GOVERNMENT OF INDIA

MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO. 301

ANSWERED ON 05.02.2024

GROUNDWATER LEVEL IN PUNJAB

301. SHRI SANT BALBIR SINGH

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

(a) the steps that are being taken by Government with respect to a report issued by the Central Ground Water Board for Punjab that by the year 2039, the underground water in Punjab will run to 1000 feet deep;

(b) Government's policy to deal with this situation in the future as Punjab is an agricultural State and the occurrence of such conditions in that State is a matter of great concern for the entire country; and

(c) information that Government has about underground water status in other States of the country?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU**)**

(a) & (b) Central Ground Water Board (CGWB) has not issued any such report. However, 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-I.** In the state of Punjab, out of the wells monitored, 64.60% wells have shown water level between 0 to 20 metre 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, the aspects related to water resources including ground water development and management are planned, funded and executed by the 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 State of Punjab are given below:-

i. 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 (including 20 districts in Punjab). JSA is continuing in 2023-24 also.

ii. Hon'ble Prime Minister has launched Amrit Sarovar Mission on 24th April 2022. The Mission is aimed at developing and rejuvenating 75 water bodies in each district of the country as a part of celebration of Azadi ka Amrit Mahotsav.

iii. CGWB has taken up National Aquifer Mapping & Management Programme (NAQUIM) to delineate and characterise the aquifer system in the country including Punjab. NAQUIM have been carried out in Punjab for a mappable area of 50369 Sq km. and reports have been shared with the State for suitable implementation. Further, under NAQUIM 2.0 studies are being carried out in the water stressed priority areas of Ludhiana and Sangrur districts.

iv. Master Plan for Artificial Recharge to Groundwater- 2020 has been prepared by the CGWB with States/UTs providing a broad outline of the project and expected investments. The Master Plan envisages construction of about 1.42 crore Rain water harvesting and artificial recharge structures in the Country to harness 185 Billion Cubic Metre (BCM) of water. In Punjab, Master plan envisages about 11 Lakh Rain water harvesting and artificial recharge structures to harness about 1200 Million Cubic Meter (MCM) of rain-water.

v. Ministry has circulated a Model Bill to all the States/UTs to enable them to enact suitable ground water legislation for regulation of its development. So far, 21 States/UTs have adopted and implemented the ground water legislation including Punjab.

vi. Several Trainings and Public Interaction Programmes are being organized at grassroot level to spread awareness among the masses to reduce the dependence on groundwater and restore the water table

In addition to these, the other important steps taken by the Central Government for sustainable ground water management in the country including in the state of Punjab can be seen at https://cdnbbsr.s3waas.gov.in/s3a70dc40477bc2adceef4d2c90f47eb82/uploads/2023/02/2023021742.pdf

Also, the other important steps taken by the Government of Punjab for sustainable management of the groundwater in the State of Punjab are given at **Annexure II.**

(c) In addition to regular monitoring of ground water levels throughout the country, CGWB in co-ordination with respective state governments, carries out Dynamic Ground Water Resource Assessment for the country, which is being done annually since 2022.

The Dynamic Ground Water Assessment Report of the year 2023 can be accessed at the following link: https://cgwb.gov.in/cgwbpnm/public/uploads/documents/1705651215188945270 5file.pdf

Further, Ground Water Quality Analysis for the entire country is also conducted annually through a network of sampling wells and laboratories.

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ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PART (a) & (b) OF UNSTARRED QUESTION NO. 301 TO BE ANSWERED IN RAJYA SABHA ON 05.02.2024 REGARDING "GROUNDWATER LEVEL IN 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**

ANNEXURE-II

ANNEXURE REFERRED TO IN REPLY TO PART (a) & (b) OF UNSTARRED QUESTION NO. 301 TO BE ANSWERED IN RAJYA SABHA ON 05.02.2024 REGARDING "GROUNDWATER LEVEL IN PUNJAB".

Initiatives taken by Government of Punjab for sustainable management of Groundwater

The important steps taken by the Government of Punjab for sustainable management of ground water in the State of Punjab are-

1. The Punjab Water Resources Regulation and Development Authority (PWRDA) have been established under section 3 of Punjab Water Resources (Management and Regulation) Act, 2020 Act. The Authority will ensure conservation, management and regulation of water in the State in accordance with the Integrated State Water Plan (ISWP).
2. State Government has set-up a dedicated Directorate of Ground Water Management, with the prime objective of conserving and managing water resources.
3. Punjab Government has engaged M/s Mekorot, National Water Company of Israel to formulate the Water Conservation and Management Master Plan for the State of Punjab.
4. The Punjab Preservation of Sub-Soil Water Ordinance, 2008- The Ordinance provides for the prohibition of sowing nursery of paddy before 10th May and transplanting paddy as notified by State Government, i.e. before 15th June. The contravention of the provisions of the Ordinance invites penalty, in addition to the expenses incurred for destroying the nursery of paddy sown or transplanted before the specified or notified dates.
5. Diversification from Paddy to Maize under National Adaptation for climate change for 2019-20. Area under cotton has also been taken during 2019-20.
6. Encouragement of Resource Conservation Technology (RCT) like Laser Land Levelling, Zero Tilling, etc. is being done in farming communities. The state government provides subsidy to farmers for custom hiring of this machinery.
7. Medium/Short Duration Rice Cultivars are being promoted over long duration ones, to save water. Information regarding the same is being disseminated at district, block and village level camps. Further, these varieties are being popularized through demonstration plots.
8. Roof Top Rain Water Harvesting has been made mandatory in all buildings above 200 sq. yds. by amending the buildings by-laws vide Chief Town Planner, Local Govt. Department, Punjab vide Notification No.10/19/05-2LG/803 III dated 28.12.2005. PUDA is also amending building bye-laws applicable outside the municipal limits, to make Roof Top Rain Water Harvesting mandatory in buildings constructed in area where water table is falling.
9. Government of Punjab has constructed low dams to provide irrigation facilities under Bharat Nirman Program. These dams facilitate in augmenting the Ground Water Resources of the State & in arresting the declining ground water table.

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