

**BEFORE THE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI
O.A NO 985/2019 With OA NO 986/2019,
OA NO 934 of 2024**

IN Re: Water Pollution by Tanneries at Jajmau Kanpur Uttar Pradesh

Versus

Central Pollution Control Board & Ors. ...RESPONDENT

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NEW DELHI

DATED: 20.07.2026

**BEFORE THE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI
O.A NO 985/2019 With OA NO 986/2019,
OA NO 934 of 2024**

IN Re: Water Pollution by Tanneries at Jajmau Kanpur Uttar Pradesh

Versus

Central Pollution Control Board & Ors. ...RESPONDENT

**REPORT BEING FILED BY AIIMS, NEW DELHI IN
COMPLIANCE OF THE ORDER DATED 07.04.2026
PASSED BY THIS HON'BLE TRIBUNAL**

MOST RESPECTFULLY SHOWETH-

1. That the present Report is being submitted on behalf of the **All India Institute of Medical Sciences (AIIMS), New Delhi**, in compliance with the directions issued by this Hon'ble Tribunal in the above-captioned matter.
2. It is submitted that vide order dated 01.07.2025, this Hon'ble Tribunal had impleaded the present Respondent as a necessary party and issued notice to the Respondent and had further passed the directions which is being reiterated for kind perusal –

11. Having regard to the seriousness of the issue involved in the matter and considering the fact that a large number of persons are affected/likely to be affected on account of presence of heavy metals such as chromium, mercury etc. and also taking note of the fact that effective steps to render medical assistance have not been pointed out, we are of the opinion that to find out the correct position and to ascertain the kind of treatment which is to be extended to the affected persons and for ensuring proper medical assistance to them, it is necessary to implead the following as respondent:

Respondent :Director of All India Institute of Medical Sciences (AIIMS), Ansari Nagar, New Delhi, 110029.

....newly added respondent is permitted to file a comprehensive report I this regard within eight weeks.

Subsequently, the matter was listed on **07.10.2025**, and once again, a notice was issued to the respondent. A copy of the order dated **01.07.2025** is annexed herewith as **ANNEXURE-1.**

3. On 07.04.2026, the matter was listed before the Hon'ble Tribunal, where again no one appeared on behalf of the newly added Respondent. The Senior Panel Counsel for AIIMS, New Delhi, accepted the notice on behalf of the respondent and sought time to comply with the directions of this Hon'ble Tribunal. The Copy of the order dated 07.04.2026 is annexed herewith as **ANNEXURE-2.**
4. It is submitted that the AIIMS had, in compliance to the directions in OA No 985/2019 titled In Re: Water Pollution by Tanneries at Jajmau Kanpur Uttar Pradesh, nominated Dr Harshal Ramesh Salve and Dr Partha Halder, Additional Professors, Centre for Community Medicine, undertook an independent assessment of the public health impact arising from water contamination in certain areas of Kanpur District, Uttar Pradesh, and to place their findings before this Hon'ble Tribunal.
5. It is submitted that as part of independent assessment and to address the gaps, the Respondent's Team adopted a step-wise approach in close collaboration with the Chief Medical Officer (CMO), Kanpur Nagar. The detailed method included-

- **Online Consultation with CMO office on 18th October 2025:**

Initial briefings and consultations were held with district health authorities. During this online consultation, an overview of the problem was

identified, and a detailed travel plan was decided upon. The dates of travel plan to Kanpur were fixed for Oct 29th - 30th 2025, which the team of AIIMS, New Delhi visited as per plan.

- **Mapping of the affected areas:** The CMO office helped us in mapping of the affected areas in the district namely, Jajmau, Rakhi Mandi, Pandi, Rooma, Nauraya, Tejab Mill Campus, Panki in Kanpur Nagar district; and Rania in Kanpur Dehat. This activity was done using the existing information available in the form of individual level blood test reports on Chromium and Mercury levels from the affected areas. It was also decided that during our visit, a joint field visit will be undertaken to the affected areas, and also a consultation and discussion with all stakeholders will be conducted.
- **Field Visit:**
A joint field visit was undertaken on 29.10.2025 in the identified affected areas. The AIIMS team visited two locations in Jajmau block and one in Rakhi Mandi block. On-site discussions were held with the residents and health workers. Mapping and identification of water sources were elicited from the residents. Residents were asked about any symptoms suggestive of heavy metal poisoning.
- **Stakeholder Consultations:**
A consultative meeting was conducted on 30.10.2025 under the chairmanship of CMO Kanpur Nagar. The meeting was attended by representatives from health services, district water and sewerage board, UP state pollution control board, district administration, and faculty members of GSVM Medical College, Kanpur. The meeting was conducted to review existing intervention, gaps, and formulating recommendation for future course of actions.

6. The field visits further confirmed that while efforts were being made at various levels to address contamination, the response remained fragmented. Water samples were being collected irregularly, and laboratory data lacked standardized labelling, making it impossible to trace results back to specific households or sources. Residents

continued to consume water from shallow hand pumps or borewells that had been previously declared unfit for drinking, largely due to the absence of reliable alternative supplies. In many areas, piped municipal water supply was either unavailable or irregular, forcing dependence on groundwater that is potentially contaminated. Community observations suggested that while direct health symptoms such as acute toxicity were rare, residents commonly reported chronic ailments including skin lesions, joint pain, and gastrointestinal discomfort, which may be consistent with long-term low-dose exposure to heavy metals.

7. Based on these findings, the AIIMS team recommends that a systematic and scientifically rigorous assessment be undertaken to quantify the extent of heavy metal contamination and its health impact. A comprehensive rapid epidemiological survey covering both Kanpur Nagar and Kanpur Dehat districts should be led by the District Health Department in partnership with GSVM Medical College, the Jal Board, and the Uttar Pradesh Pollution Control Board. The survey should cover representative households within identified high-risk zones, combining water sampling and human biomarker testing with structured interviews to document exposure patterns and health outcomes. Testing of household and source-level water samples should include chromium, mercury, and also lead, and arsenic. Biological samples such as blood and serum should also be analyzed for basic organ function indicators. The collected data should be geocoded and integrated into a spatial mapping system to identify contamination hotspots and guide remediation. The Report

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titled as WATER CONTAMINATION AND IT'S HEALTH IMPACT IN KANPUR DISTRICT UTTAR PRADESH is annexed herewith as **ANNEXURE-3**.

In light of the findings and observations from the independent assessment, this report is submitted to comply with the directions of this Hon'ble Tribunal. Necessary Actions will be taken as per legal provisions.

FILED BY-


K. P. Gautam
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Supreme Court of India
Reg. No. D/119/98

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Item Nos. 10 to 13

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 985/2019
(I.A. No. 568/2024)

In Re: Water Pollution by Tanneries at Jajmau Kanpur Uttar Pradesh

Versus

Central Pollution Control Board & Ors.

Respondent(s)

WITH

Original Application No. 986/2019

In Re : Water Pollution at Rania Kanpur Dehat & Rakhi Mandi Kanpur Nagar Uttar Pradesh

WITH

Original Application No. 528/2023

News report published in Dainik Jagran dated 14.08.2023 "highlights a growing concern regarding industrial pollution in the Godhrauli village"

WITH

Original Application No. 934/2024

Rajat Verma

Applicant

Versus

Member Secretary, Uttar Pradesh
Pollution Control Board & Ors.

Respondent(s)

Date of hearing: 01.07.2025

**CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

Applicant: Ms. Katyayni, Adv. (Amicus Curiae in OA Nos. 985-986 of 2019 & OA 934/2024)

Respondent: Ms. Garima Prashad, AAG (Through VC) alongwith Ms. Priyanka Swami, Adv. with Mr. Rajiv Nayan Giri, CMO Fatehpur (Through VC) & Dr. Mukesh Matanhelia (Through VC), Joint Director, Health & Welfare Department, UP
Mr. Pradeep Misra & Mr. Daleep Dhyani, Advs. for UPPCB (Through VC)
Mr. Gigi. C. George, Advs. for CGWA & NMCG

Mr. Raj Kumar, Adv. for CPCB in OA 985-986 of 2019
Mr. Vikrant Pachnanda, Adv. for CPCB in OA 934/2024 (Through VC)

ORDER

1. The issue under examination in these Original Applications (OAs) relate to chromium dumps at Rania, Kanpur Dehat, Rakhi Mandi, Kanpur Nagar and Fatehpur.
2. Learned Amicus Curiae had visited the affected sites with the permission of the Tribunal and had submitted the report disclosing the prevailing pathetic conditions. It is pointed out by Learned Amicus Curiae earlier that not only the issue of chromium dump is involved in the matter but mercury, fluoride and iron have also been found in the ground water.
3. Earlier Learned Amicus Curiae had submitted the suggestions/recommendations which were taken note of in the proceeding dated 30.01.2025. These suggestions/recommendations were mostly accepted by State of Uttar Pradesh (UP).
4. Reply of Secretary, Medical Health Family Welfare, Government of UP dated 21.01.2025 was also considered in the proceedings dated 30.01.2025 wherein initiation of health camps in the suspected areas was disclosed and in these health camps high-level mercury and chromium in the blood samples of the residents requiring immediate medical intervention was found. Tribunal in the proceedings dated 30.01.2025 had considered report of Secretary, Medical Health Family Welfare, Government of UP dated 21.01.2025 and observed as under:-

“8. We also take note of the latest reply of the Secretary, Medical Health and Family Welfare, Govt. of UP dated 21.01.2025, wherein he has stated that the Medical Health and Family Welfare Department had initiated health camps in the suspected areas, including Rakhi Mandi, Afeem Kothi in Kanpur Nagar and these camps reveal high levels of mercury and chromium in the blood samples of the residents requiring

immediate medical intervention. The report further states that similar camps were organised in Kanpur Dehat, where widespread health issues, including respiratory ailments, neurological disorders, behavioural changes, and skin conditions, were identified. The report also says that J.K. Cancer Institute in Kanpur Nagar lacks in-house facilities for heavy metal testing. As per this report, health camps and surveys had identified high levels of chromium exposure among residents.

9. Learned Amicus has also referred to para 6 of the affidavit of the Secretary, of Medical Health, wherein it is mentioned that the hemodialysis facilities are operational in all 75 Districts of Uttar Pradesh, including Kanpur Nagar, Kanpur Dehat, and Fatehpur, to address severe cases of heavy metal toxicity. She submits that this indicates that the kidneys of the patients are getting affected on account of heavy metal consumption. The next affidavit of the State will cover the above aspects of the matter.”

5. OAs thereafter were adjourned seeking report on the action taken on the recommendations of the Learned Amicus Curiae.

6. Tribunal had taken note of the report concerning patients in village Godharoli wherein heavy metals such as chromium and mercury were found in the blood and they were found to be suffering from abnormalities. In that background, Tribunal in the proceedings dated 27.05.2025 had observed as under:

“14. We are of the view that emergent steps are required to be taken to remediate the problem being faced by the residents of villages of Kanpur Nagar and Fatehpur as noted above. We find that till now the serious efforts are lacking and even the provision for adequate minimum supply of water has not been made. In our view, authorities should be sensitive to the need and the problems of residents of these villages and they should take immediate, effective and remedial measures.

15. We take note of the fact that on the previous date on 08.04.2025 when the matter was taken up, Learned AAG had made the following statement:

"6. Learned AAG has submitted that the issue relating to supply of adequate water in all the affected areas will be re-examined and appropriate provisions will be made and fresh report in this regard will be filed."

16. In spite of lapse of about one and a half month after the previous order, we do not find any significant noticeable improvement. Thus, we are of the view that probably seriousness of the matter has not been understood by the concerned authorities till now, therefore, Chief Secretary, State of Uttar Pradesh is required to look into the issue and ensure appropriate remedial measures and also to ensure that at least minimum requisite supply of clean water is made to the residents of these villages to satisfy their daily need and adequate steps are taken to extend all possible medical help to those who are suffering and proper steps are taken to ensure that chromium dumps do not spread and do not create any health issue to the residents there."

7. After the order dated 27.05.2025, further reports on behalf of District Magistrate, Kanpur Dehat dated 13.06.2025, District Magistrate, Kanpur Nagar dated 13.06.2025, compliance report on behalf of District Magistrate, Fatehpur dated 13.06.2025, Additional affidavit on behalf of Special Secretary, Medical Health and Family Welfare, UP dated 27.06.2025, report on behalf of Chief Engineer, Ramganga, Kanpur, UP dated 26.06.2025 and affidavit dated 30.06.2025 on behalf of Central Pollution Control Board have been filed.

8. Learned Amicus Curiae has examined these affidavits/reports and has handed over her comments which are as follows:-

"OBSERVATIONS FROM THE AFFIDAVIT BY SPECIAL SECRETARY, MEDICAL HEALTH AND FAMILY WELFARE

1. *Point 2 (Health survey)*

Kanpur Nagar:

8 affected areas- Panki industrial area, Rakhi mandi, Jajmau industrial area, Rooma TSDF, Nauraiya khera, Tejab mill campus, Anwar ganj and Gola ghat.

Total people screened	6757
Blood samples collected (potentially affected persons)	391
Persons with Cr (out of 60 received reports)	40
Persons with mercury	0
Pending report	331

Kanpur Dehat:
(Palanpurva, Chauhanpurva, Yadaupurva, Khanchandpur)

Total people screened	1911
Blood samples collected (potentially affected persons)	132
Persons with Cr	132
Persons with mercury	0

Fatehpur:
(Gadhrauli, Ashapur, Baniakhera, Abhaypur)

Total people screened	479
Blood samples collected (potentially affected persons)	49
Persons with Cr	47
Persons with mercury	3

Timeline to complete survey- within **3 months**

2. Point 3 (augmentation and strengthening of health-
infrastructure)

i. Diagnostic center is at RML Lucknow

ii. Timeline to develop medical units in affected areas is **3 months**
3. Point 14 (health insurance and multi- specialty medical aid)

i. Ayushman bharat Pradhan mantri jan arogya yojana and Mukhyamantri JA Yojana- “eligible” residents receive free medical treatment upto 5 lakhs.

ii. Heavy metal treatment is available at- GSVM medical college/ JK Cancer hosp Kanpur nagar; Autonomous State medical college in Kanpur dehat; Dist hosp and Amar shaheed JSATDS medical college Fatehabad.

OBSERVATION FROM COMPLIANCE REPORT ON BEHLAF OF DM FATEHPUR

1. Point 2- Blood sampling & survey
(Pg. 4237)

All patients (10+15+14+9) tested have been found positive of Chromium and 2 with mercury, 2 with fluoride.
Even with blood sampling reports indicating severe heavy metal contamination of residents, the following submission was made in the Affidavit-

“13. That no patient displaying special or unusual symptoms has been discovered at any Saturday camp, all attendees suffer only from common, minor ailments; photographs of the camps and mobile laboratory are filed as Annexure 06.”

Pg 4283- provides “List of person tested for mercury & chromium” dated 12.06.2025.

The information provided in the table maybe be summarized as:

Number of patients/ persons	39
Age category	21 yrs – 70 yrs
Gender	Female- 30 Male- 9
Area of blood sampling	Godhrauli (13 patients) Ashapur (7 patients) Baniyakheda (12 patients) Abhaypur (7 patients)
Number of patients with Cr	39
Number of patients with Mercury	26
Number of patients with both Cr and mercury	26
Treatment provided (Medical college/ Health camp)	Multivitamins, Pan D, Liver enzymes

Observations Based on the information provided so far:

- Limited Scope of Testing:** Apart from blood sampling, only LFT/KFT tests were undertaken, which is certainly inadequate, especially in case of heavy metal contamination where even neurological impact is high.

- **Gender Disparity:** The data shows a disproportionately higher number of females (77%) among the affected population (Fatehpur)
- **Inadequate demographic Coverage:** Blood sampling was confined to just select “potentially affected persons” and not for the entire affected area.
- **Minimal Medical Intervention:** The treatment provided was generic and symptomatic, lacking any targeted chelation or detoxification therapy.
- **Lack of Infrastructure:** There is no mention of mobile health units, diagnostic labs, multi- specialty hospitals, expert epidemiologist or outreach mechanisms being deployed in the contaminated areas.
- **Absence of Welfare Schemes:** There are no insurance schemes or financial relief measures (specifically designed for residents of these polluted zones) in place for the affected individuals, exacerbating their vulnerability.

It is further observed that:

- No systematic health survey has been undertaken in any of the affected areas.
- Diagnostic and testing facilities specific to heavy metal contamination have not been established in any of the three concerned districts.
- No insurance or compensatory mechanism has been introduced for individuals suffering from Chromium and Mercury-related health complications.

In light of these inadequacies, it is imperative that the Hon’ble Tribunal formulates a time-bound and comprehensive redressal mechanism to ensure proper diagnosis, treatment, and long-term care of the affected population. Any delay in addressing these urgent medical needs may lead to further irreversible health consequences and possible fatalities.

RECOMMENDATIONS FOR HEALTH SURVEY, DIAGNOSIS AND TREATMENT

1. Comprehensive Epidemiological survey- trained public health team has to be deployed for detailed survey in all contaminated areas across three districts. A team of Experts having experience in heavy metal and other chemical (Chromium, mercury, fluoride, arsenic, formaldehyde, hydrogen sulfide, benzene, toluene etc) diagnosis and detoxification may be engaged:

- a) Dr. Rajnarayan Tiwari, Director & Scientist G, ICMR- National Institute for Research in Environmental Health, Bhopal. (director.nireh@icmr.gov.in)
- b) Dr. T K Joshi (Retd. HOD Epidemiology, RML Hospital, Delhi), 9810639658, kantjoshi@gmail.com

- c) All India Institute of Medical Science, Ansari Road, New Delhi, Senior Doctors from the Departments of Neurology, Nephrology, Oncology and Gastroenterologists. Email: director@aiims.gov.in CSIR- IITR Lucknow, Vishvigyan Bhawan, 31 Mahatma Gandhi Marg, Kaiser Bagh, UP- 226001
- d) Chief Secretary, 101, B-Block, Lok Bhawan, U.P., Civil Secretariat, Vidhan Sabha Marg, Lucknow, UP – 226001, E-mail: csup@nic.in
- e) Member Secretary, Department of Health, Govt of UP, psecup.health@gmail.com
- f) Dr. Ram Manohar Lohia Institute of Medical Sciences, Vibhuti khand, Gomtinagar, Lucknow- 226010

The Expert Committee may provide consultation for:

- i. Suggest clinical design and executing protocol (SoP) for conducting diagnosis and treatment of persons contaminated with heavy metals and other chemicals.
 - ii. Lay down evidence- based protocol for treatment and medication.
 - iii. Provide timelines for execution of the diagnosis and treatment protocol.
 - iv. Evaluate precision of the results reported by the State.
 - v. Create a schedule for monthly testing for all exposed individuals to track long term health impact.
 - vi. Design long term rehabilitation program including nutritional aid, mental health etc of the affected individuals.
 - vii. Help set up Heavy Metal Diagnostic labs in each affected district, equipped with testing for blood and urine samples.
2. Mapping and registration- Geotagging of households with confirmed (and suspected) exposure to chromium, mercury and fluoride must be done.
 3. Inclusion of vulnerable groups- special focus on health screening/ testing of pregnant women, children and senior citizens.
 4. Deployment of mobile testing units- for remote villages to facilitate sample collection.
 5. Referral hospitals- establish a clear chain of referral hospitals with toxicology departments offering advanced treatment.
 6. Experts/ specialist doctors visit- monthly health camps must be attended by toxicologists, neurologists, nephrologists alongwith physicians and lab technicians.
 7. Awareness Programs: Implement public awareness campaigns about symptoms, risks, and preventive measures regarding heavy metal toxicity.

The State may also fill in the following table in the format requested:

S. No	Recommendations	Timeline (specify in DD/MM/YY)
1.	<i>RO – NF Water Plants: Clean Water for All Domestic Purposes at centralised and de- centralised installed RO- NF systems (Identify the usage of wells/handpumps/ borewells/ water source for animals and agriculture)</i>	
2.	<i>Blood Sampling/ survey by Govt in the affected areas of Kanpur Nagar/ Dehat/ Fatehpur (Heavy Metal Analysis- Chromium, Mercury, Fluoride)</i>	
3.	<i>Improve Govt. Hospital's infrastructure to include multi-speciality diagnostic facilities</i>	
4.	<i>List of all Industries (Regardless of Category/ legal/ illegal/ in-house)- Kanpur Nagar, Kanpur Dehat, Fatehpur</i>	
5.	<i>Boundary Wall and Cover for Existing Cr Dump/ Plume (Fatehpur & Kanpur Dehat)</i>	
6.	<i>Soil, Sludge and Water Analysis of- Panki/ Shanigawa Landfill Site/ STP @ Pankha, Sajari</i>	
7.	<i>Operate Existing STP (Resolving Non-Compliance Within 2 Months)</i>	
8.	<i>Drain Action Plan- Untapped & Over Flowing tapped Drains (with name/ location of each sewage drain)</i>	
9.	<i>Permanent Monitoring Plan for Existing STP/ CETP/CCRU/ Landfills/ TSDFs</i>	
10.	<i>Construction and Installation of sewage system and STP in Kanpur dehat and Fatehpur</i>	
11.	<i>Removal of Chromium, Mercury and Ash from the affected area</i>	
12.	<i>Soil & Ground Water Remediation</i>	

13.	<i>River Rejuvenation Plan (Senger/Noon/ Pandu Rivers)- Including Flood Plain Zoning, Rain water harvesting, watershed development, encroachment removal, Eco- flow</i>	
14.	<i>Government Multi-Speciality Medical Aid Facility for victims of Heavy metal contamination (can be established in existing Govt Hospitals in all three districts)</i>	
15.	<i>Induction Of Workforce in CPCB/ PCB</i>	
16.	<i>Technical Infrastructure to State PCB/ SGWB</i>	
17.	<i>Continuous supply of Electricity for STP/CETP/ Hospitals</i>	
18.	<i>Bye- Laws for Preventing Environmental Pollution from Mercury (in lines of Minamata Convention)</i>	
19.	<i>Find out the source of Chromium, Mercury, Fluoride, and Iron in the eco-system.</i>	
20.	<i>Survey And Mapping of (new/old) Dump Sites (of chromium, mercury, ash) in Fatehpur and Kanpur Dehat, Kanpur Nagar</i>	
21.	<i>Survey and Mapping of Groundwater Contamination in Fatehpur and Kanpur Dehat, Kanpur Nagar</i>	
22.	<i>Survey of People/ Cattle/ Food Chain- To Check Degree of Contamination and create an effective Remediation Plan Against Bio- Accumulation of Heavy Metals.</i>	

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9. Learned Amicus Curiae has also referred to the additional affidavit filed on behalf of Special Secretary, Medical Health and Family Welfare, Government of UP dated 27.06.2025 and has pointed out that though a

larger number of residents are stated to be screened but blood sample of only a small number of persons was collected and it has not been disclosed as to what kind of screening was done without collecting the blood sample to ascertain presence of heavy metal such as chromium, mercury etc. She has further referred to the enclosed chart on page 4283 concerning the list of persons tested for mercury and chromium. Referring to the case of Neelam at serial no. 7 in this chart, she has pointed out that presence of 46.5 µg/L of chromium was found as against reference range of 0.05-1.4 µg/L and the only treatment which is given is in the form of multivitamins. She has further submitted that in respect of other similarly situated persons where high level of chromium and mercury is found in the blood samples, the treatment in the form of multivitamin and Pan-D is administered which shows that authorities are not taking effective steps for extending proper medical health to the affected persons.

10. At this stage, Learned Additional Advocate General (AAG), State of UP has sought permission for virtual appearance of Director, Health, State of UP to assist the Tribunal which is allowed. Someone has appeared thereafter and started making the submissions. On enquiry, we found that person appearing virtually was not Director, Health, State of UP but he was representing Director, Health. Such kind of mis-leading appearance and statement cannot be appreciated.

11. Having regard to the seriousness of the issue involved in the matter and considering the fact that a large number of persons are affected/likely to be affected on account of presence of heavy metals such a chromium, mercury etc. and also taking note of the fact that effective steps to render medical assistance have not been pointed out, we are of the opinion that to find out the correct position and to ascertain the kind of treatment which

is to be extended to the affected persons and for ensuring proper medical assistance to them, it is necessary to implead the following as respondent:

Respondent :Director of All India Institute of Medical Sciences
(AIIMS), Ansari Nagar, New Delhi, 110029.

12. Let notice be issued to the above newly added respondent.
13. It will be open to the newly added respondent to download all the reports and proceedings of the Tribunal to understand the gravity of the situation. It will also be open to the newly added respondent to send a team of experts in the affected areas noted above to find out the gravity of the situation, extent to which residents of those areas are suffering on account of presence of mercury, chromium and other heavy metals in their blood sample and nature of effective treatment which can be extended to them. Newly added respondent is permitted to file a comprehensive report in this regard within eight weeks.
14. List on 07.10.2025.

Prakash Shrivastava, CP

Sudhir Agarwal, JM

Dr. A. Senthil Vel, EM

July 01, 2025
Original Application No. 985/2019
(I.A. No. 568/2024) with other connected OAs
JG.

Item Nos.08 to11

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 985/2019
(IA No 568/2024)

In Re: Water Pollution by Tanneries at Jajmau Kanpur Uttar Pradesh

Versus

Central Pollution Control Board & Ors.

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Original Application No. 986/2019

In Re: Water Pollution at Rania Kanpur Dehat & Rakhi Mandi Kanpur
Nagar Uttar Pradesh

WITH

Original Application No. 528/2023

News report published in Dainik Jagran dated 14.08.2023 "highlights a
growing concern regarding industrial pollution in the Godhrauli village"

WITH

Original Application No. 934/2024

Rajat Verma

Applicant

Versus

Member Secretary, Uttar Pradesh
Pollution Control Board& Ors.

Respondent(s)

Date of hearing: 07.04.2026

**CORAM: HON’BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON’BLE DR. AFROZ AHMAD, EXPERT MEMBER**

Applicant/Amicus: Ms. Katyayni, Adv. (Amicus Curiae in OA Nos. 985-986 of 2019
& OA 934/2024)

Respondents: Mr. Bhanwar Pal Singh Jadon, Mr. Shivansh Sharma & Ms. Disha Tiwari,
Advs. for the State of UP
Mr. Vikrant Pachnanda & Mr. Mukul Katyal, Advs. for CPCB in OA
934/2024
Mr. Pradeep Misra & Mr. Daleep Dhyani, Advs. for UPPCB
Mr. Mukesh Kumar, Adv. for CPCB in OA 985-986/2019
Mr. Gigi. C. George, Adv. for NMCG & CGWA (Through VC)
Mr. Kaushal Gautam, Ms. Vanshika Singh & Ms. Snehpreet Kaur, Advs. for
AIIMS

ORDER

1. A letter has been circulated by Counsel for State of Uttar Pradesh (U.P.) seeking three weeks adjournment on behalf of the District Magistrates of Kanpur Nagar, Kanpur Dehat and Fatehpur, as well as the Secretary, Medical Health and Family Welfare, Government of Uttar Pradesh. It is stated in that adjournment letter that in compliance of the direction of the Tribunal a budget of Rs. 2,65,50,000/- (Rupees Two Crore Sixty-Five Lakhs Fifty Thousand only) for conducting a cluster-based sampling survey regarding air, groundwater, soil, food chain, etc., to be undertaken by IIT Kanpur has been sanctioned and amount has been transferred to the bank account of IIT Kanpur on 04.04.2026 and Memorandum of Understanding (MoU) is now required to be executed between IIT Kanpur and the concerned authorities of the State.
2. The Letter of adjournment further states that affidavit indicating the updated compliance status with respect to the 22 recommendations of the Learned Amicus will be filed within three weeks.
3. Learned Counsel appearing for State of U.P. has also submitted that a boundary wall is to be constructed surrounding the affected area in Kanpur Dehat. He has submitted that budget has been sanctioned in this regard. Therefore, in the next affidavit the progress in this regard will be indicated.
4. Learned Amicus has pointed out that in compliance of the order dated 01.07.2025, requisite affidavit by Director, AIIMS, New Delhi has not been filed till now.
5. Sh. Kaushal Gautam, Learned Counsel accepts notice on behalf of Director, AIIMS, New Delhi and submits that he will obtain instructions and do the needful within four weeks.
6. List on 21.07.2026.

Prakash Shrivastava, CP

Dr. Afroz Ahmad, EM

April 07, 2026

Original Application No. 985/2019 & connected matters
JG.

ANNEXURE A/3**REPORT**

WATER CONTAMINATION AND IT'S HEALTH IMPACT IN KANPUR DISTRICT UTTAR PRADESH

Submitted by

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AI India Institute of Medical Sciences, New Delhi, India

Date: 31.10.2025

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Executive Summary

The background to this investigation lies in longstanding concerns about the discharge of untreated or partially treated industrial effluents into the groundwater and surface water systems of Kanpur. Reports from the district authorities and the Pollution Control Board had earlier suggested possible contamination of groundwater with heavy metals such as chromium and mercury, primarily originating from tanneries, paint industries, electroplating units, discharge of burnt coal, and other industrial sources concentrated in certain areas. Preliminary health camps organized by the local health department had detected elevated levels of heavy metals (chromium and mercury) in the blood of some residents, with samples sent to RML Hospital, Lucknow, for analysis. However, those efforts were sporadic and lacked the systematic data collection and geographic traceability required to draw meaningful conclusions about the extent of contamination or its health implications. In addition, environmental sampling and water testing had not been conducted in a coordinated, population-based manner, resulting in fragmented and incomplete information about exposure pathways and risk distribution across affected localities.

To address these gaps, the AIIMS team adopted a step-wise approach in close collaboration with the Chief Medical Officer (CMO), Kanpur Nagar. The work began with an online consultation on 18 October 2025 to finalize objectives and plan field activities. The team then reviewed existing records to map potentially affected localities, which included Jajmau, Rakhi Mandi, Rooma, Nauraya, Tejab Mill Campus, and Panki in Kanpur Nagar district, as well as Rania in Kanpur Dehat. A field visit was conducted on 29 October 2025 to locations in Jajmau and Rakhi Mandi to observe living conditions, water sources, and community concerns. This was followed by a stakeholder consultation on 30 October 2025 chaired by the CMO, bringing together representatives from the Health Department, Jal Board, Pollution Control Board, Urban Development, GSVM Medical College, and other relevant institutions. These engagements provided first-hand insights into the operational challenges faced by local authorities and the community's ongoing exposure to unsafe drinking water sources.

The field visits confirmed that while efforts were being made at various levels to address contamination, the response remained fragmented. Water samples were being collected irregularly, and laboratory data lacked standardized labelling, making it impossible to trace results back to specific households or sources. Residents continued to consume water from shallow hand pumps or borewells that had been previously declared unfit for drinking, largely due to the absence of reliable alternative supplies. In many areas, piped municipal water supply was either unavailable or irregular, forcing dependence on groundwater that is potentially contaminated. Community observations suggested that while direct health symptoms such as acute toxicity were rare, residents commonly reported chronic ailments including skin lesions, joint pain, and gastrointestinal discomfort, which may be consistent with long-term low-dose exposure to heavy metals.

Based on these findings, the AIIMS team recommends that a systematic and scientifically rigorous assessment be undertaken to quantify the extent of heavy metal contamination and its health impact. A comprehensive rapid epidemiological survey covering both Kanpur Nagar and Kanpur Dehat districts should be led by the District Health Department in partnership

with GSVM Medical College, the Jal Board, and the Uttar Pradesh Pollution Control Board. The survey should cover representative households within identified high-risk zones, combining water sampling and human biomarker testing with structured interviews to document exposure patterns and health outcomes. Testing of household and source-level water samples should include chromium, mercury, and also lead, and arsenic. Biological samples such as blood and serum should also be analyzed for basic organ function indicators. The collected data should be geocoded and integrated into a spatial mapping system to identify contamination hotspots and guide remediation.

Parallel to data collection, there is a definite and urgent need to improve access to safe drinking water. The Jal Board should ensure regular supply of potable water through piped systems, tankers, or community purification plants, prioritizing settlements where contamination is most severe. Routine quarterly testing of all water sources for heavy metals should be instituted, and results should be made publicly available to ensure transparency and community trust. On the clinical side, health camps and local primary health facilities should be strengthened for screening, education, and referral of suspected cases. Physicians and frontline health workers require orientation on recognizing chronic effects of heavy metal exposure and counselling affected households. While no widespread acute poisoning has been detected, long-term monitoring and care are necessary to detect chronic conditions early and prevent further harm.

The Pollution Control Board must maintain strict enforcement of industrial discharge norms and ensure that all operating units have functional effluent treatment systems. Third-party audits and penalties for violations should be strengthened to prevent recurrence of contamination. Academic partners such as IIT-Kanpur can contribute technological innovations for low-cost field testing and water purification solutions, including effluent treatment systems. The establishment of a District Task Force chaired by the District Magistrate, with representation from all key sectors, is also hereby recommended to ensure interdepartmental coordination, monitor interventions, and provide regular timely compliance updates to the State Government and the NGT. With potential of contaminated ground water being used in irrigation of crops, agricultural department and animal husbandry should also be included in the proposed District Task Force for ensuring long term safety of crops, and for monitoring of heavy metals in crops, vegetables and animal livestock including milk and poultry.

In conclusion, the findings point toward a persistent pattern of environmental contamination and chronic exposure in certain pockets of Kanpur. While acute health effects are not evident at present, the potential for long-term morbidity remains considerable, particularly among vulnerable populations dependent on unsafe groundwater sources. The situation calls for an integrated public health and environmental response that prioritizes prevention, safe water access, scientific monitoring, and community engagement. Addressing the root cause—industrial effluent management—remains central to any sustainable solution. Coordinated governance, transparent communication, and sustained action across departments are essential to protect the health and well-being of the affected communities.

Background

With reference to the case Before the **National Green Tribunal (NGT)**, Principal Bench, New Delhi, Original Application No. 985/2019 In Re: Water Pollution by Tanneries at Jajmau Kanpur Uttar Pradesh, Hon'ble Bench at NGT has made the Director of All India Institute of Medical Sciences (AIIMS), Ansari Nagar, New Delhi, 110029 a respondent. Subsequently, the Director of All India Institute of Medical Sciences (AIIMS), Ansari Nagar, New Delhi, 110029 has nominated us ie Dr. Harshal Ramesh Salve, and Dr. Partha Haldar, Additional Professors to investigate and report in this manner.

Initial information from the various reports shared with us indicated **possible chronic water contamination due to heavy metal seepage**, particularly chromium and mercury. The affected communities—largely residing in **unauthorized settlements**—have been mainly included in such assessments through localized camp-based approach.

Methods

We contacted the office of the Chief Medical Officer of Kanpur district for facilitating our investigation. The following activities were undertaken by us.

1. **Online Consultation with CMO office on 18th October 2025:**

Initial briefings and consultations were held with district health authorities. During this online consultation, an overview of the problem was identified, and a detailed travel plan were decided upon. The dates of travel plan to Kanpur were fixed for Oct 29th - 30th 2025, which we visited as per plan.

2. **Mapping of the affected areas:** The CMO office helped us in mapping of the affected areas in the district namely, Jajmau, Rakhi Mandi, Pandi, Rooma, Nauraya, Tejab Mill Campus, Panki in Kanpur Nagar district; and Rania in Kanpur Dehat. This activity was done using the existing information available in the form of individual level blood test reports on Chromium and Mercury levels from the affected areas. It was also decided that during our visit, a joint field visit will be undertaken to the affected areas, and also a consultation and discussion with all stakeholders will be conducted.

3. **Field Visit:**

A joint field visit was undertaken on 29.10.2025 in the identified affected areas. We

visited two locations in Jajmau block and one in Rakhi Mandi block. On-site discussions were held with the residents, health workers. Mapping and identification of water sources were elicited from the residents. Residents were asked about any symptoms suggestive of heavy metal poisoning.

4. Stakeholder Consultations:

A consultative meeting was conducted on 30.10.2025 under the chairmanship of CMO Kanpur Nagar. The meeting was attended by representatives from health services, district water and sewerage board, UP state pollution control board, district administration, and faculty members of GSVM Medical College, Kanpur. The meeting was conducted to review existing intervention, gaps, and formulating recommendation for future course of actions.

Observations

- **Extent of the problem:**

The existing information on the levels of chromium and mercury were available due to the efforts taken by the district health department over the years in the form of organizing health camps and collection of 569 blood samples from individuals in the affected areas (test reports of 55 samples are awaited). However, such collections were isolated, sporadic and based on a convenient approach. Therefore, despite efforts of the health department in blood collection, such collection could have been done from only those individuals who volunteered and were available to attend the camps. As presently there were facilities available locally for testing of blood samples for heavy metals, these blood samples were sent for testing at the RML hospital in Lucknow.

- We also observed that the results of the blood sample tests were not amenable for tracing back to the individual. The results were clubbed for multiple such camps across areas resulting in mixing of the results, and attribution to a given community was not possible. We also observed that there was not standard mechanism of putting a label code to identify the blood sample. These deficiencies affect a robust assessment of the problem.

- Therefore, we had recommended a systematic epidemiologic rapid survey for a comprehensive assessment of the problem in the entire district which include a combined assessment of level of heavy metals in the individual, their health-related symptoms, source of their water supply, and level of heavy metals in their water source. We have given the detailed methodology below.
- **Source of contamination of water:** As being informed by the district administration as well as by residents, the major source of contamination of the water is due to the effluents from neighbouring industries, such as tanneries, paint. The situation in terms of effluent management by industries has improved over last few years. Yet, residents mentioned about sporadic incidents of community-based spillage of effluents. This is a major reason for contamination of ground water. During the consultation, it also became apparent that there was possibility of such contaminated water being used for irrigation and thus adversely affecting crops and possible entry of heavy metals in food chain through vegetables, grains, animal fodder, milk, poultry products etc.
- We have observed a few actions taken by the jalkal vibhag such as marking of harmful source of water, provision of alternate source such as tanker positioned in the area (in Rakhi Mandi). However, despite signage declaring water sources as unfit, communities continue to consume from contaminated sources due to insufficient and irregular availability of safe drinking water alternatives.
- As informed by the pollution control board, over the last few years, various interventions have been adopted for effective treatment of industrial wastes such as hiring a dedicated agency for treatment, shifting of industry away from residential areas, regulatory action against tanneries violating norms, including seeking legal support.
- **Issues related to water testing:**
Majority of the population in the affected areas use surface ground water through borewells in the absence of piped water supply. Although we were told that testing of water meant for piped supply is being done at source, same was not there at the end user level. Hence, ground level mixing with contaminated water can not be ruled out. The water supply department could not share with us a report of systematic and

periodic testing of water sources for heavy metals (chromium, mercury, lead, arsenic).

- **Health impact of chronic exposure to heavy metals:** Vulnerable population profile: Affected settlements are primarily unauthorized colonies with poor sanitation, unregulated waste disposal, and no municipal water supply—increasing their susceptibility to environmental contamination. Furthermore, chronic usage of tobacco and alcohol make them more susceptible to adverse health effects of heavy metals.
 - On assessing history and examining the individuals (with blood chromium levels higher than normal cut-off) from the affected areas during our field visit, we observed there was neither any specific complaint, nor any manifestation of the disease. Moreover, none of the affected individuals or health workers reported symptoms of acute heavy metal poisoning. This is possible due to chronic nature of the exposure. The same was corroborated in the findings of a field survey carried out by health department to assess symptoms. However, long term manifestations cannot be ruled out.
 - **Lack of coordination:** Though all departments such as water supply (*jalkal vibhag*), pollution control, and health, were taking their actions as per their respective purview, on-ground there was limited integration and coordination between departments in the form of coordinated action and sharing of information affecting comprehensive assessment and informed decision making.
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Recommendations

We document the recommendations as follows based on our field visit and stakeholder consultation:

1. **Comprehensive assessment of the problem**
2. **Treatment and Care**
3. **Prevention and Mitigation**

Each is described in details as follows:

1. Comprehensive assessment of the problem

A **systematic rapid epidemiological survey** is recommended to quantify the extent of contamination and health effects.

- **Lead Agency:** Health Department of Kanpur Nagar
- **Technical partner:** Department of Community Medicine, GSVM Medical College, Kanpur.
- **Collaborating Institutions:** IIT-Kanpur (for environmental sampling and analysis), UP Pollution Control Board, JalKal Vibhag.

Survey Plan:

- **Design:** a community based cross-sectional study
- **Survey area:** Affected wards, 7 in Kanpur Nagar, 1 in Kanpur Dehat and wards within 1 kilometer of affected area.
- **Sampling strategy:** We propose a cluster-based sampling for the survey. In the selected wards, select 5 colonies randomly which should be well distributed in the ward and not adjoining. Within each colony, (i.e. a cluster), select 30 households starting from the centre of the colony, and selecting consecutively. Thus, in total, $30 \times 5 \times 8 = 1200$ households need to be included in the survey. Within the selected household, one adult (≥ 18 years) and one child (< 5 years) per household should be included in the survey for collection of information, and blood sample.
- **Water sampling and testing:** water should be tested for chromium, mercury, lead and arsenic using quality assurance protocols in a standard laboratory.

- **Water sampling for heavy metals at household level:** In each of the selected household, drinking water sample will be taken.
- **Water sampling for heavy metals at source level:**
- **Health outcome assessment:** as detailed below
 - Questionnaire on socio-demographic details and symptoms
- **Socio demographic**
 - Age
 - Sex
 - Education
 - Occupation
 - Residential address- ward / Geo location
- **Symptom checklist**
 - Headaches
 - Mood changes
 - Dermatological manifestations / skin rash
 - Insomnia
 - Weight loss
 - Gastro intestinal symptoms
 - Neurological damage (tremors, memory loss, mood swings)
 - numbness, muscle weakness)
- **Biomarker assessment**
 - Serum Mercury
 - Serum Chromium
 - Serum lead
 - Serum Arsenic
 - Kidney function test
 - Liver function test
 - Complete hemogram
 - Blood sugar (random)

- **Geospatial documentation** of sampling and results to delineate high-risk zones.
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2. Treatment and Care

- **Health System Response:**
 - Continue **health camps** for symptom screening, awareness, and referral.
 - Symptom-based management through existing primary care system:
 - Headaches, mood changes, sleep disturbances
 - Dermatological and gastrointestinal symptoms
 - Neurological signs (tremors, memory issues, muscle weakness)
 - Training and sensitization of medical officers, ANMs, and ASHA.
 - Lifestyle interventions: Promote cessation of tobacco and alcohol, which may exacerbate heavy metal toxicity.
 - Implement community level awareness for Implement risk communication strategies on safe water practices and chronic toxicity awareness. These should be done using app tools such as media campaign, wall paintings, posters, engaging with community leaders and religious leaders.
 - Engagement with Industry Association for welfare of employees and society.
 - **Specialized care and referral:**
 - Health system should actively collaborate with GSVM Medical College for specialised care and establishing referral linkages with specialists in medicine, neurology, dermatology, gastroenterology, pulmonology, and oncology. During the consultative meeting we have got a positive response from the medical college in this regard.
 - As per current evidence, chelation therapy is to be used for high dose acute exposure. It has limited role in the management of the current situation.
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3. Prevention and Mitigation

- **Water Jalkal Board and:**
 - **Geo-mapping** of all water sources.
 - **Regular monitoring** for heavy metals (quarterly basis).
 - Ensure **alternative safe drinking water** (tankers, community RO units, or piped supply).
 - Periodic **public disclosure of test results** for transparency.
- **UP Pollution Control Board:**
 - Enforce compliance with **effluent standards**.
 - Regular **third-party audits** of industrial discharges.
- **Scientific Partnership:**
 - Collaborate with **IIT-Kanpur** to develop a **rapid field testing kit** for heavy metals in water and also for coming up with innovative solutions for water testing and effluent management.
- **Oversight and Governance:**
 - Establish a **District Task Force** as an Oversight Committee chaired by the **District Magistrate**, with members from:
 - Health Department
 - Jal Board / Water and Sewerage Department
 - CPCB / Pollution Control Board
 - Urban Development
 - Education Department
 - GSVM Medical College and IIT-Kanpur
 - Representatives of industry associations
 - The above task force should ensure the fulfilment of the following roles and responsibilities of each department, should conveyed regular meeting at least quarterly, and ensure timely coordinated action between the departments.

Department / Institution	Role
Health Department	Nodal agency for health surveillance, screening, and community awareness.
Jal Board / Water & Sewerage Department	Source mapping, water quality monitoring, and ensuring provision of safe alternate drinking water.
CPCB / State Pollution Control Board	Regulation of industrial effluent discharge, environmental monitoring, and enforcement of pollution norms.
Urban Development Department	Sanitation infrastructure, waste management, and support to affected settlements.
Education Department	School-based awareness programs, engagement of youth volunteers, and communication support.
GSVM Medical College, Kanpur	Technical guidance on medical management, epidemiological survey design, laboratory support, and data interpretation.
IIT-Kanpur	Environmental testing, development of rapid detection kits, and technical innovation for mitigation and effluent management.
Industry Associations (large and small scale)	Compliance assurance, community support, and corporate social responsibility initiatives.
NGOs / Civil Society (as co-opted members)	Community liaison, awareness generation, and feedback mechanisms.

Conclusion

The findings point toward **chronic, sustained exposure to heavy metals** through contaminated water in specific localities of Kanpur district. Without immediate **inter-sectoral coordination** and **preventive interventions**, the **public health burden** is likely to escalate.

A coordinated plan involving **public health surveillance, safe water provision, industrial regulation, and community engagement** must be initiated on an urgent basis.

Photographs of Field Visit



Photograph 1: Interaction with Health Department at CMO Office, Kanpur Nagar 29.10.2025



Photograph 2: Multi Stakeholder Meeting at District Hospital Kanpur, 30.10.2025



Photograph 3: Field Visit, 29.10.2025



Photograph 5: Field Visit, Rakhi Mandi 29.10.2025



Photograph 4: Use of water marked unfit for use, 29.10.2025



Photograph 6: Provision of alternate sources of water, 29.10.2025