

GOVERNMENT OF INDIA
MINISTRY OF JAL SHAKTI,
DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION

RAJYA SABHA

UNSTARRED QUESTION NO. 2493

ANSWERED ON 08.08.2022

DEPLETION OF GROUNDWATER

2493 SHRI S. KALYANASUNDARAM

Will the Minister of JAL SHAKTI be pleased to state:

- (a) the status of groundwater reserves in the delta districts of Tamil Nadu;
- (b) the steps taken to mitigate the depletion of groundwater reserves and if not, the reasons therefor;
- (c) the impact of single use plastics on the groundwater table and the steps taken to mitigate such impact;
- (d) the status of groundwater contamination in the delta districts of Tamil Nadu; and
- (e) the steps taken to mitigate groundwater contamination and if not, the reasons therefor?

ANSWER

THE MINISTER OF STATE FOR JAL SHAKTI

(SHRI BISHWESWAR TUDU)

(a) The Dynamic Ground Water Resource of the country including Tamil Nadu is being periodically assessed jointly by Central Ground Water Board (CGWB) and State Governments. As per the 2020 assessment, Annual Extractable Ground Water Resource in delta districts of Tamil Nadu (viz. Ariyalur, Cuddalore, Nagapattinam, Pudukottati, Thanjavur, Thiruvarur and Tiruchirappali) is 3.95 BCM.

(b) Water being the State subject, the efforts to mitigate the groundwater reserve including effective rainwater harvesting etc comes under States' mandate, however, Central Government has taken a number of important measures in this regard in the country including Tamil Nadu, which can be seen at http://jalshaktidowr.gov.in/sites/default/files/Steps%20taken%20by%20the%20Central%20Govt%20for%20water_depletion_july2022.pdf.

Government of India is implementing Jal Shakti Abhiyan (JSA) in the country including Tamil Nadu. First JSA was launched in 2019 in water stressed blocks of 256 districts which continued during the year 2021 (across entire country both rural and urban areas) also 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 2021 and 2022 were launched by Hon'ble Prime Minister and Hon'ble President on 22.03.2021 and 29.03.2022 respectively.

Hon'ble Prime Minister launched Amrit Sarovar Mission on 24th April 2022. The Mission is aimed at developing and rejuvenating 75 water bodies in each district of the country including Tamil Nadu as a part of celebration of Azadi ka Amrit Mahotsav.

Central Government is implementing Atal Bhujal Yojana with an outlay of Rs. 6,000 crore, in collaboration with States, in certain water stressed areas of Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. The primary aim of the scheme is demand side management through scientific means involving the local communities at village levels leading to sustainable groundwater management in the targeted areas.

Master Plan for Artificial Recharge to Groundwater- 2020 has been prepared by CGWB in consultation with States/UTs which envisages construction of about 1.42 crore Rain water harvesting and artificial recharge structures in the Country to harness 185 Billion Cubic Metre (BCM) of monsoon rainfall. The plan also indicates the appropriate structures for Tamilnadu.

National Aquifer Mapping and Management program (NAQUIM) is being implemented by CGWB which envisages mapping of aquifers (water bearing formations), their characterization and development of Aquifer Management Plans to facilitate sustainable management of Ground Water Resources in the country including Tamil Nadu. NAQUIM outputs are shared with States/UTs for suitable interventions. In Tamil Nadu, the entire area identified under NAQUIM has been completed.

Several States have done notable work in the field of water conservation/harvesting such as 'Mukhyamantri Jal Swavlamban Abhiyan' in Rajasthan, 'Jalyukt Shibir' in Maharashtra, 'Sujalam Sufalam Abhiyan' in Gujarat, 'Mission Kakatiya' in Telangana, Neeru Chettu' in Andhra Pradesh, Jal Jeevan Hariyali in Bihar, 'Jal Hi Jeevan' in Haryana, and **Kudimaramath scheme in Tamil Nadu** etc.

(c) CGWB has not conducted any study on the impact of single use plastics in the groundwater table. However, Ground water levels in various parts of the Country may be declining because of continuous withdrawal necessitated by increased demand of fresh water for various uses, vagaries of rainfall, increased population, industrialization & urbanization etc. Some of the efforts by various Governments for improving the groundwater reserves in the country have been given in para (b) above.

(d) CGWB generates ground water quality data of the country including delta districts of Tamil Nadu on a regional scale as part of its ground water quality monitoring program and various scientific studies. These studies indicate the occurrence of contaminants such as Flouride, Arsenic, Nitrate, Iron and Heavy Metals beyond permissible limits (as per BIS) for human consumption in isolated pockets in parts of delta districts in Tamil Nadu. The details of contamination of ground water in delta districts of Tamil Nadu are given at **Annexure**.

(e) Water being a State subject, initiatives on water management, including its quality is primarily States' responsibility; however, various steps have been taken by the Central Government for controlling ground water contamination in the country including Tamil Nadu.

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 in the country including Tamil Nadu 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.

Ministry of Housing and Urban Affairs through Atal Mission for Rejuvenation and Urban Transformation (AMRUT) is supplementing the efforts of State Government including Tamil Nadu to provide safe and clean drinking water in urban areas. Further, AMRUT- 2.0 was launched on 01st October 2021 for the period of 05 years (FY 2021-22 to 2025-26), with the objective of providing universal coverage of water supply through functional household tap connection in all statutory towns in the country.

Guidelines have been notified by Government of India on 24 September 2020 for control and regulation of groundwater extraction with pan-India applicability. The guidelines include suitable provisions on measures to be adopted to control groundwater pollution.

Further, the quality of groundwater can be improved to some extent if concerted efforts are made to improve the groundwater resources through appropriate groundwater recharge/rainwater harvesting. Government of India has taken a number of initiatives in this direction which are mentioned at para (b) above.

ANNEXURE REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 2493 TO BE ANSWERED IN RAJYA SABHA ON 08.08.2022 REGARDING “DEPLETION OF GROUNDWATER”.

Details of Select Contaminants in Ground Water in parts of delta districts in TamilNadu

State/UT	Salinity (EC above 3000 micro mhos/cm) (EC: Electrical Conductivity)	Fluoride (above 1.5 mg/l)	Nitrate (above 45 mg/l)	Arsenic (above 0.01 mg/l)	Iron (above 1mg/l)	Heavy metals: Lead (above 0.01 mg/l) Chromium (above 0.05 mg/l)
Tamil Nadu (Delta Districts)	Cuddalore, Nagapattinam, Pudukottai, Thanjavur, Tiruchirappali, Thiruvarur	Cuddalore, Pudukkottai, Tiruchirappali, Thanjavur, Thiruvarur	Ariyalur, Cuddalore, Pudukottai, Thanjavur, Nagapattinam,	Ariyalur, Cuddalore, Nagapattina,m Thiruvarur, Tiruchirappali,	Cuddalore, Nagapattinam, Pudukottai, Thanjavur, Thiruvarur	Lead: Cuddalore, Pudukottai, Chromium: Cuddalore