

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI,
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION
RAJYA SABHA
STARRED QUESTION NO. *213
ANSWERED ON 09.08.2021

ACTION PLAN FOR INCREASED GROUNDWATER LEVELS

*213 # MS. SAROJ PANDEY

Will the Minister of JAL SHAKTI be pleased to state:

- (a) whether Government has made any action plan to conserve water and increase the level of groundwater in the country during the last three years and
- (b) if so, the details of the scheme and the amount of financial expenditure incurred by Government on this scheme, till date?

ANSWER

THE MINISTER OF JAL SHAKTI

(SHRI GAJENDRA SINGH SHEKHAWAT)

(a) & (b) A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PART (a) & (b) OF RAJYA SABHA STARRED QUESTION NO. *213 TO BE ANSWERED ON MONDAY, THE 09.08.2021 ON 'ACTION PLAN FOR INCREASED GROUNDWATER LEVELS' RAISED BY MS. SAROJ PANDEY M.P.

(a) Water being a State subject, preparing action plan for water management, including conservation and water harvesting, is primarily States' responsibility. However, Central Government has initiated a number of steps for rainwater harvesting and groundwater management to improve the groundwater resources in the country. The important initiatives are enumerated below:

Central Ground Water Board (CGWB) in consultation with States/UTs has prepared 'Master Plan for Artificial Recharge to Groundwater - 2020', which is an improvement of the earlier Master Plan – 2013. The Master Plan – 2020 is a macro level plan indicating various structures for the different terrain conditions of the country.

Government of India launched Jal Shakti Abhiyan (JSA) in 2019, a time bound campaign with a mission mode approach intended to improve water availability including ground water conditions in the water stressed blocks of 256 districts in India. This year, Ministry of Jal Shakti has taken up Jal Shakti Abhiyan with the theme "Catch the Rain - Where it Falls When it Falls" to cover all the blocks of all districts (rural as well as urban areas) across the country during 22nd March 2021 to 30th November 2021. The campaign was launched by the Hon'ble Prime Minister on 22 March 2021.

National Aquifer Mapping and Management program (NAQUIM) is being implemented by CGWB as part of Ground Water Management and Regulation (GWM & R) Scheme, a Central Sector scheme. NAQUIM envisages mapping of aquifers (water bearing formations), their characterization and development of aquifer management plans to facilitate sustainable management of groundwater resources in the country. NAQUIM outputs are shared with States/UTs for suitable interventions. Out of total mappable area of around 24.8 lakh sq km. in the country, 16.89 lakh sq. km. area has been covered under the program till date.

The dynamic groundwater resources of the country are being periodically assessed jointly by Central Ground Water Board (CGWB) and State Governments. As per the 2020 assessment, the total annual groundwater recharge in the country is 436.15 billion cubic meter (BCM) and the annual extractable groundwater resource is 397.62 BCM. The annual groundwater extraction for all uses is 244.92 BCM. Out of the total 6,965 assessment units (blocks) in the country, 1,114 (16%) units have been categorized as 'over-exploited' where annual groundwater extraction is more than annual extractable groundwater resource. Further, the stage of groundwater extraction, which is a measure of annual groundwater extraction for all uses (irrigation, industrial and domestic uses) over annual extractable groundwater resource is 61.6 % as per the 2020 assessment.

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Central government generally supports artificial groundwater recharge/water harvesting works in the country through Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and Prime Minister Krishi Sinchayee Yojana - Watershed Development component (PMKSY-WDC), 'Surface Minor Irrigation (SMI) and Repair, Renovation and Restoration (RRR) of Water Bodies schemes' a component of PMKSY (launched in 2015-16) and Atal Bhujal Yojana (Atal Jal) in selected water stressed areas.

With a view to facilitate sustainable development of ground water, Central Ground Water Authority (CGWA) is presently granting No Objection Certificates (NOCs) in 20 States and Union Territories (UTs) as per the extant ground water regulation guidelines. In balance States/UTs they are regulating as per their extant provisions. The latest guidelines (with pan-India applicability) for regulation and control of groundwater extraction in the country have been notified by the Central Government on 24 Sep 2020.

As per information received from Ministry of Housing & Urban Affairs, the Model Building Bye Laws (MBBL), 2016, have been issued for guidance of the States/UTs which have a chapter on 'Rainwater Harvesting'. The provisions of this chapter are applicable to all the buildings. 33 States / UTs have adopted the rainwater harvesting provisions. The implementation of the rainwater harvesting policy comes within the purview of the State Government/Urban Local Body / Urban Development Authority. Further, as per MBBL- 2016, provision of rainwater harvesting is applicable to all residential plots above 100 sq.m.

The Central Government has circulated a Model Bill to all the States/UTs to enable them to enact suitable ground water legislation for regulation of its development, which also includes provision of rain water harvesting. So far, 19 States/UTs have adopted and implemented the groundwater legislation.

In addition, a number of States have done notable work in the field of water conservation/harvesting. Of these, mention can be made of 'Mukhyamantri Jal Swavlamban Abhiyan' in Rajasthan, 'Jalyukt Shibar' in Maharashtra, 'Sujalam Sufalam Abhiyan' in Gujarat, 'Mission Kakatiya' in Telangana, Neeru Chettu' in Andhra Pradesh, Jal Jeevan Hariyali in Bihar, 'Jal Hi Jeevan' in Haryana, Kudimaramath scheme in Tamil Nadu among others.

Some other important measures taken by the Central Government for conservation, management of ground water and effective implementation of rain water harvesting in the country are available at the following

[URL:http://jalshakti-dowr.gov.in/sites/default/files/Steps_to_control_water_depletion_Feb2021.pdf](http://jalshakti-dowr.gov.in/sites/default/files/Steps_to_control_water_depletion_Feb2021.pdf).

(b) As per Schedule I of Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) Section 4(3), Para 4 (1), I. Category: A : Public works related to Natural Resource Management : (i) Water

Conservation and water harvesting structures to augment and improve ground water like underground dykes, earthen dams, stop dams, check dams and roof top rainwater harvesting structures in government/panchayat buildings with focus on recharging groundwater are permissible activities. Under MGNREGA 47,82,429 water harvesting and conservation works taken up in the country with estimated cumulative expenditure of Rs 55,058.31 crores since 2018-19 (as on 28 July 2021). The year-wise and State-wise details in this regard are given at **Annexure I**.

PMKSY-WDC (erstwhile IWMP) is being implemented in the country since, 2009-10 for the development of rainfed/degraded lands. The activities undertaken inter alia include ridge area treatment, drainage line treatment, soil and moisture conservation, rainwater harvesting, afforestation, nursery raising, horticulture, livelihood for assetless persons etc. As per information received from States/UTs since 2018-19 to 2021-22 (upto Quarter I), 2.47 lakh water harvesting structures have been created/rejuvenated. Cumulative central assistance released during the said period to States/UTs is Rs 4,243.10 crores. The year-wise and State-wise details of funds released in this regard are given at **Annexure II**.

RRR/SMI schemes mainly aims at expanding cultivable area under assured irrigation along with other objectives like improving water use efficiency, groundwater recharge, improvement and restoration of water bodies thereby increasing the tank storage capacity and revival of lost irrigation potential, increased availability of drinking water, improvement of catchment of tank commands etc.

Under the Surface Minor Irrigation (SMI) scheme, since 12th plan onwards, 6,213 schemes are ongoing with an estimated cost of Rs 13,473 crore. Central assistance (CA) of Rs. 2,152.78 crore has been released to States since 2018-19 till date including Rs 1.83 crore during current financial year.. The year-wise and State-wise details in this regard are given at **Annexure III**. Further under RRR, since 12th Plan onwards, 2,228 schemes are ongoing with an estimated cost of Rs. 1,914.86 crore. Central assistance (CA) of Rs. 125.37 crore has been released to States since 2018-19 till date. The year-wise and State-wise details in this regard are given at **Annexure III**.

The Central Government has approved Atal Jal, a Rs. 6,000 crore Central Sector Scheme with World Bank assistance, for sustainable management of ground water resources with community participation in selected water stressed areas on pilot basis. The scheme is being implemented since 01.04.2020 in 81 districts, 222 administrative blocks and 8,774 water stressed Gram Panchayats of seven States, viz. Haryana, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. The funds released since 2020-21 till date (as on 03.08.2021) is Rs 154.44 Crores. The year-wise and State-wise details in this regard are given at **Annexure IV**.

Total expenditure under NAQUIM and allied activities since 2018-19 till date is Rs 645.26 crores. The year-wise expenditure details are given in **Annexure IV**.

ANNEXURE-I

Annexure referred to in reply to part (b) of Starred Question No. *213 to be answered in Rajya Sabha on 09.08.2021 regarding “Action Plan for Increased Groundwater Levels”.

Water Conservation & Water Harvesting Works taken up & Expenditure made in last five years and Current FY 2021-22 under MGNREGA (as on 28 th July 2021)										
Sl. No.	States/UTs	2018-19		2019-20		2020-21		2021-22		
		Number of works	Expenditure in Rs. Lakh	Number of works	Expenditure in Rs. Lakh	Number of works	Expenditure in Rs. Lakh	Number of works	Expenditure in Rs. Lakh	
1.	ANDAMAN AND NICOBAR	74	22.9	81	32.55	79	45.72	71	14.73	
2.	ANDHRA PRADESH	60620	76079.94	58929	67225.67	73634	116063.48	58776	87444.56	
3.	ARUNACHAL PRADESH	69	934.29	189	581.2	222	1858.79	184	196.98	
4.	ASSAM	11090	9099.08	13662	10427.14	24401	36698.19	22750	12774.05	
5.	BIHAR	20952	18532.07	51707	21949.92	102618	48997.97	87627	31416.53	
6.	CHHATTISGARH	44568	56610.96	50990	69586.02	59630	101391.39	44801	50922.36	
7.	GOA	12	0	38	16.35	71	49.71	53	26.22	
8.	GUJARAT	22076	19061.09	25073	22632.73	26025	31609.53	21825	28567.77	
9.	HARYANA	1835	5427.89	2695	4783.85	2916	6768.8	2400	3014.96	
10.	HIMACHAL PRADESH	19933	9232.16	16120	5962.96	15865	6213.33	11334	2717.29	
11.	JAMMU AND KASHMIR	11849	3301.39	18018	4144.5	22303	8870.37	19296	1039.33	
12.	JHARKHAND	30020	9136.23	27171	9042.23	50903	18634.82	37918	6902.39	
13.	KARNATAKA	52211	58117.1	69543	112083.52	109921	137456.32	126134	72933.8	
14.	KERALA	61072	90176.13	73332	85107.89	98802	125822.71	75280	13128.25	
15.	LADAKH	229	83.44	261	178.96	275	84.81	284	29.21	
16.	LAKSHADWEEP	39	2.34	36	1.84	37	0.11	37	0	
17.	MADHYA PRADESH	72296	97871.08	95668	153028.95	178013	350418.07	161897	160986.26	
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18.	MAHARASHTRA	47457	31880.87		32527	19146.82		24177	23317.59		19522	7828.06
19.	MANIPUR	1437	3024.49		3911	5640.98		4727	16613.18		3038	5427.62
20.	MEGHALAYA	2342	5419.51		8463	18876.24		10816	21908.86		8748	2147.79
21.	MIZORAM	1575	3772.23		1384	3532.38		791	2357.64		647	1493.32
22.	NAGALAND	431	1788.46		554	3502.64		785	3860.75		719	520.26
23.	ODISHA	13201	15155.02		29890	19829.47		58882	78432.07		54623	36861.43
24.	PUDUCHERRY	69	340.05		87	497.58		101	768.65		29	38.49
25.	PUNJAB	804	919.08		1518	1080.55		2286	1620.07		2024	692.08
26.	RAJASTHAN	47002	113304.21		57671	169565.62		84929	336125.85		81592	100157.26
27.	SIKKIM	686	408.27		1498	846.78		2028	904.23		1290	276.48
28.	TAMIL NADU	93619	218706.2		135777	312075.41		154068	463376.7		104552	144384.39
29.	TELANGANA	128357	54169.81		126893	44838.91		123003	81094.77		112450	65913.85
30.	THE DADRA AND NAGAR HAVELI AND DAMAN AND DIU	2	0		2	0		2	0		2	0
31.	TRIPURA	8035	9404.46		9764	13174.39		12009	14871.19		7427	5484.05
32.	UTTAR PRADESH	68109	74375.37		83665	74403.33		129472	142542.04		109081	24138.86
33.	UTTARAKHAND	12201	6042.55		16198	7464.83		25030	11717.99		18057	2622.84
34.	WEST BENGAL	87637	42225.56		80716	49934.38		92722	76466.57		80478	22946.63
	Total (in Lakhs)	9,21,909	10,34,624.23		10,94,031	13,11,196.58		14,91,543	22,66,962.27		12,74,946	8,93,048.10
	Total (in Crores)		10346.24			13111.96			22669.63			8930.48

ANNEXURE-II

Annexure referred to in reply to part (b) of Starred Question No. *213 to be answered in Rajya Sabha on 09.08.2021 regarding “Action Plan for Increased Groundwater Levels”.

S. No	State	Central funds (Rs. in crore) released from 2018-19 to 2020-21 (till 14.07.2021)			
		2018-19	2019-20	2020-21	Total
		Funds released	Funds released	Funds released	Funds released
1	Andhra Pradesh	139.15	144.39	43.89	327.43
2	Bihar	46.77	88.367		135.137
3	Chhattisgarh	57.03	47.07		104.1
4	Gujarat	151.84	77.93		229.71
5	Haryana	10.00	7.13	13.68	30.81
6	Himachal Pradesh	24.04	66.87		90.91
7	Jharkhand	28.83	36.77	41.92	107.52
8	Karnataka	101.07	21.76	6.16	128.99
9	Kerala	13.06	48.77		61.83
10	Madhya Pradesh	162.41	221.278	84.90	468.588
11	Maharashtra	163.33	103.00		266.33
12	Odisha	102.17	83.11	1.75	187.03
13	Punjab				0
14	Rajasthan	299.00	119.43	449.896	868.326
15	Tamil Nadu	90.59			90.59
16	Telangana	81.93	33.50	60.34	175.77
17	Uttar Pradesh				0
18	Uttarakhand**	6.98			6.98
19	West Bengal	46.39	92.87		139.26
	N E States				0
20	Arunachal Pradesh	19.17	55.71	5.80	80.68
21	Assam	66.55	49.03	169.26	284.84
22	Manipur	14.14	1.46		15.6
23	Meghalaya	6.69	1.19		7.88
24	Mizoram	23.14	22.27		45.41
25	Nagaland	38.51	137.55	3.5307	179.5907
26	Sikkim		2.127		2.127
27	Tripura	15.89	10.75	11.74	38.38
	Union Territories				0
28	Jammu & Kashmir	71.87		91.21	163.08
29	Laddakh			6.15	6.15
	Grand Total	1780.55	1472.332	990.2209	4243.0487

ANNEXURE-III

Annexure referred to in reply to part (b) of Starred Question No. *213 to be answered in Rajya Sabha on 09.08.2021 regarding “Action Plan for Increased Groundwater Levels”.

SMI Scheme

Sl No	State	2018-19			2019-20			2020-21		
		CA(in crore)	Exp. (in crore)	Potential achieved (in lakh ha)	CA(in crore)	Exp. (in crore)	Potential achieved (in lakh ha)	CA(in crore)	Exp. (in crore)	Potential achieved (in lakh ha)
1	Andhra Pradesh	0	0	0	0	0	0	0	0	0
2	Arunachal Pradesh	22.2477	0.67	0.0058	17.4927	43.486	0.0279	104.6936	0	0.0009
3	Assam	428.3432	451.541	0.09953	414.0584	58.61794	0.06733	205.6189	53.7171	0
4	Bihar	32.2757	32.137	0.09703	16.1382	18.88162	0.08657	10.6525	0	0.01302
5	Chhattisgarh	0	33.7	0.005	0	0	0	0	0	0
6	Himachal Pradesh	66.195	76.0568	0.02153	147.908	164.342	0.054566	59.7993	27.4854	0.0001
7	J&K & Ladakh	31.7055	57.7685	0.123805	68.57912	73.23315	0.022398	97.5894	0.02351	0
8	Jharkhand	0	4.253	0.04603	0	0	0	0	0	0
9	Karnataka	0	0	0	0	0	0	0	0	0
10	Madhya Pradesh	0	0	0	0	0	0	0	0	0
11	Maharashtra	0	0	0	0	0	0	0	0	0
12	Manipur	0	22.2264	0.00704	0	0	0	69.2568	0	0
13	Meghalaya	31.5	35	0	22.2181	28.7971	0.0307	57.071	0	0.00734
14	Mizoram	0	0.3607	0	11.34485	13.852	0.01589	7.6535	0	0.00153
15	Nagaland	35.3275	26.08	0.0202	20.4617	20.4617	0.0198	35.988	0	0
16	Odisha	0	0	0	0	0	0	0	0	0
17	Sikkim	16.61	16.61	0.002508	9.126	9.1258	0.008287	9.3262	9.3262	0
18	Tripura	0	0	0	8.9999	0	0	0	0	0
19	Uttarakhand	61	41.66	0.01962	31.784	21.335	0.046056	0	0	0.025814
20	West Bengal	0	0	0	0	0	0	0	0	0
	Total	725.2046	798.0634	0.448093	768.111	452.1323	0.379497	657.6492	90.5287	0.048704

RRR Scheme

Sl No	State	2018-19			2019-20			2020-21		
		CA(in crore)	Exp. (in crore)	Potential achieved (in lakh ha)	CA(in crore)	Exp. (in crore)	Potential achieved (in lakh ha)	CA(in crore)	Exp. (in crore)	Potential achieved (in lakh ha)
1	Andhra Pradesh	2.7	0	0	0	0	0	0	0	0
2	Bihar	6.255	6.583	0	11.82	15.1172	0	0	0	0.17873
3	Chhattisgarh	0	0							
4	Gujarat	8.8125	3.86964	0	0	4.1771	0.0014	0	0	0
5	Haryana									
6	Karnataka									
7	Madhya Pradesh	0	0	0	0	0	0	0	0	0
8	Maharashtra									
9	Manipur	0	1.9499	0	24.2625	7.4279	0	0	0	0
10	Meghalaya	0	0	0	0	3.48	0.00027	0	0	0
11	Odisha	0	46.1422	0.025065	0	0	0.01457	34.5381	0	0
12	Rajasthan	0	37.963	0.028517	11.9564	21.296	0	0	0	0
13	Tamil Nadu	7.0279	19.5184	0.007369	16.7472	0	0	1.2521	0	0
14	Telangana	0	69.074	0.08509	0	36.29	0.03621	0	0	0.00802
15	Uttar Pradesh	0	0	0	0	0	0	0	0	0
16	Uttarakhand									
	Total	24.7954	185.1001	0.146041	64.7861	87.7882	0.05245	35.7902	0	0.18675

ANNEXURE IV

Annexure referred to in reply to part (b) of Starred Question No. 213 to be answered in Rajya Sabha on 09.08.2021 regarding “Action Plan for Increased Groundwater Levels”.

Funds released under Atal Jal

STATE	Funds released (Rs. In Crore)	
	FY 2020-21	FY 2021-22 (as on 03.08.2021)
Gujarat	10.26	3.71
Haryana	20.80	9.63
Karnataka	21.52	5.73
Madhya Pradesh	6.33	2.93
Maharashtra	20.35	10.20
Rajasthan	22.05	10.36
Uttar Pradesh	7.69	2.88
Total	109.00	45.44

The year-wise expenditure details in respect of NAQUIM and Allied activities.

Financial years	Expenditure (Rs in Cr)
2018-19	262.85
2019-20	242.7
2020-21	129.8
2021-22	9.91 (as on 30 th June 2021)