

BRIEF NOTE ON STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 28.01.2016)

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 **28.01.2016**, live storage available in these reservoirs is **62.223 BCM**, which is **39%** 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 **28.01.2016**, the total live storage available in these reservoirs is **7.92 BCM** which is **44%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **40%** and average storage of last ten years during corresponding period was **46%** 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 **28.01.2016**, the total live storage available in these reservoirs is **10.06 BCM** which is **53%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **66%** and average storage of last ten years during corresponding period was **62%** 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 **28.01.2016**, the total live storage available in these reservoirs is **9.53 BCM** which is **35%** 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 **62%** 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 **21.01.2016**, the total live storage available in these reservoirs is **20.65 BCM**

which is **49%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **59%** 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 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 **28.01.2016**, the total live storage available in these reservoirs is **14.06 BCM** which is **27%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **39%** and average storage of last ten years during corresponding period was **52%** 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 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 **6** 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 **21** 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 **28.01.2016** is **62.223** BCM (**39** 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	0 % -41 % -8 %
EAST (Jharkhand, Odisha, Tripura & W. Bengal (15 Resv.)	-	-	-	2	3	1	3	6	JHARKHAND ODISHA W. BENGAL TRIPURA	-38 % -11 % -39 % 207 %
WEST (Guj. & Mah.), (27 Resv.)	-	-	-	-	2	3	9	13	GUJARAT MAH.	-30 % -55 %
CENTRAL (MP, UP, Uttarakhand & Chh.), (12 Resv)	-	-	-	-	2	-	7	3	U.P. UTTARAKHAND M.P. CHHATISGARH	-14 % -19 % 33 % -32 %
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.	-81 % 16 % -80 % -42 % -8 % -25 %
Status of 91 reservoirs	0	1	1	3	9	11	24	42		

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, **37** reservoirs reported more than 80% of normal storage & **54** reservoirs reported 80% or below of normal storage. Out of these **54** reservoirs **26** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%	Name of reservoir	%
NAGARJUNA SAGAR	0	MANIKDOH	25	BHANDARDARA	39
BHIMA(UJJANI)	0	TUNGABHADRA	25	NARAYANPUR	42
SHOLAYAR	0	SRISAILAM	29	VANIVILAS SAGAR	45
GIRNA	7	MULA	30	MAYURAKSHI	45
SALANADI	13	SARDAR SAROVAR	30	HEMAVATHY	49
JAYAKWADI(PAITHON)	13	ALMATTI	31	PANAM	50
YELDARI	15	HARANGI	33		
SRIRAMSAGAR	18	MALAPRABHA(RENUKA)	37		
PANCHET HILL	23	MAITHON	38		
LOWER MANAIR	23	ISAPUR	39		

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

51% to 60%	61% to 70%	71% to 80%
8	6	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 :- 28.01.2016

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	12.786	45.51%	14.896	53.02%	11.926	42.45%	7.21
INDUS	14.730	6.474	43.95%	5.676	38.53%	6.805	46.20%	-4.86
NARMADA	17.414	8.444	48.49%	10.225	58.72%	8.093	46.47%	4.34
TAPI	7.394	3.434	46.44%	4.252	57.51%	4.652	62.92%	-26.18
MAHI	4.012	1.798	44.82%	2.600	64.81%	2.309	57.55%	-22.13
SABARMATI	0.735	0.381	51.84%	0.272	37.01%	0.344	46.80%	10.76
RIVERS OF KUTCH	0.887	0.372	41.94%	0.155	17.47%	0.322	36.30%	15.53
GODAVARI	15.394	5.136	33.36%	7.809	50.73%	8.228	53.45%	-37.58
KRISHNA	32.831	5.551	16.91%	11.068	33.71%	16.975	51.70%	-67.30
MAHANADI & NEIGHBOURING EFRS	13.181	6.841	51.90%	9.384	71.19%	8.739	66.30%	-21.72
CAUVERY & NEIGHBOURING EFRS	8.359	3.648	43.64%	3.987	47.70%	4.308	51.54%	-15.32
WEST FLOWING RIVERS OF SOUTH	14.766	7.358	49.83%	9.519	64.47%	9.306	63.02%	-20.93
TOTAL	157.799	62.223		79.843		82.007		
PERCENTAGE								-24.12

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 28.01.2016

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	496.21	6.229	3.656	28-01-2016	59	52	53	676	1200
*2	PONG DAM	423.67	406.17	6.157	2.349	28-01-2016	38	27	44	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	495.79	2.344	0.469	28-01-2016	20	33	34	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	273.90	1.711	0.940	27-01-2016	55	63	52	63	140
5	JHAKAM	359.50	348.40	0.132	0.046	27-01-2016	35	47	40	28	-
*6	RANA PRATAP SAGAR	352.81	347.12	1.436	0.456	28-01-2016	32	30	44	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	257.91	0.821	0.339	25-01-2016	41	46	43	-	-
8	MAITHON	146.3	139.82	0.471	0.153	25-01-2016	32	65	86	342	-
*9	PANCHET HILL	124.97	121.11	0.184	0.038	25-01-2016	21	54	90	\$	80
10	KONAR	425.81	421.63	0.176	0.107	25-01-2016	61	80	68	\$	-
11	TILAIYA	368.81	366.05	0.142	0.054	25-01-2016	38	83	56	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	189.82	5.378	3.475	27-01-2016	65	65	74	153	307
*13	BALIMELA	462.08	455.40	2.676	1.615	26-01-2016	60	79	56	-	360
14	SALANADI	82.30	55.80	0.558	0.031	27-01-2016	6	46	44	42	-
*15	RENGALI	123.50	117.98	3.432	1.679	26-01-2016	49	72	61	3	200
*16	MACHKUND(JALPUT)	838.16	835.26	0.893	0.656	26-01-2016	73	75	74	-	115
*17	UPPER KOLAB	858.00	855.18	0.935	0.668	26-01-2016	71	79	57	89	320
*18	UPPER INDRAVATI	642.00	634.67	1.456	0.719	27-01-2016	49	81	66	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	110.70	0.480	0.094	25-01-2016	20	20	43	227	-
20	KANGSABATI	134.14	123.96	0.914	0.227	25-01-2016	25	27	35	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	91.25	0.312	0.209	27-01-2016	67	6	22	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	98.14	6.615	3.260	27-01-2016	49	58	64	348	300
23	SABARMATI(DHAROI)	189.59	185.55	0.735	0.381	27-01-2016	52	37	47	95	1
*24	KADANA	127.7	120.91	1.472	0.591	27-01-2016	40	71	63	200	120
25	SHETRUNJI	55.53	53.42	0.300	0.160	27-01-2016	53	27	59	36	-
26	BHADAR	107.89	103.17	0.188	0.045	27-01-2016	24	30	43	27	-
27	DAMANAGANGA	79.86	76.35	0.502	0.326	27-01-2016	65	65	76	51	1
28	DANTIWADA	184.1	176.66	0.399	0.167	27-01-2016	42	4	16	45	-
29	PANAM	127.41	121.05	0.697	0.221	27-01-2016	32	58	63	36	2
*30	SARDAR SAROVAR	121.92	113.79	1.566	0.338	27-01-2016	22	83	71	2120	1450
31	KARJAN	115.25	102.90	0.523	0.220	26-01-2016	42	71	80	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 28.01.2016

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	456.31	2.171	0.126	28-01-2016	6	26	45	227	-
*33	KOYANA	657.90	643.99	2.652	1.265	27-01-2016	48	76	76	-	1920
34	BHIMA(UJJANI)	496.83	490.23	1.517	0.000	27-01-2016	0	67	69	125	12
35	ISAPUR	441.00	430.27	0.965	0.200	27-01-2016	21	48	53	104	-
36	MULA	552.30	539.31	0.609	0.109	27-01-2016	18	47	60	139	-
37	YELDARI	461.77	449.55	0.809	0.051	27-01-2016	6	31	41	78	-
38	GIRNA	398.07	382.74	0.524	0.015	27-01-2016	3	27	38	79	-
39	KHADAKVASLA	582.47	579.76	0.056	0.023	27-01-2016	41	73	45	78	8
*40	UPPER VAITARNA	603.50	597.35	0.331	0.149	27-01-2016	45	67	80	-	61
41	UPPER TAPI	214.00	212.24	0.255	0.159	27-01-2016	62	100	79	45	-
*42	PENCH (TOTALADOH)	490.00	478.97	1.091	0.368	27-01-2016	34	31	45	127	160
43	UPPER WARDHA	342.50	338.65	0.564	0.272	27-01-2016	48	53	61	70	-
44	BHATSA	142.07	125.89	0.942	0.558	27-01-2016	59	67	69	29.378	15
45	DHOM	747.70	733.49	0.331	0.128	27-01-2016	39	69	60	36.2	2
46	DUDHGANGA	646.00	632.03	0.664	0.281	27-01-2016	42	78	77	2.441	24
47	MANIKDOH (KUKADI)	711.25	685.60	0.288	0.029	27-01-2016	10	40	40	2.2	6
48	BHANDARDARA	342.50	338.65	0.304	0.086	27-01-2016	48	53	61	70	-
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	304.16	0.707	0.237	27-01-2016	34	36	47	-	30
*50	RIHAND	268.22	258.41	5.649	1.642	28-01-2016	29	34	33	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	346.60	2.196	1.004	27-01-2016	46	74	58	1897	198
*52	TEHRI	830.00	789.85	2.615	1.170	28-01-2016	45	56	54	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	396.50	6.827	4.656	26-01-2016	68	54	36	220	115
54	TAWA	355.40	346.92	1.944	0.812	27-01-2016	42	53	48	247	-
*55	BARGI	422.76	418.90	3.180	2.148	27-01-2016	68	67	57	157	90
*56	BANSAGAR	341.64	334.64	5.166	2.400	26-01-2016	46	80	44	488	425
*57	INDIRA SAGAR	262.13	255.65	9.745	4.763	28-01-2016	49	53	37	2380	1000
58	BARNA	348.55	343.58	0.456	0.163	26-01-2016	36	45	40	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	348.91	3.046	1.319	27-01-2016	43	83	62	-	120
60	MAHANADI	348.70	343.27	0.767	0.337	27-01-2016	44	81	73	319	10
SOUTHERN REGION											
A.P. & TG											
*61	SRISAILAM	269.75	253.73	8.288	1.377	27-01-2016	17	0	56	0	770
*62	NAGARJUNA SAGAR	179.83	154.56	6.841	0.000	27-01-2016	0	22	37	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	96.53	1.994	1.450	27-01-2016	73	45	63	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	319.98	2.300	0.173	27-01-2016	8	21	41	411	27
65	LOWER MANAIR	280.42	268.48	0.621	0.093	27-01-2016	15	37	64	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	745.12	1.163	0.535	27-01-2016	46	76	64	79	-
*67	TUNGABHADRA	497.74	485.13	3.276	0.315	28-01-2016	10	41	38	529	72
68	GHATAPRABHA	662.95	643.20	1.391	0.318	24-01-2016	23	43	37	317	-
69	BHADRA	657.76	648.79	1.785	0.886	24-01-2016	50	83	86	106	39
70	LINGANAMAKKI	554.43	544.97	4.294	1.959	27-01-2016	46	62	63	-	55
71	NARAYANPUR	492.25	488.30	0.863	0.313	27-01-2016	36	77	86	425	-
72	MALAPRABHA(RENUKA)	633.83	623.13	0.972	0.111	24-01-2016	11	31	31	215	-
73	KABINI(Sancherla Tank)	696.16	690.54	0.444	0.163	27-01-2016	37	72	41	85	-
74	HEMAVATHY	890.63	874.58	0.927	0.140	27-01-2016	15	24	31	265	-
75	HARANGI	871.42	850.92	0.220	0.012	27-01-2016	5	7	16	53	-
76	SUPA	564.00	539.46	4.120	1.722	27-01-2016	42	63	58	-	-
77	VANIVILAS SAGAR	652.28	637.28	0.802	0.100	28-01-2016	12	9	28	123	-
*78	ALMATTI	519.60	509.27	3.105	0.405	27-01-2016	13	37	42	@	290
*79	GERUSOPPA	55.00	52.94	0.130	0.118	28-01-2016	91	85	84	83	240
KERALA											
80	KALLADA(PARAPPAR)	115.82	114.11	0.507	0.449	27-01-2016	89	82	76	62	-
*81	IDAMALAYAR	169.00	150.89	1.018	0.540	27-01-2016	53	72	64	33	75
*82	IDUKKI	732.43	719.16	1.460	0.786	27-01-2016	54	69	62	-	780
*83	KAKKI	981.46	972.63	0.447	0.313	27-01-2016	70	75	74	23	300
*84	PERIYAR	867.41	864.22	0.173	0.099	27-01-2016	57	38	39	84	140
85	MALAPMUZHA	867.41	864.22	0.224	0.053	27-01-2016	57	38	39	84	140
TAMIL NADU											
86	LOWER BHAWANI	278.89	270.37	0.792	0.335	27-01-2016	42	52	58	105	8
*87	METTUR(STANLEY)	240.79	225.94	2.647	0.957	27-01-2016	36	46	49	122	360
88	VAIGAI	279.20	272.79	0.172	0.056	27-01-2016	33	13	40	61	6
89	PARAMBIKULAM	556.26	548.91	0.380	0.232	27-01-2016	61	62	71	101	-
90	ALIYAR	320.04	313.21	0.095	0.054	25-01-2016	57	87	61	#	60
*91	SHOLAYAR	1002.79	961.69	0.143	0.000	27-01-2016	0	8	21	-	95
TOTAL FOR 91 RESERVOIRS				157.799	62.223						
PERCENTAGE							39	51	52		

Sd/-

* HYDEL POWER CAPACITY HAVING CAPACITY MORE THAN 60MW

Director

\$ TOTAL CCA 342 TH. HA OF DVC SYSTEM

W. M. , CWC

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