BRIEF NOTE ON LIVE STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 23.11.2017)

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 23.11.2017, live storage available in these reservoirs is 101.077 BCM, which is 64% of total live storage capacity of these reservoirs. However, last year the live storage available in these reservoirs for the corresponding period was 105.342 BCM and the average of last 10 years live storage was 106.517 BCM. Thus, the live storage available in 91 reservoirs as per 23.11.2017 Bulletin is 96% of the live storage of corresponding period of last year and 95% 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 23.11.2017, the total live storage available in these reservoirs is 12.18 BCM which is 68% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 60% and average storage of last ten years during corresponding period was 68% of live storage capacity of these reservoirs. Thus, storage during current year is better than the corresponding period of last year and is equal to 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 23.11.2017, the total live storage available in these reservoirs is 14.43 BCM which is 77% 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 73% 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 23.11.2017, the total live storage available in these reservoirs is 19.63 BCM which is 73% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 80% and average storage of last ten years during corresponding period was 73% of live storage capacity of these reservoirs. Thus, storage during current year is less than the storage of last year and is equal to 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 23.11.2017, the total live storage available in these reservoirs is 24.58 BCM which is 58% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 84% 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 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 23.11.2017, the total live storage available in these reservoirs is 30.27 BCM which is 59% 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 64% 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. Close to Normal in Godavari, Krishna, Mahanadi & neighbouring East Flowing Rivers, 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 52 and reservoirs having storage more than average of last ten years are 46. 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 5 and having storage less than or equal to 50% with reference to average of last ten years are 9.

Disclaimer: The Data contained in this Bulletin is as received from the State Government/Project Authorities.

WEEKLY REPORT - BASINWISE

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION WEEK ENDING :- 23.11.2017

NAME OF BASIN	LIVE CAP. AT FRL	_	/EAR'S RAGE	LAST Y STOR		LAST 10 AVG. ST	_	% DEPARTURE W.R.T. AVE. OF 10 YEARS'
GANGA	28.096	18.017	64.13%	22.321	79.45%	16.325	58.10%	10.36
INDUS	14.730	10.019	68.02%	8.237	55.92%	9.929	67.41%	0.91
NARMADA	17.414	9.538	54.77%	15.428	88.60%	13.080	75.11%	-27.08
TAPI	7.394	3.745	50.65%	6.386	86.37%	5.508	74.49%	-32.01
MAHI	4.012	3.354	83.60%	3.453	86.07%	2.998	74.73%	11.87
SABARMATI	0.735	0.565	76.87%	0.653	88.84%	0.481	65.44%	17.46
RIVERS OF KUTCH	0.887	0.644	72.60%	0.298	33.60%	0.467	52.65%	37.90
GODAVARI	15.394	9.362	60.82%	12.120	78.73%	9.718	63.13%	-3.66
KRISHNA	32.831	21.426	65.26%	15.130	46.08%	21.616	65.84%	-0.88
MAHANADI & NEIGHBOURING EFRS	13.181	10.272	77.93%	11.096	84.18%	10.284	78.02%	-0.12
CAUVERY& NEIGHBOURING EFRS	8.359	4.416	52.83%	2.046	24.48%	5.125	61.31%	-13.83
WEST FLOWING RIVERS OF SOUTH	14.766	9.719	65.82%	8.174	55.36%	10.986	74.40%	-11.53
TOTAL	157.799	101.077		105.342		106.517		
PERCENTAGE								-5.11

STORAGE STATUS OF IMPORTANT RESERVOIRS IN THE COUNTRY

AS ON 23.11.2017

- 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 23.11.2017 101.077 BCM (64 percent of the live storage capacity at FRL). The current year's storage **95** percent of the average of last ten years. is nearly 96 percent of last year's storage and

3 Region wise storage status:

		Filling	positio	n of 91	reserv	oirs w	.r.t. FR	L		
REGION (States), (Monitoring No. of Reservoirs)	100%	91%- 99%	81%- 90%	71%- 80%	61%- 70%	51%- 60%	41%- 50%	40% & below	Departure fr stor	
NORTH (HP,Punjab & Rajasthan), (6 Resv.)	1	1	1	1	1	-	1	1	H.P. PUNJAB RAJASTHAN	2 % -10 % -7 %
EAST (Jharkhand,Odisha, Tripura & W.Bengal (15 Resv.)	2	4	2	1	1	3	2	-	JHARKHAND ODISHA W. BENGAL TRIPURA	9 % -2 % 106 % 73 %
WEST (Guj.& Mah.), (27 Resv.)	5	7	5	5	-	1	1	3	GUJARAT MAH.	-14 % 11 %
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	-	-	2	-	5	2	1	2	U.P. UTTARAKHAND M.P. CHHATISGARH	18 % -4 % -16 % -12 %
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), (31 Resv.)	-	-	5	2	7	7	3	7	AP&TG A,P TG KARNATAKA KERALA T.N.	-6 % -5 % 3 % -11 % -1 % -27 %
Status of 91 reservoirs	7	12	15	9	14	13	8	13		_:

4 Basin wise storage position:

Better than normal: Ganga, Mahi, Indus, Sabarmati and Rivers of Kutch .

Godavari, Krishna, Mahanadi & Neighbouring EFRS, Cauvery & neighbouring EFRS and West Flowing Rivers

Close to normal: of South .

Deficient: Narmada and Tapi. .

Highly deficient: NIL

5 Out of 91 reservoirs, 67 reservoirs reported more than 80% of normal storage & 24 reservoirs reported 80% or below of normal storage. Out of these 24 reservoirs 9 having storage upto 50% of normal storage

%

storage.		
Name of reservoir	%	Name of reservo
VANIVILAS SAGAR	14	
ISAPUR	24	
YELDARI	30	
ALIYAR	40	
HEMAVATHY	41	
SHOLAYAR	41	
RANA PRATAP SAGAR	43	
PENCH (TOTALADOH)	48	
MAHANADI	50	

15	reserve	ors									
having	having storage 51%										
to 80%	to 80% of normal										
storage	storage.										
51%											
to	to	to									
60%	70%	80%									
1	7	7									

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

	GOVERNMENT OF INDIA			WEE	K ENDING :-	23.11.2017		CENTRALV	VATER COM	/IIVII55IU	N
							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	505.18	6.229	4.892	23-11-2017	79	58	77	676	1200
*2	PONG DAM	423.67	415.08	6.157	3.986	23-11-2017	65	56	63	-	360
	<u>PUNJAB</u>										
*3	THEIN	527.91	510.44	2.344	1.141	22-11-2017	49	49	54	348	600
	RAJASTHAN										
*4	MAHI BAJAJ SAGAR	280.75	280.50	1.711	1.692	23-11-2017	99	100	83	63	140
5	JHAKAM	359.50	358.00	0.132	0.117	23-11-2017	89	95	73	28	-
*6	RANA PRATAP SAGAR	352.81	346.35	1.436	0.347	22-11-2017	24	54	57	229	172
	EASTERN REGION	•									
	<u>JHARKHAND</u>										
	TENUGHAT	269.14	260.65		0.443	23-11-2017	54	52	45		-
8	MAITHON	146.3	149.56		0.471	23-11-2017	100	100	87	342	-
*9	PANCHET HILL	124.97	128.04	0.184	0.184	23-11-2017	100	100	84	\$	80
	KONAR	425.81	423.57	0.176	0.136	23-11-2017	77	98	85	\$	-
11	TILAIYA ODISHA	368.81	366.93	0.142	0.079	23-11-2017	56	100	85	\$	4
*12	HIRAKUD	192.02	191.51	5.378	4.495	21-11-2017	84	88	87	153	307
	BALIMELA	462.08	452.51	2.676	1.239	22-11-2017	46	81	62		360
	SALANADI	82.30	71.08		0.239	22-11-2017	43	39	38	42	
	RENGALI	123.50	123.05		3.292	22-11-2017	96	96	82		200
	MACHKUND(JALPUT)	838.16	837.88		0.862	22-11-2017	97	87	85	-	115
	UPPER KOLAB	858.00	853.94	0.935	0.572	22-11-2017	61	84	63	89	320
	UPPER INDRAVATI	642.00	636.12		0.855	23-11-2017	59	77	72		600
	WEST BENGAL										
19	MAYURAKSHI	121.31	120.43	0.480	0.457	23-11-2017	95	46	43	227	_
20	KANGSABATI	134.14	132.62	0.914	0.814	23-11-2017	89	63	45	341	-
	TRIPURA										
21	GUMTI	93.55	93.10	0.312	0.291	21-11-2017	93	81	54	-	15
	WESTERN REGION										
	<u>GUJARAT</u>										
*22	UKAI	105.16	97.79	6.615	3.120	23-11-2017	47	86	76	348	300
23	SABARMATI(DHAROI)	189.59	187.76	0.735	0.565	23-11-2017	77	89	65	95	1
*24	KADANA	127.7	126.21	1.472	1.040	23-11-2017	71	79	69	200	120
25	SHETRUNJI	55.53	53.52	0.300	0.166	23-11-2017	55	58	72	36	-
26	BHADAR	107.89	106.88	0.188	0.145	23-11-2017	77	11	60	27	-
27	DAMANAGANGA	79.86	79.80	0.502	0.475	23-11-2017	95	90	93	51	1
28	DANTIWADA	184.1	182.48	0.399	0.333	23-11-2017	83	26	35	45	-
29	PANAM	127.41	126.70	0.697	0.505	23-11-2017	72	64	68	36	2
*30	SARDAR SAROVAR	121.92	125.57	1.566	1.566	23-11-2017	100	86	86	2120	1450
31	KARJAN	115.25	112.46	0.523	0.438	23-11-2017	84	67	86	51	3

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

	GOVERNMENT OF INDIA			WEE	K ENDING :-	23.11.2017		CENTRAL V	VATER COM	MISSIO	N
					R ENDING	23.11.2017	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
	<u>MAHARASHTRA</u>										
32	JAYAKWADI(PAITHON)	463.91	463.69	2.171	2.087	23-11-2017	96	80	47	227	-
*33	KOYANA	657.90	658.11	2.652	2.652	22-11-2017	100	88	90	-	1920
34	BHIMA(UJJANI)	496.83	497.33	1.517	1.517	23-11-2017	100	100	77	125	12
35	ISAPUR	441.00	429.01	0.965	0.145	22-11-2017	15	49	63	104	-
36	MULA	552.30	552.08	0.609	0.597	22-11-2017	98	97	84	139	-
37	YELDARI	461.77	451.44	0.809	0.108	22-11-2017	13	30	44	78	-
38	GIRNA	398.07	395.01	0.524	0.370	22-11-2017	71	89	48	79	-
39	KHADAKVASLA	582.47	581.86	0.056	0.048	22-11-2017	86	88	64	78	8
*40	UPPER VAITARNA	603.50	603.35	0.331	0.327	22-11-2017	99	98	89	-	61
41		214.00	213.95		0.255	22-11-2017	100	100	98	45	-
	PENCH (TOTALADOH)	490.00	477.55		0.312	22-11-2017	29	44	60	127	160
43	UPPER WARDHA	342.50	341.86		0.507	23-11-2017	90	92	86	70	-
	BHATSA	142.07	138.95		0.858	22-11-2017	91	90		29.378	15
	DHOM	747.70	746.44	0.331	0.302	22-11-2017	91	91	80	36.2	2
	DUDHGANGA MANUKDOU (KUKADI)	646.00	645.14	0.664	0.650	22-11-2017	98	95	92		24
	MANIKDOH (KUKADI) BHANDARDARA	711.25 744.91	708.34 744.67	0.288 0.304	0.238 0.303	22-11-2017 22-11-2017	83 100	72 99	53 96	2.2 63.74	6 46
	CENTRAL REGION										
	UTTAR PRADESH										
49	MATATILA	308.46	306.32	0.707	0.419	22-11-2017	59	35	60	-	30
*50	RIHAND	268.22	262.31	5.649	3.149	23-11-2017	56	73	46	-	300
	<u>UTTRAKHAND</u>										
*51	RAMGANGA	365.30	354.18	2.196	1.409	22-11-2017	64	56	74	1897	198
*52	TEHRI	830.00	819.90	2.615	2.202	23-11-2017	84	83	82	2351	1000
	MADHYA PRADESH										
*53	GANDHI SAGAR	399.90	395.51	6.827	4.157	23-11-2017	61	95	52	220	115
54	TAWA	355.40	350.43	1.944	1.211	23-11-2017	62	89	86	247	-
*55	BARGI	422.76	420.75	3.180	2.660	23-11-2017	84	86	83	157	90
*56	BANSAGAR	341.64	337.70	5.166	3.459	23-11-2017	67	94	62	488	425
*57	INDIRA SAGAR	262.13	253.43	9.745	3.441	23-11-2017	35	91	68	2380	1000
58	BARNA	348.55	344.77	0.456	0.222	23-11-2017	49	87	70	546	-
	CHHATTIS GARH										
	MINIMATA BANGOI	359.66	353.80		1.956	23-11-2017	64	70	65		120
	MAHANADI	348.70	342.52	0.767	0.290	22-11-2017	38	100	76	319	10
	SOUTHERN REGION	-									
***	A.P & TG	==									
	SRISAILAM	269.75	266.76		4.557		55	53	61	0	770
"62	NAGARJUNA SAGAR	179.83	173.61	6.841	3.509	23-11-2017	51	13	51	895	810
62	ANDHRA PRADESH SOMASILA	100 50	05.70	1.004	4 220	22.11.2017	67	E7	74	160	0
03	TELANGANA	100.58	95.78	1.994	1.339	23-11-2017	67	57	71	168	0
64	SRIRAMSAGAR	332.54	328.88	2.300	1.407	23-11-2017	61	100	58	411	27
	LOWER MANAIR	280.42	275.81	0.621	0.368	23-11-2017	59	100	64		60
50		_00.12	2. 0.01	5.021	3.000			100	<u> </u>	.00	

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

				WEE	K ENDING :-	23.11.2017					
			OUDDEST	10.75			STORAGE A	S % OF LIVE C FRL	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			•						•	•
66	KRISHNARAJA SAGRA	752.50	748.43	1.163	0.815	23-11-2017	70	13	76	79	-
*67	TUNGABHADRA	497.74	494.36	3.276	1.801	23-11-2017	55	8	64	529	72
68	GHATAPRABHA	662.95	660.90	1.391	1.238	22-11-2017	89	68	79	317	-
69	BHADRA	657.76	652.89	1.785	1.258	22-11-2017	70	34	82	106	39
70	LINGANAMAKKI	554.43	547.51	4.294	2.470	23-11-2017	58	53	77	-	55
71	NARAYANPUR	492.25	491.04	0.863	0.590	23-11-2017	68	60	82	425	-
72	MALAPRABHA(RENUKA)	633.83	628.07	0.972	0.387	22-11-2017	40	31	65	215	-
73	KABINI(Sancherla Tank)	696.16	694.94	0.444	0.374	23-11-2017	84	32	36	85	-
74	HEMAVATHY	890.63	877.35	0.927	0.218	23-11-2017	24	11	58	265	-
75	HARANGI	871.42	862.47	0.220	0.082	23-11-2017	37	22	37	53	-
76	SUPA	564.00	547.97	4.120	2.404	23-11-2017	58	54	65	-	-
77	VANIVILAS SAGAR	652.28	632.58	0.802	0.021	23-11-2017	3	4	18	123	-
*78	ALMATTI	519.60	518.57	3.105	2.658	23-11-2017	86	70	73	@	290
*79	GERUSOPPA	55.00	51.31	0.130	0.109	23-11-2017	84	83	82	83	240
	KERALA										
80	KALLADA(PARAPPAR)	115.82	114.42	0.507	0.455	23-11-2017	90	40	81	62	-
*81	IDAMALAYAR	169.00	160.60	1.018	0.777	23-11-2017	76	61	75	33	75
*82	IDUKKI	732.43	723.61	1.460	0.994	23-11-2017	68	42	69	-	780
*83	KAKKI	981.46	975.88	0.447	0.356	23-11-2017	80	58	81	23	300
*84	PERIYAR	867.41	863.00	0.173	0.076	23-11-2017	44	9	65	84	140
85	MALAPMUZHA	115.06	111.47	0.224	0.147	22-11-2017	66	43	82	21	3
	TAMIL NADU										
86	LOWER BHAWANI	278.89	270.27	0.792	0.331	23-11-2017	42	12	59	105	8
*87	METTUR(STANLEY)	240.79	228.63	2.647	1.190	23-11-2017	45	14	56	122	360
88	VAIGAI	279.20	274.63	0.172	0.067	23-11-2017	39	2	56	61	6
89	PARAMBIKULAM	556.26	546.87	0.380	0.195	23-11-2017	51	28	78	101	-
90	ALIYAR	320.04	309.11	0.095	0.032	23-11-2017	34	14	84	#	60
*91	SHOLAYAR	1002.79	982.58	0.143	0.044	23-11-2017	31	0	75	-	95
	TOTAL FOR 91 RESERVOIRS			157.799	101.077						

Sd/-

67

68

\$ TOTAL CCA 342 TH. HA OF DVC SYSTEM

PERCENTAGE

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