GOVERNMENT OF INDIA

MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

LOK SABHA

UNSTARRED QUESTION NO. 902

ANSWERED ON 07.12.2023

WITHDRAWAL OF GROUND WATER

902. SHRI RAJIV PRATAP RUDY

Will the Minister of **JAL SHAKTI** be pleased to state:

(a) whether it is a fact that electrification of ground water withdrawal corresponds to a rise in the use of tubewells and borewells that are capable of extracting water from greater depths;

(b) if so, the details thereof;

(c) the total number of tubewells, borewells, dugwells, Shallow tube wells, State-wise including Saran district of Bihar;

(d) whether it is a fact that electricity is the dominant source of power to extract water, over diesel, windmills, and solar pumps;

(e) the details of the share of various sources of power to extract water for agriculture, including electricity, diesel, windmills and solar pumps, Statewise; and

(f) the steps taken by the Government to keep a check on excessive groundwater withdrawal for irrigation?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU**)**

(a) & (b) Electricity is one of the major and dominant sources for extracting ground water and electric pumps are believed to be more convenient for extracting ground water from greater depths.

(c) The Minor Irrigation Census Division under this Ministry conducts the census of minor irrigation structures of the country on a periodic basis.

As per the latest available (6^{th}) Minor Irrigation (MI) Census, the total number of ground water schemes/wells in India is 2,19,32,799 (Dugwell – 82,78,425; Shallow Tubewell – 55,85,839; Medium Tubewell – 43,18,275 & Deep Tubewell - 37,50,260). The State wise details are given in **Annexure I**.

Further, for the state of Bihar the total number of ground water schemes/wells are 6,91,231 (Dugwell – 15,926; Shallow Tubewell – 1,83,878; Medium Tubewell - 4,55,650 & Deep Tubewell - 35,777). In Saran District, the total number of ground water schemes/wells are 29, 361 (Dug well – 7; Shallow Tubewell – 5,802; Medium Tubewell – 12,012 & Deep Tubewell - 11,540).

(d) As per the 6^{th} MI Census, electricity, diesel, windmills, solar, manual/animal are the major sources of energy used for drawing ground water. The total number wells currently being used to draw water are 2,17,34,714 out of which 1,65,63,097 (76%) wells are powered by electrical pump to extract ground water.

(e) The State wise details of the share of various sources of power to extract water for agriculture, including electricity, diesel, windmills and solar pumps are given in **Annexure II**.

(f) Water being a State subject, the aspects related to water resources including irrigation activities are studied, planned, funded and executed by the State Governments. The Central Government provides technical support and financial assistance through its various centrally sponsored schemes. Some of the important measures taken by the central government for reducing excessive use of ground water in irrigation are listed below:

National Water Policy (2012) has been formulated by Department of Water Resources, RD & GR, envisages evolving an agricultural system which economizes on water use and maximizes value from water, and bringing in maximum efficiency in use of water and avoiding wastages. The Policy has been forwarded to all States/UTs concerned Ministries/Departments of Central Government for adoption.

Department of Agriculture & Farmers Welfare is implementing Per Drop More Crop (PDMC) component of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) which is operational from 2015-16 in the Country. The PMKSY-PDMC mainly focuses on water use efficiency at farm level through precision/micro irrigation. Besides promoting precision irrigation (Drip and Sprinkler Irrigation System) & better on-farm water management practices (to optimize the use of available water resources), this component also supports micro level water storage or, water conservation/management activities to supplement Micro Irrigation.

Ministry of Jal Shakti (MoJS) has launched Atal Bhujal Yojana, a community led scheme for participatory ground water management focussing on demand side management of ground water. The scheme has been launched with an outlay of Rs.6000 cr in 8213 water stressed Gram Panchayats of 7 states, viz. Haryana, Rajasthan, Gujarat, Maharashtra, Karnataka, Madhya Pradesh and Uttar Pradesh. Under this scheme, inter alia, states are incentivized for adopting water efficient agricultural practices like switching over to drips/sprinklers, crop diversification to less water incentive crops, mulching etc.

MoJS has also issued advisories to States/UTs to review their free/subsidized electricity policy to farmers, bring suitable water pricing policy and may work further towards crop rotation/diversification/other initiatives to reduce over-dependence on groundwater.

MoJS is promoting conjunctive use of surface water and groundwater and to reduce over-dependence on groundwater, surface water based Major and Medium irrigation projects have been taken up in the country under PMKSY-AIBP scheme in collaboration with States/UTs.

The Central Ground Water Authority (CGWA) has been constituted under MoJS under section 3(3) of the Environment (Protection) Act, 1986 for the purpose of regulation and control of ground water development and management in the country. Abstraction cum use of Groundwater in the country is regulated by CGWA by way of issuing NOCs as per the provisions of its Guidelines dated 24.09.2020 which have pan India applicability.

Bureau of Water Use Efficiency (BWUE) has been set up under MoJS to plan and execute nation-wide program for promotion of efficient use of water in irrigation, domestic water supply, municipal and/or industrial uses in the country.

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ANNEXURE I

ANNEXURE REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 902 TO BE ANSWERED IN LOK SABHA ON 07.12.2023 REGARDING "WITHDRAWAL OF GROUND WATER".

State Wise Total number of Schemes/wells – Ground Water (as per 6th MI Census)

S. No	States/UTs	Total number of Schemes/wells – Ground Water				
		Dugwell	Shallow Tubewell	Medium Tubewell	Deep Tubewell	Total
1	Andaman & Nicobar	2429	40	0	0	2469
2	Andhra Pradesh	171301	198162	237713	525593	1132769
3	Arunachal Pradesh	25	18	2	5	50
4	Assam	38	151095	369	674	152176
5	**Bihar**	**15926**	**183878**	**455650**	**35777**	**691231**
6	Chandigarh	0	0	0	30	30
7	Chhatisgarh	31414	27875	156944	117354	333587
8	Delhi	0	733	129	13	875
9	Goa	3932	71	21	7	4031
10	Gujarat	382286	303245	390256	279040	1354827
11	Haryana	1005	20892	49495	148073	219465
12	Himachal Pradesh	431	5255	3600	1405	10691
13	Jammu & Kashmir	4725	4766	318	661	10470
14	Jharkhand	160077	1611	1209	520	163417
15	Karnataka	134603	115123	696702	330824	1277252
16	Kerala	52135	3146	5301	1871	62453
17	Madhya Pradesh	1336682	419460	243781	232720	2232643
18	Maharashtra	2749088	131100	174194	179583	3233965
19	Manipur	0	0	0	0	0
20	Meghalaya	149	803	0	5	957
21	Mizoram	34	4	23	0	61
22	Nagaland	12	10	3	10	35
23	Odisha	265554	42443	46550	61434	415981
24	Puducherry	37	625	1828	1341	3831
25	Punjab	0	181189	418938	573630	1173757
26	Rajasthan	834841	21417	140380	478286	1474924
27	Sikkim	0	0	0	0	0
28	Tamil Nadu	1577198	89026	110660	293934	2070818
29	Telengana	457784	76790	677156	367519	1579249
30	Tripura	4	1009	1468	266	2747
31	Uttarakhand	411	44838	5003	1739	51991
32	Uttar Pradesh	85224	3333679	418316	106883	3944102
33	West Bengal	11080	227536	82266	11063	331945
	Total	**8278425**	**5585839**	**4318275**	**3750260**	**21932799**

ANNEXURE II

ANNEXURE REFERRED TO IN REPLY TO PART (e) OF UNSTARRED QUESTION NO. 902 TO BE ANSWERED IN LOK SABHA ON 07.12.2023 REGARDING "WITHDRAWAL OF GROUND WATER".

State Wise various sources of power to extract ground water for agriculture, including electricity, diesel, windmills and solar pumps

S. No.	States/UTs	Ground Water Schemes/wells						
		Electric Pump	Diesel Pump	Wind mills	Solar pumps	Manual/ Animal	Others	Total
1	Andaman & Nicobar	946	61	1	0	1406	4	2418
2	Andhra Pradesh	995902	68970	202	7567	2954	8234	1083829
3	Arunachal Pradesh	7	30	0	0	0	0	37
4	Assam	71656	78319	6	10	75	36	150102
5	**Bihar**	**116994**	**530466**	**1253**	**584**	**36074**	**3606**	**688977**
6	Chandigarh	30	0	0	0	0	0	30
7	Chhatisgarh	323504	2211	125	3893	2888	652	333273
8	Delhi	872	2	0	0	0	0	874
9	Goa	3339	182	2	2	454	22	4001
10	Gujarat	1307472	1976	40611	12	615	486	1351172
11	Haryana	206396	11948	70	159	3	882	219458
12	Himachal Pradesh	10124	507	5	6	19	6	10667
13	Jammu & Kashmir	10365	93	1	1	6	3	10469
14	Jharkhand	18009	107847	384	786	23633	11861	162520
15	Karnataka	1242691	3891	587	597	25224	2079	1275069
16	Kerala	58815	1668	37	17	1438	405	62380
17	Madhya Pradesh	2133834	65192	369	1566	4875	13128	2218964
18	Maharashtra	3141908	46170	4435	1580	5707	30382	3230182
19	Meghalaya	28	774	1	0	149	2	954
20	Mizoram	25	1	0	1	19	0	46
21	Nagaland	3	16	0	10	2	2	33
22	Odisha	209852	128012	603	540	53834	5429	398270
23	Puducherry	3700	2	0	0	0	2	3704
24	Punjab	1135980	37210	184	175	6	191	1173746
25	Rajasthan	1154521	294012	763	2048	7899	2196	1461439
26	Tamil Nadu	1906132	78409	2032	695	18192	12331	2017791
27	Telengana	1550929	6127	494	190	873	602	1559215
28	Tripura	2539	32	0	0	0	6	2577
29	Uttarakhand	25334	26325	8	3	2	99	51771
30	Uttar pradesh	775613	3156427	389	2166	272	538	3935405
31	West Bengal	155577	165047	512	1112	932	2161	325341
	Total	**16563097**	**4811927**	**53074**	**23720**	**187551**	**95345**	**21734714**

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