

BEFORE THE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

Original Application No. 728/2023

(IA No 201/2025)

In the matter of-

News Item titled "arsenic found in groundwater in 25 States fluoride in 27 states: Govt."
appearing in Hindustan dated 30.11.2023

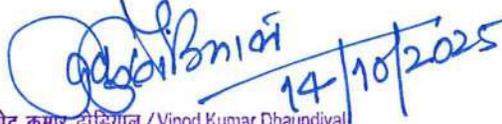
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Respondent No. 29

Through

Filed by


विनोद कुमार धौंडियाल / Vinod Kumar Dhaundiya
प्रशासक / Administrator
केन्द्रीय भूमि जल प्राधिकरण / Central Ground Water Authority
जल संसाधन, नदी विकास एवं गंगा संरक्षण
Deptt of Water Resources, River Development & Ganga Rejuvenation
जल शक्ति मंत्रालय / Ministry of Jal Shakti
भारत सरकार / Government of India

Place: New Delhi

Date: 14-10-25


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News Item titled "arsenic found in groundwater in 25 States fluoride in 27 states: Govt." appearing in Hindustan dated 30.11.2023

COMPREHENSIVE REPORT ON BEHALF OF THE CENTRAL GROUND WATER AUTHORITY, NEW DELHI (R-29)

MOST RESPECTFULLY SHOWTH:-

Brief Submission-

1. That Hon'ble Tribunal vide para 4 of its order dated 16.07.2025 issued following directions :

“Counsel for the CGWA is directed to tabulate the information which has been disclosed by the States/UTs in their report and summarize the number of districts, villages and sources, etc. which are affected by the presence of arsenic and fluoride in each of the States/UTs and the action which has been taken by each of the States/UTs to remediate the problem. The CGWA will also disclose the advisory/instructions/orders, if any, issued to the States/UTs to remediate the problem. Further, CGWA needs to disclose availability of arsenic and fluoride removal plants of varying capacities which can be set up in affected areas, if not done so far”.

2. In pursuance to the directions of Hon'ble Tribunal, information disclosed by the States/UTs in their reply to CGWA letters or report which has been filed before Hon'ble Tribunal is summarized in tabular form and marked and annexed as **Annexure –I**. The

remediation/ mitigation measures enumerated by States include setting up arsenic/ fluoride removal plants, as well as alternative water supply.

3. That the CGWA was also directed to disclose the advisory/instructions/orders, if any, issued to the States/UTs to remediate the problem. In this regard it is most respectfully submitted that CGWA is regularly issuing various directions/orders to the States/UTs with respect to regulation of Ground Water Management and Development. Directions/orders issued by CGWA to the States/UTs in the instant matter have already been submitted before Hon'ble Tribunal which are available at Paper Book Page No. 701 to 762 and Page No. 865 to 892.
4. That it is therefore prayed that the present comprehensive report may please be taken on record and may pass such orders or directions as may be deemed fit and proper in the interest of justice.


 14/10/2025
 FOR RESPONDENT NO. 1
 विनोद कुमार धौंडियाल / Vinod Kumar Dhaundiyal
 प्रशासक / Administrator
 केन्द्रीय भूमि जल प्राधिकरण / Central Ground Water Authority
 जल संसाधन, नदी विकास एवं गंगा संरक्षण
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Tabulated/Summarized information of States/UTs disclosed in their report

S.No.	Name of State/ UT	Number of District/Villages/H abitations/Wards/ Samples affected as per report filed by the States/UTs		Remedial steps taken by the State/UT	Paper Book Pg. No.
		Arsenic	Fluoride		
1	Andhra Pradesh	7 Distt.	19 Distt.	<p>Rural Water Supply & Sanitation Department, Govt. of Andhra Pradesh is providing safe drinking water (Arsenic and Fluoride contamination free) to all the rural habitations where Arsenic and Fluoride reported through Single Village Schemes (SVS) and Multi Village Scheme (MVS)". All the drinking water sources of SVS and MVS schemes in these habitations are Deep tube wells in which the Arsenic concentration in ground water is less than the permissible limit of 0.0 mg/l and the fluoride concentration is less than the permissible limits (<1.5 mg./L)".</p> <p>RWS&S Department has tested all the ground water sources in all the said habitations and found that Arsenic levels in all the sources are within the permissible limit and the Department has notified the ground water sources in which the fluoride levels are more than the permissible limits, as "Not fit for drinking purpose" with red paint and created awareness among the local public to use the water for other purposes and not for drinking.</p>	763-772 (reply furnished by state of AP in response to CGWA letter dated 08.03.2024)
2	Assam	21 Distt.	17 Distt.	<p>Both Short Term and Long Term mitigation measures have been adopted to address the problem. In order to ensure potable drinking water in Arsenic/Fluoride affected areas the following activities have been carried out/taken up:</p> <ol style="list-style-type: none"> As a short term mitigation measure 1126 nos. community water purification plant (nano technology based) are installed or mitigation of 1075 nos. affected habitations where the responsibilities of operation and maintenance of plants are vested with the community. As a long term mitigation measure 391 nos. piped water supply schemes based on surface water are taken up for making provision of FHTC for safe drinking water. Works for 88 nos. community water purification plant (nano technology based) are taken up for short term mitigation of 80 nos. arsenic affected habitations. All habitations are already mitigated either by short term or long term mitigation measures. 	773-776 (reply furnished by state of Assam in response to CGWA letter dated 15.03.2024)
3	Bihar	4709 Wards	3789 Wards	<p>Arsenic: As per report, out of 4709 Arsenic affected wards, 4684 wards have been covered with Arsenic removal plants and remaining 25 wards will be completed by July 2024.</p> <p>Fluoride: In case of Fluoride, Out of 3789 affected wards, 3780 wards covered with Fluoride removal plants.</p>	777-779 (reply furnished by state of Bihar)

				In addition to above, State of Bihar has further stated that "Public Health Engineering Department (PHED), Government of Bihar is mandated to provide safe drinking water to all rural households of the State. For this purpose, PHED has executed various programs and schemes to assure the access of clean drinking water to all households. Earlier Hand pumps were installed at public places and in cluster of rural households to fetch safe water with Travelling a long distance. As part of the Water Quality Component, PIED is implementing Water Quality Monitoring and Surveillance actions to address the issues of water quality.					in response to CGWA letter dated 08.03.2024)																				
4	Chhattisgarh	17 Villages	169 Villages	<table border="1"> <tr> <td>No. of affected villages by Arsenic</td> <td>Total Sources</td> <td>Arsenic affected sources</td> <td>Sources closed</td> <td>Installed Arsenic removal plant</td> </tr> <tr> <td>17</td> <td>279</td> <td>65</td> <td>61</td> <td>4</td> </tr> <tr> <td>No. of affected villages by Fluoride</td> <td>Total Sources</td> <td>Fluoride affected sources</td> <td>Sources closed</td> <td>Installed Fluoride removal plant</td> </tr> <tr> <td>169</td> <td>1677</td> <td>511</td> <td>411</td> <td>100</td> </tr> </table>					No. of affected villages by Arsenic	Total Sources	Arsenic affected sources	Sources closed	Installed Arsenic removal plant	17	279	65	61	4	No. of affected villages by Fluoride	Total Sources	Fluoride affected sources	Sources closed	Installed Fluoride removal plant	169	1677	511	411	100	893-943 (reply furnished by state of Ch'garh in response to CGWA letter dated 30.05.2024).
No. of affected villages by Arsenic	Total Sources	Arsenic affected sources	Sources closed	Installed Arsenic removal plant																									
17	279	65	61	4																									
No. of affected villages by Fluoride	Total Sources	Fluoride affected sources	Sources closed	Installed Fluoride removal plant																									
169	1677	511	411	100																									
5	Delhi	03 Distt.	06 Distt	Filtered water being supplied to the residents in affected areas.					236-240																				
6	Gujarat	01 Distt	23Distt	<p>More than 350 Multi-Village Schemes for providing surface level water are operational in State of Gujarat, which cover 15,560 villages including the areas which have been identified by CGWA to be affected by Arsenic/Fluoride contamination. In the state of Gujarat, surface level water is being supplied from various sources for drinking purpose such as Narmada Canal, Dharoi Dam, Dantiwada Dam, Ipu Dam, Raval Dam, Ozat Dam, Mahi River, Ukai Machchhu Dam, Brahmani Dam, Panam Dam & Guhai Dam to all the areas including the areas identified as contaminated by CGWA.</p> <p>Apart from the above, various Arsenic and Fluoride free wells have been constructed as well as a number of Arsenic/Fluoride removal plants have also been installed to reduce the impact of presence of Arsenic and Fluoride in the ground water.</p>					1882-1884 Report filed by the State of Gujarat on 14.07.2025 before Hon'ble NGT.																				
7	Haryana	0	24 Samples in PHED sources	<p>Arsenic: The State of Haryana there is no issue of Arsenic beyond permissible limit in the drinking water sources.</p> <p>Fluoride : There is issue of Fluoride in 24 samples in PHED sources, and supply from these sources have been stopped and drinking water arrangement has been made from alternate source, i.e. from canal based water works in 20 villages & in balance 4 villages from other tube wells.</p>					782-785 (reply furnished by state of Haryana in response to CGWA letter dated 08.03.2024)																				
8	Himachal Pradesh	0	0	Himachal Pradesh Ground Water Authority confirmed that the Executive Engineer, Jal Shakti Vibhag has conducted ground water sampling through M/s Eco Paryavaran Laboratories and consultants Pvt. Limited,					536-685 (reply																				

				Mohali, a NABL accredit laboratory. All the tests conducted for the ground water samples for Arsenic & Fluoride are reported to be within acceptable limit.	furnished by the State of HP on 30.03.2024 before Hon'ble Tribunal.								
9	J & K	0	0	<p>Arsenic : No presence of Arsenic and Fluoride has been encountered in already drilled tube wells/bore wells of Jammu province till date. Habitants are provided safe water supply.</p> <p>Fluoride : No presence of Arsenic and Fluoride has been encountered in already drilled tube wells/bore wells of Jammu province till date. Habitants are provided safe water supply.</p>	1099-1100 (reply furnished by UT of J&K in response to CGWA letter dated 24.05.2024)								
10	Jharkhnad	1 Distt.	9 Distt.	<p>In some habitations Electrolytic De- Fluoridation (EDF)/ Arsenic removal plants has been installed as short measure for providing potable water and in some habitations Functional house hold tap connection (FHTC) has been provided through single village schemes / multi village schemes. 5 nos. Of Arsenic removal plant has been installed.</p> <p>Arsenic : In 1 habitation Arsenic removal plant installed and other Habitations covered under Rajmahal Multi Village Scheme.</p> <p>Awareness programme-</p> <p>1. Awareness programme has been organized in grass root level as well as district level by coloring with cross mark the affected hand pump head with red and educated people not to use the contaminated water for drinking and cooking purposes.</p> <p>2. Periodic FTK Testing from grass root level functionaries are being carried by the department for preliminary test and awareness generation among villagers.</p> <p>Fluoride : Electrolytic De- Fluoridation Plant (EDF) has been installed for providing portable drinking water in 22 habitations and remaining 04 habitations covered under Mega Water Supply Schemes and Multi Village Water Supply Schemes .</p>	1809-1823 (Reply filed by the State of Jharkhand before Hon'ble NGT on 12.12.2024)								
11	Karnataka	20 Villages	2083 Villages	<p>Arsenic : In 20 Arsenic affected villages safe drinking water is being provided through alternate sources i.e., Multi Village Scheme (MVS)</p> <p>Fluoride :</p> <table border="1"> <thead> <tr> <th>Villages affected by Fluoride</th> <th>Covered under Multi Village Scheme</th> <th>Covered under RO based WPP</th> <th>No. of Villages covered with alternate borewell sources</th> </tr> </thead> <tbody> <tr> <td>2083</td> <td>144</td> <td>1636</td> <td>303</td> </tr> </tbody> </table>	Villages affected by Fluoride	Covered under Multi Village Scheme	Covered under RO based WPP	No. of Villages covered with alternate borewell sources	2083	144	1636	303	1101-1224 (reply furnished by state of Karnataka in response to CGWA letter dated 30.05.2024)
Villages affected by Fluoride	Covered under Multi Village Scheme	Covered under RO based WPP	No. of Villages covered with alternate borewell sources										
2083	144	1636	303										

12	Kerala	0	03 Distt. (10 villages)	<p>Fluoride : 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”.</p> <p>Remedial Measures being Implemented by the State Groundwater Department.- It is necessary to earmark the affected areas by spatial analysis studies by the State Ground Water Department and remedial measures like provision of rain water harvesting facilities, provision of filter such as reverse osmosis plant, use of surface water for drinking purpose or alternative source of water to the people are to be taken in the affected area by concerned departments like Kerala Water Authority or Water Resources Department through the respective local Self Government Institutions.</p>	786-798 (reply furnished by state of Kerala in response to CGWA letter dated 08.03.2024).
13	Madhya Pradesh	0	0	There is neither excessive Fluoride nor excessive Arsenic has been observed in groundwater levels within the State of Madhya Pradesh. The Government of Madhya Pradesh is conducting regular spot inspections on random groundwater sources within the State of Madhya Pradesh to ensure that the quality of groundwater is within the permissible limit and the same is not hazardous to the residents of Madhya Pradesh.	62-73 (Report filed before Hon'ble Tribunal on 12.02.2024)
14	Manipur	1 Distt	1 Distt	Arsenic and Fluoride concentration in few of the shallow Dugwells and Tube wells were reported. However, such TW/DW have already been abandoned and not in use for the last many years.	56-61 (Report filed before Hon'ble Tribunal on 14.02.2024)
15	Odisha	0	18 habitations	<p>Fluoride : The deeper aquifers in the State are free from arsenic contamination.” Furthermore, as per Integrated Management Information System ("IMIS") report of the Jal Jeevan Mission, Deptt. of DWS, under MoJS, the number of Arsenic contaminated habitation is “Nil”.</p> <p>The state has taken necessary measures and abandoned the contaminated water sources and sealed them and habitations have already been covered with Community Water Purification Plants as a part of short terms measure. Further, these fluoride affected habitations are also covered with Piped Water Supply Schemes (PWS) either by Single Village Schemes or Multi Village Schemes.</p> <p>Initiative aimed at understanding the root causes of contamination, assessing its extent and implementing measures to prevent deterioration of ground water quality. Efforts include the following :-</p> <ol style="list-style-type: none"> Comprehensive Water Quality Monitoring. Sealing the contaminated water resources. Alternative water sources. Community engagement and awareness. Technological interventions. Collaboration with stakeholders Policy advocacy. 	1396-1407 (Report filed before Hon'ble Tribunal on 06.08.2024)
16	Punjab	0	02 Districts	Arsenic : Ground water monitoring carried out by pollution control board across 07 districts of the state of Punjab has not revealed presence of Arsenic. Monitoring of remaining 10 districts will be carried out as per	47-50 (Report filed

				frequency of National Water Monitoring Programme. Arsenic : Ground water monitoring carried out in 10 districts, Fluoride in 02 districts i.e. Bathinda and Mukisar Saheb) found beyond permissible limit i.e. 1.5 mg/l and same is due to geogenic reason. Monitoring of remaining 09 districts will be carried out as per frequency of National Water Monitoring Programme.	before Hon'ble Tribunal on 12.02.2024)
17	Rajasthan	0	112 villages	Arsenic affected villages in the state are Nil. Fluoride : Water supply in all of these 112 villages has been covered with CWPP. Over the period of time, as a short term measure 3453 solar energy based De Fluoridation unit in exclusive fluoride affected habitations and 4027 RO plants have been installed in multi quality affected habitations. As of now there is no habitation with Arsenic impurity and all fluoride affected habitations are covered with the surface source all with standalone CWPP.	814-818 (reply furnished by state of Rajasthan in response to CGWA letter dated 08.03.2024).
18	Tamil Nadu	0	13 blocks	Arsenic : No presence of Arsenic in ground water in the State of T.N. Fluoride As far as Fluoride is concerned, 5 blocks in Dharmapuri and 8 blocks in Krishagiri Districts are affected by Fluoride contamination and habitations are being supplemented by Hogenakkal water supply Fluorosis mitigation project with river Cauvery as source, where supply of treated potable water to the tune of 30 lpcd in rural areas and 50 lpcd in urban areas is ensured since 2013.	1243-1246 (reply furnished by state of Kerala in response to CGWA letter dated 08.03.2024).
19	Telangana	0	0	"The Govt. of Telangana has taken up "Mission Bhagiratha" with an objective to provide safe drinking water on sustainable basis to all the habitations with adequate quantity and quality of water Reservoirs of Godawari and Krishna river basis) through FIITC (Functional household Tap Connections) duly integrating the existing PWS /CPWS schemes. Through Mission Bhagiratha safe drinking water is being supplied to the households duly conforming to IS 10500-2012"	819-823 (reply urnished by state of Kerala to CGWB, SR vide letter dated 28.02.2024).
20	Tripura	0	0	The State of Tripura in their report filed before Hon'ble NGT stated that the State Government has taken matters seriously. The Public Works Department (Drinking Water and Sanitation), Govt. Of Tripura is regularly testing samples collected from all the districts of State prior to supply for drinking purpose. During last year five years (2019-2023), 915 samples collected from 08 districts of the State of the Tripura and concentration of arsenic and fluoride in all 915 samples found below detectable limits.	51-55 (Report filed before Hon'ble NGT on 08.02.2024)
21	Uttar Pradesh	16 Distt	16 Distt.	Under the Jal Jeevan Mission programme, supply of pure drinking water to the people of the state is being ensured through surface or ground water. Till now, under this programme, supply of pure tap water has been	824-828 (reply

				ensured to 2,13,97,071 (80.63%) houses out of 2,65,37,027 houses in the state. It is targeted to supply pure tap water to the remaining houses by the month of December, 2024. At the time of construction of the drinking water scheme, the drinking water obtained from it is ensured to be tested by NABL certified laboratory by 01.04.2023, information about 116 villages of 46 development blocks of 16 districts of the state affected by arsenic/fluoride in ground water was entered on LMIS by the Executive Engineer, Block Office, Uttar Pradesh Jal Nigam (Rural). Thereafter, by the concerned block offices, Uttar Pradesh Jal Nigam (Rural), all the villages of the 'said development blocks are being covered with piped drinking water scheme and pure drinking water is being supplied. At present there is zero information on IMIS regarding supply of drinking water contaminated with arsenic/fluoride in any part of the state".	furnished by state of UP in response to CGWA letter dated 15.03.2024).
22	Uttarakhand	1 village	0	Arsenic affected hand pumps in Charechi (Block Bhatwari) have been sealed. No Arsenic has not been detected in remaining locations. Fluoride: There is no presence of Fluoride in the state as per revised sampling.	1247-1309 (reply furnished by state of Uttarakhand to CGWA).
23	West Bangal	8 Distt (83 blocks)	7 Distt. (43 blocks)	As of now all the Arsenic and Fluoride affected villages of the State have been covered by either long term measures through implementation of Piped Water Supply Scheme (PWSS) or covered by Community Water purification Plants (CWPP). After implementation of piped Water Supply Scheme (PWSS) all the Arsenic affected blocks will be brought under long term solution " Arsenic : Arsenic and Iron Removal Plants Commissioned - 143 Ongoing - 47 Community Water Purification Plant installed - 1517 Fluoride : Community Water Purification Plant installed - 114	1311-1318 (reply furnished by state of W.B. in response to CGWA letter dated 08.03.2024).
24	DNH Daman & Diu	Report neither submitted to CGWA nor available in NGT website.			
25	Puducherry	0	0	The water samples from ground water sources were tested for heavy metals and trace elements from the year 2003 onward and found to be well within permissible limits. Further stated that as per latest test reports dated 12.05.2020 of ground water samples tested in NABL accredited laboratory. The value of total Arsenic are found to be BDL (below detectable limit) 0.001 mg/l and hence can be confirmed that there is no presence of Arsenic in ground water of Puducherry.	812-813 (reply furnished by UT of Puducherry in response to CGWA letter dated 08.03.2024).

26	Maharastra	0	150 (140 locations in rural areas and 10 locations in urban areas)	<p>Fluoride Out of 140 locations in rural areas, no contamination was found in 5 locations during retesting, and remaining 135 Sources prohibited for drinking purpose. Further, stated that 127 locations, new sources in Jal Jeevan Mission are being taken.</p> <table border="1"> <thead> <tr> <th>Sl.</th> <th>Project</th> <th>Year of installation</th> <th>No. of Plants</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Defluoridation Plant</td> <td>2017-18</td> <td>118</td> </tr> <tr> <td>2</td> <td>RO Phase I</td> <td>2017-18</td> <td>114</td> </tr> <tr> <td>3</td> <td>RO Phase III</td> <td>2018-19</td> <td>294</td> </tr> <tr> <td colspan="3">Total</td> <td>526</td> </tr> </tbody> </table>	Sl.	Project	Year of installation	No. of Plants	1	Defluoridation Plant	2017-18	118	2	RO Phase I	2017-18	114	3	RO Phase III	2018-19	294	Total			526	<p>1764-1781 (Reply filed by the State of Maharashtra on 13.08.2024 before Hon'ble NGT)</p>
					Sl.	Project	Year of installation	No. of Plants																	
					1	Defluoridation Plant	2017-18	118																	
					2	RO Phase I	2017-18	114																	
					3	RO Phase III	2018-19	294																	
Total			526																						
27	Meghalaya	0	0	<p>There was no occurrence of Arsenic & Fluoride in the state of Meghalaya.</p>	<p>840-848 (reply filed by the State of Meghalaya before Hon'ble NGT on 07.05.2024).</p>																				
						28	Nagaland	0	0	<p>A total of 469 random samples were collected from 03 Districts wherein there was presence of fluoride in the ground water. Samples collected by the department found that the presence of Fluoride was under desirable limit.</p>	<p>1824-1856. (reply filed by the State of Nagaland before Hon'ble NGT on 28.02.2025).</p>														