

GOVERNMENT OF INDIA

MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO. 92

ANSWERED ON 20.07.2026

REGULATION OF GROUNDWATER EXPLOITATION IN PUNJAB

92 .# Shri TARUN CHUGH:

Will the Minister of **Jal Shakti** be pleased to state:

- (a) the details of assessment made, identified gaps, district-wise findings and proposed corrective measures taken by the Central Government regarding groundwater conservation, crop diversification and regulation of groundwater exploitation in the State of Punjab;
- (b) the details of the advisories, recommendations and directives issued to the Punjab Government in this regard, the action taken by State Government regarding the same and the current status of compliance thereof; and
- (c) the district-wise details of the State's over-exploited groundwater blocks, the actions taken for groundwater restoration and the proposed measures to ensure adherence to timelines and accountability?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) to (c) Dynamic Ground Water Resources of the country are assessed annually, jointly by Central Ground Water Board (CGWB) and State Governments. As per current assessment report, 2025, the total Annual Ground Water Recharge for the state of Punjab is 18.60 Billion Cubic Meter (BCM) and the Annual Extractable Ground Water Resources is estimated as 16.80 BCM. Further, total Annual Ground Water Extraction in Punjab in 2025 has been assessed as 26.27 BCM. Based on this, the Stage of Ground Water Extraction (SoE), which is a measure of Annual Ground Water Extraction for all uses (irrigation, industrial and domestic uses) over Annual Extractable Ground Water Resource is worked out to be 156.36% for the state of Punjab.

The assessment indicates that excessive groundwater extraction, particularly for irrigation, predominance of water-intensive paddy cultivation and groundwater extraction exceeding the annual extractable groundwater resources in a large number of assessment units are the major issues requiring focused intervention in the State. The district-wise Dynamic Ground Water Resources are given at **Annexure-I**.

As per the Dynamic Ground Water Resources Assessment, 2025, out of the total 153 Assessment Units (Blocks) in 23 districts of Punjab, 111 units (72.55%) have been categorised as 'Over-exploited', indicating that groundwater extraction exceeds the Annual Extractable Ground Water Resource. The district-wise details are given in **Annexure-II**.

Water being a State subject, sustainable development and management of groundwater resources is primarily the responsibility of the State Governments. However, the Central Government facilitates the efforts of the State Governments by way of technical and financial assistance through its various schemes and projects. In this direction, the important steps taken by the Ministry of Jal Shakti and other central ministries for sustainable development of ground water resources in the country including Punjab, with a focus on over-exploited and critical areas, are given below:

- i. Efforts of the Government for augmenting groundwater resources are primarily channelled through the flagship campaign of Jal Shakti Abhiyan (JSA), an annual mission-mode programme for undertaking water harvesting and artificial recharge activities. As per the available information, under JSA more than 2 Cr water conservation and artificial recharge works have been taken up through convergence in the country so far, with around 69,000 works in Punjab through convergence, which have contributed significantly towards enhancing the sustainability of groundwater resources.
- ii. To further strengthen the momentum of JSA, Jal Sanchay Jan Bhagidari (JSJB) initiative has been launched by the Hon'ble Prime Minister in 2024 with a vision to make rain water harvesting a mass movement in the country. By promoting community ownership and responsibility, the initiative seeks to develop cost-effective, local solutions tailored to specific water challenges across different regions. So far, more than 1.55 cr rain water harvesting and artificial recharge structures have been constructed across the country under this initiative, with around 67,000 such structures in Punjab.
- iii. Following the successful completion of NAQUIM 1.0, under which aquifers across the country's entire mappable area of 25 lakh sq. km including Punjab's 50,368 sq. km were mapped to provide a macro-level understanding of groundwater resources, the Central Ground Water Board embarked upon NAQUIM 2.0 focusing on water-stressed and groundwater quality-affected areas. Under NAQUIM 2.0, studies have been taken up in the priority areas of Ludhiana and Sangrur districts under the poor groundwater quality and over-exploited categories, respectively. The study reports containing issue-specific scientific inputs and groundwater management plans have been shared with the State Government and the district administrations.
- iv. The Department of Agriculture & Farmers' Welfare is implementing the Crop Diversification Programme (CDP), a sub-scheme of the Pradhan Mantri Rashtriya Krishi Vikas Yojana (PM-RKVY), in Punjab to promote diversification from water-intensive paddy cultivation to less water-intensive alternative crops. The programme supports crop demonstrations, farm mechanisation, value addition, awareness generation and capacity building and currently covers 20 districts of the State of Punjab.
- v. The Model Building Bye-laws, 2016, issued by the Ministry of Housing and Urban Affairs provide for rainwater harvesting in specified categories of buildings. Punjab has incorporated

rainwater harvesting provisions in its building bye-laws and rooftop rainwater harvesting has been made mandatory by the State Government for buildings above the prescribed plot-size threshold.

- vi. Mission Amrit Sarovar was launched by the Government of India with the objective of 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 across the country, including 1,450 in Punjab, leading to enhanced water storage and groundwater recharge.
- vii. Based on the advisories issued by the Ministry of Jal Shakti to the States to review free/subsidised electricity for agriculture, adopt appropriate water pricing policies and promote crop diversification and other demand-side measures to reduce dependence on groundwater, the Department of Agriculture, Punjab has been promoting diversification of paddy cultivation towards less water-intensive crops by extending incentives to farmers.
- viii. 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 the Punjab Water Resources (Management and Regulation) Act, 2020 to ensure conservation, management and regulation of water resources in the State. Further, the Ministry of Jal Shakti has issued Guidelines dated 24.09.2020, as amended on 29.03.2023, for regulation of groundwater extraction by industries, infrastructure and mining projects. States/UTs have been advised to adopt these Guidelines or align their regulatory provisions accordingly, as applicable.
- ix. 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.

ANNEXURE REFERRED TO IN REPLY TO PART (a) to (c) OF UNSTARRED QUESTION NO. 92 TO BE ANSWERED IN RAJYA SABHA ON 20.07.2026 REGARDING “REGULATION OF GROUNDWATER EXPLOITATION IN PUNJAB”.

District-wise Dynamic Ground Water Resource-2025 in respect of Punjab

S. No.	Name of District	Total Annual Ground Water Recharge (in ham)	Annual Extractable Ground Water Resource (in ham)	Current Annual Ground Water Extraction (in ham)	Stage of Ground Water Extraction (%)
1	Amritsar	139004.6	124711.7	199944	160.33
2	Barnala	54325.57	48893.01	107249.3	219.36
3	Bathinda	136960.4	123264.3	157825.2	128.04
4	Faridkot	46822.62	43046.68	51318.27	119.22
5	Fatehgarh Sahib	39729.99	35756.99	65125.37	182.13
6	Fazilka	73540.71	66186.63	43141.14	65.18
7	Firozpur	137957.8	125528.8	136652	108.86
8	Gurdaspur	154067.1	136765.8	165672.6	121.14
9	Hoshiarpur	90479.81	80412.83	100362.6	124.81
10	Jalandhar	95776.84	86196.69	242359.1	281.17
11	Kapurthala	62665.8	56633.74	137596.2	242.96
12	Ludhiana	136489.7	123365.4	240136.8	194.65
13	Malerkotla	21593.08	19433.77	58676.84	301.93
14	Mansa	79831.15	71848.03	78105.53	108.71
15	Moga	77890.7	70072.86	163329.6	233.09
16	Muktsar	105848.7	96264.14	26773.68	27.81
17	Pathankot	48104.68	43294.2	17773.52	41.05
18	Patiala	100191	90645.7	189026.6	208.53
19	Rupnagar	41898.64	39343.06	36509.16	92.8
20	SAS Nagar	22650.41	20385.37	23831.21	116.9
21	SBS Nagar	53578.38	49073.41	56537.87	115.21
22	Sangrur	70252.95	63227.66	195997.9	309.99
23	Tarn Taran	70108.95	65592.76	132817.1	202.49
	Total(Ham)	1859769	1679943	2626761	156.36
	Total(BCM)	18.60	16.80	26.27	156.36

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Table: District-wise details of the State's over-exploited groundwater blocks - 2025

S. No.	District	Over-Exploited Assessment Units
1	Amritsar	Tarsikka, Attari, Rayya, Majitha, Chogawan, Jandiala Guru, Verka, Amritsar Urban, Harsha Chhina, Ajnala
2	Barnala	Sehna, Barnala, Mahal Kalan
3	Bathinda	Goniana Mandi, Maur, Nathana, Phul, Bhagta Bhai Ka
4	Faridkot	Kot Kapura, Jaito
5	Fatehgarh Sahib	Khamanon, Sirhind, Amlah, Khera, Bassi Pathana
6	Fazilka	Jalalabad
7	Firozpur	Zira, Ghall Khurd
8	Gurdaspur	Kahnuwan, Kalanaur, Dhariwal, Fatehgarh Churian, Gurdaspur, Batala, Dera Baba Nanak
9	Hoshiarpur	Garh Shankar, Hoshiarpur-I, Dasuya, Mahilpur, Tanda, Mukerian
10	Jalandhar	Lohian, Nur Mahal, Bhogpur, Jalandhar East, Jalandhar West, Rurka Kalan, Jalandhar City, Phillaur, Nakodar, Mehatpur, Adampur, Shahkot
11	Kapurthala	Phagwara, Dhilwan, Kapurthala, Nadala, Sultanpur Lodhi
12	Ludhiana	Raikot, Pakhowal, Dehlon, Samrala, Machhiwara, Ludhiana-2, Jagraon, Sudhar, Ludhiana-1, Sidhwan Bet, Malaud, Khanna, Ludhiana City, Doraha
13	Malerkotla	Malerkotla-1, Malerkotla-2
14	Mansa	Bhikhi, Mansa
15	Moga	Nihal Singh Wala, Moga-1, Kot Ise Khan at Dharmkot, Moga-2, Bagha Purana
16	Muktsar	NIL
17	Pathankot	NIL
18	Patiala	Nabha, Ghanaur, Patiala, Shambu Kalan, Sanaur, Rajpura, Patran, Bhunerheri, Samana
19	Rupnagar	Morinda, Chamkaur Sahib
20	SAS Nagar (Mohali)	Dera Bassi
21	SBS Nagar (Shaheed Bhagat Singh Nagar)	Banga, Nawan Shahr
22	Sangrur	Sangrur, Lehra Gaga, Andana, Bhawanigarh, Dhuri, Dirba, Sunam, Sher Pur
23	Tarn Taran	Tarn Taran, Gandiwind Tatla, Naushehra Pannuan, Chohla Sahib, Khadur Sahib, Valtoha, Bhikhiwind, Patti
