

5370

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
ORIGINAL APPLICATION NO. 985/2019**

IN THE MATTER OF:

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, UPPCB & ORS.

...RESPONDENT(s)

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THROUGH COUNSEL



BHANWAR PAL SINGH JADON
STANDING COUNSEL FOR THE STATE OF U.P.
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DATE: 20.07.2026

PLACE: NOIDA

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**BRIEF NOTE PREPARED BY THE COUNSEL ON BEHALF OF
THE DISTRICT MAGISTRATE(s), KANPUR NAGAR, KANPUR
DEHAT AND FATEHPUR**

BACKGROUND OF THE MATTER

1. The Hon'ble Tribunal, in these Original Applications, is examining the issues pertaining to the chromium dumps, groundwater contamination and health issues pursuant thereto in the districts Kanpur Nagar, Kanpur Dehat and Fatehpur.
2. That the Hon'ble Tribunal vide order dated 07.04.2026 directed the respective District Magistrates to file the updated status reports regarding the recommendations provided by the Learned Amicus Curiae and the directions of this Hon'ble Tribunal. The operative portion of the aforementioned order is as stated below:

“...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...”

BRIEF NOTE/SUMMARY IS AS STATED BELOW

3. That wrt. the **MOU executed with the IIT, Kanpur**; it is most respectfully submitted that the Hon'ble Tribunal vide order dt. 07.11.2025 directed the State Authorities, including the Chief Secretary of Uttar Pradesh to initiate comprehensive environmental mapping and finalize necessary execution budgets.

4. That in strict adherence to the aforesaid directions and to execute the large-scale mapping suggested by the Director of AIIMS, New Delhi, to ascertain the root cause of heavy metal pollution, a dedicated technical project budget was required to be institutionalized. It is humbly submitted that the entire required amount of Rs. 2,65,50,000/- (Rupees Two Crore Sixty-Five Lakhs Fifty Thousand only) has now been fully sanctioned by the State Government through the Industries Department and successfully transferred to the bank account of the Indian Institute of Technology (IIT) Kanpur on 04.04.2026, to initiate the comprehensive cluster-based environmental sampling and field survey without any further delay.
5. That it is submitted that a **Memorandum of Understanding (MoU) has been officially executed on 15.04.2026, establishing a binding multi-party research partnership between the IIT Kanpur and the district administrations of Kanpur Nagar, Kanpur Dehat, and Fatehpur.** This two-year agreement allows scientists to begin the large-scale pollution mapping in compliance of the orders of this Hon'ble Tribunal. The said comprehensive study is structured into two distinct operational

phases. Phase-1 focuses on a meticulous 6-month condition assessment of pre-identified heavy metal hotspots, while Phase-2 extends into a 12-month district-wide survey to map regional contaminant gradients across air, soil, water, and agricultural environments.

A Copy of the MOU dated 15.04.2026 has been annexed herewith as **ANNEXURE-1.**

6. That, furthermore, with respect to the Districts Kanpur Nagar, Kanpur Dehat and Fatehpur, the summary of the compliance status pertaining to the 22 recommendations of the learned Amicus Curiae, in accordance with the directions of the Hon'ble Tribunal, is presented in the tabular format hereinbelow:

S. NO.	RECOMMENDATIONS	KANPUR NAGAR5377	KANPUR DEHAT	FATEHPUR
1.	RO–NF Water Plants: Clean Water for All Domestic Purposes at centralised and de-centralised installed RO-NF systems (Identify the usage of wells/hand pumps/ borewells/water source for animals and agriculture)	Complied	Complied	Complied
2.	Blood Sampling/ survey by Govt in the affected areas of Kanpur Nagar/Dehat/ Fatehpur (Heavy Metal Analysis-Chromium, Mercury, Fluoride)	Wrt. the present recommendation, a separate Affidavit by the Medical, Health and Family Welfare Department, UP is being filed and, therefore, is not being repeated for the sake of brevity.		
3.	Improve Govt. Hospital's infrastructure to include multi-speciality diagnostic facilities			
4.	List of all Industries (Regardless of Category/ legal/ illegal/ in-house)- Kanpur Nagar, Kanpur Dehat, Fatehpur	Complied	Complied	Complied
5.	Boundary Wall and Cover for Existing Cr Dump/ Plume (Fatehpur & Kanpur Dehat)	Not applicable for Kanpur Nagar	The Executive Engineer, Rural Engineering Department, Division– Kanpur Dehat , vide letter dated 15.07.2026 , informed that the boundary wall around the chromium waste disposal site in Village Khanchandrapur, located in the Rania area of District	Complied

			Kanpur Dehat, is currently under construction. At present, approximately 70% of the work has been completed. The remaining work is expected to be completed by 20.07.2026. (Compliance under progress)	
6.	Soil, Sludge and Water Analysis of Panki/Shanigawa Landfill Site/ STP @ Pankha, Sajari (Compliance under progress)	Will be complied by 30.09.2026 as contractor M/s VA Tech Wabag Ltd. H as requested to JTETA to extend the timeline.	Not applicable for Kanpur Dehat	Not applicable for Fatehpur
7.	Operate Existing STP (Resolving Non-Compliance Within 2 Months)	Complied	Not applicable for Kanpur Dehat	Not applicable for Fatehpur
8.	Drain Action Plan- Untapped & Over Flowing tapped Drains	As per Superintendent Engineer, U. P. Jal Nigam (Rural) vide letter no. 17/AC-11/01, dated 07.01.2026 that work has been started from dt. 09.01.2026 and will be completed by dt. 08.07.2027 & operation and maintenance work deadline is 08.07.2028. (Complied)	It is submitted that vide letter dated 15.07.2026 it has been informed that the DPR for drain tapping plan of Akbarpur Nagar Panchayat and Pukhrayan Nagar Palika Parishad of Kanpur Dehat under SBM 2.0 have been submitted at directorate Swachh Bharat Mission for approval (Compliance under progress)	In order dated 25-11-2025 of Hon'ble NGT, the status mentioned is as complied. DPRO, Fatehpur vide letter no. 1983/NGT/2025-26 dated 29-06-2026 has stated that recommendation no. 8 regarding drainage system of village Gaudhrauli, Baniyankhera, Ahbaypur and Ashapur has been completed, filter chamber has been constructed and WSP has been completed. (Complied)

9.	Permanent Monitoring Plan for Existing STP/CETP/CCRU/ Landfills/ TSDFs	Complied	Complied	Not applicable for Fatehpur
10.	Construction and Installation of sewage system and STP in Kanpur dehat and Fatehpur (Compliance under progress)	Not applicable for Kanpur Nagar	It is submitted that vide letter dated 15.07.2026 it has been informed that DPR of Construction of STP Akbarpur Nagar Panchayat and Pukhrayan Nagar Palika Parishad of Kanpur Dehat under SBM 2.0 have been submitted at directorate Swachh Bharat Mission for approval	As per the letter dated 20.03.2026 by the Executive Engineer, UP Jal Nigam (Urban), Fatehpur, the tendering for the Sewerage Project of Fatehpur Urban Local Body has been completed. Under this project, an 18 MLD STP along with other ancillary works will be constructed. The scheduled date for completion of the STP is 19 November 2027.
11.	Removal of Chromium, Mercury and Ash from the affected area	Not applicable for Kanpur Nagar	Complied	A review meeting was held in chairmanship of Chief Secretary, State of UP dated 01.04.2026. During the meeting, the present recommendation was also discussed. Subsequently, direction has been given to take up the matter and finalized the agency, allotments of funds and finalise of timeline, according to the notification S.O. 3401(E) dated 24-07-2025 issued by Ministry of

				Environment, Forest and Climate Change. In compliance 12 empanelled reference organizations has been invited to carryout detailed preliminary assessment, detailed assessment of sites and preparation of Remediation Plan and providing technical/consultancy services in execution of remediation works of dumped Chromium waste lying at Village Gudhrauli, Fatehpur, Uttar Pradesh. UPPCB, Vide letter no. H43391/C-2/Camp no.- 623082/2026 dated 13.07.2026 has issued letter of acceptance to M/s Stratus India Pvt. Ltd. for detailed Environmental site assessment and preparation of Remediation Plan and providing technical/consultancy services in execution of remediation works of dumped chromium waste lying at village Gudhrauli, Fatehpur-reg. The
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				timeline for the removal of chromium waste shall be duly furnished upon the finalization of the executing agency. (Compliance under progress)
12.	Soil & Ground Water Remediation (Partially Complied) (Compliance under progress)	The funds required by IIT Kanpur of Rs. 2.655 Cr. have been sanctioned and released by UPSIDA and has been transferred to IIT Kanpur, and MOU has been signed between IIT Kanpur and 03 District Administration i.e. Kanpur Nagar, Kanpur Dehat and Fatehpur. Further 1st phase of Sampling has been conducted on the contaminated sites of Kanpur Dehat & Kanpur Nagar.	It is submitted that a meeting was convened on 29.11.2025 between the RO, UPPCB and experts from IIT Kanpur regarding soil contamination after complete lifting/disposal of the Chromium waste in village Khanchandpur under Rania. The experts had suggested that after complete lifting of chromium waste, after assessment of soil contamination, clean soil should be put on the contaminated areas and plantation/phytoremediation shall be done. That the said assessment is being conducted by IIT Kanpur and once the assessment is completed necessary planation and phytoremediation shall be duly done	A review meeting was held in chairmanship of Chief Secretary, UP dated 01-04-2026. The present recommendation was also discussed. The funds required by IIT Kanpur of Rs. 2.655 Cr. has been sanctioned and release by UPSIDA and has been transferred to IIT Kanpur, and MOU dated 15.04.2026 has been signed between IIT Kanpur and 03 District Administration i.e. Kanpur Nagar, Kanpur Dehat and Fatehpur.
13.	River Rejuvenation Plan (Senger/Noon/Pandu Rivers)- Including Flood Plain Zoning,	Executive Engineer (Irrigation Department) vide letter no. 2250/ka.pr.ni.ga.n.ka./NGT	It is submitted that the Executive Engineer (Irrigation Department) vide letter no.	Executive Engineer (Irrigation Department) vide letter dated 18.07.2026 informed as under:

	Rain water harvesting, watershed development, encroachment removal, Eco-flow (Compliance under progress)	dated 17.07.2026 informed as under: • The Inundation Maps for the catchment areas of all three rivers have been successfully received from the Flood Management Information System Centre (F.M.I.S.C.), Lucknow. Additionally, 1-meter topographical maps have been obtained from the Survey of India, Lucknow. • KML files and approximate area boundaries to generate a high-precision DEM data have been received from F.M.I.S.C. Lucknow and N.I.H. Roorkee. • Noon and Pandu Rivers: The Survey of India completed 273 sq. km of the total 635 sq. km survey prior to January 23, 2026. The remaining drone survey faced delays due to restricted DGCA Red and Yellow Zones, requiring mandatory clearances from MOCA,	2250/ka.pr.ni.ga.n.ka./NGT dated 18.07.2026 informed as under: • Sengur River: Along with the relevant data, the Executive Engineer, Irrigation Division, Kanpur Dehat, vide Letter No. 315/Sinkamanka/NGT dated 20.03.2025, forwarded the proposal for the delineation of the floodplain zone of the Sengur River. Pursuant to the demand raised by the Survey of India for providing a 1-metre contour interval Digital Elevation Model (DEM) of the inundation area, a payment of ₹147.26 lakh has already been made. The survey was to be conducted over an area of 525 square kilometres, and the survey data is expected to be received by August 2026.	• The Inundation Maps for the catchment areas of all three rivers have been successfully received from the Flood Management Information System Centre (F.M.I.S.C.), Lucknow. Additionally, 1-meter contour interval maps have been obtained from the Survey of India, Lucknow. • KML files and approximate area boundaries to generate a high-precision DEM data have been received from F.M.I.S.C. Lucknow and N.I.H. Roorkee. • Noon and Pandu Rivers: The Survey of India completed 273 sq. km of the total 635 sq. km survey prior to January 23, 2026. The remaining drone survey faced delays due to restricted DGCA Red and Yellow Zones,
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		MHA, and ATC, resulting the revised timeline for the acquisition of the remaining DEM data is scheduled for August 30, 2026. • Upon receiving the 1-meter contour interval DEM from the Survey Of India, the final timeline is as follows: i. Interim Report by October 2026; ii. Final Report by December 2026; iii. Ground Truth Verification by February 2027; iv. Gazette Notification by May 2027; and v. Physical Pillar Demarcation by February 2028.		requiring mandatory clearances from MOCA, MHA, and ATC, resulting the revised timeline for the acquisition of the remaining DEM data is scheduled for August 30, 2026. • Upon receiving the 1-meter contour interval DEM from the Central Water Commission, the final timeline is as follows: i. Interim Report by October, 2026; ii. Final Report by December, 2026; iii. Ground Truth Verification by February, 2027; iv. Gazette Notification by May, 2027; and v. Physical Pillar Demarcation by February, 2028.
14.	Government Multi-Specialty Medical Aid Facility for victims of Heavy metal contamination (can be	Wrt. the present recommendation, a separate Affidavit by the Medical, Health and Family Welfare Department, UP is being filed and, therefore, is not being repeated for the sake of brevity		

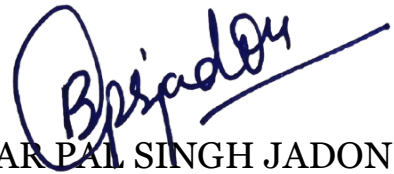
	established in existing Govt Hospitals in all three districts)			
15.	Induction Of Work force in CPCB/ PCB (Compliance under progress) (Compliance under progress)	MOU has been Signed between IIT Kanpur and UPPCB for selection for 40 vacancies and advertisement for the same has been published on 27.02.2026 and process has been started.	A Memorandum of Understanding (MoU) was signed between the Indian Institute of Technology (IIT) Kanpur and the Uttar Pradesh Pollution Control Board (UPPCB) for the recruitment of 45 vacant posts , comprising 28 Assistant Environmental Engineers and 17 Assistant Scientific Officers . Subsequently, vide UPPCB Letter No. H-34965/AS Camp (118/2025) dated 20.11.2025 , an advertisement was issued for the recruitment of 224 vacant posts . The recruitment process has since been completed.	MOU has been signed between IIT Kanpur and UPPCB for selection and recruitment advertisement dated 28-02-2026 published in newspaper.
16.	Technical Infrastructure to State PCB/ SGWB (Complied)	Complied	Complied	Complied
17.	Continuous supply of Electricity for STP/CETP/ Hospitals	Complied	Not applicable for Kanpur Dehat	Complied
18.	Bye-Laws for Preventing Environmental Pollution from Mercury (in lines of Minamata Convention) (Compliance	It is submitted that the Member Secretary, UPPCB Lucknow has issued a letter dated 18.11.2025, directing all relevant	It is submitted that the Member Secretary, UPPCB Lucknow has issued a letter dated 18.11.2025, directing all relevant	It is submitted that the Member Secretary, UPPCB Lucknow has issued a letter dated 18.11.2025, directing all relevant departments

	under progress)	departments to take necessary actions.	departments to take necessary actions.	to take necessary actions.
19.	Find out the source of Chromium, Mercury, Fluoride, and Iron in the eco-system. (Compliance under progress)	The funds required by IIT Kanpur of Rs. 2.655 Cr. has been sanctioned and released by UPSIDA and has been transferred to IIT Kanpur, and MOU has been signed between IIT Kanpur and 03 District Administration i.e. Kanpur Nagar, Kanpur Dehat and Fatehpur. Further 1st phase of Sampling has been conducted on the contaminated sites of Kanpur Dehat & Kanpur Nagar.	It is submitted that the funds required by IIT Kanpur of Rs. 2.655 Cr. has been sanctioned and released by UPSIDA and has been transferred to IIT Kanpur, and MOU has been signed between IIT Kanpur and 03 District Administration i.e. Kanpur Nagar, Kanpur Dehat and Fatehpur. That further, 1st phase of Sampling has been conducted on the contaminated sites of Kanpur Dehat & Kanpur Nagar.	The funds required by IIT Kanpur of Rs. 2.655 Cr. has been sanctioned and release by UPSIDA and has been transferred to IIT Kanpur, and MOU has been signed between IIT Kanpur and 03 District Administration i.e. Kanpur Nagar, Kanpur Dehat and Fatehpur.
20.	Survey And Mapping of (new/old) Dump Sites (of chromium, mercury, ash) in Fatehpur and Kanpur Dehat, Kanpur Nagar: (Compliance under progress)	—		The funds required by IIT Kanpur of Rs. 2.655 Cr. has been sanctioned and release by UPSIDA and has been transfer to IIT Kanpur, and MOU has been signed between IIT Kanpur and 03 District Administration i.e. Kanpur Nagar, Kanpur Dehat and Fatehpur.
21.	Survey and Mapping of Ground water Contamination in Fatehpur and Kanpur Dehat, Kanpur Nagar (Compliance under progress)	—		The funds required by IIT Kanpur of Rs. 2.655 Cr. has been sanctioned and release by UPSIDA and has been transfer to IIT Kanpur, and MOU has been signed between IIT Kanpur and 03 District Administration i.e. Kanpur Nagar, Kanpur Dehat

				and Fatehpur.
22.	Survey of People/Cattle/Food Chain-To Check Degree of Contamination and create an effective Remediation Plan Against Bio-Accumulation of Heavy Metals. (Compliance under progress)	Letter has been issued by DM Kanpur Nagar to Agriculture and Veterinary Department on 06.03.2026. On behalf of which CVO, Kanpur agar vide letter dated 02.04.2026 and deputy director agriculture department has submitted their proposal vide letter dated 30.06.2026 for Survey of Cattle & Food Chain- to check Degree of Contamination and create an effective Remediation Plan Against Bio-Accumulation of Heavy Metals.	It is submitted that the CVO had issued directions to get the domestic animals tested for heavy metal Chromium in Shivnathpurva, Gharhampur and Umran, also its nearby areas. That further, a total of 14 serum samples (2 cows, 12 buffaloes) were collected from the above mentioned 3 areas and correspondence was made to the Joint Director, Indian Veterinary Research Institute, Bareilly for testing of heavy metal chromium. That further, the test results indicate all tissue samples to be negative for presence of Heavy Metals	That vide letter dated 09.07.2026 to CVO, Fatehpur, updated status has been sought regarding the current status of the proposal sent seeking allocation of Rs. 4,48,400/- to the Director, Administration and Development, Department of Animal Husbandry, Government of Uttar Pradesh, Lucknow, towards testing of 20 bovine (cow/buffalo) samples from the district. Furthermore, timeline for the same has been sought through the aforementioned letter. That additionally, vide letter dated 09.07.2026 to District Agriculture Officer, it has been requested that the updated status of the proposal for the survey of Food contamination while specifically indicating the timeline for completion of the said exercise be provided at the earliest.

7. Hence, this briefing note is respectfully submitted for kind perusal of this Hon'ble Tribunal.

THROUGH COUNSEL



BHANWAR PAL SINGH JADON
STANDING COUNSEL FOR THE STATE OF U.P.

bhanwar09jadon@gmail.com | 6375115224

DATE: 20.07.2026

PLACE: NOIDA

Consultancy Project

Memorandum of Understanding (MoU)

This Memorandum of Understanding ("MoU") is effective as of **April 15th 2026** ("Effective Date") by and between

Indian Institute of Technology Kanpur, a research and educational institution of national importance, established under the Institute of Technology Act, 1961, enacted by the Parliament of Republic of India, having its office at P.O. IIT Kanpur, Kalyanpur, Kanpur, U.P.-208016, India, hereinafter referred to as "IITK", of the FIRST PART.

And

Office of the District Magistrate Kanpur Dehat, having its registered office at Collectorate, Mati, Akbarpur, Kanpur Dehat (UP), hereinafter referred to as the "**DM-KAN**", of the SECOND PART.

And

Office of the District Magistrate Kanpur Nagar, having its registered office at 16/12, Neil Rd, Civil Lines, Kanpur Nagar (UP), hereinafter referred to as the "**DM-KAP**", of the THIRD PART.

And

Office of the District Magistrate Fatehpur, having its registered office at DM Office, Collectorate, Fatehpur (UP), hereinafter referred to as the "**DM-FAT**", of the FOURTH PART,

The aforesaid institutions are hereinafter referred to individually as the "Party" and collectively as the "Parties".

Whereas IITK is one of the premier institutes to provide meaningful education, to conduct original research of the highest standard and to provide leadership in technological innovation for the industrial growth of the country. IITK imparts and undertakes cutting-edge research in various areas of science, engineering, design, management, and humanities.

Whereas DM-KAN is engaged in the business of serving as the executive head of a Kanpur Dehal district's administration, of behalf of the Government of Uttar Pradesh.

Whereas DM-KAP is engaged in the business of serving as the executive head of a Kanpur Nagar district's administration, of behalf of the Government of Uttar Pradesh.

Whereas DM-FAT is engaged in the business of serving as the executive head of a Fatehpur district's administration, of behalf of the Government of Uttar Pradesh.



Whereas Prof. Manoj Kumar Tiwari, Department of Civil Engineering / Centre for Environmental Science and Engineering / Kotak School of Sustainability (hereinafter referred to as "IITK Principal Investigator") and Prof. Purnendu Bose, Department of Civil Engineering (hereinafter referred to as "IITK Co-Principal Investigator") will initiate work on "Mapping of Contaminants in Surface Water, Groundwater, Soil, and Air in Kanpur Dehat, Kanpur Nagar, and Fatehpur districts of UP" (hereinafter referred to as the "Project"). The Project includes the sampling and contaminants analysis in the groundwater, surface water, soil and air samples from the industrial pollution affected areas of Kanpur Dehat, Kanpur Nagar, and Fatehpur districts of UP, as per the directives of National Green Tribunal (NGT) wide O.A. No. 985/2019 (IA No. 568/2024) with O.A. No. 528/2023 with O.A. No. 934/2024. A cluster-based sample survey and GIS-Based Mapping of the affected region will be taken up by IITK.

Their research team at IITK will execute the obligations of non-disclosure of Confidential Information received from DM-KAN, DM-KAP and DM-FAT.

Whereas the Parties desire to record the broad terms and conditions that are jointly accepted and agreed to in this MoU as contained hereunder.

1. Definition:

- (a) DM-KAN, DM-KAP and DM-FAT know-how shall mean and include all know-how of methods, material, software, designs, patterns, formats, proprietary technical literature, and information developed, owned and provided by the DM-KAN, DM-KAP and DM-FAT, which are required for the Project.
- (b) IITK know-how shall mean and include all know-how of methods, material, software, designs, patterns, formats, proprietary technical literature, and information developed, published or otherwise owned and provided by IITK, which are required for the Project.
- (c) DM-KAN Personnel shall mean the personnel or engineers of the DM-KAN deputed for the Project, responsible for supporting project related activities in Kanpur Dehat District.
- (d) DM-KAP Personnel shall mean the personnel or engineers of the DM-KNP deputed for the Project, responsible for supporting project related activities in Kanpur Nagar District.
- (e) DM-FAT Personnel shall mean the personnel or engineers of the DM-FAT deputed for the Project, responsible for supporting project related activities in Fatehpur District.
- (f) IITK Principal Investigator Research Team shall comprise the Principal Investigator and the Co-Investigators participating in the Project(s).
- (g) "Disclosing Party" shall mean the Party to the MoU, or its employees, agents and other authorized representatives disclosing the Confidential Information to the other Parties to the MoU, or its employees, agents and other authorized representatives.

- (h) "Receiving Party" shall mean the Party to the MoU, or its employees, agents and other authorized representatives, receiving the Confidential Information from the other Parties to the MoU, or its employees, agents and other authorized representatives.



2. Items/areas of collaboration/deliverables:

Technical specifications of the Project are given in Annexure A to this MoU.

3. Activities and Obligations:

- (a) DM-KAN / DM-KAP / DM-FAT shall be responsible for providing the funds required for the Project, as identified in Annexure B.
- (b) The DM-KAN, DM-KAP and DM-FAT may depute appropriate Officials / Personnel to participate in the Project, as per mutual agreement. The IITK will provide its facilities and resources for the execution of the Project.
- (c) The DM-KAN, DM-KAP and DM-FAT will provide project related know-how, which may be deemed necessary for the Project.
- (d) The DM-KAN, DM-KAP and DM-FAT shall use IITK know-how only for the purpose of conducting the Project and prevent it from unauthorized usage or falling into unauthorized hands.

4. Intellectual Property Rights:

Ownership of any Intellectual Property (including but not limited to confidential information, know-how, patents, copyrights, design rights, rights relating to computer software, and any other industrial or intellectual property rights) developed jointly during the course of this MoU shall be vested in all the Parties to this MoU.

Any publication of results shall only be possible with the prior written notice to the other Party.

IITK will retain a personal, non-transferable right to use the Intellectual Property developed during the Project for non-commercial academic, publication and further research purposes.

5. Effective Date, duration, termination of the MoU:

The MoU shall be effective from the Effective Date, upon signatures of the Parties and shall remain in force for a period of two (02) years. The Parties may extend the term by written agreement signed by both the Parties.

The Project work may be terminated by any Party by giving the other Parties a written notice of 60 days, mentioning sufficient cause for such termination. However, all the Parties will ensure that the provisions of this MoU shall continue to apply to all activities in progress until their completion. Clauses relating to Intellectual Property Rights, Limitation of Liability, Publicity, Independent Contractors, Governing Laws & Conflict Resolution and clause 14 and 15 shall survive the termination or expiration of this MoU.

6. Payment:

Financial specifications are given in Annexure B to this MoU. All cheques will be drawn in favour of the Registrar, IIT Kanpur. The payment shall be made to the extent possible within 15 calendar days from the date of receipt of invoice from IITK.



7. Confidentiality:

- a. Confidential Information includes all communication of information disclosed in documentary or tangible form between the Parties, including oral, written and machine-readable form, pertaining to the above which is indicated as confidential. In the case of such information disclosed orally or visually, the Disclosing Party shall confirm in writing the fact and general nature of each disclosure within (30) days after it is made.
- b. The Confidential Information includes information:
 1. Disclosed by or on behalf of the Disclosing Party to the Receiving Party,
 2. Otherwise learned or ascertained by the Receiving Party from inspection and/or evaluation of sample(s) identified by the Disclosing Party as confidential and provided to the receiving party by or on behalf of the Disclosing Party (sample(s)) and/or,
 3. Otherwise learned or ascertained by the Receiving Party from the Disclosing Party.
- c. The Receiving Party will not disclose Confidential Information of Disclosing Party to any other person and use at least the same degree of care to maintain the Information confidential as the Receiving Party uses in maintaining as confidential, its own confidential information, but always at least a reasonable degree of care; due diligence will be taken by both Parties in maintenance of the Confidential Information.
- d. The Receiving Party will use the Confidential Information only for the above mentioned purpose.
- e. The Receiving Party will restrict disclosure of the Confidential Information of the Disclosing Party solely to those employees, subsidiaries, parent and affiliated companies of Receiving Party having a need to know such Information in order to accomplish the purpose stated above.
- f. This MoU imposes no obligations on the Receiving Party with respect to any portion of the Confidential Information received from the Disclosing Party which:
 1. was known to the Receiving Party prior to disclosure by the Disclosing Party,
 2. is lawfully obtained by the Receiving Party from a third party under no obligation of confidentiality,
 3. is or becomes generally known or publicly available other than by unauthorized disclosure,
 4. is independently developed by Receiving Party or
 5. is disclosed by Disclosing Party to a third party without a duty of confidentiality on the third party.
 6. is required by law or decree.
- g. The Confidential Information shall remain the sole property of the Disclosing Party.
- h. The obligation of non-disclosure of the Confidential Information shall survive for 2 years after expiry/termination of this MoU.



8. Limitation of Liability:

Neither Party, nor any of their affiliates nor their or their affiliates respective directors, officers, employees, subcontractors or agents shall be liable to the other Party for any special, incidental, indirect or consequential damages (including, but not limited to, contract, negligence and tort liability) in connection with or arising out of this MoU.

9. Publicity:

Neither Party shall use the name of the other Party or its employees in any advertisement, press release or publicity with reference to this MoU without prior written approval of the other Party, except for necessary governmental disclosures, and as per NGT and empowered court's order.

10. Independent Contractors:

For the purposes of this MoU, the Parties hereto are independent contractors and nothing contained in this MoU shall be construed to place them in the relationship of partners, principal and agent, employer/employee or joint ventures.

11. Amendment:

Any amendment or variation to this MoU shall be made by a written agreement between the Parties.

12. Governing Laws & Conflict Resolution:

This MoU shall be constructed, governed, interpreted and applied in accordance with the laws of India. The Parties shall attempt in good faith to resolve promptly any dispute arising out of or relating to this MoU by negotiation. If the matter cannot be resolved in the normal course of business, within ten (10) days after the dispute arises, any interested Party shall give the other Party written notice of any such dispute not resolved, after which the dispute shall be referred to Director, IITK; District Magistrate, Kanpur Dehat; District Magistrate, Kanpur Nagar; and District Magistrate, Fatehpur, who will jointly resolve the dispute in a spirit of independence, mutual respect, and shared responsibility. In case an amicable settlement of any disputes arising out of or relating to this MoU is not achieved within thirty (30) days after written notice is received, such dispute shall be referred to arbitration in accordance with the provisions of the Arbitration and Conciliation Act, 1996 (as amended from time to time), by one (1)/sole arbitrator appointed in accordance with said Act. The seat of the arbitration shall be Kanpur. The arbitration shall be conducted in the English language and the award shall be final and binding upon the Parties. Each Party shall bear its own costs of the arbitration unless the arbitrator otherwise directs.

13. Force Majeure:

Each Party shall be excused from performance of the MoU only to the extent that the performance is prevented by conditions beyond reasonable control of the affected Party. The Party claiming excuse for the delayed performance will promptly notify the other Party and will resume its performance as soon as performance is possible.

14. Any Information, Products, Materials, Services, Intellectual Property, Other Property or Rights, granted or provided Or generated by IITK pursuant to this MoU are on an As Is Where Is basis.**15. IITK makes no warranties of any kind either express or implied, to the DM-KAN, DM-KAP and DM-**

FAT or any third party, as to any matter including, but not limited to, warranty of fitness for particular purpose, or merchantability, exclusivity or results obtained from use.

In witness thereof, the Parties hereto have signed this MoU on the Effective Date mentioned hereinbefore.

For and on behalf of IITK

Signature:

For
Name: Prof. Tarun Gupta

Designation: Dean, Research and Development, IITK

Date: 15/05/26

अधिष्ठाता
DEAN
अनुसंधान एवं विकास
Research & Development
आई० आई० टी० कानपुर
I.I.T. KANPUR

For and on behalf of DM-KAN

Signature:

Name: Amit Kumar

Designation: ADM (Administration)

Date: 30.05.2026 अपर जिलाधिकारी (प्रशासन)
कानपुर देहात

In the presence of

Witness:

Prof. Manoj Kumar Tiwari
IIT Kanpur.

In the presence of

Witness:

Manoj Kumar
RO, UPPCB, Kanpur Dehat

For and on behalf of DM-KAP

Signature:

Name:

Designation:

Date:

ADM City
Kanpur Nagar
Alok Kumar Gupta

ADM (City)

21/5/26

Signature:

Name:

Designation:

Date:

Vip
VINAYA PANDEY

ADM (F&R)

08-06-2026

In the presence of

Witness:

Akhilesh Kumar Dwivedi
Reader
Adm (C)
21/5/26

In the presence of

Witness:

08/06/2026
SAMLB/



Technical specifications of the Project

Project Title: Mapping of Contaminants in Surface Water, Groundwater, Soil, and Air in Kanpur Dehat, Kanpur Nagar, and Fatehpur districts of UP

Project Objective & description:

The overall objective of the proposal is to assess the state and extent of contamination (primarily industrial pollutants and heavy metals including Chromium, Iron, Mercury, Lead, Arsenic) in the study area (Kanpur Dehat, Kanpur Nagar, and Fatehpur districts), and suggest potential mitigation/adaptation measures.

The study will be conducted in 2 phases, where the specific objectives are as under:

Phase-I Objective: Condition assessment of identified hotspots/affected regions through site-visit and reconnaissance survey of the affected regions, and sampling and analysis of surface waters, groundwaters, soils and ambient air samples.

Phase-II Objective: Mapping of entire affected districts for quantitative estimation of the spread of the contamination (if any) in different environmental mediums, by designing a sampling strategy for coverage of the entire districts, based on the results of Phase-I study, and sampling and analysis of surface waters, groundwaters, soils and ambient air samples along with industrial effluent discharge samples from the entire districts.

Finally, the study aims to prepare a GIS based detailed regional mapping of the contaminants in the three districts and provide recommendations on mitigation/adaptation measures

Duties of each Party under the Project:**Duties of IITK**

- 1) IITK Principal Investigator and Co-Principal Investigator will build a team of student/project staff for the project.
- 2) IITK Team will conduct site-visit and reconnaissance survey of the affected regions in the selected districts.
- 3) IITK Team will identify industrial effluent discharge locations to be sampled, in consultation with DM-KAN, DM-KAP and DM-FAT Personnel.
- 4) IITK Team will collect surface water, groundwater, industrial effluents, soil and ambient air samples from the identified spots following scientific sampling and sample preservation protocols.
- 5) IITK will facilitate its laboratories and equipment for the analysis
- 6) IITK Team will analyze the surface water, groundwater, effluent discharge, soil and air samples for relevant parameters
- 7) IITK Team will prepare a quantitative mapping of contaminated sites (hotspots) on GIS-Platform
- 8) IITK Team will submit Phase-I report with quantitative mapping of contaminants in pre-identified affected regions with recommendations on mitigation/adaptation measures



- 9) For Phase-II, IITK Team will design a sampling strategy for coverage of the entire districts, based on the results of Phase-I study, additional input from secondary sources, and consultation with DM-KAN, DM-KAP and DM-FAT Personnel.
- 10) IITK Team will conduct sampling and analysis of surface waters, groundwaters, soils and ambient air samples along with industrial effluent discharge samples from the entire districts as per designed sampling plan
- 11) IITK Team will do testing and analysis for Phase-II samples
- 12) IITK Team will prepare a GIS based detailed regional mapping of the contaminants in the three identified districts
- 13) IITK Team will submit Phase-II report with detailed quantitative mapping of contaminants in the districts with recommendations on mitigation/adaptation measures

List of pre-identified affected areas in the three districts of concern. (Information Source: UPPCB)

Kanpur Dehat District	Kanpur Nagar District	Fatehpur District
Affected Areas: - Rania Industrial Area (primary chromium hotspot) - Yadavpurwa hamlet - Chauhanpurwa hamlet - Palanpurwa hamlet - Umran village - Gharampur village - Shivnathpurwa - Agricultural lands downstream of the Rania industrial area - Industrial drains, ponds and low-lying water bodies near Rania	Affected Areas: - Juhi Baburiya (Rakhi Mandi) - Afeem Kothi (Rakhi Mandi) - Jajmau Industrial Area - Tejab Mill Campus, Anwarganj - Golaghat area - Panki Industrial Area - Naureya Kheda / Naubasta area - Ruma Treatment Storage and Disposal Facility (TSDF)	Affected Areas: - Gudhrauli Village and surrounding residential areas - Gudhrauli-Baniyankheda Road (both left and right sides) - Sheetla Mata Mandir (front and back), Gudhrauli - Kali Mata Mandir near highway, Gudhrauli - Area near railway track underpass, Gudhrauli - Madhuchanda Technochem dump yard along GT Road - Abhaypur village (near tyre factory / Ganpati Traders) - Nursing College area along GT Road-Abhaypur Road - Flour mill (Atta Chakki) area along GT Road-Abhaypur Road
Type of locations: Villages, agricultural fields, residential, and industrial regions	Type of locations: Comprise industrial estates, dense residential zones, waste handling facilities and transport-linked commercial areas	Type of locations: Locations represent residential, roadside, religious, industrial and agricultural settings
Identified sources of contamination: Historical dumping of chromium waste and other industrial wastes	Identified sources of contamination: Industrial and commercial zones with potential chromium contamination	Identified sources of contamination: - Historical dumping of chromium waste - Chromium exposure is likely through multiple pathways



- 1) Each of the DM-KAN, DM-KAP and DM-FAT party will assign a nodal person for coordinating project activities with IITK, in their respective districts.
- 2) Nodal person should help in organizing IITK team's meetings with the relevant stakeholders.
- 3) Each of the DM-KAN, DM-KAP and DM-FAT party will assist in IITK team for administrative support during field visits and sampling, in their respective districts.
- 4) Each of the DM-KAN, DM-KAP and DM-FAT party will provide relevant reports and data from any prior study available with them.
- 5) Financial support (as per annexure B) for the study is to be provided by DM-KAN / DM-KAP / DM-FAT

Deliverables:

- For Phase-I: A GIS based contamination maps for hotspots in the three districts
- For Phase-II: A GIS based detailed regional maps of the contaminants in the three districts for air, water, and soil environments
- A report with recommendations on mitigation/adaptation measures

Schedule for completion:

- Time for the Phase-I Study: 6 Months
- Time for the Phase-II Study: 12 Months (to be started after completion of Phase I)

Principal Investigators from IITK:

Principal Investigator: Prof. Manoj Kumar Tiwari
Centre for Environmental Science and Engineering, IIT Kanpur
Kotak School of Sustainability, IIT Kanpur
Department of Civil Engineering, IIT Kanpur

Co-Principal Investigator: Prof. Purnendu Bose
Department of Civil Engineering, IIT Kanpur



Annexure B
Financial Specifications

Budget for Phase-I:

₹2,65,50,000/- (inclusive of institute overheads @ 25% of cost plus GST at applicable rates)

Budget for Phase-II:

To be worked out later, after conclusion of Phase-I study

Payment Terms:

Total amount for Phase -I: At signing of the MoU

Total amount for Phase -II (as decided after concluding Phase-I): At the starting of Phase-II of project



INITIATION REPORT

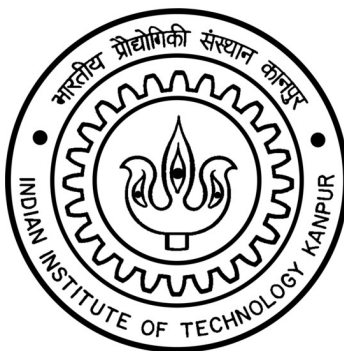
Mapping of Contaminants in Surface Water, Groundwater, Soil and Air in Kanpur Nagar, Kanpur Dehat and Fatehpur Districts, Uttar Pradesh

Submitted to:

District Magistrate, Kanpur Nagar

District Magistrate, Kanpur Dehat

District Magistrate, Fatehpur



Submitted by:

Indian Institute of Technology Kanpur

17 July 2026

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1. Introduction

IIT Kanpur received communications from the District Magistrates of Kanpur Dehat, Kanpur Nagar, and Fatehpur districts, and Secretary, Environment Forest and Climate Change Division, UP Government regarding proposal for the sampling and contaminants analysis in the groundwater, surface water, soil and air samples from the industrial pollution affected areas of Kanpur Dehat, Kanpur Nagar, and Fatehpur districts of UP, as per the directives of National Green Tribunal (NGT) wide O.A. No. 985/2019 (IA No. 568/2024) with O.A. No. 528/2023 with O.A. No. 934/2024. A cluster-based sample survey and GIS-Based Mapping of entire affected region was expected to be taken up by IIT Kanpur.

Subsequently IIT Kanpur submitted proposal which was approved by state government and a Memorandum of Understanding was signed between Indian Institute of Technology Kanpur and the District Magistrates of Kanpur Nagar, Kanpur Dehat, and Fatehpur in the second week of June 2026. The MoU established the framework for implementation of the project, which aims to identify and map contaminants in surface water, groundwater, soil, and air across the identified hotspots in the three districts.

2. Background

The regions of **Kanpur Nagar, Kanpur Dehat, and Fatehpur** have been marked as environmentally sensitive due to past industrial activities and documented pollution in various environmental media. Previous studies, submissions to the Hon'ble National Green Tribunal, and district-level evaluations have raised issues about the contamination of groundwater, surface water, soil, and farmland, especially in areas linked to leather tanning, historical chromium waste disposal, and industrial operations. The Jajmau Industrial Area in Kanpur Nagar and the Rania Industrial Area in Kanpur Dehat have been identified as key zones needing scientific evaluation. Similar issues have been noted in specific locations within Fatehpur.

Kanpur Dehat District	Kanpur Nagar District	Fatehpur District
<i>Affected Areas:</i> • Rania Industrial Area (Primary Chromium Hotspot) • Yadavpurwa Hamlet • Chauhanpurwa Hamlet • Palanpurwa Hamlet • Umran Village • Gharampur Village • Shivnathpurwa • Agricultural lands downstream of the Rania Industrial Area • Industrial drains, ponds and low-lying water bodies near Rania	<i>Affected Areas:</i> • Juhi Baburiya (Rakhi Mandi) • Afeem Kothi (Rakhi Mandi) • Jajmau Industrial Area • Tejab Mill Campus, Anwarganj • Golaghat Area • Panki Industrial Area • Naureya Kheda / Naubasta Area • Ruma Treatment Storage and Disposal Facility (TSDF)	<i>Affected Areas:</i> • Gudhrauli Village and surrounding residential areas • Gudhrauli–Baniyankheda Road (both left and right sides) • Sheetla Mata Mandir (front and back), Gudhrauli • Kali Mata Mandir near highway, Gudhrauli • Area near railway track underpass, Gudhrauli • Madhuchanda Technochem dump yard along GT Road • Abhaypur Village (near tyre factory / Ganpati Traders) • Nursing College area along GT Road– Abhaypur Road • Flour Mill (Atta Chakki) area along GT Road– Abhaypur Road
<i>Type of Locations:</i> • Villages, agricultural fields, residential and industrial regions	<i>Type of Locations:</i> • Industrial estates, dense residential zones, waste handling facilities and transport-linked commercial areas	<i>Type of Locations:</i> • Residential, roadside, religious, industrial and agricultural settings
<i>Identified Sources of Contamination:</i> • Historical dumping of chromium waste and other industrial wastes	<i>Identified Sources of Contamination:</i> • Industrial and commercial zones with potential chromium contamination	<i>Identified Sources of Contamination:</i> • Historical dumping of chromium waste • Chromium exposure is likely through multiple pathways

3. Project Objectives

The objectives of the project are to:

- Conduct reconnaissance surveys of identified affected regions.
- Undertake scientific sampling of **surface water, groundwater, soil and ambient air**.
- Identify industrial effluent discharge locations and potential contamination pathways.
- Assess the spatial extent of industrial contaminants and heavy metals.
- Develop GIS-based quantitative maps of contaminated locations.
- Generate scientific baseline information for environmental assessment.
- Recommend appropriate mitigation and adaptation measures based on study findings.

The project shall be implemented in **two phases** as envisaged in the MoU:

Phase-I (Mapping of hotspots)

- Site reconnaissance and verification of identified affected regions.
- Collection and laboratory analysis of surface water, groundwater, soil and selected environmental samples.
- Preparation of preliminary contamination maps for identified hotspots.

Phase-II (District-wide sampling based on Phase-I findings.)

- Ambient air quality monitoring during the post-monsoon period.
- GIS-based quantitative mapping of contaminant distribution.
- Preparation of detailed technical recommendations for mitigation and adaptation measures.

4. Project Initiation Activities

4.1 Memorandum of Understanding

The project commenced following the execution of the Memorandum of Understanding between IIT Kanpur and the District Administrations of Kanpur Nagar, Kanpur Dehat and Fatehpur signed on the Second Week of June. The MoU defines the project scope,

implementation strategy, deliverables and responsibilities of all participating organizations.

4.2 Inception Meeting

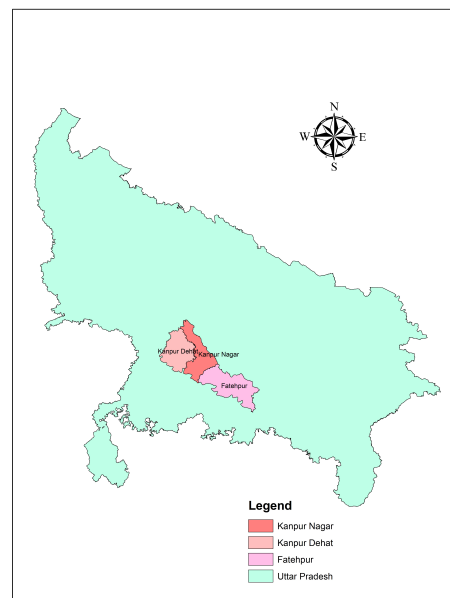
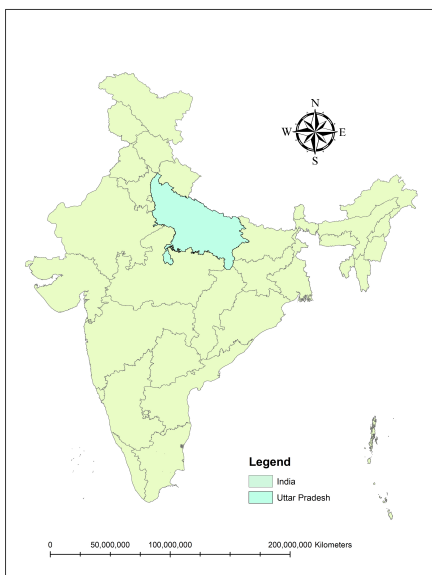
An Inception Meeting was convened at Indian Institute of Technology Kanpur on 1 July 2026 with representatives of the District Administrations, IIT Kanpur, project investigators and other stakeholders. Following decisions were taken during the meeting:

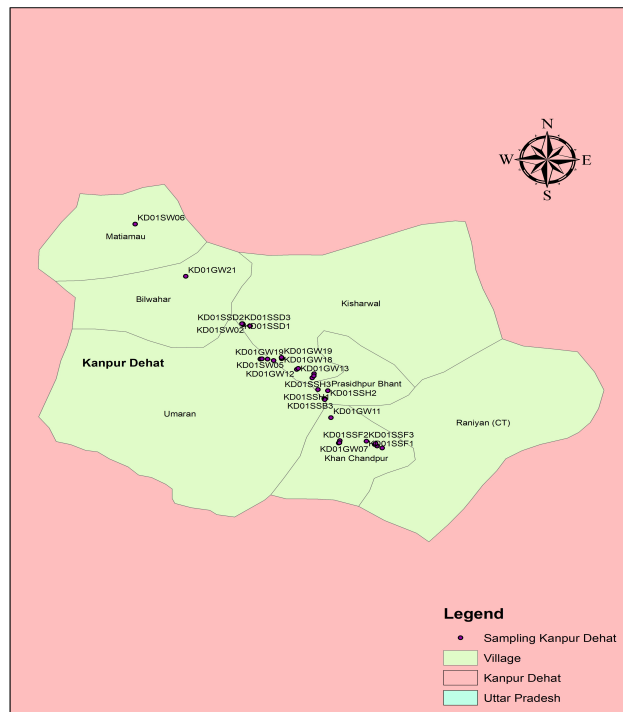
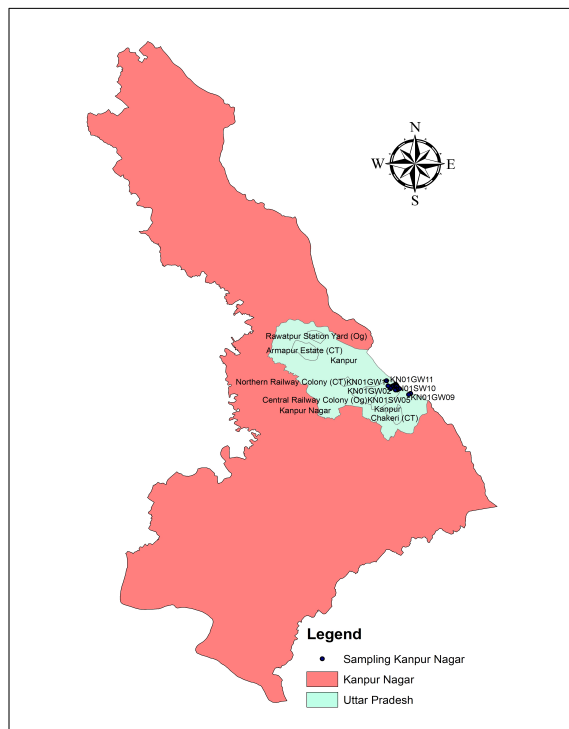
- Sampling of Groundwater Surface Water and Soil samples of three districts will be carried out simultaneously in and around the pre-identified hotspots
- Air Sampling to be carried out post monsoon
- Confirmation of the pre-identified pollution hotspots and affected regions for detailed investigation.
- Finalization of the field sampling strategy, including sampling locations, procedures.
- Preparation of a district-wise sampling schedule for the systematic collection of surface water, subsurface water, groundwater, soil, and sediment samples.
- Establishment of coordination mechanisms with district administrations and relevant stakeholder agencies to facilitate field investigations.
- Review of the historical and current pollution status of the study sites, including contamination sources, environmental impacts, and priority areas for assessment.



Figure 1: Inspection meeting with project investigators and stakeholders

4.3. Geospatial maps showing the sampling locations in Kanpur Nagar and Kanpur Dehat





5. Field Sampling

Sampling activities have been carried out at identified hotspot locations across the districts of Kanpur Nagar and Kanpur Dehat.

5.1. Kanpur Dehat (9 July 2026)

The field sampling was undertaken on **9 July 2026** in **Kanpur Dehat**.

Environmental Matrix	Number of Samples Collected	Remarks
Surface water	6	Samples collected from water bodies.
Groundwater	21	Samples collected from hand pumps and tube wells in affected areas.
Soil	24	Samples collected at three depth intervals (0, 0.5, and 1.0 m) to assess vertical contaminant distribution.
GPS Locations	All sampling sites	Coordinates recorded for GIS-based mapping.
Photographic Records	All sampling sites	Geotagged photographs and field observations documented.

5.1.1. Preliminary Field Observations – Kanpur Dehat

Observation Category	Field Observation
Soil Condition	Suspected chromium-bearing deposits were observed during soil sampling in the vicinity of the Rania dump site .
Groundwater Quality	Groundwater collected from hand pumps installed at depths of up to 45 ft exhibited noticeable yellow discoloration.
Affected Villages	Similar yellow discoloration of groundwater was observed in Khanchandpur, Yadavpurwa, and Chauhanpurwa , where hand pumps installed at depths of up to 70 ft were sampled.

5.1.2. Photographic Records of Kanpur Dehat





(d)



(e)



(f)



(g)





Figure 2: Photographic records of field investigation and environmental sampling conducted in Kanpur Dehat: (a) soil sample collection from the Umaran site; (b) surface water sample collection from a drain at Umaran; (c) groundwater sample collection from a hand pump at Bilwaha; (d) collection of soil samples from the exposed contaminated soil profile at Umaran; (e) surface water sample collection from a pond/waterlogged area at Umaran; (f) groundwater sample collection from a hand pump at Rania; (g) field inspection and soil sampling at the Umaran contaminated site; (h) general view of the contaminated site at Umaran; and (i) surface water sample collection from a canal at Rania.

5.2. Kanpur Nagar (16 July 2026)

The second round of sampling was conducted on **16 July 2026** in **Jajmau, Kanpur Nagar**.

Environmental Matrix	Number of Samples Collected	Remarks
Surface water	10	Samples collected from identified contaminated surface water bodies for physicochemical characterization and heavy metal analysis.
Groundwater	12	Samples collected from hand pumps and tube wells in the affected areas to assess groundwater quality and heavy metal contamination.
Soil	11	Soil samples were collected from representative locations at depth intervals of 0, 0.5, and 1.0 m to evaluate the vertical distribution of heavy metals. At one sampling location, excavation could not be extended to 1.0 m because groundwater was encountered; therefore, sampling at that depth was not possible at that site.
GPS Locations	All sampling sites	GPS coordinates were recorded for all sampling locations to facilitate GIS-based mapping and future monitoring.
Photographic Records	All sampling sites	Geotagged photographs and detailed field observations were documented at all sampling locations.

5.2.1. Preliminary Field Observations – Kanpur Nagar

Observation Category	Field Observation
Groundwater Quality	No visible discoloration was observed in groundwater collected from the surveyed locations.
Surface Water Condition	Distinct discoloration was observed in the Wajidpur Drain, which is intercepted through a pumping station. Local residents indicated that overflow commonly occurs during the monsoon season.
Solid Waste Observation	Localized accumulation of finished leather waste was observed at multiple locations, including GajjuPurwa.

5.2.2. Photographic Records of Kanpur Nagar



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(c)



(d)





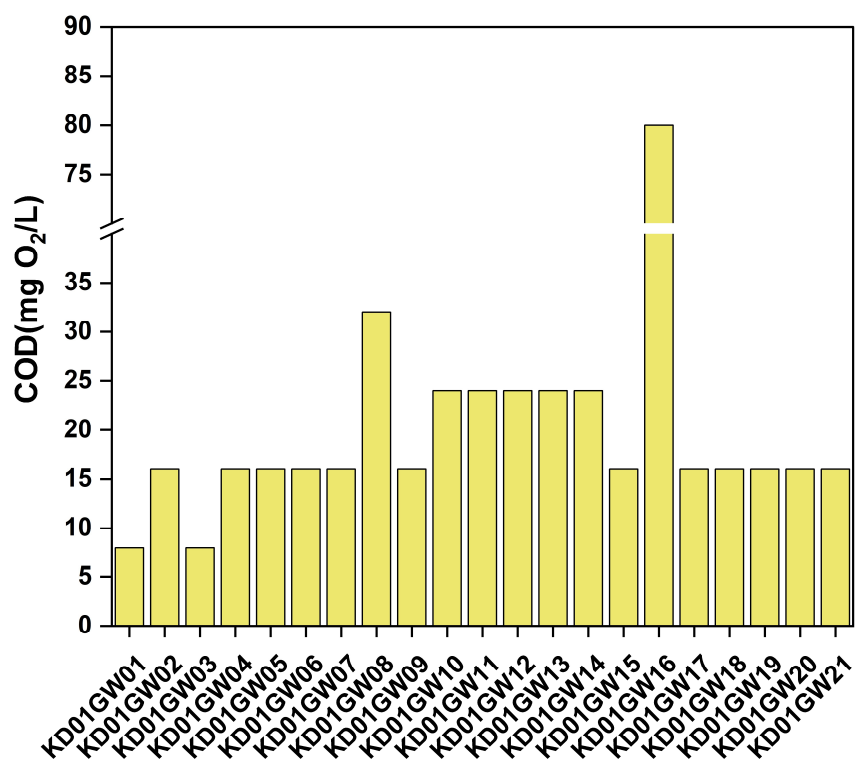
Figure 3: *Photographic records of field investigation and environmental sampling conducted in Kanpur Nagar: (a) surface water sample collection from the Ganga River near Jajmau; (b) wastewater sample collection from the Wajidpur Drain endpoint near Wajidpur Sewage Pumping Station; (c) groundwater sample collection from a hand pump at Jajmau; (d) groundwater sample collection from a hand pump at Chakeri; (e) soil sample collection from sludge dump at STP jajmau; and (f) wastewater sample collection from airforce drain at Jajmau.*

6. Laboratory Analyses

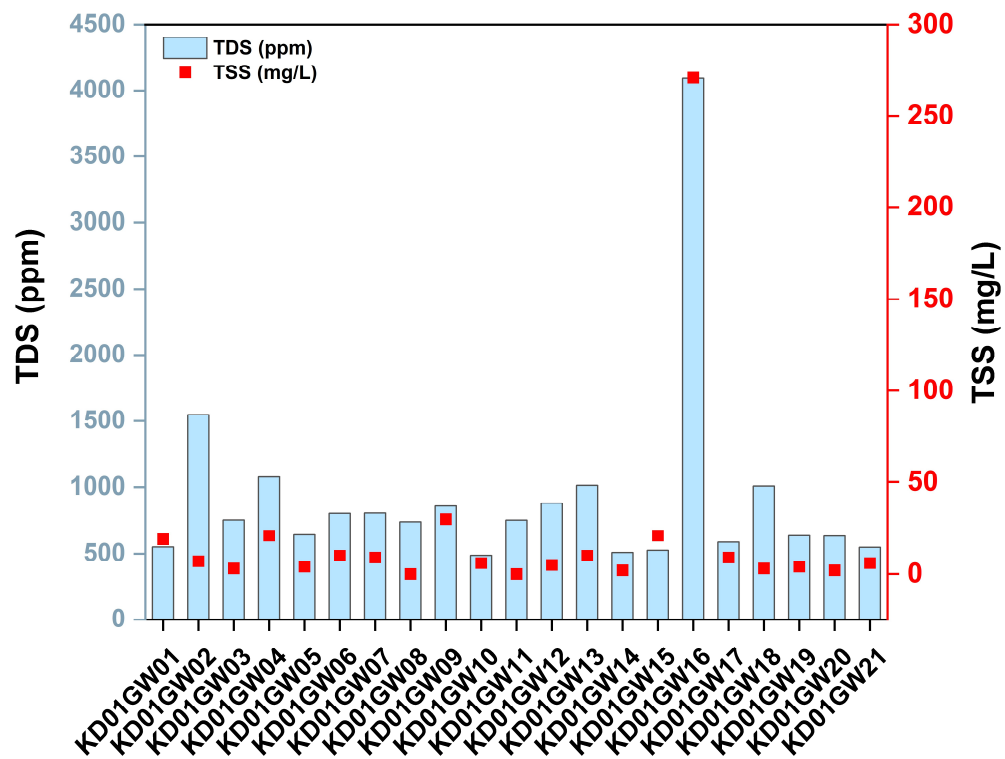
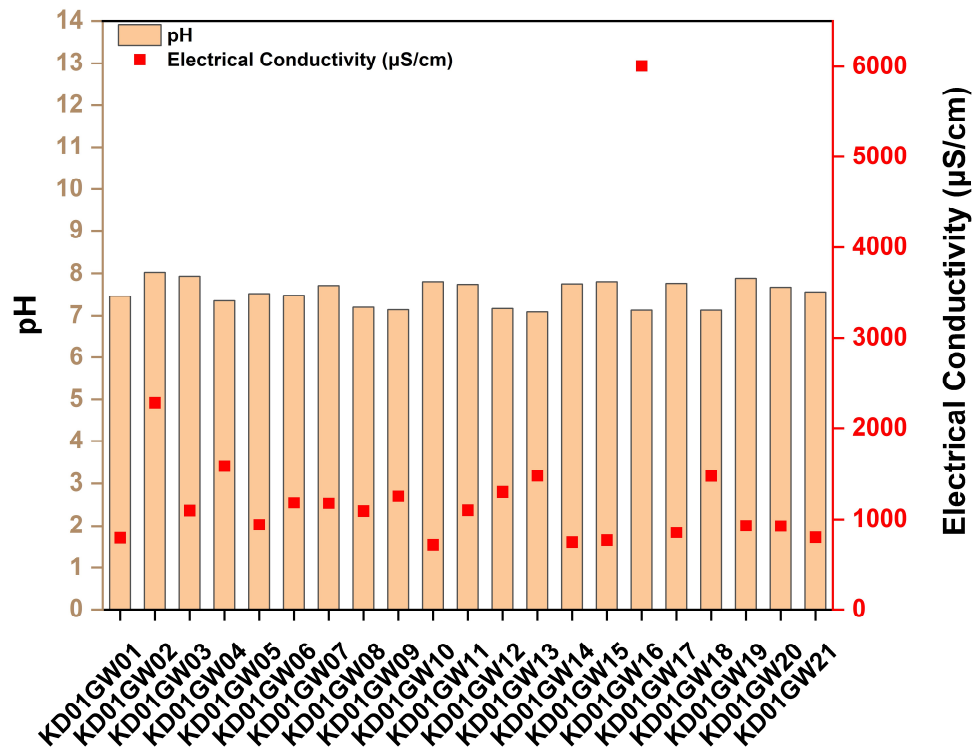
Environmental Matrix	Laboratory Analyses
Surface Water	pH, EC, TDS, TSS, TOC, and heavy metal analysis.
Groundwater	pH, EC, TDS, TSS, TOC, and heavy metal analysis.
Soil	Moisture content determination and heavy metal analysis following microwave-assisted acid digestion.

6.1. Results of Kanpur Dehat

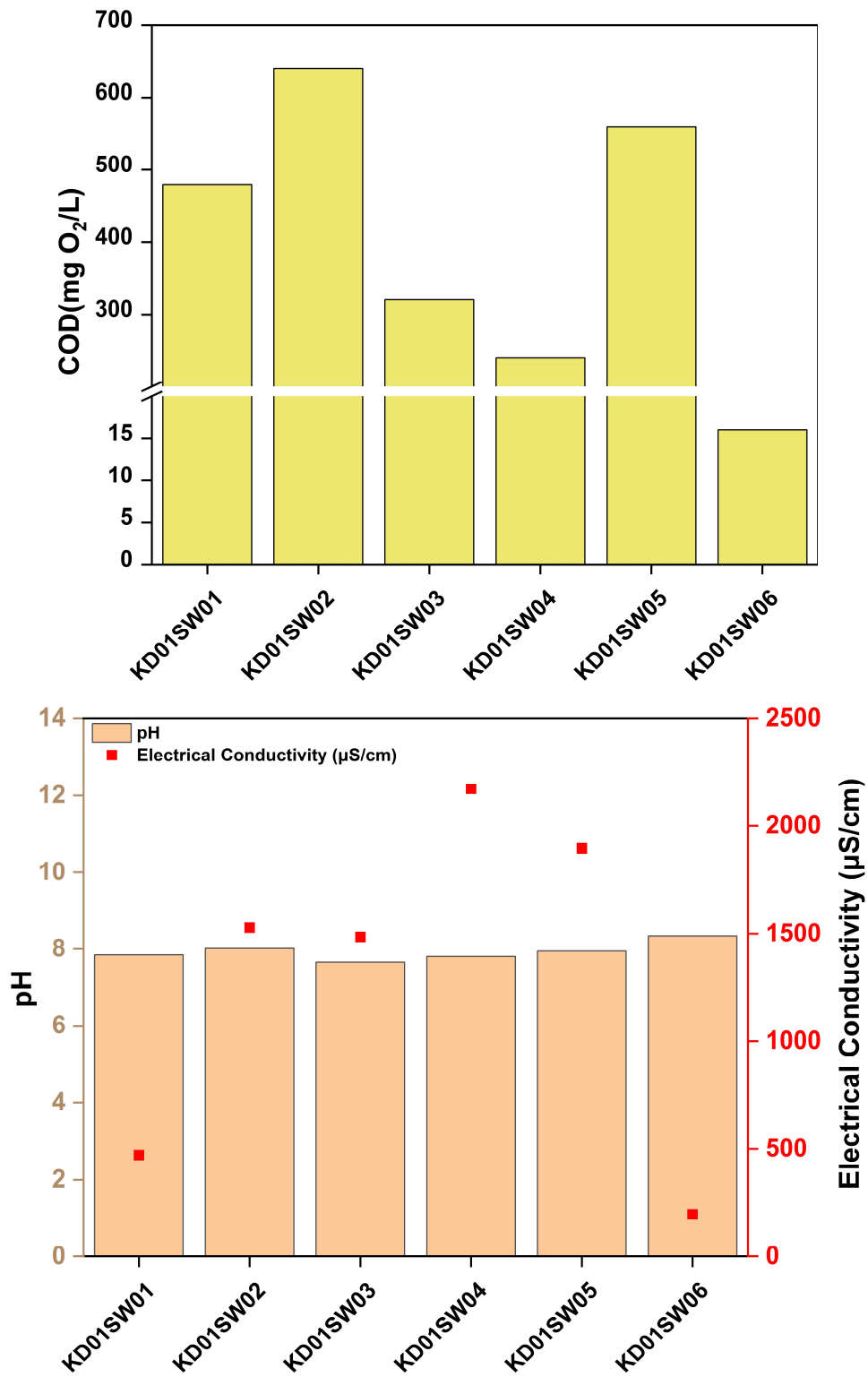
6.1.1. Ground Water Analysis in Kanpur Dehat

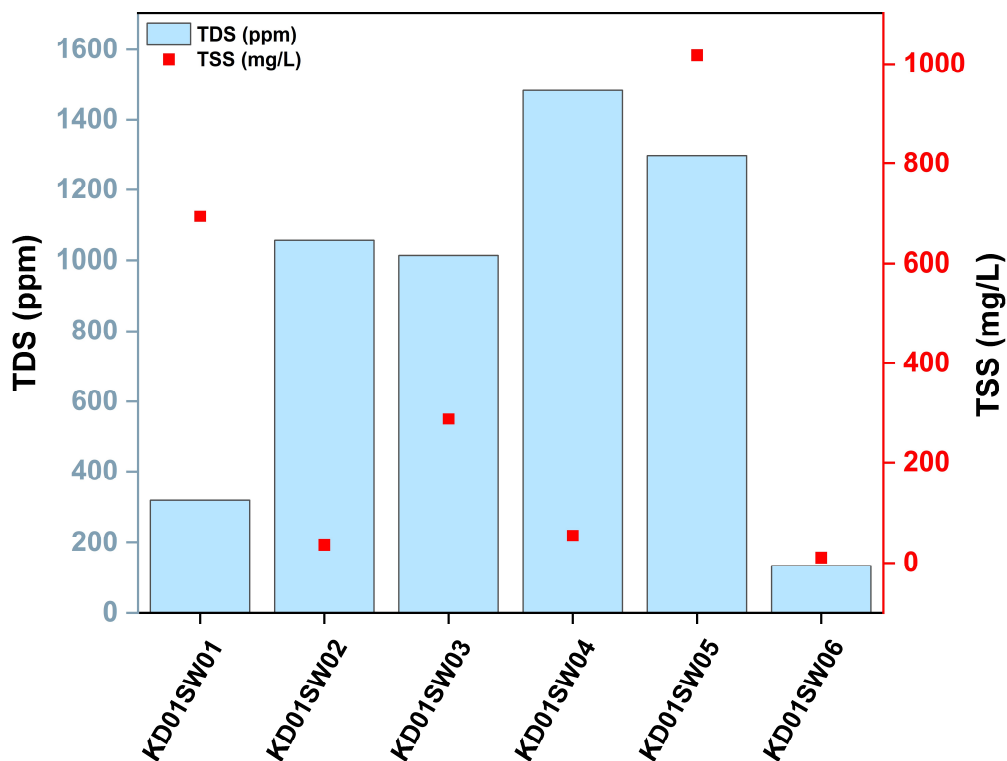


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6.1.2. Surface Water Analysis in Kanpur Dehat





6.1.3. Ongoing Analysis

Heavy metal analysis of groundwater, surface water, and soil sediment samples collected from the Kanpur Dehat (Rania Region) is currently ongoing. In addition, the analysis of groundwater, surface water, and soil sediment samples collected from the Kanpur Nagar (Jajmau Region) has also commenced.

7. Project Progress and Proposed Work Plan

Sampling has been carried out at Kanpur Dehat (Rania) on 9th July and Kanpur Nagar (Jajmau) on 16th July across multiple points and tentatively further sampling will be carried out with 5-7 hotspots to be covered in one month, sampling of ambient air will start post monsoon thereby completing the sampling activities by the month of November.

Proposed Action Plan

Activity	Timeline
Sampling of Pre-identified Hotspots	July 2026 Onwards (5-7 Hotspots Per Month)
Laboratory analysis of collected samples	July–August 2026 onwards
Quantitative GIS mapping and hotspot inventory	August 2026 Onwards
Interpretation of results	August–September 2026 onwards
Air Quality Sampling	September Onwards (Post Monsoon)
Compilation of Results and Preparation of technical recommendations	November 2026 onwards



Approved By
Prof. Manoj Kumar Tiwari
Indian Institute of Technology Kanpur
17-07-2026