-03-2016	7	9	16	53	
76	SUPA	564.00	532.18	4.120	1.227	31-03-2016	30	45	39	-	
77	VANIVILAS SAGAR	652.28	635.98	0.802	0.075	31-03-2016	9	5	15	123	
*78	ALMATTI	519.60	507.86	3.105	0.246	31-03-2016	8	10	11	@	290
*79	GERUSOPPA	55.00	47.56	0.130	0.090	31-03-2016	69	67	82	83	240
	KERALA										
80	KALLADA(PARAPPAR)	115.82	109.04	0.507	0.344	31-03-2016	68	54	45	62	
*81	IDAMALAYAR	169.00	141.51	1.018	0.338	31-03-2016	33	47	39	33	75
*82	IDUKKI	732.43	712.33	1.460	0.515	31-03-2016	35	50	39	-	780
*83	KAKKI	981.46	965.13	0.447	0.227	31-03-2016	51	51	50	23	300
*84	PERIYAR	867.41	859.34	0.173	0.015	31-03-2016	9	15	27	84	140
85	MALAPMUZHA	867.41	859.34	0.224	0.030	31-03-2016	9	15	27	84	140
	TAMIL NADU										
86	LOWER BHAWANI	278.89	261.81	0.792	0.089	31-03-2016	11	24	44	105	8
*87	METTUR(STANLEY)	240.79	221.65	2.647	0.641	31-03-2016	24	38	44	122	360
88	VAIGAI	279.20	268.75	0.172	0.020	31-03-2016	12	10	30	61	6
89	PARAMBIKULAM	556.26	541.18	0.380	0.097	31-03-2016	26	23	43	101	
90	ALIYAR	320.04	305.53	0.095	0.016	31-03-2016	17	69	49	#	60
*91	SHOLAYAR	1002.79	966.10	0.143	0.026	31-03-2016	18	1	4	-	95
	TOTAL FOR 91 RESERVOIRS			157.799	39.651						

Sd/-

36

33

\$ TOTAL CCA 342 TH. HA OF DVC SYSTEM

PERCENTAGE

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

 $[\]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