

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI,
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION
LOK SABHA

UNSTARRED QUESTION NO. 1234

ANSWERED ON 09.02.2023

GROUND WATER AVAILABILITY IN PUNJAB

1234. SHRI SUKHBIR SINGH BADAL

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

- (a) whether the Government is aware of the shortage of ground water availability to Punjab farmers for irrigation purposes in Punjab and if so, the details thereof;
- (b) whether the Government is aware that 80 percent of Ground Water Blocks in Punjab have dried up in a bid to provide foodgrains to the rest of the country and if so, the details thereof;
- (c) whether the Government has taken any note of such a serious situation of Punjab waters and if so, the details thereof; and
- (d) whether the Government has any proposal to assist Punjab to regain its precious water resource, if so, the details thereof and if not, reasons therefor?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

(a) The Dynamic Ground Water Resources of the country including Punjab are being periodically assessed jointly by Central Ground Water Board (CGWB) and State Governments. As per the latest assessment (2022) in Punjab, the Total Annual Ground Water Recharge is about 18.94 Billion Cubic Meter (BCM) and the Annual Extractable Ground Water Resource is about 17.07 BCM. The Annual Ground Water Extraction for all uses is about 28.02 BCM out of which about 26.69 BCM (95%) has been utilized for Irrigation activities.

(b) As per the 2022 assessment, out of the total 153 assessment units (Block) in Punjab, 117 units (76.5%) have been categorized as 'Over-exploited' where the Annual Ground Water Extraction is more than Annual Extractable Ground Water Resource. 04 assessment units have been categorized as 'Critical', 15 assessment units as 'Semi-critical' and 17 assessment units as 'Safe'.

(c) & (d) Yes sir, the Government has noted the deteriorating situation of groundwater in certain States of the country including Punjab and taken a number of initiatives to improve the groundwater scenario.

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). The primary aim of JSA was to effectively harvest the monsoon rainfall through creation of artificial recharge structures, watershed management, recharge and reuse structures, intensive afforestation and awareness generation etc. JSA for the year 2021 and 2022 with pan India coverage were launched by Hon'ble Prime Minister and Hon'ble President on 22.03.2021 and 29.03.2022 respectively.

Central Government generally supports construction of water harvesting and conservation works primarily through Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). As per information of MGNREGS website (as on 03.02.2023), water conservation and water harvesting works taken up / completed under MGNREGA in last year and current year is given as under :

State	2021-22				2022-23 (as on 03.02.2023)			
	COMPLETED		ONGOING		COMPLETED		ONGOING	
	NO. OF WORKS	EXPENDITURE IN RS. LAKHS	NO. OF WORKS	EXPENDITURE IN RS. LAKHS	NO. OF WORKS	EXPENDITURE IN RS. LAKHS	NO. OF WORKS	EXPENDITURE IN RS. LAKHS
PUNJAB	712	1108.06	1850	680.41	470	346.13	2243	1491.52

Hon'ble Prime Minister 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 including Punjab as a part of celebration of Azadi ka Amrit Mahotsav.

Central Ground Water Authority (CGWA) has been constituted 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. CGWA has advised States/UTs to take measures to promote/adopt artificial recharge to ground water / rain water harvesting. The latest guideline for control and regulation of groundwater extraction, with pan-India applicability including Punjab, was notified by the Ministry on 24 September 2020.

CGWB has taken up National Aquifer Mapping and Management Programme (NAQUIM) under the scheme of Ground Water Management and Regulation. The Aquifer Mapping is aimed to delineate aquifer disposition and their characterization for preparation of aquifer/ area specific ground water management plans with community participation. The management plans are shared with the respective State governments for taking appropriate measures / implementation. In Punjab, the entire mappable area of 50,368 Sq. km. has been covered and the management plans are shared with the State government for taking appropriate measures.

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.

Punjab Water Resources (Management and Regulation) Act, 2020 has been notified on 12.02.2020. The Punjab Water Regulation and Development Authority under the Act has been constituted.

The "Paani Bachao, Paisa Kamao" Scheme was launched by Government of Punjab to check depletion of underground water by offering monetary benefits to the farmers for every unit of power they save.

The other important steps taken by the Government of Punjab for sustainable management of the ground water in the State of Punjab is given at **Annexure**.

ANNEXURE REFERRED TO IN REPLY TO PART (c) & (d) OF LOK SABHA UNSTARRED QUESTION NO.1234 TO BE ANSWERED ON 09.02.2023 ON 'GROUND WATER AVAILABILITY IN PUNJAB'.

Initiatives taken by Punjab for sustainable management of the ground water in the State

1. State Government has set-up a dedicated Directorate of Ground Water Management, with the prime objective of conserving and managing water resources.
2. 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.
3. 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.
4. Diversification from Paddy to Maize under National Adaptation for climate change for 2019-20. Area under cotton has also been taken during 2019-20.
5. Encouragement of Resource Conservation Technology (RCT) like Laser Land Leveling, Zera Tilling, etc. is being done in farming communities. The state government provides subsidy to farmers for custom hiring of this machinery.
6. 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.
7. Micro Irrigation: Farmers growing vegetables/horticulture crops and some regions in Kandi area which are not conducive to paddy cultivation are being tapped for 100% coverage of micro irrigation. The Department has installed this in Talwara and Hazipur block of District Hoshiarpur.
8. Use of Treated Water for Irrigation: Government of Punjab has implemented irrigation projects from Sewerage Treatment Plants of the State.
9. Roof Top Rain Water Harvesting has been made mandatory in all buildings above 200 Sq. Yards. by amending the buildings by-laws vide Notification dated 28.12.2005.
10. 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.
