# BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 16.11.2017)

#### 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 16.11.2017, live storage available in these reservoirs is 103.527 BCM, which is 66% of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was 107.717 BCM and the average of last 10 years live storage was 108.298 BCM. Thus, the live storage available in 91 reservoirs as per 16.11.2017 Bulletin is 96% of the live storage of corresponding period of last year and 96% 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 16.11.2017, the total live storage available in these reservoirs is 12.45 BCM which is 69% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 62% and average storage of last ten years during corresponding period was 70% 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.

# 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 16.11.2017, the total live storage available in these reservoirs is 14.54 BCM which is 77% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 83% and average storage of last ten years during corresponding period was 74% of live storage capacity of these reservoirs. Thus, storage during current year is less than the corresponding period of last year but is 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 16.11.2017, the total live storage available in these reservoirs is 19.88 BCM which is 73% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 82% and average storage of last ten years during corresponding period was 75% 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 16.11.2017, the total live storage available in these reservoirs is 25.03 BCM which is 59% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 86% and average storage of last ten years during corresponding period was 66% 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 16.11.2017, the total live storage available in these reservoirs is 31.63 BCM which is 61% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 43% and average storage of last ten years during corresponding period was 65% 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 4, better than normal storage is available in Ganga, Mahi, Indus, Sabarmati, Rivers of Kutch, Krishna, Mahanadi & neighbouring East Flowing Rivers. Close to Normal in Godavari, Cauvery & neighbouring EFRs and West Flowing Rivers of South. Deficient in Narmada and Tapi basin and NIL in Highly Deficient.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storage more than last year are 51 and reservoirs having storage more than average of last ten years are 44. The numbers of reservoirs having storage less than 20% with respect to last year is 0 and having storage less than 20% with reference to average of last ten years is 1. The number of reservoirs having storage less than or equal to 50% with respect to last year are 6 and having storage less than or equal to 50% with reference to average of last ten years are 8.

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**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 16.11.2017

- 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
   16.11.2017 is 103.527 BCM ( 66 percent of the live storage capacity at FRL ). The current year's storage is nearly 96 percent of last year's storage and 96 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.)	1	1	ı	1	1	1	ı	· ·	H.P. PUNJAB RAJASTHAN	2 % -8 % -10 %	
EAST (Jharkhand,Odisha, Tripura & W.Bengal ( 15 Resv.)	2	4	2	1	1	3	2	-	JHARKHAND ODISHA W. BENGAL TRIPURA	8 % -2 % 106 % 70 %	
WEST (Guj.& Mah.), (27 Resv.)	6	7	6	3	1	1	1	3	GUJARAT MAH.	-14 % 10 %	
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	1	-	2	-	5	2	1	1 2	U.P. UTTARAKHAND M.P. CHHATISGARH	16 % -4 % -16 % -11 %	
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), ( 31 Resv.)	-	1	4	5	4	7	7	3	AP&TG A,P TG KARNATAKA KERALA T.N.	-4 % 8 % 9 % -8 % -1 % -18 %	
Status of 91 reservoirs	9	13	14	10	11	14	11	9			

# 4 Basin wise storage position:

Better than normal: Ganga, Mahi, Indus, Sabarmati, Krishna, , Mahanadi & Neighbouring EFRS and Rivers of Kutch .

Close to normal: Godavari, Cauvery & neighbouring EFRS and West Flowing Rivers of South .

**Deficient:** Narmada and Tapi. .

Highly deficient: NIL

5 Out of 91 reservoirs, 70 reservoirs reported more than 80% of normal storage & 21 reservoirs reported 80% or below of normal storage. Out of these 21 reservoirs 8 having storage upto 50% of normal

storage.

Name of reservoir	%	Name of reservoir	%
VANIVILAS SAGAR	15		
ISAPUR	24		
YELDARI	30		
RANA PRATAP SAGAR	38		
HEMAVATHY	38		
ALIYAR	47		
PENCH (TOTALADOH)	47		
INDIRA SAGAR	50		

13 reservors									
having storage 51%									
to 80% of normal									
storage.									
51%	61%	71%							
to	to	to							
60%	70%	80%							
2	6	5							

# WEEKLY REPORT - BASINWISE

# GOVERNMENT OF INDIA

# CENTRAL WATER COMMISSION WEEK ENDING :- 16.11.2017

WEEK ENDING :- 10.11.2017											
NAME OF BASIN	LIVE CAP. AT FRL	_	/EAR'S RAGE	LAST Y STOR	_	LAST 10 AVG. ST	YEARS' ORAGE	% DEPARTURE W.R.T. AVE. OF 10 YEARS'			
GANGA	28.096	18.329	65.24%	22.686	80.74%	16.627	59.18%	10.24			
INDUS	14.730	10.297	69.90%	8.542	57.99%	10.234	69.48%	0.62			
NARMADA	17.414	9.658	55.46%	16.004	91.90%	13.527	77.68%	-28.60			
TAPI	7.394	3.767	50.95%	6.565	88.79%	5.608	75.85%	-32.83			
MAHI	4.012	3.416	85.14%	3.467	86.42%	3.048	75.97%	12.07			
SABARMATI	0.735	0.598	81.36%	0.690	93.88%	0.498	67.76%	20.08			
RIVERS OF KUTCH	0.887	0.667	75.20%	0.317	35.74%	0.478	53.89%	39.54			
GODAVARI	15.394	9.465	61.48%	12.214	79.34%	9.731	63.21%	-2.73			
KRISHNA	32.831	22.457	68.40%	15.786	48.08%	22.106	67.33%	1.59			
MAHANADI & NEIGHBOURING EFRS	13.181	10.360	78.60%	11.138	84.50%	10.254	77.79%	1.03			
CAUVERY& NEIGHBOURING EFRS	8.359	4.681	56.00%	2.041	24.42%	5.056	60.49%	-7.42			
WEST FLOWING RIVERS OF SOUTH	14.766	9.832	66.59%	8.267	55.99%	11.131	75.38%	-11.67			
TOTAL	157.799	103.527		107.717		108.298					
PERCENTAGE								-4.41			

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

	GOVERNMENT OF INDIA			WEE	K ENDING :-	16.11.2017		CLIVITAL	.,		
			CURRENT	LIVE			STORAGE AS	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	505.87	6.229	4.991	16-11-2017	80	61	78	676	1200
*2	PONG DAM PUNJAB	423.67	415.69	6.157	4.114	16-11-2017	67	58	66	-	360
*3	THEIN	527.91	511.38	2.344	1.192	16-11-2017	51	51	55	348	600
	RAJASTHAN										
*4	MAHI BAJAJ SAGAR	280.75	280.95	1.711	1.711	16-11-2017	100	100	85	63	140
5	JHAKAM	359.50	358.70	0.132	0.124	16-11-2017	94	98	78	28	-
*6	RANA PRATAP SAGAR	352.81	346.18	1.436	0.321	15-11-2017	22	61	60	229	172
	EASTERN REGION	i									
	<u>JHARKHAND</u>										
7	TENUGHAT	269.14	260.60	0.821	0.441	16-11-2017	54	52	45	-	-
8	MAITHON	146.3	149.60	0.471	0.471	16-11-2017	100	100	88	342	-
*9	PANCHET HILL	124.97	128.10	0.184	0.184	16-11-2017	100	100	84	\$	80
10	KONAR	425.81	423.67	0.176	0.138	16-11-2017	78	99	86	\$	-
11	TILAIYA	368.81	366.94	0.142	0.079	16-11-2017	56	100	87	\$	4
	<u>ODISHA</u>										
*12	HIRAKUD	192.02	191.59	5.378	4.548	15-11-2017	85	88	87	153	307
*13	BALIMELA	462.08	452.69	2.676	1.263	16-11-2017	47	83	65	-	360
14	SALANADI	82.30	70.94	0.558	0.236	15-11-2017	42	40	39	42	-
*15	RENGALI	123.50	123.11	3.432	3.313	16-11-2017	97	96	82	3	200
*16	MACHKUND(JALPUT)	838.16	837.97	0.893	0.871	16-11-2017	98	88	86	-	115
*17	UPPER KOLAB	858.00	853.95	0.935	0.572	16-11-2017	61	84	63	89	320
*18	UPPER INDRAVATI	642.00	636.12	1.456	0.855	16-11-2017	59	77	72	128	600
	WEST BENGAL										
	MAYURAKSHI	121.31	120.55	0.480	0.463	16-11-2017	96	46	43	227	-
20	KANGSABATI	134.14	132.56	0.914	0.808	16-11-2017	88	63	45	341	-
	TRIPURA										
21	GUMTI WESTERN REGION	93.55	93.30	0.312	0.301	14-11-2017	96	83	57	-	15
	GUJARAT	•									
*22	UKAI	105.16	97.84	6.615	3.141	16-11-2017	47	88	77	348	300
	SABARMATI(DHAROI)	189.59	188.11	0.735	0.598	16-11-2017	81	94	68	95	1
	KADANA	127.7	126.57			16-11-2017	73	80	69	200	120
	SHETRUNJI	55.53	53.57			16-11-2017	56	59	73		-
	BHADAR	107.89	107.14		0.155	16-11-2017	82	11	57		
	DAMANAGANGA	79.86	79.90			16-11-2017	96	93	96		1
	DANTIWADA	184.1	182.83		0.344	16-11-2017	86	30	38		
	PANAM	127.41	126.75			16-11-2017	73	65	68		
	SARDAR SAROVAR	121.92	127.09			14-11-2017	100	96	89	2120	1450
	KARJAN	115.25	112.89	0.523		14-11-2017	87	68	86	51	3

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

	GOVERNMENT OF INDIA			WEE	K ENDING :-	16.11.2017		CENTRALV	WILK CON		
			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	463.81	2.171	2.132	16-11-2017	98	80	47	227	_
*33	KOYANA	657.90	658.44	2.652	2.652	15-11-2017	100	91	92	-	1920
34	BHIMA(UJJANI)	496.83	497.33	1.517	1.517	16-11-2017	100	100	79	125	12
35	ISAPUR	441.00	429.06	0.965	0.147	15-11-2017	15	49	64	104	-
36	MULA	552.30	552.14	0.609	0.601	15-11-2017	99	98	81	139	-
37	YELDARI	461.77	451.48	0.809	0.110	15-11-2017	14	30	46	78	-
38	GIRNA	398.07	395.04	0.524	0.371	15-11-2017	71	89	48	79	-
39	KHADAKVASLA	582.47	581.80	0.056	0.047	15-11-2017	84	77	63	78	8
*40	UPPER VAITARNA	603.50	603.40	0.331	0.328	15-11-2017	99	99	90	-	61
41	UPPER TAPI	214.00	214.00	0.255	0.255	15-11-2017	100	100	100	45	-
*42	PENCH (TOTALADOH)	490.00	477.66	1.091	0.316	15-11-2017	29	45	62	127	160
43	UPPER WARDHA	342.50	342.04	0.564	0.523	16-11-2017	93	94	88	70	-
44	BHATSA	142.07	139.57	0.942	0.874	15-11-2017	93	92	87	29.378	15
45	DHOM	747.70	747.00	0.331	0.315	15-11-2017	95	92	82	36.2	2
46	DUDHGANGA	646.00	645.60	0.664	0.664	14-11-2017	100	98	94	2.441	24
	MANIKDOH (KUKADI)	711.25	708.40	0.288	0.239	15-11-2017	83	72	56	2.2	6
48	BHANDARDARA  CENTRAL REGION	744.91	744.70	0.304	0.303	15-11-2017	100	99	92	63.74	46
_	UTTAR PRADESH										
49	MATATILA	308.46	306.32	0.707	0.419	15-11-2017	59	39	62	_	30
	RIHAND	268.22	262.34	5.649	3.161	16-11-2017	56	74	47	_	300
00	UTTRAKHAND	200.22	202.0	0.0.0	0.101						000
*51	RAMGANGA	365.30	354.09	2.196	1.404	16-11-2017	64	56	73	1897	198
	TEHRI	830.00	821.25	2.615	2.258	15-11-2017	86	85	84	2351	1000
	MADHYA PRADESH										
*53	GANDHI SAGAR	399.90	395.91	6.827	4.358	16-11-2017	64	95	53	220	115
54	TAWA	355.40	350.98	1.944	1.293	16-11-2017	67	94	89	247	-
*55	BARGI	422.76	420.80		2.674	16-11-2017	84	89	85	157	90
*56	BANSAGAR	341.64	337.88	5.166	3.523	16-11-2017	68	96	63	488	425
*57	INDIRA SAGAR	262.13	253.52	9.745	3.448	16-11-2017	35	93	71	2380	1000
58	BARNA	348.55	344.80	0.456	0.224	16-11-2017	49	88	72	546	-
	CHHATTIS GARH										
*59	MINIMATA BANGOI	359.66	353.89	3.046	1.969	14-11-2017	65	70	65	-	120
60	MAHANADI	348.70	342.58	0.767	0.294	15-11-2017	38	100	75	319	10
	SOUTHERN REGION										
	<u>A.P &amp; TG</u>										
*61	SRISAILAM	269.75	267.43	8.288	4.862	16-11-2017	59	54	64	0	770
*62	NAGARJUNA SAGAR	179.83	174.41	6.841	3.693	16-11-2017	54	15	54	895	810
	ANDHRA PRADESH										
63	SOMASILA	100.58	96.17	1.994	1.394	16-11-2017	70	57	65	168	0
	<u>TELANGANA</u>										
64	SRIRAMSAGAR	332.54	329.12	2.300	1.469	16-11-2017	64	100	55	411	27
65	LOWER MANAIR	280.42	274.56	0.621	0.303	16-11-2017	49	100	59	199	60

#### WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

**GOVERNMENT OF INDIA** 

CENTRAL WATER COMMISSION

				WEE	K ENDING :-	16.11.2017					
			CURRENT	10/5			STORAGE A	S % OF LIVE C FRL	CAPACITY 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	ЗА	3B
	KARNATAKA			•				•		•	•
66	KRISHNARAJA SAGRA	752.50	748.55	1.163	0.828	15-11-2017	71	13	78	79	-
*67	TUNGABHADRA	497.74	494.99	3.276	1.974	16-11-2017	60	9	66	529	72
68	GHATAPRABHA	662.95	661.11	1.391	1.254	16-11-2017	90	77	76	317	-
69	BHADRA	657.76	653.25	1.785	1.294	16-11-2017	72	36	81	106	39
70	LINGANAMAKKI	554.43	547.71	4.294	2.510	16-11-2017	58	54	79	-	55
71	NARAYANPUR	492.25	491.28	0.863	0.618	16-11-2017	72	60	80	425	-
72	MALAPRABHA(RENUKA)	633.83	628.19	0.972	0.396	16-11-2017	41	31	59	215	-
73	KABINI(Sancherla Tank)	696.16	695.15	0.444	0.385	15-11-2017	87	32	40	85	-
74	HEMAVATHY	890.63	877.44	0.927	0.221	15-11-2017	24	12	62	265	-
75	HARANGI	871.42	864.37	0.220	0.094	15-11-2017	43	20	44	53	-
76	SUPA	564.00	548.16	4.120	2.421	16-11-2017	59	54	66	-	-
77	VANIVILAS SAGAR	652.28	632.63	0.802	0.022	16-11-2017	3	4	19	123	-
*78	ALMATTI	519.60	519.13	3.105	2.910	16-11-2017	94	72	75	@	290
*79	GERUSOPPA	55.00	50.65	0.130	0.105	15-11-2017	81	81	81	83	240
	KERALA										
80	KALLADA(PARAPPAR)	115.82	113.63	0.507	0.438	15-11-2017	86	39	81	62	-
*81	IDAMALAYAR	169.00	161.06	1.018	0.790	15-11-2017	78	61	75	33	75
*82	IDUKKI	732.43	723.78	1.460	1.002	15-11-2017	69	43	68	-	780
*83	KAKKI	981.46	975.76	0.447	0.354	15-11-2017	79	59	81	23	300
*84	PERIYAR	867.41	862.97	0.173	0.076	15-11-2017	44	8	63	84	140
85	MALAPMUZHA	115.06	112.01	0.224	0.157	15-11-2017	70	43	84	21	3
	TAMIL NADU										
86	LOWER BHAWANI	278.89	270.73	0.792	0.350	15-11-2017	44	11	57	105	8
*87	METTUR(STANLEY)	240.79	229.95	2.647	1.316	15-11-2017	50	13	55	122	360
88	VAIGAI	279.20	275.35	0.172	0.093	15-11-2017	54	2	56	61	6
89	PARAMBIKULAM	556.26	547.16	0.380	0.200	15-11-2017	53	32	79	101	-
90	ALIYAR	320.04	310.50	0.095	0.038	15-11-2017	40	20	85	#	60
*91	SHOLAYAR	1002.79	986.91	0.143	0.059	15-11-2017	41	0	76	-	95
	TOTAL FOR 91 RESERVOIRS			157.799	103.527						

Sd/-

68

69

66

\$ TOTAL CCA 342 TH. HA OF DVC SYSTEM

PERCENTAGE

Director W. M. , CWC

 $<sup>^{\</sup>star}$  HYDEL POWER CAPACITY HAVING CAPACITY MORE THAN 60MW

<sup>#</sup> TOTAL CCA 101 TH. HA OF PARAMBIKULAM & ALIYAR

<sup>@&#</sup>x27;TOTAL CCA 425 TH. HA. OF NARAYANPUR AND ALMATTI

 $<sup>\</sup>dagger$  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