

BRIEF NOTE ON STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR BULLETIN OF 09.07.2015)

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 the 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 bulletin of **09.07.2015**, live storage available in these reservoirs was **48.851 BCM** which is **31%** of total live storage capacity of these reservoirs. This storage is **131%** of the storage of corresponding period of last year and **119%** of storage of average of last ten years.

As per Table-01, the overall storage position is **better than the** corresponding period of last year in the country as a whole and is also **better 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 in this region having total live storage capacity of 18.01 BCM. The total live storage available in these reservoirs is **8.25 BCM** which is **46%** 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 **35%** 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 reservoirs in this region having total live storage capacity of 18.83 BCM. The total live storage available in these reservoirs is **5.58 BCM** which is **30%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **25%** and average storage of last ten years during corresponding period was **19%** 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 in this region having total live storage capacity of 27.07 BCM. The total live storage available in these reservoirs is **6.71 BCM** which is **25%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **21%** 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 better than the storage of last year but is 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 in this region having total live storage capacity of 42.30 BCM. The total live storage available in these reservoirs is **12.98 BCM** which is **31%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **30%** and average storage of

last ten years during corresponding period was **19%** 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.

e) SOUTHERN REGION

The Southern region includes States of Andhra Pradesh, Telangana, AP&TG (2combined project in both states) Karnataka, Kerala and Tamil Nadu. There are 31 reservoirs in this region having total live storage capacity of 51.59 BCM. The total live storage available in these reservoirs is **15.33 BCM** which is **30%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **12%** 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 better than the corresponding period of last year and is also better 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 6, better than normal storage is available in Ganga, Indus, Narmada, Mahi, Sabarmati, Godavari, Cauvery & neighbouring EFRs, Mahanadi & neighbouring East Flowing Rivers, and West Flowing Rivers of South. Close to Normal in Krishna, Deficient in Tapi and Highly Deficient in Rivers of Kutch.
- Table on page 5: IMD has divided India in 36 meteorological sub-divisions. The data in respect of reservoir storage as compared with observed rainfall is given in the table.
- Table on page 6: Normal, Close to normal, Deficient and Highly Deficient having the same meaning as given at Bullet No.1.
- Table on page 7-9 of the bulletin. The numbers of reservoirs having storage more than last year are 57 and reservoirs having storage more than average of last ten years are 50. The numbers of reservoirs having storage less than 20% with respect to last year is 1 and having storage less than 20% with reference to average of last ten years is 5. The numbers of reservoirs having storage less than or equal to 50% with respect to last year are 11 and having storage less than or equal to 50% with reference to average of last ten years are 11.

States having better storage (in %) than last year for corresponding period:
Himachal Pradesh, Punjab, Odisha, Tripura, Gujarat, Maharashtra, Uttar Pradesh, Uttarakhand, Karnataka, Kerala and Tamil Nadu.

States having equal storage (in %) to last year for corresponding period: AP&TG (2combined project in both states).

States having lesser storage (in %) than last year for corresponding period:
Rajasthan, Jharkhand, West Bengal, Madhya Pradesh, Chhattisgarh, Andhra Pradesh, Telangana.

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 **09.07.2015** is **48.851** BCM (**31** percent of the live storage capacity at FRL). The current year's storage is nearly **131** percent of last year's storage and **119** percent of the average of last ten years.

3 Region wise storage status:-

REGION (Monitoring No. of Reservoirs) (States),	Filling position of 91 reservoirs w.r.t. FRL								Departure from Normal storage	
	100%	91%-99%	81%-90%	71%-80%	61%-70%	51%-60%	41%-50%	40% & below		
NORTH (HP, Punjab & Rajasthan), (6 Resv.)	-	-	1	-	-	-	1	4	H.P. PUNJAB RAJASTHAN	32 % 70 % -19 %
EAST (Jharkhand, Odisha, Tripura & W. Bengal (15 Resv.))	-	-	-	1	-	-	5	9	JHARKHAND ODISHA W. BENGAL TRIPURA	-3 % 95 % -11 % 3 %
WEST (Guj. & Mah.), (27 Resv.)	-	-	-	-	-	3	5	19	GUJARAT MAH.	-3 % -27 %
CENTRAL (MP, UP, Uttarakhand & Chh.), (12 Resv)	-	-	-	1	1	2	-	8	U.P. UTTARAKHAND M.P. CHHATISGARH	3 % 107 % 72 % 34 %
SOUTH (Karnataka, TN, AP & TG, AP, TG, & Kerala), (31 Resv.))	1	1	1	2	5	-	5	16	AP & TG A, P TG KARNATAKA KERALA T.N.	-98 % -45 % 40 % 46 % 29 % 22 %
Status of 91 reservoirs	1	1	2	4	6	5	16	56		

4 Basin wise storage position:

Better than normal: Ganga, Indus, Narmada, Mahi, Sabarmati, Godavari, Cauvery & neighbouring EFRS, Mahanadi & Neighbouring EFRS, and West Flowing rivers of south.

Close to normal: Krishna

Deficient: Tapi

Highly deficient: Rivers of Kutch

- 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 **11** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%	Name of reservoir	%
SRISAILAM	0	RANA PRATAP SAGAR	50		
BHIMA(UJJANI)	0				
JAYAKWADI(PAITHON)	4				
NAGARJUNA SAGAR	4				
YELDARI	13				
SHETRUNJI	29				
BHADAR	31				
MULA	33				
VANIVILAS SAGAR	44				
MAHANADI	48				

10 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
5	3	2

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

10 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 :- 09.07.2015

NAME OF BASIN	LIVE CAP. AT FRL	THIS YEAR'S STORAGE		LAST YEAR'S STORAGE		LAST 10 YEARS' AVG. STORAGE		% DEPARTURE W.R.T. AVE. OF 10 YEARS'
GANGA	28.096	9.596	34.15%	11.348	40.39%	5.994	21.33%	60.09
INDUS	14.730	7.327	49.74%	6.346	43.08%	5.208	35.36%	40.69
NARMADA	17.414	3.540	20.33%	2.075	11.92%	3.061	17.58%	15.65
TAPI	7.394	1.508	20.39%	1.551	20.98%	1.987	26.87%	-24.11
MAHI	4.012	1.727	43.05%	1.994	49.70%	1.446	36.04%	19.43
SABARMATI	0.735	0.169	22.99%	0.095	12.93%	0.150	20.41%	12.67
RIVERS OF KUTCH	0.887	0.059	6.65%	0.087	9.81%	0.162	18.26%	-63.58
GODAVARI	15.394	3.829	24.87%	4.169	27.08%	2.741	17.81%	39.69
KRISHNA	32.831	8.031	24.46%	1.837	5.60%	9.830	29.94%	-18.30
MAHANADI & NEIGHBOURING EFRS	13.181	4.042	30.67%	3.576	27.13%	2.958	22.44%	36.65
CAUVERY & NEIGHBOURING EFRS	8.359	4.088	48.91%	1.751	20.95%	3.041	36.38%	34.43
WEST FLOWING RIVERS OF SOUTH	14.766	4.935	33.42%	2.452	16.61%	4.373	29.62%	12.85
TOTAL	157.799	48.851		37.281		40.951		
PERCENTAGE								19.29

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA CENTRAL WATER COMMISSION

WEEK ENDING :- 09.07.2015

S. NO	NAME OF RESERVOIR	FRL (m)	CURRENT RESERVOIR LEVEL (m)	LIVE CAPACITY AT FRL (BCM)	CURRENT LIVE STORAGE (BCM)	DATE	STORAGE AS % OF LIVE CAPACITY AT FRL			BENEFITS	
							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>KARNATAKA</u>											
66	KRISHNARAJA SAGRA	752.50	747.58	1.163	0.736	08-07-2015	63	17	35	79	-
*67	TUNGABHADRA	497.74	490.26	3.276	3.276	09-07-2015	100	12	29	529	72
68	GHATAPRABHA	662.95	642.71	1.391	0.303	08-07-2015	22	1	27	317	-
69	BHADRA	657.76	647.78	1.785	0.809	06-07-2015	45	29	39	106	39
70	LINGANAMAKKI	554.43	539.42	4.294	1.112	09-07-2015	26	11	28	-	55
71	NARAYANPUR	492.25	488.38	0.863	0.320	09-07-2015	37	32	53	425	-
72	MALAPRABHA(RENUKA)	633.83	624.92	0.972	0.188	08-07-2015	19	2	17	215	-
73	KABINI	696.16	695.74	0.444	0.418	08-07-2015	94	48	38	85	-
74	HEMAVATHY	890.63	885.96	0.927	0.649	08-07-2015	70	21	37	265	-
75	HARANGI	871.42	866.16	0.220	0.111	08-07-2015	50	36	56	53	-
76	SUPA	564.00	535.32	4.120	1.433	09-07-2015	35	17	25	-	-
77	VANIVILAS SAGAR	652.28	634.29	0.802	0.045	02-07-2015	6	3	13	123	-
*78	ALMATTI	519.60	514.72	3.105	1.370	09-07-2015	44	6	42	@	290
*79	GERUSOPPA	55.00	48.36	0.130	0.094	09-07-2015	72	70	80	83	240
<u>KERALA</u>											
80	KALLADA(PARAPPAR)	115.82	94.70	0.507	0.125	08-07-2015	25	23	35	62	-
*81	IDAMALAYAR	169.00	142.20	1.018	0.352	08-07-2015	35	19	28	33	75
*82	IDUKKI	732.43	715.88	1.460	0.653	08-07-2015	45	17	26	-	780
*83	KAKKI	981.46	955.63	0.447	0.148	09-07-2015	33	12	32	23	300
*84	PERIYAR	867.41	864.16	0.173	0.112	08-07-2015	65	23	43	84	140
85	MALAPMUZHA	867.41	864.16	0.224	0.112	08-07-2015	65	23	43	84	140
<u>TAMIL NADU</u>											
86	LOWER BHAWANI	278.89	274.41	0.792	0.528	08-07-2015	67	13	48	105	8
*87	METTUR(STANLEY)	240.79	229.94	2.647	1.316	08-07-2015	50	18	41	122	360
88	VAIGAI	279.20	272.41	0.172	0.052	08-07-2015	30	4	17	61	6
89	PARAMBIKULAM	556.26	540.73	0.380	0.090	08-07-2015	24	19	43	101	-
90	ALIYAR	320.04	317.63	0.095	0.080	08-07-2015	84	13	40	#	60
*91	SHOLAYAR	1002.79	994.58	0.143	0.103	08-07-2015	72	16	51	-	95
TOTAL FOR 91 RESERVOIRS				157.799	49.076						
PERCENTAGE							31	24	26		

Sd/-
Director
W. M. , CWC

* HYDEL POWER CAPACITY HAVING CAPACITY MORE THAN 60MW
\$ TOTAL CCA 342 TH. HA OF DVC SYSTEM
TOTAL CCA 101 TH. HA OF PARAMBIKULAM & ALIYAR
@ TOTAL CCA 425 TH. HA. OF NARAYANPUR AND ALMATTI

† SABARMATI RESERVOIR IS SUPPLEMENTED WITH NARMADA WATER THROUGH PIPELINE.

Sl. 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

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

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 09.07.2015

S. NO	NAME OF RESERVOIR	FRL (m)	CURRENT RESERVOIR LEVEL (m)	LIVE CAPACITY AT FRL (BCM)	CURRENT LIVE STORAGE (BCM)	DATE	STORAGE AS % OF LIVE CAPACITY AT FRL			BENEFITS	
							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											
<u>HIMACHAL PRADESH</u>											
*1	GOBIND SAGAR(BHAKRA)	512.06	491.00	6.229	3.024	09-07-2015	49	49	38	676	1200
*2	PONG DAM	423.67	406.14	6.157	2.344	09-07-2015	38	25	27	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	522.80	2.344	1.959	09-07-2015	84	74	49	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	269.70	1.711	0.572	08-07-2015	33	38	27	63	140
5	JHAKAM	359.50	343.15	0.132	0.023	08-07-2015	17	41	19	28	-
*6	RANA PRATAP SAGAR	352.81	346.22	1.436	0.327	09-07-2015	23	52	46	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	256.84	0.821	0.306	08-07-2015	37	50	36	-	-
8	MAITHON	146.3	141.38	0.471	0.209	08-07-2015	44	74	49	342	-
*9	PANCHET HILL	124.97	123.85	0.184	0.132	08-07-2015	72	95	63	\$	80
10	KONAR	425.81	416.51	0.176	0.042	08-07-2015	24	66	40	\$	-
11	TILAIYA	368.81	365.94	0.142	0.051	08-07-2015	36	75	35	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	183.51	5.378	0.882	06-07-2015	16	11	14	153	307
*13	BALIMELA	462.08	453.36	2.676	1.350	08-07-2015	50	41	11	-	360
14	SALANADI	82.30	70.75	0.558	0.232	09-07-2015	42	72	29	42	-
*15	RENGALI	123.50	113.30	3.432	0.619	08-07-2015	18	3	10	3	200
*16	MACHKUND(JALPUT)	838.16	831.16	0.893	0.402	08-07-2015	45	32	31	-	115
*17	UPPER KOLAB	858.00	851.59	0.935	0.396	08-07-2015	42	17	16	89	320
*18	UPPER INDRAVATI	642.00	631.40	1.456	0.450	09-07-2015	31	12	18	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	113.80	0.480	0.170	08-07-2015	35	66	36	227	-
20	KANGSABATI	134.14	124.13	0.914	0.233	08-07-2015	25	40	31	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	88.45	0.312	0.105	07-07-2015	34	31	33	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	91.75	6.615	1.401	09-07-2015	21	22	28	348	300
23	SABARMATI(DHAROI)	189.59	181.92	0.735	0.169	08-07-2015	23	13	20	95	1
*24	KADANA	127.7	122.99	1.472	0.782	08-07-2015	53	62	44	200	120
25	SHETRUNJI	55.53	55.22	0.300	0.028	08-07-2015	9	13	32	36	-
26	BHADAR	107.89	107.13	0.188	0.015	08-07-2015	8	19	26	27	-
27	DAMANAGANGA	79.86	69.95	0.502	0.127	09-07-2015	25	9	15	51	1
28	DANTIWADA	184.1	166.18	0.399	0.016	07-07-2015	4	3	4	45	-
29	PANAM	127.41	124.00	0.697	0.350	08-07-2015	50	52	44	36	2
*30	SARDAR SAROVAR	121.92	116.53	1.566	0.722	09-07-2015	46	26	33	2120	1450
31	KARJAN	115.25	99.91	0.523	0.170	09-07-2015	33	34	39	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 09.07.2015

S. NO	NAME OF RESERVOIR	FRL (m)	CURRENT RESERVOIR LEVEL (m)	LIVE CAPACITY AT FRL (BCM)	CURRENT LIVE STORAGE (BCM)	DATE	STORAGE AS % OF LIVE CAPACITY AT FRL			BENEFITS	
							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											
32	JAYAKWADI(PAITHON)	463.91	455.66	2.171	0.020	09-07-2015	1	3	21	227	-
*33	KOYANA	657.90	642.77	2.652	1.166	08-07-2015	44	3	45	-	1920
34	BHIMA(UJJANI)	496.83	489.93	1.517	0.000	08-07-2015	0	0	20	125	12
35	ISAPUR	441.00	430.55	0.965	0.214	08-07-2015	22	44	27	104	-
36	MULA	552.30	535.70	0.609	0.031	07-07-2015	5	2	15	139	-
37	YELDARI	461.77	448.16	0.809	0.012	08-07-2015	1	39	12	78	-
38	GIRNA	398.07	384.26	0.524	0.046	08-07-2015	9	8	17	79	-
39	KHADAKVASLA	582.47	580.03	0.056	0.026	08-07-2015	46	38	45	78	8
*40	UPPER VAITARNA	603.50	594.91	0.331	0.089	08-07-2015	27	22	39	-	61
41	UPPER TAPI	214.00	209.96	0.255	0.061	08-07-2015	24	19	28	45	-
*42	PENCH (TOTALADOH)	490.00	472.07	1.091	0.143	08-07-2015	13	41	22	127	160
43	UPPER WARDHA	342.50	338.96	0.564	0.291	09-07-2015	52	35	37	70	-
44	BHATSA	142.07	111.80	0.942	0.318	08-07-2015	34	26	41	29.378	15
45	DHOM	747.70	734.84	0.331	0.146	08-07-2015	44	11	34	36.2	2
46	DUDHGANGA	646.00	631.22	0.664	0.263	08-07-2015	40	14	37	2.441	24
47	MANIKDOH (KUKADI)	711.25	684.94	0.288	0.027	08-07-2015	9	4	9	2.2	6
48	BHANDARDARA	342.50	338.96	0.304	0.291	09-07-2015	52	35	37	70	-
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	305.71	0.707	0.362	08-07-2015	51	9	34	-	30
*50	RIHAND	268.22	254.85	5.649	0.512	09-07-2015	9	12	11	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	354.57	2.196	1.432	08-07-2015	65	49	21	1897	198
*52	TEHRI	830.00	757.40	2.615	0.342	09-07-2015	13	11	15	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	392.09	6.827	2.701	09-07-2015	40	57	17	220	115
54	TAWA	355.40	344.76	1.944	0.627	09-07-2015	32	13	34	247	-
*55	BARGI	422.76	410.35	3.180	0.717	09-07-2015	23	12	16	157	90
*56	BANSAGAR	341.64	335.49	5.166	2.672	09-07-2015	52	52	23	488	425
*57	INDIRA SAGAR	262.13	247.42	9.745	1.202	09-07-2015	12	7	11	2380	1000
58	BARNA	348.55	341.89	0.456	0.102	09-07-2015	22	33	24	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	355.12	3.046	2.150	08-07-2015	71	75	46	-	120
60	MAHANADI	348.70	340.12	0.767	0.159	08-07-2015	21	25	43	319	10
SOUTHERN REGION											
A.P. & TG											
*61	SRISAILAM	269.75	244.55	8.288	0.000	09-07-2015	0	0	22	0	770
*62	NAGARJUNA SAGAR	179.83	156.03	6.841	0.092	09-07-2015	1	2	30	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	83.64	1.994	0.278	09-07-2015	14	25	25	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	322.42	2.300	0.321	02-07-2015	14	30	7	411	27
65	LOWER MANAIR	280.42	269.60	0.621	0.120	02-07-2015	19	45	23	199	60