

**STATUS REPORT OF THE STATE OF TRIPURA ON
CONCENTRATION OF ARSENIC AND FLUORIDE IN
GROUND WATER IN EACH DISTRICT**

**IN COMPLIANCE WITH THE DIRECTION OF
HON'BLE NATIONAL GREEN TRIBUNAL IN ORDER
DATED 20.12.2023 IN ORIGINAL APPLICATION
NO.728/2023 IN THE MATTER OF NEWS ITEM
APPEARING IN HINDUSTAN DATED 30.11.2023
TITLED "ARSENIC FOUND IN GROUND WATER IN 25
STATES , FLOUROIDE IN 27 STATES: GOVT."**

SUBMITTED BY:



GOVERNMENT OF TRIPURA

Status report of the State of Tripura on concentration of Arsenic and Fluoride in ground water in each district in compliance with the direction of Hon'ble National Green Tribunal in Order dated 20.12.2023 in Original Application No.728/2023 in the matter of news item appearing in Hindustan dated 30.11.2023 titled "Arsenic found in ground water in 25 states , Fluoroide in 27 states: Govt."

Background:

Hon'ble National Green Tribunal, Principle Bench, New Delhi has passed some orders/directions dated 20/12/2023 in O.A No.728 of 2023 in the matter in the matter of news item appearing in Hindustan dated 30.11.2023 titled "Arsenic found in ground water in 25 states , Fluoride in 27 states: Govt."

In this order, the Hon'ble National Green Tribunal, PB, New Delhi had observed that ground water of 230 different districts of the 25 States/UTs of India is having Arsenic > 0.01 mg/L. Moreover, 469 districts of 27 States/UTs across the country in having Fluoride > 1.5 mg/L.

Accordingly, the Hon'ble Tribunal has directed that,

"7. The issue raised in the present matter with regard to presence of arsenic and fluoride in ground water in such large number of States and Districts is very serious and requires urgent preventive and protective steps by all concerned authorities.

8. Let Notices be issued to all the above respondents. Response may be filed by above respondents within one month after receipt of notice, by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF. "

Status Report of the Tripura is as follows:

Arsenic is a naturally occurring trace element found in rocks, soils and the water in contact with them. Arsenic has been recognized as a toxic element and is considered a human health hazard. The maximum permissible limit of Arsenic for drinking purpose is 0.01 mg/L (or 10 ppb) as per BIS (Bureau of Indian Standards) Drinking Water Standards (IS 10500:2012). The BIS permissible limit of Arsenic was revised from 0.05 mg/L (50 ppb) to 0.01 mg/L (10 ppb) in the year 2015.

Fluorine is the most electronegative and reactive of all elements that occur naturally within many types of rock. It exists in the form of fluorides in a number of minerals of which fluor spar, cryolite, fluorite and fluor apatite are the most common. The fluoride found in groundwater is naturally occurring from the breakdown of rocks and soils or weathering and deposition of atmospheric particles. Most of the fluorides are sparingly soluble and are present in ground water in small amounts.

BIS has recommended an upper desirable limit of 1.0 mg/L, of F as desirable concentration of fluoride in drinking water, which can be extended to 1.5 mg/L, of F in case no alternative source of water is available. Water with concentration of fluoride more than 1.5 mg/L, are not suitable for drinking purposes.

The State Government has taken these matters very seriously. The Public Works Department (Drinking Water and Sanitation), Government of Tripura is regularly testing the samples collected from all the Districts of the State prior to supply for drinking purpose through their NABL Accredited Laboratories. Abstract of water quality of ground water incorporating the concentration of Arsenic and Fluoride for last five years (2019 to 2023) is enclosed herewith and marked as **Annexure-A**. From this report, it is observed that the concentration of Arsenic and Fluoride in 915 samples tested in last five years are below detectable limit.



GOVERNMENT OF TRIPURA
OFFICE OF THE DIRECTOR, WSSO,
PWD (DRINKING WATER AND SANITATION)
AGARTALA, TRIPURA

Annexure-A

No. F. 6(10)/DIR/WSSO/ 305-07

Dated, Agartala the 8th February, 2024.

To,
Member Secretary
Tripura State Pollution Control Board
Dept. of Science, Technology & Environment

Subject- Compliance of Order dated 20.12.2023 passed by the Hon'ble National green Tribunal, Principal Bench, new Delhi in OA No. 728 of 2023-reg.

Your Ref. No. F. 18(28)/TSPCB/NGT/728/857-61 dated 05/02/2024

Sir,

With reference to the subject cited above, please find the attached Abstract of Water Quality of Ground Water incorporating the concentration of Arsenic and Fluoride from last five years (i.e. 2019 to 2023). The department has tested Samples collected from Deep Tube Wells time to time and found that the amount of Fluoride and Arsenic content was below detection limit.



Yours faithfully,

(Signature)
(Er. R. Majumder)
Director, WSSO
PWD(DWS), Tripura.

Copy to,

1. The Secretary, PWD(DWS), Government of Tripura
2. The Chief Engineer, PWD(DWS), Government of Tripura.

Abstract of Water Quality of Ground Water incorporating the concentration of Arsenic and Fluoride from last five years (i.e. 2019 to 2023)

Sl. No.	Name of District	No. Of Sample Tested						Fluoride Content (in mg/L)	Arsenic Content (in mg/L)
		2019	2020	2021	2022	2023	Total		
1	North Tripura	10	16	7	5	8	46	BDL - Below Detection Level for Fluoride - <0.2 mg/l BDL - Below Detection Level for Arsenic - <0.009 mg/l	
2	Unakoti	2	6	3	7	6	24	BDL - Below Detection Level for Fluoride - <0.2 mg/l BDL - Below Detection Level for Arsenic - <0.009 mg/l	
3	Dhalai	3	2	7	3	6	21	BDL - Below Detection Level for Fluoride - <0.2 mg/l BDL - Below Detection Level for Arsenic - <0.009 mg/l	
4	Khowai	5	6	9	11	8	39	BDL - Below Detection Level for Fluoride - <0.2 mg/l BDL - Below Detection Level for Arsenic - <0.009 mg/l	
5	West Tripura	58	65	44	49	41	257	BDL - Below Detection Level for Fluoride - <0.2 mg/l BDL - Below Detection Level for Arsenic - <0.009 mg/l	
6	Sepahijala	79	88	81	94	101	443	BDL - Below Detection Level for Fluoride - <0.2 mg/l BDL - Below Detection Level for Arsenic - <0.009 mg/l	
7	Gomati	8	6	11	9	4	38	BDL - Below Detection Level for Fluoride - <0.2 mg/l BDL - Below Detection Level for Arsenic - <0.009 mg/l	
8	South Tripura	13	7	10	9	8	47	BDL - Below Detection Level for Fluoride - <0.2 mg/l BDL - Below Detection Level for Arsenic - <0.009 mg/l	

Signature
8.2.2024