GOVERNMENT OF INDIA

MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO. 1848

ANSWERED ON 09.03.2026

DECLINING RIVER AND GROUNDWATER RESOURCES IN PUNJAB

1848 SHRI SANT BALBIR SINGH:

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

(a) whether Government has assessed the current status of river water and groundwater levels in the State of Punjab which is, known as the land of rivers;

(b) if so, the findings of such assessment and the reasons for decline in water availability; and

(c) the long-term strategy adopted to conserve water resources and ensure sustainable water supply in the State?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY)

(a) & (b) As per the basin-wise water availability assessment carried out by Central Water Commission in 2024, the total water availability in Eastern rivers of the Indus Basin, namely Ravi, Beas, Sutlej and Ghaggar has been assessed at 47.3 Billion Cubic Metres (BCM).

Central Ground Water Board (CGWB) monitors groundwater levels throughout the country on a regional scale including state of Punjab, four times a year during the months of March/April/May, August, November and January. The district-wise groundwater level data in metre (m) below ground level (bgl) for post-monsoon 2025 indicates about 43.44% of the wells monitored have registered water levels in the range of 0-10 m.

In order to assess the long-term fluctuation in ground water level, the water level data collected by CGWB for Punjab during Post Monsoon (2025) has been compared with the decadal mean of Post Monsoon (2015-2024). It indicates that about approx. 57 % of the wells monitored have registered rise in ground water levels mostly in the range of 0-2 m and approx. 43% of monitored wells have shown decline in water level.

The decline in groundwater levels across various regions of the country attributes to multiple factors including over-extraction, deforestation, inefficient irrigation practices and region-specific hydro-geological conditions. Excessive groundwater withdrawal beyond the annual recharge capacity has contributed to significant depletion in North-Western States including Punjab. However, the groundwater

water is replenished through rainfall, return flow from irrigation, canal seepage, recharge from surface water bodies etc.

(c) Water being a State subject, the aspects including its conservation and management are studied, planned, funded and executed by the State Governments. Government of India supplements the efforts of State/UT Governments by providing technical support and in some cases, partial financial assistance.

The Jal Shakti Abhiyan was launched in 2019 as a mission-mode campaign for water conservation in water-stressed districts of the country. In 2021, Jal Shakti Abhiyan: Catch the Rain (JSA:CTR) was expanded across all the districts of the country, rural as well as urban areas, with a focus on rainwater harvesting, inventory and rejuvenation of water bodies, establishment of Jal Shakti Kendras, afforestation activities and intensive awareness generation. JSA:CTR 2025, sixth in the series, was implemented by this Ministry with special focus on 148 districts identified by Central Ground Water Board.

To further strengthen JSA: CTR, the Jal Sanchay Jan Bhagidari (JSJB) initiative was launched in Surat on 6th September 2024 focusing on intensifying community participation and mobilization for construction of low-cost rainwater harvesting structures in a saturation mode. The programme emphasizes people's participation and collective efforts for water conservation at the grassroots level following a whole-of-society and whole-of-government approach.

The JSJB initiative which originated in Gujarat, leverages community contributions, individual donations and Corporate Social Responsibility (CSR) funds for construction of low-cost structures such as borewells, recharge shafts and recharge pits using locally available materials. These structures help in harvesting rainwater, enhancing groundwater recharge, boosting groundwater levels and providing location-specific solutions to local water challenges.

Under this programme, over 4 million groundwater recharge and storage works have been reported across the country, including 14,269 groundwater recharge structures in the State of Punjab.

Major interventions undertaken by the Central Government for sustainable ground water management in the country including State of Punjab are as below:

- National Aquifer Mapping and Management Programme (NAQUIM) scheme of Ground Water Management and Regulation (GWMR) is aimed to delineate aquifer disposition and characterization for preparation of aquifer/area specific ground water management plans with community participation. The studies have been carried out in State of Punjab covering an area of 50369 square kilometre. The Aquifer maps and management plans have been shared with respective State Agencies for implementation. In Punjab, NAQUIM 2.0 studies were

undertaken for category areas namely poor quality and over-exploited, in Ludhiana and Sangrur districts, to obtain higher granular information for issue based scientific inputs towards groundwater management.

- Master Plan for Artificial Recharge to Groundwater- 2020 has been prepared by CGWB in consultation with States/UTs. Master Plan for Artificial Recharge for Punjab, covering an area of 45,592 square kilometre has been prepared and shared with the State Government for suitable interventions.

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

- National Water Policy (2012) formulated by Department of Water Resources, River Development & Ganga Rejuvenation, inter-alia, advocates rainwater harvesting and conservation of water. In order to increase availability of utilizable water in urban areas, rainwater harvesting is encouraged with scientific monitoring of parameters like hydrogeology, groundwater contamination, pollution and spring discharges.

- Ministry of Housing & Urban Affairs has released Model Building Bye-laws, 2016 which recommends Rainwater Harvesting for all types of Building with plot size 100 square meter or more. So far, 35 States/UTs including Punjab have incorporated the provisions in their respective building bye laws.

- To enhance water quality monitoring efficiency, a new Standard Operating Procedure (SoP) for Groundwater Quality Monitoring under CGWB has been introduced, incorporating more frequent and denser sampling in vulnerable areas that also includes Punjab.

- To further accelerate the dissemination of knowledge on ground water quality, CGWB has initiated the practice of issuing ground water quality year book, half-yearly ground water quality bulletins, with an aim for immediate action in the reported areas.

- Fortnightly results of chemical analysis data carried out by CGWB are shared with State Government as Ground Water Quality Alerts since 17th June 2024.

- Awareness generation programs/workshop on various aspects of ground water including preventing ground water pollution and safe use of contaminated water are being conducted by CGWB, periodically. 41 Public Interaction Programmes have been organized in various parts of Punjab in which 6001 people participated.

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