GOVERNMENT OF INDIA

MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO. 435

ANSWERED ON 24.07.2023

GROUND WATER CRISIS IN PUNJAB

435. SHRI HARBHAJAN SINGH

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

(a) whether Government is aware of the ground water crisis in several parts of Punjab;

(b) if so, whether Government has taken any initiative to tackle this crisis;

(c) whether there is any proposal for assistance to the State Government of Punjab to deal with ground water crisis situation; and

(d) if so, the details thereof and, if not, the reasons therefor?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU**)**

(a) Ground water levels in certain parts of the country including Punjab are declining because of continuous withdrawal necessitated by increased demand for fresh water for various uses, vagaries of rainfall, increased population, industrialization & urbanization etc.

Further, the Dynamic Ground Water Resources of the country are being periodically assessed jointly by Central Ground Water Board (CGWB) and State Governments including Punjab. As per the latest assessment (2022), out of total 153 Blocks, 117 Blocks in Punjab are "Over-Exploited" where 'Annual Ground Water Extraction' is more than 'Annual Extractable Ground Water Resource'.

In addition, as per 2022 assessment, the average 'Stage of Groundwater Extraction (i.e. gross groundwater extraction for all uses on an average to available groundwater resource)' in the State of Punjab is 165.99 %.

(b) Water being a State subject, the efforts to effectively harvest the rainwater/recharge of groundwater for its sustainable management falls in the mandate of State Government, however, Central Government has taken a number of steps in this direction which can be seen in the web-link:
https://cdnbbsr.s3waas.gov.in/s3a70dc40477bc2adceef4d2c90f47eb82/uploads/2023/02/2023021742.pdf

Some of the important steps taken by the Department of Water Resources, RD & GR for sustainable ground water management in the country including Punjab are given as under:

Government of India is implementing Jal Shakti Abhiyan (JSA) in the country including Punjab in which special emphasis is being given for rainwater harvesting/groundwater recharge. First JSA was launched in 2019 in water stressed blocks of 256 districts which continued during the years 2021 and 2022 (across entire country both rural and urban areas) with the primary aim 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 2023 have been launched by Hon'ble President of India on 04 Mar 2023 with the theme "Source Sustainability for Drinking Water".

Hon'ble Prime Minister has launched Amrit Sarovar Mission on 24th April 2022 in the country including Punjab. 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 for rainwater harvesting/recharge.

CGWB has taken up National Aquifer Mapping program (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 50,369 SqKm. Based on NAQUIM studies, groundwater management plans/reports have been prepared and shared with the State for suitable implementation.

Master Plan for Artificial Recharge to Groundwater- 2020 has been prepared by CGWB in consultation with States/UTs which is a macro level plan indicating various structures for the different terrain conditions of the country including estimated cost. The Master plan for artificial recharge for 20 water stressed districts of Punjab covering an area of 45,592 SqKm has been prepared & shared with the State government for suitable interventions.

In addition, several States have done notable work in the field of water conservation/rainwater harvesting. In this direction Punjab is implementing 'Pani Bachao Paise Kamao' scheme for the benefit of groundwater reserve.

Further, 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 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.**

(c) & (d) Central Government generally supports construction of water conservation & rain water harvesting structures and promotes sustainable water conservation practices in the country including in Punjab through Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and various components of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY).

Department of Rural Development is implementing Mahatma Gandhi National Rural Employment Guarantee Schemes (MGNREGS) in collaboration with States which is a demand driven wage employment programme with bottom-up approach in planning of works. As per the Scheme provisions, public works relating to Natural Resource Management viz. construction of water conservation and water harvesting structures to augment and improve ground water like underground dykes, earthen dams, stop dams, check dams with focus on recharging ground water etc are permissible activities.

PMKSY was launched during the year 2015-16, with an aim to enhance physical access of water on farm and expand cultivable area under assured irrigation, improve on-farm water use efficiency, introduce sustainable water conservation practices, etc. PMKSY is an umbrella scheme, consisting of Accelerated Irrigation Benefits Programme (AIBP), Har Khet Ko Pani (HKKP), Watershed Development Component (WDC) etc under which Central Assistance is being provided to States including Punjab.

Department of Land Resources is implementing PMKSY-WDC scheme in States/UTs including Punjab for the development of rain-fed and degraded areas. The activities undertaken inter alia include ridge area treatment, drainage line treatment, soil and moisture conservation, rain water harvesting, nursery raising, afforestation, horticulture, pasture development, livelihoods for asset-less persons etc.

ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PART (b) OF RAJYA SABHA UNSTARRED QUESTION NO. 435 TO BE ANSWERED ON 24.07.2023 "GROUND WATER CRISIS 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. Roof Top Rain Water Harvesting has been made mandatory in all buildings above 200 Sq. Yards by amending the buildings bye-laws vide Notification dated 28.12.2005.
8. 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.

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