BEFORE THE HON'BLE NATIONAL GREEN TRIBUAL
PRICIPAL BENCH, NEW DELHI
IN
ORIGINAL APPLICATION No. 985/2019
WITH
ORIGINAL APPLICATION No. 986/2019

IN THE MATTER OF:

In Re : Water Pollution by Tanneries at Jajmau, Kanpur, Uttar Pradesh With In Re : Water Pollution at Rania, Kanpur Dehat & Rakhi Mandi, Kanpur Nagar, Uttar Pradesh

SUBMISSION

Dated: 30/07/2022

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LIST OF DATES

S.NO.	DATE	CASE TITLE	OBSERVATION/ ORDER/ JUDGMENT
1.	22.09.1987	M.C. Mehta v. Union of India (*WP (c) No. 3727/ 1985*)	"…The financial capacity of the tanneries should be considered as irrelevant while requiring them to establish primary treatment plants. Just like an industry which cannot pay minimum wages to its workers cannot be allowed to exist, a tannery which cannot set up a primary treatment plant cannot be permitted to continue to be in existence for the adverse effect on public at large which is likely to ensue by the discharging to trade effluents from the tannery to the river Ganga would be immense, and it will outweigh the inconvenience that may be caused to the management and labour employed by it on account of its closure… We feel the tanneries at Jajmau, Kanpur, cannot be allowed to continue to carry on the industrial activities unless they take steps to establish primary treatment plants. In cases of this nature, this Court may issue appropriate directions if it finds that the public nuisance or other wrongful act affecting or likely to affect the public is being committed and the statutory authorities who are charged with the duty to prevent it are not taking adequate steps to rectify the grievance. For every breach of a right there should be remedy…

			We are conscious that closure of the tanneries may bring unemployment, loss of revenue; but life, health and ecology have greater importance to the people"
2.	12.01.1988	M.C. Mehta v. Union of India (*WP (c) No. 3727/ 1985*)	"Whenever application of licences to establish new industries are made in future, such application shall be refused unless adequate provision has been made for the treatment of trade effluents flowing out of the factories. Immediate action should be taken against the existing industries if they are found responsible for pollution of water... What we have stated above applies **mutatis mutandis** to all other Mahapalikas and Municipalities which have jurisdiction over the areas through which the river Ganga flows…"
3.	03.09.1991	M.C. Mehta v. Union of India (*WP (c) No. 3727/ 1985*)	We accordingly direct the District Magistrate and the State Pollution Control Board to take effective steps to close the aforesaid tanneries and they will not be allowed to undertake any tanning operations till they set up the Primary Treatment Plant. If any of the aforesaid tanneries are able to set up the Primary Treatment Plant, they may contact the State Pollution Control Board and obtain certificate to this effect and, thereafter, apply to this Court for appropriate orders.
4.	19.12.1996	M.C. Mehta v. Union of India	Judgment was passed with reference to cleaning of River Ganga in the State of West

		(*WP (c) No. 3727/ 1985*)	Bengal and Calcutta Tanneries. Amongst other directions, Calcutta tanneries operating in tangram, tiljola, topsia and pagla danga areas were directed to be shifted and relocated and pollution fine was imposed on these tanneries. Shifting bonus and compensation was ordered to be paid to the workmen of tanneries.
5.	18.11.1999	In Re: Jajmau Tanners Association Interlocutory Appln. Nos. 99-100 in Writ Petn. (C) No. 3727 of 1985	But having regard to the plight of the tanneries and having regard to all other surrounding circumstances, we think it would be just and proper to direct that the ratio for the maintenance and operational charges should be borne in 50:50 ratio, namely, the tanneries' association will pay 50% amount and the balance 50% would be paid by the Kanpur Nagar Nigam. It would be open to the Kanpur Nagar Nigam to recover proportionate maintenance and operational charges from other tanneries which have not been taken into account and various other industries which also discharge effluent to the Secondary Treatment Plant.
6.	13/07/2017	M.C. Mehta v. Union of India (OA 200/2014)	"24. It is brought to the notice of the Tribunal that chromium sulphate dumps have been created in open in the area of Jajmau and other locations like Rakhi Mandi and Khanpur village. **This is a hazardous waste, therefore, we direct that this entire chromium sulphate dumps shall be remediated by UPPCB, UPJN and Kanpur Nagar Nigam within four weeks.** This shall

			be disposed appropriately and in accordance with the Rules of 2016 at the site being maintained by the State of UP and being run by Ramkay Plant or at a secured landfill site identified by the State Government."
7.	22.08.2019	M.C. Mehta v. Union of India (OA 200/2014)	"24. Chromium dump has been stored since 1976 which is required to be shifted to TSDF. The State of Uttar Pradesh may undertake health survey of the area and ensure shifting of the Chromium dumps within three months failing which it would be liable to pay environmental compensation of Rs. 10 lakhs per month to CPCB besides furnishing performance guarantee of Rs. 1 Crore to CPCB. 25. Let the remedial measures be taken by the SPCB for effective monitoring by installing CCTV cameras or undertaking surveillance in any other manner with the help of local police."
8.	13.11.2019	M.C. Mehta v. Union of India (OA 200/2014)	"…i. The State of UP is held liable for failing to take any action for shifting of Chromium dumps at Rania and Rakhi Mandi which resulted in damage to the environment and the public health for the period from 1976 till date. The amount of compensation in this regard is held to be the amount assessed by the UPPCB to be recovered from the erring industries. Till such recovery, the State itself must pay the amount by way of transfer to an ESCROW account. The amount is to be utilized for

			restoration of the environment and the public health in the area in the manner mentioned earlier. ii. The State of UP must take further steps for disposal of the hazardous Chromium dumps as per directions of this Tribunal dated 22.08.2019 quoted above, failing which it will be liable to pay compensation as mentioned in the said order. iii. **State of UP** is held liable to pay environmental compensation of Rs. 10 crores for damage to the environment for permitting discharge of untreated sewage containing toxic Chromium into river Ganga directly vide its order dated 08.08.2019. The State of UP is at liberty to recover the amount from the erring officers apart from taking action against the persons responsible in the manner as already mentioned in para 18 above. The **UPPCB** is held liable to pay sum of Rs. 1 crore for ignoring illegal discharge of sewage and other effluent containing toxic Chromium directly into river Ganga and taking action after a long time inspite of earlier proceedings before this Tribunal. **UP Jal Nigam** is held liable to pay sum of Rs. 1 crore for releasing untreated large quantity sewage containing toxic Chromium in river Ganga.

			These amounts may be deposited with the CPCB within one month which may be overseen by the Chief Secretary, UP. UPPCB is at liberty to recover the amount from the erring industries. iv. The State of UP may take steps for supply of potable water to the inhabitants of the area… v. The Expert Committee in terms of para 13 above may conduct the health survey within three months."
9.	15/11/2019	M.C. Mehta v. Union of India (OA 200/2014)	14. With regard to supply of potable water in the affected areas**, such supply should take care of not only drinking purposes but also other purposes. It is well known that adverse effect on health is not only by drinking contaminated water but also on account of bathing or cooking and also on account of it being part of the food chain**. <u>It is necessary to put the concerned inhabitants in the area to notice of adverse consequences of use of contaminated water and placing the data of contents of water quality on website of the State. The affected area should also be delineated and put in public domain.</u> 17. The stand of the State of UP shows that it is being understood in certain quarters that during monsoon any pollution load, including sewage or any other polluting effluents can be discharged in the water bodies/rivers which is

			clearly against the mandate of Section 25 of the Water (Prevention and Control of Pollution) Act, 1974. The CPCB may need to issue an appropriate direction to ensure that such illegality does not take place anywhere in the country. 19 (i) The State of UP is held liable for failing to take any action for shifting of Chromium dumps at Rania and Rakhi Mandi which resulted in damage to the environment and the public health for the period from 1976 till date. The amount of compensation in this regard is held to be the amount assessed by the UPPCB to be recovered from the erring industries. Till such recovery, the State itself must pay the amount by way of transfer to an ESCROW account. The amount is to be utilized for restoration of the environment and the public health in the area in the manner mentioned earlier. (v) The Expert Committee in terms of para 13 above may conduct the health survey within three months.

PROBABLY CONTAMINATED SITES IN KANPUR/ Uttar Pradesh (as per record of MOEF&CC dated 21.12.2015)

This document is annexed herewith as **Annexure A** *[Pg. 143 Appendix J List of probably contaminated sites]*

S.No	Site name	Major source of information (Institutions) which have appointed the site as a "Probably contaminated site"
1.	Motipur Village, Chakeri Ward, Near Jajmau Industrial Area, Kanpur	Blacksmith Institute (IN-1867)
2.	Tejab Mill Campus, Anwarganj, Kanpur	Kadam Environment Consultants, Blacksmith Institute (IN-893)
3.	Bharat Oil and Waste Management, Kanpur	Regional Officer, Kanpur
4.	Jajmau Industrial Area, Kanpur	Blacksmith Institute (IN-1979)
5.	Khanchandrapuri, Rania Kanpur Dehat	List Of Hazardous Waste Contaminated Dump Sites in The Country By CPCB – site no. 23
6.	Rooma-Treatment Storage Disposal Facility, Kanpur	Blacksmith Institute (IN-2017)
7.	Nauriaya Kheda Kanpur	List Of Hazardous Waste Contaminated Dump Sites in The Country By CPCB – site no 20
8.	Juhi Baburaiya (Rakhi Mandi), Kanpur	List Of Hazardous Waste Contaminated Dump Sites in The Country by CPCB (Ten priority sites List) –site no. 21
9.	Panki Industrial Area, Kanpur	List Of Hazardous Waste Contaminated Dump Sites in The Country Bby CPCB – site no. 22 UPPCB, Lucknow, Indian Institute of toxicology, Lucknow
10.	Shivnathpura, Rania, (Kanpur Dehat) Ramabai Ngar, Kanpur, Uttar Pradesh	Kadam Environment Consultants
11.	Wajidpur, Kanpur	Blacksmith Institute (IN-936)
12.	Magarwara Industrial Area, Unnao	Blacksmith Institute (IN-2018)
13.	Shivnagar Colony, Unnao	Blacksmith Institute (IN-937)

List of Drain in Kanpur, Up[1]

S.NO.	GANGA RIVER	PANDU RIVER
1.	Paramiya Drain	Ratanpur Nala
2.	Ranighat Drain	Panki Thermal Power Drain
3.	Seesamau Drain	ICI Drain
4.	Tefco Drain	Ganda Nala
5.	Permathghat Drain	Halwakhanda
6.	Muirmill Drain	COD
7.	Police line drain	
8.	Jail Drain	
9.	Bhagwatdas Drain	
10.	Golaghat Drain	
11.	Satti Chaura Drain	
12.	Dabka Drain	
13.	Sheetla bazaar Drain	
14.	Budhiyaghat Drain	
15.	Wazidpur Drain	
16.	Airforce Drain	

Number of Industries in Kanpur

S.No	Area	Number
1.	Dada Nagar	39
2.	Panki	123
3.	Fazalganj	3
4.	Vijay Nagar	-
5.	Jajmau	388

UPPCB, Lucknow, Environment Management Plan for Critically/ Severely Polluted Area, (Dada Nagar, Panki, Fazalganj, Vijay Nagar & Jajmau of Kanpur Nagar), 2020 is Annexed herewith as **Annexure B.**

[1] UPPCB, Lucknow, Environment Management Plan for critically/ severely polluted area, 2020

WHETHER THERE IS A SITUATION OF ENVIRONMENTAL EMERGENCY OWING TO NON- COMPLIANCE OF ORDERS OF THIS HON'BLE TRIBUNAL

The Hon'ble Supreme Court in *Vincent Panikurlangara v, Union of India* (AIR 1987 SC 990, Writ Petition No. 3492 of 1983, 03.03.1987) observed that –

> "*As pointed out by us, maintenance and improvement of public health have to rank high as these are indispensable to the very physical existence of the community and on the betterment of these depends the building of the society of which the Constitution makers envisaged. Attending to public health, in our opinion, therefore, is of high priority--perhaps the one at the top*."

Impact of Tanneries on Ground Water Quality in Khanchandpur area, Kanpur Dehat, District, Uttar Pradesh[2]

The study reveals that ground water quality has pH from 6.88 to 8.09, Conductivity from 648 to 2243 JlS/ cm at 25°C, Fluoride from 0.63 to 4.02 mg / l, Nitrate from 0.1 to 17 mg /l, Sulphate from 15 to 385 mg / l, Manganese from 9 to 108 JI{J/ l, Chromium (VI) from 0 to 20165 Jig/ l and Total Chromium from 20 to 20736 Jig/ l. The abnormal high values of Chromium (VI) and Total Chromium more than 50 Jig/ l, the maximum permissible limit of BIS ae very harmful to the people using these waters for drinking purpose. Correlation of different ions present in ground water has also been interpreted. Hexavalent compounds are more toxic than trivalent compounds. Chromium and its compounds are known to cause cancer of the lung, nasal cavity and paranasal sinus and suspected of causing cancer of the stomach and larynx. Skin decolourisation and peptic ulcer is a common disease in the inhabitants of this area. nga Plain and is underlain by unconsolidated sediments of Quaternary age comprising silt and clay, sands of various grades, gravel, kankar and admixed in varying proportions. The maximum thickness of alluvium in Kanpur area is a little over 500 m overlying bed rock (Bundelkhand granite) was encountered at Panki at a depth of 502 mbgl. Infiltration from rainfall is the main source of groundwater in the area. Influent seepage from the surface water bodies is also responsible for recharge to the reservoir. Groundwater occurs mainly under unconfined condition where depth of open well varies from 5m to 15mbgl and depth to water level ranges from 3 to 09 mbgl. Depths of hand pumps vary from 10 to 40 mbgl and tap the phreatic aquifer zones. The samples

[2] https://www.researchgate.net/publication/255961888_Impact_of_Tanneries_on_Ground_Water_Quality_in_Kanchandapur_area_Kanpur_DehatDistrict_UP

were analysed using APHA methods in the laboratory and the data obtained is reported in the table. The data indicate that ground water of the area has been polluted by chromium metal with Cr (VI) concentration maximum up to 2016q microgram/litre and total Cr concentration maximum up to 20736 microgram/litre. High concentration of Sulphate (385 mgll), Fluoride ions (4.02 mgll) & Conductivity (2243 microsiemens/cm) have also been found in the area due to leaching of dumped waste materials of tanneries.

The chemical data of various parameters obtained shows –

- Chromium(VI), total Chromium and Sulphate has leached to the ground water body due the dumping of tannery waste particularly basic chrome sulphate in the soil.
- Low level of water table in the area, high rainfall and favorable Hydrogeological conditions like presence of sand gravel in the soil has facilitated the movement of chromium and other ions to the ground water with higher concentration.
- High concentration of Chromium species (more than 50 microgram/litre, the maximum permissible limit by BIS) are harmful to the human consumption and may cause diseases and toxicity to the people living in the area. (Research paper is annexed as **Annexure C**)

Assessing Chromite Ore Processing Residue (COPR) waste dump site using Electrical Resistivity Tomography (ERT): A case study from Umaran, Kanpur, India[3]

The present study, electrical resistivity tomography (ERT) (a cost effective and faster approach) method has been employed to assess the effect of unplanned COPR waste dump beside agricultural land at Umaran, Kanpur, India, in conjunction with the available geo-chemical information. Inverted 2-D ERT sections depicted resistivity variation in the subsurface, and its correlation with previous geochemical results reveals the resistivity boundary between contaminated and clean zones as ~ 15 Ω·m. The study also depicts that the contamination plume is slowly migrating towards NE direction below the agriculture land but rate of migration is faster along southern direction. Therefore, the agriculture land and

[3] https://www.researchgate.net/publication/334645464_Assessing_chromite_ore_processing_residue_COPR_waste_dump_site_using_electrical_resistivity_tomography_ERT_a_case_study_from_Umaran_Kanpur_India. Received: 3 May 2019 /Accepted: 10 July 2019 / Published online: 24 July 2019 #Springer Nature Switzerland AG 2019

corresponding groundwater at~ 50 m away from the dump site in NE direction are not affected by COPR leachate. Vertically, the COPR leach-ate has affected mostly up to ~ 20 m depth in the region inside the dump boundary; however, at some places, it is migrating further downward. Thus, the study demonstrates the efficacy of ERT method in characterizing COPR dump site and provides crucial information in managing safe agriculture practices over the region as well as for initiating scientific remedial measures.

Groundwater Contaminated with Hexavalent Chromium [Cr (VI)]: A Health Survey and Clinical Examination of Community Inhabitants (Kanpur, India)[4]

It is of relevance to find out health risk to the residents in these contaminated areas. Thus, we undertook population health assessment to know health risk to the residents from areas of Kanpur having Cr (VI) contaminated groundwater. Health status was assessed through self-reported health questionnaires, general medical examination, spirometric analysis and blood hematology measures. A physiologist conducted the lung-function test (LFT) using an electronic spirometer as per American Thoracic Society recommendations. Blood samples were collected from interested subjects only.

A cross-sectional retrospective study was carried out on the general population residing at Kanpur, a city in Uttar Pradesh, India (26.4670u North and 80.3500uEast). We organized health camps among contaminated and non-contaminated communities to collect data on general health status of the residents. The permission and local assistance for arranging camps were obtained through meetings with authorized persons like village headman (gram- pradhan) and corporator. The Institutional Human Ethics Committee of IITR granted ethical clearance for this study.

Results Self-Reported Health Complaints in Study Population

In all, 433 individuals participated in the health camps. Of these, 416 individuals were included in the study based on selection criteria. In particular, 186 exposed subjects consisting of 102 males and 84 females from the Cr (VI) contaminated communities participated. We found Cr (VI) levels upto 390 fold (20 ppm approx.) higher than the permissible limit in these areas.

[4] Citation: Sharma P, Bihari V, Agarwal SK, Verma V, Kesavachandran CN, et al. (2012) Groundwater Contaminated with Hexavalent Chromium [Cr (VI)]: A Health Survey and Clinical Examination of Community Inhabitants (Kanpur, India). PLoS ONE 7(10): e47877. doi:10.1371/journal.pone.0047877

Control population from the reference community consisted of 230 subjects including 87 males and 143 females. Among exposed females, 14.3% were widows, 75% were married and rest were bachelor (10.7%). Among males, 73.5% exposed and 78.2% control subjects were married and the rest were bachelor. It was observed that 97% exposed and 91% control population was using groundwater resources for various purposes. Duration of residence of the subjects from contaminated and reference communities ranged from 2–80 years and 1–60 years, respectively.

In conclusion, this retrospective study highlights the possibility of risk on human health through hexavalent chromium contaminated groundwater. The residents in contaminated areas were having higher prevalence of self-reports for gastrointestinal and skin ailments along with clinical alterations and spirometric defects. To prevent further damage to the public health and environment, actions on regulation of industrial waste management are needed in parallel with groundwater remedial measures.

Health hazards of Hexavalent Chromium (Cr (VI)) and its microbial reduction[5]

Cr (VI) causes toxicity in a variety of ways. It can reduce immune system activity or efficiency, compete with enzyme activity cofactor fixation sites, suppress important enzymes such as oxidative phosphorylation, and cause changes in cell architecture, notably in the lipoprotein region of the membrane. Nasal irritation and ulceration, hypersensitivity reactions and contact dermatitis, acute bronchitis and emphysema, liver and kidney disease, lung and skin cancer, internal bleeding, and DNA damage are all caused by the interaction of Cr (VI) with the DNA-polymerase enzyme . Cr (VI) rapidly enters cells, but it needs to pass through several stages in the bloodstream before becoming Cr (III) in the internal organs. The Cr (VI) ion is excreted from the body, whereas the chromate ion is carried to the cell via a transport pathway that also involves the ions sulfate and phosphate. Such ions can induce oxidative stress in cells, which has been associated with a variety of chronic, cardiovascular, neurodegenerative diseases. Cr (VI) damages cells in a variety of ways, such as increased oxidative stress, the creation of DNA adducts, and chromosome breakups.

[5] BIOENGINEERED 2022, VOL. 13, NO. 3, 4923–4938 https://doi.org/10.1080/21655979.2022.2037273.
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The World Health Organization's International Agency for Data on Cancer (IARC) has classified Cr (VI) compounds as group one human carcinogens with several complex modes of action based on epidemiological research tying Cr (VI) to lung cancer.

Eardrum perforation, irritations, allergies, eczema, respiratory tract issues, skin irritations, ulceration, and lung cancer have all been linked to human exposure to Cr (VI). At various phases, Cr (VI) radiation can produce cytotoxic, mutagenic, and DNA mutations, as well as carcinogenic effects of Cr (VI)-containing compounds, chromosomal damage, and oxidative protein changes. Nasal lining nose ulcers, irritation, anemia, and ulcers in the small intestine and stomach, and other respiratory problems like nasal blockage, coughing, wheezing, and face erythema, can all be caused by inhaling a high amount of hexavalent chromium.

Hexavalent chromium exposure at work may result in the following health consequences:

- If hexavalent chromium is inhaled in high quantities, it can cause irritation or injury to the nostrils, throat, and lungs (respiratory tract).
- Lung cancer in workers exposed to hexavalent chromium in the air.
- If hexavalent chromium comes into touch with organs in high amounts, it might cause irritation or injury. Severe and repeated exposure to chromium and related compounds, particularly those containing hexavalent ions, can cause health issues.

2.1. **Chromium (VI) effects on macrophages**- Lung shape is unaffected by chromium inhalation, but macrophages become larger, multinucleated, or vacuolated, and nodules form in intra-alveolar spaces. Higher concentrations of Cr (VI) suppress alveolar macrophage phagocytic activity and the humoral immune response, whereas lower levels of Cr (VI) stimulate alveolar macrophage phagocytic activity and the humoral immunological reaction.

2.2. **Chromium (VI) effects on immune response**- An early study done on human cells by Borella et al., 1983 who studied the effects of Cr (VI) and other metals on cultured human lymphocytes found that chromium induces reductions in both blastogenesis and immunoglobulin production in relation to its capability to enter the cells.

2.3. **Chromium (VI) induced cell death**- Chromium has been shown to be cytotoxic to cells. Vasant et al., 2001 discovered that apoptosis is the method of cell death in human lymphocytes when Cr (VI) is present.

3. Hexavalent chromium effect on plant health- Plants show signs of Cr (VI) toxicity, including delayed seed germination, damaged roots reduced root growth, reduced biomass, reduced plant height, photosynthetic impairment, membrane damage, leaf chlorosis, necrosis, low grain production, and ultimate death of the plant. The most prevalent chromium compounds in soil are HCrO4 and CrO42, which are easily absorbed by plants and contaminate soil. Because of its extremely low solubility, Cr (VI) has been found to cause significant injury to living tissue. Plant shoot length and biomass are affected by Cr (VI) exposure.

4. Hexavalent chromium (Cr (VI)) effect on microbiota- Chromium is the strongest metal in nature, ranking 17th in crust richness, and is primarily merged with the other elements to form trivalent and hexavalent compounds. A variety of factors, including pathogens, habitat destruction, increased ultraviolet radiation, introduced non-native species, and contaminants, have all contributed to amphibian population declines. Intestinal microbial communities play a critical role in maintaining the host's health.

Industrial Pollution/ Tanneries- CETP at Jajmau

Impact of Tannery Effluent with Special Reference to Seasonal Variation on Physico-Chemical Characteristics of River Water at Kanpur (U.P), India

Industrial effluents from leather tanneries discharged higher amount of metal especially chromium. These effluents released on river or canal as well as dump into ground water and lead to contamination of chromium due to accumulation, as results in this series of well there is higher chance of chromium exposure. It has been reported that only about 20% of the large number of chemicals used in the tanning process is absorbed by leather and the rest is released as waste. The maximum concentration of these waste material absorbed by bioaccumulation process in cultivated crops irrigated by tannery effluent. The toxicity of chromium through drinking water is the major problem for human health. Tanneries have been found to discharge not only Cr which is an inherent product of the tanning process but also significant amounts of Zn, Mn, Cu and Pb have been observed at the main waste disposal metals exceeding the toxic range in soils. It is also reported that the wastes from the leather industry consist of tanned and untanned solids, waste waters (effluent) including the sludge and waste gases. Heavy metals contamination in aquatic environment is of critical concern, due to toxicity of metals and their accumulation in aquatic habitats. Trace metals in contrast to most pollutants, not biodegradable, and they undergo a global ecological cycle in which natural water are the main pathways. Of

the chemical pollutants, heavy metal being non-biodegradable, they can be concentrated along the food chain and producing their toxic effect. Analysis of upstream and downstream water and sediment revealed a significant increase in chromium level at Jajmau area of Kanpur showing unchecked release of untreated tannery effluent. [6]

Power of State Pollution Control Board to take emergency measures:

As per section 32. Emergency measures in case of pollution of stream or well-

(1) Where it appears to the State Board that any poisonous, noxious or polluting matter is present in [any stream or well or on land by reason of the discharge of such matter in such stream or well or on such land] or has entered into that stream or well due to any accident or other unforeseen act or event, and if the Board is of opinion that it is necessary or expedient to take immediate action, it may for reasons to be recorded in writing, carry out such operations as it may consider necessary for all or any of the following purposes, that is to say,—

(a) removing that matter from the [stream or well or on land] and disposing it of in such manner as the Board considers appropriate;

(b) remedying or mitigating any pollution caused by its presence in the stream or well;

(c) issuing orders immediately restraining or prohibiting the person concerned from discharging any poisonous, noxious or polluting matter [into the stream or well or on land], or from making insanitary use of the stream or well.

(2) The power conferred by sub-section (1) does not include the power to construct any works other than works of a temporary character which are removed on or before the completion of the operations.

[6] Katiyar, J Environment Analytic Toxicol 2011, 1:4 http://dx.doi.org/10.4172/2161-0525.1000115

HAS THE SOIL AND WATER IN THE AREA EXHAUSTED THE CARRYING CAPACITY TO NATURALLY DEGENERATE MERCURY AND CHROMIUM AND SHOULD ITS USE BE BANNED IN THE IMPUGNED REGION

The Hon'ble Supreme Court in *MC Mehta v. Union of India* (1988 SCC (1) 471), vide order dated 12/01/1988 directed that-

> *"397. Prohibition of cultivation, use of manure, irrigation injurious to health-If the Director of Medical and Health Services or the Civil Surgeon or the Nagar Swasthya Adhikari certifies that the cultivation of any description of crops or the use of any kind of manure or the irrigation of land in any specified manner-*
>
> *(a) in a place within the limits of a City is injurious or facilitates practices which are injurious to the health of persons dwelling in the neighbourhood, or*
> *(b) in a place within or beyond the limits of a City is likely to contaminate the water-supply of such City or otherwise render it unfit for drinking purpose, the Mukhya Nagar Adhikari may by public notice prohibit the cultivation of such crop, the use of such manure or the use of the method of irrigation so reported to be injurious, or impose such conditions with respect thereto as may prevent the injury or contamination:*
>
> *Provided that when, on any land in respect of which such notice is issued, the act prohibited has been practised in the ordinary course of husbandry for the five successive years next preceding the date of prohibition, compensation shall be paid from the Mahapalika Fund to all persons interested therein for damage caused to them by such prohibition.*
>
> *398. Power to require owners to clear away noxious vegetation-The Mukhya Nagar Adhikari may, by notice. require the owner or occupier of any land to clear away and remove any vegetation or undergrowth which may be injurious to health or offensive to the neighbourhood*."

Assessment of Heavy Metal Contamination in Soils at Jajmau (Kanpur) and Unnao Industrial Areas of the Ganga Plain, Uttar Pradesh, India[7] –

(By Srinivasa Gowd, S Ramakrishna Reddy M, Govil PK, J Hazard Mater. 2010 Feb 15;174(1-3):113- 21. doi: 10.1016/j.jhazmat.2009.09.024. Epub 2009 Sep 12.)

Environmental geochemical studies were carried out in and around Jajmau (Kanpur) and Unnao industrial areas (80 degrees 15'-80 degrees 34'E longitude and 26 degrees 24'-26 degrees 35'N latitude), of Uttar Pradesh to find out the extent of chemical pollution in soil due to industrial waste. Jajmau and Unnao are prominent centers for leather processing clusters of tannery industries (about 450) along the banks of river Ganga, besides other industries. Geologically the study area is beset with alluvium of Quaternary age consisting of older alluvium of middle to upper Pleistocene and newer alluvium of Holocene. The climate of the study area is semi-arid type.

Fifty-three soil samples were collected from Jajmau and Unnao industrial areas from top 15 cm layer of the soil and were analyzed for heavy metals by using Philips MagiX PRO-PW 2440 X-ray fluorescence spectrometer. The data reveals that the soil in the area is significantly contaminated with heavy metals such as chromium varies from 161.8 to 6227.8 mg/kg (average of 2652.3mg/kg), Ba varies from 44.1 to 780.9 mg/kg (average of 295.7 mg/kg), Cu varies from 1.7 to 126.1mg/kg (average of 42.9 mg/kg), Pb varies from 10.1 to 67.8 mg/kg (average of 38.3mg/kg), Sr varies from 46.6 to 150.6 mg/kg (average of 105.3mg/kg), V varies from 1.3 to 208.6 mg/kg (average of 54.4 mg/kg) and Zn varies from 43.5 to 687.6 mg/kg (average of 159.9 mg/kg). Soil contamination was assessed on the basis of geo- accumulation index, enrichment factor (EF), contamination factor and degree of contamination. Indiscriminate dumping of hazardous waste in the study area could be the main cause of the soil contamination, spreading by rainwater and wind…

[7] PMID:19837511 DOI: 10.1016/j.jhazmat.2009.09.024 [PubMed - indexed for MEDLINE]

Assessment Of Groundwater Quality Using Water Quality Index in Unnao District, Uttar Pradesh, India[8]

Unnao district having 16 different blocks namely Asoha, Auras, Bangarmau, Bighapur, Bichia, Fatehpur Chaurasi, Ganj Moradabad, Hasanganj, Hilauli, Miyanganj, Nawabganj, Purwa, Safipur, Sikanderpur Karan, Sikanderpur Sirausi and Sumerpur. Total 16 samples were taken for the determining the concentration of 11 physico-chemical parameters such as pH, Chloride, Fluoride, Nitrate, Sulphate, Total Hardness, Calcium, Magnesium, Total Dissolved Solid, Alkalinity and Iron, another parameter, Cr (VI) was also taken for determining its suitability for drinking purpose, as Unnao district is a hub of numerous industries which increases the possibility of contamination of groundwater due to Cr (VI), from each block 1 samples has been taken and assigned a unique sample code such as U1, U2, U3, U4, U4, U5, U6, U7, U8, U9, U10, U11, U12, U13, U14, U15 and U16 respectively. All samples were brought to the environmental laboratory of I.E.T., Lucknow for determining the concentration of selected physico-chemical parameters by Indian standard methods (IS 3025)

Cr (VI) was detected above its permissible limit at two sampling locations namely Bichhia block and Sikanderpur Sirausi, this may be due to illegal dumping of solid wastes in Bichhia block and along the national highway towards Kanpur in Sikanderpur Sirausi, where it was also observed from the samples that were taken, the water was slightly yellow in colour indicating the presence of Cr (VI).

The study concluded that the ground water in 4 blocks i.e. Bighapur, Purwa, Sikanderpur Sirausi and Sumerpur is highly unsuitable for drinking purpose as their corresponding GWQI values are more than 100. Due to the presence of chromium (VI) in two blocks above the permissible limit, it becomes the matter of concern for the safety of the inhabitants in that region as chromium is highly toxic to human beings. As mentioned above, only four blocks were in the domain of good drinking water, this also arises the need for ground water authority to take remedial measures in this regard. It can be overall concluded that the drinking water is quite unfit in certain areas but however with some adequate measures it can be prevented from further deterioration.

[8] Vipin Kumar Swaroop, N.B. Singh and Apoorv Verma, Assessment of Groundwater Quality Using Water Quality Index in Unnao District, Uttar Pradesh, India. International Journal of Civil Engineering and Technology, 9(8), **2018**, pp. 155- 165. http://www.iaeme.com/IJCIET/issues.asp?JType=IJCIET&VType=9&IType=8

WHETHER THE STATES HAVE VIOLATED ARTICLE 21 OF THE CONSTITUTION

Article 21- Protection of life and personal liberty- No person shall be deprived of his life or personal liberty except according to procedure established by law.

Vide several judgment, the Hon'ble Apex Court has explained the importance of right to healthy and dignified life that includes clean environment also.

In the case of *Francis Coralie Mullin v. Administrator, Union territory of Delhi*, (1981 SCR (2) 516), the Hon'ble Supreme Court explains in detail the wide and liberal interpretation of right to life

> "*…This principle of interpretation which requires that a Constitutional provision must be construed, not in a narrow and constricted sense but in a wide and liberal manner so as to anticipate and take account of changing conditions and purposes so that the Constitutional provision does not get atrophied or fossilized but remains flexible enough to meet the newly emerging problems and challenges, applies with greater force in relation to a fundamental right enacted by the Constitution. The fundamental right to life which is the most precious human right and which forms the ark of all other rights must therefore be interpreted in a broad and expansive spirit so as to invest it with significance and vitality which may endure for years to come and enhance the dignity of the individual and the worth of the human person. Now obviously, the right to life enshrined in Article 21 can not be restricted to mere animal existence. It means something much more than just physical survival.*
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> *In Kharak Singh v. State of Uttar Pradesh, Subba Rao J. quoted with approval the following passage from the judgment of Field J. in Munn v. Illinois to emphasize the quality of life covered by Article 21: 19 "By the term "life" as here used something more is meant than mere animal existence. The inhibition against its deprivation extends to all those limbs and faculties by which life is enjoyed. The provision equally prohibits the mutilation of the body or amputation of an arm or leg or the putting out of an eye or the destruction of any other organ of the body through which the soul communicates with the outer world."*

But the question which arises is whether the right to life is limited only to protection of limb or faculty or does it go further and embrace something more. We think that the right to life includes the right to live with human dignity and all that goes along with it, namely, the bare necessaries of life such as adequate nutrition, clothing and shelter and facilities for reading, writing and expressing one-self in diverse forms, freely moving about and mixing and commingling with fellow human beings. Of course, the magnitude and content of the components of this right would depend upon the extent of the economic development of the country, but it must, in any view of the matter, include the right to the basic necessities of life and also the right to carry on such functions and activities as constitute the bare minimum expression of the human-self. Every act which offends against or impairs human dignity would constitute deprivation protanto of this right to live and it would have to be in accordance with reasonable, fair and just procedure established by law which stands the test of other fundamental rights. Now obviously, any form of torture or cruel, inhuman or degrading treatment would be offensive to human dignity and constitute an inroad into this right to live and it would, on this view, be prohibited by Article 21 unless it is in accordance with procedure prescribed by law, but no law which authorises and no procedure which leads to such torture or cruel, inhuman or degrading treatment can ever stand the test of reasonableness and non-arbitrariness: it would plainly be unconstitutional and void as being violative of Articles 14 and 21. It would thus be seen that there 20 is implicit in Article 21 the right to protection against torture or cruel, inhuman or degrading treatment which is enunciated in Article 5 of the Universal Declaration of Human Rights and guaranteed by Article 7 of the International Covenant on Civil and Political Rights…"

2. In *Subhash Kumar v. State of Bengal* (AIR 1991 SC 420), the Hon'ble Apex Court held that enjoyment of pollution free environment is included in right to life under Art. 21.

3. In *Bandhua Mukti Morcha v. Union of India and Ors.* (1984) 4 SCC 583, the Hon'ble Supreme Court underlined the obligation of the State to ensure that the fundamental rights of weaker Sections of society are not exploited owing to their position in society. That the right to health is an integral part of the right to life does not need any repetition.

In the light of the above-mentioned observation of the Hon'ble Supreme Court, it can be stated that the fundamental right to life of people from Ganga River basin (as enshrined under Art. 21

of the Constitution of India) has been violated and the situation has become life threatening for victims of pollution owing to inaction and delayed progress made by the States in checking pollution in the Ganga River basin for decades now.

The inaction of States can be inferred from the order of Hon'ble Supreme Court while transferring the WP (C) 3727/ 1985 *MC Mehta v. Union of India* to Hon'ble NGT, vide order dated 29.10.2014:

> "*We regret to say that the intervention and sustained efforts made by us over the past 30 years notwithstanding no fruitful result has been achieved so far except the shutting down of some of the polluting units. This is largely because while orders have been passed by us their implementation remains in the hands of statutory authorities including the CPCB and the State PCBs which have done practically nothing to effectuate those orders or to take independent steps that would prevent pollution in the river. A total lack of monitoring by the statutory bodies has also contributed to the current state of affairs. The report of the Comptroller and Auditor General to the effect is a clear indictment of the statutory authorities and those at the helm of their affairs. There is no gainsaying that river Ganga has for the people of this country great significance not only in the spiritual or mythological sense but also in material terms for it sustains millions who are settled on its bank or eke out their living by tilling lands that are fertilized by its water.*
>
> *Despite the experience of the past we have not lost hope, for the Central Government appears to be resolute in its efforts to ensure that the Mission of cleaning the holy river is carried forward and accomplished. How far will the Government's renewed zeal make any difference on the ground is for anyone to guess. What is, however, clear is that if the mission has to succeed, all those concerned will have to rededicate themselves to the accomplishment of the cause that will not only cleanse the holy river but comfort millions of souls that are distressed by the fetid in what is believed to be so holy and pure that a dip in its water cleanses all sins. Statutory Authorities that are charged with the duty to prevent pollution need to monitor and take action where they find any breach of the law. Failure of the authority to do so may also have to be noted for such action as may be required under law. This may call for a closer monitoring of the performance of all concerned. Time constrains unfortunately do not allow us to do that on a continuing basis no matter we have over the past thirty years devoted enough*

time and energy in that direction. We are comforted by the thought that the National Green Tribunal has been established under the National Green Tribunal Act, 2010.

The Tribunal, it is evident from the provisions of the Act, has the power to take stock of the situation and pass necessary orders on the subject. It has the legislative mandate to undertake effective and speedy adjudication and disposal of issues touching preservation of environment by prevention of pollution. It is in the above backdrop that we consider it more appropriate to refer the issue relating to enforcement of the provisions of the statutes touching environment and its preservation arising out of discharge of industrial effluents into river Ganga to the National Green Tribunal. We are confident that the Tribunal which has several experts as its members and the advantage of assistance from agencies from outside will spare no efforts to effectively address all the questions arising out of industrial effluents being discharged into the river. This will include discharge not 22 only from the grossly polluting industries referred to in the earlier part of this order but also discharge from "highly polluting units" also. As regards the remainder of the matter concerning discharge of domestic sewage and other sources of pollution, we will for the present retain the same with us."

Right to Life under Occupational Hazards

In the case titled Consumer Education & Research Centre and others v. Union of India [1995 SCC (3) 42] vide judgment dated 27.01.1995, the Hon'ble Supreme Court observed that:

"26. The right to health to a worker is an integral facet of meaningful right to life to have not only a meaningful existence but also robust health and vigour without which worker would lead life of misery. Lack of health denudes his livelihood. Compelling economic necessity to work in an industry exposed to health hazards due to indigence to bread-winning to himself and his dependents, should not be at the cost of the health and vigour of the workman. Facilities and opportunities, as enjoined in Article 38, should be provided to protect the health of the workman. Provision for medical test and treatment invigorates the health of the worker for higher production or efficient service. Continued treatment, while in service or after retirement is a moral, legal and constitutional concomitant duty of the employer and the State. Therefore, it must be held that the right to health and medical care is a fundamental right under Article 21 read with Articles 39(c), 41 and 43 of the Constitution and make the life of the

workman meaningful and purposeful with dignity of person. Right to life includes protection of the health and strength of the worker is a minimum requirement to enable a person to live with human dignity. The State, be it Union or State government or an industry, public or private, is enjoined to take all such action which will promote health, strength and vigour of the workman during the period of employment and leisure and health even after retirement as basic essentials to live the life with health and happiness. The health and strength of the worker is an integral facet of right to life. Denial thereof denudes the workman the finer facets of life violating Art.21. The right to human dignity, development of personality, social protection, right to rest and leisure are fundamental human rights to a workman assured by the Charter of Human Rights, in the Preamble and Arts.38 and 39 of the Constitution. Facilities for medical care and health against sickness ensures stable manpower for economic development and would generate devotion to duty and dedication to give the workers' best physically as well as mentally in production of goods or services. Health of the worker enables him to enjoy the fruit of his labour, keeping him physically fit and mentally alert for leading a successful life, economically, socially and culturally. Medical facilities to protect the health of the workers are, therefore, the fundamental and human rights to the workmen.

27. Therefore, we hold that right to health, medical aid to protect the health and vigour to a worker while in service or post retirement is a fundamental right under Article 21, read with Articles 39(e), 41, 43, 48A and all related Articles and fundamental human rights to make the life of the workman meaningful and purposeful with dignity of person.

The employer is vicariously liable to pay damages is unquestionable. The award of compensation in proceedings under Article 32 or 226 is a remedy available in public law. In Rudul Sah v. State of Bihar, 1983(3) SCR 508, it was held that this Court under Article 32 can grant compensation for the deprivation of personal liberty, though ordinary process of court, may be available to enforce the right and money claim could be granted by this Court. Accordingly, compensation was awarded. This view was reiterated in Nilabati Behera v. State of Orissa, (1993) 2 SCC 746 and awarded monetary compensation for custodial death lifting the State immunity from the purview of public law. It is, therefore, settled law that in public law claim for compensation is a remedy available under Article 32 or 226 for the enforcement and protection of fundamental and human rights. The defence of sovereign immunity is inapplicable and

alien to the concept of guarantee of fundamental rights. Them is no question of de fence being available for constitutional remedy. It is a practical and inexpensive mode of redress available for the contravention made by the State, its servants, it instrumentalities, a company or a person in the purported exercise of their powers and enforcement of the rights claimed either under the statutes or licence issued under the statute or for the enforcement of any right or duty under the constitution or the law."

Violation of Laws

- ***UP Municipal Corporation Act, 1959***, clearly defines the functions and liabilities of Municipal corporations within the State under sections- 230-255- powers of municipal commissioner, construction and maintenance of drains; 263- Construction and Maintenance of Corporation Waterworks and Liability on negligence; 397- prohibition from cultivation, use of manure, irrigation injurious to health; 411- MC to take special measures on outbreak of any disease; 469- penalty to be imposed on offences committed by companies.. etc.
- ***Water (Prevention and control of pollution) Act 1974-*** section 24. Prohibition on use of stream or well for disposal of polluting matter, etc.; s. 25. Restrictions on new outlets and new discharges; 27. Refusal or withdrawal of consent by State Board; 32. Emergency measures in case of pollution of stream or well; 33. Power of Board to make application to courts for restraining apprehended pollution of water in streams or wells; 33A. Power to give directions.
- ***NGT Act, 2010***- Section 26 Penalty for failure to comply with orders of Tribunal; Sec. 27 offences by companies andSsec. 28 offences by Government.
- Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2016
- Air (Prevention and Control of Pollution) Act, 1981

WHETHER THE ACT OF STATES HAVE VIOLATED THE ENVRIONEMTNAL PRINCIPLES

1. State Pollution Control Board has levied Environmental compensation for contamination of natural resources and are awaiting payment. One such case is that of dumping chromium in Rania, Kanpur Dehat by six industries (in 1976), UP PCB levied Environmental Compensation @ 280.01 cr. It is still in the process of obtaining the same.

In the Indian Council for Enviro Legal Action v. Union of India (1996 SCC (3) 2120, the Hon'ble Supreme Court observed that-

> "…*We are convinced that the law stated by this Court in Oleum Gas Leak Case is by far the more appropriate one - apart from the fact that it is binding upon us. [We have disagreed with the view that the law stated in the said decision is obiter.] According to this rule, once the activity carried on is hazardous or inherently dangerous, the person carrying on such activity is liable to make good the loss caused to any other person by his activity irrespective of the fact whether he took reasonable care while carrying on his activity. The rule is premised upon the very nature of the activity carried on. In the words of the Constitution Bench, such an activity "can be tolerated only on the condition that the enterprise engaged in such hazardous or inherently dangerous activity indemnifies all those who suffer on account of the carrying on of such hazardous or inherently dangerous activity regardless of whether it is carried on carefully or not.*
>
> *The Constitution Bench has also assigned the reason for stating the law in the said terms. It is that the enterprise [carrying on the hazardous or inherently dangerous activity] alone has the resource to discover and guard against hazards or dangers - and not the person affected and the practical difficulty [on the part of the affected person] in establishing the absence of reasonable care or that the damage to him was foreseeable by the enterprise*."

2. Delayed project completion and inaction to introduce bioremediation or phyto remediation (other alternative treatments) for all untapped drains, not tapping drains, drains directly discharging sewerage into River Ganga and its tributaries, Failure of CETPs/ STPs- is a violation of Precautionary Principle as well as the Public Trust Doctrine.

3. Failure of STP/ CETP/ TSDF/ MSW facilities have resulted in closure of industries as well as caused immense pollution. The closure of industrial units has incurred State governments substantial revenue loss, and at the same time, the funds invested in River cleaning projects have also been exorbitantly high (with almost no improvement in water quality till date). The Governments have suffered economic brunt while creating health infrastructure in the critically polluted zones caused due to unabated contamination of natural resources – thus a violation of sustainable development and inter- generational equity.

The Apex Court made the following observation in Municipal Council, Ratlam v. Vardichand (1981 SCR (1) 97)-

> "*Where Directive Principles have found statutory expression in Do's and Don'ts the court will not sit idly by and allow municipal government to become a statutory mockery. The law will relentlessly be enforced and the plea of poor finance will be poor alibi when people in misery cry for justice.*
>
> *The dynamics of the judicial process has a new 'enforcement' dimension not merely through some of the provisions of the Criminal Procedure Code (as here), but also through activated tort consciousness. The officers in charge and even the elected representatives will have to face the penalty of the law if what the Constitution and follow-up legislation direct them to do are defied or denied wrongfully. The wages of violation is punishment, corporate and personal."*

WHETHER THE ENVIRONMENTAL PRINCIPLE OF POLLUTER PAYS WILL APPLY TO GOVERNMENT AGENCIES ALONGWITH THE INDUSTRIES/ TANNERIES

With reference to Ganga pollution case, the Hon'ble Apex Court made the following observation while passing transferring orders (to Hon'ble NGT) dated 29.10.2014-

> "*We regret to say that the intervention and sustained efforts made by us over the past 30 years notwithstanding no fruitful result has been achieved so far except the shutting down of some of the polluting units. This is largely because while orders have been passed by us their implementation remains in the hands of statutory authorities including the CPCB and the State PCBs which have done practically nothing to*

effectuate those orders or to take independent steps that would prevent pollution in the river."

The Hon'ble National Green Tribunal made the following observation in this case (amongst other) vide order dated 23.11.2021, noting that:

"*23. Thus, it is clear that challenge of cleaning Ganga remains inspite of monitoring by the Hon'ble Supreme Court and by this Tribunal for the last 36 years. Though, initiatives at the level of Central Government have been taken by way of Ganga Action Plans I & II and thereafter, setting up of NMCG, pollution of Ganga remains unabated. We note: i. No data showing reduction in pollution load and progressive improvement provided in terms of preventing discharge of sewage and other effluents and discharge of liquid and solid waste from different sources as a result of steps for treatment of sewage/effluents before discharge into Ganga directly or through various tributaries/drains.*"

In the light of the above definition and Hon'ble Court's observations, there is clear indication that there is violation of Article 21 of the Constitution of India along with the Environment (Protection) Act, 1986 and the Water (Prevention and Control of Pollution) Act, 1974. Therefore, the concerned Governments must be fined/ penalised for delayed action/ inaction in checking grievous contamination of the National River and its tributaries. The submissions also seek restoration and remediation of environment under section 15 and 20 of the NGT Act, 2010.

Polluter Pays Principle and its Applicability on Government Agencies

The Hon'ble Supreme Court in Indian Council for Enviro legal Action vs. Union of India and ors. (1996)3 SCC 212) observed:

"...The Polluter Pays Principle as interpreted by this Court means that absolute liability for harm to the environment extends not only to compensate the victims of pollution but also the cost of restoring the environmental degradation. Remediation of the damaged environment is a part of the process of sustainable development and as such polluter is liable to pay the cost to the individual sufferer as well as the cost of reversing the damaged ecology…."

In the case of Indian Council for Enviro legal Action v. Union of India and ors. dated 18/07/ 2011 [(2011) 12 SCC 768], second judgment was passed after a gap of 15 years owing to non-execution of previous judgment (04.11.1997) where penalty was levied upon the polluting industries in Rajasthan and the same was not submitted (from 1997- 2011). The Hon'ble Apex Court directed that-

> *"…Consequently, the applicant-industry is directed to pay Rs.37.385 crores along with compound interest @ 12% per annum from 4.11.1997 till the amount is paid or recovered.*
>
> *228. The applicant-industry is also directed to pay costs of litigation. Even after final judgment of this Court, the litigation has been kept alive for almost 15 years. The respondents have been compelled to defend this litigation for all these years. Enormous court's time has been wasted for all these years.*
>
> *229. On consideration of the totality of the facts and circumstances of this case, we direct the applicant-industry to pay costs of Rs.10 lakhs in both the Interlocutory Applications. The amount of costs would also be utilized for carrying out remedial measure in village Bichhri and surrounding areas in Udaipur District of Rajasthan on the direction of the concerned authorities.*
>
> *230. In case the amount as directed by this Court and costs imposed by this Court are not paid within two months, the same would be recovered as arrears of the land revenue…"*

Water (Prevention and Control of Pollution) Act, 1974

Liability of a polluter under Section 48 -

> **Sec 48. Offences by Government Departments**.-Where an offence under this Act has been committed by any Department of Government, the Head of the Department shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly:
>
> Provided that nothing contained in this section shall render such Head of the Department liable to any punishment if he proves that the offence was committed

without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

Section 24 of the Water Act deals with prohibition on use of stream or well for disposal of polluting matter, etc. It reads as under:

Section 24. Prohibition on use of stream or well for disposal of polluting matter, etc.--(1) Subject to the provisions of this section-

(a) no person shall knowingly **cause or permit** any poisonous, noxious or polluting matter determined in accordance with such standards as may be laid down by the State Board to enter (whether directly or indirectly) into any [stream or well or sewer or on land]; or

(b) no person shall knowingly **cause or permit** to enter into any stream any other matter which may tend, either directly or in combination with similar matters, to impede the proper flow of the water of the stream in a manner leading or likely to lead to a substantial aggravation of pollution due to other causes or of its consequences.

(2) A person shall not be guilty of an offence under sub-section (1), by reason only of having done or caused to be done any of the following acts, namely:

(a) constructing, improving or maintaining in or across or on the bank or bed of any stream any building, bridge, weir, dam, sluice, dock, pier, drain or sewer or other permanent works which he has a right to construct, improve or maintain;
(b) depositing any materials on the bank or in the bed of any stream for the purpose of reclaiming land or for supporting, repairing or protecting the bank or bed of such stream provided such materials are not capable of polluting such stream;
(c) putting into any stream any sand or gravel or other natural deposit which has flowed from or been deposited by the current of 'such stream;
(d) causing or permitting, with the consent of the State Board, the deposit accumulated in a well, pond or reservoir to enter into any stream.

(3) The State Government may, after consultation with, or on the recommendation of, the State Board, exempt, by notification in the Official Gazette, any person from the operation of sub-section (1) subject to such conditions, if any, as may be specified in

the notification and any condition so specified may by a like notification be altered, varied or amended.

Sec 25. Restrictions on new outlets and new discharges- (1) Subject to the provisions of this section, no person shall, without the previous consent of the State Board-

(a) establish or take any steps to establish any industry, operation or process, or any treatment and disposal system or any extension or addition thereto, which is likely to discharge sewage or trade effluent into a stream or well or sewer or on land (such discharge being hereafter in this section referred to as discharge of sewage); or
(b) bring into use any new or altered outlet for the discharge of sewage; or
(c) begin to make any new discharge of sewage:

Provided that a person in the process of taking any steps to establish any industry, operation or process immediately before the commencement of the Water (Prevention and Control of Pollution) Amendment Act, 1988, for which no consent was necessary prior to such commencement, may continue to do so for a period of three months from such commencement or, if he has made an application for such consent, within the said period of three months, till the disposal of such application.

(2) An application for consent of the State Board under sub-section (1) shall be made in such form, contain such particulars and shall be accompanied by such fees as may be prescribed.

(3) The State Board may make such inquiry as it may deem fit in respect of the application for consent referred to in sub-section (1) and in making any such inquiry shall follow such procedure as may be prescribed.

(4) The State Board may--

(a) grant its consent referred to in sub-section (1), subject to such conditions as it may impose, being-

(i) in cases referred to in clauses (a) and (b) of sub-section (1) of section 25, conditions as to the point of discharge of sewage or as to the use of that outlet or any other outlet for discharge of sewage;

(ii) in the case of a new discharge, conditions as to the nature and composition, temperature, volume or rate of discharge of the effluent from the land or premises from which the discharge or new discharge is to be made; and

(iii) that the consent will be valid only for such period as may be specified in the order, and any such conditions imposed shall be binding on any person establishing or taking any steps to establish any industry, operation or process, or treatment and disposal system of extension or addition thereto, or using the new or altered outlet, or discharging the effluent from the land or premises aforesaid; or

(b) refuse such consent for reasons to be recorded in writing.

(5) Where, without the consent of the State Board, any industry, operation or process, or any treatment and disposal system or any extension or addition thereto, is established, or any steps for such establishment have been taken or a new or altered outlet is brought into use for the discharge of sewage or a new discharge of sewage is made, the State Board may serve on the person who has established or taken steps to establish any industry, operation or process, or any treatment and disposal system or any extension or addition thereto, or using the outlet, or making the discharge, as the case may be, a notice imposing any such conditions as it might have imposed on an application for its consent in respect of such establishment, such outlet or discharge.

(6) Every State Board shall maintain a register containing particulars of the conditions imposed under this section and so much of the register as relates to any outlet, or to any effluent, from any land or premises shall be open to inspection at all reasonable hours by any person interested in, or affected by such outlet, land or premises, as the case may be, or by any person authorised by him in this behalf and the conditions so contained in such register shall be conclusive proof that the consent was granted subject to such conditions.

(7) The consent referred to in sub-section (1) shall, unless given or refused earlier, be deemed to have been given unconditionally on the expiry of a period of four months of the making of an application in this behalf complete in all respects to the State Board.

(8) For the purposes of this section and sections 27 and 30,--

(a) the expression "new or altered outlet" means any outlet which is wholly or partly constructed on or after the commencement of this Act or which (whether so constructed or not) is substantially altered after such commencement;

(b) the expression "new discharge" means a discharge which is not, as respects the nature and composition, temperature, volume, and rate of discharge of the effluent substantially a continuation of a discharge made within the preceding twelve months (whether by the same or a different outlet), so however that a discharge which is in other respects a continuation of previous discharge made as aforesaid shall not be deemed to be a new discharge by reason of any reduction of the temperature or volume or rate of discharge of the effluent as compared with the previous discharge.

The National Green Tribunal Act, 2010

Section 26. Penalty for failure to comply with orders of Tribunal.

(1) Whoever, fails to comply with any order or award or decision of the Tribunal under this Act, he shall be punishable with imprisonment for a term which may extend to three years, or with fine which may extend to ten crore rupees, or with both and in case the failure or contravention continues, with additional fine which may extend to twenty five thousand rupees for every day during which such failure or contravention continues after conviction for the first such failure or contravention:

Provided that in case a company fails to comply with any order or award or a decision of the Tribunal under this Act, such company shall be punishable with fine which may extend to twenty-five crore rupees, and in case the failure or contravention continues, with additional fine which may extend to one lakh rupees for every day during which such failure or contravention continues after conviction for the first such failure or contravention.

(2) Notwithstanding anything contained in the Code of Criminal Procedure, 1973 (2 of 1974) every offence under this Act shall be deemed to be non-cognizable within the meaning of the said Code.

Section 28- Offences by Government Department.

(1) Where any Department of the Government fails to comply with any order or award or decision of the Tribunal under this Act, the Head of the Department shall be deemed to be guilty of such failure and shall be liable to be proceeded against for having committed an offence under this Act and punished accordingly:

Provided that nothing contained in this section shall render such Head of the Department liable to any punishment if he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section *(1)*, where an offence under this Act has been committed by a Department of the Government and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of any officer, other than the Head of the Department, such officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Vicarious Liability

Black's Law Dictionary, (10th edition, 2014) defines Vicarious Liability as

"*Liability that a supervisory party (such as employer) bears for the actionable conduct of a subordinate or associate (such as employee) based on the relationship between two parties.- also termed as imputed liability*.."

P Ramanatha Aiyar, the Major Law Lexicon, defines vicarious liability as

"*A principal is liable for acts of his agent within the scope of his authority. A person may become liable for a prosecution instituted by his agent under his authority, expressed or implied. In such a case the malice of his agent will be imputed to him. It is this principle that a corporation is liable for this tort, though it has no mind and cannot be guilty of malice*."

In Byrne v. Ireland (1972) IR 241, Walsh, J. Opined at p 264:

"*In several parts in the Constitution duties to make certain provisions for the benefit of the citizens are imposed on the State in terms which bestow rights upon the citizens and, unless*

some contrary provision appears in the Constitution, the Constitution must be deemed to have created a remedy for the enforcement of these rights. It follows that, where the right is one guaranteed by the State, it is against the State that the remedy must be sought if there has been a failure to discharge the constitutional obligation imposed."

The Hon'ble Karnataka High Court explained in detail the concept of vicarious liability in case of water pollution in V.T. Wilson vs. Karnataka State Pollution Control Board (judgment dated 06.09.2019)

Facts of the case: Petitioner/accused No. 2 in this petition has sought to quash the entire proceedings in CC. No. 85/2014 on the file of learned Senior Civil Judge and JMFC, T. Narasipura, for the alleged offences punishable under sections 24 and 25 of the Water Prevention and Pollution Control Act, 1974 (hereinafter referred to as the "Water Act") punishable under sections 43 and 44 of the Water Act.

The material allegations against the petitioner is that, petitioner/accused No. 1 is a local body established in accordance with the provisions of the Karnataka Municipality Act, 1964 and accused No. 2 is working as Chief Officer of accused No. 1. The accused are under legal obligation to provide UGD system and to treat the sewage effluent generated within the limits of Town Panchayat before discharging into Kabini river water, in order to maintain the wholesomeness of water, in accordance with the provisions of the Karnataka Municipality Act of 1964 and sections 24, 25 and 26 of the Water Act.

Observation:

"*16. The law on this point is now well-settled. It may be useful to refer to a recent decision of the Hon'ble Supreme Court in Shiv Kumar Jatia v. State of NCT of Delhi, Criminal Appeal No. 1263/2019 (arising out of S.L.P. (Crl.) No. 8008/2018 decided on 23.8.2019.*

In the absence of any specific allegations of negligence with criminal intent, in that context, the Hon'ble Supreme Court in para 27 and 29 has observed as under:

"27. The liability of the Directors/the controlling authorities of company, in a corporate criminal liability is elaborately considered by this Court in the case of Sunil Bharti Mittal. In the aforesaid case, while considering the circumstances when Director/person in charge of the affairs of the company can also be prosecuted, when

the company is an accused person, this Court has held, a corporate entity is an artificial person which acts through its officers, Directors, Managing Director, Chairman, etc. If such a company commits an offence involving mens rea, it would normally be the intent and action of that individual who would act on behalf of the company. At the same time it is observed that it is the cardinal principle of criminal jurisprudence that there is no vicarious liability unless the Statute specifically provides for. It is further held by this Court, an individual who has perpetrated the commission of an offence on behalf of the company can be made an accused, alongwith the company, if there is sufficient evidence of his active role coupled with criminal intent. Further it is also held that an individual can be implicated in those cases where statutory regime it-self attracts the doctrine of vicarious liability, by specifically incorporating such a provision.

29. By applying the ratio laid down by this Court in the case of Sunil Bharti Mittal it is clear that an individual either as a Director or a Managing Director or Chairman of the company can be made as accused, alongwith the company, only if there is sufficient material to prove his active role coupled with the criminal intent. Further the criminal intent alleged must have direct nexus with the accused. Further in the case of Maksud Saiyed v. State of Gujarat and others this Court has examined the vicarious liability of Directors for the charges leveled against the Company. In the aforesaid judgment this Court has held that, the Penal Code does not contain any provision for attaching vicarious liability on the part of the Managing Director or the Directors of the company, when the accused is a Company. It is held that vicarious liability of the Managing Director and Director would arise provided any provision exists in that behalf in the Statute. It is further held that Statutes indisputably must provide fixing such vicarious liability. It is also held that, even for the said purpose, it is obligatory on the part of the complainant to make requisite allegations which would attract the provisions constituting vicarious liability."

17. The principles laid down in the above decision, in my view, squarely apply to the facts of the case. Petitioner/accused No. 2 being the Chief Officer of Town Panchayath/accused No. 1 is liable to be prosecuted for the alleged offences. As a result, petitioner/accused No. 2 is liable for prosecution for the alleged offences

punishable under sections 24 and 25 of the Water Prevention and Pollution Control Act, 1974 punishable under sections 43 and 44 of the same Act."

Hon'ble Supreme Courts observation in case titled M.C. Mehta vs. Kamal Nath and Ors. (13.12.1996) w.r.t Public Trust Doctrine:

"17. The Public Trust Doctrine primarily rests on the principle that certain resources like air, sea, waters and the forests have such a great importance to the people as a whole that it would be wholly unjustified to make them a subject of private ownership. The said resources being a gift of nature. They should be made freely available to everyone irrespective of the status in life. The doctrine enjoins upon the Government to protect the resources for the enjoyment of the general public rather than to permit then-use for private ownership or commercial purposes.

According to Professor Sax the Public Trust Doctrine imposes the following restrictions on governmental authority.

> *Three types of restrictions on governmental authority are often thought to be imposed by the public trust: first, the property subject to the trust must not only be used for a public purpose, but it must be held available for use by the general public; second, the property may not be sold, even for a fair cash equivalent; and third, the property must be maintained for particular types of uses.*

29. Coming to the facts of the present case, large area of the bank of river Beas which is part of protected forest has been given on a lease purely for commercial purposes to the Motels. We have no hesitation in holding that the Himachal Pradesh Government committed patent breach of public trust by leasing the ecologically fragile land to the Motel management. Both the lease - transactions are in patent breach of the trust held by the State Government. The second lease granted in the year 1994 was virtually of the land which is a part of river-bed. Even the board in its report has recommended delousing of the said area."

Further observation of Hon'ble Supreme Court in M.C. Mehta vs. Kamal Nath and Ors. (15.03.2002)

"7. This Court, on the earlier occasions, after adverting to the pleadings, relevant documents and the technical report of the Central Pollution Control Board, enumerated the various activities of the Span Motels considered to be illegal and constituted "callous interference with the natural flow of river Bias" resulting in the degradation of the environment and for that purpose indicted them with having "interfered with the natural flow of the river by trying to block the natural relief/spill channel of the river". We do not want to burden this judgment once again by repeating them in extenso. Equally, the Himachal Pradesh Government also was held to have committed patent breach of public trust by leasing the ecologically fragile land to the Motel. It is only on such findings, the "polluter prays" principle as interpreted by this Court with liability for harm to compensate not only the victims but also the cost of restoring the environmental degradation and reversing the damaged ecology was held applicable to this case. Those findings rendered earlier were held to be "final and no argument can be permitted to be addressed in that respect" and the only question that remained left is the "determination of quantum of compensation and further whether the fine in addition be imposed, if so, the quantum of fine". Therefore, not only it is impermissible for the counsel for the Motel or anyone else to claim for a reversal of those findings or any reconsideration of the nature, character and legality or propriety of those activities of SMPL but we feel bound by them and not persuaded to proceed on a clean slate, by-passing the exercise earlier undertaken and the conclusions firmly recorded in this regard."

WHETHER THERE IS A NEED TO REDEFINE SUSTAINABLE DEVELOPMENT

1) Ecologically Sustainable Development concept- The original concept of sustainable development articulated in Our Common Future is of "*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*". This concept was based more on the lines of "economic" sustainable development with lesser emphasis on Environment. However, in the era of global warming, climate change and rapid industrialisation, we need to make the doctrine of sustainable development more inclined towards the conservation of nature rather than its "just" exploitation.

[9]The Australian National Strategy for Ecologically Sustainable Development defines ESD as "development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends". Ecologically sustainable development (ESD) involves a cluster of elements or principles. These principles, if implemented, may ultimately realise a paradigm shift from a world in which the development of the environment occurs without regard to environmental consequences, to one where a culture of sustainability extends to government, private development interests, communities and individuals.

Six principles are worth highlighting:

a) Principle of Sustainable Use- Natural resources should be used in a manner which is "sustainable" or "prudent" or "rational" or "wise" or "appropriate".

b) Principle of Integration- requires the effective integration of economic and environmental considerations in the decision-making process. This was the philosophical underpinning of the report '*Our Common Future'*, that the ecologically harmful cycle caused by economic development without regard to and at the cost of the environment could only be broken by integrating environmental concerns with economic goals. The principle of integration has been refined recently to add social development to economic development and environmental protection.

c) Precautionary Principle- involves assessment of risk in its usual formulation, namely the probability of the event occurring and the seriousness of the consequences should it occur. The more significant and the more uncertain the threat, the greater the degree of precaution required. The precautionary principle should not be viewed in isolation, but rather as part of the package of principles of ESD.

d) Inter-Generational and Intra-Generational Equity- Inter-generational equity requires the present generation to ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations. Intra-generational equity involves considerations of equity within the present generation. Its

[9] https://lec.nsw.gov.au/documents/speeches-and papers/preston_principles%20of%20ecologically%20sustainable%20development.pdf, Principles of Ecologically Sustainable Development by The Hon. Justice Brian J Preston, Australia.

people within the present generation having equal rights to benefit from the use of natural resources and from the enjoyment of a clean and healthy environment.

e) Conservation of Biological Diversity and Ecological Integrity- ESD mandates that the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making, including in the formulation, adoption and implementation of any economic and other development plan, program or project.

f) Internalisation of External Environmental Costs- requires accounting for both the short term and long term external environmental costs. Environmental factors should be included in the valuation of assets and services. The users of goods and services should pay prices based on the full life cycle of the costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste (it'll introduce polluter pays principle into the life of each individual with a carbon footprint).

2) In para 55. of [10]Bandhua Mukti Morcha v. UoI vide judgment dated 16.12.1983, the Hon'ble Supreme Court observed that

"…*Amidst this welter of agitated controversy, I think it appropriate to set down a few considerations which seem to me relevant if public interest litigation is to command broad acceptance. The history of human experience shows that when a revolution in ideas and in action enters the life of a nation, the nascent power so released possesses the potential of throwing the prevailing social order into disarray. In a changing society, wisdom dictates that reform should emerge in the existing polity as an ordered change produced through its institutions. Moreover, the pace of change needs to be handled with care lest the institutions themselves be endangered*."

[10] Bandhua Mukti Morcha vs. Union of India (UOI) and Ors. (16.12.1983 - SC)

SUGGESTIONS

1) Safe disposal of Chromium and remediation of groundwater and soil- The project can be outsourced to the third party with strict accountability set on it or it may be taken by NMCG with assistance from third party and the DM (Kanpur dehat) in consultation with the IIT, Delhi or Bombay.

2) Cumulative Impact assessment as well as Carrying Capacity of industrial areas (Kanpur-Unnao belt) must be undertaken/ considered before granting permission for setting up of any water polluting unit/ industry in the Ganga River basin. All projects in this region should require compulsory prior Environmental Clearance supported by an Environmental Impact Assessment and Cost Benefit Analysis.

3) Groundwater contamination, salinity and dark zones- No new construction or development activity be allowed in such area and restoration work alongwith water harvesting programmes must be initiated.

4) Water Quality Monitoring Index must include all biological, chemical, physical parameter for assessment of river health like FC, TC, pH, turbidity, electrical conductivity (EC), total dissolved solids (TDS), total alkalinity (TA), total hardness (TH)and calcium hardness (Ca-H), chemical oxygen demand (COD), biochemical oxygen demand (BOD), Pathogens, algae, chlorophyl count, bacteria, phytoplankton, dissolved oxygen (D.O.), sulphate (as SO4 2-), nitrate (as NO3) and chloride (Cl-), fluoride, arsenic levels. Some heavy metals like Iron, Zinc, Cadmium, Mercury, Nickel, lead and Chromium. temperature, turbidity, light transmission, sechi disk transmission etc. Similarly, GWQI (ie Ground water quality Index) with detailed parameters must be undertaken.

   This detailed WQMI/ GWQI may be published every 6 months or yearly in the local/ regional newspaper of the concerned area apart from State and Central Pollution control websites. This will raise awareness amongst the masses as well as preparedness in case of contamination.

5) All the industries/tanneries in the impugned area may be advised to compulsorily insure the employees/ labours working in their respective industries, excluding those already covered by the Employees State Insurance Act and the Workmen Compensation Act so as to entitle the workmen to get adequate compensation for occupational hazards or diseases or death.

6) Public awareness by making NGT orders available in regional language to all Ganga districts/ villages through DM, Panchayats, hospitals, government schools and Aanganwadis. In the case *of Bandhua Mukti Morcha v. UoI* (1984) 3 SCC 161 judgment dated 16.12.1983, the Hon'ble Supreme Court observed that

> *"…the affirmative schemes framed in public interest litigation by the Court sometimes require detailed administration under constant judicial supervision over protracted periods. The lives of large sections of people, some of whom have had no voice in the decision, are shaped and ordered by mandatory Court action extending into the future. In that context, it is as well to remember that public approval and public consent assume material importance in its successful implementation. In contrast with policy making by legislation, where a large body of legislators debate on a proposed legislative enactment, no such visual impact can be perceived when judicial decrees are forged and fashioned by a few judicial personages in the confines of a Court. The mystique of the robe, at the stage of decision-making, is associated traditionally with cloistered secrecy and confidentiality and the end-result commonly issues as a final definitive act of the Court. It is a serious question whether in every case the same awesome respect and reverence will endure during different stages of affirmative action seeking to regulate the lives of large numbers of people some of whom never participated in the judicial process."*

AND FOR THIS ACT OF KINDNESS, THE ADVOCATE AS IN DUTY BOUND SHALL EVER BE GRATEFUL.

Dated: 30/07/2022

Through
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DECEMBER 2015
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE

INVENTORY AND MAPPING OF PROBABLY CONTAMI-NATED SITES IN INDIA

TASK 1: EXISTING DATA AND GENERAL INFORMATION ON CONTAMINATED SITES
FINAL REPORT

Kadam Environmental Consultants
www.kadamenviro.com
Environment for Development

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Appendix J List of 320 probably contaminated sites (updated 21 December 2015)

State	Serial number	Site ID	Site Name	Address	Land use (current)	Type of contamination "	"Industrial processes" which caused the contamination	Contaminants of Concern	Site Inspection performed	Confirmed site*	Major source of information (Institutions) which have appointed the site as a "Probably contaminated site"
	219	RJ-313-1	Village Bichhadi, Block Girva, Rajasthan	Village Bichhadi, Block Girva, Rajasthan-313024	Industrial	Hazardous Waste	17. Production of mineral acids, 26. Production or industrial use of synthetic dyes, dye-intermediates and pigments, 18. Production of nitrogenous and complex fertilizers	Arsenic, Cadmium, Cr- total, Cr VI, Lead, Mercury, zinc, copper	Yes	Yes	Included in National List of Hazardous Waste Contaminated Dump Sites in the Country By CPCB Rajasthan Pollution Control Board
	220	RJ-313-6	Mewar Industrial area, University New Campus Road, Udaipur, Rajasthan	Mewar Industrial area, University New Campus Road, Udaipur, Rajasthan-313001	Mixed (Industrial, Habitation settlement)	Hazardous Waste	29. Production, andformulation of pesticides including stock-piles, 37. Others (Mining,Zinc smelter, factories, phosphate fertilizer factories)	Lead, Copper, Nickel, Zinc	No	Pending	Blacksmith Institute(IN-2035)
	221	RJ-313-7	Rajpur Dariba mines,District-Rajasmand,Rajasthan	Rajpur Dariba mines,District-Rajasmand,Rajasthan-313324	Industrial	Hazardous Waste	Mining -zinc and lead	Lead	No	Pending	Blacksmith Institute(IN-2424)
	222	RJ-344-1	Sokarna village, Balotra, Rajasthan	Sokarna village, Balotra, Rajasthan-344022	Mixed (Industrial, Habitation settlement)	Effluent	26. Production or industrial use of synthetic dyes, dye-intermediates and pigments	Asbestos, Aromatic Hydrocarbons (Benzene, Toluene), Benzidine, VOCs(Trichloroethene, Vinylchloride), Phenol , Chromium, Lead, Zinc,	No	Pending	Centre for Environment Education (CEE), Bl
Tamil Nadu	223	TN-632-16	Peranampattu Pond Site, Vellore Tamilnadu	Peranampattu Pond Site, Vellore Tamilnadu-632001	Water bodies	Effluent	30. Leather tanneries	Chromium	No	Pending	Blacksmith Institute(IN-2107)
	224	TN-600-1	Manali, Chennai, Tamil Nadu	Manali, Chennai, Tamil Nadu-600068	Mixed (Industrial, Habitation settlement)	Air	13. Production of iron and steel, 14. Hardening of steel, 4. Petroleum refining/re-processing of used oil/recycling of waste oil, 18. Production of nitrogenous and complex fertilizers	Sulfur Dioxide	No	Pending	Blacksmith Institute(IN-1100)
	225	TN-600-2	Perumgudi, Chennai	Perumgudi, Chennai-600035	Other (MSW Landfill site)	Municipal Solid Waste	37. Others (Muncipal Soild Waste Dumping)	Nitrate, Silica, Chromium, Nickel, Copper, Copper Cadmium, Zinc, Chloride, Sulphate	No	Pending	Centre for water resources, Anna University, Chennai
	226	TN-607-1	Eachangadu, Cuddalore, Tamil Nadu,	Eachangadu, Cuddalore, Tamil Nadu, 607001	Waste Land	Hazardous Waste	21. Production and/or industrial use of paints, pigments lacquers, varnishes, plastic and inks, 24. Production of canvas and textiles, 26. Production or industrial use of synthetic dyes, dye-intermediates and pigments, 28. Production/formulation of drugs/pharmaceuticals & health care product	Mercury	Yes	Yes #	Black Smith Institute(IN-1099), Kadam
	227	TN-624-1	Hindustan Unilever Ltd , Kodaikanal ,Tamil Nadu	Hindustan Unilever Ltd , Kodaikanal ,Tamil Nadu 624103	Industrial	Hazardous Waste	37. Other(Thermometer manufacturing)	Mercury	Yes	Yes	List Of Hazardous Waste Contaminated Dump Sites In the Country By CPCB Kadam, CPCB, MoEF
	228	TN-631-2	Karunguri Village, Kancheepuram, Tamil Nadu	Karunguri Village, Kancheepuram, Tamil Nadu-631501	Mixed (Industrial, Habitation settlement)	Hazardous waste	28. Production/formulation of drugs/pharmaceuticals & health care product	Lead	No	Pending	Blacksmith Institute (IN-2331)
	229	TN-631-3	Kancheepuram, Tamil Nadu	Kancheepuram, Tamil Nadu-631501	Mixed (Industrial and Habitation settlement)	Hazardous waste	31. Electronic Industry, 24. Production of canvas and textiles	Lead	No	Pending	Blacksmith Institute (IN-2332)
	230	TN-631-4	Tirukalimedu Village, Kanchipuram,Tamil Nadu	Tirukalimedu Village, Kanchipuram,Tamil Nadu-631501	Mixed (Industrial and Habitation settlement)	Hazardous waste	30. Leather tanneries, 26. Production or industrial use of synthetic dyes, dye-intermediates and pigments	Lead	No	Pending	Blacksmith Institute(IN-2296)
	231	TN-632-1	Plot No. 25 of SIPCOT industrial estate along the NH4, Ranipet , Tamil Nadu (Waste dumped in front and back of TCCL premises.)	Plot No. 25 of SIPCOT industrial estate along the NH4, Ranipet , Tamil Nadu (Waste dumped in front and back of TCCL premises.) pincode-632401	Other (Dumpsite)	Hazardous Waste	37. Other (chemical manufacturing)	Chromium, Hexavalent Chromium	Yes	Yes	List Of Hazardous Waste Contaminated Dump Sites In The Country By CPCB
	232	TN-632-25	Walajapet Lake Water Polluted Site, Vellore, Tamilnadu	Walajapet Lake Water Polluted Site, Vellore, Tamilnadu-632513	Water bodies	Hazardous Waste	30. Leather tanneries	Chromium	No	Pending	Blacksmith Institute(IN-2108)
	233	TN-632-3	Vallayambattu, Vadiumbadi, Vellore, Tamilnadu	Vallayambattu, Vadiumbadi, Vellore, Tamilnadu Pincode -632513	Other (CETP and Sludge Dump Site)	Hazardous Waste	30. Leather tanneries, 37. Other (CETP)	Chromium, Hexavalent Chromium	Yes	Yes #	Tamil Nadu Pollution Control Board, Blacksmith Institute
	234	TN-632-6	Ranipet, Tamilnadu	Ranipet, Tamilnadu-632401	Mixed (Industrial and Habitation settlement)	Hazardous Waste	37. Other (chemical manufacturing)	Chromium	No	Pending	Blacksmith Institute (IN-2372)
	235	TN-640-1	Tirupur, Tamil Nadu	Tirupur, Tamil Nadu	Industrial	Effluent	24. Production of canvas and textiles, 26. Production or industrial use of synthetic dyes, dye-intermediates and pigments	Chlorine, Sulphate, Manganese	Yes	Yes #	Kadam Co-ordinator
	236	UP- 201-1	Sahibabad Industrial Area	Sahibabad Industrial Area Uttar Pradesh 201010	Mixed (Industrial and Habitation settlement)	Effluent	37. Other (temporarily storage of hazardous waste e.g. production of rubber, electrical components, dyes, oil sludge, electric cables aluminium sludge and lube oil etc., Heavy Metal- Casting and Rolling)	Chromium, other Heavy Metals	Yes	Yes #	Blacksmith Institute (IN-2152 Kadam Environment Consultant
	237	UP-201-2	Bhuapur Village, Kaushambhi, Gaziabad, Uttar Pradesh	Bhuapur Village, Kaushambhi, Gaziabad, Uttar Pradesh-201010	Mixed (Industrial,Habitation settlement)	Effluent	26. Production or industrial use of synthetic dyes, dye-intermediates and pigments, 12- Metal surface treatment, such as etching, staining, polishing, galvanising, cleaning, degreasing, plating, etc.	Hexavalent Chromium, Chromium	No	Yes	Blacksmith Institute (IN-1039)
	238	UP-201-3	Industrial Area Meerut Road, Ghaziabad, Uttar Pradesh	Industrial Area Meerut Road, Ghaziabad, Uttar Pradesh201003	Industrial	Hazardous Waste, Effluent	20. Production and/or industrial use of solvents, 21. Production and/or industrial use of paints, pigments lacquers, varnishes, plastic and inks, 26. Production or industrial use of synthetic dyes, dye-intermediates and pigments, 37. Other (Heavy Metal Industry), 12- Metal surface treatment, such as etching, staining, polishing, galvanising, cleaning, degreasing, plating, etc.	Hexavalent Chromium, Chromium	No	Yes	Blacksmith Institute (IN-2177)

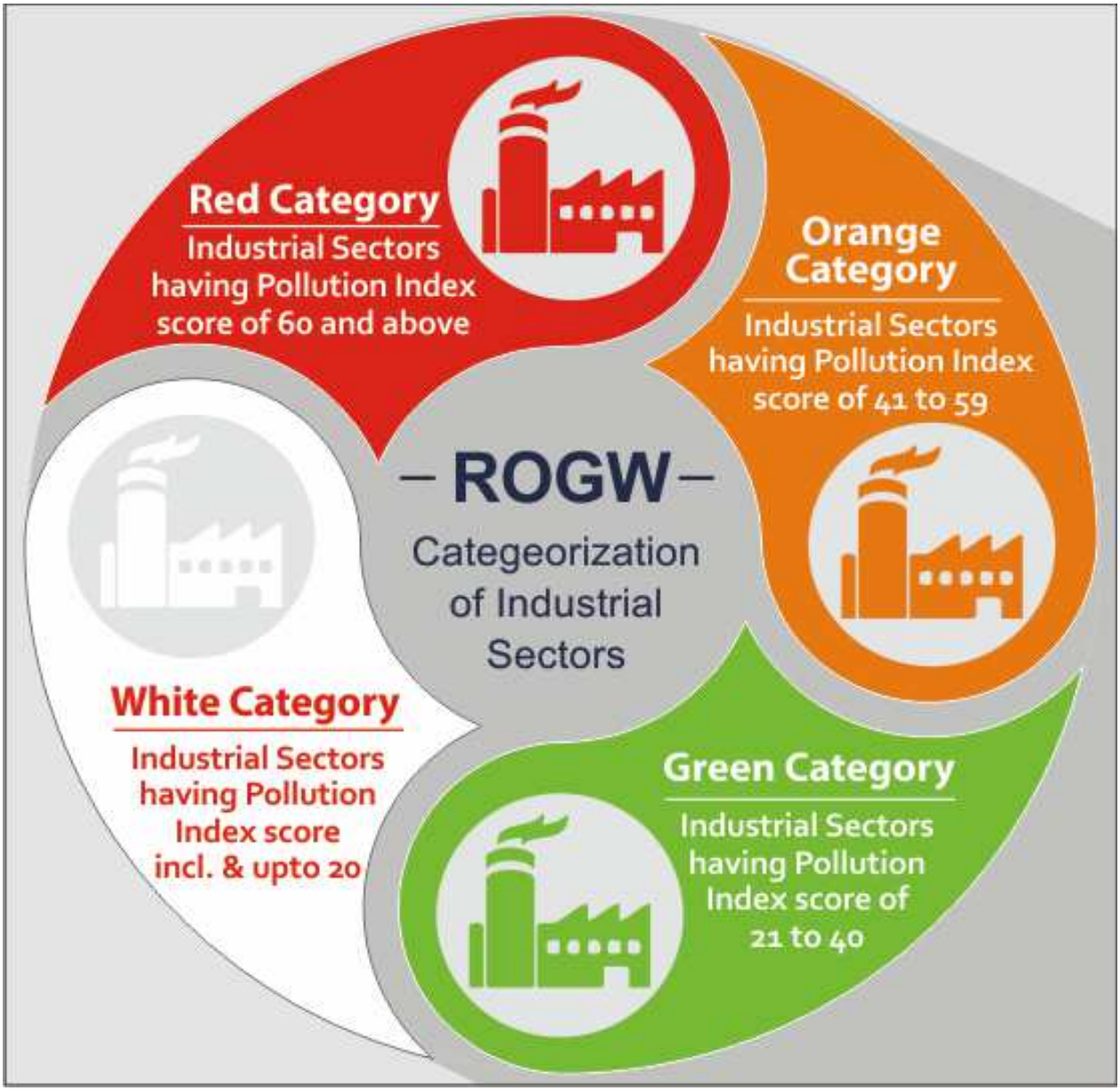
Appendix J List of 320 probably contaminated sites (updated 21 December 2015)

State	Serial number	Site ID	Site Name	Address	Land use (current)	Type of contamination "	"Industrial processes" which caused the contamination	Contaminants of Concern	Site Inspection performed	Confirmed site*	Major source of information (Institutions) which have appointed the site as a "Probably contaminated site"
Uttar Pradesh	239	UP-201-9	Lohia Nagar C Block, Ghaziabad	Lohia Nagar C Block, Ghaziabad-201003	Mixed (Industrial,Habitation settlement)	Hazardous Waste	20. Production and/or industrial use of solvents, 21. Production and/or industrial use of paints, pigments lacquers, varnishes, plastic and inks, 26. Production or industrial use of synthetic dyes, dye-intermediates and pigments, 37. Other (Heavy Metal Industry), 12- Metal surface treatment, such as etching, staining, polishing, galvanising, cleaning, degreasing, plating, etc.	Hexavalent Chromium, Chromium	Yes	Yes	Information given by CPCB Information has been given by Mr TU Khan Regional Officer UPPCB, Kanpur,
	240	UP-224-1	Devri Village, Moradabad	Village-Devri, Tehsil Billari Dist. Moradabad (U.P.) 244001	Habitation settlement	Effluent	32. Pulp & Paper Industry 26. Production or industrial use of synthetic dyes, dye-intermediates and pigments 12- Metal surface treatment, such as etching, staining, polishing, galvanising, cleaning, degreasing, plating, etc.	Lead	No	Pending	Blacksmith Institute (IN-1468)
	241	UP-224-2	Karula Nala(Drain), Moradabad	Karula Nala (Drain), Moradabad, Uttar Pradesh Pin 244001	Water bodies	Effluent	12- Metal surface treatment, such as etching, staining, polishing, galvanising, cleaning, degreasing, plating, etc. (Brassware and Steelware industries)	Chromium	No	Pending	Blacksmith Institute (IN-1467)
	242	UP-204-1	Shakti Nagar, Aligarh	Shakti Nagar, Gullar Road, Aligarh, Uttar Pradesh	Habitation settlement	Effluent	12- Metal surface treatment, such as etching, staining, polishing, galvanising, cleaning, degreasing, plating, etc.	Chromium, Lead, Cadmium, Arsenic	Yes	Yes #	Blacksmith Institute (IN-1620)
	243	UP-208-10	Motipur Village, Chakeri Ward, Near Jajmau Industrial Area, Kanpur	Motipur Village, Chakeri Ward, Near Jajmau Industrial Area, Kanpur-208010	Habitation settlement	Effluent, Hazardous Waste	30. Leather tanneries	Hexavalent Chromium	No	Pending	Blacksmith Institute (IN-1867)
	244	UP-208-12	Tejab Mill Campus, Anwarganj, Kanpur	Tejab Mill Campus, Anwarganj, Kanpur- 208003	Habitation settlement	Hazardous Waste	17. Production of mineral acids	Hexavalent Chromium, Chromium, Sulphide	Yes	Yes	Kadam Environment Consultants, Blacksmith Institute (IN-893)
	245	UP-208-13	Bharat Oil and Waste Management, Kanpur	Bharat Oil and Waste Management, Kanpur-208024	Industrial	Hazardous Waste	Not Known	Not Known	No	Yes	Regional Officer, Kanpur
	246	UP-208-14	Jajmau Industrial Area, Kanpur	Jajmau Industrial Area, Kanpur, Uttar Pradesh-208010	Industrial	Effluent, Hazardous Waste	30. Leather tanneries	Chromium, Barium, Copper, Lead ,Strontium,Vanedium ,Zinc	No	Yes	Blacksmith Institute (IN-1979)
	247	UP-208-15	Khanchandrapuri, Rania Kanpur Dehat	Khanchandrapuri,Rania Kanpur Dehat Uttar Pradesh-209304	Agricultural land	Hazardous Waste	37. Other (Basic chrome sulphate)	Chromium, Cadmium, Heavy metals	Yes	Yes	List Of Hazardous Waste Contaminated Dump Sites In The Country By CPCB – site no. 23
	248	UP-208-2	Rooma-Treatment Storage Disposal Facility, Kanpur	Rooma-Treatment Storage Disposal Facility, Kanpur-208001	Other (TSDF)	Hazardous Waste	36. Hazardous waste treatment processes, e.g. incineration, distillation, separation and concentration techniques	Hexavalent Chromium, Chromium, Arsenic, Cadmium	No	Yes	Blacksmith Institute (IN-2017)
	249	UP-208-3	Nauriaya Kheda Kanpur	Nauriaya Kheda Kanpur -208022	Mixed (Industrial, Habitation settlement)	Hazardous Waste	37. Other (Basic chrome sulphate)	Hexavalent Chromium, Chromium, Zinc, Sulfate,	Yes	Yes	List Of Hazardous Waste Contaminated Dump Sites In The Country By CPCB – site no 20
	250	UP-208-4	Juhi Baburaiya (Rakhi Mandi), Kanpur	Juhi Baburaiya (Rakhi Mandi), Kanpur-208003	Mixed (Industrial, Habitation settlement)	Hazardous Waste	30. Leather tanneries, 26. Production or industrial use of synthetic dyes, dye-intermediates and pigments, 24. Production of canvas and textiles, 17. Production of mineral acids, 37. Other (Chromium sulphate manufacturing)	Chromium , Heavy metals	Yes	Yes	List Of Hazardous Waste Contaminated Dump Sites In The Country By CPCB (Ten priority sites List) –site no. 21
	251	UP-208-5	Panki Industrial Area, Kanpur	Panki Industrial Area, Kanpur208022	Waste land	Hazardous Waste	30. Leather tanneries; 24. Production of canvas and textiles, 26. Production or industrial use of synthetic dyes, dye-intermediates and pigments, 18. Production of nitrogenous and complex fertilizers	Chromium, Lead, Zinc, Fluoride, Nitrate, Sulphate	Yes	Yes	List Of Hazardous Waste Contaminated Dump Sites In The Country By CPCB – site no. 22 UPPCB, Lucknow, Indian Institute of toxicology, Lucknow
	252	UP-208-6	Shivnathpura, Rania , (Kanpur Dehat) Ramabai Ngar, Kanpur, Uttar Pradesh	Shivnathpura, Rania , (Kanpur Dehat) Ramabai Ngar, Kanpur, Uttar Pradesh-209304	Agricultural land	Hazardous Waste	37. Other (Basic chrome sulphate)	Chromium, Cadmium, Heavy metals	Yes	Yes	Kadam Environment Consultants
	253	UP-208-9	Wajidpur, Kanpur	Wajidpur, Kanpur, Uttar Pradesh-208010	Mixed (Industrial, Habitation settlement)	Hazardous Waste	23. Production and/or industrial use of glues, cements, adhesive and resins, 30. Leather tanneries, 21. Production and/or industrial use of paints, pigments lacquers, varnishes, plastic and inks, 20. Production and/or industrial use of solvents	Hexavalent Chromium, Chromium	No	Yes	Blacksmith Institute (IN-936)
	254	UP-209-1	Magarwara Industrial Area, Unnao	Magarwara Industrial Area, Unnao, Uttar Pradesh	Industrial	Effluent, Hazardous Waste	30. Leather tanneries	Chromium, Barium, Copper, Lead , Strontium, Vanedium, Zinc	No	Yes	Blacksmith Institute (IN-2018)
	255	UP-209-2	Shivnagar Colony, Unnao	Shivnagar Colony, Unnao- 209862	Mixed (Industrial, Habitation settlement)	Hazardous Waste	30. Leather tanneries	Chromium, Arsenic, Fluoride	No	Yes	Blacksmith Institute (IN-937)
	256	UP-211-1	Hindustan Laboratories, UPSIDC, Industrial Area, Naini, Allahabad	Hindustan Laboratories, UPSIDC, Industrial Area, Naini, Allahabad-211008	Industrial	Hazardous Waste	Not Known	Not Known	No	Yes	Blacksmith Institute (IN-2617)
	257	UP-212-1	Ashapur Village, Fatehpur	Ashapur Village, Fatehpur- 212631	Agricultural land	Hazardous Waste	37. Other (Mixed Industries)	Chromium	No	Yes	Blacksmith Institute (IN-2021)
	258	UP-212-2	Gudhrauly Village, Fatehpur	Gudhrauly Village, Fatehpur-212601	Agricultural land	Hazardous Waste	37. Other (Mixed Industries)	Chromium	No	Yes	Blacksmith Institute(IN-2022)
	259	UP-212-3	Ranipur Village, Fatehpur	Ranipur Village, Fatehpur pincode-212641	Agricultural land	Hazardous Waste	37. Other (Mixed Industries)	Chromium	No	Yes	Blacksmith Institute (IN-2020)
	260	UP-221-1	Babusarai, District Bhadohi	Babusarai, District Bhadohi-Uttar Pradesh - 221314	Mixed (Industrial, Habitation settlement)	Effluent,Hazardous waste	37. Other(Carpet manufactiring)	Hexavalent Chromium, Chromium , Arsenic, Cadmium	No	Yes	Blacksmith Institute (IN-1062)
	261	UP-226-1	Chakar Village Chinhat, Lucknow	Chakhar village, Chinhat, Lucknow, Uttar Pradesh-226028	Agricultural land	Hazardous Waste	29. Production, andformulation of pesticides including stock-piles	Pesticides (isomers of HCH)	Yes	Yes	Kadam Coordinator Information received through Zonal Office of CPCB, Lucknow
	262	UP-226-2	Sindauli, Chinhat, Lucknow	Sindauli, Chinhat, Lucknow, Uttar Pradesh-226028	Industrial	Hazardous Waste	29. Production, andformulation of pesticides including stock-piles	Pesticides (isomers of HCH)	No	Yes	Blacksmith Institute (IN-941) CEE-Final Report on Lindane

Appendix J List of 320 probably contaminated sites (updated 21 December 2015)

State	Serial number	Site ID	Site Name	Address	Land use (current)	Type of contamination "	"Industrial processes" which caused the contamination	Contaminants of Concern	Site Inspection performed	Confirmed site*	Major source of information (Institutions) which have appointed the site as a "Probably contaminated site"
	263	UP-226-3	Uttardhauna, Chinhat Block, Lucknow	Uttardhauna, Chinhat Block, Lucknow-226028	Agricultural land	Hazardous Waste	29. Production, andformulation of pesticides including stock-piles	Pesticides (isomers of HCH)	Yes	Yes	Blacksmith Institute(IN-952)
	264	UP-226-6	Dewa Road, Lucknow (Palhauri Village, Deva Road, Chinhat, Lucknow)	Palhauri Village, Deva Road, Chinhat, Lucknow, Uttar Radesh-226028	Agriculture land	Hazardous Waste	29. Production, andformulation of pesticides including stock-piles	Pesticides (isomers of HCH)	Yes	Yes	List Of Hazardous Waste Contaminated Dump Sites In The Country By CPCB.
	265	UP-231-1	Renukoot (adj to M/s Aditya Birla Chemical Industries(Formerly Kanoria Chemical))	Renukoot (adj to M/s Aditya Birla Chemical Industries(Formerly Kanoria Chemical))-231217	Water Bodies	Effluent, dump	29. Production, and formulation of pesticides including stock-piles 16. Production of caustic soda and chlorine	Mercury, Pesticides (HCH Isomers)	Yes	Yes #	Kadam Coordinator Regional office UPPCB
	266	UP-231-2	Chetwa, Meorpur block, District Sonebhadra, Uttar Pradesh	Chetwa, Meorpur block, District Sonebhadra, Uttar Pradesh -231208	Mixed (Waste land,Water bodies, Industrial, Habitation Settlement)	Effluent	16. Production of caustic soda and chlorine, 11. Production of primary and secondary aluminium, 37. Other (Production of Carbon Black)	Mercury	No	Yes	Blacksmith Institute (IN-2100)
	267	UP-231-5	Kunrwa, Jirgha Dandi, Sonebhadra District, Uttar Pradesh	Kunrwa, Jirgha Dandi, Sonebhadra District, Uttar Pradesh-231208	Habitation Settlement	Any other (Ground water)	Not known	Fluoride	No	Yes	Blacksmith Institute
	268	UP-231-7	Murdhawa Industrial Area P.O. Renukoot Dist. Sonebhadra Uttar Pradesh	Murdhawa Industrial Area, P.O. Renukoot, Dist. Sonebhadra, Uttar Pradesh 231 217	Mixed (Waste land,Water bodies, Industrial, Habitation settlement)	Effluent, Air	16. Production of caustic soda and chlorine, 11. Production of primary and secondary aluminium, 37. Other (Production of Carbon Black)	Mercury	No	Yes	Blacksmith Institute(IN-2154)
	269	UP-231-9	Singrauli Super Thermal Power Plant, Singrauli	Singrauli Super Thermal Power Plant, Singrauli	Industrial	Air, Hazardous Waste	37. Other (Electricity generation)	Lead, Chromium, Cadmium, Mercury	No	Yes	Blacksmith Institute (IN-2104)
	270	UP-246-2	Jalapur Chooiya, Bijnor	Jalapur Chooiya, Bijnor district, Uttar Pradesh-246701	Agriculture land	Effluent	37. Other (Pulp and paper ,distillaries,Sugar Mill, iron industries)	Other	No	Yes	Blacksmith Institute (IN-1443)
	271	UP-250-1	Barnawa Village, Baghpat, District Meerut	Barnawa village, (Kinauni Village) Meerut District, , Uttar Pradesh, Bajaj Hindustan Sugar Mill - Kinauni Road,Kinauni, Meerut, UP 250502	Waste land	Effluent, Hazardous waste	32. Pulp & Paper Industry 37. Other (Distillery, food processing industry (dairy and sugar))	Chromium, Lead, Cadmium, Pesticides	Yes	Yes #	Kadam Environment Consultants
	272	UP-250-2	Jaibheem Nagar, Ward No. 5, Meerut	Jaibheem Nagar, Ward No. 5, Meerut Pincode 250004	Mixed (Waste land,Water bodies)	Effluent, Bio-medical Waste	26. Production or industrial use of synthetic dyes, dye-intermediates and pigments 37. Other (Hospital) 24. Production of canvas and textiles	Lead, Mercury, Iron, Chromium, Cadmium.	Yes	Yes #	Blacksmith Institute (IN-1072)
	273	UP-251-1	Chadenamal Village, Block Thana Bhawan, District Muzaffarnagar	Chadenamal Village, Block Thana Bhawan, District Muzaffarnagar-251001	Water bodies	Effluent	37. Other (Pulp and paper manufacturing work,Brewing & malting,Chemical manufacturing general,Chemical Works: Organic chemicals manufacturing works,Chemical Works: Inorganic chemicals manufacturing works))	Chromium, Cadmium, Pesticides	No	Yes	Blacksmith Institute (IN-1272)
	274	UP-251-1	Dabal Village, Muzaffarnagar	Dabal Village, Muzaffarnagar district, Uttar Pradesh-251001	Habitation settlement	Effluent	32. Pulp & Paper Industry 26. Production or industrial use of synthetic dyes, dye-intermediates and pigments, 12- Metal surface treatment, such as etching, staining, polishing, galvanising, cleaning, degreasing, plating, etc.	Chromium	No	Yes	Blacksmith Institute (IN-1556)
	275	UP-283-1	Firozabad	Firozabad Uttar Pradesh -283203	Mixed (Industrial, Habitation settlement)	Effluent, Hazardous waste	37. Other (Glass Industries-manufacturing process)	Arsenic, Cadmium, Lead , Chromium, Other heavy metals	Yes	Yes #	Kadam Coordinator Regional office UPPCB Blacksmith Institute(IN-2863)
Uttarakhand	276	UK-244-1	Kashipur area distt US Nagar	Kashipur area distt US Nagar Uttarakhand-244713	Mixed (Industrial, Habitation settlement)	Not Known	Not Known	Not Known	No	Yes	Uttakhand Environment Protection & Pollution Control Board Ref.UEPPCB/HO/GEN-461/2013/5474-701 Dated 19.10.2013
	277	UK-244-2	Moradabad Road , Kashipur Distt US Nagar, Uttarakhand	Moradabad Road , Kashipur Distt US Nagar, Uttarakhand-244713	Mixed (Industrial, Habitation settlement)	Not Known	Not Known	Not Known	No	Yes	Uttakhand Environment Protection & Pollution Control Board Ref.UEPPCB/HO/GEN-461/2013/5474-701 Dated 19.10.2013
	278	UK-244-3	Ramnagar Industrial Area and its adjoining area, Uttarakhand	Ramnagar Industrial Area and its adjoining area, Uttarakhand-244715	Industrial	Not Known	Not Known	Not Known	No	Yes	Uttakhand Environment Protection & Pollution Control Board Ref.UEPPCB/HO/GEN-461/2013/5474-701 Dated 19.10.2013
	279	UK-246-1	Jasodhar Industrial area, Distt pauri	Jasodhar Industrial area, Distt pauri-246149	Industrial	Not Known	Not Known	Not Known	No	Yes	Uttakhand Environment Protection & Pollution Control Board Ref.UEPPCB/HO/GEN-461/2013/5474-701 Dated 19.10.2013
	280	UK-247-1	Village-Tansipur, Roorkee, Uttarakhand	Village-Tansipur, Roorkee, Uttarakhand-247656	Water Body	Effluent	Not known	Cadmium, Chromium	No	Pending	Blacksmith Institute
	281	UK-248-1	Selaqui Industrial Area, Dehradun, Uttarakhand	Selaqui Industrial Area, Dehradun, Uttarakhand pincode 248197	Industrial	Air	Not known	Mercury	No	Pending	Blacksmith Institute
	282	UK-249-1	Sansarpur Village, Chutmulpur Road, Saharanpur, Uttarakhand	Sansarpur Village, Chutmulpur Road, Saharanpur, Uttarakhand Pincode-247551	Water Bodies	Effluent, Hazardous waste	30. Leather tanneries	Chromium, Iron, Manganese, Copper, Lead, Cadmium	No	Pending	Blacksmith Institute
	283	UK-249-2	Ibrahimpur Village, Bhadarabad, Haridwar District, Uttarakhand	Ibrahimpur Village, Bhadarabad, Haridwar District, Uttarakhandl Pincode-249402	Water Bodies	Effluent	24. Production of canvas and textiles 26. Production or industrial use of synthetic dyes, dye-intermediates and pigments	Copper, Chromium Total, Lead, Cadmium, Iron, Manganese,	Yes	Pending	Blacksmith Institute
	284	UK-263-1	Lalkaun Area distt Nanital, Uttarakhand	Lalkaun Area distt Nanital, Uttarakhand-262402	Mixed (Industrial, Habitation settlement , Agricultural)	Effluent	32. Pulp & Paper Industry	Barium, Zinc, Dichloorbenzene, Pentachloorphenol, VOCs (Trichloroethane,Trichloormethane)	No	Yes	Uttakhand Environment Protection & Pollution Control Board Ref.UEPPCB/HO/GEN-461/2013/5474-701 Dated 19.10.2013

Environmental Management Plan for Critically/Severely Polluted Area- (Dada Nagar, Panki, Fazalganj, Vijay Nagar & Jajmau of Kanpur Nagar)



Uttar Pradesh Pollution Control Board, Lucknow

E. COMPREHENSIVE ENVIRONMENTAL POLLUTION INDEX (CEPI)

1. INTRODUCTION

In 2009, the Ministry of Environment &Forests(MoEF), Govt. of India in association with Central Pollution Control Board (CPCB), New Delhi and Indian Institute of Technology (IIT), New Delhi have carried out an environmental assessment of industrial clusters across the country named "Comprehensive Environmental Pollution Index" (CEPI) with the aim of identifying polluted industrial clusters & prioritizing planning needs for intervention to improve the quality of environment in these industrial clusters and the nation as a whole.

The CEPI criteria was revised in 2016 and based on the CEPI-2016 criteria, CPCB carried out further monitoring in the year 2017-18, these clusters numbers went upto 100 in whole country, These clusters as may referred to order issued by Hon'ble National Green Tribunal for Original Application No. 1038/2018 dated 10.07.2019.

The industrial clusters/areas having aggregated CEPI scores of 70 and above were considered critically polluted clusters/areas and those with scores less than 70 and more than 60 were classified as Severely Polluted; further detailed investigations were carried out in terms of the extent of environmental damage and formulation of appropriate remedial action plan. There are total 13 Polluted industrial Areas(PIAs) which includes 9 critically polluted Areas(CPA) namely Mathura, **Kanpur**, Moradabad, Varanasi-Mirzapur, Bulandshahar-Khurja, Firozabad, Gajraula area, Agra, Ghaziabad and 4 severely Polluted Area *viz.* Noida, Meerut, Aligarh, Singrauli (UP& MP)

NGT Direction:

The Hon'ble NGT vide it's latest order dated 14.11.2019, has directed the Pollution Control Boards / Pollution Control Committees (PCBs/PCCs) to finalize time bound action plan to bring all the Polluted Industrial Areas (PIAs) within safe parameters as per the Air Act, the Water Act and the E.P. Act. The said order is available at **Annexure No.-IV**

In compliance to Hon'ble NGT order Dated 23.08.2019, a mechanism has been issued by Ministry of Environment, Forest & Climate Change Govt. of India for environmental

management of Critically/ Severely polluted area enclosed with CPCB letter Dated 25.10.2019 available as **Annexure No.-V**

1.1 AREA DETAILS

As per the CEPI assessment, following areas have been identified as Critically/ Severely polluted area ***Dada Nagar, Panki, Fazalganj, Vijay Nagar & Jajmau of Kanpur Nagar***

(Insert a location map showing Polluted Industrial Areas (PIAs) in the city- Sample map has been attached below and provide other details as well)

1.2 LOCATION

The coordinates of the cluster boundary are as follows:

Direction	Latitude	Longitude
East	26° 25' 52.4208" N	80° 24' 16.0992" E
West	26° 27' 9.8892" N	80° 10' 52.7268" E
North	26° 33' 37.0008" N	80° 16' 26.436" E
South	26° 22' 28.7256" N	80° 19' 2.1648" E

1.3 Digitized map showing geographical boundaries and Impact Zones

(Insert a location map showing geographical boundaries and Impact Zones in the city- Sample map has been attached below and provide other details as well)

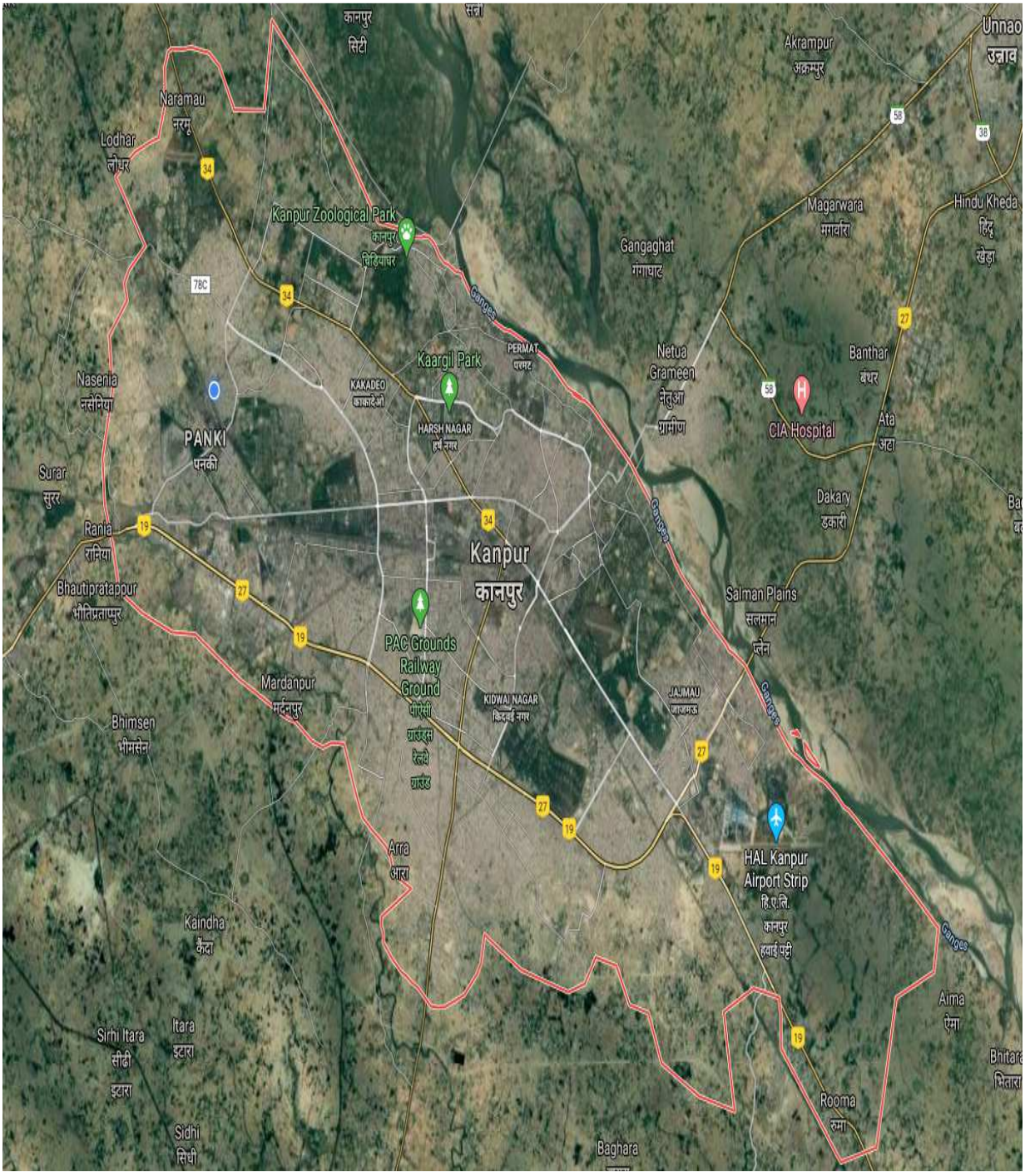


IMAGE: AERIAL VIEW – INDUSTRIAL C

1.4 CEPI Score :- (EPI:-Air-66.00, Water-85.00, Land-45.00), CEPI:- 89.46

1.5 Baseline Status Of Sensitive Receptors: Total population and sensitive receptors (hospitals, educational institutions, courts etc) residing in the area comprising geographical area of the cluster and its impact zone.

S. No	Population		Number of Hospitals		Number of Educational Institutions		Number of Courts		Other socially sensitive features	
	Within Cluster	Impact Zone	Within Cluster	Impact Zone	Within Cluster	Impact Zone	Within Cluster	Impact Zone	Within Cluster	Impact Zone
1	1.68 Lacs	27.65 Lacs	45	669	31	203	0	4	0	2

1.6 Eco-Geological Features: Impact Zones [the area comprising of geographical area of the cluster and its impact zone (minimum 5 km)

1.6.1 Major water bodies (Rivers, Lakes, Ponds, etc.)

S. No.	Rivers		Lakes		Ponds	
	Within Cluster	Impact Zone	Within Cluster	Impact Zone	Within Cluster	Impact Zone
1	02	02	0	0	03	03

1.6.2 Ecological parks, sanctuaries, flora and fauna or any eco sensitive zones:

Given below is the list of ecologically sensitive zones within the impact zone of the CEPI areas along with their distance and direction from the area:

S. No.	List of environmentally sensitive zones	Number	Distance and direction
1	1	1	3-4 Km from Vijay Nagar Cluster Within City

(Insert a Google Earth image showing above given zones)

1.6.3 Buildings or Monuments of historical/archaeological/religious importance

S. No.	List of Buildings or Monuments of historical/archaeological/religious importance's	Number	Distance and direction
1	Temple/Museum/Park/Ghat/Zoo/Monument	27	Within City

1.7 Industry classification: Density of industry (no. of industries per 10 sq.km area or fraction)

S.No.	Industrial Area	No. of Industry (R/O)	Area of Industrial Cluster	Density of Industry (No. of Ind./sq.km)
1	Dada Nagar	39	Approx 2.0 Sq. Km	19.5
2	Panki	123	Approx 5.0 Sq. Km	24.6
3	Fazalganj	3	Approx 0.5 Sq. Km	6.0
4	Vijay Nagar	-	-	-
5	Jajmau	388	Approx 4.0 Sq. Km	97

The total number of industries in the cluster is as listed below:

1.7.1 Highly Polluting Industries (17 CATEGORIES)

Scale Of Industries	Highly Polluting Industries		
	Air	Water	No. Of E-Waste/Hazardous Waste Generating Industries
Large	2	23	25
Medium	0	370	370
Total	**2**	**393**	**395**

1.7.2 Red Category Industries (60 CATEGORIES)

Scale Of Industries	Highly Polluting Industries		
	Air	Water	No. Of E-Waste/Hazardous Waste Generating Industries
Large	2	20	22
Medium	0	18	18
Small	9	552	561
Total	**11**	**590**	**601**

1.7.3 Orange Category Industries

Scale Of Industries	Number of Industries		
	Air	Water	No. Of E-Waste/Hazardous Waste Generating Industries
Large	0	0	0
Medium	5	3	3
Small	127	30	30
Total	**132**	**33**	**33**

1.7.4 Green Category Industries

Scale Of Industries	Number of Industries		
	Air	Water	No. Of E-Waste/Hazardous Waste Generating Industries
Large	0	0	0
Medium	0	0	0
Small	403	0	0
Total	**403**	**0**	**0**

1.7.5 GROSSLY POLLUTING INDUSTRIES

Scale Of Industries	Highly Polluting Industries		
	Air	Water	No. Of E-Waste/Hazardous Waste Generating Industries
Large	7	2	2
Medium	0	23	23
Small	0	404	404
Total	**7**	**429**	**429**

2.0 Water Environment

2.1 Present Status of Water Environment Supported with Minimum One-Year Analytical Data

Ganga River Upstream Kanpur

S. No.	Parameters	Observed values	Standards
1	D.O., B.O.D.		

Month	Ganga at U/S Kanpur (Bithoor Ghat)		DO Minimum 5.0 mg/L	BOD Maximum 3.0 mg/L
	*D.O. (mg/l)	B.O.D. (mg/l)		
Dec-18	9.6	2.9		
Jan-19	10.6	2.9		
Feb-19	10.0	2.3		
Mar-19	9.2	3.2		
Apr-19	7.5	4.0		
May-19	7.4	4.4		

Jun-19	6.1	4.0
Jul-19	8.0	3.2
Aug-19	6.1	2.8
Sep-19	6.3	2.8
Oct-19	6.8	3.2
Nov-19	7.5	2.7
Dec-19	9.8	2.8
Jan-20	10.4	2.6

Ganga River Downstream Kanpur

S. No.	Parameters	Observed values	Standards
1	D.O., B.O.D.		

Month	Ganga at D/S Kanpur (Jana Village)	
	*D.O. (mg/l)	B.O.D. (mg/l)
Dec-18	9.0	4.2
Jan-19	9.1	3.3
Feb-19	9.2	3.2
Mar-19	9.4	3.4
Apr-19	7.7	5.6
May-19	6.5	5.5
Jun-19	5.3	5.4
Jul-19	4.6	5.8
Aug-19	5.3	3.8
Sep-19	5.8	3.4
Oct-19	6.1	5.0
Nov-19	7.0	4.0
Dec-19	9.0	4.4
Jan-20	9.1	4.2

DO	BOD
Minimum 5.0 mg/L	Maximum 3.0 mg/L

2.2 Water Bodies/Effluent Receiving Drains in the Area Important For Water Quality Monitoring

S. No.	Water Bodies	No. of drains discharging		Effluent discharge (MLD)
1	Ganga River	1	Paramiya Drain	Approx 23.75 MLD
		2	Ranighat Drain	Temporary Tapped
		3	Seesamau Drain	Tapped
		4	Tefco Drain	Tapped

		5	Permathghat Drain	Tapped
		6	Muirmill Drain	Tapped
		7	Police line drain	Tapped & Dry
		8	Jail Drain	Tapped & Dry
		9	Bhagwatdas Drain	Tapped
		10	Golaghat Drain	Temporary Tapped
		11	Satti Chaura Drain	Temporary Tapped
		12	Dabka Drain	Temporary Tapped but overflow (Approx 4.95 MLD)
		13	Sheetla bazaar Drain	Partially Tapped (Approx 8.65 MLD)
		14	Budhiyaghat Drain	Tapped
		15	Wazidpur Drain	Tapped
		16	Airforce Drain	Tapped
2	**Pandu River**	1	Ratanpur Nala	Untapped (approx 6.65 MLD)
		2	Panki Thermal Power Drain	Untapped(approx 34.7 MLD)
		3	ICI Drain	Untapped(approx 12.09 MLD)
		4	Ganda Nala	Partially Tapped(approx 46.88 MLD)
		5	Halwakhanda	Partially Tapped(approx 40.99 MLD)
		6	COD	Tapped

2.1 **Present Levels Of Pollutants In Water Bodies/Effluent Receiving Drains/Ground Water** (Routine parameters, special parameters and water toxics relevant to the area in three categories – known carcinogens, probable carcinogens and other toxics)

Ganga River

S. No.	Parameters	Observed values	Standards
1	**Upstream Kanpur (As on dated 18.02.2020)**		
	Colour	**20**	-
	pH	**8.58**	6.5 to 8.5
	D.O.	**1.1**	5.0 mg/L or more
	B.O.D	**3.6**	3.0 mg/L or more
	Total Coliform	**4700**	-
2	**Downstream Kanpur (As on dated 18.02.2020)**		
	Colour	**20**	-
	pH	**8.34**	6.5 to 8.5
	D.O.	**10**	5.0 mg/L or more
	B.O.D	**4.6**	3.0 mg/L or more
	Total Coliform	**38000**	-

Pandu River

S. No.	Parameters	Observed values	Standards
1	**Hameerpur Bridge (As on dated 18.02.2020)**		
	Colour	**30**	-
	pH	**7.94**	6.5 to 8.5
	D.O.	**1.9**	5.0 mg/L or more
	B.O.D	**8.2**	3.0 mg/L or more
	Total Coliform	**94000**	-

2.4 Predominant Sources Contributing To Various Pollutants

S. No.	Sources	Effluent discharge	Major Pollutants
1	**Domestic**		
	Permiya Nala (Ganga River)	Approx 23.75 MLD	
	Dabka Nala (Ganga River)	Approx 4.95 MLD	
	Halwakhanda Nala (Pandu River)	Approx 40.99 MLD	BOD, COD, TSS
2	**Industrial (Mixed)**		
	Sheetla Bazar (Ganga River)	Approx 8.65 MLD	
	Bhudhiyaghat (Ganga River)	Approx 1.55 MLD	Colour, pH, DO, BOD, COD, TSS, TDS,Heavy metal
	Panki Thermal Power(Pandu River)	Approx 34.7 MLD	
	Ratanpur Nala (Pandu River)	Approx 6.65 MLD	
	ICI Drain (Pandu River)	Approx 12.09 MLD	
	Ganda Nala (Pandu River)	Approx 46.88 MLD	

2.5 Sources of Water Pollution

2.5.1 Industrial Pollution Sources

The drain wise and sector wise distribution of industries and their estimated treated effluent discharge and details of CETP is given in the tables below:

Summary of Industrial Units

S.No.	Drain	Type of Industry * The Type of Industry may be changed as per local conditions							Total Effluent Discharge (MLD)
		Sugar	Pulp & Paper	Distillery	Textile	Slaughter House	Others	Total	
1	Wazidpur	0	0	0	0	0	134	134	2.295 (in case of overflow from pumping station)
	Budhiyaghat	0	0	0	0	0	25	25	0.378 (in case of overflow from pumping station)
	Sheetla bazar	0	0	0	0	0	179	179	2.4304 (in case of overflow from pumping station)
	ICI Drain	0	0	0	30	0	10	40	8.416
	Ganda nala	0	1	0	22	0	13	36	0.719
	Halwakhand nala	0	0	0	0	0	0	0	0
	Panki Thermal power	0	0	0	0	0	01 (Closed)	01	0
	COD	0	0	0	0	1 (Closed)	0	01	0
	Direct to Pandu River	0	1	0	0	0	0	01	ZLD
Total		**0**	**2**	**0**	**52**	**01**	**362**	**417**	**14.2384**

2.5.2 Domestic Pollution Sources

a) Details of Drains

Summary of Drains

S No.	District	No. of Drains	Type of Drains			Status of Drains			Sewage Discharge (MLD)			Total Discharge in the River (MLD)
			Domestic	Industrial	Mixed	Tapped	Untapped	Partially Tapped	Treated	Untreated	Total	
Drains Meeting at, Pandu River, Kanpur												
1	ICI Drain	1	-	-	Yes	NO	Yes	-	-	5.8	-	5.8
2	Ganda nala	1	-	-	Yes	NO	-	Yes	-	46.88	-	46.88
3	Halwakhand nala	1	Yes	-	-	NO	-	Yes	-	40.99	-	40.99
4	Panki Thermal power	1	-	-	Yes	NO	Yes	-	-	34.7	-	34.7
5	Ratanpur	1	Yes	-	-	NO	Yes	-	-	6.65	-	6.65
6	COD	1	-	-	Yes	Yes	-	-	-	-	-	-
Drains Meeting at River Ganga in Kanpur												
7	Air force	1	Yes	-	-	Yes	-	-	7.87	-	-	7.87
8	Wazidpur	1	-	-	Yes	Yes	NO	-	-	-	-	-
9	Budhiyaghat	1	-	-	Yes	Yes	NO	-	-	-	-	-
10	Sheetla bazar	1	-	-	Yes	Yes	NO	-	-	11.25	-	11.25
11	Dabka nala	1	Yes	-	-	NO	Yes	-	-	17.21	-	17.21
12	Satti chaura	1	Yes	-	-	Temporary Tapped	NO	-	-	-	-	-
13	Golaghat nala	1	Yes	-	-	Temporary Tapped	NO	-	-	-	-	-
14	Guptar ghat nala	1	Yes	-	-	Yes	NO	-	-	-	-	-
15	Muir mill drain	1	Yes	-	-	Yes	NO	-	-	-	-	-
16	Parmatghat nala	1	Yes	-	-	Yes	NO	-	-	-	-	-

17	Tefco nala	1	Yes	-	-	Yes	NO	-	-	-	-	-
18	Sisamau nala	1	-	-	Yes	Yes	NO	-	-	-	-	-
19	Ranighat nala	1	Yes	-	-	Temporary Tapped	-	-	-	-	-	-
20	Parmiya nala	1	Yes	-	-	1. Parmiyapurwa Nala- Tapped 2. Nawabganj Nala- Temporary Tapped 3. HBTI Nala- Untapped	-	-	-	12.16	-	12.16
21	Police line drain	1	Yes	-	-	Yes	-	-	Dry	Dry	-	-
22	Jail drain	1	Yes	-	-	Yes	-	-	Dry	Dry	-	-
	Total	**22**	**13**	**-**	**8**	**12**	**4**	**2**	**7.87**	**183.51**	**-**	**183.51**

S No.	**District**	**No. of Drains**	**Name of Drain**	**Type of Drains**	**Status of Drains**			**Sewage Discharge (MLD)**			**Total Discharge in the River (MLD)**
				Domestic	**Tapped**	**Untapped**	**Partially Tapped**	**Treated**	**Untreated**	**Total**	

b) Details of Sewage Pollution Sources

The details of Sewage Treatment Plants along with installed capacity, utilized capacity, operating agency and discharge point is given in the table below:-

Details of STPs

S.No.	Name of STP	Location		Installed Capacity (MLD)	Utilized Capacity (MLD)	Capacity Utilized (%)	Operating Govt. Agency	Discharge Drain
		Latitude	Longitude					
1	Jajmau, Kanpur	26.416286	80.421527	130	114	87.6%	U.P. Jal Nigam (GPCU)	Irrigation Channel
2	Jajmau, Kanpur	26.416811	80.421795	5	4.8	96%	U.P. Jal Nigam (GPCU)	Irrigation Channel
3	Bingawan, Kanpur	26.3677841	80.3171547	210	135	64%	U.P. Jal Nigam (GPCU)	River Pandu
4	Sajari, Kanpur	26.374222	80.400482	42	15	30.57%	U.P. Jal Nigam (GPCU)	River Pandu
5	Jajmau, Kanpur	26.416336	80.421286	43	26	60.4% Under commission	U.P. Jal Nigam (GPCU)	River Pandu
6	Baniyapur Kanpur	26.5293647	80.2762102	15	Under Construction	-	U.P. Jal Nigam (GPCU)	River Ganga

Details of Proposed STP

S.No.	Name of STP	Location		Installed Capacity (MLD)	Utilized Capacity (MLD)	Capacity Utilized (%)	Operating Govt. Agency	Discharge Drain
		Latitude	Longitude					
1	Panka Kanpur	Proposed	Proposed	40	Proposed	-	U.P. Jal Nigam (GPCU)	River Pandu

DETAILS OF CETPs

S.No.	District	Name of CETP	Location		Installed Capacity (MLD)	Utilized Capacity (MLD)	Operating Govt. Agency/SPV	Discharge Drain
			Latitude	Longitude				
1	Kanpur	36 MLD, Jajmau, Kanpur	26.416286	80.421795	36	36	U.P. Jal Nigam (GPCU)	Irrigation Channel
2	Kanpur	1.5 MLD, CETP, Rooma	26.366941	80.425536	1.5	0.75	SPV	Irrigation Channel

2.5.3 **Others Sources** (Agricultural Runoff, Leachate from MSW Dump, Illegal Dump Sites etc.)**:** Please provide details

1- MSW Disposal Facility of Capacity 1447 TPD

2- Old Illegal Dump sites:- Nauraiya Khera, Panki & Rakhi Mandi.

2.6 Impact on Surrounding Area (Outside the PIAs): Data of Surrounding Area not available. Ground Water Monitoring in the area Panki Industrial Area (Nauriya Khera) & Jajmau (Wazidpur) is carried out under MINARS Scheme. Latest data is attached.

MONITORING OF INDIAN NATIONAL AQUATIC RESOURCES

MINARS/GEMS

MINDAT/GLOWDAT

1. STATION CODE – 1744
2. DATE &. TIME OF SAMPLE TAKEN (DDMMYY) 130109 1430
3. WEATHER Clear
4. APPROX .DEPTH OF MAIN STREAM
5. COLOUR & INTENSITY Colourless
6. ODOUR Odourless
7. VISIBLE EFFLUENT DISCHARGE IN PROXIMITY Odourless
8. HUMAN ACTIVITIES AROUND STATION
9. LOCATION DETAIL U/S of Town or Industrial Area | D/S of Town or Industrial Area | Pilgrim Centre Bathing Ghat | Abstraction for Water Supply

STATION	Hand pump at Wajidpur,Jajmau Kanpur
TYPE	Grab
COMPLETED BY	Smt. Chitra Srivastava, ASO
AGENCY	U.P.Pollution Control Board,Kanpur

DETERMINAND	WHO CODE	AQC FLAG	VALUE
TEMPREATURE °C	00100N	31	.00
pH	10302N	7	.77
CONDUCTIVITY µmhos/cm	02041N	2028	.00
ALKALINITY mg/l			
(i) ELECTROMETRIC	10101N		
(ii) VISUAL TITRATION	10102N	264	.00
NITROGEN (NO_3+NO_2)mg/l	07105N		
DISSOLVED OXYGEN mg/l	08101N		
B.O.D. mg/l	08201N		ND
C.O.D. mg/l	08301N	5	.40
CHLORIDE mg/l			
(i) ARGENTOMETRIC	17201N	172	.00
(ii) MERCURIMETRIC	17201N		
SULPHATE mg/l			
(i) GRAVIMETRIC	16301N		
(ii) TURBIDIMETRIC	16302N		
SODIUM mg/l	11103N		
CALCIUM as $CaCO_3$ Mg/l	20101N	102	.00
MAGNESIUM as Ca CO_3 mg/l	12103N	86	.00
FECAL COLIFORM, MPN/100ml.	36011N	<1	.80
INSTANTANEOUS Discharge m^3/Sec.	97167N		
P.ALKALINITY mg/l			NIL

DETERMINAND	ARBITRARY CODE	AQC FLAC	VALUE
TURBIDITY JTU/NTU	021015N		
VELOCITY OF FLOW m/sec			
(i) CURRENT METER	022015N		
(ii) FLOAT	022025N		
(iii) CHEMICAL	022035N		
TOTAL KJELDAHL NITORGEN, mg/l			
(i) TITRATION	070015N		
(ii) NESSELERIZATION	070045N		
HARDNESS as CaCO3 mg/l	221015N	188	.00
TOTAL COLIFORM MPN/100ml.	370015N	<1	.80
TOTAL DISSOLVED SOLIDS mg/l	333335N	1394	.00
FIXED DISSOLVED SOLIDS mg/l	444445N		
AMMONIA NITROGEN mg/l			
(i) COLOURIMETRY	075055N		
(ii) DISTILLATION TITRATION	075051N		
BORON mg/l	051055N		
PHOSPHATE mg/l			
NITRATE – N mg/l			
TOTAL SUSPENDED SOLIDS			
FLUORIDE			

MONITORING OF INDIAN NATIONAL AQUATIC RESOURCES

MINARS/GEMS

MINDAT/GLOWDAT

1. STATION CODE – 1745
2. DATE &. TIME OF SAMPLE TAKEN (DDMMYY) 130119 1500
3. WEATHER Clear
4. APPROX .DEPTH OF MAIN STREAM
5. COLOUR & INTENSITY Colourless
6. ODOUR Odourless
7. VISIBLE EFFLUENT DISCHARGE IN PROXIMITY Odourless
8. HUMAN ACTIVITIES AROUND STATION
9. LOCATION DETAIL U/S of Town or Industrial Area | D/S of Town or Industrial Area | Pilgrim Centre Bathing Ghat | Abstraction for Water Supply

STATION: Hand Pump Nauraiya Kheda, Panki, Kanpur

TYPE: Grab

COMPLETED BY: Smt. Chitra Srivastava, ASO

AGENCY: U.P.Pollution Control Board,Kanpur

DETERMINAND	WHO CODE	AQC FLAG	VALUE
TEMPREATURE °C	02001N		31.0
pH	10302N		7.5
CONDUCTIVITY µmhos/cm	02041N		532.0
ALKALINITY mg/l			
(i) ELECTROMETRIC	10101N		
(ii) VISUAL TITRATION	10102N		324.0
NITROGEN (NO_3+NO_2)mg/l	07105N		
DISSOLVED OXYGEN mg/l	08101N		
B.O.D. mg/l	08201N		ND
C.O.D. mg/l	08301N		7.2
CHLORIDE mg/l			
(i) ARGENTOMETRIC	17201N		192.0
(ii) MERCURIMETRIC	17201N		
SULPHATE mg/l			
(i) GRAVIMETRIC	16301N		
(ii) TURBIDIMETRIC	16302N		
SODIUM mg/l	11103N		
CALCIUM as $CaCO_3$ Mg/l	20101N		168.0
MAGNESIUM as Ca CO_3 mg/l	12103N		112.0
FECAL COLIFORM, MPN/100ml.	36011N		<18.0
INSTANTANEOUS Discharge m^3/Sec.	97167N		
P.ALKALINITY mg/l			NIL

DETERMINAND	ARBITRARY CODE	AQC FLAC	VALUE
TURBIDITY JTU/NTU	021015N		280.0
VELOCITY OF FLOW m/sec			
(i) CURRENT METER	022015N		
(ii) FLOAT	022025N		
(iii) CHEMICAL	022035N		
TOTAL KJELDAHL NITORGEN, mg/l			
(i) TITRATION	070015N		
(ii) NESSELERIZATION	070045N		
HARDNESS as CaCO3 mg/l	221015N		280.0
TOTAL COLIFORM MPN/100ml.	370015N		<180.0
TOTAL DISSOLVED SOLIDS mg/l	333335N		370.0
FIXED DISSOLVED SOLIDS mg/l	444445N		
AMMONIA NITROGEN mg/l			
(i) COLOURIMETRY	075555N		
(ii) DISTILLATION TITRATION	075515N		
BORON mg/l	051015N		
PHOSPHATE mg/l			
NITRATE – N mg/l			
TOTAL SUSPENDED SOLIDS			
FLUORIDE			

2.7 Details of Water Polluting Industries in the Area/ Cluster

S. No	Name & Address of Industry	Product	Location		Type	Treatment Mechanism (ETP/	Effluent Discharge (KLD)	Effluent Discharge Drain	Consent Status	
			Latitude	Longitude		CETP)			Air	Water
1	A.K. Bleaching and Dyeing, G 50, Stie-3, Panki, Kanpur	Dyed Grey Cloth	$26^0$46 '306"	$80^0$30'215"	Dyeing & Bleaching	Yes	7.5	ICI drain/Pandu/Ganga	Valid	Valid
2	Akzo nobel India Ltd. (ICI), (New Name - Jhonson Methyu Chemicals India Ltd)Panki Plot - 2A, site-2B udyognaganj, Industrial Area, Kanpur.	Catalyst	$26^0$46'306"	$80^0$30'215"	Chemical (Catalyst)	Yes	405	ICI drain/Pandu/Ganga	Under Considration	Under Considration
3	Amber Textiles, D 16, Site 2, Panki, Kanpur	Dyed Grey Cloth	$26^0$46'306"	$80^0$30'215"	Dying & Bleaching	Yes	6	ICI drain/Pandu/Ganga	Under Considration	Under Considration
4	Anod Plasma Sprey Ltd., 103, 104 Uptron Estate, Site 1, Panki, Kanpur	Printing Roller	$26^0$46'306"	$80^0$30'215"	Metal Surface Treatment	Yes	15	ICI drain/Pandu/Ganga	Valid	Valid
5	Basotia Ind., C-16,17, Site-4, Panki, Kanpur	Dyed Grey Cloth	$26^0$46'306"	$80^0$30'215"	Dyeing	Yes	7	ICI drain/Pandu/Ganga	Valid	Valid
6	Deep Knitwear, C-19, Panki Site-4, Kanpur	Dyed Grey Cloth	$26^0$46'306"	$80^0$30'215"	Yarn/Textile Processing	Yes	4	ICI drain/Pandu/Ganga	Valid	Valid
7	Devine Synthetic, B-9, 10, Panki Site-4, Kanpur	Dyed Thread	$26^0$46'306"	$80^0$30'215"	Yarn/Textile Processing	Yes	1	ICI drain/Pandu/Ganga	Valid	Valid
8	Dinesh Oils Ltd. D-12,13,14, Industrial Area, Panki-3, Kanpur Nagar	Vegetable oil	$26^0$44'16"	$80^0$24'88"	Food Products (Refind Oil)	Yes	115	ICI drain/Pandu/Ganga	Closed	Closed
9	Double Aar Industries, D-4, Site-4 Panki Industrial Area, Kanpur	Dyed Grey Cloth	$26^0$46'306"	$80^0$30'215"	Bleaching	Yes	4	ICI drain/Pandu/Ganga	Valid	Valid
10	Gayatri Textiles, S 37, Site 4, Panki, Kanpur	Dyed Grey Cloth	$26^0$46'306"	$80^0$30'215"	Bleaching	Yes	0	ICI drain/Pandu/Ganga	Closed	Closed

11	Hindustan Aqua Ltd, E 7, Site 1, Panki , Kanpur	Beverages /Bottling	26^{0}46'306"	80^{0}30'215"	Food Products (Soft drinks)	Yes	300	ICI drain/Pandu/Ganga	Valid	Valid
12	J.P. Knit Wears, S-9 Site-4, Panki, Kanpur	Dyed Grey Cloth	26^{0}46'306"	80^{0}30'215"	Yarn/Textile Processing	Yes	4.5	ICI drain/Pandu/Ganga	Valid	Valid
13	Kanpur fertilzer & Cement Ltd.(Duncan fertilzer) CEE KEY Estate Udyog Vihar Panki Ind. Area, Kanpur	Urea Fertilizer	26^{0}27'25"	80^{0}15'00"	Fertilzer	Yes	7200	ICI drain/Pandu/Ganga	Under Considration	Under Considration
14	Lavangana Textile, D-3, UPSIDC, Panki Site-4, Kanpur	Dyed Grey Cloth	26^{0}46'306"	80^{0}30'215"	Yarn/Textile Processing	No	0	ICI drain/Pandu/Ganga	Closed	Closed
15	LML Limited, (East Block). A-2, A-3, C 10 Pnki Site-2, 3, Kanpur	Closed	26^{0}26'17"	80^{0}15'14.4"	Automobile	Yes	6	ICI drain/Pandu/Ganga	Closed	Closed
16	LML Limited, (West Block).A-2, A-3, C 10 Pnki Site-2, 3, Kanpur	Closed	26^{0}26'17"	80^{0}15'14.4"	Automobile	Yes	8	ICI drain/Pandu/Ganga	Closed	Closed
17	Lohia Corp. Ltd. (Old Name: Lohiya Starlinger Ltd.), D 3/A, Panki Site-1, Kanpur,	Machine Parts	26^{0}46'306"	80^{0}30'215"	Machines Parts	Yes	65	ICI drain/Pandu/Ganga	Valid	Valid
18	M.K. Dyeing,G 82, Site-3, Kanpur	Dyed Grey Cloth	26^{0}46'306"	80^{0}30'215"	Dyeing & Bleaching	Yes	9	ICI drain/Pandu/Ganga	Valid	Valid
19	Maharaja Bleaching Works, D-76, Site-4, Panki, Kanpur	Bleaching & Dyeing	26^{0}46'306"	80^{0}30'215"	Bleaching	Yes	3	ICI drain/Pandu/Ganga	Valid	Valid
20	Mahaveer Textile, 444 A, Site-1, Panki, Kanpur	Dyed Grey Cloth	26^{0}46'306"	80^{0}30'215"	Dyeing	Yes	7	ICI drain/Pandu/Ganga	Not having vaild consent	Not having vaild consent
21	MLA Industries, (Old Name Synthetis Silica Prod) D-7,8 , Site-1, Panki, Kanpur	Silica & Minerals	26^{0}46'306"	80^{0}30'215"	Chemical	Yes	100	ICI drain/Pandu/Ganga	Valid	Valid
22	Mukund Industry, J-16, site-3, Panki Kanpur	Dyed Grey Cloth	26^{0}46'306"	80^{0}30'215"	Yarn/Textile Processing	Yes	4	ICI drain/Pandu/Ganga	Valid	Valid

23	Prakash Textile, Panki Site-2, Kanpur	Dyed Grey Cloth	26^{0}46'306"	80^{0}30'215"	Dyeing & Bleaching	Yes	3	ICI drain/Pandu/Ganga	Valid	Valid
24	Praveen Taxtiles, E-4, Site-2, Panki Industrial Area, Kanpur	Dyed Grey Cloth	26^{0}46'306"	80^{0}30'215"	Yarn/Textile Processing	Yes	6	ICI drain/Pandu/Ganga	Valid	Valid
25	Shri Radha Enterprises, H 42, 43, Stie-1 Panki, Kanpur	Dyed Grey Cloth	26^{0}46'306"	80^{0}30'215"	Dyeing & Bleaching	Yes	3	ICI drain/Pandu/Ganga	Valid	Valid
26	Saraswati Engineering , Panki Industrial Area Site-1, Kanpur	Metal Surface Treatment	26^{0}46'306"	80^{0}30'215"	Metal Surface Treatment	Yes	2	ICI drain/Pandu/Ganga	Closed	Closed
27	Sarvodaya Bleaching Works, G-96, Site-3, Panki, Kanpur	Dyed Grey Cloth	26^{0}46'306"	80^{0}30'215"	Bleaching	Yes	4.5	ICI drain/Pandu/Ganga	Valid	Valid
28	Shiva Industries, C26, Site -1, Panki , Kanpur	Dyed Grey Cloth	26^{0}46'306"	80^{0}30'215"	Dyeing	Yes	22.5	ICI drain/Pandu/Ganga	Valid	Valid
29	Shiva Knit Wear, B 15,16, Site 4, Panki, Kanpur	Dyed Grey Cloth	26^{0}46'306"	80^{0}30'215"	Yarn/Textile Processing	Yes	15	ICI drain/Pandu/Ganga	Valid	Valid
30	Shivam Textiles, J 49, Site 3, Panki, Kanpur	Dyed Grey Cloth	26^{0}46'306"	80^{0}30'215"	Yarn/Textile Processing	Yes	15	ICI drain/Pandu/Ganga	Valid	Valid
31	Sudarshan Dyeing , G-102, Panki Site-3, Kanpur	Dyed Grey Cloth	26^{0}46'306"	80^{0}30'215"	Dyeing & Textile	Yes	9	ICI drain/Pandu/Ganga	Valid	Valid
32	V.N.Sons(AVR Enterprises)23/24 D Panki site 1 kanpur	Dyed Grey Cloth	26^{0}46'306"	80^{0}30'215"	Dyeing & Bleaching	Yes	22.5	ICI drain/Pandu/Ganga	Under Considration	Under Considration
33	Ashoka Industries, 173-B, Dadanagar, Kanpur	Electroplating Job Work	26^{0}45'338"	80^{0}29'414"	Metal Surface Treatment	No	0	Ganda Nala drain/Pandu/Ganga	Valid	Valid
34	Avon Dyeing, 41-A, Industrial Area, Dada Nagar, Kanpur, U.P	Dyed Grey Cloth	26^{0}45'338"	80^{0}29'414"	Dyeing	Yes	9	Ganda Nala drain/Pandu/Ganga	Closed	Closed
35	B.K.Auto Enterprises, F-61, Panki Site-5, Kanpur	Electroplating Job Work	26^{0}45'338"	80^{0}29'414"	Metal Surface Treatment	Yes	5	Ganda Nala drain/Pandu/Ganga	Valid	Valid

36	Chawla Textiles. 92-A, Industrial Area, Dada Nagar, Kanpur ,U.P.	Dyed Grey Cloth	26^{0}45'338"	80^{0}29'414"	Dyeing & Textile	Yes	7	Ganda Nala drain/Pandu/Ganga	Under Considration	Under Considration
37	Diamond Hosiery, 29 B, Dadanagar, Kanpur	Dyed Grey Cloth	26^{0}45'338"	80^{0}29'414"	Yarn/Textile Processing	Yes	10	Ganda Nala drain/Pandu/Ganga	Valid	Valid
38	Field Gun Factory Kalpi Road, Kanpur	Defence Arms & Amuation Equipments	26^{0}45'983"	80^{0}25'567"	Arms Equipments (electroplating)	Yes	70	Ganda Nala drain/Pandu/Ganga	Valid	Valid
39	Ganga Textile, C-23, Panki Site-5, Kanpur	Dyed Grey Cloth	26^{0}45'338"	80^{0}29'414"	Yarn/Textile Processing	Yes	8	Ganda Nala drain/Pandu/Ganga	Valid	Valid
40	J.K. Cotton Spinning & Weaving co.Mills Ltd., jarib chowki Kalpi Road, Kanpur pin code 208012	Closed	26^{0}46'144''	80^{0}30'529"	Dyeing & Textile	Yes	182	Ganda Nala drain/Pandu/Ganga	Closed	Closed
41	Jet Knitwears Pvt.Ltd., 57A, Dada Nagar, Kanpur	Bleach Grey Cloth	26^{0}45'338"	80^{0}29'414"	Yarn/Textile Processing	Yes	23	Ganda Nala drain/Pandu/Ganga	Under Considration	Under Considration
42	Kanpur Texcel (P) Ltd., 12 B/3 Dada Nagar Kanpur Nagar	Dyed Grey Cloth	26^{0}45'338"	80^{0}29'414"	Textile	Yes	12	Ganda Nala drain/Pandu/Ganga	Valid	Valid
43	A.K. Industries, 85 B, Dadanagar, Kanpur	Dyed Grey Cloth	26^{0}45'338"	80^{0}29'414"	Yarn/Textile Processing	Yes	3	Ganda Nala drain/Pandu/Ganga	Closed	Closed
44	Krishna Textile, Dadanagar, Kanpur	Closed	26^{0}45'338"	80^{0}29'414"	Yarn/Textile Processing	Yes	3	Ganda Nala drain/Pandu/Ganga	Closed	Closed
45	M.J. Dyeing (India Dying Works), F-8 Site- 5, Panki, Kanpur	Tarpoline	26^{0}46'306"	80^{0}30'215"	Dyeing	Yes	12	Ganda Nala drain/Pandu/Ganga	Valid	Valid
46	Mahadev Pulp Prod., 176 B, Dada Nagar, Kanpur	Craft Paper	26^{0}45'338"	80^{0}29'414"	Craft Paper	Yes	7.5	Ganda Nala drain/Pandu/Ganga	Closed	Closed
47	Mahalaxmi Textile Ind., 155 B Dada Nagar, Kanpur	Dyed Grey Cloth	26^{0}45'338"	80^{0}29'414"	Textile	No	0	Ganda Nala drain/Pandu/Ganga	Closed	Closed

48	Ordnance Factory Kalpi Road, Kanpur	Defence Arms & Amuation Equipments	26^{0}45'80"	80^{0}28'65"	Arms Equipments	Yes	140	Ganda Nala drain/Pandu/Ganga	Valid	Valid
49	Quality Pumps, 1-B/1ADadanagar, Kanpur	Electroplating Job Work	26^{0}45'338"	80^{0}29'414"	Galvonizing	Yes	5	Ganda Nala drain/Pandu/Ganga	Under Considration	Under Considration
50	Quality Zippers Pvt. Ltd. Plot No. 39 – B, Dada Nagar, Industrial Area, Kanpur.	Zip	26^{0}45'338"	80^{0}29'414"	Dyeing	Yes	7	Ganda Nala drain/Pandu/Ganga	Valid	Valid
51	Rotomark System Pvt. Ltd., 123/355, Fazalganj, Kanpur	Roto Gravior Printing Cylinder	26^{0}46'144''	80^{0}30'529"	Electroplating	Yes	0	Ganda Nala drain/Pandu/Ganga	Valid	Valid
52	Shakti Dyeing & Bleaching works, 16 A, Dada Nagar, Kanpur, U.P.	Dyed Grey Cloth	26^{0}45'338"	80^{0}29'414"	Bleaching	Yes	2	Ganda Nala drain/Pandu/Ganga	Valid	Valid
53	Shikhar Textile & Bleaching(Old Name Basudev Printer), 18 B Dada Nagar, Kanpur.	Tarpoline	26^{0}45'338"	80^{0}29'414"	Dyeing	Yes	14	Ganda Nala drain/Pandu/Ganga	Closed	Closed
54	Slaughter House, Fazalganj, Kanpur	Meet	26^{0}46'144''	80^{0}30'529"	Slaughtering of 20 Pigs/Day	No	0	Ganda Nala drain/Pandu/Ganga	Closed	Closed
55	Small Arms Factory, Kalpi Road, Kanpur	Defence Arms & Amuation Equipments	26^{0}45'983"	80^{0}25'567"	Arms (Electroplating)	Yes	180	Ganda Nala drain/Pandu/Ganga	Valid	Valid
56	Super Dyeing & Bleaching Works, Plot No. 39 A, Dada Nagar, Kanpur, U.P.	Dyed Grey Cloth	26^{0}45'338"	80^{0}29'414"	Bleaching	Yes	0	Ganda Nala drain/Pandu/Ganga	Closed	Closed
57	Tasty Dairy Specialties Ltd., C2, C5, Site 5, Panki , Kanpur	Closed	26^{0}45'338"	80^{0}29'414"	Dairy	Yes	0	Ganda Nala drain/Pandu/Ganga	Closed	Closed
58	Textile & Dyeing unit, Dada Nagar, Kanpur.	Dyed Grey Cloth	26^{0}45'338"	80^{0}29'414"	Dyeing	NR	0	Ganda Nala drain/Pandu/Ganga	Closed	Closed

59	Tilak Dyes Prod., A-98, Dada Nagar, Kanpur	Dyed Grey Cloth	26°45'338"	80°29'414"	Dyeing	NR	0	Ganda Nala drain/Pandu/Ganga	Closed	Closed
60	U.P. Pump pvt Ltd.Dada Nagar Kanpur.	Electroplating Job Work	26°45'338"	80°29'414"	Galvonizing	Yes	3	Ganda Nala drain/Pandu/Ganga	Under Considration	Under Considration
61	Usha Hosiery, G-30, Site-5, Panki Kanpur	Closed	26°45'338"	80°29'414"	Yarn/Textile Processing	Yes	8	Ganda Nala drain/Pandu/Ganga	Closed	Closed
62	Panki Thermal Power Stations, Panki., Kanpur, U.P.	Closed	26°47'66"	80°24'1"	Thermal Power	Yes		Thermal power Nala Nala drain/Pandu/Ganga	Closed	Closed
63	Slaughter House, Bakarganj, Babupurwa, Kanpur	Meet	26°47'70.6"	80°34'62.2"	Slaughtering of 40 Goats/Day	NA	0	COD Nala Nala drain/Pandu/Ganga	Closed	Closed
64	Anoo Shukla Ka Dyeing Plant,(Rita Knittwear) F-8, UPSIDC, Rooma, Kanpur	Dyed Grey Cloth	26°35'93"	80°43'75"	Yarn/Textile Processing	PETP/CETP	35	Irrigation Canal/Ganga River	Valid	Valid
65	Ganga Knit Fab, C-98, Rooma Industrial Area, Kanpur	Dyed Grey Cloth	26°35'93"	80°43'75"	Yarn/Textile Processing	PETP/CETP	35	Irrigation Canal/Ganga River	Valid	Valid
66	J.S. Yarn Taxtile Pvt.Ltd., C-33, Rooma Industrial Area, Kanpur	Dyed Grey Cloth	26°35'93"	80°43'75"	Yarn/Textile Processing	PETP/CETP	35	Irrigation Canal/Ganga River	Valid	Valid
67	K Vinayak Coatsons, Plot No. C-21, Rooma Industrial Area, Kanpur	Dyed Grey Cloth	26°35'93"	80°43'75"	Yarn/Textile Processing	PETP/CETP	40	Irrigation Canal/Ganga River	Valid	Valid
68	K.S.M. Hosery, G-2, G-3, Rooma Industrial Area, Kanpur	Dyed Grey Cloth	26°35'93"	80°43'75"	Yarn/Textile Processing	PETP/CETP	35	Irrigation Canal/Ganga River	Valid	Valid
69	Nirbhay Industries, A-3, Rooma Industrial Area, Kanpur	Dyed Grey Cloth	26°35'93"	80°43'75"	Yarn/Textile Processing	PETP/CETP	128	Irrigation Canal/Ganga River	Valid	Valid
70	Radhey Processor, C-40, UPSIDC Rooma, Kanpur	Dyed Grey Cloth	26°35'93"	80°43'75"	Yarn/Textile Processing	PETP/CETP	128	Irrigation Canal/Ganga River	Valid	Valid
71	Sam Taxtile, B-44, Rooma Industrial Area, Kanpur	Dyed Grey Cloth	26°35'93"	80°43'75"	Yarn/Textile Processing	PETP/CETP	50	Irrigation Canal/Ganga River	Valid	Valid

72	Shatabdi Synthetic, Plot No C-23, Rooma Industrial Area, Kanpur	Dyed Grey Cloth	26^{0}35'93"	80^{0}43'75"	Yarn/Textile Processing	PETP/CETP	35	Irrigation Canal/Ganga River	Valid	Valid
73	Subh Tax, Plot No. D-27, Rooma Industrial Area, Kanpur	Dyed Grey Cloth	26^{0}35'93"	80^{0}43'75"	Yarn/Textile Processing	PETP/CETP	35	Irrigation Canal/Ganga River	Valid	Valid
74	V.S. Textile, B-42, Rooma, Kanpur	Dyed Grey Cloth	26^{0}35'93"	80^{0}43'75"	Yarn/Textile Processing	PETP/CETP	35	Irrigation Canal/Ganga River	Valid	Valid
75	A STAR TANNNERS MANOHAR NGR. JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
76	A.K. Finishers, 44/37A(5), Ramrai Sarai, Jajmau, Kanpur	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
77	A.P.F.TANNERS(SABNAM TANNERY) 70/59 , SHITLA BAZAR , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
78	AAMAN TANNERS , 104/98(20) , SANJAY NAGAR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
79	ABDULLA TANNERS PVT.LTD. , 16 B , GAJJUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
80	AFTAB & COMPANY (Shaukat Ki Tannery), 396 Sanjay Nagar, Wajidpur, Jajmau, kanpur	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
81	AHIRWAR KI TANNERY , OPP. SULATAN , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
82	AHMAD BILAL KI TANNERY , 187/183 ,GAJJUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
83	AHMAD INTERNATIONAL , 367,368 , A , SANJAY NAGAR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid

84	AHMAD LEATHER IND. 102/88, A-9(1), WAJIDPUR, JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
85	AHMAD TANNING IND. , 3 B , 150 FEET ROAD, JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
86	Ahteshyam leather & Leather Product (Old Name Nasir Ki Tannery), Shitala Bajar, Jajmau, Kanpur	Finished Leather	$26^0$25'56"	$80^0$24'6"	Tannery	PETP/CETP	10.5	Irrigation Canal/Ganga River	Valid	Valid
87	AIJAJ TANNERS , 16-D, 150 FT. ROAD , JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	49	Irrigation Canal/Ganga River	Closed	Closed
88	AIJAJ TANNERS 406/377 ASARFABAD JAJMAU	Finished Leather	$26^0$25'56"	$80^0$24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	closed
89	AISHA TANNING IND. , 3 A , 150 Fit Road JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
90	AJANTA TANNING IND. , 90/76 B , IDGAH ROAD , JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
91	AKHTAR TANNERS , 112 A , WAJIDPUR , JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
92	AKLAKH TANNERS 104 /99 GAJJUPURWA JAJMAU	Finished Leather	$26^0$25'56"	$80^0$24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
93	Albarkah Tannery PVT LTD. 173/157-A25,BUDHIYAGHAT JAJMAU,	Finished Leather	$26^0$25'48"	$80^0$24'38"	Tannery	PETP/CETP	77	Irrigation Canal/Ganga River	Valid	Valid
94	ALIG IND. , 36 A ,150 FT. ROAD JAJMAU , KANPUR	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	70	Irrigation Canal/Ganga River	Valid	Valid
95	ALIG INTERNATIONAL , 150 FT. ROAD , JAJMAU	Finished Leather	$26^0$26'18"	$80^0$23'29"	Tannery	PETP/CETP	84	Irrigation Canal/Ganga River	Valid	Valid
96	Allianj Leather (Old Name Rafique Tannery), 184 A(5),	Finished Leather	$26^0$25'48"	$80^0$24'38"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid

	Buriyaghat, Jajmau, kanpur									
97	ALLIED LETHER & LEATHER PROD. 51 A 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
98	ALLIES LEATHER EXPORT, JAJMAU Kanpur	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
99	ALMIJAN TANNING IND. , 94 A , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
100	ALRAHBAR LEATHERS PVT.LTD. 173/157 , BHURIYAGHAT , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
101	ALSABA TANNERS , 3-1 B , GAJJUPURWA , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
102	AMAN ENTERPRISES (TAJ TRADERS) 71/60, SEETALA BAZAR JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
103	AMAN TANNERS(UNIT-2) , 104/90 A ,(17A) SANJAY NAGAR	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
104	ANWAR Ahmad KI TANNERY , 175/158 , 4-C , BHURIYAGHAT , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	14	Irrigation Canal/Ganga River	Valid	Valid
105	Arafat Leather Finishers. 201/194-B, Ramrai Sarai, Jajmau, Kanpur	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
106	ARAFAT TANNERS(N.J.TANNERS) 201/194, SHEETLA BAZAR, JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
107	ARSHI INTERPRISES (NAJULLA TANNERY) , 175/158 B-2 , BHURIYAGHAT , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	17.5	Irrigation Canal/Ganga River	Valid	Valid

108	ASHA EXPORT (ASHA HIDES) 466/868 ,NEAR STATE BANK , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Under Considration	Under Considration
109	ASHU CHARM UDYOG 96/82 JAJAMAU RAOD JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
110	ASIA LEATHER FINISERS , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Leather Board	PETP/CETP	0	Irrigation Canal/Ganga River	Under Considration	Under Considration
111	ASIA TANNERY PVT.LTD. , 1-A, PURANI CHUGGI , 1 A , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	105	Irrigation Canal/Ganga River	Closed	Closed
112	ASIF LEATHER FINISERS , 27 A , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
113	ASLAM TANNERS , 860-864, WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
114	ASLAM TANNERY , 42 A, BHURIYAGHAT , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	7	Irrigation Canal/Ganga River	Closed	Closed
115	AWADH TANNERY ,333/307, BHALLA STATE , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	14	Irrigation Canal/Ganga River	Closed	Closed
116	Aziz LEATHER FINISERS , 171/155 , BHURIYAGHAT , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	45.5	Irrigation Canal/Ganga River	Valid	Valid
117	BABA HIDE (ZOEB LEATHER FINISERS) 87/1,, WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
118	BABLU INTERPRISES 90/76, B.K.U. HADDI MEEL CHAURAHA	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
119	BEST TANNING IND. , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery*	PETP/CETP	42	Irrigation Canal/Ganga River	Under Considration	Under Considration

120	BHARAT TANNING IND. , 150 FT. ROAD , JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
121	BLUE STAR FINISERS , 996-999 , WAJIDPUR , JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery*	PETP/CETP	21	Irrigation Canal/Ganga River	Under Considration	Under Considration
122	BRIGHT TANNING IND. , IQBAL STREET , JAJMAU	Finished Leather	$26^0$26'18"	$80^0$23'29"	Tannery	PETP/CETP	28	Irrigation Canal/Ganga River	Closed	Closed
123	CARVAN TANNERS , 103 , 104 A , WAJIDPUR , JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Closed	Closed
124	CENTRAL LEATHER FINISHERS 112 A /4 WAZIDPUR JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Under Considration	Under Considration
125	CENTURY LEATHER , 82 A , WAJIDPUR , JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
126	CHAUDHARI LEATHER FINISERS , OPP. SULTAN	Finished Leather	$26^0$25'56"	$80^0$24'6"	Tannery*	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
127	CLASSIC TANNERS , 63 , 150 FT. ROAD , JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
128	CLASSIC TANNIG IND. 102 /88 JAJMAU	Finished Leather	$26^0$25'48"	$80^0$24'38"	Tannery	PETP/CETP	35	Irrigation Canal/Ganga River	Closed	Closed
129	COMMERCIAL TANNERS, 94/80 , DARGH SARIF ROAD , JAJMAU	Finished Leather	$26^0$25'56"	$80^0$24'6"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
130	COSMO TANNERS (INSHA LEATHER FINISERS) , 160 C, GAJJUPURWA , JAJMAU	Finished Leather	$26^0$25'56"	$80^0$24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Under Considration	Under Considration
131	CROWN TANNERS , 192/184 , RAMRAI SARAI , JAJMAU	Finished Leather	$26^0$25'56"	$80^0$24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid

132	CROWN TANNERS(PERFECT TANNERS) 531 , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Under Considration	Under Considration
133	CROWN TANNING IND.(NAW DURGA TANNERY) , 62 A , WAJIDPUR	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
134	DANISH LEATHER 111B ,CHHABEELEPURWA JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
135	DANISH TANNERS, 913, WAZIDPUR JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery*	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
136	DAWN (DON) TANNING IND.(ABIDA TANNING IND.)76 A ,IDGAH ROAD , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	28	Irrigation Canal/Ganga River	Valid	Valid
137	DECENT LEATHER FINISERS , 40/39 , GAJJUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
138	DELHI TANNERY , 395/366 , SHITLA BAZAR , JAJMAU , KANPUR	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
139	DIAMOND TANNERS , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery*	PETP/CETP	35	Irrigation Canal/Ganga River	Closed	Closed
140	EAGLE TANNERY, 425/390, MAKKU SAID KA BHATTA , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
141	EMCO IND. , 70 (A) 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery*	PETP/CETP	5.6	Irrigation Canal/Ganga River	Closed	Closed
142	EURO LEATHER (ISRAT KI TANNERY), 176/169, LALTUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid

143	EUROASIA LEATHER LTD. ,(Tajawar Husain ki Tannery) 101/87 B (A-1) WAJIDPUR JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	84	Irrigation Canal/Ganga River	Valid	Valid
144	EVEREST EXPORT , 175/158 B 3 , BHURIYAGHAT , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
145	EVEREST TANNERS , 184 C-2 , BHURIYAGHAT , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
146	EVEREST TANNERY UPHOLSTERY DIVISION (FARHAT ZABI KI TANNERY) , 175/158 B-4 , BHURIYAGHAT , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	70	Irrigation Canal/Ganga River	Valid	Valid
147	EVEREST TANNING IND. , (UNIT-2) , 184 B-1 , BHURIYAGHAT , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
148	EVEREST TANNING IND. , 97 A , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	10.5	Irrigation Canal/Ganga River	Valid	Valid
149	EVERGREEN TANNERY , 90 A , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
150	FAHIM LARI KI TENNERY 56/55 GAJJUPURWA JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
151	FAK LEATHER FINISHERS, 76/65-21, B, RASULABAD LUCKNOW ROAD JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
152	FALAK ENTERPRISES , 12/9 , GAJJUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
153	FAMOUS TANNERY , 163/165 , LALTUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
154	FARHAN TANNERS , 172/156 , BHURIYAGHAT,	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid

	WAJDPUR, JAJMAU									
155	FARJAM TANNERS , 416 A Purani Chungi JAJMAU Road	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
156	FARJANA TANNERY , 406/377, ASARFABAD , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	17.5	Irrigation Canal/Ganga River	Valid	Valid
157	FATIMA LEATHER CRAFT , 90 A/76 B , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
158	Fida Hussain Tannery (Nafees Leather Finishers), 24-A-175/158 A, Budhhighat, Jajmau, Dist: Kanpur, U.P.	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
159	FINISHED LEATHER JOB WORK, 433/398, MAKKU SHAHEED KA BHATTA , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	35	Irrigation Canal/Ganga River	Under Considration	Under Considration
160	FIRDOS TANNNERY, DARGAH SARIF ROAD JAJMAU KANPUR	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
161	FIROJ KI TANNERY , UPSANA TANNERY LANE , GAJJUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Under Considration	Under Considration
162	FIROJ TANNERS(I) , 379/1-D, IQBAL STREET , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Under Considration	Under Considration
163	FIROJ TANNERS(II) , IQBAL STREET , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery*	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
164	G.N. LEATHER 169 / 162 JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Under Considration	Under Considration

165	G.P. LEATHER PAHALWAN TANNERY UNIT -1 GAJJUPURWA JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
166	G.S. TANNERS , 38 C , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	17.5	Irrigation Canal/Ganga River	Valid	Valid
167	GAJALA TANNERY (RAZZAK TANNERY) 189/172 , DARGHA SARIF ROAD , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
168	GAURI TANNERS (KAMRUDEEN KI TANNERY) 179 , LALTUPURWA	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
169	GAUSH LEATHER FINISHERS BHALLA ESTATE JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
170	GAZAL TANNING IND. 104 /90 1A WAZID PUR JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
171	GEM TANNERS , 112A/3 , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery*	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
172	GLOBE IND. , 37 (B) , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Leather Board	PETP/CETP	5.6	Irrigation Canal/Ganga River	Valid	Valid
173	GLOBE IND. CORPORATION (UNIT-2) SANJAY NAGAR , JAJMAU (NEW GLOBE EXIM)	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
174	Globe Leather Finishers (MUSTAQ AHMAD KI TANNERY),MAKKU SAEED KA BHATTA), 88 A Wajidpur, , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
175	GLOBE LEATHER INDUSTRIES (GLOBE IND. CORPORATION), 37 A , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	5.6	Irrigation Canal/Ganga River	Valid	Valid

176	GLOBE TANNERS , 52A , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
177	GOLDEN ENTERPRISES, 175/158 A 25 D, BHUDHIA GHAT JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
178	GOLDEN INTERPRISES (MUSTAK AHMAD KI TANNERY) , 90/76 C-1, HADDI MILL , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
179	GOLDEN TANNERY , MAKKU SAID KA BHATTA , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
180	GOLDSTAR LEATHER BOARD ,70, 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery*	PETP/CETP	7	Irrigation Canal/Ganga River	Closed	Closed
181	GOODWILL TANNERS , 98 A , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
182	GREATER ARAFAT TANNERY PVT. LTD. 12 C , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	63	Irrigation Canal/Ganga River	Under Considration	Under Considration
183	GUDDU AHMAD KI TANNERY , BHURIYAGHAT , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
184	GUJRAT TANNERS , 104/90 A, PLOT NO, 369-370, SANJAY NAGAR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
185	GULFAM NAVI BHAI KI TENNERY DTS ROAD JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
186	GULJAR OVERSEASE , HINDUSTAN COMPOUNG , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Under Considration	Under Considration
187	H RAHMAN TANNING INDUSTRIES 101 /87	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid

	WAZIDPUR JAJMAU									
188	H.K.TANNING , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery*	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
189	H.R.TRADERS , 111 F, CHABILEPURWA , JAJMAU , KANPUR	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
190	H.S. LEATHER 34/142 GAJJU PURWA JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
191	HABIB LEATHER FINISERS(HABIB TANNERY) , 14 b, 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
192	HABIB TANNERY PVT.LTD. , 15 B, 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery*	PETP/CETP	70	Irrigation Canal/Ganga River	Valid	Valid
193	HAFIZ SONS TANNERY , 93 A , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
194	HAMID LEATHER FINISERS ,1-D, GAJJUPURWA, JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Closed	Closed
195	HAMRAJ TANNERS , 175/158 , B, BHURIYAGHAT , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery*	PETP/CETP	17.5	Irrigation Canal/Ganga River	Valid	Valid
196	HANIF LEATHER, 331/306 BHALLA ESTATE JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
197	HAQ TANNERS , 97 A , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	24.5	Irrigation Canal/Ganga River	Valid	Valid
198	HARRIS LEATHER FINISERS , 15 B, 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
199	HARUN TANNING IND. , IQBAL STREET , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed

200	HAYAT TANNERY ,, 37/A, GAJJPURWA, CHABILEYPURWA, MOTI NAGAR , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
201	HAZI IQABAL AND CO. PURANA NAM NAJ TANNING IND. RAM RAI SARAI 17 A , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
202	HEENA LEATHER EXIMS (ALVI LEATHER) 332 / 308 A 2B BHALLA ESTATE JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'60"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
203	HILTON TANNING IND. 197 / 189 RAMRAISARAI JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Closed	Closed
204	HIMALYA TANNERS , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	35	Irrigation Canal/Ganga River	Valid	Valid
205	HINA INTERPRISES , RAM RAI SARAI , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
206	HINDUSTAN TANNERY PVT. LTD. JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
207	HOMERA TANNING IND. ,I D(17-A-1) 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	105	Irrigation Canal/Ganga River	Valid	Valid
208	HUDA HIDE AGENCY (KAZI LEATHER) 177-A, CHHABEELEPURWA JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
209	I.A. Chemical (AMIN ENTERPRISES), 71 /60 A, SEETALABAZAR JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
210	ILAHI TANNERY , 43/36 , SITLA BAZAR , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid

211	IMPERIAL LEATHER FINISERS PVT.LTD. , CHABILEPURWA , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
212	INDIA INTERPRISES(GREATER INTERPRISES) 90/76 C, 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	10.5	Irrigation Canal/Ganga River	Valid	Valid
213	INDIAN NATIONAL TANNERY, PURANI CHUNGI JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	115.5	Irrigation Canal/Ganga River	Closed	Closed
214	INDIAN TANNING IND. , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery*	PETP/CETP	210	Irrigation Canal/Ganga River	Valid	Valid
215	INTERNATIONAL TANNING IND. , 645 , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
216	INTERNATIONAL TANNING IND. , SHITALA BAZAR , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	140	Irrigation Canal/Ganga River	Closed	Closed
217	IQBAL & CO. , ASARFABAD , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
218	IQBAL AHAMAD KI TANNERY, 71/60 A, SEETALA BAZAR, JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
219	IQBAL AHAMAD KI TENNARY 12/9 BANAWARILAL KA BAGICHAA JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
220	IQBAL TANNERS , 16-C, 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Closed	Closed
221	IQBAL TANNERS, 6-D , 92/87 , GAJJUPURWA JAJMAU, Kanpur	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	14	Irrigation Canal/Ganga River	Closed	Closed
222	Iqbal Tannery (Afaque Export, 345/317, Jajmau, kanpur	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	35	Irrigation Canal/Ganga River	Closed	Closed

223	IRFAN TANNERS , 75 A , Idgah Road WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
224	IRFAN TENNARY, 70/59, SHEETLA BAZAR, JAJMAU ROAD JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
225	IRSHAD KI TANNERY(Irshaad Split Works) , 391/362, SEETALA BAZAR JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
226	ISHRAT FINISERS INDUSTRIES, 173/166 , LALTUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	17.5	Irrigation Canal/Ganga River	Valid	Valid
227	ISLAM LEATHER FINISHERS, 34/141, GAJJU PURWA, JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
228	ISLAM TANNERS, 93/79, C-150 FT. ROAD, JAJMAU , KANPUR	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
229	J.N. INTERNATIONAL (JALALU KI TANNERY) 391/362 SEETALA BAZAR JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
230	JAI BHARAT INTERPRISES, 2 A, BHALLA ESTATE, JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
231	JAJMAU LEATHERS FIFNISHERS (BIHARI TENNERY) 16 B-1, JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
232	JAMAL IND , 7/2 , GAJJUPURWA , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
233	JAMEEL AHAMAD 12/9 BANAWARILAL KA BAGICHA GAJJUPURWA	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed

234	JISHAN TRADING CO.(SAHBUDDIN KI TANNERY) 71/60 A(4), SEETALABAZAR JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
235	JOHARA TANNERY 168 /161 GAJJU PURWA JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
236	Junaid Tannery (Infront of Falak Enterprises, Gajjupurwa, Jajmau, Kanpur.	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
237	JUNAID TANNING IND. , 93/79 A, IDGAH ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Closed	Closed
238	K.C.TAIN, 101/87 , VAJIDPUR JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	7	Irrigation Canal/Ganga River	Closed	Closed
239	KAMAAL TANNING IND. , 43/36 , SHITLA BAZAR , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	140	Irrigation Canal/Ganga River	Closed	Closed
240	KAMAL ENTERPRISES, 331/306-B, BHALLA ESTATE JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
241	KANPUR TANNERY , 9/6 , GAJJUPURWA , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
242	KARAMAT TANNING IND. 783, SANJAY NAGAR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
243	Karamat Tanning Industries (Old Name Allies Leather Export), 783A, Sanjay Nagar, wajidpur, Jajmau, Kanpur	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
244	KASIF TANNERY , 16 B, GAJJUPURWA,, JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed

245	KHALID LEATHER FINISERS , 3 , GAJJUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
246	KHALID TANNERS (SAJID TANNERS) 86 A ,WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
247	KHALID TANNERY 9/6, ASARFABAD JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery*	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
248	KHAN LEATHER FINISHERS, MAKKU SAHID KA BHATTA JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
249	KHATUN TANNERS(RASID TANNERS) , HIDUSTAN COMPOUND , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery*	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
250	KHURSHEED ANWAR KI TENNERY 12/9 BANWARI KA BAGICHA JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
251	KHWAJA FINISHERS, 381/360 A, SHEETLA BAZAR,JAJAMAU ROAD JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
252	KOHINOOR TANNERS , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
253	Laeek Tanners (Madeena Traders), 117/124, Gajjupurwa, Jajmau, Kanpur	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
254	LARI TANNERY (Moh. Ishaq, Moh. Ismile), JAJMAU ROAD , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	210	Irrigation Canal/Ganga River	Valid	Valid
255	LEATHER AGE (ACME TANNERS) , HIDUSTAN COMPOUND , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	84	Irrigation Canal/Ganga River	Valid	Valid
256	LEATHER IMBOSING , 379/D-3, IQBAL STREET , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid

257	LEATHER LIFE, 77/66, SEETLA BAZAR JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
258	LEATHER TEND (FAYAJ TANNERS), D.T.S. ROAD , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
259	LEATHER WORLD , 184 A-1 , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
260	LEBERTY TANNERS INDIA DARGAH SARIF JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
261	LEBERTY TANNERS, 173/157 Burhiaghat , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
262	LEEJA LEATHER , 330 /306 , BHALLA ESTATE, JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
263	Liaba Leathers (Old Name New Moon Light Tannery) 829 A, Wajidpur, Jajmau, Kanpur	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	14	Irrigation Canal/Ganga River	Valid	Valid
264	LIYAKAT LEATHER FINISERS (AMAN TANNERY) 127, IQBAL STREET , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery*	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
265	LUCKY TANNERY , 88/75 B , DARGHA ROAD , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
266	M.A LEATHER, 159/152 B, LATTU PURWA JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
267	M.H. TANNERS (HAZI BADDE TANNERY), 433,398, MAKKU SAID KA BHATTA , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
268	M.I.SADDEL WORK , 24 C , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery*	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
269	M.M. LEATHER FINISERS(ANNA TANNERY)	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	14	Irrigation Canal/Ganga River	Closed	Closed

	109/90 (E) WAJIDPUR , JAJMAU									
270	MAC INTERNATIONAL, 4 A, RAMRAI SARAI, RASOOLABAD ROAD JAJMAU ROAD JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
271	MADINA TANNING IND. IDGHA ROAD , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
272	MAHBOOB SONS 104 /90 A 21, 150 FEET ROAD. KANPUR	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
273	MAQDOOM TANNING IND. 103 /89 JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	17.5	Irrigation Canal/Ganga River	Valid	Valid
274	MASH INTERNATIONAL , 83/69 , HIDUSTAN COMPOUND , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
275	MERAJ TANNING IND. 102/87, WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	70	Irrigation Canal/Ganga River	Valid	Valid
276	MERAZ LEATHER , 10 B BHALLA ESTATE JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
277	MERCURY LEATHER INDUSTRIES, 265 , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
278	MERIT LEATHER FINISERS , 414 , SANJAY NAGAR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	77	Irrigation Canal/Ganga River	Valid	Valid
279	MERIT LEATHER PROD. , 91 A , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	28	Irrigation Canal/Ganga River	Valid	Valid
280	Minar Industries (Old Name Hindustan Tannery Pvt.LTd.), 1133/1134, Wajidpur, Jajmau, kanpur	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	140	Irrigation Canal/Ganga River	Closed	Closed

281	MINAR INDUSTRIES. , 401 , SANJAY NAGAR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
282	MOBIN TANNERS , 91 A , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	28	Irrigation Canal/Ganga River	Valid	Valid
283	MODEL TANNERS , SHITLA BAZAR , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
284	MOH. RIZWAN KI TANNERS 169 GAJJU PURWA JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
285	MOIN TANNERS, 382/353, BANGALI GHAT JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
286	MONA TANNING IND., MONA NAGAR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	35	Irrigation Canal/Ganga River	Valid	Valid
287	MUGIZ TANNERS, 329/308, BHALLA ESTATE, JAJMAU KANPUR	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery*	PETP/CETP	10.5	Irrigation Canal/Ganga River	Valid	Valid
288	MUSTAFIJ AHMAD KI TANNERY , 964 K , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
289	N.R. TANNERS ,175/158 F-1, BHURIYAGHAT , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	14	Irrigation Canal/Ganga River	Valid	Valid
290	N.R. Tanners Unit-2, 175/158, F-2, Buiaghat, Jajmau, Kanpur	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	7	Irrigation Canal/Ganga River	Valid	Valid
291	N.S. TANNERS , 84-A , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	17.5	Irrigation Canal/Ganga River	Valid	Valid
292	N.S. TANNERS , UNIT-2 , 83A , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
293	NADIRI EXPORT 150 FEED ROAD JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
294	NADIRI LATHER FINISHERS 150 ROAD JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Closed	Closed

295	NADIRI TANNING IND. , 96 A , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
296	Nafis Ki Tannery, (N.A. Traders) Chhabilepurwa, Jajmau, kanpur	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
297	NAGAURI TANNING IND. 102/88-A(3) WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	35	Irrigation Canal/Ganga River	Valid	Valid
298	NAUSAD LEATHER FINISERS , 30 A , IDGAH ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
299	NAVI LEATHER FINISHER , 58 A, 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
300	NAVRATAN TANNERY , 532, 33 , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	70	Irrigation Canal/Ganga River	Under Considration	Under Considration
301	NAZ LEATHER FINISERS , 14 A , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	35	Irrigation Canal/Ganga River	Valid	Valid
302	NAZ TANNERS , 111/5, 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	17.5	Irrigation Canal/Ganga River	Closed	Closed
303	NAZ TRADERS 150 FEET ROAD JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
304	NEW ERA INTERNATIONAL , 16 C , GAJJUPURWA , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
305	NEW ERA TANNING CENTRE 105 /100 GAJJU PURWA JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
306	NEW JAVED TANNERY (AHIRWAR KI TANNERY) , 480/379 , GAJJPURWA JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	28	Irrigation Canal/Ganga River	Closed	Closed

307	NEW LEATHER LINE , 88/74 , 63 K 12 , HIDUSTAN COMPOUND , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	14	Irrigation Canal/Ganga River	Valid	Valid
308	NEW LIGHT TANNERS , 59 A, 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	84	Irrigation Canal/Ganga River	Valid	Valid
309	NEW LIGHT TANNERY PVT. LTD. 150 FEET ROAD JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
310	NEW LIGHT TANNING IND. ,125, 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	84	Irrigation Canal/Ganga River	Valid	Valid
311	NEW MODERN INDIA TANNERY, 395 /366, SHEETLA BAZAR, JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
312	NEW MOON LIGHT TANNERY] MAKKU SAEED KA BHATTA, JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
313	New Taj leather finishers, 140 wajidpur, Jajmau, Kanpur	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery*	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
314	NEW UNIVERSAL TANNERY , 419/387, PURANI CHUNGI, JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	70	Irrigation Canal/Ganga River	Closed	Closed
315	NIDA TANNERS , 189/172 , JAJMAU ROAD , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
316	NISAR SONS(LARI TANNERY) , 166 , GAJJUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Under Considration	Under Considration
317	NISHA ENTERPRISES (OLD NAME SAUD KI TANNERS) 12/9 GAJJU PURWA JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
318	NISHA TRADERS , 25/20 , GAJJUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	14	Irrigation Canal/Ganga River	Valid	Valid

319	Nivada Tanners (Kadeer Industry) 94/80, Jajmau Kanpur	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
320	NIZAM TANNERS 46/45 GAJJU PURWA JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
321	NOOR LEATHER FINISERS , GAJJUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
322	NOOR TANNERS , 5 BLOCK B , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
323	Noor Ullah Tanners (Old name Nishat Tanners), Wajidpur, Jajmau, Kanpur	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
324	NORTHERN TANNERY , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	259	Irrigation Canal/Ganga River	Valid	Valid
325	NUSRAT TANNERY PVT.LTD. , 22/19 , GAJJPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	24.5	Irrigation Canal/Ganga River	Closed	Closed
326	OMEGA INTERNATIONAL (RENNETS ESTERN EXPORT) 2B, 35 , RAMRAI SARAI , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	105	Irrigation Canal/Ganga River	Valid	Valid
327	ORIENTAL TANNING IND. , 5 BLOCK B , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	24.5	Irrigation Canal/Ganga River	Closed	Closed
328	OVERSEASE TANNING CORPORATION , 3 B ,A-BLOCK , 150 FEET ROAD, JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
329	PACIFIC LEATHER FINISERS , 197/189 , RAMRAI SARAI , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	84	Irrigation Canal/Ganga River	Valid	Valid
330	PACIFIC LEATHER PVT.LTD. , 198/200 , GAJJPURWA, JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Closed	Closed

331	PAHALWAN TANNERY(UNIT-2) , GAJJUPURWA , JAJMAU	Finished Leather	$26^0$26'18"	$80^0$23'29"	Tannery	PETP/CETP	14	Irrigation Canal/Ganga River	Valid	Valid
332	PAHALWAN TANNERY(UNIT-3) GAJJUPURWA , JAJMAU	Finished Leather	$26^0$25'56"	$80^0$24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
333	PARADISE LEATHER FINFISHERS , 16 B(2), CHABEELEPURWA JAJMAU	Finished Leather	$26^0$26'18"	$80^0$23'29"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
334	PARAMOUNT TANNERY IND. , 19 LALTUPURWA , JAJMAU	Finished Leather	$26^0$25'56"	$80^0$24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Under Considration	Under Considration
335	PARK LEATHER(O.N.AJJ TANNERS) 58/47 , SHITLA BAZAR , JAJMAU	Finished Leather	$26^0$25'56"	$80^0$24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
336	PASHA TANNERS 8/5 B - 2 ASARFABAD JAJMAU	Finished Leather	$26^0$25'56"	$80^0$24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
337	PENJA LEATHERS , 104/90 (24B-3-D) SANJAY NAGAR , JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
338	PENJA TANNING IND. PVT. LTD. , 104/90(23A) , SANJAY NAGAR	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	126	Irrigation Canal/Ganga River	Valid	Valid
339	PIONEER LEATHER FINISERS PVT.LTD. , 89/75 , 150 FT. ROAD , JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
340	POPULAR TANNERY, DARGAH ROAD, JAJMAU	Finished Leather	$26^0$43'191"	$80^0$40'830"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
341	PRIME TANNERS , 13 A , 150 FT. ROAD , JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	35	Irrigation Canal/Ganga River	Valid	Valid
342	PRINCE LEATHER, 331/306 A, BHALLA ESTATE JAJMAU	Finished Leather	$26^0$25'56"	$80^0$24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
343	QUAYUM LEATHER , 150 FT. ROAD , JAJMAU	Finished Leather	$26^0$26'18"	$80^0$23'29"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid

344	R.A.TRADE & IND. , 187/180 A , LALTUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
345	R.B. TRADERS 156 /149 GAJJU PURWA JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
346	R.K. TANNERS ,508 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
347	R.K.LEATHER FINISERS , 87-C(1) A, WAJIDPUR , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
348	RAHMAN Ind.LTD. ,(ALAM TANNERY)16D -1, 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	84	Irrigation Canal/Ganga River	Valid	Valid
349	Rahman Ind.Ltd.(ALLAHDAD TANNERY), 99/85A , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	84	Irrigation Canal/Ganga River	Valid	Valid
350	Rahman Ind.Ltd.(SIKANDAR TANNERY PVT.LTD. .,ALLAHDAD TANNERY UNIT-3) GLOBE TANNERY ALLAHDAD UNIT -1,(N.C & S) (ALLAHDAD UNIT-2) 99/85A JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	84	Irrigation Canal/Ganga River	Valid	Valid
351	RAHMAT SONS LEATHER FINISERS(O.N.ATIF TANNERY) 103/96 , 150 FT. ROAD	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
352	RAISH TANNERY 88/74C DARGAH ROAD JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
353	RAJA INTERPRISES 12/9 BANAWARI LAL KA BAGICHA, JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed

354	RAJA TANNERY , 81 C, WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
355	RAJIV LEATHER IMBOSING, 47/46 GAJJUPURWA, JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
356	RAMSHA TANNERS(O.N FIROJ KI TANNERY) 160 C , GAJJUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
357	RANA TANNERY , 102 , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	28	Irrigation Canal/Ganga River	Valid	Valid
358	RAZA LEATHER FINISERS , 192/184 , RAMRAI SARAI , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	17.5	Irrigation Canal/Ganga River	Valid	Valid
359	RELIANCE TANNING INDUSTRIES, 487-488, 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
360	RIDER TANNING IND. , 242 , GAJJUPURWA , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery*	PETP/CETP	21	Irrigation Canal/Ganga River	Under Considration	Under Considration
361	RIZWAN TANNING IND.104/90 A(22) , SANJAY NAGAR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	140	Irrigation Canal/Ganga River	Closed	Closed
362	ROSHAN AND COMP., 345/317 (A-1), BHALLA EASTATE JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
363	ROSHAN LEATHER IND , 9/10 , GAJJUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
364	ROSHAN TANNERS , 164-157, LALTUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
365	RUKSH EXIM PVT.LTD. (NEW NAME INDIAN TANNERY) , 50A , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid

366	RUSTAM TRADERS , 158/151, LALTUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
367	S.A.TANNING IND. , 3 B , 150 FEET ROAD, JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
368	S.K.KAMAL TANNERY , 58/47 (1)NEAR PARK LEATHER ,SHITLA BAZAR , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
369	S.K.S. Leather Finishers (Benefit Tanning Industry, 175/158B-4, Buiyaghat Jajmau, kanpur	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
370	S.P. TANNERS, 785, TADBAGIA, SANJAY NAGAR, JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
371	S.R.TANNERY ,129 A, BLOCK C, GAJJUPURWA, , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery*	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
372	S.S.TANNERS (AYAZ TANNERS) , 104/90 A (B) WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
373	SABA EXPORT , 104/90A(28C) , SANJAY NAGAR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
374	SABRA LEATHER FINISERS , 94 E , WAJDIPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
375	SADDAM TANNERS , 98/93 , GAJJPURWA , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
376	SAGUN IND. , 94 A , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	35	Irrigation Canal/Ganga River	Valid	Valid
377	SAHARA TANNING IND. , 104-C-1 , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid

378	SAIRA IND. (AKMAL SONS), 35 A , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
379	SAJID TANNERS , 361,1 D , 30 B/2 , GAJJUPURWA , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
380	SALIK LEATHER FINISERS , PLOT NO. 53 , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
381	SALLAN ENTERPRISES (Sadab Enterprises)SANJAY NGR. 104 /90 A JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
382	SALLAN ENTERPRISES , 332 / 308 10 B, BHALLA ESTATE JAMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
383	SALU TANNERS , (ISARA TANNERY) 33,34 A, IDGAH ROAD , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
384	SALWAN TANNERY , 8/5-B , ASARFABAD , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
385	SAMSER KI TANNERY , SHITAL BAZAR , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
386	SAMSON EXPORT , 88/74(7) , HIDUSTAN COMPOUND , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	14	Irrigation Canal/Ganga River	Valid	Valid
387	SANNI LEATHER, B-3, 330 /306, BHALLA ESTATE JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
388	Sannu Enterprises, B-13, Bhalla Estate, Jajmau, Kanpur	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
389	SARA INTERNATIONAL (RAHIM TANNERS) 12 B 02A, 150 FT ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	35	Irrigation Canal/Ganga River	Under Considration	Under Considration

390	SARFRAJ TANNERS, 382 /353, BAGALIGHAT, JAJMAU	Finished Leather	$26^0$25'56"	$80^0$24'6"	Tannery	PETP/CETP	14	Irrigation Canal/Ganga River	Valid	Valid
391	SARTAJ TANNERS (MMZ Tannery) , 104/90, (A-7H), WAJIDPUR ,150 FEET ROAD, JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
392	SEEMA TANNING IND. PVT. LTD. , 104/90 A(16) ,WAJIDPUR , JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	35	Irrigation Canal/Ganga River	Valid	Valid
393	SHAFIQ SPLIT WORK , 104 /90- B, WAZIDPUR JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
394	SHAHID TANNERY , 53 , 150 FT. ROAD , JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
395	SHAKOOR TANNERY , 180 , LALTUPURWA , JAJMAU	Finished Leather	$26^0$25'56"	$80^0$24'6"	Tannery	PETP/CETP	14	Irrigation Canal/Ganga River	Valid	Valid
396	SHALIMAR LEATHER INDUSTRIES 74 A 150 JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	52.5	Irrigation Canal/Ganga River	Valid	Valid
397	SHALU TANNERS Gajju Purwa, JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
398	SHAMS LEATHER FINISERS, 150 FT. ROAD , JAJMAU	Finished Leather	$26^0$25'14"	$80^0$24'60"	Tannery*	PETP/CETP	35	Irrigation Canal/Ganga River	Under Considration	Under Considration
399	SHAQIB LEATHER TRADERS (IMTIAZ TRADERS) 157B GAJJU PURWA JAJMAU	Finished Leather	$26^0$25'56"	$80^0$24'6"	Tannery*	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
400	SHARIQ TANNERS , 786 , MOTINAGAR CHABILEPURWA , JAJMAU	Finished Leather	$26^0$26'18"	$80^0$23'29"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
401	SHAUKAT KI TANNERY(TRADE HOUSE) , 8/5 B , ASHARFABAD , JAJMAU	Finished Leather	$26^0$25'56"	$80^0$24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid

402	SHINE LEATHER FINISHERS (WELCOME CHAMICAL IND.) 1 D-11, CHABEELEPURAWA JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
403	SHIVAN TANNERY , JAJMAU ROAD , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	105	Irrigation Canal/Ganga River	Valid	Valid
404	SHUBHAN TANNERS , 43/36 A , SHITLA BAZAR , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery*	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
405	SKIN FINISHERS (SHAHID TANNERS) DARGAH SARIF ROAD JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
406	SOAIB LEATHER, 332/308 A, BHALLA ESTATE JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
407	SOCIETY LEATHER , 85 A WAZIDPUR JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	28	Irrigation Canal/Ganga River	Closed	Closed
408	SOFIA INTERNATIONAL , 87 A WAJIDPUR	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
409	STANDARD TANNERY(KHALWA TANNERY)190/173 , DARGH SARIF ROAD , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	14	Irrigation Canal/Ganga River	Closed	Closed
410	STAR I.A. ENTERPRISES (Z.A. LEATHER PROUDCT) , 42/41 , GAJJUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	10.5	Irrigation Canal/Ganga River	Under Considration	Under Considration
411	STAR TANNERY , 19 , RAMRAI SARAI , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery*	PETP/CETP	140	Irrigation Canal/Ganga River	Valid	Valid
412	STAR TANNING IND. , 19 B, LALTUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid

413	SULEMAN TANNING IND. , 90/76 B(K) IDGAH ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
414	SULTAN TANNERS , 230 JAJMAU ROAD , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery*	PETP/CETP	238	Irrigation Canal/Ganga River	Valid	Valid
415	SULTAN TANNING IND. , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
416	SUNIL ENTERPRISES, 330/306, BHALLA ESTATE JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
417	SUNRISE LEATHER FINISERS (Rainbow International), 66 IND. AREA , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
418	SUNRISE TANNERY , 72 A150 FT. ROAD , JAJMAU , KANPUR	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery*	PETP/CETP	105	Irrigation Canal/Ganga River	Valid	Valid
419	SUNSHINE INDUSTRY (F.R.LEATHER), 69 A , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
420	SUNSHINE TANNING IND. , 482-83 , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
421	SUPER LEATHER FINISERS , 406 K-409, SANJAY NAGAR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery*	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
422	SUPER STYLE TANNERS PVT.LTD. 79 , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	56	Irrigation Canal/Ganga River	Valid	Valid
423	SUPER TANNERY LTD. , 187/170 , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	532	Irrigation Canal/Ganga River	Valid	Valid
424	SUPER TRADE 12/9 BANWARILAL KA BAGICHA JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
425	SUPREME TANNING IND. , 104/90 ,A-7 , 150 FT. ROAD	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery*	PETP/CETP	70	Irrigation Canal/Ganga River	Valid	Valid

	, JAJMAU									
426	SWAN TANNING IND, 199,205,207, GAJJPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Under Considration	Under Considration
427	TAIYABA INTERNATIONAL 1 D 14 A-1 GAJUPURWA JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
428	TAJ TRADERS (UNIT-2) , 104/90 A (16)A , SANJAY NAGAR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Closed	Closed
429	TAJAMMUL KI TANNERY, 173 /157 C BHDHIA GHAT JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	14	Irrigation Canal/Ganga River	Under Considration	Under Considration
430	TANNERS CO , 91 A , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	10.5	Irrigation Canal/Ganga River	Valid	Valid
431	TANNERS INDIA , 38 A , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
432	TANNERS POINT, 129 A, BLOCK-C, AHMAD NAGAR , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
433	TASMIYA LEATHER PVT.LTD. (TALAT LEATHER PVT.LTD). 29 A , 150 FEET ROAD, Jajmau	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
434	TEJ IND. , 35 A , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
435	TOP TANNERS ,406/377-A, ASARFABAD , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	17.5	Irrigation Canal/Ganga River	Valid	Valid
436	TRIVENI TANNERS , 325/302 , JAJMAU ROAD , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid

437	UNION TANNERS ,(Crown International) 104/90 A , SANJAY NAGAR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
438	UNIQUE INTERNATIONAL , 980 D , WAJIDPUR , JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
439	UNITED PROVINCES TANNERY CO. LTD. , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	84	Irrigation Canal/Ganga River	Under Considration	Under Considration
440	UNIVERSAL TANNING IND. 407 /377 A JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	14	Irrigation Canal/Ganga River	Valid	Valid
441	UPASNA TANNERY, GAJJUPURWA, JAJMAU, KANPUR	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	0	Irrigation Canal/Ganga River	Closed	Closed
442	UPPER INDIA PVT.LTD. , 38/32 , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	140	Irrigation Canal/Ganga River	Valid	Valid
443	V.T.I EXPORTS (KHURSHEED TENNARY) 126/119, MOTI NGR. GAJJU PURWA JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
444	VENUS IND. , JAJMAU ROAD , JAJMAU	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
445	VERTEX LEATHER 13,88/74 HINDUSTAN COMPOUND JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	10.5	Irrigation Canal/Ganga River	Valid	Valid
446	WAHID TANNERS , 153-B, 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
447	WASIF TANNERY , 150 FT. ROAD , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	105	Irrigation Canal/Ganga River	Valid	Valid
448	WASIM LEATHER, 332/308, BHALLA ESTATE JAJAMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
449	WELCOME TANNERY(ARMAN	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid

	TANNER) , 77/66,SHITALA BAZAR , JAJMAU									
450	Western Tannery, 18A-1, Wajidpur, Jajmau, Kanpur	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
451	YAQUB TANNERS ,112 F, CHABILEPURWA, GAJJUPURWA , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Valid	Valid
452	Yaseen Tanners, 150 Feet Road, jajmau, kanpur	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	14	Irrigation Canal/Ganga River	Closed	Closed
453	YUSUF ENTERPRISES, 174 , WAJIDPUR , KANPUR	Finished Leather	26^{0}25'48"	80^{0}24'38"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Valid	Valid
454	Z.R. LEATHER FINISHERS, 263 B, WAJIDPUR JAJMAU	Finished Leather	26^{0}25'14"	80^{0}24'60"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Closed	Closed
455	ZAZ IMPEX , 208/800, SHITLA BAZAR , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Valid	Valid
456	ZAZ SONS EXPORT LTD. , 4 B , SHITLA BAZAR , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	42	Irrigation Canal/Ganga River	Closed	Closed
457	ZAZ TANNERY , 150 FT. ROAD , JAJMAU , KANPUR	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	140	Irrigation Canal/Ganga River	Under Considration	Under Considration
458	ZEBA TANNERS , 180/3 , LALTUPURWA , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	17.5	Irrigation Canal/Ganga River	Valid	Valid
459	ZINAT TANNERS , 183 A , RAMRAI SARAI , JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	21	Irrigation Canal/Ganga River	Under Considration	Under Considration
460	ZINAT TANNERS 128 /88 RAMRAISARAI JAJMAU	Finished Leather	26^{0}25'56"	80^{0}24'6"	Tannery	PETP/CETP	3.5	Irrigation Canal/Ganga River	Closed	Closed
461	ZURIC INTERNATIONAL,(SHIVLI TANNERY) , 377D-A, IQBAL STREET , JAJMAU	Finished Leather	26^{0}26'18"	80^{0}23'29"	Tannery	PETP/CETP	17.5	Irrigation Canal/Ganga River	Valid	Valid

2.8 Effluent Disposal Methods- Recipient Water Bodies Etc

S.No.	Industrial Area	Effluent Disposal Method	Recipient Water Bodies	Remark
1	Panki Industrial Area	Through ICI Drain	Pandu River	Treated Industrial Effluent
2	Vijay Nagar	Through Ganda Nala	Pandu River	Treated Industrial Effluent Mixed with untreated sewage
3	Dada Nagar	Through Ganda Nala	Pandu River	Treated Industrial Effluent Mixed with untreated sewage
4	Fazalganj	Through Ganda Nala	Pandu River	Treated Industrial Effluent Mixed with untreated sewage
5	Jajmau	Through Dabka Drain, Sheetla Bazar Drain, Budhiyaghat Drain, Wazidpur Drain,	Ganga River	Treated Industrial Effluent discharge on land through Irrigation Channel. In case of overflow from pumping station industrial effluent mixed with

				untreated sewage of drains of area.

2.9 Quantification Of Wastewater Pollution Load And Relative Contribution By Different Sources viz Industrial/ Domestic

a) Industrial:

S.No.	Drain	Type of Industry * The Type of Industry may be changed as per local conditions							Total Effluent Discharge (MLD)	Pollution load (BOD in kg/day)
		Sugar	Pulp & Paper	Distillery	Textile	Slaughter House	Others	Total		
1	Wazidpur	0	0	0	0	0	134	134	2.295	9180 (In case of overflow)
	Budhiyaghat	0	0	0	0	0	25	25	0.378	1512 (In case of overflow)
	Sheetla bazar	0	0	0	0	0	179	179	2.4304	9720 (In case of overflow)
	ICI Drain	0	0	0	30	0	10	40	8.416	353.47
	Ganda nala	0	1	0	22	0	13	36	0.719	51.67
	Halwakhand nala	0	0	0	0	0	0	0	0	
	Panki Thermal power	0	0	0	0	0	01	01	0	

S.No.	Drain	Type of Industry * The Type of Industry may be changed as per local conditions							Total Effluent Discharge (MLD)	Pollution load (BOD in kg/day)
		Sugar	Pulp & Paper	Distillery	Textile	Slaughter House	Others	Total		
							(Closed)			
	COD	0	0	0	0	1 (Closed)	0	01	0	
	Direct to Pandu River	0	1	0	0	0	0	01	ZLD	
Total		**0**	**2**	**0**	**52**	**01**	**362**	**417**	**14.2384**	

b) Domestic:

S No.	District	No. of Drains	Type of Drains			Status of Drains			Industries		Sewage Discharge (MLD)			Pollution load (BOD in kg/day)
			Domestic	Industrial	Mixed	Tapped	Untapped	Partially Tapped	Number	Treated Effluent (MLD)	Treated	Untreated	Total	
Drains Meeting at, Pandu River, Kanpur														
1.	ICI Drain	01	-	-	Yes	NO	Yes	-	40	8.416	-	5.8	-	417.6
2.	Ganda nala	01	-	-	Yes	NO	-	Yes	36	7.195	-	46.88	-	8438
3.	Halwakhand nala	01	Yes	-	-	NO	-	Yes	-	-	-	40.99	-	6394
4.	Panki Thermal power	01	-	-	Yes	NO	Yes	-	01	14.300 (Closed)	-	34.70	-	5205
5.	Ratanpur	01	Yes	-	-	NO	Yes	-	-	-	-	6.65	-	798
6.	COD	01	-	-	Yes	Yes	-	-	-	-	-	-	-	-
Drains Meeting at River Ganga in Kanpur														
7.	Air force	01	Yes	-	-	Yes	-	-	-	-	7.87	-	-	566.64
8.	Wazidpur	01	-	-	Yes	Yes	NO	-	134	2.295	-	-	-	-
9.	Budhiyaghat	01	-	-	Yes	Yes	NO	-	25	0.378	-	-	-	-
10.	Sheetla bazar	01	-	-	Yes	Yes	NO	-	179	2.4304	-	11.25	-	3510
11.	Dabka nala	01	Yes	-	-	NO	Yes	-	-	-	-	17.21	-	1961.94
12.	Satti chaura	01	Yes	-	-	Temporary Tapped	NO	-	-	-	-	-	-	-
13.	Golaghat nala	01	Yes	-	-	Temporary Tapped	NO	-	-	-	-	-	-	-
14.	Guptar ghat nala	01	Yes	-	-	Yes	NO	-	-	-	-	-	-	-

S No.	District	No. of Drains	Type of Drains			Status of Drains			Industries		Sewage Discharge (MLD)			Pollution load (BOD in kg/day)
			Domestic	Industrial	Mixed	Tapped	Untapped	Partially Tapped	Number	Treated Effluent (MLD)	Treated	Untreated	Total	
15.	Muir mill drain	01	Yes	-	-	Yes	NO	-	-	-	-	-	-	-
16.	Parmatghat nala	01	Yes	-	-	Yes	NO	-	-	-	-	-	-	-
17.	Tefco nala	01	Yes	-	-	Yes	NO	-	-	-	-	-	-	-
18.	Sisamau nala	01	-	-	Yes	Yes	NO	-	-	-	-	-	-	-
19.	Ranighat nala	01	Yes	-	-	Temporary Tapped	-	-	-	-	-	-	-	-
20.	Parmiya nala	01	Yes	-	-	1. Parmiyapurwa Nala-Tapped 2. Nawabganj Nala-Temporary Tapped 3. HBTI Nala-Untapped	-	-	-	-	-	12.16	-	1021.44
21.	Police line drain	01	Yes	-	-	Yes	-	-	-	-	Dry	Dry	-	-
22.	Jail drain	01	Yes	-	-	Yes	-	-	-	-	Dry	Dry	-	-

S No.	District	No. of Drains	Type of Drains			Status of Drains			Industries		Sewage Discharge (MLD)			Pollution load (BOD in kg/day)
			Domestic	Industrial	Mixed	Tapped	Untapped	Partially Tapped	Number	Treated Effluent (MLD)	Treated	Untreated	Total	
	Total	**22**	**14**	**-**	**8**	**15**	**5**	**3**	**416**	**175.64**	**7.87**	**175.64**	**-**	**28312.62**

2.10 Action Plan for Compliance and Control of Pollution

2.10.1 Short Term Action Points (upto 1 year, including continuous activities)

Short Term Action Points (upto 1 year, including continuous activities)

Sr. No.	Action Points	Timeline	Responsible Agencies/ Stake Holders
2.10.1 a)	**Water Pollution** • **Industrial Source** - Proposed Action Plan for effective control of Water Pollution: Regular effluent sample collection and analysis of Pollution Control System in Red, Orange & Green category Industries to be done to ensure strict compliance of prescribed effluent norms.	**Frequency** Red category- **3 months** Orange category -**6 months** Green category -**12 months** (By UPPCB) & By Individual Industries as follows	UPPCB Individual Industry
	• Installation of energy meter, on line PH meter, automatic chemical dozing system, on line effluent quality & flow measurement (OCEMS) and installation of independent laboratory to monitor critical parameters like MLSS, SVI etc. and other inlet and outlet parameters of ETP for Large & Medium Industries	Ongoing	Individual Industries (Large and Medium)
	• Upgradation of ETP/PETP in existing water polluting units is to be done on case to case basis. Under the upgradation plan, suitable tertiary treatment methods are to be installed in a time bound manner in order to ensure that treated water is recycled / reused to the maximum extend.	Within 06 months.	Individual Industries.
b)	• **Groundwater Pollution:** Regular monitoring of Over Head Tanks supplying drinking water in the region and Rainy wells is proposed to be done by Regional Laboratory of State Pollution Control Board. Also, intensive surveys will be done to ensure that practice of reverse boring is not prevalent in the region.	Ongoing	Jal Nigam/ State Ground Water Authority
c)	• **Domestic Waste Water (Sewage):** Domestic sewage contributes to about 80% of Water. The status of Sewage Pollution Control is as follows:	Ongoing	UPPCB and GPCU, UP Jal Nigam

• STPs are Operational	Ongoing	UPPCB and GPCU, UP Jal Nigam
• Combined Inspection of STPs by UPPCB and Jal Nigam	Ongoing Process	UPPCB and GPCU, UP Jal Nigam
• Upcoming High Rise Buildings, Commercial Project, Educational Institution, Multiplex, Town ship & Building Projects are major source of sewage generation and Municipal Solid Waste. Such projects must ensure setting up of STPs, recirculation of treated water for flushing/gardening regarding purpose & ensure compliance of the conditions of the Environment Clearance and NOC from PCB.	Ongoing Process	Project proponent KDA & UPPCB.

2.10.2 Existing Infrastructure Facilities- Water quality monitoring network, ETPs, CETPs, sewerage treatment plant of industry (STPs), surface drainage system, effluent conveyance channels/ outfalls etc.

2.10.3 Technological Intervention

S. No	Industries	Category	Pollution control measures installed (Y/N)
1	387 Tanneries attached with CETP Jajmau	Red	N
2	11 Textile Units attached with CETP Rooma	Red	Y
3	56 units having individual ETP	Red	Pollution Control Measures installed in 03 Units. Discharge of 32 units is ≤10 KLD & Discharge of 24 units is ≥ 10 KLD. 07 Units closed ETP not installed.

2.10.4.1 Inventorisation of Prominent Industries with Technological Gaps

S. No.	Industries	Category	Pollution control measures installed (Y/N)
1	Textile	Red	ETP Installed upgradation of the ETP according to the charter is in process.
2	Tannneris	Red	PETP Installed upgradation of the PETP according to the direction is to be done.

2.10.4.2 Identification of Low Cost and Advanced Cleaner Technology for Pollution Control

S. No	Number of industries adopted cleaner technologies	Previous technologies	New technologies
1	387 Tanneries	Tradiational Salt speration (mannual) from hides. PETP for pH & solid control. CRP/CCRP for chorme recovery and reuse.	cleaner technologies as per the order of Hon'ble NGT in O.A. No. 200/2014. The tannery industries should be encouraged to adopt the methodology for processing of hides as per the Central Leather Research Institute, Chennai. The pinpoints are as follows: • Alternative methods of preservation of hides/skins nd processing of green hides. • Desalting of hides and skins and collection of salt for disposal or reuse. • Use of enzymes in soaking process. • Soaking in drums instead of pits • Green fleshing of hides. • Cleaner liming options. • Ammonia-free deliming process. • Alternative pickling & chrome tanning process. • High exhaust tanning process. • Pickle less Chrome tanning process • Pickle-Basification Free Chrome Tanning. • Salt Free Chrome Tanning. • Direct Chrome Liquor Recycling (DCLR). • Chrome Recovery and Reuse. • Cleaner technologies in post tanning and finishing.
2	Textile	Physicochemical based ETP.	Upgradation of ETP as per the charter perpered by CPCB for textile units.
2	01 CETP	UASB technology	Upgradation of CETP in compliance of Hon'ble NGT Order in O.A. No. 200/2014. ASP technology

based CETP. Pre & post diluation with sewage.	based followed by Ultra Filteration and post dilution with sewage.

2.10.5 Infrastructure Renewal if any required

2.10.5.1 Details of existing infrastructure facilities-

- MSW Treatment & Disposal Facility Capacity 1447 TPD
- STP Bingawan Capacity 210 MLD
- STP Sajari Capacity 42 MLD
- STP Jajmau Capacity 43 MLD
- STP Jajmau Capacity 05 MLD
- STP Jajmau Capcity 130 MLD
- CETP Jajmau Capcity 36 MLD (09 MLD Tannery Waste Water & 27 MLD Sewage)
- CETP Rooma Capcity 1.5 MLD (For Textile Units)

2.10.5.2 Need of up gradation of existing facilities –

- MSW Treatment & Disposal Facility Capacity 1447 TPD:- Regular operation with dizered capacity along with peripheral activites i.e. collction, segregation, transportation etc.
- STP Bingawan Capacity 210 MLD:- Proper operation to comply the prescribed norms.
- STP Sajari Capacity 42 MLD:- Proper operation to comply the prescribed norms.
- STP Jajmau Capacity 43 MLD:- Proper operation to comply the prescribed norms.
- STP Jajmau Capacity 05 MLD:- Proper operation to comply the prescribed norms.
- STP Jajmau Capcity 130 MLD:- Proper operation to comply the prescribed norms.
- CETP Jajmau Capcity 36 MLD (09 MLD Tannery Waste Water & 27 MLD Sewage):- In compliance of Hon'ble NGT Order dated 13.07.2017 Upgradation of the CETP is in progress in supervision of NMCG.
- CETP Rooma Capcity 1.5 MLD (For Textile Units):- Proper operation to comply the prescribed norms.

2.10.5.3 De-silting of water tanks, drains, culvert, etc. - Please provide details

2.10.5.4 Construction of lined drains/ connections - Please provide details if any

2.10.5.5 Treatment and management of contaminated surface water bodies - Please provide details:

S. No.	Contaminated surface water bodies	Treatment adopted	status
1			

2.10.5.6 Rejuvenation/ Management Plan for important eco-geological features- Please provide details if any

2.10.5.7 Comments on Carrying of effluent from industrial units located in non-industrial locations to CETP facilities by lined drains/ pipelines only and prevention of other disposal into city sewerage/ surface drainage

2.10.5.8 Installation of Gen sets at CETPs - Please provide details if any requirement

2.10.6 Managerial and Financial aspects

2.10.6.1 Cost and time estimates: Details of cost estimated for any infrastructure renewal related works, if any.

2.10.6.2 Identified private/ public sector potential investors and contribution/ obligation: If any, investment from private sector potential investors please provide details.

2.10.6.3 Government Budgetary support requirement

S. No.	Amount of budget allocated to CEPI area	Remarks
1		
2		

2.10.6.4 Hierarchical and structured managerial system for efficient implementation

2.10.7 Self monitoring systems industries (ETPs) etc.- Please provide details

S. No.	Industries	Category	ETPs installed(Y/N)
1			

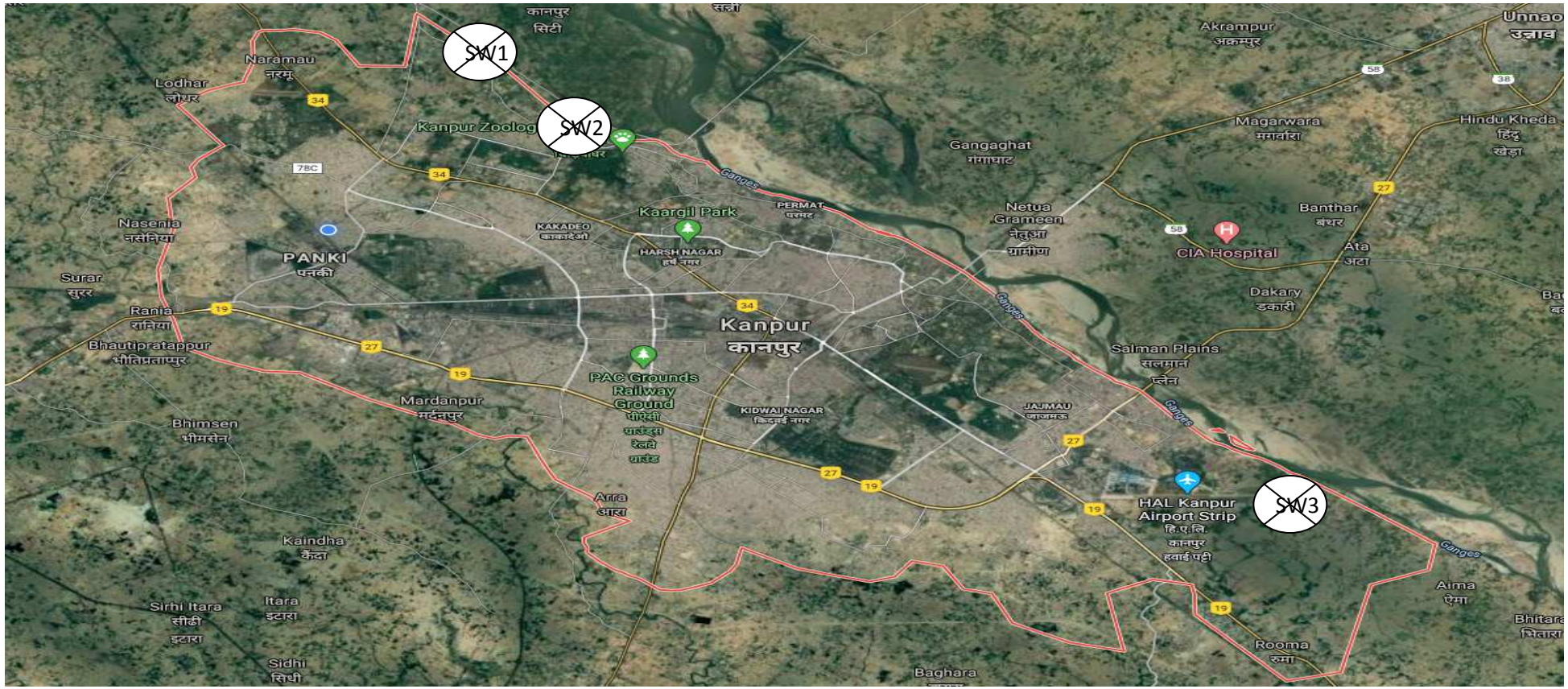
2.10.8 Data linkages to SPCB / CPCB (OCEEMS)- Please provide details

S. No.	Industries	Category	Data linkages (Y/N)
1			

2.11 MONITORING: SURFACE WATER, GROUND WATER

SURFACE WATER MONITORING STATIONS

(Insert a location map showing surface water monitoring stations in the city-
Sample map has been attached below and provide other details as well)



#	Location/Station	Location Code	#	Location/Station	Location Code
1	Bithoor	SW1	3	Shekhpur	SW3
2	Ganga Barrage	SW2			

GROUND WATER MONITORING STATIONS:

(Insert a location map showing ground water monitoring stations in the city-
Sample map has been attached below and provide other details as well)

#	Location/Station	Location Code	#	Location/Station	Location Code
1		GW1	3		GW3
2		GW2	4		GW4

3.0 Air Environment

3.1 Present status of Air environment: supported with minimum one-year analytical data i.e. status of AQI for last 1 year.

S. No.	Cluster	Months(Jan 2019-Dec-2019)	AQI	Condition

3.1.1 Critical locations for air quality monitoring: Identification of critical locations for air quality monitoring

S. No.	Locations identified	Coordinates		Distance and direction
		Latitude	Longitude	

3.1.2 Present levels of pollutants in air: Reports of routine parameters, special parameters and air toxic relevant to the area in three categories- known carcinogens probable carcinogen and other toxic

a) Ambient Air Quality Monitoring for following parameters:

i) SO_2, NO_2 , PM_{10} , $PM_{2.5}$, Pb and other relevant parameter (for 24 hourly average monitoring values)

S. No	Sampling Location	Month & Year	Parameters	Observed values	Standards
1	Kidwai Nagar	Jan-2020	SO_2,	9.15,	80,
			NO_2 ,	56.49,	80,
			PM_{10}	257.66	100
2	Jareeb Chowki	Jan-2020	SO_2,	9.01,	80,
			NO_2 ,	58.80,	80,
			PM_{10}	255.23	100
3	Panki Site-1	Jan-2020	SO_2,	9.40,	80,
			NO_2 ,	63.24,	80,
			PM_{10}	320.50	100

4	Shastri Nagar	Jan-2020	SO_2,	8.91,	80,
			NO_2 ,	55.16,	80,
			PM_{10}	237.85	100
5	Awas Vikas, Kalyanpur	Jan-2020	SO_2,	8.21,	80,
			NO_2 ,	47.23,	80,
			PM_{10}	219.18	100

ii) O_3, CO and other relevant parameter (for 1 hrly average and 8 hrly average)

S. No	Parameters	Observed values	Standards

iii) Benzene, Arsenic & Nickel and other relevant parameter (for 24 hrly average value)

S. No	Parameters	Observed values	Standards

3.1.3 Predominant sources contributing to various pollutants

S. No	Sources	Percent contribution	Main Pollutants

3.2 Sources of air pollution: viz industrial, domestic (coal an biomass burning), natural and transport and heavy earth movers

3.3 Air Polluting Industries in the area/ cluster

S. No	Number of Air Polluting industries	Coordinates		Distance and direction
1		Latitude	Longitude	

2

3.4 Impact of activities of nearby area as the CEPI Area

Land use distribution(%) of nearby areas of CEPI and map

3.5 Quantification of the air pollution load and relative contribution by different sources (If done from reputed institution)

S. No.	Air Pollution Sorces	Category	Pollution Load	Percentage
1				
2				

1.6 Action plan for compliance and control of pollution

Short Term Action Points (upto 1 year, including continuous activities)

Sr. No.	Action Points	Timeline	Responsible Agencies/ Stake Holders
3.6 a)	• **Air Pollution Industrial:** Detailed Inventory of total air polluting industries in the region. • **Proposed Action Plan for effective control of Air Pollution**: Regular Monitoring of Air Pollution Control System with a use of (OCEMS) in large and medium Industries in order to ensure strict compliance of prescribed Norms.	Stack Monitoring of Large & Medium units every 06 months and once in a Year for SSI units. (By UPPCB & by individual Industries)	UPPCB & Individual Industries.

Long Term Action Points (more than 1 year)

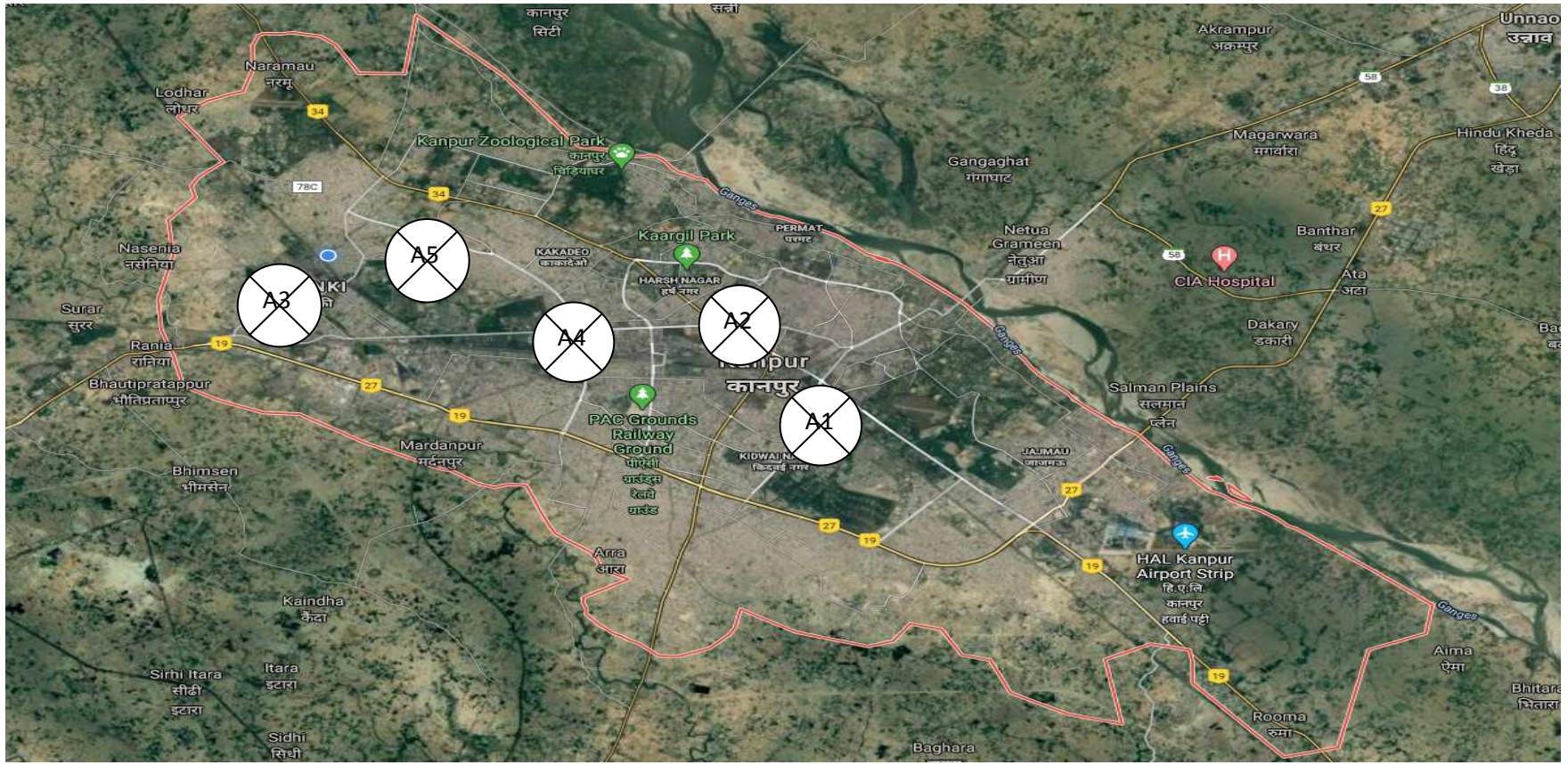
Sr. No.	Action Points	Timeline	Responsible Agencies/ Stake Holders
b)	• **Air Pollution/ Industrial Pollution:** Implementation of Cleaner Technology in order to reduce quantity of process and fugitive emissions and effective Operation & maintenance of installed APCS.		

	Implementation of cleaner technology / adoption of cleaner fuel, identification of industries to be done in time bound manner. Switching over to cleaner fuel has been proposed as the best option to control Air Pollution in Industrial Areas. Some Industries have already switched to cleaner fuel technology. Technological intervention / switching over to cleaner fuel to be done in time bound manner. To supply and promote the use of cleaner fuel like CNG/PNG, in order to reduce emissions in the industrial	1 Year	UPPCB/ Individual Industry/ IGL
c)	● **Introduction of Cleaner Fuel for Industrial Uses:** Currently industries are using Coal/Wood/LDO/LSHS as a fuel which emits SPM and SO_2 and other Pollutants. If cleaner fuel such as CNG/PNG is made available to industries the RSPM, SO_2 will be reduced and Ambient Air Quality will be improved. Board has given NOC to IGL for vehicles as well as industrial & domestic use. These companies need to expedite there distribution network for the same	Gas & Oil Companies are in process of getting more and more industries on board and complete switch over from solid fuel to clean fuel will be done in a time bound Manner.	Gas and Oil Companies
d)	● **Clean fuel for vehicles:** Sufficient number of CNG stations should be provided to ensure continious and enough supply of clean fuel.	01 year / As per plan submitted by Gas Agencies.	RTO & Gas Companies
e)	● **Installation of Ambient Air Quality Monitoring Stations:** At present manual AAQM Stations are operational but they need to be upgraded to monitor RSPM and $PM_{2.5}$ as per new AAQM Standard and also other parameters listed in new AAQM continuous AAQM Stations need to be set up Ambient Air Quality in critical Industrial Zones to be monitored manually once in every 02 months on 24 hours basis by UPPCB.	1 Year	UPPCB and CPCB
f)	● **Display of AAQMS data:** On line display of AAQMS data at two different locations in the area need to be under taken by Industries Association and UPPCB	1.5 Years	Industries /UPPCB &

			CPCB
g)	• **Use of Cleaner fuel:** Time frame to be chalked out by RTO for conversion of all Commercial vehicles such as Auto, Bus & Auto into CNG.	01 Year	Transport Department in consultation with Oil & Gas Companies
h)	• **Development of Green Belt:** Should develop Green belt from 20% to 40% of the total area.	Ongoing	Dept. of Industries /Forest Dept. & Concerned Industries

3.6.1 Existing infrastructure facilities- Ambient Air Quality Monitoring Network

Number of manual AQ monitoring station	Number of CAAQMS	Total Monitoring station
5	1	6



#	Location/Station	Location Code	#	Location/Station	Location Code
1	Kidwai Nagar	A1	3	Panki Site-1	A3
2	Jareeb Chowki	A2	4	Shastri Nagar	A4
5	Awas Vikas Kalyanpur	A5			

3.6.2 Pollution control measure installed by the individual sources of pollution

S. No.	Pollution Sources	Category	APCS installed(Y/N)
1			

3.6.3 Technological intervention

3.6.3.1 Inventorization of prominent industries with technological gap

S. No.	Industries	Category	APCS installed(Y/N)
1			

3.6.3.2 Identification of low cost and advanced cleaner technology for air pollution control:

3.6.3.3 Introduction and switch over to cleaner fuel

S. No.	Number of industries adopted cleaner fuel technologies	Previous fuel	New fuel
1			

3.6.4 Need of infrastructure renovation

3.6.4.1 Development of roads: Identification of damaged roads which needs repairment and maintenance:

S. No.	Identified damaged roads	Length	Remarks
1			

3.6.5 Impact on CEPI score after installation/ commissioning of fully fledged air pollution control systems

S. No.	CEPI score before APCS	CEPI score before APCS	Percent improvement
1			

3.6.6 Managerial and financial aspects- cost and time estimates

3.6.6.1 Cost and time estimates: Details of cost estimated for any infrastructure renewal related works, if any.

3.6.6.2 Identified private/ sector potential investors and their contribution/ obligations: If any, investment from private sector potential investors please provides details.

3.6.6.3 Government budgetary support requirement

S. No.	Amount of budget allocated to CEPI area	Remarks
1		

3.6.6.4 Hierarchical and structured managerial system for efficient implementation

3.6.7 Self monitoring system in industries (stacks, APCDs)

S. No.	Industries	Category	APCS/APCDs installed(Y/N)
1			

3.6.8 Data linkages to SPCB/ CPCB (OCEMS)

S. No.	Industries	Category	Data linkage (Y/N)
1			

3.6.9 AAQM Status of Districts

S. No.	NAME AND ADDRESS OF THE NDUSTRY	PHONE NUMBER	NUMBER OF AAQM INSTALLED	PARAMETERS MONITORED
1				PM_{10}, SO_2, NOx & CO
				$PM_{2.5}$, PM_{10}, SO_2, NOx, CO, Ammonia, Benzene, Ozone
2				$PM_{2.5}$, PM_{10}, SO_2, NOx, CO, Ammonia, Benzene, Ozone
3				$PM_{2.5}$, PM_{10}, SO_2, NOx, CO, Ammonia, Benzene, Ozone
4				$PM_{2.5}$, PM_{10}, SO_2, NOx, CO, Ammonia, Benzene, Ozone, Toluene, Xylene, Humidity, Raingauge, Temperature, Solar Radiation, Wind Speed and Direction

4. Land Environment (Soil and ground water)

4.1 Soil contamination

4.1.1 Present status of land environment supported with minimum one-year data:

S. No.	Cluster	Months(2019)	Present status	Condition
1				
2				

4.1.2 Critical locations for land/soil pollution assessment and ground water monitoring

S. No.	Locations identified	Coordinates		Distance and direction
		Latitude	Longitude	
1				

4.1.3 Present levels of pollutants in land / soil and ground water (routine parameters, special parameters and water toxics relevant to the area in three categories- non carcinogens, probable carcinogens and other toxics)

S. No.	Parameters	Observed values	Standards
1			
2			

4.1.4 Pre dominant sources contributing to or posing danger of pollution of land and ground water such as hazardous/ toxic waste or chemical dumps/ storage etc.

S. No.	Sources	Percent contribution	Main Pollutants
1			
2			

4.1.5 Sources of soil contamination

S. No.	Sources	Coordinates		Distance and direction
		Latitude	Longitude	
1				

4.1.6. Types of existing pollution: Please provide details

4.1.7. Remedies for abatement, treatment and restoration of normal soil quality: Please provide details and treatment methods adopted

4.2 Ground water contamination

4.2.1. Present status /quality of ground water

S. No.	Cluster	Months(2019)	Present status	Condition
1				
2				

4.2.2. Source identification (Existing sources of Ground water pollution)

S. No.	Sources identified	Coordinates		Distance and direction
1		Latitude	Longitude	
2				

4.2.3. Ground water quality monitoring program

S. No.	Sampling Locations	Coordinates	Frequency	Parameters tested
1				
2				

4.2.4. Action plan for control of pollution including cost/ time aspects

Short Term Action Points (up to 1 year, including continuous activities)

Sr. No.	Action Points	Timeline	Responsible Agencies/ Stake Holders
4.2.4	**Land Pollution**	To send waste	Individual Industry
a)	Proper Storage & Disposal of Hazardous Waste & Solid Waste.	every 03/04 months	

Long Term Action Points (more than 1 year)

Sr. No.	Action Points	Timeline	Responsible Agencies/ Stake Holders
4.2.4	**Land Pollution**		
b)	**Soil Testing**		
	Soil testing of some large scale industry has been done and is being carried out every month. Soil testing for different metals like Pb, Cr, Cu, Fe etc. twice a year through recognize laboratory.	01 Year	UPPCB

4.2.5. Treatment and management of contaminated ground water bodies etc: Please provide details

4.2.6. Impact on CEPI Score after abatement of pollution:

S. No.	CEPI score before	CEPI score before	Percent improvement

4.3 Solid Waste Generation and Management:

4.3.1. Waste Classification and Quantification

S. No.	Source	Category	Quantity

4.3.1.1. Hazardous Waste

S. No.	Source	Quantity

4.3.1.2 Bio-Medical Waste

S. No.	No. of CBWTF	Quantity	Authorization

4.3.1.3 Electronic Waste

S. No.	No. of Electronic waste treatment facility	Quantity	Authorization

4.3.1.4 Municipal Solid Waste/ Domestic Waste/ Sludge Fro STPs/ETPs/CETPs and Other Industrial Sources

S. No.	Type of Pollution Sources	% OF Waste Generated

4.3.1.5 Plastic Waste

Sr. No.	No. of Plastic waste Processing facility	Quantity	Authorization	Compliance status

4.3.1.6 Construction and Demolition Waste

S. No.	No. of C&D waste Processing facility	Quantity	Authorization	Compliance status

4.3.1.7 Quantification Of Waste And Relative Contribution From Different Source

S. No.	Pollution source	Type of Wastes	Relative Contribution

4.3.2. Identification of Waste Minimization and Waste Exchange Options: Please provide details if any

4.3.3. Reduction/Reuse/ Recovery/ Recycle Options in the Co-Processing of Waste: Please provide details of co-processing options of waste

4.3.4. Infrastructure Facilities:

4.3.4.1. Existing TSDF/Incineration Facilities Including Capacities

Sr. No.	TSDF/Incineration Facilities	Capacity	Location

4.3.4.2. Present Status / Performance and Need up Gradation Of Existing Facilities Including Enhancement Of Capacities: Please provide details**:**

1. **Treatment And Management Of Contaminated Waste Disposal Sites Etc:** Please provide details
2. **Impact On CEPI Score After Proper Management Of Solid Waste**

Sr. No.	CEPI Score before management of solid waste	CEPI Score after management of solid waste	% Change

5. PPP Model

5.1 Identification of projects proposals (for both the options i.e technology intervention and infrastructure renewal) for implementation under the PPP mode under the Action Plan.

Please provide details of any PPP model based Action Plan taken into consideration for technology intervention and infrastructure renewal, if any.

a. Identification of Stockholders/agencies to be involved and to evolve financial managerial mechanism for implementation of PPP projects.

Please provide details Stockholders/agencies involved in financial managerial mechanism for implementation of PPP projects, if any.

6. Other infrastructural Renewal measures:

6.1. Green belts

S. Nos.	Green Belt Developed/ upcoming Green belts	Area	Features
1			

6.2. Development of Industrial Estate(s)

S. No.	Development of Industrial Estates	Area	Features
1			

6.3. Development / shifting of industries located in the non industrial areas to the existing/new industrial estates.

S. No.	Shifting of non-Industrial areas to Industrial Estates	Area	Features
1			

7. Specific Schemes:

7.1. GIS-GPS System for pollution sources monitoring

Please provide details GIS-GPS System for pollution sources, if any.

S. No.	GIS-GPS System enabled Pollution sources	Remarks
1		

7.2. Hydro- geological fracturing for water bodies rejuvenation

Please provide details of Hydro- geological fracturing for water bodies rejuvenation, if any.

7.3. In-situ remediation of sewage

S. No.	Pollution sources with in-situ remediation facility	Treatment method	Discharge
1			

7.4. Utilization of MSW inert by gas based brick kilns

S. No.	Number of Brick kilns	Fuel
1		

7.5. Co- processing of wastes in cements industries

S. No.	Cement industries	Fuel
1		

8. Public awareness and training programs

Please provide details of Public awareness and training programs held and organized within the CEPI areas and their impact.

9. Overall impact on installation/commissioning of pollution control equipment/ measures on the CEPI score

S. No.	CEPI score before installation/commissioning of pollution control equipment/ measures	CEPI score after installation/commissioning of pollution control equipment/ measures	Percent change (%)
1			

10. Assessment of techno-economic visibility pollution control system in clusters of small/medium scale industries

Please provide detailed assessment report.

11. Efforts shall be made to encourage use of Bio-compost and Bio-fertilizers along with the chemical fertilizers in the state to minimize the unutilized chemical fertilizers runoff into the natural water resources from agriculture fields (through Govt. Policy)

Please ensure the implementation of above mentioned point

12. Summary of proposed action points

12.1 Short Term Action Point (Upto one year, including continuous activities)

Sr. No.	Action Points	Timeline	Responsible Agencies/ Stake Holders
12.1 a)	**Water Pollution** • **Industrial Source** - Proposed Action	**Frequency**	

	Plan for effective control of Water Pollution: Regular effluent sample collection and analysis of Pollution Control System in Red, Orange & Green category Industries to be done to ensure strict compliance of prescribed Norms.	Red category- **3 months** Orange category -**6 months** Green category -**12 months** (By UPPCB) & By Individual Industries	UPPCB Individual Industry
b)	• Installation of energy meter, on line PH meter, automatic chemical dozing system, online continuous effluent and emission monitoring system (OCEEMS) and establishment of independent laboratory to monitor critical parameters like MLSS, SVI etc. and other inlet and outlet parameters of ETP for Large & Medium Industries	Ongoing	Individual Industries (Large and Medium)
c)	• Upgradation of ETP in existing water polluting units is to be done on case to case basis. Under the upgradation plan, suitable tertiary treatment methods are to be installed in a time bound manner in order to ensure that treated water is recycled / reused to the maximum extent.	Within 06 months.	Individual Industries.
d)	• **Groundwater Pollution:** Regular monitoring of Over Head Tanks supplying drinking water in the region and Rainy wells is proposed to be done by Regional Laboratory of State Pollution Control Board. Also, intensive surveys will be done to ensure that practice of reverse boring is not prevalent in the region.	Ongoing	Jal Nigam/ State Ground Water Authority
f)	• **Domestic Waste Water (Sewage):** Effective operation & maintenance of installed STP. Joint Inspection of STPs by ULBs/ UPPCB/ Jal Nigam Setting up of STPs in upcoming high rise buildings, commercial project, educational institution, multi plexes, town ship & building projects Reuse of treated sewage. Upgradation of STPs to meet revised norms.	Ongoing Process	ULBs/ UPPCB & Jal Nigam
g)	• **Inventorization of Air Polluting Industries:**	Stack Monitoring of Large & Medium units every 06 months and	UPPCB & Individual Industries.

h)	• **Proposed Action Plan for effective control of Air Pollution**: Regular Monitoring of Pollution Control System in Industries.	once in a Year for SSI units. (By UPPCB & by individual Industries)	UPPCB & Individual Industries.
i)	• **Illegal setup of Industrial activities:** Regular drives are to be carried out by Pollution control board and District Administration to identify and seal illegally operating industrial activities.	Combined drives every 2 months by UPPCB & District Administration.	UPPCB and District Admn.
j)	• **UPPCL to ensure:** that electric connection is not sanctioned in favor of such industries which are not in conforming area.	Within 01 month	UPPCL and Udyog Bandhu
k)	• **Monitoring of D.G Sets:** Inventorization of Old D.G. Sets in Industrial clusters and Commercial set ups including Multiplexes / Shopping Malls/ Educational Institution within or near industrial areas to be done by UPPCB.	06 Months.	
	I. Post inventorization remedial action with respect to air and noise pollution from likely sources shall be taken against defaulters.	Ongoing	UPPCB
	II. Installation of Acoustic Enclosure with adequate stack height in Old D G Sets to be ensured.	9 months	
l)	• **Noise Monitoring:** Board is procuring real time noise monitoring system. This will be installed in Commercial, Residential, Industrial and Sensitive Zones of the Region.	Ongoing	UPPCB
m)	• **Land Pollution:** Proper Storage & Disposal of Hazardous Waste & Solid Waste:	To send waste every 03/04 months to TSDF	Individual Industry/ UPPCB
n)	• **Bio-Medical Waste Disposal:** member of authorized Common BMW Treatment Facilities Regular Inspection and monitoring of Hospitals / Nursing Homes has to be done	Inspection of Big Hospitals Every 03 months & Small Hospitals every 06 Months by UPPCB.	Regional Office, UPPCB

12.2 Long Term Action Points (More than 1 year)

Sr. No.	Action Points	Timeline	Responsible Agencies/ Stake Holders
12.2 o)	• **Water Pollution Industrial Pollution:** Adoption of Cleaner Technology to reduce		

		quantity of waste water, Promote recycle after treatment for sector like Paper, Tannery. Strategies regarding cleaner technologies in Paper industries are to be conducted in a time bound manner. In the Waste Paper based units, stress is being laid for setting up of tertiary treatment facilities in order to ensure maximum recycling of treated waste water. Also recycling of the process water is being done as part of cleaner technologies.	Within 01 Years. (By Industries)	Individual Industries UPPCB & Individual Industries
p)	•	Widening and Covering of major open Nalas carrying domestic sewage.	Ongoing	ULBs/UPSIDA
q)	•	**Groundwater Pollution**: Ground water study may be carried out in all Industrial Clusters by Out Sourcing Agencies.	1 Year.	UPPCB & Designated Agencies.
r)	•	**Air Pollution/Industrial Pollution:** Implementation of Cleaner technology in order to reduce quantity of process and fugitive emissions and effective Operation & maintenance of installed APCS. Implementation of cleaner technology / adoption of cleaner fuel, identification of industries to be done in time bound manner. Switching over to cleaner fuel has been proposed as the best option to control Air Pollution in Industrial Areas. Some Industries have already switched to cleaner fuel technology. Technological intervention / switching over to cleaner fuel to be done in time bound manner. To supply and promote the use of cleaner fuel like CNG, in order to reduce emissions in the industrial	1 Year	UPPCB and Individual industry
s)	•	**Introduction of Cleaner Fuel for Industrial Uses :** Currently industries are using Coal/ Wood and LDO/LSHS as a fuel which emits SPM and SO2 and other pollutants. If CNG is made available to industries the RSPM, SO2 will be reduced and Ambient Air Quality will be improved. Board has given NOC to IGL & Adani Group to provide CNG in Noida for vehicles as well as industrial & domestic use. These companies need to expedite there distribution network for	Gas & Oil Companies are in process of getting more and more industries on board and complete switch from solid fuel to clean fuel will be done in a time bound manner.	Gas and Oil Companies

	the same at the earliest.		
t)	• **Clean fuel for vehicles:** At present 16 CNG stations have been building to supply clean fuel. These stations have Compression capacity. Also, all commercial three wheelers buses being registered using CNG only. Phasing out of old diesel commercial vehicles is being done as per policy.	01 year / As per plan submitted by Gas Agencies.	RTO & Gas Companies
u)	• **Development of Green Belt:** Develop Green belt from 20% to 33% of the total area.	Ongoing	Forest Department
v)	• **Land Pollution Soil Testing:** Soil testing of some large scale industry has been done and is being carried out every month. Soil testing in all 3 industrial clusters of Noida is proposed to be done for different metals like Pb, Cr, Cu, Fe etc. twice a year through recognize laboratory.	01 Year	UPPCB
w)	• **Study of impact on Human Health of Water & Air Pollutants**		IITR (Earlier ITRC) / Health Department
x)	• **Municipal solid waste Disposal:** At present Municipal solid waste is disposed as landfill in low lying areas. Authority should develop proper MSW facility as per MSW Rules at Proper site. Quantification of MSW Site selection for MSW disposal Strategy for implementation / setting up of integrated facility for MSW to be decided in consultation with local civic authority and implementation to be done in time bound manner. Upcoming High Rise Buildings, Commercial Project, Educational Institution, Multi Plexes, Town ship & Building Projects are major source of Municipal Solid Waste Such projects must ensure setting up of in house MSW disposal facilities as per MSW Rules & ensure compliance of the conditions of the Environment Clearance and NOC from PCB	Every 3 months	Project proponent to give compliance report to UPPCB.
y)	• **Committee Update:** As per directions from Ministry of Environment and Forest, Government of India short listing of Senior citizen candidate and a representative of a NGO to be included in the State Level Monitoring Committee.	1 Year	UPPCB and DEC

Impact of Tanneries on Ground Water Quality in Kanchandapur area, Kanpur DehatDistrict, UP

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Impact of Tanneries on Ground Water Quality in Kanchandapur Area, Kanpur Dehat District, UP

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ABSTRACT

Water has been playing a major role in development of human civilization and industrialization,urbanization has changed the natural environment by the addition of various toxic and harmful ions, which has resulted in various health impacts to the flora & fauna living in environment. Keeping in view of the pollution effects and its risk management to the ecosystem, it is very essential to monitor the industrial effluents impact on ground water quality. Kanchandpur area in Rania, a major industrial area near Kanpur city in UP, has a number of industries belonging to tanneries and the waste chromite was being dumped in the soil, which has resulted in polluting the ground water through leaching due to favorable hydro geological and climatic conditions in the area.

The study reveals that ground water quality has pH from 6.88 to 8.09, Conductivity from 648 to 2243 µs/cm at 25°C, Fluoride from 0.63 to 4.02 mg/l, Nitrate from 0.1 to 17 mg/l, Sulphate from 15 to 385 mg/l, Manganese from 9 to 108 µg/l, Chromium (VI) from 0 to 20165 µg/l and Total Chromium from 20 to 20736 µg/l. The abnormal high values of Chromium (VI) and Total Chromium more than 50 µg/l, the maxium permissible limit of BIS ae very harmful to the people using these waters for drinking purpose. Correlation of different ions present in ground water has also been interpreted.

INTRODUCTION

Man plays a vital role in the aquatic ecosystem. He is the largest consumer of fresh water and as such is also responsible for its qualitative and quantitative changes. Almost all naturally occurring water contains some impurities, and any alteration of health effective ions[1] in its composition directly or indirectly makes less suitable for human consumption[2,3].

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Study Area

The area under study lies Topographically N Lat 26°, 22′00″ to 26°, 25′00″ and E long 79°, 58′00″ to 80°, 07′00″ covering area of approx. 40 sq. km. In Kanpur Dehat district, Kanchandpur (Raniya industrial area) is situated near South-West side of Kanpur City having many industrial units mainly tannery, catering the need of nation.

Objectives of the Study

The common sources of ground water contamination in the area are :

1. Waste disposal activities that use the surface as a pollutant receptor, such as hazardous waste landfills, industrial waste ponds and lagoons, waste water land treatment operations and deep well disposal system[4].
2. Industrial waste landfills are the most common source of serious ground water contamination because of their large number of potential for leaching a variety of hazardous substances, which are relatively mobile. The potential for contamination from landfill leachate is greatest in areas with shallow ground water table and high rainfall.

Study related to Ground Water contamination in industrial area of Kanpur Dehat district, Uttar Pradesh was undertaken to know the impact of tannery waste (basic chrome sulphate) dumping in the soil to the ground water particularly for Chromium concentration, which is toxic and hazardous metal to human beings. These ground water sampling points (hand pumps) are still the source of drinking water in the area.

Health Hazards of Chromium — a threat to area

Chromium (Cr^{+6}) is the most toxic water pollutant. The concentration above 0.05 mg/l in drinking water may prove detrimental to human health (Bureau of Indian Standards, 1991). In higher concentration Cr^{+6} may produce to diseases like a corrosive action on the skin and mucous membranes. The effects are confined to the exposed parts, affecting chiefly the skin of the hands and fore arms and the mucous membranes of the nasal septum. The characteristic lesion is a deep penetrating ulcer, which for the most part, does not tend to suppurate and which is slow in healing.

Hexavalent compounds are more toxic than trivalent compounds. Chromium and its compounds are known to cause cancer of the lung, nasal cavity and paranasal sinus and suspected of causing cancer of the stomach and larynx.

Skin decolourisation and peptic ulcer is a common disease in the inhabitants of this area.

Rainfall & Climate

The average annual rainfall of the district is 782.8 mm the climate is sub-humid and it is characterized by a hot summer and general dryness except during the southwest monsoon. About 90% of rainfall takes place from June to September. During monsoon surplus water is available for percolation to ground water.

May is the hottest month of the year. The mean daily maximum temperature in May is 41.70°C. The mean daily minimum temperature is 27.2°C and maximum temperature varies up to 45°C.

Hydrogeological Environment

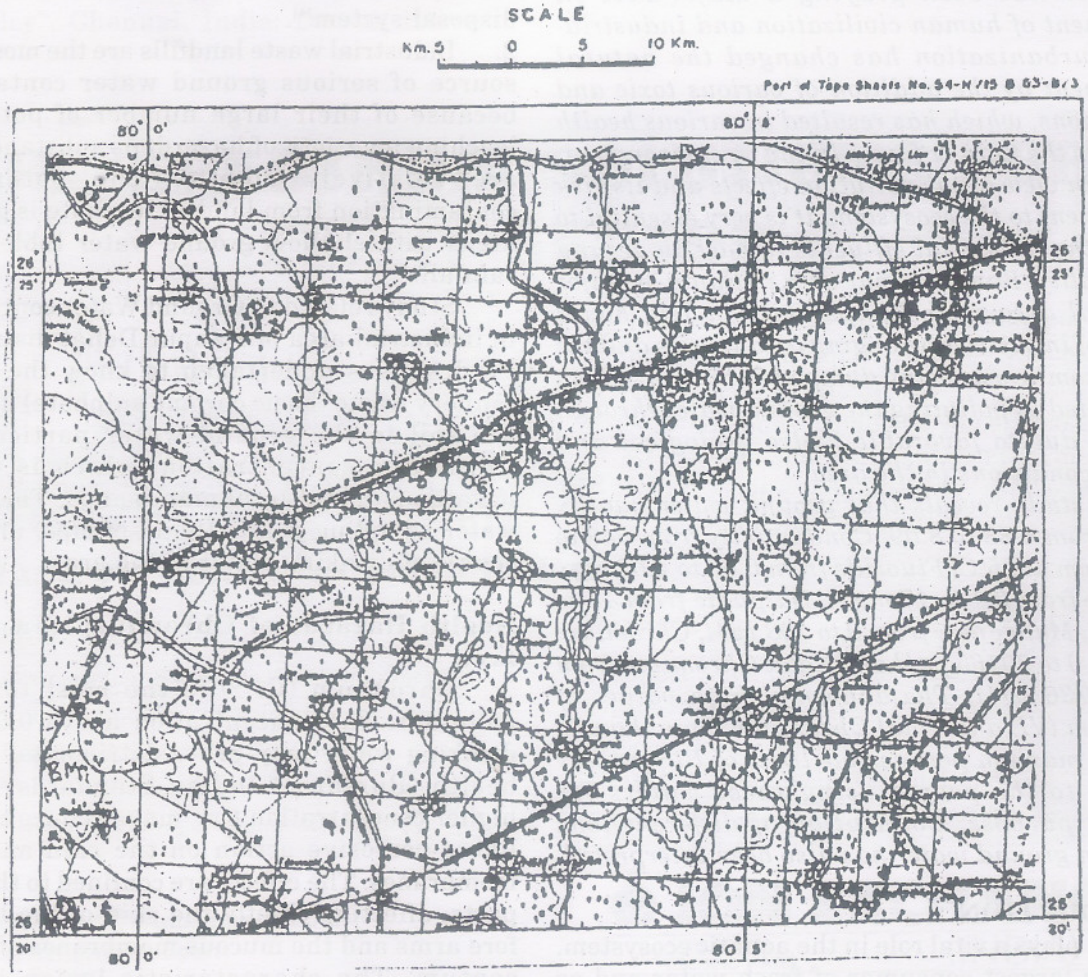
The investigated area forms a part of Central Ganga Plain and is underlain by unconsolidated sediments of Quaternary age comprising silt and clay, sands of various grades, gravel, kankar and admixed in varying proportions. The maximum thickness of alluvium in Kanpur area is a little over 500 m overlying bed rock (Bundelkhand granite) was encountered at Panki at a depth of 502 mbgl.

Infiltration from rainfall is the main source of groundwater in the area. Influent seepage from the surface water bodies is also responsible for recharge to the reservoir. Groundwater occurs mainly under unconfined condition where depth of open well varies from 5m to 15mbgl and depth to water level ranges from 3 to 09 mbgl. Depths of hand pumps vary from 10 to 40 mbgl and tap the phreatic aquifer zones.

SAMPLING AND ANALYSIS

Twenty one nos. of water samples were collected during April 2012 from different sources covering the industrial area (Figure 1). Most of the water samples

Fig. 1 : Sampling Locations in Study Area of Kanpur Dehat District, UP



INDEX

O — SAMPLING POINT

from hand pump were collected in 1 liter polyethylene bottle in three sets one acidified with 1:1 HNO_3 to pH 1.5 on the spot for Mn & total Cr second in ice box for analysis of Chromium (VI) and third for remaining ions in the Laboratory using Standard methods[5]. The analysis of water sample for Total Chromium and Manganese was carried out on Atomic Absorption Spectrophoto-meter (ECIL) in Flame Absorption Mode. pH & Conductivity were analysed using Systronics pH and Conductivity Meter respectively. Sulphates by turbidity metric using Barium Chloride and conditioning reagent, Fluoride using zirconium salt method[6] and Nitrate by UV method were analysed[7-9]. Absorbance was recorded on Shimadzu UV-VIS Spectrophotometer against standards. Hexavalent chromium was analysed[8] using Diphenyl carbazide on UV-VIS Spectrophotometer (Shimadzu 1201).

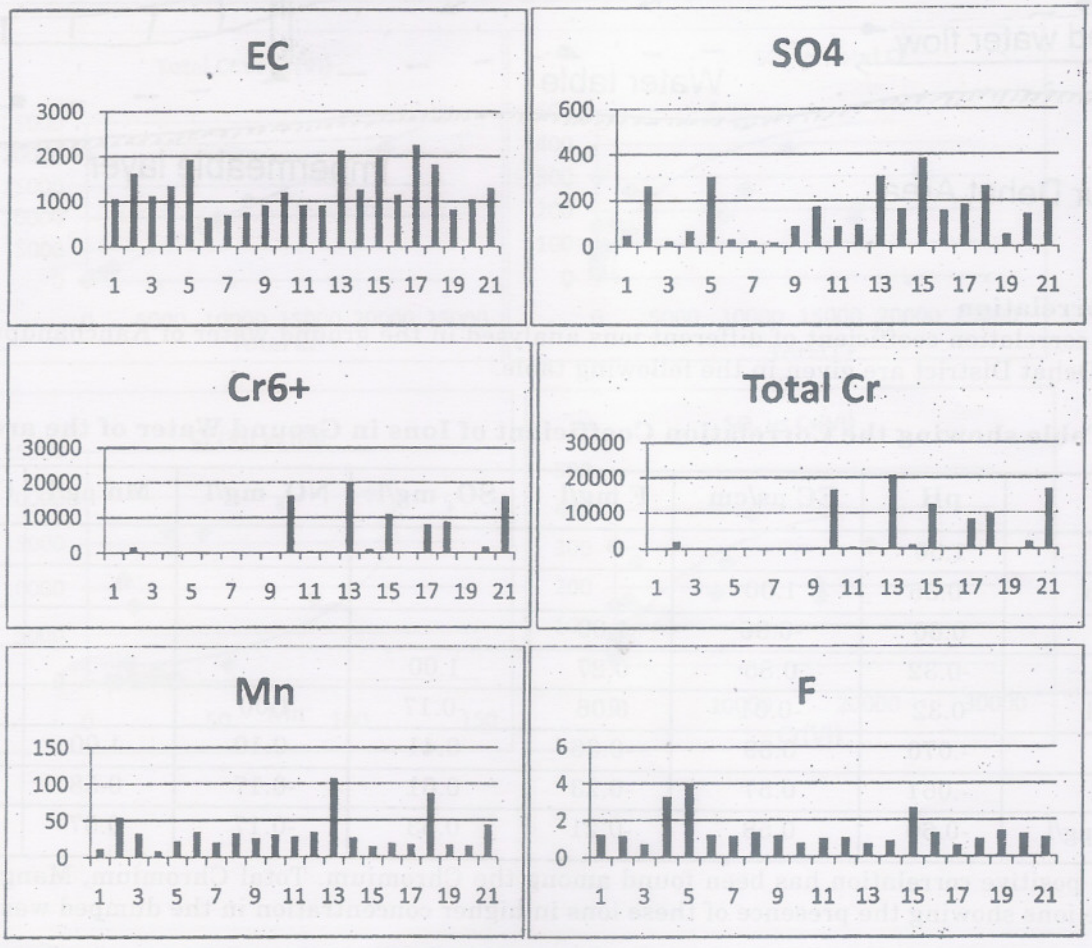
RESULTS

The samples were analysed using APHA methods in the laboratory and the data obtained is reported in the table. The data indicate that ground water of the area has been polluted by chromium metal with Cr (VI) concentration maximum up to 20165 microgram/litre and total Cr concentration maximum up to 20736 microgram/litre. High concentration of Sulphate (385 mg/l), Fluoride ions (4.02 mg/l) & Conductivity (2243 microsiemens/cm) have also been found in the area due to leaching of dumped waste materials of tanneries.

DISCUSSIONS

The chemical data of various parameters obtained shows —

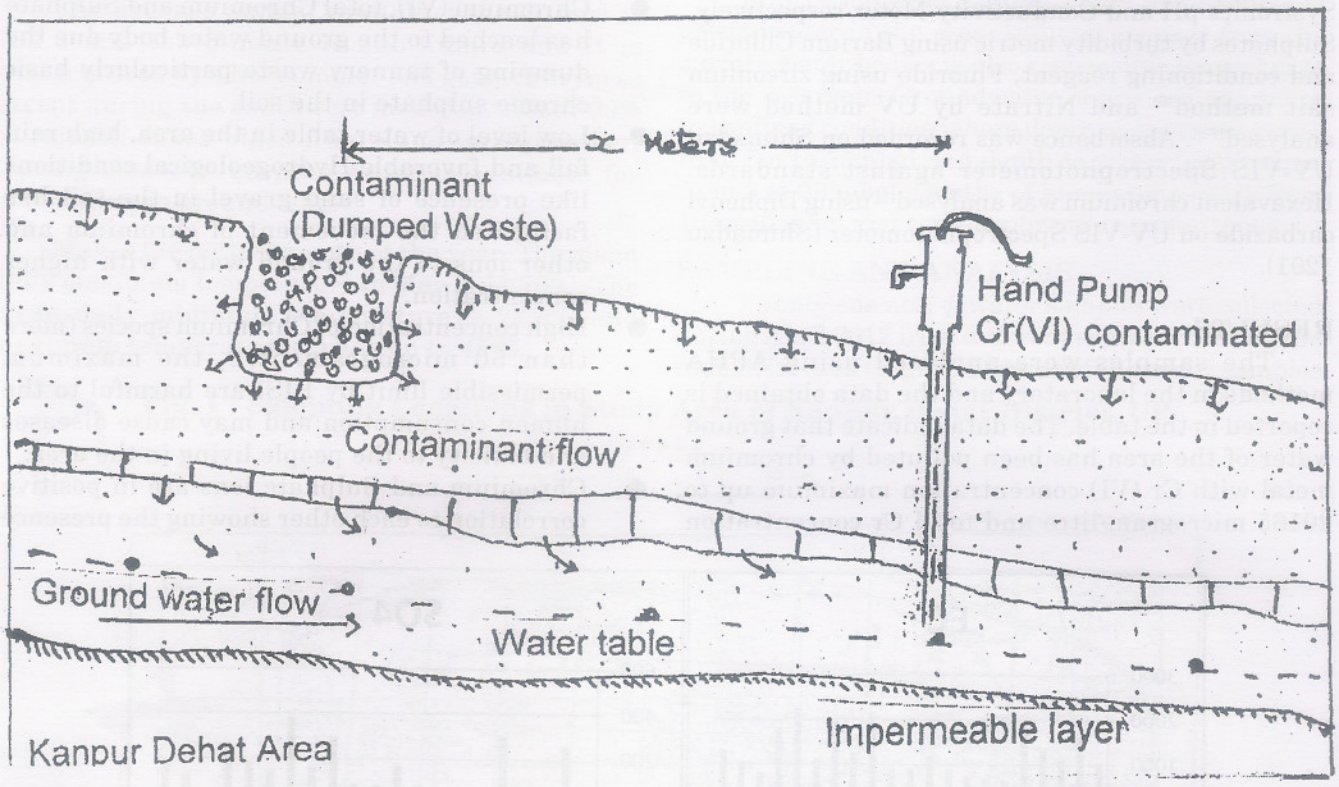
- Chromium (VI), total Chromium and Sulphate has leached to the ground water body due the dumping of tannery waste particularly basic chrome sulphate in the soil.
- Low level of water table in the area, high rain fall and favorable Hydrogeological conditions like presence of sand gravel in the soil has facilitated the movement of chromium and other ions to the ground water with higher concentration.
- High concentration of Chromium species (more than 50 microgram/litre, the maximum permissible limit by BIS) are harmful to the human consumption and may cause diseases and toxicity to the people living in the area.
- Chromium and Sulphate ions are in positive correlation to each other showing the presence



of Basic Chrome Sulphate in high concentration in the dumping waste.

- Fluoride content is also high (more than 1.5 mg/l the upper limit prescribed by BIS) in the ground water of the area probably due to the higher concentration in the dumped waste.
- Nitrate concentration is within the limits of permissibility as per BIS.
- High Conductivity of ground water is due to the ions leached from dumped waste and EC has positive correlation with different ions (Graphs).

Diagram Showing the Contaminant Flow in Study Area



Ionic Correlation

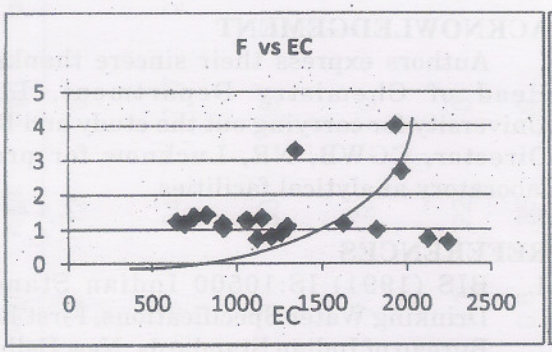
The correlation coefficient of different ions analysed in the ground water of Kanchandpur area in Kanpur Dehat District are given in the following table.

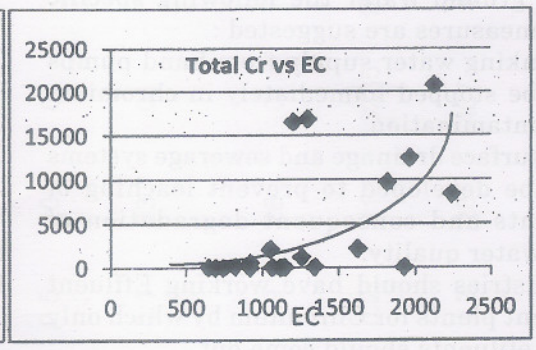
Table showing the Correlation Coefficient of Ions in Ground Water of the area

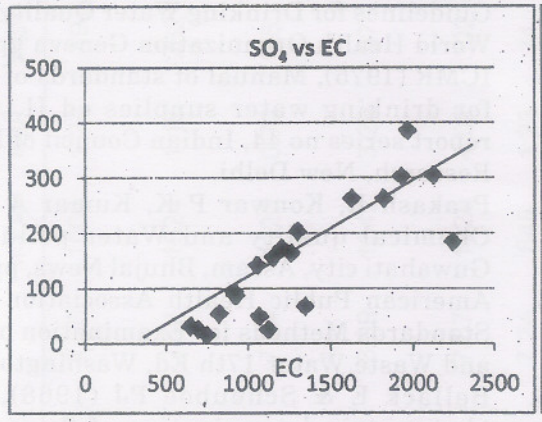
	pH	EC µs/cm	F mg/l	SO_4 mg/l	NO_3 mg/l	Mn µg/l	Cr6+µg/l
pH	1.00						
EC µs/cm	-0.36	1.00					
F mg/l	0.60	-0.36	1.00				
SO_4 mg/l	-0.32	0.85	0.27	1.00			
NO_3 mg/l	0.32	-0.01	0.06	-0.17	1.00		
Mn µg/l	-.070	0.39	-0.36	0.41	-0.10	1.00	
Cr6+µg/l	-.061	0.57	-0.23	0.61	-0.17	0.58	1.00
Cr total µg/l	-0.60	0.58	-0.21	0.63	-0.17	0.57	1.00

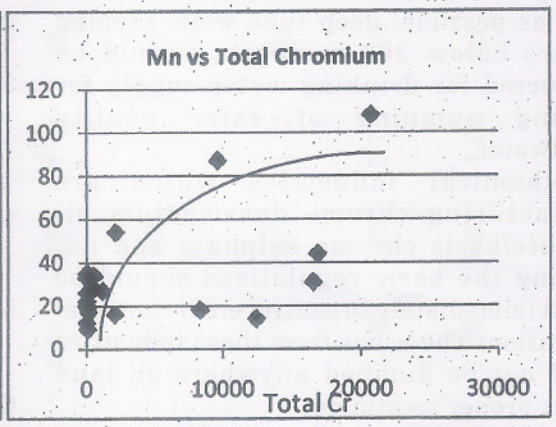
The positive correlation has been found among the Chromium. Total Chromium, Manganese and Sulphate ions showing the presence of these ions in higher concentration in the dumped waste.

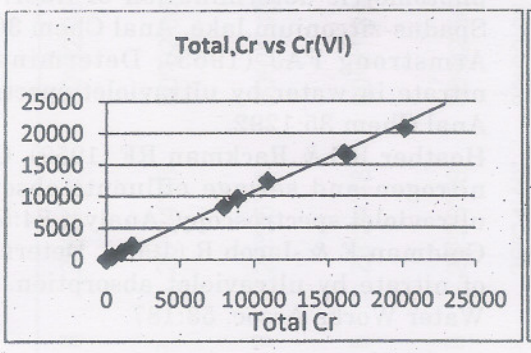
GRAPHS SHOWING INTER IONIC RELATIONSHIP

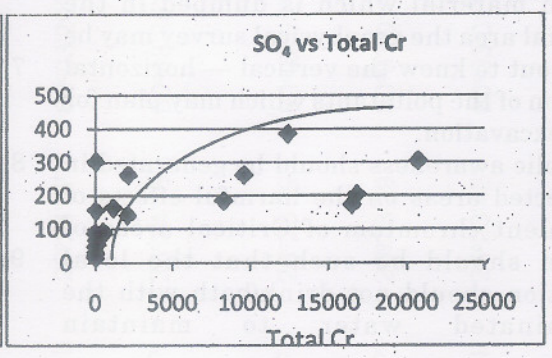


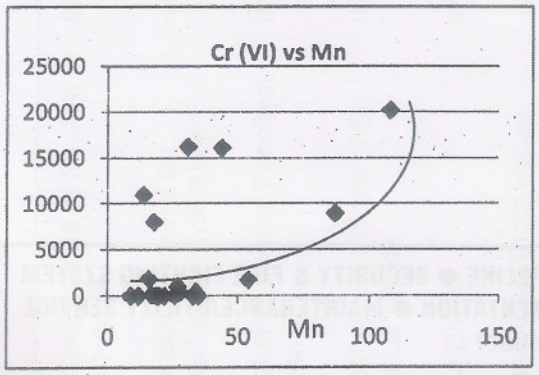


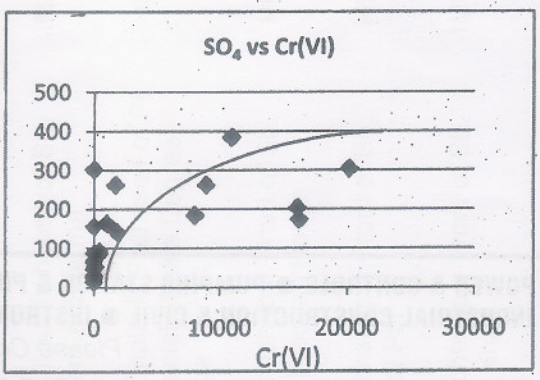












REMEDIAL MEASURES

In order to combat the threatened chromium pollution in ground water the following specific operational measures are suggested :

- The drinking water supply from hand pumps should be stopped immediately in chromium (Cr^{+6}) contamination.
- Proper surface drainage and sewerage systems should be deveploped to prevent leaching of pollutants and consequent degradation of groundwater quality.
- All industries should have working Effluent treatment plants for Chromium by which only treated effluents should come out.
- As far as possible, deep tube wells tapping aquifers below 200 m depth, should be constructed for drinking water supply for ensuring pumping of safer quality groundwater.
- The chemical industries which are manufacturing chrome dyes/sodium bi-chromate/basic chrome sulphate and not following the basic regulations should be stopped immediately to control environmental degradation. The ashes from these industries should not be dumped anywhere on land without proper treatment.
- The ash material which is dumped in the industrial area the geophysical survey may be carried out to know the vertical — horizontal extension of the pollutants which may plan for future excavation.
- The public awareness should be generated in the affected areas on the harmful effects of Hexavalent chromium of Critical areas of concern should be such that the local population should not drink/bath with the contaminated water to maintain environmental status with respect to socio-cultural scenario.

ACKNOWLEDGEMENT

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Table - CHEMICAL QUALITY OF GROUND WATER AT KANCHANDPUR IN RANIA INDISTRIAL AREA, DISTT KANPUR DEHAT

SN	Location	Type	Latitude	Longitude	pH	EC ms/cm	F mg/l	SO_4 mg/l	NO_3 mg/l	Mn mg/l	Cr(VI) mg/l	Total Cr mg/l
1	Gharmpur In front of Sh. Atar Singh House	IM II	26°24'48"	80°02'08"	7.76	1066	1.24	49	17	12	0	21
2	Gharmpur In front of Sh. Suresh Yadav cycle Shop	HP	26°24'48"	80°02'08"	7.14	1624	1.16	262	5	54	1737	2153
3	Belwahar In front of Panchyat Bhawan	IM II	26°25'11"	80°01'43"	7.54	1120	0.72	25	3	33	5	5
4	Santoshpurwa In front of Sh. Mewa Lal House	IM II	26°24'48"	80°01'39"	8.09	1342	3.28	67	7	9	0	89
5	Dadda Dhaba	IM II	26°23'58"	80°02'58"	7.67	1928	4.02	302	0.1	22	0	42
6	Dharkalpurwa Ctote House	HP	26°24'40"	80°03'07"	7.24	648	1.23	31	0.6	35	0	42
7	Prasidhpur In house of Sh. Sunder Lal Sharma	IM II	26°24'27"	80°03'20"	7.32	694	1.15	26	0.5	20	0	5
8	Prasidhpur In Premises of Pt. Kundanlal Shukla Degree College	HP	26°24'16"	80°03'25"	7.38	748	1.36	15	0.1	33	0	5
9	Khanchandpur Front of Sh. Kallu Pradhan House	HP	26°23'39"	80°02'58"	7.66	921	1.17	88	0.9	26	0	11
10	Khanchandpur Front of Sh. Siv Raj Pal	HP	26°23'39"	80°03'01"	7.12	1202	0.78	173	0.2	31	16235	16520
11	Khanchandpur Front of Sh. Lalan Khan	IM II	26°23'42"	80°03'01"	7.56	923	1.03	86	1.3	28	407	532
12	Khanchandpur, Jal Nigam Tube Well	TW	26°23'35"	80°03'04"	7.54	916	1.07	93	1.4	34	414	530
13	Khanchandpur, Babu Ram Ka Hata	IM II	26°23'44"	80°03'02"	6.88	2124	0.72	304	3.2	108	20165	20736

SN	Location	Type	Latitude	Longitude	pH	EC ms/cm	F mg/l	SO_4 mg/l	NO_3 mg/l	Mn mg/l	Cr(VI) mg/l	Total Cr mg/l
14	Khanchandpur, Front of House of Ashok Kumar Yadav	IM II	26°23'45"	80°03'01"	7.43	1258	0.88	164	1.5	27	1036	1168
15	Khanchandpur, In Bagicha of Sh. Sanjay Yadav	IM II	26°23'48"	80°03'01"	7.71	1964	2.68	385	1.3	14	10929	12426
16	Khanchandpur, In Front of Sh. Gyan Singh House	IM II	26°23'47"	80°02'59"	7.63	1148	1.32	156	1	19	0	47
17	Khanchandpur, In House of Sh. Virendra Singh Yadav	IM II	26°23'49"	80°02'59"	6.98	2243	0.63	184	0.1	18	8010	8316
18	Khanchandpur, In House of Sh. Jai Singh	HP	26°23'53"	80°02'59"	6.97	1818	0.98	262	1.6	87	8908	9632
19	Khanchandpur, In Primary School	IM II	26°23'29"	80°03'05"	7.75	823	1.42	54	1	17	107	147
20	Khanchandpur, In Front of House of Sh. Pappu Master	IM II	26°23'36"	80°02'58"	7.56	1054	1.26	142	1.2	16	1832	2105
21	Khanchandpur, In Front of House of Sh. Viswnath Pal	HP	26°23'36"	80°02'56"	7.24	1296	1.08	203	0.1	44	16096	16844