GOVERNMENT OF INDIA

MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO. 1841

ANSWERED ON 17.03.2025

NITRATE LEVELS IN GROUNDWATER

1841. SMT. RAJANI ASHOKRAO PATIL

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

(a) the district-wise data on Nitrate levels in groundwater during the last five years;

(b) the initiatives taken to reduce Nitrate contamination caused by agricultural practices, including the use of fertilisers, and their impact on quality of water;

(c) the steps being undertaken to mitigate contamination from other sources, particularly in severely affected States like Rajasthan, Punjab and Karnataka; and

(d) the progress made in expanding the groundwater monitoring network, including the use of digital devices to measure water levels, and the expected outcomes of increasing the network to 40,000 wells by 2027?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI RAJ BHUSHAN CHOUDHARY**)**

(a) Central Ground Water Board (CGWB) generates ground water quality data on a regional scale as part of its ground water quality monitoring program annually and various scientific studies. The district-wise data on nitrate levels in ground water samples recorded for the years 2019 and 2023 is available at the following link: https://cgwb.gov.in/sites/default/files/inline-files/percentage_of_samples_nitrate_morethan_permissible_limits_all_states_2023_2019.pdf

(b) The Government is taking several measures to promote sustainable agriculture in the country with a vision to discourage excessive use of chemical fertilizers and promote organic agricultural practices. The Government is implementing Soil Health Management & Soil Health Card Schemes under the National Project on Soil Health & Fertility of National Mission for Sustainable Agriculture since the year 2014-15. Soil health card provides information to farmers on nutrient status of their soil along with recommendations on appropriate dosage of nutrients to be applied for improving soil health and its productivity. Based on the recommendations on Soil Health Card (SHC), so far, 93781 farmer's trainings and 7425 farmer's melas/campaigns have been organized across the country for promoting judicious use of chemical fertilizers including secondary and micronutrients in conjunction with organic manures & bio-fertilizers.

Further, the Government is also promoting Natural Farming since 2019-2020 through Bharatiya Prakritik Krishi Paddhati (BPKP) programme under Paramparagat Krishi Vikas Yojana (PKVY). The scheme mainly emphasizes on exclusion of all synthetic chemical inputs and promotes on-farm biomass recycling

with major stress on biomass mulching, use of cow dung-urine formulations and other plant based preparations.

(c) Water is a state subject and the responsibility of ground water management, including taking initiatives for improving ground water quality and mitigate the contamination issue, lies primarily with the state governments. However, several steps have been taken by the Central Government in this direction like regular quality monitoring and sharing of data by CGWB with state governments and other stakeholders, taking up construction of Arsenic and Fluoride safe wells and disseminating the technology, implementation of Water (Prevention & Control) Act, 1974 and the Environment (Protection) Act, 1986 by CPCB/SPCBs to prevent and control pollution in water etc.

But the major thrust for safeguarding the entire population of the country from the adverse effects of contaminated water has been provided by the Government by way of implementation of Jal Jeevan Mission (JJM) – Har Ghar Jal, as a novel initiative. JJM is operational in the country since August 2019, including in the states of Rajasthan, Punjab & Karnataka, with a view to make provision of potable tap water supply in adequate quantity, of prescribed quality and on regular & long-term basis to every rural household in the country. Under JJM, Bureau of Indian Standards' BIS:10500 standards have been adopted as prescribed norms for quality of tap water service delivery and JJM guidelines also stipulate that while allocating the funds to States/ UTs, 10% weightage is given to the population residing in habitations affected by chemical contaminants.

(d) Realizing the significance of having high frequency data on ground water on real time basis, this Ministry has taken up the process of installing Digital Water Level Recorders (DWLRs) with telemetry systems throughout the country under its various schemes and projects like Ground Water Management & Regulation (GWM &R) Scheme, Atal Bhujal Yojana etc. The state governments are also funded for carrying out the said activity under National Hydrology Project(NHP). So far, around 24,000 DWLRs have been installed across the country under the above said schemes. These instruments transmit water level data directly from the field to a central server at high frequency, which facilitates near-real-time access to this data. Analysis of such real time data is expected to help in better policy planning and more effective execution of demand and supply side measures for sustainable management of ground water resources.

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