GOVERNMENT OF INDIA

MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO. 2303

ANSWERED ON 16.12.2024

WATER SCARCITY PROBLEM

2303. SHRI AKHILESH PRASAD SINGH

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

(a) whether Government has taken any steps to address the water scarcity problem highlighted by a National Green Tribunal monitoring committee that announced recently that Punjab's groundwater will drop below 300m by the year 2039;

(b) if so, the details thereof;

(c) whether Government has taken any steps pursuant to the 2020 block-wise groundwater resources assessment by the Central Ground Water Board (CGWB) that found that most of the districts in Punjab had over-exploited the groundwater levels;

(d) if so, the details thereof; and

(e) if not, the reasons therefor?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY**)**

(a) & (b) The Central Ground Water Board (CGWB) monitors groundwater levels throughout the country including in the state of Punjab at regular intervals. The district-wise ground water level measured for the Month of November 2023 for the State of Punjab is given in **Annexure.** In the state of Punjab, out of the wells monitored, 64.60% wells have shown water level between 0 to 20 meters below ground level (mbgl). Further, in order to assess the long term fluctuation in ground water level in the State of Punjab, the water level data collected by CGWB in Punjab during November 2023 has been compared with the decadal mean of November (2013-2022). Analysis of water level data indicates that about 34.60% of the wells monitored have registered rise in ground water level.

Water being a State subject, addressing water scarcity problem, including taking corrective action, falls under the mandate of State governments. The Central Government complements the efforts of the States by providing technical support and financial assistance through its various centrally sponsored schemes. Some of the important steps taken by the Ministry to check ground water depletion in the country, including in the State of Punjab are given below: -

i. The Government is implementing Jal Shakti Abhiyan (JSA) in the country since 2019 in which is a mission mode and time bound programme for harvesting the rainfall and taking up water conservation activities. Currently, JSA 2024 is being implemented in the country with special focus on 151 water stressed districts of the country, including 10 such districts in Punjab. JSA is an umbrella campaign under which various ground water recharge and conservation related works are being taken up in convergence with various central and state schemes.

ii. CGWB has taken up National Aquifer Mapping and Management Programme(NAQUIM) with an aim to delineate aquifer disposition and their characterization. Entire mappable area of the country of around 25 lakh sq. km, including 50,369 sq km of Punjab, has been mapped under the scheme and management plans have been shared with the respective State governments for implementation.

iii. Master Plan for Artificial Recharge to Groundwater- 2020 has been prepared by the CGWB and shared with States/UTs providing a broad outline for construction of around 1.42 crore rain water harvesting and artificial recharge structures in the country. Master plan for the state of Punjab recommends construction of about 11 lakh structures to harness about 1200 MCM of rain-water.

iv. Department of Agriculture & Farmers' Welfare (DA & FW), GoI, is implementing Per Drop More Crop (PDMC) Scheme in the country, including Punjab, since 2015-16, which focuses on enhancing water use efficiency at farm level through Micro Irrigation and better on-farm water management practices to optimize the use of available water resources. As per the data available, an area of 15,173 Ha was covered under PDMC in Punjab up to Feb 2024.

v. Mission Amrit Sarovar was launched by the Government of India which aimed at developing and rejuvenating at least 75 water bodies in each district of the country, including Punjab. As an outcome nearly 69,000 Amrit Sarovars have been constructed/rejuvenated in the country with 1,450 in Punjab.

vi. Details of several other significant initiatives of the Government of India for improvement of groundwater situation in the country can be seen through the link below-
https://jalshakti-dowr.gov.in/document/steps-taken-by-the-central-government-to-control-water-depletion-and-promote-rain-water-harvesting-conservation/

(c) to (e) Dynamic Ground Water Resources Assessment of the country is conducted on a regular basis by CGWB in association with States/UTs and since 2022, the exercise has been made annual. As per the latest available report of 2023, the Stage of ground water Extraction(SoE), which is a ratio of total ground water extraction for all uses over total extractable ground water in the region, for the state of Punjab is assessed at 163.76%, marking a slight improvement over the SoE of 2020 when it was 164.42%. Further, the total percentage of safe assessment units in Punjab has increased from 11.33% to 13.07% during the subject period. Here it is worth mentioning that groundwater being a replenishable resource gets recharged every year through rainfall and other sources such as return flow from irrigation, canal seepage, recharge from surface water bodies etc. and with collective and consistent efforts the situation can be substantially improved.

In order to ameliorate the ground water situation in Punjab and to promote its sustainable management, the government has taken following notable initiatives:

i. 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.

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

iii. Based on the advisories of MoJS to States to review their free/subsidized electricity policy to farmers, bring suitable water pricing policy and to work further towards crop rotation/diversification/other initiatives to reduce over-dependence on groundwater, Department of Agriculture, Punjab is pursuing hard to diversify the acreage under paddy to other less water consuming crops by extending incentives to farmers.

iv. Based on the advice of the Ministry of Jal Shakti, the Punjab Water Resources Regulation and Development Authority (PWRDA) has been established under section 3 of Punjab Water Resources (Management and Regulation) Act, 2020 Act to ensure conservation, management and regulation of water resources in the State.

***

ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PART (a) & (b) OF UNSTARRED QUESTION NO. 2303 TO BE ANSWERED IN RAJYA SABHA ON 16.12.2024 REGARDING "WATER SCARCITY PROBLEM".

The District-wise Ground Water Level Data for the Post-Monsoon 2023 in respect of State of Punjab

Sr. No.	District Name	No of wells analysed	No./Percentage of wells showing depth to water level (mbgl) in the range of											
			0 to 2		2 to 5		5 to 10		10 to 20		20 to 40		> 40	
			No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	Amritsar	10	0	0.0	1	10.0	2	20.0	3	30.0	4	40.0	0	0.0
2	Barnala	5	0	0.0	0	0.0	0	0.0	0	0.0	2	40.0	3	60.0
3	Bathinda	25	0	0.0	1	4.0	4	16.0	10	40.0	10	40.0	0	0.0
4	Faridkot	18	1	5.6	7	38.9	1	5.6	7	38.9	2	11.1	0	0.0
5	Fatehgarh Sahib	12	1	8.3	0	0.0	0	0.0	2	16.7	9	75.0	0	0.0
6	Fazilka	17	6	35.3	8	47.1	2	11.8	1	5.9	0	0.0	0	0.0
7	Firozpur	12	1	8.3	5	41.7	2	16.7	3	25.0	1	8.3	0	0.0
8	Gurdaspur	21	1	4.8	8	38.1	4	19.0	7	33.3	1	4.8	0	0.0
9	Hoshiarpur	23	2	8.7	4	17.4	6	26.1	4	17.4	6	26.1	1	4.3
10	Jalandhar	13	0	0.0	0	0.0	3	23.1	3	23.1	7	53.8	0	0.0
11	Kapurthala	7	0	0.0	0	0.0	0	0.0	4	57.1	3	42.9	0	0.0
12	Ludhiana	14	3	21.4	1	7.1	1	7.1	6	42.9	3	21.4	0	0.0
13	Mansa	6	0	0.0	1	16.7	1	16.7	1	16.7	3	50.0	0	0.0
14	Moga	10	0	0.0	0	0.0	0	0.0	2	20.0	6	60.0	2	20.0
15	Muktsar	11	5	45.5	5	45.5	0	0.0	1	9.1	0	0.0	0	0.0
16	Pathankot	12	3	25.0	6	50.0	2	16.7	1	8.3	0	0.0	0	0.0
17	Patiala	18	4	22.2	0	0.0	0	0.0	0	0.0	9	50.0	5	27.8
18	Rupnagar	10	1	10.0	3	30.0	2	20.0	1	10.0	3	30.0	0	0.0
19	Sangrur	9	0	0.0	0	0.0	0	0.0	0	0.0	3	33.3	6	66.7
20	SAS Nagar	13	1	7.7	5	38.5	3	23.1	2	15.4	0	0.0	2	15.4
21	SBS Nagar	5	0	0.0	0	0.0	1	20.0	1	20.0	3	60.0	0	0.0
22	Taran Taran	12	0	0.0	0	0.0	0	0.0	6	50.0	6	50.0	0	0.0
Total		**283**	**29**	**10.2**	**55**	**19.4**	**34**	**12.0**	**65**	**23.0**	**81**	**28.6**	**19**	**6.7**

*****