

BEFORE THE NATIONAL GREEN TRIBUNAL PRINCIPAL BENCH NEW

DELHI

ORIGINAL APPLICATION No. 728 OF 2023

IN THE MATTER OF:

In Re: News Item Appearing In Hindustan Dated 30.11.2023 Titled “ARSENIC
FOUND IN GROUNDWATER IN 25 STATES, FLUORIDE IN 27 STATES:
GOVT.”

ACTION TAKEN REPORT FILED BY
STATE OF KERALA

FILED BY: NISHE RAJEN SHONKER FOR STATE OF KERALA



**Action Taken Report in OA No.728/2023 in Hon'ble National
Green Tribunal (Principal Bench), New Delhi**

In continuation to the Statement filed by Secretary, Environment Department, Government of Kerala hereby submit the Action Taken Report on the points detailed below, which were described on the conclusion part of the above said statement:

1. Earmark the affected areas by spatial analysis studies:-

a. Arsenic Contamination of Groundwater in Kerala:-

Central Ground Water Board was reported one isolated case of Arsenic contamination in Groundwater in Kollam District during the analysis conducted in the year 2016. Detailed analysis in the location has proved that there is no such contamination in Groundwater. Hence no locations in the State is having Arsenic content higher than the BIS limit.

b. Fluoride contamination of Groundwater in Kerala:-

In Kerala, Fluoride contamination in Groundwater is mainly reported in certain pockets in Palakkad, Alappuzha and Malappuram Districts. The fluoride contamination is solely geogenic in nature. As per the status in the website (IMIS) of Ministry of Jal Shakti, Government of India, only one habitation, Ward-14 - Karintharuvi of Upputhara Panchayath, Kattapana Block in Idukki District is affected by Flouride contamination.

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Observation Well (study purpose wells) Locations showing the Fluoride concentration higher than BIS limit (>1.5mg/L) - Established by Central Groundwater Board

Sl.No.	District	Block	Village	Latitude	Longitude	Fluoride(F1) (>1.5mg/L)
1	Malappuram	Manjeri	Manjeri	11.1201	76.1201	2.092
2	Palakkad	Chittur	Koppanur	10.7600	76.7800	4.49
3	Palakkad	Attappadi	Vattaluki	11.1400	76.7200	1.52
4	Alappuzha	Ambalappuzha	Pazhaveedu	9.4644	76.3655	1.88
5	Alappuzha	Aryad	Komalapuram-1	9.5422	76.3422	1.8

Observation Well (Study purpose wells) Locations showing the Fluoride concentration higher than BIS limit (>1.5mg/L) - Established by Groundwater Department

District	Block	Village	Well Type	Latitude	Longitude	Fluoride(F1) (>1.5mg/L)
Palakkad	Alathur	Kannambra	Open well	10.6158	76.4583	1.85
Palakkad	Mannarkad	Kalladikode	Open well	10.8930	76.5391	1.53
Palakkad	Ottappalam	Cherpulacherry	Open well	10.8813	76.3186	1.97
Palakkad	Mannarkad	Mannarkad	Open well	10.9925	76.4586	1.87
Palakkad	Chittur	Nalleppilly	Open well	10.7405	76.8169	1.7
Palakkad	Chittur	Elavancherry	Bore well	10.5974	76.6636	3.58
Alappuzha	Kuttanad	Ramankari	Tube well	9.4286	76.4674	1.6

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• **Special Initiative:-**

As per the Order of Hon. NGT in OA 176/2015, it has been suggested that ground water control measures should be implemented more precisely in the critical / semi critical blocks of the state and a policy should be formulated in relation to waste discharge to prevent pollution of ground water resources with respect to water quality. In this regard, the State Groundwater Department had prepared a detailed project proposal to Government on 10/05/2023 and Government have approved the proposal as per order no. 593/2023/WRD dated 27/06/2023. Observation wells are fixed in 1 sq km grid by selecting one block in each district as a first phase where water quality problems have been reported vulnerably. Out of the 14 blocks in the first phase, **water quality assessment has been completed in one block and analysis is being progressed in other blocks.** Mitigation measures shall be taken in areas where ground water quality issues has been reported.

2. Remedial measures like rain water harvesting facilities:-

The State Groundwater Department is implementing roof top rainwater harvesting through recharge pits, dug well recharge and bore well recharge schemes across the state to augment the qualitative and quantitative replenishment of ground water resources.

3. Alternate source of water to the people in the affected area by Kerala Water Authority or Water Resources Department:-

Safe drinking water is now being supplied in all the habitations of Kerala through Kerala Water Authority. Also a

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Comprehensive Multi Village Water Supply Scheme CWSS implemented in Idukki District to Nedumkandam, Pampadumpara, Upputhara, Arakkulam and Elappara under JJM project to provide safe drinking water through piped network to all households of this habitation. Under Jal Jeevan Mission, Piped Water Supply Schemes have been proposed in Fluoride contaminated habitations of Palakkad District such as Kalavappadam, Odamthodu, Thekkukalla for the coverage of households with Functional Household Tap Connections (FHTC).

4. Number of arsenic- and fluoride- free wells constructed:-

The State Groundwater Department is implementing bore well/Tube well based mini drinking water supply schemes in partially covered or non covered habitats especially in tribal colonies, hilly areas and coastal tracts in Alappuzha and Kollam Districts using State Plan and Deposit funds. The water quality of groundwater based mini drinking water schemes are ensured by the department before handing over to the beneficiary communities. In the last 5 years, the State Ground Water Department has implemented 555 nos. of MWSS schemes utilizing plan funds and 937 nos. of schemes under deposit funds.

5. Number of arsenic/fluoride removal plant installed:-

The above said Fluoride contaminated habitation, Ward-14 - Karintharuvi of Upputhara Panchayath, Kattapana Block in Idukki District, safe drinking is now being provided through Community Water Purification Plant (CWPP).

6. In-situ remediation schemes (if any), awareness programmes,

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etc:-

The Department is conducting mass awareness programmes for groundwater conservation, management including ground water quality to the public, students, NGO's, government officials etc. In last five years the department has conducted 350 nos. of mass awareness programmes on groundwater conservation and management across the State.

ASHOK KUMAR SINGH I A S

PRINCIPAL SECRETARY

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