

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

LOK SABHA

UNSTARRED QUESTION NO. 983

ANSWERED ON 08.02.2024

DECREASE IN GROUND WATER LEVEL

983. SHRI SUKHBIR SINGH BADAL

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

- (a) whether according to Central Ground Water Board (CGWB), Punjab's ground water has decreased from 21.58 Billion Cubic Meters (BCM) in 2017 to 17.07 BCM in 2022 and most of it warns that Punjab ground water would drop by 300 mtrs by 2039 and if so, the details thereof;
- (b) whether the Government proposes to consider this an alarming situation and if so, the steps taken by the Government to arrest the situation on ground;
- (c) whether the Government has assessed the impact of this critical State of affairs which could make the entire State parched; and
- (d) if not, the details thereof and the reasons therefor?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

(a) The Dynamic Ground Water Resources of the country are being regularly assessed jointly by Central Ground Water Board (CGWB) and State Governments, including Punjab. As per the Ground Water Resource Assessment (GWRA) reports of the concerned period, the total annual extractable groundwater resource for the State of Punjab was 21.58 billion cubic meters (bcm) in the year 2017 and in the year 2022 it stood at 17.07 bcm. This may be due to less rainfall, lining of unlined canals, reduced recharge from ponds & tanks etc. However, during the same period, the annual ground water extraction for all uses has also decreased from 35.78bcm to 27.8 bcm. Owing to the cumulative efforts of various government departments and other agencies, the Stage of Ground Water Extraction (SOE), which is the ratio of Annual Ground Water Extraction for all uses (irrigation, industrial and domestic uses) over Annual Extractable Ground Water Resource has shown slight decline (improvement) from 165.77% to 163.76%.

(b) 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:-

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.

Hon'ble Prime Minister has launched AmritSarovar 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.

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 areas priority of Ludhiana and Sangrur districts.

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.

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.

Several Trainings and Public Interaction Programmes are being organized at grassroots 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 is given at **Annexure** to this reply.

(c) & (d) The Ministry regularly keeps a tab on ground water situation of the entire country through its different organizations. CGWB carries out ground water level monitoring for the entire country four times a year through its network of approximately 26,000 monitoring wells. Further, Dynamic Ground Water Resource Assessment for the whole country is conducted by CGWB in association with concerned state governments on an annual basis since 2022. In addition to this, ground water quality is also monitored annually. Reports of all these exercises are regularly shared with respective state governments, including Punjab and suitable remedial measures are also suggested from time to time.

ANNEXURE REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 983 TO BE ANSWERED IN LOK SABHA ON 08.02.2024 REGARDING “DECREASE IN GROUND WATER LEVEL”.

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. Punjab Urban Planning & Development Authority (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.