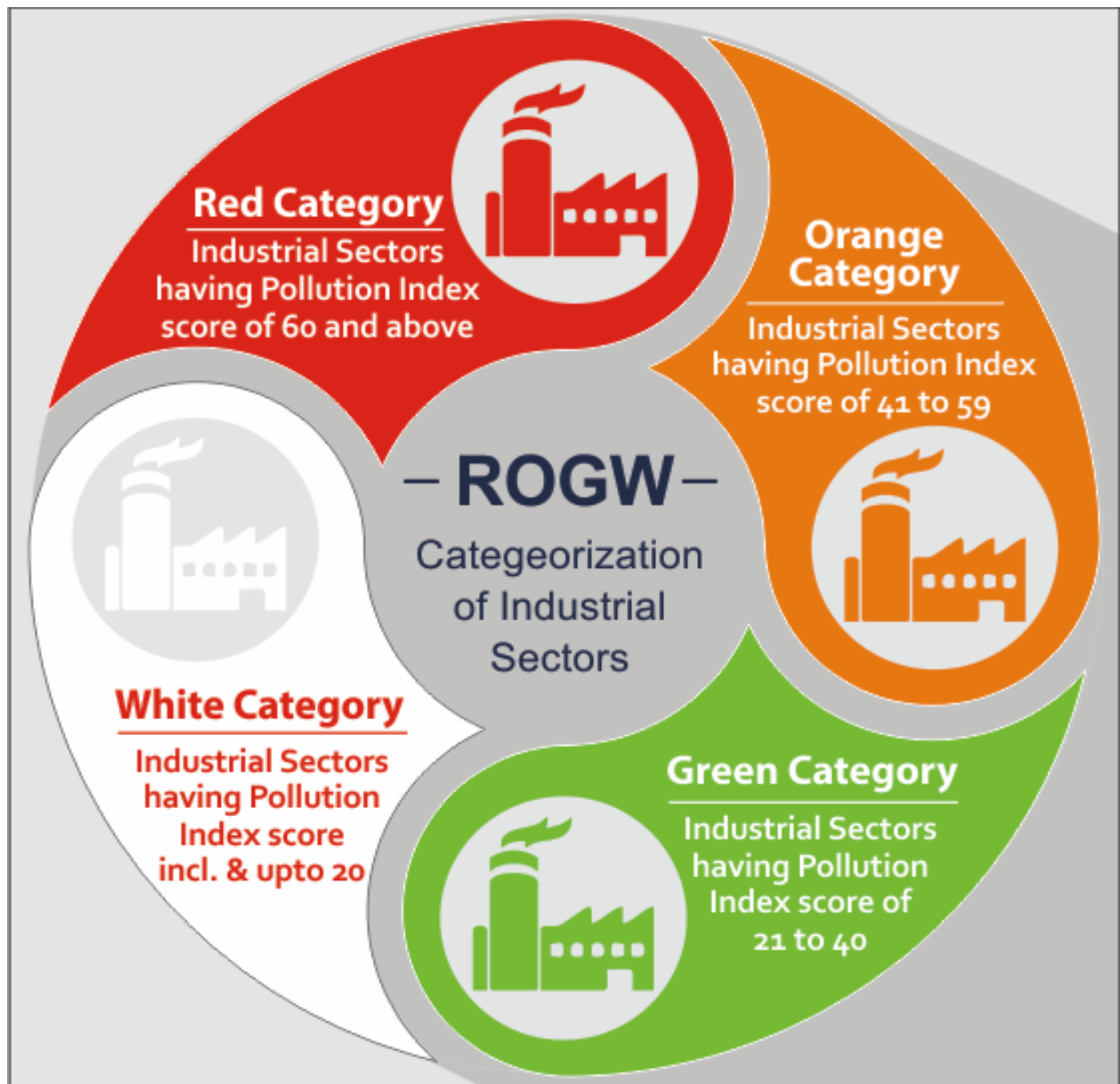


# Environmental Management Plan for Critically/Severely Polluted Area

Aligarh



Uttar Pradesh Pollution Control Board,  
Aligarh

## **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:**

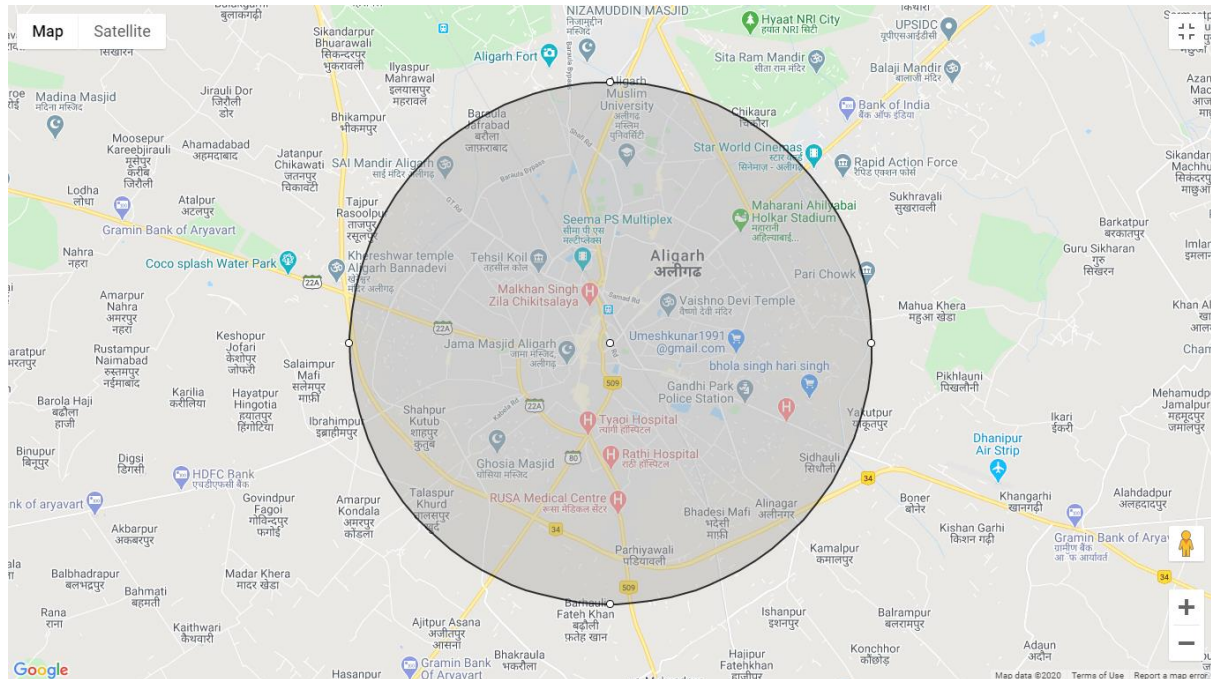
The Hon'ble NGT vide it's latest order dated 14.11.2019, has directed the Pollution Control Boards / Pollution Control Committees (PCBs/PCCs) to finalize time bound action plan to bring all the Polluted Industrial Areas (PIAs) within safe parameters as per the Air Act, the Water Act and the E.P. Act. 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

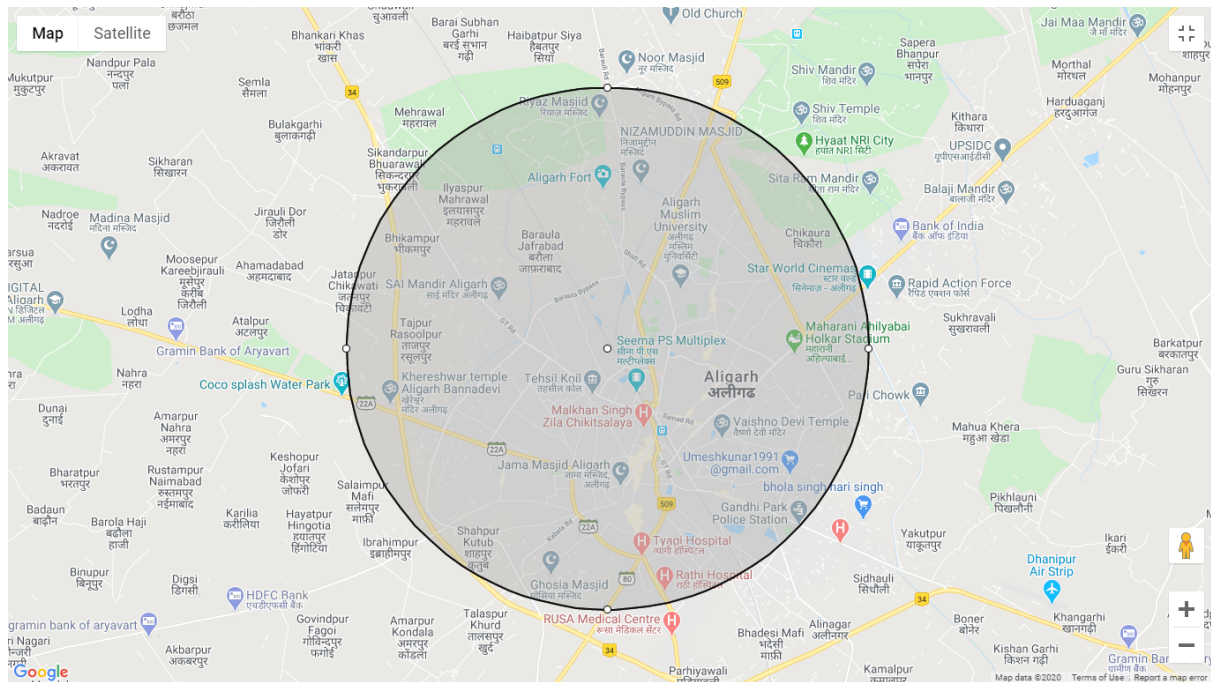
management of Critically/ Severely polluted area enclosed with CPCB letter Dated 25.10.2019 available as **Annexure No.-V**

## 1.1 AREA DETAILS

As per the CEPI assessment, following areas have been identified as Critically polluted area Aligarh.



UPSIDC Tala Nagri



ITI Industrial Area

### 1.2.1 LOCATION

The coordinates of the cluster boundary are as follows:

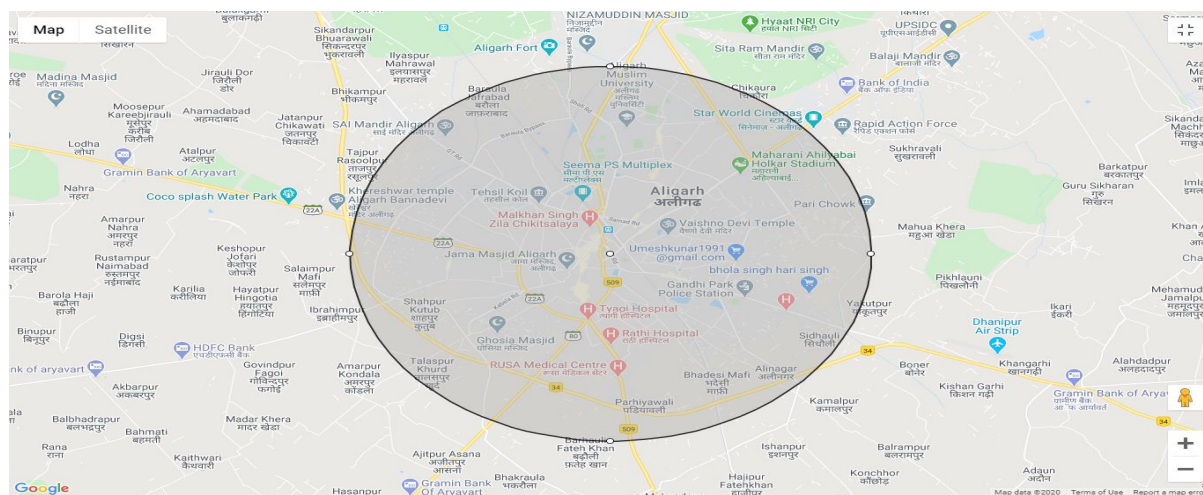
Direction	Latitude	Longitude	Location
East	27.88755	78.02245	Khushali Baba Mandir
West	27.88386	78.12548	Near Ozone City
North	27.91216	78.07602	AMU Campus
South	27.84168	78.06807	Badhauli Fateh Khan

### 1.2.2 LOCATION

The coordinates of the cluster boundary are as follows:

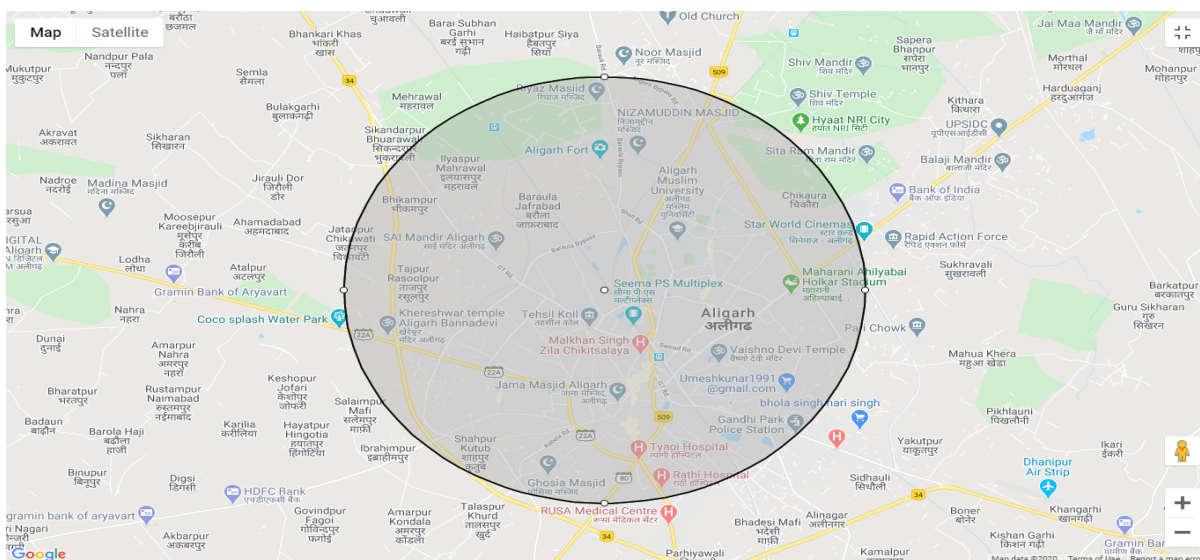
Direction	Latitude	Longitude	Location
East	27.89926	78.01540	Hardaspur
West	27.90285	78.09930	Maharani Ahilyabai Holkar Stadium
North	27.94282	78.06250	Noor Masjid Campus
South	27.85357	78.07703	Rusa Medical Center

## 1.3 Digitized map showing geographical boundaries and Impact Zones



UPSIDC Tala Nagri





ITI Industrial Area

#### 1.4 CEPI Score (Air, Water, Land and Total)

<b>Air</b>	-	56.25
<b>Water</b>	-	61.88
<b>Land</b>	-	11.88
<b>Total average</b>	-	64.42

**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	874408	1755876	316	443	20	25	01	0	1	0

**1.6 Eco-Geological Features:** There are no declared Eco-Geological features within the Study area.

**1.6.1 Major water bodies : Kali River**

S. No	Rivers		Lakes		Ponds	
	Within Cluster	Impact Zone	Within Cluster	Impact Zone	Within Cluster	Impact Zone
1	01	01	0	0	0	0

**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. Nos.	List of environmentally sensitive zones	Number	Distance and direction
1	NA	Nil	NA

**1.6.3 Buildings or Monuments of historical/archaeological/religious importance**

S. Nos.	List of Buildings or Monuments of historical/archaeological/religious importances	Number	Distance and direction
1	NA	---	---

**1.7 Industry classification:**

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	7	7	7
MEDIUM	1	1	1
TOTAL	8	8	8

### 1.7.2 Red Category Industries (55 CATEGORIES)

SCALE OF INDUSTRIES	HIGHLY POLLUTING INDUSTRIES		
	AIR	WATER	NO. OF E-WASTE/HAZARDOUS WASTE GENERATING INDUSTRIES
LARGE	02	02	02
MEDIUM	21	21	21
SMALL	32	32	31
TOTAL	55	55	54

### 1.7.3 Orange Category Industries

SCALE OF INDUSTRIES	HIGHLY POLLUTING INDUSTRIES		
	AIR	WATER	NO. OF E-WASTE/HAZARDOUS WASTE GENERATING INDUSTRIES
LARGE	0	0	0
MEDIUM	0	0	0
SMALL	54	54	0
TOTAL	54	54	0

### 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	52	52	0
Total	52	52	0

## 2.0 Water Environment

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

#### (A) U/S Kali River at Atrauli, Aligarh

S. No	Parameters	Observed values	Standards				
			Cat. A	Cat. B	Cat. C	Cat. D	Cat. E
1	Color (Hazen)	19.5-24	10	300	300	--	--
2	pH	7.22-7.73	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
3	DO(mg/l)	3.3 - 4.3	6	5	4	--	--
4	BOD(mg/l)	11.4 - 15.4	2	3	3	--	--
5	Total Coli form(MPN/ 100 ml)	-	50	500	5000	--	--

#### (B) D/S Kali River at Atrauli, Aligarh

S. No	Parameters	Observed values	Standards				
			Cat. A	Cat. B	Cat. C	Cat. D	Cat. E
1	Color (Hazen)	18.4-22.8	10	300	300	--	--
2	pH	7.34-7.81	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
3	DO(mg/l)	3.66-4.51	6	5	4	--	--
4	BOD(mg/l)	12.2-17.8	2	3	3	--	--
5	Total Coli form(MPN/100 ml)	-	50	500	5000	--	--

**NOTE - Standards for surface water are categorized as follows:**

- Cat. A- Drinking without conventional treatment but after disinfecting.
- Cat. B- Outdoor bathing
- Cat. C- Drinking with conventional treatment followed by disinfection
- Cat. D- Fisheries



➤ **Cat. E- Irrigation, industrial cooling ,controlled waste disposal**

**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	NA	00	00

**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)

**General Parameters – Kali River at Atrauli, Aligarh**

S. No	Parameters	Observed values (Novmber 2020)	Standards				
			Cat. A	Cat. B	Cat. C	Cat. D	Cat. E
1	Color(Hazen)	24	10	300	300	--	--
2	pH	7.4	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
3	DO (mg/l)	2.8	6	5	4	--	--
4	TDS(mg/l)	-	500	--	1500	--	1200
5	BOD(mg/l)	20	2	3	3	--	--
6	COD(mg/l)	76	--	--	--	--	--

## 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		Total Effluent Discharge (MLD)
		Metal Surface Treatment	Total	
1.	3 no. of Drains	25	25	0.530

### 2.5.2 Domestic Pollution Sources

#### 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.	Aligarh	27.863861	78.065456	45 MLD	Under Construction	-	U.P. Jal Nigam	Aligarh Drain

### **DETAILS OF CETPs**

No CETP is Installed within the cluster/impact zone

S.No.	District	Name of CETP	Location		Installed Capacity (MLD)	Utilized Capacity (MLD)	Operating Govt. Agency/SPV	Discharge Drain
			Latitude	Longitude				
1.	Aligarh	—	—	—	—	—	—	—

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

At present there is no leachate treatment plant installed for the treatment of leachate generating from MSW dump site. However, it is proposed to install one leachate treatment plant of capacity at Trenching ground Gulab Badi Moradabad.

#### **2.6 Impact on Surrounding Area (Outside the PIAs):**

Untreated sewerage will have impact outside the PIA.

## 2.7 Details of Water Polluting Industries in the Area/ Cluster

S. No	Name & Address of Industry	Type	Location		Treatment Mechanism (ETP/CETP)	Effluent Discharge (KLD)	Name of Drain	Consent Status upto
			Latitude of Industry	Longitude of Industry				
1	2	3	4	5	6	7	8	9
1	M/s Ray- Internation Tala Nagar, Industrial Area, Aligarh	Builders Hardware & Electroplating	27.933683	78.137908	ETP	12.0	Chherrat Drain	
2	M/s Ambika Metal Works, B-20 Industrial Estate, Aligarh	Builders Hardware & Electroplating	27.899356	78.060914	ETP	5.0	Aligarh Drain	
4	M/s Prashant Enterprises, Village-Baraula Jafrabad, Tehshil- Koil, Aligarh	Hardware	27.907952	78.076582	ETP	3.0	Aligarh Drain	
5	M/s Home Fit Export, A-9, Industrial Estate, Aligarh	Builder Hardware	27.903743	78.062944	ETP	3.0	Aligarh Drain	
7	M/s Rajeev Metal Industries, Industrial Area, Tala Nagar, Aligarh	Builders Hardware & Electroplating	27.933875	78.138992	ETP	5.0	Chherrat Drain	
8	M/s Sigma Engeeniring Works, Anoopshahar Road, Aligarh	Builders Hardware & Electroplating	27.948113	78.086493	ETP	6.0	Chherrat Drain	
9	M/s Parfect Product, Industrial Estate, Aligarh	Builders Hardware & Electroplating	27.899356	78.060914	ETP	2.5	Aligarh Drain	

10	AURA INDUSTRIES MEHRAWAL, G.T. ROAD, ALIGARH,ALIGARH, ALIGARH	Metal Surface Treatment	27.903723	78.075896	ETP	8.0	Aligarh Drain	
11	M/s Creative & Craft Industries India Pvt Ltd, Mauza Sarsol Bahar Chungi, Near Phal Mandi, G.T. Road, Aligarh	Hardware Item	27.9199315	78.0321698	ETP	3.0	Aligarh Drain	
12	M/s Spider Metal Product Pvt. Ltd. A- 54, 57, Industrial Area, Tala Nagari, Aligarh	Hardware	27.934213	78.140373	ETP	3.0	Chherrat Drain	
13	M/s Godani Infratech Pvt. Ltd., 5 Km. Behind of Phal Mandi, Sarsoil, Delhi G.T. Road, Distt- Aligarh	Builder Hardware	27.920236	78.032884	ETP	3.0	Aligarh Drain	
14	M/s Mascot Metal Manufactures, A- 2, Industrial Estate, Aligarh	Building Hardware	27.9031455	78.0619604	ETP	3.0	Aligarh Drain	
15	M/s Mascot Metal Manufactures, D- 11. C-23.24, Industrial Estate, Aligarh	Building Hardware	27.903285	78.062138	ETP	3.0	Aligarh Drain	
16	M/s Mascot Metal Manufactures Barola Jafrabad, I.T.I. Road, Aligarh	Building Hardware	27.9032924	78.0621320	ETP	3.0	Aligarh Drain	
17	M/s Agrawal Metal Works, C-98, 99, Sector-1, Talanagri, Aligarh	Building Hardware	28°49'42.36"	78°44'03.24"	ETP	3.0	Chherrat Drain	
18	M/s Kurana Backels Pvt Ltd, C-73,	Building Hardware	28°49'16.52"	78°47'04.62"	ETP	3.0	Chherrat	



	Sector-1, Talanagri, Aligarh						Drain	
19	M/s Cent Metal Industries, B-12, 13, Industrial Estate, Aligarh	Building Hardware	28°49'37.26"	78°43'54.98"	ETP	3.0	Aligarh Drain	
20	M/s Sagar Bakkel Pvt Ltd, D-149, Sector-1, Talanagri, Aligarh	Hardware Item	27.940707	78.1382330	ETP	3.0	Chherrat Drain	
21	M/s Sadani Overseas, Marthari, G.T. Road, Aligarh	Building Hardware	28°49'40.17"	78°43'37.70"	ETP	3.0	Aligarh Drain	
22	M/S R S METAL PRODUCTS PLOT NO 4,5,6,7, SHARDA INDUSTRIAL COMPLEX BAROLA BYE PASS ALIGARH ALIGARH	Building Hardware	28°49'21.91"	78°43'25.91"	ETP	3.0	Aligarh Drain	
23	M/s Vartax Exports, C-1241, 242, Sector-2, Industrial Area, Talanagari, Aligarh	Building Hardware	27.931470	78.136797	ETP	3.0	Chherrat Drain	
24	M/s Anil Lock, A-38, Sector-2, Industrial Area, Talanagri, Aligarh	Building Hardware	27.931225	78.143757	ETP	3.0	Chherrat Drain	
25	M/s Bhole Baba Dairy Industry Ltd, Khereswat Dham, Khair Road, Aligarh	Dairy						
26	M/s Zydus wellness Products Ltd, Manzoorgarhi, Chherrat, Aligarh	Dairy						
27	M/s Juberi Fibers Pvt. Ltd. U.P.S.I.D.C. Cherat Industrial Area, Aligarh	Pulp & Paper						

28	M/s Ambey Enterprises, D-8, Industrial Estate, Aligarh	Building Hardware						
29	M/s Bajaj Hardware (Unit-2), Madrak, Koil, Aligarh	Building Hardware						
30	M/s B.R. Industries, A-53, Sector-2, Industrial Area, Aligarh	Building Hardware						
31	M/s Castel Hardware , A-3, Industrial Estate, Aligarh	Building Hardware						
32	M/s L.D. Goyal Steels Pvt Ltd, A-39, 40, B-69,70 Sector-2, Indusrial Area, Talanagri, Ramghat Road, Aligarh	Building Hardware						
33	M/s Mankameshwar Steel Pvt Ltd,B- 71,72, Industrial Area, Tala Nagri, Aligarh	Building Hardware						
34	M/s Swaroop Pharnasuticals Pvt Ltd, Talanagri, Aligarh	Pharma						
35	M/s Ray-International (Unit-2), A-26, Sector-2, Industrial Area, Aligarh	Building Hardware						
36	M/s Unique International, D-13, Industrial Area, Tala nagri, Aligarh	Building Hardware						
37	M/s Radish Technology, A-25, Sector- 2, Industrial Area, Aligarh	TV Bracket, Electronic Component of Phosphate Plating						

38	M/s Kadamgiri Steel, A-42 to 44, Sector-2, Industrial Area, Talanagri, Aligarh	Building Hardware						
39	M/s S.R. Rolling Mill, Village- Kundhar, Secotor-2, Industrial Area, Aligarh	Rolling Mill						
40	M/s Khurana Buckels, C-73, Sector-1, Industrial Area, Talanagri, Aligarh	Metal & Footwear Accessories (Buckles)						
41	M/s Jitendra Udhyog, C-272, Sector- 2, Industrial Area, Talanagri, Aligarh	Building Hardware						
42	M/s Extream Exports, E-54, 74, Sector-2, Industrial Area, Talanagri, Aligarh	Building Hardware						
43	M/s Manoj Steel, B-19, Industrial Estate, Aligarh	Building Hardware						

## 2.8 Effluent Disposal Methods-

Treated Effluent is being discharged in drains which ultimately meet into River Yamuna.

## 2.9 Quantification Of Wastewater Pollution Load And Relative Contribution By Different Sources :

### a) Industrial:

S.No.	Drain	Type of Industry		Total Effluent Discharge (MLD)	Pollution load (BOD in kg/day)
		Metal Surface Treatment	Total		
1.	3 no. of drains	25	25	0.530	5300

Note: BOD of treated industrial effluent is taken as an avg.—10 mg/l

**Domestic:**

S No.	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	
1	03	03	0	0	0	03	0	25	0.530	0	0	0	.....

**Note:-** Basis of BOD Load calculation has been considered as follows:

1. BOD of treated industrial effluent is taken as avg. - 10 mg/l
2. BOD of partially treated sewerage is taken as avg. - 50 mg/l
3. BOD of untreated sewerage is taken as avg. - 150 mg/l

## 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	<b>Water Pollution</b>	<b>Frequency</b> Red category- 3 months Orange category -6 months Green category -12 months (By UPPCB) & By Individual Industries as follows	UPPCB Individual Industry
a)	<ul style="list-style-type: none"> <li>Industrial Source - Proposed Action Plan for effective control of Water Pollution: Regular effluent sample collection and analysis of Pollution Control System in Red, Orange &amp; Green category Industries to be done to ensure strict compliance of prescribed effluent norms.</li> <li>Installation of energy meter, on line pH meter, automatic chemical dosing system, on line effluent quality &amp; flow measurement (OCES) and installation of independent laboratory to monitor critical parameters like MLSS, SVI etc. and other inlet and outlet parameters of ETP for Large &amp; Medium Industries</li> <li>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 extend.</li> </ul>	Ongoing	Individual Industries (Large and Medium)
b)	<ul style="list-style-type: none"> <li><b>Groundwater Pollution:</b> 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.</li> </ul>	Ongoing	Jal Nigam/ State Ground Water Authority
c)	<ul style="list-style-type: none"> <li><b>Domestic Waste Water (Sewage):</b> Domestic sewage contributes to about 80% of Water. The status of Sewage Pollution Control is as follows:</li> <li>STPs are Operational</li> </ul>	Ongoing	UPPCB and Jal Nigam
			UPPCB and Jal



		Ongoing	Nigam
	<ul style="list-style-type: none"> <li>Combined Inspection of STPs by UPPCB and Jal Nigam</li> </ul>	Ongoing Process	UPPCB and Jal Nigam
	<ul style="list-style-type: none"> <li>Upcoming High Rise Buildings, Commercial Project, Educational Institution, Multiplex, Town ship &amp; 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 &amp; ensure compliance of the conditions of the Environment Clearance and NOC from PCB.</li> </ul>	Ongoing Process	Project proponent Local Authority & UPPCB.

## 2.10.2 Existing Infrastructure Facilities-

**STP-** 1 no. (58 MLD)

**CETP-** Nil

**ETPs-** Installed in all water polluting industries

### 2.10.3 Technological Intervention

S. No	Name & Address of Industry	Type	Pollution Control Measures(Y/N)
1	2	3	4
1	M/s The Kishan Sehkari Chini Mill Ltd. Satha, Aligarh	Sugar	Y
2	M/s Zydus Wellnes Products Ltd (Old Name-Heinz India Pvt. Ltd) Anoopshahar Road, Aligarh	Milk Processing	Y
3	M/s Hind Agro Industries Ltd. Cherat, Anoopshahar Road, Aligarh	Slaugther House	Y
4	M/s Al Hamd Agro Foods Pvt. Ltd. Elyaspur, Aligarh	Meet Prosesing	Y
5	M/s Al Hamd Agro Foods Pvt. Ltd. (Unit-2) Elyaspur, Aligarh	Slaugther House	Y
6	M/s Al- Anam Agro Foods Pvt. Ltd. Aligarh	Meet Prosesing	Y
7	M/s Al- Tabarak, Frozen Foods Pvt. Ltd. Mullapada, Bhujpura, Aligarh	Meet Prosesing	Y
8	M/s Al- Hasan Agro Food Pvt. Ltd. Amarapur Kondla, Aligarh	Slaugther House	Y

9	M/s Al- Tabarak, Frozen Foods Pvt. Ltd. Mullapada, Bhujpura, Aligarh	Slaugther House	Y
10	M/s Figario Canzarva Allana Ltd. Village- Talaspur Khurd, Mathura-Bye Pass Road, Tehshil-Koil, Aligarh	Slaugther House	Y
11	M/s Figario Kanzarva Allana Ltd. (Unit-2) Village- Talaspur Khurd, Mathura- Bye Pass Road, Tehshil-Koil, Aligarh	Meet Prosesing	Y
12	M/s H.M.A. Egro Industries Ltd. Village- Talaspur Khurd, Mathura Bye Pass Road, Tehshil- Koil, Aligarh	Slaugther House	Y
13	M/s Al-Dua Foods Pvt. Ltd. Village- Amarpur Kondla, Tehshil- Koil, Aligarh	Slaugther House	Y
14	M/s Koko Tok India Pvt. Ltd. Chamroula, Aligarh	Ofal Prosesing	Y
15	M/s Al- Ammar Frozen Foods Pvt. Ltd. (Slaughter House) Amarpur Kondla, Tehshil- Koil, Aligarh	Slaugther House	Y
16	M/s Al- Halal International Pvt. Ltd. Gata No. 28,72,117 & 118, Mauza- Amarpur Kondla, Pargana& Tehshil- Koil, Aligarh	Slaugther House	Y
17	M/s Juberi Fibers Pvt. Ltd. U.P.S.I.D.C. Cherat Industrial Area, Aligarh	Multi Leyar Crafft & Duplex Paper	Y
18	M/s Bhole Baba Dairy Ltd. Kherashwar Dham, Khair Road, aligarh	Dairy	Y
19	M/s Ray- Internation Tala Nagar, Industrial Area, Aligarh	Builders Hardware & Electroplating	Y
20	M/s Ultratech Cement Ltd, Harduaganj, Aligarh	Cement	Y
21	M/s Mangalam Cement Ltd, C.D.f. Industrial Area, Aligarh	Cement	Y
22	M/s J.K. Cement, Satha, Kasimpur Road, Koil, Aligarh	Cement	Y
23	M/s Ambika Metal Works, B-20 Industrial Estate, Aligarh	Builders Hardware & Electroplating	Y
24	M/s Shri Jee Metal (Old Name: Orange Recycle) F-121,122,123 Industrial Area, Tala Nagari, Ramghat Road, Aligarh	Coper Brass Zink Ingut	Y
25	M/s Ozone Builders & Dovelopers, Village- Mahua Khera, Teshil-Koil, Aligarh	Avasiya Yogna	Y

26	M/s Prashant Enterprises, Village- Baraula Jafrabad, Tehshil- Koil, Aligarh	Hardware	Y
27	M/s Home Fit Export, A-9, Industrial Estate, Aligarh	Builder Hardware	Y
28	M/s Vidhi Export 106, Mandir Ka Nagla, Agra Road, Aliarh	Brass Hardware	Y
29	M/s Rajeev Metal Industries, Industrial Area, Tala Nagar, Aligarh	Builders Hardware & Electroplating	Y
30	M/s Sigma Engeeniring Works, Anoopshahar Road, Aligarh	Builders Hardware & Electroplating	Y
31	M/s Parfect Product, Industrial Estate, Aligarh	Builders Hardware & Electroplating	Y
32	M/s Chandak Brothters, B-72 Industrial Estate, Aligarh	Builders Hardware & Electroplating	Y
33	AURA INDUSTRIES MEHRAWAL, G.T. ROAD, ALIGARH,ALIGARH, ALIGARH	Metal Surface Treatment	Y
34	M/s Creative & Craft Industries India Pvt Ltd, Mauza Sarsol Bahar Chungi, Near Phal Mandi, G.T. Road, Aligarh	Hardware Item	Y
35	M/s Spider Metal Product Pvt. Ltd. A-54, 57, Industrial Area, Tala Nagari, Aligarh	Hardware	Y
36	M/s Godani Infratech Pvt. Ltd., 5 Km. Behind of Phal Mandi, Sarsoil, Delhi G.T. Road, Distt- Aligarh	Builder Hardware	Y
37	M/s Mascot Metal Manufactures, A-2, Industrial Estate, Aligarh	Building Hardware	Y
38	M/s Mascot Metal Manufactures, D-11. C-23.24, Industrial Estate, Aligarh	Building Hardware	Y
39	M/s Mascot Metal Manufactures Barola Jafrabad, I.T.I. Road, Aligarh	Building Hardware	Y
40	M/s Agrawal Metal Works, C-98, 99, Sector-1, Talanagri, Aligarh	Building Hardware	Y
41	M/s Bajaj Hardware, D-74, Industrial Estate, Aligarh	Building Hardware	Y
42	M/s Kurana Backels Pvt Ltd, C-73, Sector-1, Talanagri, Aligarh	Building Hardware	Y
43	M/s Cent Metal Industries, B-12, 13, Industrial Estate, Aligarh	Building Hardware	Y

44	M/s Sagar Bakkel Pvt Ltd, D-149, Sector-1, Talanagri, Aligarh	Hardware Item	Y
45	M/s Sadani Overseas, Marthari, G.T. Road, Aligarh	Building Hardware	Y
46	M/s A to Z Solid Waste Management, Iglas Road, Aligarh	Solid Waste Management Plant	Y
47	M/s Prachi Enterprises, Village-Sikarna, Koil, Aligarh	Saltpeter	Y
48	M/s Maa Vaishno Saltpeter, Sadhu Ashram, Koil, Aligarh	Saltpeter	Y
49	M/s Royal Chemical, Utasani, Koil, Aligarh	Saltpeter	Y
50	M/s Shri Krishna Enterprises, Bhaben, koil, Aligarh	Saltpeter	Y
51	M/s Anjani Enterprises, Bhagosa, Koil, Aligarh	Saltpeter	Y
52	M/S R S METAL PRODUCTS PLOT NO 4,5,6,7, SHARDA INDUSTRIAL COMPLEX BAROLA BYE PASS ALIGARH ALIGARH	Building Hardware	Y
53	R S PIGMENTS VILLAGE KINDOLI, OPP. PACHOURI GARDEN, DAYANATPUR, ALIGARH ROAD	Ultramarine Blue	Y
54	M/s Vartax Exports, C-1241, 242, Sector-2, Industrial Area, Talanagari, Aligarh	Building Hardware	Y
55	M/s Anil Lock, A-38, Sector-2, Industrial Area, Talanagri, Aligarh	Building Hardware	Y

#### 2.10.4.1 Inventorisation of Prominent Industries with Technological Gaps

AS above: All industries need to modify/upgrade to the latest technology of effluent treatment and adopt suitable technology to achieve ZLD.

#### 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	NA	-	-

- 2.10.5 Infrastructure Renewal if any required** - As point no. 2.10.4.1
- 2.10.5.1 Details of existing infrastructure facilities** - Physiochemical treatment
- 2.10.5.2 Need of up gradation of existing facilities** - Yes, Polluting units should install Zero Liquid Discharge (ZLD) system.
- 2.10.5.3 De-silting of water tanks, drains, culvert, etc.** - NA
- 2.10.5.4 Construction of lined drains/ connections** - NA

**2.10.5.5 Treatment and management of contaminated surface water bodies -**

S. No.	Contaminated surface water bodies	Treatment adopted	Status
1	0	0	0

**2.10.5.6 Rejuvenation/ Management Plan for important eco-geological features- --**

-- NO such proposal

**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**

-- NO such proposal

**2.10.5.8 Installation of Gen sets at CETPs** - NA

**2.10.6 Managerial and Financial aspects** - NA

**2.10.6.1 Cost and time estimates:** - NA

**2.10.6.2 Identified private/ public sector potential investors and contribution/ obligation:** - NO

**2.10.6.3 Government Budgetary support requirement**

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

**2.10.6.4 Hierarchical and structured managerial system for efficient implementation**

**2.10.7 Self monitoring systems industries (ETPs) etc. - No**

<b>S. Nos</b>	<b>Industries</b>	<b>Category</b>	<b>ETPs installed(Y/N)</b>
1	Nil	NA	NA

**2.10.8 Data linkages to SPCB / CPCB (OCEEMS)- No such type of industries available.**

<b>S. No.</b>	<b>Industries</b>	<b>Category</b>	<b>Data linkages (Y/N)</b>
1	Nil	NA	NA



## **2.11 MONITORING: SURFACE WATER, GROUND WATER**

### **GROUND WATER MONITORING STATIONS:**

### 3.0 Air Environment

#### 3.1 Present status of Air environment:

S. Nos	Cluster	January 2019 to December 2019	AQI	Condition
1	J-1, Gyan Sarover Colony, Ramghat Road, Aligarh	January		
		February		
		March		
		April		
		May		
		June		
		July		
		August		
		September		
		October		
		November		
		December		

#### 3.1.1 Critical locations for air quality monitoring:

S. Nos.	Locations identified	Coordinates		Distance and direction
		Latitude	Longitude	
1	J-1, Gyan Sarover Colony, Ramghat Road, Aligarh	27.890339	78.089267	3.2 North-west

#### 3.1.2 Present levels of pollutants in air:

A. Ambient Air Quality Monitoring for following parameters:

i. SO<sub>2</sub> , NO<sub>2</sub> , PM<sub>10</sub> , PM<sub>2.5</sub>, (for 24 hourly average monitoring values)

S. No	Parameters	Observed values(µg/m <sup>3</sup> )	Standards(µg/m <sup>3</sup> )
1	SO <sub>2</sub>		60
2	NO <sub>2</sub>		60
3	PM <sub>10</sub>		100
4	PM <sub>2.5</sub>		60

### 3.2 Sources of air pollution:

There is no coal & biomass based power plants leading to transportation with Heavy Earth Movers in the cluster & impact zone of the study area.

### 3.3 Air Polluting Industries in the cluster/Impact Zone

#### Red Category-

S. No	Name & Address of Industry	Type	Location	
			Latitude of Industry	Longitude of Industry
1	2	3	4	5
1				
2				
3				
4				
5				

#### Orange Category-

1.		
2.		
3.		
4.		
5.		

### Coal based Metal Furnaces-

- **Action for closure of these units have been taken under section 31 A of the Air (Prevention and Control of Pollution) Act 1981.**

1	Shahnawaz S/o Akhtar Husain, Barbalan
2	Zuber S/o Aktar Husain, Barbalan
3	Nadeem, S/o Sri Ishyaq, Barbalan
4	Alam, S/o Sri Ishyad, Barbalan
5	Shamim, S/o Sri Nanhey Ali, Barbalan

### 3.4 Impact of activities of nearby area as the CEPI Area

The adjacent areas are generally surrounded by residential, commercial and heterogeneous industrial activity and hence these activities do have impact on CEPI score of cluster.

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

-- Could not be assessed.

### 3.6 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)	<ul style="list-style-type: none"><li><b>Air Pollution Industrial:</b> Detailed Inventory of total air polluting industries in the region.</li><li><b>Proposed Action Plan for effective control of Air Pollution:</b> 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.</li></ul>	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)	<ul style="list-style-type: none"><li><b>Air Pollution/ Industrial Pollution:</b> Implementation of Cleaner Technology in order to reduce quantity of process and fugitive emissions and effective Operation &amp; maintenance of installed APCs.</li></ul>		

	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)	<ul style="list-style-type: none"> <li><b>Introduction of Cleaner Fuel for Industrial Uses:</b> Currently industries are using Coal/Wood/LDO/LSHS as a fuel which emits SPM and SO<sub>2</sub> and other Pollutants. If cleaner fuel such as CNG/PNG is made available to industries the RSPM, SO<sub>2</sub> will be reduced and Ambient Air Quality will be improved. Board has given NOC to Torrent Gas Moradabad Ltd for vehicles as well as industrial &amp; domestic use. These companies need to expedite there distribution network for the same</li> </ul>	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)	<ul style="list-style-type: none"> <li><b>Clean fuel for vehicles:</b> Sufficient number of CNG stations should be provided to ensure continious and enough supply of clean fuel.</li> </ul>	01 year / As per plan submitted by Gas Agencies.	RTO & Gas Companies
e)	<ul style="list-style-type: none"> <li><b>Installation of Ambient Air Quality Monitoring Stations:</b> At present 02 manual AAQM Stations are operational but they need to be upgraded to monitor RSPM and PM<sub>2.5</sub> as per new AAQM Standard and also other parameters listed in new AAQM. Continuous AAQM Stations need to be set up for monitoring Ambient Air Quality in critical Industrial Zones and also to be monitored manually once in every 02 months on 24 hours basis by UPPCB.</li> </ul>	1 Year	UPPCB and CPCB
f)	<ul style="list-style-type: none"> <li><b>Display of AAQMS data:</b> On line display of AAQMS data at two different locations in the area need to be under taken by Industries Association and UPPCB</li> </ul>	1.5 Years	Industries /UPPCB & CPCB
g)	<ul style="list-style-type: none"> <li><b>Use of Cleaner fuel:</b> Time frame to be chalked out by RTO for conversion of all Commercial vehicles such as Auto Rickshaws , small goods vehicles &amp; School Busses into CNG.</li> </ul>	01 Year	Transport Department in consultation with Oil & Gas Companies
h)	<ul style="list-style-type: none"> <li><b>Development of Green Belt:</b> Should develop Green belt from upto 40% of the total area.</li> </ul>	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
02	-	-

Sr.No.	Location/Station	Location Code
1	Sir Syed Nagar, Aligarh	
2	Near Amir Nisha Market, Aligarh	

### 3.6.2 Pollution control measure installed by the individual sources of pollution

S. No.	Pollution Sources	Category	APCS installed(Y/N)
1	Various Industries	Red/Orange	Y

### 3.6.3 Technological intervention

#### 3.6.3.1 Inventorization of prominent industries with technological gap

##### Red Category-

S. No	Name & Address of Industry	Type	Location		APCS Installed (Y/N)
			Latitude of Industry	Longitude of Industry	
1	2	3	4	5	6
1					Y
2					Y
3					Y
4					Y
5					Y

##### Orange Category-

Sr. No.	Name and Address of the Industry	Type	APCS Instaled (Y/N)
1.			Y
2.			Y
3.			Y
4.			Y
5.			Y



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

The industries have already switched over to low Sulphur & low Ash content fuels. However, in the case of medium & small scale industries, which use cheaper biomass & other fuels, the UPPCB would identify possibilities and pursue such industries to switchover to cleaner fuel.

### **3.6.4 Need of infrastructure renovation**

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

All the roads inside cluster/impact zone are paved and do not need the repair.

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

3.6.6 Managerial and financial aspects- cost and time estimates

3.6.6.1 Cost and time estimates:

3.6.6.2 Identified private/ sector potential investors and their contribution/ obligations:

3.6.6.3 Government budgetary support requirement

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

3.6.6.4 Hierarchical and structured managerial system for efficient implementation

The UPPCB in consultation with CPCB will oversee the implementation of finalized action plan.

### **3.6.7 Self monitoring system in industries**

No such type of industries available in the study area

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

**3.6.8 Data linkages to SPCB/ CPCB (OCEMS)**

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

### 3.6.9 AAQM Status of Districts

No industry has installed the online monitoring system in the study area

S. No.	NAME AND ADDRESS OF THE NDUSTRY	PHONE NUMBER	NUMBER OF AAQM INSTALLED	PARAMETERS MONITORED
1	NA	NA	NA	PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> & CO
				PM <sub>2.5</sub> , PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO, Ammonia, Benzene, Ozone

#### 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	Observed Values							
			pH	TDS (mg/l)	Hardness (mg/l)	Calcium as Ca++ (mg/l)	Magnesium as Mg++ (mg/l)	Nickel (mg/l)	Iron (mg/l)	Copper (mg/l)

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

S. Nos.	Sources identified	Coordinates		Distance and direction
		Latitude	Longitude	

#### 4.2.3. Ground water quality monitoring program

S. Nos	Sampling Locations	Coordinates	Frequency	Parameters tested

#### 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 a)	<b>Land Pollution</b> Proper Storage & Disposal of Hazardous Waste & Solid Waste.	To send waste every 03/04 months	Individual Industry
Long Term Action Points (more than 1 year)			
Sr. No.	Action Points	Timeline	Responsible Agencies/ Stake Holders

4.2.4 b)	<b>Land Pollution</b> <b>Soil Testing</b> 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
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#### 4.2.5. Treatment and management of contaminated ground water bodies etc:

#### 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
1	Domestic/Commercial	Municipal Solid Waste	-

##### 4.3.1.1. Hazardous Waste

S. no.	Source	Quantity
1	Industrial	-

##### 4.3.1.2 Bio-Medical Waste

S. no.	No. of CBWTF	Quantity	Authorization
1	02  (Situating outside the cluster/impact zone)		

##### 4.3.1.3 Electronic Waste

The e-waste generation from the bulk consumers is very minimum in the core & impact zone of the study area, since there are no producers and manufacturers of electronic items listed in Schedule-I of e-waste Rules, 2016. There is 01 e-waste dismantling & recycling industry engaged in procurement of e-waste generating within and outside the study area.

S. no.	No. of Electronic waste treatment facility	Quantity
1	NA	-

#### 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
1	Domestic/Commercial	
2	Hazardous waste	
3	Biomedical Waste	

#### 4.3.1.5 Plastic Waste

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

#### 4.3.1.6 Construction and Demolition Waste

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

#### 4.3.1.7 Quantification Of Waste And Relative Contribution From Different Source

##### 4.3.1.8

S.no.	Pollution source	Type of Wastes	Relative Contribution
1	Industries	Hazardous waste	
2	Health care facilities	Biomedical Waste	
3	Domestic/Commercial	Municipal Solid Waste	

#### **4.3.2. Identification of Waste Minimization and Waste Exchange Options:**

#### **4.3.3. Reduction/Reuse/ Recovery/ Recycle Options in the Co-Processing of Waste:**

#### **4.3.4. Infrastructure Facilities:**

##### **4.3.4.1. Existing TSDF/Incineration Facilities Including Capacities**

There are no TSDF and incineration facility in the study area. Accordingly, the industries are ensured to dispose the Hazardous waste to three nos. of TSDF facility and common incineration facility located outside the study area.

<b>S.no.</b>	<b>Tsdf/Incineration Facilities</b>	<b>Capacity</b>	<b>Location</b>
<b>1</b>	<b>M/S Bharat oil &amp; waste management Pvt.</b>	<b>14000 MT/Annum</b>	<b>Vill- Kumbhi, Tesil Akbarpur, Dist Kanpur Dehat</b>
<b>2</b>	<b>M/S U.P. Waste Management Project(A Ramky Enviro Engineers)</b>	<b>50000 MT/Annum</b>	<b>Plot-672,NH-2 Sikandra Road, Vill- Kumbhi, Tesil Akbarpur, Dist Kanpur Dehat</b>
<b>3</b>	<b>M/S Bharat oil &amp; waste management Pvt.</b>	<b>21000 MT/Annum</b>	<b>18,Site-4,Sahibabad Industrial Area</b>

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

Establishment of Common solid waste disposal facility particularly for bio-degradable waste within the study area for final disposal of non-hazardous solid waste in scientific manner is required.

- 1. Treatment And Management Of Contaminated Waste Disposal Sites Etc:**  
There is no such treatment facility available in the study area.
- 2. Impact On CEPI Score After Proper Management Of Solid Waste**  
After implementing scientific solid waste management measures CEPI score will come down substantially.



## 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.

No Such plan has been identified.

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

---- N.A.

## 6. Other infrastructural Renewal measures:

### 6.1. Green belts

S. Nos.	Green Belt Developed/ upcoming Green belts	Area	Features
1	As Per Aligarh Mahayojna 2021		Parks,open spaces etc.

### 6.2. Development of Industrial Estate(s)

No such proposal

S. No.	Development of Industrial Estates	Area	Features
1	Nil	NA	NA

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

No such proposal

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

## 7. Specific Schemes:

### 7.1. GIS-GPS System for pollution sources monitoring

At present there is no such system for pollution sources monitoring. The possibility will be explored.

## 7.2. Hydro- geological fracturing for water bodies rejuvenation

Not Available

## 7.3. In-situ remediation of sewage

No such proposal

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

## 7.4. Utilization of MSW inert by gas based brick kilns

No such facility in the study area is proposed.

S. No.	Number of Brick kilns	Fuel
1	Nil	NA

## 7.5. Co- processing of wastes in cements industries

No such facility in the study area is proposed.

S. No.	Cement industries	Fuel
1	Nil	NA

## 8. Public awareness and training programs

The UPPCB is conducting both public awareness & training programmes in the field of environment management for the stakeholders in co-ordination with industries, NGOs, educational Institutes & other Government departments.

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

S. No.	CEPI score before installation/commissioning	CEPI score after installation/commissioning	Percent change
--------	--	---	----------------

	of pollution control equipment/ measures	of pollution control equipment/ measures	(%)
1			

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

Study of techno-economical feasibility of pollution control systems in clusters of small/medium scale industries will be carried out.

## 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)

There is no scope for this in the study area.

## 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)	<b>Water Pollution</b> <ul style="list-style-type: none"> <li><b>Industrial Source</b> - Proposed Action Plan for effective control of Water Pollution: Regular effluent sample collection and analysis of Pollution Control System in Red, Orange &amp; Green category Industries to be done to ensure strict compliance of prescribed Norms.</li> </ul>	<b>Frequency</b> Red category- <b>3 months</b> Orange category - <b>6 months</b> Green category - <b>12 months</b> (By UPPCB) & By Individual Industries	UPPCB Individual Industry
b)	<ul style="list-style-type: none"> <li>Installation of energy meter, on line PH meter, automatic chemical dosing 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 &amp; Medium Industries</li> </ul>	Ongoing	Individual Industries (Large and Medium)

c)	<ul style="list-style-type: none"> <li>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.</li> </ul>	Within 06 months.	Individual Industries.
d)	<ul style="list-style-type: none"> <li><b>Groundwater Pollution:</b> 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.</li> </ul>	Ongoing	Jal Nigam/ State Ground Water Authority
f)	<ul style="list-style-type: none"> <li><b>Domestic Waste Water (Sewage):</b> Effective operation &amp; 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 &amp; building projects Reuse of treated sewage. Upgradation of STPs to meet revised norms.</li> </ul>	Ongoing Process	ULBs/ UPPCB & Jal Nigam
g)	<ul style="list-style-type: none"> <li><b>Inventorization of Air Polluting Industries:</b></li> </ul>	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.
h)	<ul style="list-style-type: none"> <li><b>Proposed Action Plan for effective control of Air Pollution:</b> Regular Monitoring of Pollution Control System in Industries.</li> </ul>		UPPCB & Individual Industries.
i)	<ul style="list-style-type: none"> <li><b>Illegal setup of Industrial activities:</b> Regular drives are to be carried out by Pollution control board and District Administration to identify and seal illegally operating industrial activities.</li> </ul>	Combined drives every 2 months by UPPCB & District Administration.	UPPCB and District Admn.
j)	<ul style="list-style-type: none"> <li><b>UPPCL to ensure:</b> that electric connection is not sanctioned in favour of such industries which are not in conforming area.</li> </ul>	Within 01 month	UPPCL and Udyog Bandhu
k)	<ul style="list-style-type: none"> <li><b>Monitoring of D.G Sets:</b> Inventorization of Old D.G. Sets in Industrial clusters and Commercial set ups including Multiplexes / Shopping Malls/ Educational Institution within or near</li> </ul>	06 Months.	

	<p>industrial areas to be done by UPPCB.</p> <p>I. Post inventorization remedial action with respect to air and noise pollution from likely sources shall be taken against defaulters.</p> <p>II. Installation of Acoustic Enclosure with adequate stack height in Old D G Sets to be ensured.</p>	<p>Ongoing</p> <p>9 months</p>	UPPCB
l)	<ul style="list-style-type: none"> <li><b>Noise Monitoring:</b> Board is procuring real time noise monitoring system. This will be installed in Commercial, Residential, Industrial and Sensitive Zones of the Region.</li> </ul>	Ongoing	UPPCB
m)	<ul style="list-style-type: none"> <li><b>Land Pollution:</b> Proper Storage &amp; Disposal of Hazardous Waste &amp; Solid Waste:</li> </ul>	To send waste every 03/04 months to TSDF	Individual Industry/UPPCB
n)	<ul style="list-style-type: none"> <li><b>Bio-Medical Waste Disposal:</b> member of authorized Common BMW Treatment Facilities Regular Inspection and monitoring of Hospitals / Nursing Homes has to be done</li> </ul>	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)	<ul style="list-style-type: none"> <li><b>Water Pollution Industrial Pollution:</b> Adoption of Cleaner Technology to reduce quantity of waste water, Promote recycle after treatment for sector like electroplating industries. Strategies regarding cleaner technologies in such industries are to be conducted in a time bound manner. In these industries, 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.</li> </ul>	Within 01 Years. (By Industries)	Individual Industries UPPCB & Individual Industries
p)	<ul style="list-style-type: none"> <li>Widening and Covering of major open Nalas carrying domestic sewage.</li> </ul>	Ongoing	ULBs/UPSIDA
q)	<ul style="list-style-type: none"> <li><b>Groundwater Pollution:</b> Ground water study may be carried out in all Industrial Clusters by Out Sourcing Agencies.</li> </ul>	1 Year.	UPPCB & Designated Agencies.
r)	<ul style="list-style-type: none"> <li><b>Air Pollution/Industrial Pollution:</b></li> </ul>		

	<p>Implementation of Cleaner technology in order to reduce quantity of process and fugitive emissions and effective Operation &amp; maintenance of installed APCS. Implementation of cleaner technology / adoption of cleaner fuel, identification of industries to be done in time bound manner.</p> <p>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.</p> <p>To supply and promote the use of cleaner fuel like CNG, in order to reduce emissions in the industrial</p>	1 Year	UPPCB and Individual industry
s)	<ul style="list-style-type: none"> <li>• <b>Introduction of Cleaner Fuel for Industrial Uses :</b> Currently industries are using Coal/ Wood and LDO/LSHS as a fuel which emits SPM and SO<sub>2</sub> and other pollutants. If CNG is made available to industries the RSPM, SO<sub>2</sub> will be reduced and Ambient Air Quality will be improved. M/S Torrent Gas Moradabad Ltd. need to expedite there distribution network for the same at the earliest.</li> </ul>	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
t)	<ul style="list-style-type: none"> <li>• <b>Clean fuel for vehicles:</b> 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.</li> </ul>	01 year / As per plan submitted by Gas Agencies.	RTO & Gas Companies
u)	<ul style="list-style-type: none"> <li>• <b>Development of Green Belt:</b> Develop Green belt from 20% to 33% of the total area.</li> </ul>	Ongoing	Forest Department
v)	<ul style="list-style-type: none"> <li>• <b>Land Pollution Soil Testing:</b> Soil testing of critically polluted Area is proposed to be done for different metals like Pb, Ni, Zn, Cr, Cu, Fe etc. twice a year through recognize laboratory.</li> </ul>	01 Year	UPPCB
w)	<ul style="list-style-type: none"> <li>• <b>Study of impact on Human Health of Water &amp; Air Pollutants</b></li> </ul>		IITR (Earlier ITRC) / Health Department

x)	<ul style="list-style-type: none"> <li>• <b>Municipal solid waste Disposal:</b> 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 &amp; 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 &amp; ensure compliance of the conditions of the Environment Clearance and NOC from PCB</li> </ul>	Every 3 months	Project proponent to give compliance report to UPPCB.
y)	<ul style="list-style-type: none"> <li>• <b>Committee Update:</b> 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.</li> </ul>	1 Year	UPPCB and DEC