# BRIEF NOTE ON STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 17.09.2015)

#### 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 17.09.2015, live storage available in these reservoirs is 92.631 BCM, which is 59% of total live storage capacity of these reservoirs. This storage is 74% of the storage of corresponding period of last year and 77% 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 17.09.2015, the total live storage available in these reservoirs is 15.54 BCM which is 86% 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 83% 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.

# 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 17.09.2015, the total live storage available in these reservoirs is 11.35 BCM which is 60% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 77% 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 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 27.07BCM. As per Reservoir Storage Bulletin dated 17.09.2015, the total live storage available in these reservoirs is 15.78 BCM which is 58% 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 80% 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.

#### 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 42.30BCM. As per Reservoir Storage Bulletin dated 17.09.2015, the total live storage available in these reservoirs is 32.34 BCM which

is 76% 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 67% 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.

### e) SOUTHERN REGION

The region includes of Southern States 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 17.09.2015, the total live storage available in these reservoirs is 17.63 BCM which is 34% of total live storage capacity of these reservoirs. The storage during corresponding period of last year was 73% 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 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 4, better than normal storage is available in Ganga, Indus, Narmada, Mahi, Sabarmati, Rivers of Kutch. Close to Normal in Tapi. Deficient in Godavari, Mahanadi & neighbouring East Flowing Rivers, Cauvery& neighbouring EFRs and West Flowing rivers of South and Highly Deficient in Krishna.
- Table on page 5-7 of the bulletin. The numbers of reservoirs having storage more than last year are 15 and reservoirs having storage more than average of last ten years are 24. 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 7. The numbers of reservoirs having storage less than or equal to 50% with respect to last year are 23 and having storage less than or equal to 50% with reference to average of last ten years are 22.

States having better storage (in %) than last year for corresponding period: Himachal Pradesh and Tripura.

States having equal storage (in %) to last year for corresponding period:NIL

States having lesser storage (in %) than last year for corresponding period: Punjab, Rajasthan, Jharkhand, Odisha, West Bengal, Gujarat, Maharashtra,Uttar Pradesh, Uttarakhand, Madhya Pradesh, Chhattisgarh, AP&TG (2combined project in both states), Andhra Pradesh, Telangana, Karnataka, Kerala and Tamil Nadu.

#### 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
   17.09.2015 is 92.631 BCM ( 59 percent of the live storage capacity at FRL ). The current year's storage is nearly 74 percent of last year's storage and 77 percent of the average of last ten years.

3 Region wise storage status:-

<b>5</b>		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	2	2	ı	1	1	-	-	H.P. PUNJAB RAJASTHAN	5 % -18 % 13 %	
EAST (Jharkhand,Odisha, Tripura & W.Bengal ( 15 Resv.)	2	-	1	2	2	4	1	3	JHARKHAND ODISHA W. BENGAL TRIPURA	-10 % -19 % -20 % 108 %	
WEST (Guj.& Mah.), (27 Resv.)	2	1	5	4	5	1	1	8	GUJARAT MAH.	-7 % -45 %	
CENTRAL (MP,UP,Uttarakhand & Chh.), (12 Resv)	1	1	5	1	2	-	-	2	U.P. UTTARAKHAND M.P. CHHATISGARH	-19 % 19 % 24 % -24 %	
SOUTH (Karnataka,TN,AP&TG,AP, TG, & Kerala), ( 31 Resv.)	-	-	2	2	5	3	6	13	AP&TG A,P TG KARNATAKA KERALA T.N.	-88 % -68 % -80 % -42 % -36 % -39 %	
Status of 91 reservoirs	6	4	15	9	14	9	8	26		55 70	

#### 4 Basin wise storage position:

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

Close to normal: Tapi.

Deficient: Godavari, Mahanadi & Neighbouring EFRS, Cauvery & neighbouring EFRS and West Flowing

rivers of south.

Highly deficient: Krishna

5 Out of 91 reservoirs, 40 reservoirs reported more than 80% of normal storage & 51 reservoirs reported 80% or below of normal storage. Out of these 51 reservoirs 22 having storage upto 50% of normal

storage.

Name of reservoir	%	Name of reservoir	%	Name of reservoir	%
BHIMA(UJJANI)	0	SOMASILA	32	ALMATTI	46
NAGARJUNA SAGAR	0	LOWER MANAIR	32	UPPER INDRAVATI	49
GIRNA	5	KALLADA(PARAPPAR)	34		
JAYAKWADI(PAITHON)	6	MALAPRABHA(RENUKA)	35		
YELDARI	8	GHATAPRABHA	39		
SRIRAMSAGAR	17	ISAPUR	40		
KHADAKVASLA	20	DHOM	41		
SRISAILAM	21	MAHANADI	43		
PANCHET HILL	24	VANIVILAS SAGAR	46		
MANIKDOH	25	VAIGAI	46		

29 reservors									
having storage 51%									
to 80% of normal									
storage.									
51%	61%	71%							
to	to	to							
60%	70%	80%							
7	10	12							

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

24 reservoirs.

# WEEKLY REPORT - BASINWISE

# GOVERNMENT OF INDIA

# WEEK ENDING :- 17.09.2015

# CENTRAL WATER COMMISSION

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	19.780	70.40%	20.434	72.73%	16.611	59.12%	19.08
INDUS	14.730	12.506	84.90%	12.149	82.48%	12.208	82.88%	2.44
NARMADA	17.414	15.215	87.37%	17.336	99.55%	13.915	79.91%	9.34
TAPI	7.394	4.839	65.44%	6.276	84.88%	5.868	79.36%	-17.54
MAHI	4.012	3.169	78.99%	3.468	86.44%	3.169	78.99%	0.00
SABARMATI	0.735	0.657	89.39%	0.478	65.03%	0.497	67.62%	32.19
RIVERS OF KUTCH	0.887	0.745	83.99%	0.331	37.32%	0.526	59.30%	41.63
GODAVARI	15.394	5.921	38.46%	10.449	67.88%	9.997	64.94%	-40.77
KRISHNA	32.831	10.558	32.16%	24.785	75.49%	28.328	86.28%	-62.73
MAHANADI & NEIGHBOURING EFRS	13.181	8.438	64.02%	11.216	85.09%	10.941	83.01%	-22.88
CAUVERY& NEIGHBOURING EFRS	8.359	3.374	40.36%	5.591	66.89%	5.714	68.36%	-40.95
WEST FLOWING RIVERS OF SOUTH	14.766	7.429	50.31%	13.162	89.14%	12.274	83.12%	-39.47
TOTAL	157.799	92.631		125.675		120.048		
PERCENTAGE								-22.84

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

	GOVERNMENT OF INDIA			WEE	K ENDING :-	17.09.2015			VATER CON		
			CURRENT	LIVE			STORAGE AS	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	511.27	6.229	5.833	17-09-2015	94	100	89	676	1200
*2	PONG DAM PUNJAB	423.67	421.42	6.157	5.379	17-09-2015	87	71	83	-	360
*3	THEIN	527.91	512.94	2.344	1.294	15-09-2015	55	67	67	348	600
	RAJASTHAN										
*4	MAHI BAJAJ SAGAR	280.75	280.75	1.711	1.711	17-09-2015	100	100	85	63	140
5	JHAKAM	359.50	358.65	0.132	0.124	17-09-2015	94	91	82	28	-
*6	RANA PRATAP SAGAR	352.81	351.57	1.436	1.198	17-09-2015	83	97	78	229	172
	EASTERN REGION										
	<u>JHARKHAND</u>										
7	TENUGHAT	269.14	260.07	0.821	0.420	17-09-2015	51	53	42	-	-
8	MAITHON	146.3	143.99	0.471	0.320	17-09-2015	68	92	89	342	-
*9	PANCHET HILL	124.97	121.17	0.184	0.039	17-09-2015	21	73	88	\$	80
10	KONAR	425.81	424.01	0.176	0.144	17-09-2015	82	100	84	\$	-
11	TILAIYA	368.81	369.20	0.142	0.142	17-09-2015	100	100	75	\$	4
	ODISHA										
*12	HIRAKUD	192.02	190.55	5.378	3.900	16-09-2015	73	80	90	153	307
*13	BALIMELA	462.08	453.88	2.676	1.419	16-09-2015	53	73	52	-	360
14	SALANADI	82.30	72.00	0.558	0.260	16-09-2015	47	69	55	42	-
*15	RENGALI	123.50	118.98	3.432	1.974	16-09-2015	58	88	80	3	200
*16	MACHKUND(JALPUT)	838.16	835.21	0.893	0.653	16-09-2015	73	74	74	-	115
*17	UPPER KOLAB	858.00	854.35	0.935	0.603	16-09-2015	64	72	59	89	320
*18	UPPER INDRAVATI	642.00	632.49	1.456	0.539	16-09-2015	37	99	75	128	600
	WEST BENGAL										
	MAYURAKSHI	121.31	116.71	0.480	0.271	17-09-2015	56	56	56	227	-
20	KANGSABATI	134.14	126.55	0.914	0.351	17-09-2015	38	45	56	341	-
	TRIPURA										
21	GUMTI WESTERN REGION	93.55	93.60	0.312	0.312	15-09-2015	100	39	48	-	15
		ı									
*22	<b>GUJARAT</b> UKAI	105.16	101 22	6 615	4.605	17 00 2015	70	89	92	240	300
	SABARMATI(DHAROI)	105.16 189.59	101.23 188.74		4.605 0.657	17-09-2015 17-09-2015	89	65	82 68		300
	KADANA	127.7	125.48			17-09-2015	66	76	71		120
	SHETRUNJI	55.53	55.17			17-09-2015	90	47	76		-
	BHADAR	107.89	106.38		0.271	17-09-2015	69	47	70		
	DAMANAGANGA	79.86	78.05			17-09-2015	79	81	86		1
	DANTIWADA	184.1	182.86		0.345	17-09-2015	86	25	40		
	PANAM	127.41	124.35			17-09-2015	53	75	79		
	SARDAR SAROVAR	121.92	121.14			17-09-2015	91	100	84		1450
	KARJAN	115.25	108.76			17-09-2015	65	95	91	51	3
	-						30	30	3.		,

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

	GOVERNMENT OF INDIA	WEEK ENDING :- 17			17.09.2015	CENTRAL WATER COMMISSION					
			CURRENT	LIVE			STORAGE A	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
	<u>MAHARASHTRA</u>										
32	JAYAKWADI(PAITHON)	463.91	456.10	2.171	0.083	16-09-2015	4	46	59	227	-
*33	KOYANA	657.90	652.42	2.652	2.104	16-09-2015	79	100	100	-	1920
34	BHIMA(UJJANI)	496.83	490.36	1.517	0.000	16-09-2015	0	100	87	125	12
35	ISAPUR	441.00	431.38	0.965	0.256	16-09-2015	27	80	66	104	-
36	MULA	552.30	544.57	0.609	0.268	17-09-2015	44	96	84	139	-
37	YELDARI	461.77	448.97	0.809	0.035	16-09-2015	4	63	53	78	-
38	GIRNA	398.07	382.72	0.524	0.015	16-09-2015	3	46	53	79	-
39	KHADAKVASLA	582.47	578.51	0.056	0.010	16-09-2015	18	100	88	78	8
*40	UPPER VAITARNA	603.50	599.88	0.331	0.217	16-09-2015	66	99	95	-	61
41	UPPER TAPI	214.00	213.39	0.255	0.219	16-09-2015	86	69	74	45	-
*42	PENCH (TOTALADOH)	490.00	489.18	1.091	0.953	16-09-2015	87	82	81	127	160
43	UPPER WARDHA	342.50	342.50	0.564	0.564	17-09-2015	100	99	91	70	-
44	BHATSA	142.07	131.13	0.942	0.669	16-09-2015	71	99	96	29.378	15
45	DHOM	747.70	736.86	0.331	0.125	16-09-2015	38	99	92	36.2	2
46	DUDHGANGA	646.00	640.68	0.664	0.507	16-09-2015	76	102	100	2.441	24
	MANIKDOH (KUKADI)	711.25	689.04		0.046	16-09-2015	16	66	65	2.2	6
48	BHANDARDARA  CENTRAL REGION	342.50	342.50	0.304	0.202	17-09-2015	100	99	91	70	-
_	UTTAR PRADESH	_									
40	MATATILA	308.46	308.18	0.707	0.612	16-09-2015	87	91	89		30
	RIHAND	268.22	259.63		2.096	16-09-2015	37	47	48	_	300
00	UTTRAKHAND	200.22	200.00	0.0.0	2.000	10 00 2010	0.		.0		000
*51	RAMGANGA	365.30	359.38	2.196	1.755	16-09-2015	80	83	62	1897	198
	TEHRI	830.00	822.15		2.293	17-09-2015	88	86	78	2351	1000
	MADHYA PRADESH										
*53	GANDHI SAGAR	399.90	399.30	6.827	6.252	16-09-2015	92	74	51	220	115
	TAWA	355.40	355.09				100	100	97	247	_
	BARGI	422.76	421.30				88	100	91	157	90
*56	BANSAGAR	341.64	338.02	5.166	3.575	16-09-2015	69	88	61	488	425
*57	INDIRA SAGAR	262.13	260.45	9.745	8.308	17-09-2015	85	100	71	2380	1000
58	BARNA	348.55	347.44	0.456	0.382	16-09-2015	84	91	85	546	-
	CHHATTIS GARH										
*59	MINIMATA BANGOI	359.66	354.20	3.046	2.014	15-09-2015	66	90	77	-	120
60	MAHANADI	348.70	342.51	0.767	0.290	16-09-2015	38	98	88	319	10
	SOUTHERN REGION	_									
	<u>A.P &amp; TG</u>										
*61	SRISAILAM	269.75	254.98	8.288	1.517	17-09-2015	18	44	87	0	770
*62	NAGARJUNA SAGAR	179.83	155.48	6.841	0.005	17-09-2015	0	75	77	895	810
	ANDHRA PRADESH										
63	SOMASILA	100.58	83.25	1.994	0.259	17-09-2015	13	35	41	168	0
	<u>TELANGANA</u>										
64	SRIRAMSAGAR	332.54	321.11	2.300	0.232	16-09-2015	10	37	60	411	27
65	LOWER MANAIR	280.42	269.38	0.621	0.114	16-09-2015	18	42	57	199	60

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

**GOVERNMENT OF INDIA** 

CENTRAL WATER COMMISSION

				WEE	K ENDING :-	17.09.2015					
			OURDENT				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	1									
66	KRISHNARAJA SAGRA	752.50	747.09	1.163	0.692	14-09-2015	60	100	91	79	-
*67	TUNGABHADRA	497.74	495.39	3.276	2.090	17-09-2015	64	87	90	529	72
68	GHATAPRABHA	662.95	648.49	1.391	0.530	16-09-2015	38	100	97	317	-
69	BHADRA	657.76	652.35	1.785	1.208	16-09-2015	68	100	97	106	39
70	LINGANAMAKKI	554.43	545.47	4.294	2.051	16-09-2015	48	100	93	-	55
71	NARAYANPUR	492.25	491.97	0.863	0.703	17-09-2015	81	83	90	425	-
72	MALAPRABHA(RENUKA)	633.83	626.31	0.972	0.266	16-09-2015	27	73	77	215	-
73	KABINI	696.16	693.80	0.444	0.314	16-09-2015	71	100	58	85	-
74	HEMAVATHY	890.63	883.93	0.927	0.520	16-09-2015	56	100	94	265	-
75	HARANGI	871.42	868.52	0.220	0.152	16-09-2015	69	100	97	53	-
76	SUPA	564.00	539.72	4.120	1.741	16-09-2015	42	80	75	-	-
77	VANIVILAS SAGAR	652.28	634.63	0.802	0.046	16-09-2015	6	4	13	123	-
*78	ALMATTI	519.60	514.85	3.105	1.401	17-09-2015	45	100	98	@	290
*79	GERUSOPPA	55.00	48.85	0.130	0.096	16-09-2015	74	82	85	83	240
	<b>KERALA</b>										
80	KALLADA(PARAPPAR)	115.82	95.65	0.507	0.134	15-09-2015	26	95	78	62	-
*81	IDAMALAYAR	169.00	149.88	1.018	0.513	16-09-2015	50	92	81	33	75
*82	IDUKKI	732.43	719.22	1.460	0.788	16-09-2015	54	72	70	-	780
*83	KAKKI	981.46	963.29	0.447	0.211	17-09-2015	47	77	80	23	300
*84	PERIYAR	867.41	861.05	0.173	0.056	16-09-2015	32	88	56	84	140
85	MALAPMUZHA	867.41	861.05	0.224	0.133	16-09-2015	32	88	56	84	140
	TAMIL NADU										
86	LOWER BHAWANI	278.89	270.47	0.792	0.339	16-09-2015	43	42	67	105	8
*87	METTUR(STANLEY)	240.79	227.22	2.647	1.064	16-09-2015	40	67	72	122	360
88	VAIGAI	279.20	270.68	0.172	0.034	16-09-2015	20	26	43	61	6
89	PARAMBIKULAM	556.26	549.93	0.380	0.252	16-09-2015	66	100	89	101	-
90	ALIYAR	320.04	318.01	0.095	0.082	16-09-2015	86	100	88	#	60
*91	SHOLAYAR	1002.79	991.00	0.143	0.090	16-09-2015	63	100	99	-	95
	TOTAL FOR 91 RESERVOIRS			157.799	92.631						
	PERCENTAGE						59	80	76		

Sd/-

\$ TOTAL CCA 342 TH. HA OF DVC SYSTEM

Director W. M., CWC

(At sl. 30th) 0.444 BCM, Live storage at FRL of Kabini reservoir is intrim

<sup>\*</sup> 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. 19th 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  $\,$