

BRIEF NOTE ON STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 04.02.2016)

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 **04.02.2016**, live storage available in these reservoirs is **59.335 BCM**, which is **38%** of total live storage capacity of these reservoirs. This storage is **78%** of the storage of corresponding period of last year and **76%** 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 **04.02.2016**, the total live storage available in these reservoirs is **7.42 BCM** which is **41%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **38%** 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 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 reservoirs under CWC monitoring having total live storage capacity of 18.83 BCM. As per Reservoir Storage Bulletin dated **04.02.2016**, the total live storage available in these reservoirs is **9.77 BCM** which is **52%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **64%** and average storage of last ten years during corresponding period was **59%** 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 **04.02.2016**, the total live storage available in these reservoirs is **9.14 BCM** which is **34%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **54%** and average storage of last ten years during corresponding period was **60%** 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 **04.02.2016**, the total live storage available in these reservoirs is **19.50 BCM**

which is **46%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **56%** 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 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 (2 combined 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 **04.02.2016**, the total live storage available in these reservoirs is **13.51 BCM** which is **26%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **37%** and average storage of last ten years during corresponding period was **49%** 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, Narmada, Sabarmati and Rivers of Kutch. Close to Normal in Indus and Cauvery & neighbouring EFRs. Deficient in Tapi, Mahi, Godavari, Mahanadi & neighbouring East Flowing Rivers and West Flowing rivers of South and Highly Deficient in Krishna basin.
- 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 **5** and having storage less than 20% with reference to average of last ten years is **8**. The number of reservoirs having storage less than or equal to 50% with respect to last year are **20** and having storage less than or equal to 50% with reference to average of last ten years are **26**.

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 **04.02.2016** is **59.335** BCM (**38** percent of the live storage capacity at FRL). The current year's storage is nearly **78** percent of last year's storage and **76** percent of the average of last ten years.

3 Region wise storage status:-

REGION (Monitoring No. of Reservoirs)	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.)	-	-	-	-	-	2	-	4	H.P. PUNJAB RAJASTHAN	-1 % -40 % -9 %
EAST (Jharkhand, Odisha, Tripura & W. Bengal (15 Resv.)	-	-	-	1	3	2	3	6	JHARKHAND ODISHA W. BENGAL TRIPURA	-38 % -10 % -38 % 225 %
WEST (Guj. & Mah.), (27 Resv.)	-	-	-	-	1	3	7	16	GUJARAT MAH.	-31 % -56 %
CENTRAL (MP, UP, Uttarakhand & Chh.), (12 Resv)	-	-	-	-	2	-	6	4	U.P. UTTARAKHAND M.P. CHHATISGARH	-11 % -23 % 32 % -31 %
SOUTH (Karnataka, TN, AP&TG, AP, TG, & Kerala), (31 Resv.)	-	1	1	-	2	4	7	16	AP&TG A.P TG KARNATAKA KERALA T.N.	-81 % 15 % -79 % -40 % -7 % -25 %
Status of 91 reservoirs	0	1	1	1	8	11	23	46		

4 Basin wise storage position:

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

Close to normal: Indus and Cauvery & neighbouring EFRS.

Deficient: Tapi, Mahi, Godavari, Mahanadi & Neighbouring EFRS and West Flowing rivers of south.

Highly deficient: Krishna.

- 5 Out of 91 reservoirs, **35** reservoirs reported more than 80% of normal storage & **56** reservoirs reported 80% or below of normal storage. Out of these **56** reservoirs **26** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%	Name of reservoir	%
NAGARJUNA SAGAR	0	TUNGABHADRA	25	NARAYANPUR	42
BHIMA(UJJANI)	0	MANIKDOH	26	MAITHON	43
SHOLAYAR	0	SRISAILAM	30	MAYURAKSHI	46
GIRNA	7	MULA	31	PANAM	48
JAYAKWADI(PAITHON)	11	MALAPRABHA(RENUKA)	34	TILAIYA	49
SALANADI	13	ALMATTI	35	HEMAVATHY	50
YELDARI	16	SARDAR SAROVAR	37		
SRIRAMSAGAR	20	HARANGI	38		
PANCHET HILL	22	ISAPUR	40		
LOWER MANAIR	24	BHANDARDARA	40		

30 reservoirs having storage 51% to 80% of normal storage.

51% to 60%	61% to 70%	71% to 80%
8	6	16

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

27 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 :- 04.02.2016

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	12.078	42.99%	14.447	51.42%	11.418	40.64%	5.78
INDUS	14.730	6.056	41.11%	5.336	36.23%	6.416	43.56%	-5.61
NARMADA	17.414	8.042	46.18%	9.388	53.91%	7.575	43.50%	6.17
TAPI	7.394	3.290	44.50%	4.084	55.23%	4.504	60.91%	-26.95
MAHI	4.012	1.661	41.40%	2.506	62.46%	2.229	55.56%	-25.48
SABARMATI	0.735	0.354	48.16%	0.253	34.42%	0.324	44.08%	9.26
RIVERS OF KUTCH	0.887	0.354	39.91%	0.153	17.25%	0.299	33.71%	18.39
GODAVARI	15.394	4.892	31.78%	7.542	48.99%	7.803	50.69%	-37.31
KRISHNA	32.831	5.291	16.12%	10.084	30.71%	15.805	48.14%	-66.52
MAHANADI & NEIGHBOURING EFRS	13.181	6.713	50.93%	9.270	70.33%	8.405	63.77%	-20.13
CAUVERY & NEIGHBOURING EFRS	8.359	3.481	41.64%	3.781	45.23%	4.163	49.80%	-16.38
WEST FLOWING RIVERS OF SOUTH	14.766	7.123	48.24%	9.208	62.36%	8.927	60.46%	-20.21
TOTAL	157.799	59.335		76.052		77.868		
PERCENTAGE								-23.80

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 04.02.2016

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	494.16	6.229	3.494	03-02-2016	56	49	50	676	1200
*2	PONG DAM	423.67	404.70	6.157	2.112	04-02-2016	34	25	42	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	495.62	2.344	0.450	02-02-2016	19	32	32	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	273.20	1.711	0.868	04-02-2016	51	60	49	63	140
5	JHAKAM	359.50	346.50	0.132	0.036	04-02-2016	27	40	35	28	-
*6	RANA PRATAP SAGAR	352.81	347.16	1.436	0.461	04-02-2016	32	32	43	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	257.77	0.821	0.335	04-02-2016	41	46	42	-	-
8	MAITHON	146.3	140.09	0.471	0.162	04-02-2016	34	61	81	342	-
*9	PANCHET HILL	124.97	121.00	0.184	0.035	04-02-2016	19	43	87	\$	80
10	KONAR	425.81	421.33	0.176	0.102	04-02-2016	58	79	66	\$	-
11	TILAIYA	368.81	365.32	0.142	0.036	04-02-2016	25	83	51	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	189.62	5.378	3.365	04-02-2016	63	63	70	153	307
*13	BALIMELA	462.08	454.70	2.676	1.525	03-02-2016	57	78	53	-	360
14	SALANADI	82.30	55.70	0.558	0.030	03-02-2016	5	45	42	42	-
*15	RENGALI	123.50	117.93	3.432	1.668	03-02-2016	49	74	59	3	200
*16	MACHKUND(JALPUT)	838.16	834.98	0.893	0.636	03-02-2016	71	72	72	-	115
*17	UPPER KOLAB	858.00	854.88	0.935	0.642	03-02-2016	69	77	54	89	320
*18	UPPER INDRAVATI	642.00	634.53	1.456	0.707	04-02-2016	49	78	62	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	110.69	0.480	0.093	04-02-2016	19	20	42	227	-
20	KANGSABATI	134.14	123.95	0.914	0.226	04-02-2016	25	27	34	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	91.15	0.312	0.205	03-02-2016	66	4	20	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	97.80	6.615	3.125	03-02-2016	47	56	62	348	300
23	SABARMATI(DHAROI)	189.59	185.15	0.735	0.354	04-02-2016	48	34	44	95	1
*24	KADANA	127.7	120.30	1.472	0.550	04-02-2016	37	69	62	200	120
25	SHETRUNJI	55.53	53.37	0.300	0.157	04-02-2016	52	27	56	36	-
26	BHADAR	107.89	103.08	0.188	0.043	04-02-2016	23	29	40	27	-
27	DAMANAGANGA	79.86	75.85	0.502	0.307	03-02-2016	61	62	74	51	1
28	DANTIWADA	184.1	176.16	0.399	0.154	04-02-2016	39	4	14	45	-
29	PANAM	127.41	120.80	0.697	0.207	04-02-2016	30	57	62	36	2
*30	SARDAR SAROVAR	121.92	114.27	1.566	0.400	03-02-2016	26	71	69	2120	1450
31	KARJAN	115.25	102.60	0.523	0.215	03-02-2016	41	70	79	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 04.02.2016

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	456.16	2.171	0.103	04-02-2016	5	25	43	227	-
*33	KOYANA	657.90	643.33	2.652	1.211	03-02-2016	46	75	74	-	1920
34	BHIMA(UJJANI)	496.83	489.86	1.517	0.000	03-02-2016	0	58	66	125	12
35	ISAPUR	441.00	430.23	0.965	0.199	03-02-2016	21	46	52	104	-
36	MULA	552.30	539.20	0.609	0.107	03-02-2016	18	46	57	139	-
37	YELDARI	461.77	449.51	0.809	0.050	03-02-2016	6	27	38	78	-
38	GIRNA	398.07	382.68	0.524	0.014	03-02-2016	3	24	36	79	-
39	KHADAKVASLA	582.47	579.70	0.056	0.022	03-02-2016	39	73	46	78	8
*40	UPPER VAITARNA	603.50	597.16	0.331	0.144	03-02-2016	44	67	76	-	61
41	UPPER TAPI	214.00	212.07	0.255	0.151	03-02-2016	59	99	76	45	-
*42	PENCH (TOTALADOH)	490.00	477.98	1.091	0.328	03-02-2016	30	29	43	127	160
43	UPPER WARDHA	342.50	338.26	0.564	0.248	04-02-2016	44	51	58	70	-
44	BHATSA	142.07	125.08	0.942	0.542	03-02-2016	58	64	67	29.378	15
45	DHOM	747.70	733.46	0.331	0.127	03-02-2016	38	67	54	36.2	2
46	DUDHGANGA	646.00	631.30	0.664	0.265	03-02-2016	40	77	75	2.441	24
47	MANIKDOH (KUKADI)	711.25	685.39	0.288	0.028	03-02-2016	10	40	37	2.2	6
48	BHANDARDARA	342.50	338.26	0.304	0.085	04-02-2016	44	51	58	70	-
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	304.16	0.707	0.237	03-02-2016	34	33	45	-	30
*50	RIHAND	268.22	258.35	5.649	1.619	04-02-2016	29	32	31	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	344.82	2.196	0.917	04-02-2016	42	74	56	1897	198
*52	TEHRI	830.00	786.85	2.615	1.082	02-02-2016	41	53	52	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	395.58	6.827	4.191	04-02-2016	61	51	34	220	115
54	TAWA	355.40	345.80	1.944	0.715	04-02-2016	37	48	43	247	-
*55	BARGI	422.76	418.55	3.180	2.071	04-02-2016	65	64	55	157	90
*56	BANSAGAR	341.64	334.56	5.166	2.377	04-02-2016	46	79	42	488	425
*57	INDIRA SAGAR	262.13	255.23	9.745	4.508	04-02-2016	46	49	34	2380	1000
58	BARNA	348.55	342.82	0.456	0.133	04-02-2016	29	40	36	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	348.88	3.046	1.316	03-02-2016	43	83	61	-	120
60	MAHANADI	348.70	343.22	0.767	0.334	03-02-2016	44	77	70	319	10
SOUTHERN REGION											
A.P. & TG											
*61	SRISAILAM	269.75	253.13	8.288	1.319	04-02-2016	16	0	54	0	770
*62	NAGARJUNA SAGAR	179.83	154.41	6.841	0.000	04-02-2016	0	20	34	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	96.03	1.994	1.372	04-02-2016	69	41	60	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	319.95	2.300	0.171	04-02-2016	7	20	37	411	27
65	LOWER MANAIR	280.42	268.42	0.621	0.091	04-02-2016	15	37	61	199	60

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							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	744.66	1.163	0.501	04-02-2016	43	75	61	79	-
*67	TUNGABHADRA	497.74	484.69	3.276	0.283	04-02-2016	9	38	34	529	72
68	GHATAPRABHA	662.95	642.18	1.391	0.284	03-02-2016	20	32	30	317	-
69	BHADRA	657.76	648.56	1.785	0.868	03-02-2016	49	79	81	106	39
70	LINGANAMAKKI	554.43	544.59	4.294	1.890	03-02-2016	44	59	60	-	55
71	NARAYANPUR	492.25	488.22	0.863	0.306	04-02-2016	35	72	85	425	-
72	MALAPRABHA(RENUKA)	633.83	622.39	0.972	0.084	03-02-2016	9	24	25	215	-
73	KABINI(Sancherla Tank)	696.16	690.44	0.444	0.159	04-02-2016	36	73	39	85	-
74	HEMAVATHY	890.63	874.58	0.927	0.140	04-02-2016	15	22	30	265	-
75	HARANGI	871.42	851.26	0.220	0.013	04-02-2016	6	7	15	53	-
76	SUPA	564.00	538.98	4.120	1.692	03-02-2016	41	62	56	-	-
77	VANIVILAS SAGAR	652.28	637.22	0.802	0.099	04-02-2016	12	9	18	123	-
*78	ALMATTI	519.60	509.19	3.105	0.395	04-02-2016	13	31	36	@	290
*79	GERUSOPPA	55.00	53.54	0.130	0.121	04-02-2016	93	93	81	83	240
KERALA											
80	KALLADA(PARAPPAR)	115.82	114.16	0.507	0.450	04-02-2016	89	79	74	62	-
*81	IDAMALAYAR	169.00	150.18	1.018	0.520	04-02-2016	51	70	61	33	75
*82	IDUKKI	732.43	718.60	1.460	0.763	04-02-2016	52	67	59	-	780
*83	KAKKI	981.46	971.84	0.447	0.302	04-02-2016	68	74	72	23	300
*84	PERIYAR	867.41	863.30	0.173	0.082	04-02-2016	47	31	35	84	140
85	MALAPMUZHA	867.41	863.30	0.224	0.040	04-02-2016	47	31	35	84	140
TAMIL NADU											
86	LOWER BHAWANI	278.89	270.20	0.792	0.328	04-02-2016	41	50	57	105	8
*87	METTUR(STANLEY)	240.79	225.40	2.647	0.914	04-02-2016	35	42	48	122	360
88	VAIGAI	279.20	272.56	0.172	0.054	04-02-2016	31	12	37	61	6
89	PARAMBIKULAM	556.26	548.37	0.380	0.222	04-02-2016	58	57	68	101	-
90	ALIYAR	320.04	312.30	0.095	0.048	04-02-2016	51	78	54	#	60
*91	SHOLAYAR	1002.79	962.95	0.143	0.000	04-02-2016	0	0	15	-	95
TOTAL FOR 91 RESERVOIRS				157.799	59.335						
PERCENTAGE							38	48	49		

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