

GOVERNMENT OF INDIA  
MINISTRY OF JAL SHAKTI,  
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION  
**LOK SABHA**  
**UNSTARRED QUESTION NO. 1819**  
ANSWERED ON 29.07.2021

**GROUND WATER AVAILABILITY IN PUNJAB**

1819. SHRIMATI HARSIMRAT KAUR BADAL

Will the Minister of JAL SHAKTI be pleased to state:

- (a) whether the Government is aware of the ground water availability to Punjab farmers for irrigation purposes and if so, the details thereof;
- (b) whether the Government has also taken note that eighty percent of Punjab ground water blocks 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 ground water in Punjab and if so, the details thereof; and
- (d) whether the Government has made any plan to help Punjab regain its precious water resource and if so, the details thereof?

**ANSWER**

MINISTER OF STATE FOR JAL SHAKTI & FOOD PROCESSING INDUSTRIES

(SHRI PRAHLAD SINGH PATEL)

(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 2020 assessment, in Punjab, the total annual ground water recharge is 22.8 Billion Cubic Meter (BCM) and the annual extractable ground water resource is 20.6 BCM. The annual ground water extraction for all uses is 33.85 BCM, out of which 32.8 BCM (97%) have been utilized for irrigation purpose.

(b) & (c) Out of the total 150 assessment units (Blocks) in Punjab, 117 (78%) units have been categorized as 'over-exploited' where annual ground water extraction is more than annual extractable ground water resource. Further, the stage of ground water extraction, which is a measure of annual ground water extraction for all uses (irrigation, industrial and domestic uses) over annual extractable ground water resource is 164% in Punjab as per the 2020 assessment.

(d) Water being a State subject, initiatives on water management including conservation and water harvesting in the country is primarily States' responsibility. However, the important measures taken by the Central Government for conservation and management of ground water and effective implementation of rain water harvesting in the country are available at the following URL:[http://jalshakti-dowr.gov.in/sites/default/files/Steps\\_to\\_control\\_water\\_depletion\\_Feb2021.pdf](http://jalshakti-dowr.gov.in/sites/default/files/Steps_to_control_water_depletion_Feb2021.pdf).

Government of India had launched Jal Shakti Abhiyan (JSA) in 2019, a campaign to improve water availability, including ground water conditions, in the water stressed blocks of 256 districts in India including 20 districts in Punjab. In this regard, teams of officers from Central Government along-with technical officers from Ministry of Jal Shakti were deputed to visit water stressed districts and to work in close collaboration with district level officials to undertake suitable interventions.

This year, Ministry of Jal Shakti has taken up the “Jal Shakti Abhiyan: Catch the Rain” (JSA:CTR) with the theme “Catch the Rain - Where it Falls When it Falls” to cover all the blocks of all districts (rural as well as urban areas) across the country during 22nd March 2021 to 30th November 2021. The campaign was launched by the Hon’ble Prime Minister on 22 March 2021.

Central Ground Water Board (CGWB) is implementing National Aquifer Mapping and Management program (NAQUIM), which envisages mapping of aquifers (water bearing formations), their characterization and development of aquifer management plans to facilitate sustainable management of ground water resources. The management plans under NAQUIM for Punjab have been prepared by the CGWB and have been shared with the State Government for taking up suitable interventions.

Central Government supports construction of water harvesting and conservation works in the country, including in Punjab, primarily through Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Pradhan Mantri Krishi Sinchayee Yojana – Watershed Development Component (PMKSY-WDC).

Ministry of Jal Shakti had circulated a model Bill to all the States/UTs to enable them to enact suitable ground water legislation for regulation of its development, which also includes provision of rain water harvesting. So far, 19 States/UTs, including Punjab, have adopted and implemented the ground water legislation.

Master Plan for Artificial Recharge to Groundwater - 2020 has been prepared by CGWB in consultation with States/UTs. This is a macro level plan indicating various structures for the different terrain conditions of the country including estimated cost. In Punjab, the master plan envisages construction of about 11 lakh rain water harvesting and artificial recharge structures to harness 1,200 Million Cubic Metre (MCM) of monsoon rainfall.

Further, some of the initiatives taken by Punjab government for improving groundwater conditions are given at **Annexure**.

**ANNEXURE REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO.1819 TO BE ANSWERED IN LOK SABHA ON 29.07.2021 REGARDING “GROUND WATER AVAILABILITY IN PUNJAB”.**

**Some of the initiatives taken up by Punjab Government**

- The State has notified sowing of paddy nursery from 10<sup>th</sup> May of the year and transplantation of paddy from 10 June onwards under the “Punjab Preservation of Sub-Soil Water Act, 2009”. The transplantation of paddy has been shifted to commensurate with onset of monsoon season so as to conserve the precious groundwater.
- All the paddy growing farmers of the state are being made aware of the benefits of the Direct seeding of rice (DSR). They are also being encouraged to put at least some of their area under DSR to have first-hand experience about the technology. In the year 2019, about 501 thousand hectare area was covered under DSR which was increased in the year 2020-21 to 554.29 thousand hectare. In addition, short duration varieties like PR 126 are also being promoted.
- Under Crop Diversification Plan, farmers are being encouraged to replace paddy with less water consuming crops like maize and cotton.
- 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.
- Punjab is promoting efficient water conveyance and precision water application devices like drip, sprinklers, rain-guns etc. Further they provide subsidy to farmers for installation of drip irrigation systems which use less water as compared to conventional pump sets.
- Roof Top Rain Water Harvesting has been made mandatory in all buildings above 200 sq. yds. by amending the buildings by-laws.
- Government of Punjab has constructed low dams to provide irrigation facilities under Bharat Nirman Program costing Rs.170 crore. These dams indirectly help in augmenting the ground water resources of the State and help in arresting the declining ground water table.
- In Punjab, a total of 4,262 water conservation/ water harvesting works and 35,809 renovations of ponds works have been taken up under MGNREGS till 30th June, 2021.
- The details of water harvesting structures created/rejuvenated under PMKSY-WDC component in Punjab are as follows:

| <b>Assets Created/rejuvenated under PMKSY-WDC</b>         |                            |   |                            |                                   |                   |              |
|---|----------------------------|---|----------------------------|-----------------------------------|-------------------|--------------|
| <b>Water Harvesting Structures- No. created/renovated</b> | <b>Renovation of ponds</b> | <b>Erosion/Flood Protection Walls (In No)</b> | <b>Gully Plugs (In No)</b> | <b>Gabbion Structures (In No)</b> | <b>Check Dams</b> | <b>Total</b> |
| 319   | 8                          | 341   | 447                        | 813                               | 60                | 1988         |

- Government of Punjab has enacted the Punjab Water Resources (Management and Regulation) Act, 2020 on February 12, 2020 for ensuring the judicious, equitable and sustainable utilization and management of the State's critical water resources. The Punjab Water Resources and Development Authority, 2020 had been established under section 3 of this Act which shall ensure development, management and conservation of water resources of the State.