

BRIEF NOTE ON STORAGE STATUS OF 91 RESERVOIRS IN THE COUNTRY (WITH REFERENCE TO RESERVOIR STORAGE BULLETIN OF 25.02.2016)

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 **25.02.2016**, live storage available in these reservoirs is **51.2 BCM**, which is **32%** 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.

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 **25.02.2016**, the total live storage available in these reservoirs is **5.89 BCM** which is **33%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **31%** and average storage of last ten years during corresponding period was **37%** 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 **25.02.2016**, the total live storage available in these reservoirs is **8.95 BCM** which is **48%** 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 **54%** 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 **25.02.2016**, the total live storage available in these reservoirs is **7.84 BCM** which is **29%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **48%** and average storage of last ten years during corresponding period was **53%** 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 **25.02.2016**, the total live storage available in these reservoirs is **16.91 BCM**

which is **40%** 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 **37%** 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 **25.02.2016**, the total live storage available in these reservoirs is **11.61 BCM** which is **23%** of total live storage capacity of these reservoirs. The storage during corresponding period of last year was **31%** and average storage of last ten years during corresponding period was **40%** 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 **16** 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 **25** 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 **25.02.2016** is **51.200** BCM (**32** 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.	-11 %
									PUNJAB	-31 %
									RAJASTHAN	-10 %
EAST (Jharkhand, Odisha, Tripura & W. Bengal (15 Resv.)	-	-	-	-	2	4	2	7	JHARKHAND	-37 %
									ODISHA	-9 %
									W. BENGAL	-29 %
									TRIPURA	298 %
WEST (Guj.& Mah.), (27 Resv.)	-	-	-	-	-	3	4	20	GUJARAT	-35 %
									MAH.	-57 %
CENTRAL (MP, UP, Uttarakhand & Chh.), (12 Resv)	-	-	-	-	-	2	3	7	U.P.	-14 %
									UTTARAKHAND	-34 %
									M.P.	31 %
									CHHATISGARH	-31 %
SOUTH (Karnataka, TN, AP&TG, AP, TG, & Kerala), (31 Resv.)	-	-	2	-	1	1	4	23	AP&TG	-80 %
									A,P	8 %
									TG	-73 %
									KARNATAKA	-36 %
									KERALA	-5 %
									T.N.	-38 %
Status of 91 reservoirs	0	0	2	0	3	10	15	61		

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, **31** reservoirs reported more than 80% of normal storage & **60** reservoirs reported 80% or below of normal storage. Out of these **60** reservoirs **26** having storage upto 50% of normal storage.

Name of reservoir	%	Name of reservoir	%	Name of reservoir	%
NAGARJUNA SAGAR	0	MANIKDOH	29	MATATILA	44
BHIMA(UJJANI)	0	SRISAILAM	30	HARANGI	44
SHOLAYAR	0	TUNGABHADRA	32	PANAM	45
JAYAKWADI(PAITHON)	7	MULA	32	DUDHGANGA	48
GIRNA	7	MALAPRABHA(RENUKA)	33	KARJAN	49
SALANADI	13	BHANDARDARA	36	ALMATTI	49
YELDARI	17	NARAYANPUR	39		
PANCHET HILL	22	MAITHON	41		
LOWER MANAIR	27	SARDAR SAROVAR	42		
SRIRAMSAGAR	27	ISAPUR	44		

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

51% to 60%	61% to 70%	71% to 80%
10	13	11

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

28 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 :- 25.02.2016

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	10.800	38.44%	12.975	46.18%	10.299	36.66%	4.86
INDUS	14.730	4.724	32.07%	4.287	29.10%	5.461	37.07%	-13.50
NARMADA	17.414	6.666	38.28%	8.021	46.06%	6.501	37.33%	2.54
TAPI	7.394	2.742	37.08%	3.615	48.89%	4.038	54.61%	-32.10
MAHI	4.012	1.388	34.60%	2.242	55.88%	2.007	50.02%	-30.84
SABARMATI	0.735	0.292	39.73%	0.185	25.17%	0.274	37.28%	6.57
RIVERS OF KUTCH	0.887	0.281	31.68%	0.128	14.43%	0.243	27.40%	15.64
GODAVARI	15.394	4.332	28.14%	6.687	43.44%	6.792	44.12%	-36.22
KRISHNA	32.831	4.588	13.97%	8.146	24.81%	12.883	39.24%	-64.39
MAHANADI & NEIGHBOURING EFRS	13.181	6.239	47.33%	8.743	66.33%	7.776	58.99%	-19.77
CAUVERY & NEIGHBOURING EFRS	8.359	2.824	33.78%	3.217	38.49%	3.724	44.55%	-24.17
WEST FLOWING RIVERS OF SOUTH	14.766	6.324	42.83%	8.107	54.90%	7.798	52.81%	-18.90
TOTAL	157.799	51.200		66.353		67.796		
PERCENTAGE								-24.48

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 25.02.2016

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	489.60	6.229	2.864	23-02-2016	46	37	41	676	1200
*2	PONG DAM	423.67	399.65	6.157	1.387	25-02-2016	23	22	36	-	360
<u>PUNJAB</u>											
*3	THEIN	527.91	496.11	2.344	0.473	25-02-2016	20	29	29	348	600
<u>RAJASTHAN</u>											
*4	MAHI BAJAJ SAGAR	280.75	271.25	1.711	0.704	25-02-2016	41	50	40	63	140
5	JHAKAM	359.50	342.80	0.132	0.022	25-02-2016	17	28	25	28	-
*6	RANA PRATAP SAGAR	352.81	347.00	1.436	0.440	23-02-2016	31	28	40	229	172
<u>EASTERN REGION</u>											
<u>JHARKHAND</u>											
7	TENUGHAT	269.14	257.42	0.821	0.324	25-02-2016	39	45	41	-	-
8	MAITHON	146.3	139.49	0.471	0.141	25-02-2016	30	50	72	342	-
*9	PANCHET HILL	124.97	120.81	0.184	0.030	25-02-2016	16	37	75	\$	80
10	KONAR	425.81	420.81	0.176	0.094	25-02-2016	53	74	61	\$	-
11	TILAIYA	368.81	365.25	0.142	0.035	25-02-2016	25	77	45	\$	4
<u>ODISHA</u>											
*12	HIRAKUD	192.02	189.00	5.378	3.021	25-02-2016	56	55	63	153	307
*13	BALIMELA	462.08	453.73	2.676	1.400	24-02-2016	52	73	48	-	360
14	SALANADI	82.30	55.25	0.558	0.027	25-02-2016	5	44	38	42	-
*15	RENGALI	123.50	117.58	3.432	1.582	24-02-2016	46	73	55	3	200
*16	MACHKUND(JALPUT)	838.16	834.06	0.893	0.568	23-02-2016	64	64	65	-	115
*17	UPPER KOLAB	858.00	853.88	0.935	0.567	24-02-2016	61	69	49	89	320
*18	UPPER INDRAVATI	642.00	633.95	1.456	0.660	25-02-2016	45	71	56	128	600
<u>WEST BENGAL</u>											
19	MAYURAKSHI	121.31	110.55	0.480	0.091	25-02-2016	19	20	37	227	-
20	KANGSABATI	134.14	123.93	0.914	0.226	25-02-2016	25	26	29	341	-
<u>TRIPURA</u>											
21	GUMTI	93.55	90.70	0.312	0.187	25-02-2016	60	0	15	-	15
<u>WESTERN REGION</u>											
<u>GUJARAT</u>											
*22	UKAI	105.16	96.41	6.615	2.612	25-02-2016	39	49	56	348	300
23	SABARMATI(DHAROI)	189.59	184.23	0.735	0.292	25-02-2016	40	25	37	95	1
*24	KADANA	127.7	119.20	1.472	0.480	25-02-2016	33	65	60	200	120
25	SHETRUNJI	55.53	52.72	0.300	0.127	25-02-2016	42	21	47	36	-
26	BHADAR	107.89	102.75	0.188	0.038	25-02-2016	20	26	31	27	-
27	DAMANAGANGA	79.86	74.80	0.502	0.269	25-02-2016	54	54	66	51	1
28	DANTIWADA	184.1	174.44	0.399	0.116	25-02-2016	29	4	11	45	-
29	PANAM	127.41	119.90	0.697	0.182	25-02-2016	26	55	58	36	2
*30	SARDAR SAROVAR	121.92	114.34	1.566	0.410	25-02-2016	26	75	62	2120	1450
31	KARJAN	115.25	101.05	0.523	0.188	25-02-2016	36	62	74	51	3

WEEKLY REPORT OF 91 IMPORTANT RESERVOIRS OF INDIA

GOVERNMENT OF INDIA

CENTRAL WATER COMMISSION

WEEK ENDING :- 25.02.2016

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	455.87	2.171	0.054	25-02-2016	2	20	38	227	-
*33	KOYANA	657.90	641.68	2.652	1.077	24-02-2016	41	70	68	-	1920
34	BHIMA(UJJANI)	496.83	489.04	1.517	0.000	24-02-2016	0	42	55	125	12
35	ISAPUR	441.00	430.10	0.965	0.193	24-02-2016	20	39	46	104	-
36	MULA	552.30	538.74	0.609	0.096	24-02-2016	16	37	49	139	-
37	YELDARI	461.77	449.37	0.809	0.046	24-02-2016	6	22	33	78	-
38	GIRNA	398.07	382.47	0.524	0.011	24-02-2016	2	21	30	79	-
39	KHADAKVASLA	582.47	580.37	0.056	0.029	24-02-2016	52	63	41	78	8
*40	UPPER VAITARNA	603.50	597.03	0.331	0.141	24-02-2016	43	66	70	-	61
41	UPPER TAPI	214.00	211.39	0.255	0.119	24-02-2016	47	93	68	45	-
*42	PENCH (TOTALADOH)	490.00	475.21	1.091	0.231	24-02-2016	21	21	38	127	160
43	UPPER WARDHA	342.50	337.32	0.564	0.196	25-02-2016	35	41	49	70	-
44	BHATSA	142.07	122.74	0.942	0.498	24-02-2016	53	58	61	29.378	15
45	DHOM	747.70	733.35	0.331	0.126	24-02-2016	38	67	48	36.2	2
46	DUDHGANGA	646.00	628.60	0.664	0.211	25-02-2016	32	66	67	2.441	24
47	MANIKDOH (KUKADI)	711.25	684.76	0.288	0.026	24-02-2016	9	40	32	2.2	6
48	BHANDARDARA	342.50	337.32	0.304	0.068	25-02-2016	35	41	49	70	-
CENTRAL REGION											
UTTAR PRADESH											
49	MATATILA	308.46	302.33	0.707	0.122	24-02-2016	17	26	39	-	30
*50	RIHAND	268.22	258.08	5.649	1.520	20-02-2016	27	30	29	-	300
UTTRAKHAND											
*51	RAMGANGA	365.30	338.60	2.196	0.658	25-02-2016	30	65	50	1897	198
*52	TEHRI	830.00	775.50	2.615	0.773	24-02-2016	30	41	42	2351	1000
MADHYA PRADESH											
*53	GANDHI SAGAR	399.90	394.60	6.827	3.736	25-02-2016	55	46	30	220	115
54	TAWA	355.40	342.41	1.944	0.426	25-02-2016	22	35	32	247	-
*55	BARGI	422.76	417.60	3.180	1.866	25-02-2016	59	55	47	157	90
*56	BANSAGAR	341.64	334.72	5.166	2.423	25-02-2016	47	74	41	488	425
*57	INDIRA SAGAR	262.13	253.90	9.745	3.700	25-02-2016	38	41	30	2380	1000
58	BARNA	348.55	341.08	0.456	0.076	25-02-2016	17	28	26	546	-
CHHATTIS GARH											
*59	MINIMATA BANGOI	359.66	348.64	3.046	1.288	24-02-2016	42	82	59	-	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	250.43	8.288	1.093	25-02-2016	13	0	44	0	770
*62	NAGARJUNA SAGAR	179.83	154.96	6.841	0.000	25-02-2016	0	15	29	895	810
ANDHRA PRADESH											
63	SOMASILA	100.58	94.22	1.994	1.140	25-02-2016	57	30	53	168	0
TELANGANA											
64	SRIRAMSAGAR	332.54	319.83	2.300	0.165	25-02-2016	7	19	27	411	27
65	LOWER MANAIR	280.42	268.25	0.621	0.088	25-02-2016	14	33	53	199	60

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GOVERNMENT OF INDIA

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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	742.96	1.163	0.389	24-02-2016	33	62	49	79	-
*67	TUNGABHADRA	497.74	484.10	3.276	0.244	25-02-2016	7	24	23	529	72
68	GHATAPRABHA	662.95	641.92	1.391	0.275	24-02-2016	20	24	20	317	-
69	BHADRA	657.76	647.03	1.785	0.749	24-02-2016	42	69	70	106	39
70	LINGANAMAKKI	554.43	542.97	4.294	1.615	25-02-2016	38	50	51	-	55
71	NARAYANPUR	492.25	487.58	0.863	0.252	25-02-2016	29	63	75	425	-
72	MALAPRABHA(RENUKA)	633.83	621.42	0.972	0.053	24-02-2016	5	15	16	215	-
73	KABINI(Sancherla Tank)	696.16	690.00	0.444	0.141	24-02-2016	32	71	34	85	-
74	HEMAVATHY	890.63	874.13	0.927	0.127	24-02-2016	14	17	27	265	-
75	HARANGI	871.42	851.84	0.220	0.016	24-02-2016	7	8	16	53	-
76	SUPA	564.00	537.36	4.120	1.574	25-02-2016	38	56	50	-	-
77	VANIVILAS SAGAR	652.28	637.14	0.802	0.096	25-02-2016	12	9	16	123	-
*78	ALMATTI	519.60	508.88	3.105	0.357	25-02-2016	11	23	24	@	290
*79	GERUSOPPA	55.00	50.71	0.130	0.106	25-02-2016	82	85	80	83	240
<u>KERALA</u>											
80	KALLADA(PARAPPAR)	115.82	113.22	0.507	0.428	25-02-2016	84	73	65	62	-
*81	IDAMALAYAR	169.00	147.28	1.018	0.455	25-02-2016	45	63	53	33	75
*82	IDUKKI	732.43	716.68	1.460	0.685	25-02-2016	47	61	52	-	780
*83	KAKKI	981.46	969.80	0.447	0.277	25-02-2016	62	68	66	23	300
*84	PERIYAR	867.41	861.08	0.173	0.043	25-02-2016	25	21	27	84	140
85	MALAPMUZHA	867.41	861.08	0.224	0.035	25-02-2016	25	21	27	84	140
<u>TAMIL NADU</u>											
86	LOWER BHAWANI	278.89	268.11	0.792	0.251	25-02-2016	32	40	51	105	8
*87	METTUR(STANLEY)	240.79	222.83	2.647	0.722	25-02-2016	27	40	46	122	360
88	VAIGAI	279.20	271.08	0.172	0.038	25-02-2016	22	10	30	61	6
89	PARAMBIKULAM	556.26	545.38	0.380	0.168	25-02-2016	44	40	58	101	-
90	ALIYAR	320.04	308.76	0.095	0.030	25-02-2016	32	64	46	#	60
*91	SHOLAYAR	1002.79	962.43	0.143	0.000	25-02-2016	0	0	6	-	95
TOTAL FOR 91 RESERVOIRS				157.799	51.200						
PERCENTAGE							32	42	43		

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