

BRIEF NOTE ON STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 18.02.2016)

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 **18.02.2016**, live storage available in these reservoirs is **53.7263 BCM**, which is **34%** of total live storage capacity of these reservoirs. This storage is **77%** of the storage of corresponding period of last year and **76%** of storage of average of last ten years.

As per Table-01, 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 **18.02.2016**, the total live storage available in these reservoirs is **6.35 BCM** which is **35%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **33%** and average storage of last ten years during corresponding period was **39%** 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 **18.02.2016**, the total live storage available in these reservoirs is **9.28 BCM** which is **49%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **61%** and average storage of last ten years during corresponding period was **56%** 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 **18.02.2016**, the total live storage available in these reservoirs is **8.27 BCM** which is **31%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **49%** and average storage of last ten years during corresponding period was **55%** 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 **18.02.2016**, the total live storage available in these reservoirs is **17.67 BCM**

which is **42%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **52%** and average storage of last ten years during corresponding period was **38%** 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 **18.02.2016**, the total live storage available in these reservoirs is **12.15 BCM** which is **24%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **33%** and average storage of last ten years during corresponding period was **43%** 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 8, better than normal storage is available in Ganga, Narmada, Sabarmati and Rivers of Kutch. Close to Normal in Indus, Mahanadi & neighbouring East Flowing Rivers and West Flowing rivers of South and Deficient in Tapi, Mahi, Godavari and Cauvery & neighbouring EFRs 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 **20** and reservoirs having storage more than average of last ten years are **16**. 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 **7**. The number of reservoirs having storage less than or equal to 50% with respect to last year are **24** 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 **18.02.2016** is **53.726** BCM (**34** percent of the live storage capacity at FRL).The current year's storage is nearly **77** 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) (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.)	-	-	-	-	-	-	2	4	H.P.	-8 %
									PUNJAB	-33 %
									RAJASTHAN	-9 %
EAST (Jharkhand, Odisha, Tripura & W. Bengal (15 Resv.)	-	-	-	-	3	3	2	7	JHARKHAND	-37 %
									ODISHA	-9 %
									W. BENGAL	-31 %
									TRIPURA	272 %
WEST (Guj.& Mah.), (27 Resv.)	-	-	-	-	1	2	6	18	GUJARAT	-33 %
									MAH.	-55 %
CENTRAL (MP, UP, Uttarakhand & Chh.), (12 Resv)	-	-	-	-	1	1	4	6	U.P.	-13 %
									UTTARAKHAND	-31 %
									M.P.	32 %
									CHHATISGARH	-31 %
SOUTH (Karnataka, TN, AP&TG, AP, TG, & Kerala), (31 Resv.)	-	1	1	-	2	-	5	22	AP&TG	-82 %
									A,P	12 %
									TG	-76 %
									KARNATAKA	-37 %
									KERALA	-6 %
									T.N.	-36 %
Status of 91 reservoirs	0	1	1	0	7	6	19	57		

4 Basin wise storage position:

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

Close to normal: Indus, Mahanadi & Neighbouring EFRS and West Flowing rivers of south.

Deficient: Tapi, Mahi, Godavari and Cauvery & neighbouring EFRS

Highly deficient: Krishna.

- 5 Out of 91 reservoirs, **32** reservoirs reported more than 80% of normal storage & **59** reservoirs reported 80% or below of normal storage. Out of these **59** reservoirs **26** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%	Name of reservoir	%
NAGARJUNA SAGAR	0	MANIKDOH	28	ISAPUR	42
BHIMA(UJJANI)	0	SRISAILAM	28	MAITHON	42
SHOLAYAR	0	TUNGABHADRA	29	PANAM	46
GIRNA	7	MULA	32	DUDHGANGA	49
JAYAKWADI(PAITHON)	8	BHANDARDARA	34	HEMAVATHY	50
SALANADI	13	MALAPRABHA(RENUKA)	36	MAYURAKSHI	50
YELDARI	17	NARAYANPUR	39		
PANCHET HILL	22	SARDAR SAROVAR	40		
SRIRAMSAGAR	23	HARANGI	42		
LOWER MANAIR	26	ALMATTI	42		

33 reservoirs having storage 51% to 80% of normal storage.		
51% to 60%	61% to 70%	71% to 80%
6	13	14

- 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 :- 18.02.2016

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	11.123	39.59%	13.480	47.98%	10.582	37.66%	5.11
INDUS	14.730	5.122	34.77%	4.522	30.70%	5.757	39.08%	-11.03
NARMADA	17.414	7.131	40.95%	8.503	48.83%	6.853	39.35%	4.06
TAPI	7.394	2.895	39.15%	3.738	50.55%	4.193	56.71%	-30.96
MAHI	4.012	1.487	37.06%	2.334	58.18%	2.084	51.94%	-28.65
SABARMATI	0.735	0.317	43.13%	0.210	28.57%	0.294	40.00%	7.82
RIVERS OF KUTCH	0.887	0.315	35.55%	0.145	16.35%	0.261	29.43%	20.80
GODAVARI	15.394	4.536	29.47%	6.969	45.27%	7.195	46.74%	-36.96
KRISHNA	32.831	4.803	14.63%	8.797	26.79%	13.753	41.89%	-65.08
MAHANADI & NEIGHBOURING EFRS	13.181	6.420	48.71%	8.939	67.82%	8.005	60.73%	-19.80
CAUVERY & NEIGHBOURING EFRS	8.359	2.964	35.46%	3.397	40.64%	3.863	46.21%	-23.27
WEST FLOWING RIVERS OF SOUTH	14.766	6.613	44.79%	8.491	57.50%	8.195	55.50%	-19.30
TOTAL	157.799	53.726		69.525		71.035		
PERCENTAGE								-24.37

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 18.02.2016

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
<u>NORTHERN REGION</u>											
<u>HIMACHAL PRADESH</u>											
*1	GOBIND SAGAR(BHAKRA)	512.06	491.29	6.229	3.058	17-02-2016	49	40	43	676	1200
*2	PONG DAM	423.67	401.15	6.157	1.595	18-02-2016	26	22	38	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	495.79	2.344	0.469	18-02-2016	20	29	30	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	271.90	1.711	0.759	18-02-2016	44	54	43	63	140
5	JHAKAM	359.50	345.15	0.132	0.031	17-02-2016	23	34	29	28	-
*6	RANA PRATAP SAGAR	352.81	347.00	1.436	0.440	18-02-2016	31	28	40	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	257.54	0.821	0.327	18-02-2016	40	45	41	-	-
8	MAITHON	146.3	139.80	0.471	0.152	18-02-2016	32	54	76	342	-
*9	PANCHET HILL	124.97	120.90	0.184	0.033	18-02-2016	18	39	80	\$	80
10	KONAR	425.81	421.01	0.176	0.097	18-02-2016	55	76	63	\$	-
11	TILAIYA	368.81	365.27	0.142	0.035	18-02-2016	25	79	48	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	189.22	5.378	3.144	18-02-2016	58	58	65	153	307
*13	BALIMELA	462.08	454.18	2.676	1.458	16-02-2016	54	74	49	-	360
14	SALANADI	82.30	55.45	0.558	0.029	17-02-2016	5	45	39	42	-
*15	RENGALI	123.50	117.76	3.432	1.625	17-02-2016	47	73	56	3	200
*16	MACHKUND(JALPUT)	838.16	834.34	0.893	0.587	17-02-2016	66	66	71	-	115
*17	UPPER KOLAB	858.00	854.26	0.935	0.595	17-02-2016	64	72	51	89	320
*18	UPPER INDRAVATI	642.00	634.21	1.456	0.681	18-02-2016	47	73	59	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	110.61	0.480	0.092	18-02-2016	19	20	38	227	-
20	KANGSABATI	134.14	123.93	0.914	0.226	18-02-2016	25	27	31	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	90.95	0.312	0.197	17-02-2016	63	1	17	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	96.81	6.615	2.756	18-02-2016	42	51	58	348	300
23	SABARMATI(DHAROI)	189.59	184.64	0.735	0.317	18-02-2016	43	29	40	95	1
*24	KADANA	127.7	119.61	1.472	0.505	18-02-2016	34	67	61	200	120
25	SHETRUNJI	55.53	53.17	0.300	0.147	18-02-2016	49	26	50	36	-
26	BHADAR	107.89	102.87	0.188	0.039	18-02-2016	21	27	34	27	-
27	DAMANAGANGA	79.86	75.20	0.502	0.284	18-02-2016	57	56	69	51	1
28	DANTIWADA	184.1	175.06	0.399	0.129	18-02-2016	32	4	12	45	-
29	PANAM	127.41	120.20	0.697	0.192	18-02-2016	28	56	59	36	2
*30	SARDAR SAROVAR	121.92	114.30	1.566	0.404	18-02-2016	26	67	64	2120	1450
31	KARJAN	115.25	101.90	0.523	0.202	18-02-2016	39	64	75	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 18.02.2016

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	455.93	2.171	0.065	18-02-2016	3	22	40	227	-
*33	KOYANA	657.90	642.37	2.652	1.133	17-02-2016	43	72	66	-	1920
34	BHIMA(UJJANI)	496.83	489.16	1.517	0.000	17-02-2016	0	48	59	125	12
35	ISAPUR	441.00	430.15	0.965	0.195	17-02-2016	20	42	48	104	-
36	MULA	552.30	538.84	0.609	0.098	18-02-2016	16	41	51	139	-
37	YELDARI	461.77	449.41	0.809	0.047	17-02-2016	6	22	34	78	-
38	GIRNA	398.07	382.55	0.524	0.012	17-02-2016	2	22	32	79	-
39	KHADAKVASLA	582.47	580.86	0.056	0.035	17-02-2016	63	61	48	78	8
*40	UPPER VAITARNA	603.50	597.09	0.331	0.143	17-02-2016	43	66	73	-	61
41	UPPER TAPI	214.00	211.56	0.255	0.127	17-02-2016	50	95	72	45	-
*42	PENCH (TOTALADOH)	490.00	476.51	1.091	0.274	17-02-2016	25	23	40	127	160
43	UPPER WARDHA	342.50	337.60	0.564	0.211	18-02-2016	37	44	52	70	-
44	BHATSA	142.07	123.55	0.942	0.513	17-02-2016	54	60	63	29.378	15
45	DHOM	747.70	733.39	0.331	0.126	17-02-2016	38	67	50	36.2	2
46	DUDHGANGA	646.00	629.32	0.664	0.225	18-02-2016	34	70	70	2.441	24
47	MANIKDOH (KUKADI)	711.25	684.97	0.288	0.027	17-02-2016	9	40	34	2.2	6
48	BHANDARDARA	342.50	337.60	0.304	0.068	18-02-2016	37	44	52	70	-
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	303.12	0.707	0.168	17-02-2016	24	28	41	-	30
*50	RIHAND	268.22	258.11	5.649	1.531	17-02-2016	27	31	29	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	340.72	2.196	0.741	18-02-2016	34	68	51	1897	198
*52	TEHRI	830.00	778.90	2.615	0.862	18-02-2016	33	45	45	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	394.94	6.827	3.894	18-02-2016	57	47	31	220	115
54	TAWA	355.40	343.45	1.944	0.515	18-02-2016	26	39	35	247	-
*55	BARGI	422.76	417.95	3.180	1.939	18-02-2016	61	59	50	157	90
*56	BANSAGAR	341.64	334.39	5.166	2.328	18-02-2016	45	76	40	488	425
*57	INDIRA SAGAR	262.13	254.34	9.745	3.975	18-02-2016	41	44	31	2380	1000
58	BARNA	348.55	341.70	0.456	0.096	18-02-2016	21	32	30	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	348.75	3.046	1.301	18-02-2016	43	82	60	-	120
60	MAHANADI	348.70	343.01	0.767	0.321	18-02-2016	42	71	68	319	10
SOUTHERN REGION											
A.P & TG											
*61	SRISAILAM	269.75	250.48	8.288	1.097	18-02-2016	13	0	47	0	770
*62	NAGARJUNA SAGAR	179.83	155.14	6.841	0.000	18-02-2016	0	17	30	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	94.90	1.994	1.224	18-02-2016	61	33	55	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	319.89	2.300	0.168	18-02-2016	7	20	31	411	27
65	LOWER MANAIR	280.42	268.32	0.621	0.089	18-02-2016	14	36	56	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	
<u>KARNATAKA</u>												
66	KRISHNARAJA SAGRA	752.50	743.02	1.163	0.393	18-02-2016	34	67	53	79	-	
*67	TUNGABHADRA	497.74	484.32	3.276	0.257	18-02-2016	8	29	27	529	72	
68	GHATAPRABHA	662.95	642.03	1.391	0.279	17-02-2016	20	24	21	317	-	
69	BHADRA	657.76	648.02	1.785	0.825	17-02-2016	46	72	74	106	39	
70	LINGANAMAKKI	554.43	543.34	4.294	1.675	18-02-2016	39	53	54	-	55	
71	NARAYANPUR	492.25	487.75	0.863	0.266	18-02-2016	31	67	80	425	-	
72	MALAPRABHA(RENUKA)	633.83	621.82	0.972	0.065	17-02-2016	7	16	18	215	-	
73	KABINI(Sancherla Tank)	696.16	690.31	0.444	0.154	18-02-2016	35	72	37	85	-	
74	HEMAVATHY	890.63	874.24	0.927	0.130	18-02-2016	14	18	28	265	-	
75	HARANGI	871.42	851.72	0.220	0.015	18-02-2016	7	8	16	53	-	
76	SUPA	564.00	538.34	4.120	1.642	18-02-2016	40	59	52	-	-	
77	VANIVILAS SAGAR	652.28	637.17	0.802	0.097	18-02-2016	12	9	17	123	-	
*78	ALMATTI	519.60	508.99	3.105	0.371	18-02-2016	12	27	29	@	290	
*79	GERUSOPPA	55.00	54.17	0.130	0.125	18-02-2016	96	89	87	83	240	
<u>KERALA</u>												
80	KALLADA(PARAPPAR)	115.82	113.58	0.507	0.437	18-02-2016	86	75	68	62	-	
*81	IDAMALAYAR	169.00	148.33	1.018	0.478	18-02-2016	47	65	56	33	75	
*82	IDUKKI	732.43	717.44	1.460	0.716	18-02-2016	49	63	54	-	780	
*83	KAKKI	981.46	970.56	0.447	0.286	18-02-2016	64	70	68	23	300	
*84	PERIYAR	867.41	861.75	0.173	0.054	18-02-2016	31	24	30	84	140	
85	MALAPMUZHA	867.41	861.75	0.224	0.036	18-02-2016	31	24	30	84	140	
<u>TAMIL NADU</u>												
86	LOWER BHAWANI	278.89	268.23	0.792	0.255	18-02-2016	32	42	52	105	8	
*87	METTUR(STANLEY)	240.79	223.33	2.647	0.757	18-02-2016	29	42	46	122	360	
88	VAIGAI	279.20	270.83	0.172	0.036	18-02-2016	21	9	32	61	6	
89	PARAMBIKULAM	556.26	546.35	0.380	0.185	18-02-2016	49	45	62	101	-	
90	ALIYAR	320.04	310.59	0.095	0.039	18-02-2016	41	72	48	#	60	
*91	SHOLAYAR	1002.79	961.39	0.143	0.000	18-02-2016	0	0	8	-	95	
TOTAL FOR 91 RESERVOIRS				157.799	53.726							
PERCENTAGE							34	44	45			

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.

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