

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI

DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO. 108

ANSWERED ON 04.12.2023

GROUNDWATER QUALITY DATA

108. SHRI NARANBHAI J. RATHWA

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

- (a) whether it is a fact that Central Ground Water Board (CGWB) generates groundwater quality data of the country on a regional scale as part of its groundwater quality monitoring programme;
- (b) if so, the details of groundwater quality data carried out in Thoothukudi District in Tamil Nadu during last five years, year-wise; and
- (c) whether CGWB have also gathered groundwater quality data from other sources like Pollution Control Boards and if so, outcome results during the last five years in Thoothukudi District in Tamil Nadu?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

(a) & b) Central Ground Water Board (CGWB) generates ground water quality data of the country including Tamil Nadu on a regional scale as part of its ground water quality monitoring program and various scientific studies. Under this, the samples of ground water collected are analyzed for the occurrence of contaminants such as Fluoride, Arsenic, Nitrate, Iron, Heavy Metals etc. Analysis of the samples collected from various parts of Thoothukudi District shows the presence of some of the contaminants beyond permissible limits (as per BIS) for human consumption in some of the samples. The details are given in **Annexure**.

(c) CGWB has not gathered groundwater quality data from Pollution Control Boards. However, based on the samples analyzed by CGWB in the last 5 years for Thoothukudi District of Tamil Nadu, it can be seen that most of the contaminants, except nitrate, are geogenic and do not show large variations over the time period.

Water being a State subject, initiatives on water management, including making available potable water to general public is primarily States' responsibility. However, various steps have been taken by the Central Government in this regard in the country. Some of them are given at succeeding paras.

Central Pollution Control Board (CPCB) in association with State Pollution Control Boards/Pollution Control Committees (SPCBs/PCCs) is implementing the provisions of the Water (Prevention & Control) Act, 1974 and the Environment (Protection) Act, 1986 to prevent and control pollution in water.

Government of India, in partnership with States, is implementing Jal Jeevan Mission (JJM) since August, 2019 to provide potable tap water supply of prescribed quality and on regular & long term basis to

every rural household in the country including Tamil Nadu by 2024. Under JJM, while planning water supply schemes to provide tap water supply to house-holds, priority is given to quality-affected habitations. While allocating the funds to States/ UTs in a particular financial year, 10% weightage is given to the population residing in habitations affected by chemical contaminants.

Since, planning, implementation and commissioning of piped water supply schemes based on a safe water source may take time, purely as an interim measure, States/ UTs have been advised to install community water purification plants (CWPPs) in such habitations, to provide potable water to every household at the rate of 8–10 litre per capita per day (lpcd) to meet their drinking and cooking requirements.

Department of Drinking Water & Sanitation had launched a National Water Quality Sub-Mission (NWQSM) on 22nd March, 2017 as a part of National Rural Drinking Water Programme (NRDWP), which has now been subsumed under JJM, to provide safe drinking water to 27,544 arsenic/fluoride affected rural habitations in the country.

ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PART (a) & (b) OF UNSTARRED QUESTION NO. 108 TO BE ANSWERED IN RAJYA SABHA ON 04.12.2023 REGARDING “GROUNDWATER QUALITY DATA”.

Year wise details of contaminant above BIS permissible limit in ground water of Thoothukudi District, Tamil Nadu from 2018 to 2022

| Year | Salinity (EC) (EC : Electrical Conductivity) (>3000 μs/cm) | Chloride (>1000 mg/L) | Fluoride (> 1.5 mg/L) | Nitrate (> 45 mg/L) | Arsenic (>0.01 mg/L) | Iron (> 1 mg/L) |
|-------------|---|--|---|-----------------------------------|--|-------------------------------|
| 2018 | 31 % (8 out of 26 samples) | 8 % (2 out of 26 samples) | 15 % (4 out of 26 samples) | 38% (10 of 26 samples) | No sample analysed | No sample analysed |
| 2019 | 14 % (5 out of 36 samples) | 5 % (2 out of 36) | 8 % (3 of 36 samples) | Nil | 3% (1 out of 36 Samples) | 3% (1 out of 36 Samples) |
| 2020 | | Sample collection could not be done due to COVID pandemic restrictions | | | | |
| 2021 | | Sample collection could not be done due to COVID pandemic restrictions | | | | |
| 2022 | 20 % (8 out of 40 samples) | 2.5 % (1 out of 40 samples) | 12% (5 of 40 samples) | 35 % (14 of 40 samples) | No Sample analysed | No Sample analysed |
