GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI,
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION
LOK SABHA
UNSTARRED QUESTION NO. 4641
ANSWERED ON 31.03.2022

DECLINE IN WATER INFLOW IN DAMS

4641. SHRI DEVJI M. PATEL SHRI RANJEETSINGH HINDURAO NAIK NIMBALKAR
MS. DIYA KUMARI SHRI P.P. CHAUDHARY

Will the Minister of JAL SHAKTI be pleased to state:

(a) whether the Government is aware of the declining trend of water inflow in many dams of Rajasthan and Maharashtra which is further causing shortage in water supplies and if so, the details thereof

(b) whether the Government has assessed the reasons and impacts of the degradation of the catchment capacity of dams in Rajasthan and Maharashtra and if so, the details thereof;

(c) whether the Government proposes any further Dam Rehabilitation and Improvement Projects (DRIP) and if so, the details thereof; and

(d) the details of the funds allocated for Dam Rehabilitation projects in Rajasthan and Maharashtra?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

(a) Central Water Commission (CWC) is monitoring live storage status of 140 reservoirs of the country including 5 dams of Rajasthan and 29 dams of Maharashtra on weekly basis and is issuing weekly bulletin on every Thursday. The total live storage capacity of these 140 reservoirs is 175.957 BCM which is about 68.25% of the live storage capacity of 257.812 BCM estimated to have been created in the country. Abstract of CWC weekly bulletin issued on 24.03.2022, showing storage position of monitored dams of Rajasthan and Maharashtra is given at **Annexure-I.**

(b) No such specific study has been conducted. It is generally observed that the main reasons for degradation of the catchment capacity of the dams, wherever it happens, are the scattered and uneven rainfall and change of land use in catchment area of dams, resulting in less inflow of water in the river.

(c) & (d) Govt. of India has launched the Dam Rehabilitation and Improvement Project (DRIP) Phase II & III with the objective to improve the safety and operational performance of selected dams along with emphasis on institutional strengthening. This scheme has 19 participating States (including Rajasthan and Maharashtra), and three central agencies. The total estimated cost of DRIP, Phases II & III scheme is Rs. 10,211 crore with rehabilitation provision of 736 dams. The scheme is of 10 years duration. Each Phase has external assistance of US$ 500 million. Phase II of the Scheme has co-financing provision, wherein external assistance amounting US$ 500 million is being equally shared by the World Bank and the Asian Infrastructure and Investment Bank. DRIP-II scheme has been declared effective from October 2021.

The State-wise number of dams and estimated cost proposed under DRIP Phases -II & III is given at **Annexure-II**.

State Governments of Rajasthan and Maharashtra have proposed rehabilitation of 189 and 167 dams respectively at an estimated cost of Rs. 965 crore and Rs. 940 crore under DRIP, Phases-II & III.

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ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 4641 TO BE ANSWERED IN LOK SABHA ON 31.03.2022 REGARDING "DECLINE IN WATER INFLOW IN DAMS"

Central Water Commission Weekly Report (24.03.2022) of 140 Important Reservoirs of India

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	HYDE L IN MW
1	2	4	6	5	7	8	9	10	11	3A	3B
NORTHERN REGION											
	HIMACHAL PRADESH										
*1	GOBIND SAGAR(BHAKRA)	512.06	479.56	6.229	1.641	24-03-2022	26	20	33	676	1379
*2	PONG DAM(BEAS)	423.67	402.77	6.157	1.731	24-03-2022	28	18	30	0	396
*3	KOL DAM	642	640.99	0.089	0.074	24-03-2022	83	16	47	0	800
	PUNJAB										
*4	THEIN DAM	527.91	509.34	2.344	1.061	24-03-2022	45	22	37	348	600
	RAJASTHAN										
*5	MAHI BAJAJ SAGAR	280.75	271.30	1.711	0.708	24-03-2022	41	41	41	63	140
6	JHAKAM	359.50	351.55	0.132	0.065	24-03-2022	49	24	27	28	0
*7	RANA PRATAP SAGAR	352.81	348.47	1.436	0.653	24-03-2022	45	43	33	229	172
8	BISALPUR	315.50	310.98	1.076	0.394	24-03-2022	37	40	50	81.8	0
9	JAWAI DAM	313.40	295.35	0.193	0.015	24-03-2022	8	23	20	38.67	0
	EASTERN REGION										
	JHARKHAND										
10	TENUGHAT	269.14	259.26	0.821	0.388	24-03-2022	47	45	46	0	0
$11	MAITHON	146.3	147.74	0.471	0.471	24-03-2022	100	92	79	342	0
*$12	PANCHET HILL	124.97	126.57	0.184	0.184	24-03-2022	100	86	86	0	80
$13	KONAR	425.81	422.97	0.176	0.127	24-03-2022	72	68	65	0	0
$14	TILAIYA	368.81	365.06	0.142	0.031	24-03-2022	22	20	27	0	4
15	GETALSUD	590.06	585.40	0.218	0.087	24-03-2022	40	35	43	0	130
	ODISHA										
*16	HIRAKUD	192.02	189.21	5.378	3.138	23-03-2022	58	42	51	153	307
*17	BALIMELA	462.08	449.58	2.676	0.900	23-03-2022	34	35	50	0	360
18	SALANADI	82.30	75.80	0.558	0.359	23-03-2022	64	39	39	42	0
*19	RENGALI	123.50	120.17	3.432	2.371	23-03-2022	69	34	58	3	200
*20	MACHKUND(JALAPUT)	838.16	825.64	0.893	0.169	23-03-2022	19	57	59	0	115
*21	UPPER KOLAB	858.00	848.54	0.935	0.205	23-03-2022	22	21	44	89	320
*22	UPPER INDRAVATI	642.00	630.88	1.456	0.407	23-03-2022	28	48	54	128	600
23	SAPUA	168.50	168.36	0.006	0.006	24-03-2022	100	100	67	0	0
24	HARIHARJHOR	147.50	142.72	0.059	0.017	24-03-2022	29	41	37	9.95	0
25	MANDIRA DAM	210.31	209.85	0.309	0.305	24-03-2022	99	85	90	0	0
	WEST BENGAL										
26	MAYURAKSHI	121.31	115.37	0.480	0.221	24-03-2022	46	35	39	227	0
27	KANGSABATI	134.14	130.62	0.914	0.628	24-03-2022	69	26	35	341	0
	TRIPURA										
28	GUMTI	93.55	88.90	0.312	0.120	24-03-2022	38	65	29	0	15
	NAGALAND										
*29	DOYANG HEP	333.00	308.95	0.535	0.191	24-03-2022	36	45	45	0	75
	BIHAR										
30	CHANDAN DAM	152.39	147.40	0.14	0.08	24-03-2022	56.62	46.32	25.74	75.00	0.00
	WESTERN REGION										
	GUJARAT										
*31	UKAI	105.16	101.69	6.615	4.830	23-03-2022	73	64	47	348	300
32	SABARMATI(DHAROI)	189.59	180.58	0.735	0.115	24-03-2022	16	41	30	95	1
*33	KADANA	127.7	122.12	1.472	0.683	24-03-2022	46	52	59	200	120
34	SHETRUNJI	55.53	53.92	0.300	0.188	24-03-2022	63	58	29	36	0
35	BHADAR	107.89	105.83	0.188	0.111	24-03-2022	59	49	28	27	0
36	DAMANGANGA	79.86	75.85	0.502	0.307	23-03-2022	61	45	43	51	1
37	DANTIWADA	184.1	168.60	0.399	0.033	24-03-2022	8	9	10	45	0
38	PANAM	127.41	120.85	0.697	0.214	24-03-2022	31	38	55	36	2
*39	SARDAR SAROVAR	138.68	119.19	5.760	1.102	24-03-2022	19	44	18	2120	1450
40	KARJAN	115.25	110.70	0.523	0.388	23-03-2022	74	66	55	51	3
41	SUKHI(GUJ)	147.82	145.22	0.167	0.112	23-03-2022	67	60	40	20.701	0
42	WATRAK	136.25	128.36	0.154	0.011	23-03-2022	7	34	38	22.977	0
43	HATHMATI	180.74	173.25	0.153	0.010	23-03-2022	7	38	27	5.166	0
44	MACHCHHU-I	135.33	130.71	0.071	0.023	23-03-2022	32	27	25	0	0
45	MACHCHHU-II	57.3	56.11	0.091	0.063	23-03-2022	69	62	49	10.13	0
46	UND-I	98	95.10	0.066	0.030	23-03-2022	45	50	36	9.9	0
47	BRAHMANI(GUJ)	64.62	58.88	0.071	0.007	23-03-2022	10	39	25	6.413	0

S. NO	NAME OF RESERVOIR	FRL (m)	CURRENT RESERVOIR LEVEL (m)	LIVE CAPACITY AT FRL (BCM)	CURRENT LIVE STORAGE (BCM)	DATE	ORAGE AS % OF LIVE CAPACITY AT FRL			BENEFITS	
							CURREN T YEAR	LAST YEAR	LAST 10 YEARS AVERAGE	IRR. (CCA) IN TH. HA	IYDEL IN MW
1	2	4	6	5	7	8	9	10	11	3A	3B
	MAHARASHTRA										
48	JAYAKWADI(PAITHAN)	463.91	461.99	2.171	1.482	24-03-2022	68	66	29	227	0
*49	KOYANA	657.90	647.50	2.652	1.697	24-03-2022	64	66	58	0	1920
50	BHIMA(UJJANI)	496.83	495.32	1.517	1.040	24-03-2022	69	58	33	125	12
51	ISAPUR	441.00	438.27	0.965	0.694	24-03-2022	72	68	41	104	0
52	MULA	552.30	548.28	0.609	0.413	24-03-2022	68	67	41	139	0
53	YELDARI	461.77	459.50	0.809	0.589	24-03-2022	73	70	30	78	0
54	GIRNA	398.07	391.97	0.524	0.256	24-03-2022	49	49	27	79	0
55	KHADAKVASLA	582.47	579.39	0.056	0.019	24-03-2022	34	46	61	78	8
*56	UPPER VAITARNA	603.50	598.90	0.331	0.189	24-03-2022	57	66	60	0	61
57	UPPER TAPI	214.00	212.56	0.255	0.174	24-03-2022	68	52	58	45	0
*58	PENCH(TOTLADOH)	490.00	484.42	1.091	0.636	24-03-2022	58	70	38	127	160
59	UPPER WARDHA	342.50	339.54	0.564	0.329	24-03-2022	58	54	40	70	0
60	BHATSA	142.07	125.00	0.942	0.541	24-03-2022	57	55	54	29.378	15
61	DHOM	747.70	741.18	0.331	0.197	24-03-2022	60	63	46	36.2	2
62	DUDHGANGA	646.00	636.43	0.664	0.386	24-03-2022	58	52	51	2.441	24
63	MANIKDOH	711.25	696.05	0.288	0.080	24-03-2022	28	10	18	2.2	6
64	BHANDARDARA	744.91	740.20	0.304	0.223	23-03-2022	73	72	43	63.74	46
65	URMODI	696.00	692.41	0.273	0.218	24-03-2022	80	81	72	37	3
66	BHATGHAR	623.28	616.21	0.673	0.449	24-03-2022	67	64	48	60.656	14.09
67	NIRA DEOGHAR	667.10	656.05	0.332	0.190	24-03-2022	57	52	40	0	6
*68	THOKARWADI	667.14	659.19	0.353	0.165	24-03-2022	47	40	45	0	72
69	KANHER	690.78	683.25	0.272	0.152	24-03-2022	56	45	43	44.78	4
*70	MULSHI	607.10	596.25	0.572	0.170	24-03-2022	30	31	31	0	300
71	SURYA	118.60	110.05	0.276	0.160	24-03-2022	58	53	59	18.324	6
72	TILLARI	113.20	105.28	0.447	0.328	24-03-2022	73	63	59	21.26	10
73	DIMBHE DAM	719.15	704.76	0.354	0.150	24-03-2022	42	54	40	52.569	5
74	VEER DAM	579.85	576.47	0.266	0.171	24-03-2022	64	57	44	181.27	13.5
75	BARVI DAM	72.60	66.44	0.339	0.190	24-03-2022	56	76	37	0	1.1
76	CHASKAMAN	649.53	643.41	0.215	0.120	24-03-2022	56	76	43	55.214	3
	CENTRAL REGION										
	UTTAR PRADESH										
77	MATATILA	308.46	304.50	0.707	0.263	24-03-2022	37	29	30	0	30
*78	RIHAND	268.22	257.83	5.649	1.437	24-03-2022	25	35	33	0	300
79	SHARDA SAGAR	190.50	187.51	0.330	0.247	24-03-2022	75	23	46	126.5	0
80	SIRSI	217.93	212.40	0.190	0.047	24-03-2022	25	9	27	80.566	0
81	MAUDAHA	147.80	144.60	0.179	0.077	24-03-2022	43	17	34	41.7	0
82	JIRGO	98.20	93.65	0.147	0.058	24-03-2022	39	33	39	13.14	0
83	RANGAWAN	233.17	221.86	0.155	0.016	24-03-2022	10	3	15	20.235	0
84	MEJA	178.00	167.85	0.299	0.113	23-03-2022	38	16	28	71.048	0
	UTTRAKHAND										
*85	RAMGANGA	365.30	356.97	2.196	1.583	22-03-2022	72	37	44	1897	198
*86	TEHRI	830.00	775.70	2.615	0.777	24-03-2022	30	15	26	2351	1000
87	NANAK SAGAR	215.19	209.76	0.176	0.021	24-03-2022	12	31	24	250	0
	MADHYA PRADESH										
*88	GANDHI SAGAR	399.90	396.68	6.827	4.747	24-03-2022	70	52	52	220	115
89	TAWA	355.40	347.59	1.944	0.873	24-03-2022	45	41	27	247	0
*90	BARGI	422.76	417.90	3.180	1.926	24-03-2022	61	63	52	157	90
*91	BANSAGAR	341.64	336.67	5.166	3.083	24-03-2022	60	51	61	488	425
*92	INDIRA SAGAR	262.13	252.77	9.745	3.158	24-03-2022	32	43	36	2380	1000
93	BARNA DAM	348.55	343.82	0.456	0.173	24-03-2022	38	47	29	546	0
*94	OMKARESHWAR	196.60	194.30	0.299	0.068	24-03-2022	23	35	10	132.5	520
95	SANJAY SAROVAR	519.38	509.15	0.508	0.055	24-03-2022	11	13	9	12.646	3.45
96	RAJGHAT DAM	370.89	366.55	1.945	1.133	24-03-2022	58	9	18	270	45
97	KOLAR DAM	462.20	450.70	0.270	0.098	24-03-2022	36	42	26	25.677	0
	CHHATTIS GARH										
*98	MINIMATA BANGO	359.66	353.26	3.046	1.879	24-03-2022	62	67	69	0	120
99	MAHANADI	348.70	347.29	0.767	0.635	24-03-2022	83	78	60	319	10
100	DUDHAWA	425.10	416.47	0.284	0.052	24-03-2022	18	53	33	324.54	0
101	TANDULA	332.20	328.21	0.312	0.146	24-03-2022	47	48	53	246.36	0

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
SOUTHERN REGION											
	A.P & TG										
*102	SRISAILAM	269.75	244.88	6.013	0.773	24-03-2022	13	25	18	0	770
*103	NAGARJUNA SAGAR	179.83	169.47	5.108	2.592	24-03-2022	51	41	14	895	810
	ANDHRA PRADESH										
104	SOMASILA	100.58	98.45	1.994	1.782	24-03-2022	89	89	39	168	0
105	YELERU	86.56	80.02	0.508	0.208	24-03-2022	41	48	25	66.6	0
106	KANDALERU	85	79.69	1.792	1.134	24-03-2022	63	72	26	300	9
	TELANGANA										
107	SRIRAMSAGAR	332.54	327.66	2.300	1.124	24-03-2022	49	45	31	411	27
108	LOWER MANAIR	280.42	273.42	0.621	0.251	24-03-2022	40	78	45	199	60
109	NIZAM SAGAR	428.24	426.20	0.482	0.272	24-03-2022	56	48	19	93.619	10
110	SINGUR	523.6	522.47	0.822	0.653	24-03-2022	79	68	34	16.187	15
*111	PRIYADARSHINI JURALA	318.52	316.93	0.168	0.082	24-03-2022	49	59	33	42.388	234.1
	KARNATAKA										
112	KRISHNARAJA SAGARA	752.50	747.60	1.163	0.626	24-03-2022	54	51	34	79	0
*113	TUNGABHADRA	497.74	488.88	3.276	0.707	24-03-2022	22	13	8	529	72
114	GHATAPRABHA(HIDKAL)	662.95	644.78	1.391	0.375	24-03-2022	27	35	23	317	0
115	BHADRA	657.76	651.78	1.785	1.151	24-03-2022	64	51	44	106	39
116	LINGANAMAKKI	554.43	544.27	4.294	1.832	22-03-2022	43	56	38	0	55
@117	NARAYANPUR	492.25	490.87	0.863	0.571	24-03-2022	66	57	38	425	0
118	MALAPRABHA(RENUKA)	633.83	627.59	0.972	0.351	24-03-2022	36	28	14	215	0
119	KABINI	696.66	691.96	0.444	0.225	24-03-2022	51	37	31	85	0
120	HEMAVATHY	890.63	884.75	0.927	0.571	24-03-2022	62	34	17	265	0
121	HARANGI	871.42	868.30	0.220	0.138	24-03-2022	63	32	18	53	0
122	SUPA	564.00	538.93	4.120	1.684	24-03-2022	41	57	45	0	0
123	VANI VILAS SAGAR	652.28	649.88	0.802	0.622	24-03-2022	78	39	14	123	0
*@124	ALMATTI	519.60	513.83	3.105	1.165	24-03-2022	38	28	16	0	290
*125	GERUSOPPA	55.00	48.95	0.130	0.097	24-03-2022	75	60	76	83	240
*126	MANI DAM	594.36	579.08	0.884	0.255	24-03-2022	29	28	33	0	469
*127	TATTIHALLA	468.30	449.79	0.249	0.001	24-03-2022	0	0	7	0	0
	KERALA										
128	KALLADA(PARAPPAR)	115.82	105.19	0.507	0.267	24-03-2022	53	47	50	62	0
*129	IDAMALAYAR	169.00	150.71	1.018	0.532	24-03-2022	52	46	43	33	75
*130	IDUKKI	732.43	720.38	1.460	0.841	24-03-2022	58	50	43	0	780
*131	KAKKI	981.46	966.16	0.447	0.237	24-03-2022	53	70	52	23	300
*132	PERIYAR	867.41	863.64	0.173	0.088	24-03-2022	51	62	20	84	140
133	MALAMPUZHA	115.06	106.47	0.224	0.070	24-03-2022	31	21	17	21.165	2.5
	TAMIL NADU										
134	LOWER BHAWANI	278.89	275.38	0.792	0.584	24-03-2022	74	86	33	105	8
*135	METTUR(STANLEY)	240.79	236.21	2.647	2.022	24-03-2022	76	70	33	122	360
136	VAIGAI	279.20	278.68	0.172	0.160	24-03-2022	93	74	22	61	6
#137	PARAMBIKULAM	556.26	553.13	0.380	0.315	24-03-2022	83	60	32	101	0
#138	ALIYAR	320.04	305.29	0.095	0.015	24-03-2022	16	51	26	0	60
*#139	SHOLAYAR	1002.79	960.93	0.143	0.008	24-03-2022	6	0	2	0	95
140	SATHANUR	222.20	215.77	0.207	0.098	24-03-2022	47	50	32	20.243	7.5
	TOTAL FOR 140 RESERVOIRS			**175.957**	**83.523**						
	PERCENTAGE						**47**	**44**	**38**		

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 & SHOLAYAR

@' TOTAL CCA 425 TH. HA. OF NARAYANPUR AND ALMATTI

t SABARMATI RESERVOIR IS SUPPLEMENTED WITH NARMADA WATER THROUGH PIPELINE.

ANNEXURE-II

ANNEXURE REFERRED TO IN REPLY TO PART (C) & (D) OF UNSTARRED QUESTION NO. 4641 TO BE ANSWERED IN LOK SABHA ON 31.03.2022 REGARDING "DECLINE IN WATER INFLOW IN DAMS".

State/Implementing Agency–wise no. of proposed dams and estimated cost under DRIP, Phase-II & III Scheme

Sl. No.	State/Agency	No. of Dams	Estimated Cost (Rs. in crore)
1	Andhra Pradesh	31	777
2	BBMB	2	230
3	Chhattisgarh	5	92
4	Central Water Commission		570
5	Damodar Valley Corp.	5	144
6	Goa	2	58
7	Gujarat	6	227
8	Jharkhand	35	251
9	Karnataka (including Karnataka Power Corporation Limited)	41	651
10	Kerala SEB	12	150
11	Kerala WRD	16	166
12	Madhya Pradesh	27	104
13	Maharashtra	167	940
14	Manipur	2	20
15	Meghalaya	6	105
16	Odisha	36	933
17	Punjab	12	472
18	Rajasthan	189	965
19	Tamil Nadu	59	1,064
20	Telangana	29	644
21	Uttar Pradesh	39	1,249
22	UJVNL	6	274
23	West Bengal	9	127
	Total	**736**	**10, 211**

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