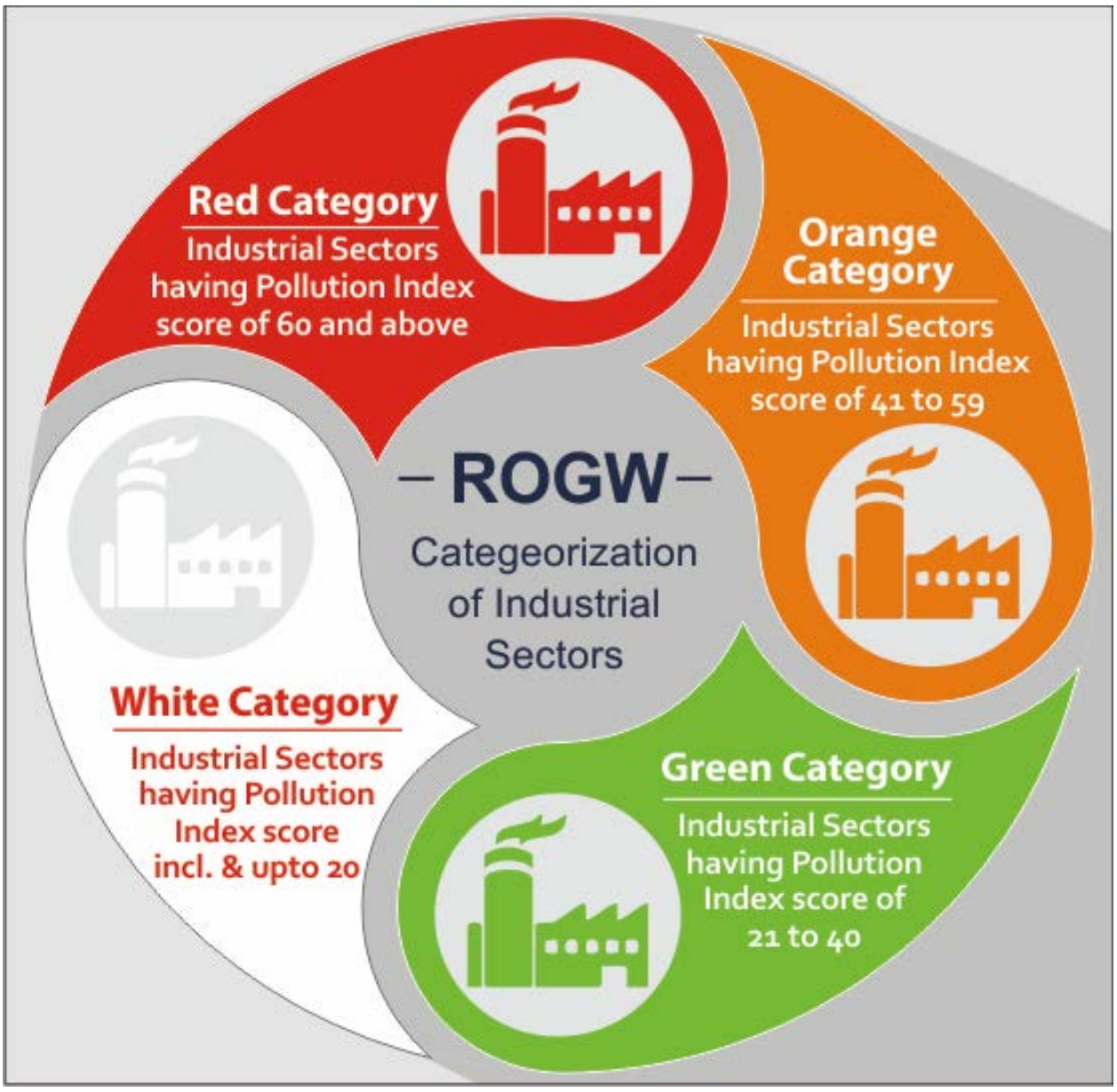
Environmental Management Plan for Critically/Severely Polluted Area- Khurja, Bulandshahr



Regional Office,
U.P. Pollution Control Board, Bulandshahr

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)

1.1 AREA DETAILS

As per the CEPI assessment, following areas have been identified as Critically/ Severely polluted area Khurja, District Bulandshahr.

1.2 LOCATION

The coordinates of the cluster boundary are as follows:

Direction	Latitude	Longitude
East	28.246002	77.869938
West	28.254626	77.839667
North	28.266419	77.953672
South	28.236087	77.964704

1.3 Digitized map showing geographical boundaries and Impact Zones

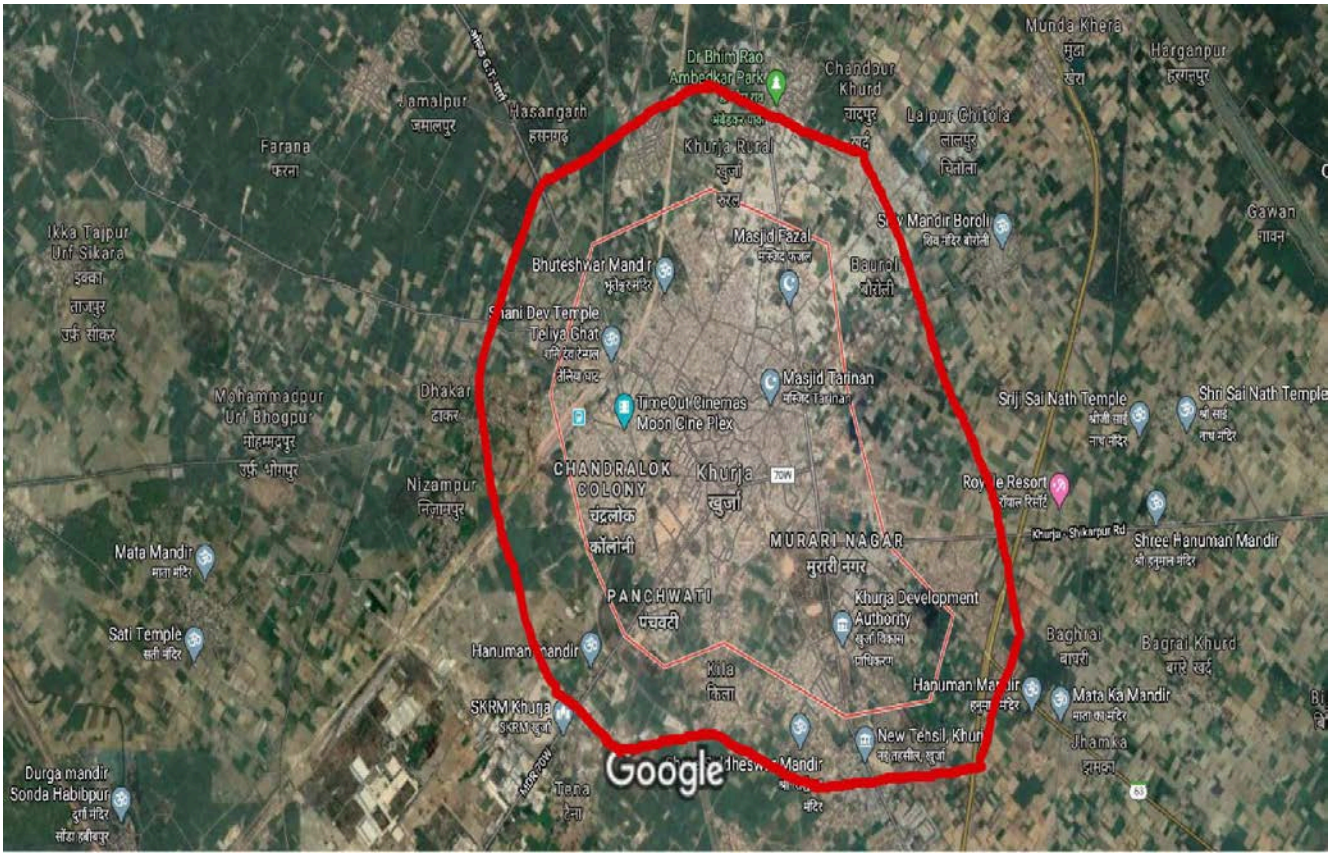


IMAGE: AERIAL VIEW – INDUSTRIAL CLUSTER, KHURJA

1.4 CEPI Score (Air-79.50, Water-76.0, Land-36.75 and Total-85.23)

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	121207	133200	28	30	53	53	2	2	0	0

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	0	0	0	0	0	1

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	0	0	0

(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	0	0	0

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

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	0	0	0
Medium	0	0	0
Total	**0**	**0**	**0**

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	01	01	01
Medium	04	04	04
Small	14	14	00
Total	**19**	**19**	**05**

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	0	0	0
Small	5	5	0
Total	**5**	**5**	**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	195	195	0
Total	**195**	**195**	**0**

1.7.5 GROSSLY POLLUTING INDUSTRIES

Scale Of Industries	Highly Polluting Industries		
	Air	Water	No. Of E-Waste/Hazardous Waste Generating Industries
Large	1	1	1
Medium	4	4	4
Small	1	1	1
Total	6	6	6

2.0 Water Environment

2.1 Present Status of Water Environment Supported with Minimum One-Year Analytical Data (Handpump Khurja District Bulandshahar)

Date of sampling 10.02.2020

S. No.	Parameters	Observed values			Standard as per BIS IS 10500: 2012 (Permissible Limit)
		Barauli Village	Industrial area	Abad Nagar	
1	pH	7.4	7.43	7.76	6.5-8.5
2	Conductivity	1062	1137	725	--
3	CO_3(mg/l)	0	0	0	--
4	HCO_3(mg/l)	550	573	381	--
5	Cl(mg/l)	21	21	14	1000
6	F(mg/l)	0.05	0.65	0.55	1.0
7	NO_3(mg/l)	13	19	2	45
8	SO_4(mg/l)	38	50	26	400
9	Hardness(mg/l)	304	320	240	600
10	Ca Hardness (mg/l)	56	64	40	200
11	Mg Hardness (mg/l)	39	38	34	100
12	Na(mg/l)	100	110	54	--
13	K(mg/l)	7.8	7.1	4.8	--
14	SiO_2(mg/l)	26	25	22	--
15	PO_4(mg/l)	BDL	BDL	BDL	--
16	Cr(ppb)	0.19	0.07	0.00	0.05
17	Fe(ppb)	0.50	0.54	0.06	0.3
18	Mn(ppb)	0.07	0.02	0.04	0.3
19	Cu(ppb)	0.00	0.00	0.00	1.5
20	Zn(ppb)	0.00	0.77	0.25	15

21	As(ppb)	0.45	0.24	0.36	0.05
22	Pb(ppb)	2.99	4.04	1.72	0.01
23	U(ppb)	19.77	6.89	5.56	30

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	**Khurja Drain**	**01**	**14**
2	**Bartuli Drain**	**01**	**4**

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)

S. No.	Parameters	Observed values	Standards
		Khurja drain	
1	**pH**	7.7	--
2	**TSS (mg/l)**	145.0	--
3	**BOD (mg/l)**	88.0	--
4	**COD (mg/l)**	312.0	--

2.4 Predominant Sources Contributing To Various Pollutants

S. No.	Sources	Effluent discharge	Major Pollutants
1	**Town area Khurja**	**Approximately 14.0 MLD (Domestic/Industrial Effluent)**	**pH, color, odour, solids, BOD, COD, Oil & Grease.**
2	1- M/s Param Dairy Ltd., G.T. Road, Khurja, Distt. Bulandshahr 2- M/s Creamy Foods Ltd. G.T. Road, Khurja, Distt. Bulandshahr 3- Niryas Foods Products Pvt. Ltd. Vill. Khalsiya, Tahsil Khurja, Distt. Bulandshahr	**Approximately 4.0 MLD (Industrial Effluent)**	**pH, color, odour, solids, BOD, COD, Oil & Grease.**

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	**Khurja Drain**	0	0	0	0	3	13	16	Approximately 1.0 MLD
2	**Bartoli Drain**	0	0	0	0	0	3	3	Approximately 4.0 MLD

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	Tapped	Untapped	Partially Tapped	Treated	Untreated	Total	
1.	Khurja Bulandshahar	1	**Domestic**	--	**Untapped**	N.A.	--	**Untreated**	13	13

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.	STP not installed	NA	NA	NA	NA	NA	NA	NA

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.	Khurja District Bulandshahar	CETP not installed	NA	NA	NA	NA	NA	NA

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

There is no leachate fond in this area from MSW dump site/others.

2.6 Impact on Surrounding Area (Outside the PIAs):

No information is available regarding this.

2.7 Details of Water Polluting Industries in the Area/ Cluster

S. No.	Name and Address	Product	Location		Type	Treatment Mechanism (ETP/CETP)	Effluent Discharge (KLD)	Effluent Discharge Drain	Consent status	
			Latitude	Longitude					Air	Water
1	M/s Al-Hamd Frozen Foods (Slaughtering Unit) Mundakhera Road, Khurja, Distt. Bulandshahr	Slaughtering of Animal 150 Buffaloes	28° 16′ 09.16" N	77° 52′ 35.18" E	Slaughter House	ETP	150	Mundakhera/ Khurja Drain	**Grant**	**Grant**
2	M/s Madina Frozen Foods (Slaughtering Unit), Mundakhera Road, Khurja, Distt. Bulandshahr	Slaughtering of Animal 150 Buffaloes & 200 Goat/Sheep	28° 15′ 55.56" N	77° 52′ 23.53" E	Slaughter House	ETP	150	Mundakhera/ Khurja Drain	**Grant**	**Grant**
3	M/s Laham Export India P. Ltd. (Slaughtering Unit), Mundakhera Road, Khurja, Distt. Bulandshahr	Slaughtering of Animal 300 Buffaloes & 1000 Goat/Sheep	28° 15′ 55.56" N	77° 52′ 23.53" E	Slaughter House	ETP	300	Mundakhera/ Khurja Drain	**Grant**	**Grant**
4	M/s Param Dairy Ltd., G.T. Road, Khurja, Distt. Bulandshahr	Processing of Milk (Ghee, Powder) 500 KLD	28° 15′ 55.56" N	77° 52′ 23.53" E	Dairy	ETP	1100	Bartuli Drain	**Grant**	**Grant**
5	M/s Niryas Foods Products Pvt. Ltd. Vill. Khalsiya, Tahsil Khurja, Distt. Bulandshahr	Processing of Milk (Ghee, Powder) 40 KLD	28°19'07.6" N	77°50'57.4" E	Dairy	ETP	150	Bartuli Drain	**Self closed**	**Self closed**

6	M/s Creamy Foods Ltd. G.T. Road, Khurja, Distt. Bulandshahr	Processing of Milk (Ghee, Powder)1050 KLD	28° 15′ 55.56" N	77° 52′ 23.53" E	Dairy	ETP	2000	Bartuli Drain	**Grant**	**Grant**
7	M/s Madina Frozen Foods Mundakhera Road, Khurja, Distt. Bulandshahr	Frozen Meat 10 MTD	28° 15′ 55.56" N	77° 52′ 23.53" E	Frozen meat unit	ETP	20	Mundakhera/ Khurja Drain	**Grant**	**Grant**
8	M/s Al-Hamd Frozen Foods Mundakhera Road, Khurja, Distt. Bulandshahr	Frozen Meat 10 MTD	28° 16′ 09.16" N	77° 52′ 35.18" E	Frozen meat unit	ETP	20	Mundakhera/ Khurja Drain	**Grant**	**Grant**
9	M/s Agrotech Foods Ltd. Mundakhera Road, Khurja, Distt. Bulandshahr	Frozen Meat 10 MTD	28° 28′ 03.47" N	77° 39′ 54.84" E	Frozen meat unit	ETP	25	Mundakhera/ Khurja Drain	**Grant**	**Grant**
10	M/s Al-Arfa Frozen Foods Ltd. Mundakhera Road, Khurja, Distt. Bulandshahr	Frozen Meat 15 MTD	28° 28′ 22.99" N	77° 40′ 14.58" E	Frozen meat unit	ETP	15	Mundakhera/ Khurja Drain	**Self closed**	**Self closed**
11	M/s Al-Takabir Frozen Foods Ltd. Mundakhera Road, Khurja, Distt. Bulandshahr	Frozen Meet 10 MTD	28° 16′ 16.38" N	77° 52′ 39.55" E	Frozen meat unit	ETP	25	Mundakhera/ Khurja Drain	**Grant**	**Grant**
12	M/s Al-Nazm Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Frozen Meet 10 MTD	28° 16′ 14.39" N	77° 52′ 35.27" E	Frozen meat unit	ETP	**20**	Mundakhera/ Khurja Drain	**Self closed**	**Self closed**
13	M/s Tasmia Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Frozen Meet 10 MTD	28°27'51.9" N	77°39'48.9" E	Frozen meat unit	ETP	**25**	Mundakhera/ Khurja Drain	**Self closed**	**Self closed**
14	M/s Sahiba Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Frozen Meet 10 MTD	28° 16′ 7.8" N	77° 52′ 26.03" E	Frozen meat unit	ETP	**28**	Mundakhera/ Khurja Drain	**Self closed**	**Self closed**
15	M/s Al-Tasin Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Frozen Meet 08 MTD	28°27'51.9" N	77°39'48.9" E	Frozen meat unit	ETP	**20**	Mundakhera/ Khurja Drain	**Self closed**	**Self closed**

16	M/s Barkat Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Frozen Meat 10 MTD	28° 16′ 18.47" N	77° 52′ 43.36" E	Frozen meat unit	ETP	45	Mundakhera/ Khurja Drain	**Grant**	**Grant**
17	M/s Al-Shifa Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Frozen Meat 10 MTD	28° 28′ 19.87" N	77° 40′ 19.13" E	Frozen meat unit	ETP	**30**	Mundakhera/ Khurja Drain	**Self closed**	**Self closed**
18	M/s Al-Huda Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Frozen Meat 10 MTD	28° 16′ 20.00" N	77° 52′ 19.47" E	Frozen meat unit	ETP	**50**	Mundakhera/ Khurja Drain	**Self closed**	**Self closed**
19	M/s Bio Spring, Baroli Road, Khurja, Distt. Bulandshahr	Buffalo Green Trap 300 Nos./Day	28° 15′ 27.6" N	77° 51′ 59.9" E	Frozen meat unit	ETP	5	Mundakhera/ Khurja Drain	**Under process**	**Under process**

2.8 **Effluent Disposal Methods**- Recipient Water Bodies – Khurja Drain & Bartuli Drain.

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	Mundakhera Drain /Khurja Drain	0	0	0	0	3	13	16	01.0	61.8
2	Bartoli Drain	0	0	0	0	0	3	3	04.0	

b) 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.	Khurja Drain	__	__	Mixed	__	Untapped	__	16	1.0	0	13	13.0	1232.00
2.	Bartuli Drain	__	Industrial	__	__	Untapped	__	3	4.0	0	0	0	112.0

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**	**Remarks/Progress**
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	Regular effluent sample collection and analysis of Pollution Control System in Large & Medium & Small Scale Pollution Industries is being done to ensure strict compliance of prescribed norms by Regional Office, UPPCB, Bulandshahar.
	• 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)	Notice has been sent to all concerned industries for compliance.
	• 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.	Within 06 months.	Individual Industries.	Notice has been sent to all concerned industries for compliance.
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	UPPCB	Notice has been sent to all concerned industries for compliance.

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 Jal Nigam	
	• STPs are Operational	Ongoing	UPPCB and Jal Nigam	STP not installed
	• Combined Inspection of STPs by UPPCB and Jal Nigam	Ongoing Process	UPPCB and 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 Local Authority & 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 POLLUTION CONTROL MEASURES INSTALLED BY INDUSTRIES.

S. No	Name of Industries	Product	Category	Pollution control measures installed (Y/N)	Consent status
1	M/s Al-Hamd Frozen Foods (Slaughtering Unit) Mundakhera Road, Khurja, Distt. Bulandshahr	Slaughtering of Animal 150 Buffaloes	Red	**Yes**	**Grant**
2	M/s Madina Frozen Foods (Slaughtering Unit), Mundakhera Road, Khurja, Distt. Bulandshahr	Slaughtering of Animal 150 Buffaloes & 200 Goat/Sheep	Red	**Yes**	**Grant**
3	M/s Laham Export India P. Ltd. (Slaughtering Unit), Mundakhera Road, Khurja, Distt. Bulandshahr	Slaughtering of Animal 300 Buffaloes & 1000 Goat/Sheep	Red	**Yes**	**Grant**

4	M/s Param Dairy Ltd., G.T. Road, Khurja, Distt. Bulandshahr	Processing of Milk (Ghee, Powder) 500 KLD	Red	**Yes**	**Grant**
5	M/s Niryas Foods Products Pvt. Ltd. Vill. Khalsiya, Tahsil Khurja, Distt. Bulandshahr	Processing of Milk (Ghee, Powder) 40 KLD	Red	**Yes**	**Self closed**
6	M/s Creamy Foods Ltd. G.T. Road, Khurja, Distt. Bulandshahr	Processing of Milk (Ghee, Powder)1050 KLD	Red	**Yes**	**Grant**
7	M/s Madina Frozen Foods Mundakhera Road, Khurja, Distt. Bulandshahr	Frozen Meat 10 MTD	Red	**Yes**	**Grant**
8	M/s Al-Hamd Frozen Foods Mundakhera Road, Khurja, Distt. Bulandshahr	Frozen Meat 10 MTD	Red	**Yes**	**Grant**
9	M/s Agrotech Foods Ltd. Mundakhera Road, Khurja, Distt. Bulandshahr	Frozen Meat 10 MTD	Red	**Yes**	**Grant**
10	M/s Al-Arfa Frozen Foods Ltd. Mundakhera Road, Khurja, Distt. Bulandshahr	Frozen Meat 15 MTD	Red	**Yes**	**Self closed**
11	M/s Al-Takabir Frozen Foods Ltd. Mundakhera Road, Khurja, Distt. Bulandshahr	Frozen Meet 10 MTD	Red	**Yes**	**Grant**
12	M/s Al-Nazm Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Frozen Meet 10 MTD	Red	**Yes**	**Self closed**
13	M/s Tasmia Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Frozen Meet 10 MTD	Red	**Yes**	**Self closed**
14	M/s Sahiba Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Frozen Meet 10 MTD	Red	**Yes**	**Self closed**
15	M/s Al-Tasin Frozen Foods P. Ltd. Mundakhera Road, Khurja,	Frozen Meet 08 MTD	Red	**Yes**	**Self closed**

	Distt. Buladnshahr				
16	M/s Barkat Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Frozen Meat 10 MTD	Red	**Yes**	**Grant**
17	M/s Al-Shifa Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Frozen Meat 10 MTD	Red	**Yes**	**Self closed**
18	M/s Al-Huda Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Frozen Meat 10 MTD	Red	**Yes**	**Self closed**
19	M/s Bio Spring, Baroli Road, Khurja, Distt. Bulandshahr	Buffalo Green Trap 300 Nos./Day	Red	**Yes**	**Pending at HO**

2.10.4 Technological Intervention

S. No	Industries	Category	Pollution control measures installed (Y/N)
1	Nil	Nil	Nil

2.10.4.1 Inventorisation of Prominent Industries with Technological Gaps

S. No.	Industries	Category	Pollution control measures installed (Y/N)
1	Nil	Nil	Nil

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	Nil	Nil	Nil

2.10.5 Infrastructure Renewal if any required

2.10.5.1 Details of existing infrastructure facilities- Dust collector, wet scrubber, ESP etc. are installed for air pollution control and ETPs installed for water pollution control.

2.10.5.2 Need of up gradation of existing facilities – Need cleaner fuel for pollution control.

2.10.5.3 De-silting of water tanks, drains, culvert, etc. – De silting of drains done by Nagar Palika Parishad, Khurja, District Bulandshahr.

2.10.5.4 Construction of lined drains/ connections – Ongoing.

2.10.5.5 Treatment and management of contaminated surface water bodies –

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

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

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- CETPs not installed.

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: NA

2.10.6.3 Government Budgetary support requirement

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

2.10.6.4 Hierarchical and structured managerial system for efficient implementation: NA

2.10.7 Self monitoring systems industries (ETPs) etc.-

S. No.	Industries	Category	ETPs installed(Y/N)
1	M/s Al-Hamd Frozen Foods (Slaughtering Unit) Mundakhera Road, Khurja, Distt. Bulandshahr	Red	**Grant**
2	M/s Madina Frozen Foods (Slaughtering Unit), Mundakhera Road, Khurja, Distt. Bulandshahr	Red	**Grant**
3	M/s Laham Export India P. Ltd. (Slaughtering Unit), Mundakhera Road, Khurja, Distt. Bulandshahr	Red	**Grant**
4	M/s Param Dairy Ltd., G.T. Road, Khurja, Distt. Bulandshahr	Red	**Grant**
5	M/s Niryas Foods Products Pvt. Ltd. Vill. Khalsiya, Tahsil Khurja, Distt. Bulandshahr	Red	**Self closed**
6	M/s Creamy Foods Ltd. G.T. Road, Khurja, Distt. Bulandshahr	Red	**Grant**
7	M/s Madina Frozen Foods Mundakhera Road, Khurja, Distt. Bulandshahr	Red	**Grant**
8	M/s Al-Hamd Frozen Foods Mundakhera Road, Khurja, Distt. Bulandshahr	Red	**Grant**
9	M/s Agrotech Foods Ltd. Mundakhera Road, Khurja, Distt. Bulandshahr	Red	**Grant**
10	M/s Al-Arfa Frozen Foods Ltd. Mundakhera Road, Khurja, Distt. Bulandshahr	Red	**Self closed**
11	M/s Al-Takabir Frozen Foods Ltd. Mundakhera Road, Khurja, Distt. Bulandshahr	Red	**Grant**
12	M/s Al-Nazm Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Red	**Self closed**
13	M/s Tasmia Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Red	**Self closed**
14	M/s Sahiba Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Red	**Self closed**
15	M/s Al-Tasin Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Red	**Self closed**
16	M/s Barkat Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt.	Red	**Grant**

	Buladnshahr		
17	M/s Al-Shifa Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Red	**Self closed**
18	M/s Al-Huda Frozen Foods P. Ltd. Mundakhera Road, Khurja, Distt. Buladnshahr	Red	**Self closed**
19	M/s Bio Spring, Baroli Road, Khurja, Distt. Bulandshahr	Red	**Grant**

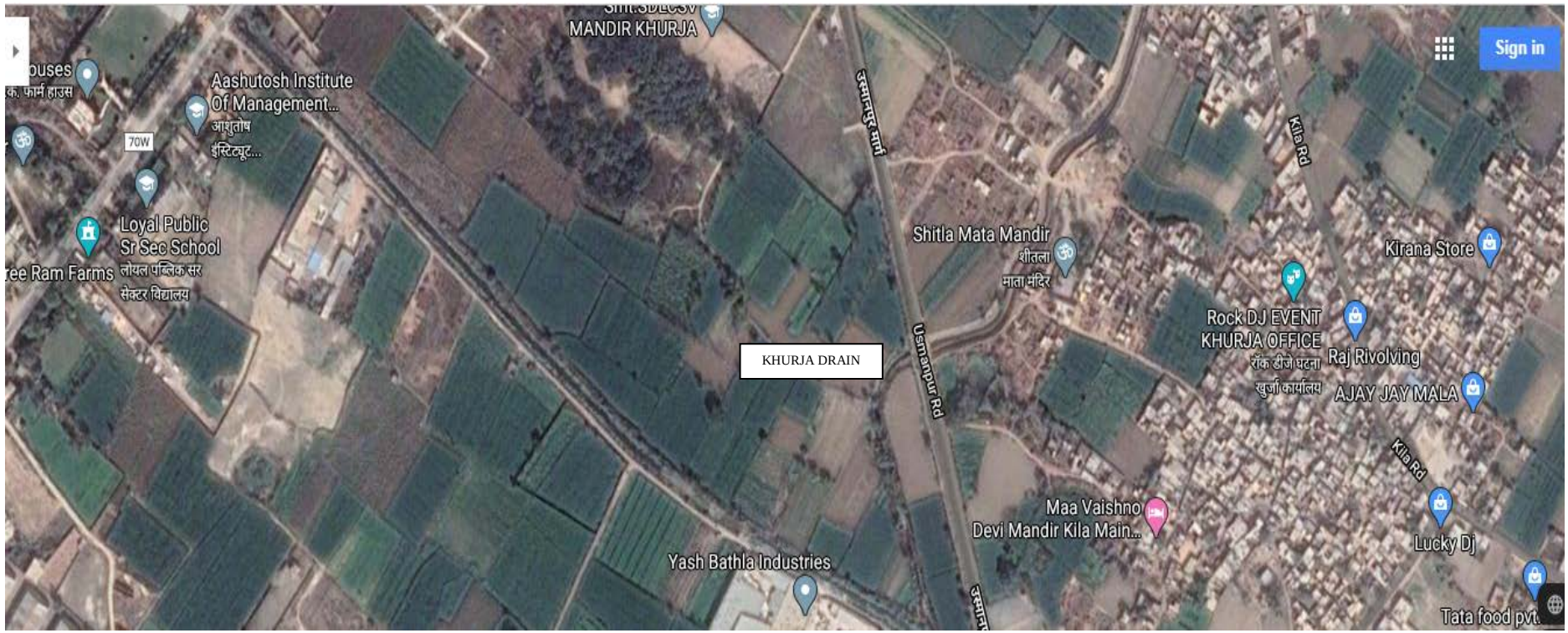
2.10.8 Data linkages to SPCB / CPCB (OCEEMS)-

S. No.	Industries	Category	Data linkages (Y/N)
1	M/s Al-Hamd Frozen Foods (Slaughtering Unit) Mundakhera Road, Khurja, Distt. Bulandshahr	Red	Yes
2	M/s Madina Frozen Foods (Slaughtering Unit), Mundakhera Road, Khurja, Distt. Bulandshahr	Red	Yes
3	M/s Laham Export India P. Ltd. (Slaughtering Unit), Mundakhera Road, Khurja, Distt. Bulandshahr	Red	Yes
4	M/s Param Dairy Ltd., G.T. Road, Khurja, Distt. Bulandshahr	Red	Yes
5	M/s Creamy Foods Ltd. G.T. Road, Khurja, Distt. Bulandshahr	Red	Yes

2.11 MONITORING: SURFACE WATER, GROUND WATER

SURFACE WATER MONITORING STATIONS

S No.	Location/Station	Location code
1	Khurja Drain, Near village Kila Usmanpur Road	---



GROUND WATER MONITORING STATIONS:

S No.	Location/Station	Location code
1	Handpump, Mundakhera Road Khurja	---

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-Jan 2020)	AQI (Residential)	Condition	AQI (Industrial)	Condition
1	1. Residential (Aheerpara Khurja) 2. Industrial (CGCRI, Khurja)	January	362	Very poor	433	severe
		February	355	Very poor	398	Very poor
		March	352	Very poor	363	Very poor
		April	370	Very poor	370	Very poor
		May	374	Very poor	395	Very poor
		June	323	Very poor	337	Very poor
		July	310	Very poor	303	Very poor
		August	353	Very poor	368	Very poor
		September	358	Very poor	374	Very poor
		October	382	Very poor	402	severe
		November	408	severe	450	severe
		December	432	severe	466	severe

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	
1	CGCRI, Khurja Bulandshahar	28°15'52.5"N	77°51'32.9"E	Within CEPI
2	Aheerpara, Khurja Bulandshahar	28°15'35.4"N	77°51'00.8"E	Within CEPI

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	Parameters(Avg. value of year 2019) Industrial (CGCRI, Khurja Bulandshahar)	Observed values	Standards
1	PM_{10}	274	100
2	SO_2	20	80
3	NO_2	19	80

S. No	3. Parameters(Avg. value of year 2019) **Residential** (Aheerpara, Khurja Bulandshahar)	Observed values	Standards
1	PM_{10}	24	100
2	SO_2	19	80
3	NO_2	18	80

ii) O_3, CO and other relevant parameter (for 1 hrly average and 8 hrly average) Not analyzed

S. No	Parameters	Observed values	Standards
1	--	--	--
2	--	--	--

iii) Benzene, Arsenic & Nickel and other relevant parameter (for 24 hrly average value)- Not analyzed

S. No	Parameters	Observed values	Standards
1	--	--	--
2	--	--	--

3.1.3 Predominant sources contributing to various pollutants

S. No.	Sources	Percent contribution	Main Pollutants
1.	Vehicular	14	NO_X , SO_X, CO, Hydrocarbons, Volatile organic compounds
2.	Industrial	8	Benzene, NO_X , SO_X, CO, Hydrocarbons, Volatile organic compounds
3.	Domestic	7	Volatile organic compounds, SO_X, CO
4.	Others like Dust and Construction, Waste Burning, Diesel Generator	71	NO_X , SO_X, CO, Hydrocarbons, Volatile organic compounds

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
		Latitude	Longitude	
1	M/s Al-Hamd Frozen Foods (Slaughtering Unit) Mundakhera Road, Khurja, Distt. Bulandshahr	28° 16′ 09.16" N	77° 52′ 35.18" E	Within CEPI
2	M/s Madina Frozen Foods (Slaughtering Unit), Mundakhera Road, Khurja, Distt. Bulandshahr	28° 15′ 55.56" N	77° 52′ 23.53" E	Within CEPI
3	M/s Laham Export India P. Ltd. (Slaughtering Unit), Mundakhera Road, Khurja, Distt. Bulandshahr	28° 15′ 55.56" N	77° 52′ 23.53" E	Within CEPI
4	M/s Param Dairy Ltd., G.T. Road, Khurja, Distt. Bulandshahr	28° 15′ 55.56" N	77° 52′ 23.53" E	Within CEPI
5	M/s Creamy Foods Ltd. G.T. Road, Khurja, Distt. Bulandshahr	28° 15′ 55.56" N	77° 52′ 23.53" E	Within CEPI
6	M/s Bio Spring, Baroli Road, Khurja, Distt. Bulandshahr	28° 15′ 27.6" N	77° 51′ 59.9" E	Within CEPI
7	M/s Niryas Foods Products Pvt. Ltd. Vill. Khalsiya, Tahsil Khurja, Distt. Bulandshahr	28°19'07.6"N	77°50'57.4"E	Within CEPI
8	M/s Sri Guru Nanak Rubber Industries, Hospital Road, Khurja, Distt. Bulandsharhr	28°14'46.7"N	77°51'36.4"E	Within CEPI

9	M/s Khurja Refinery, G.T. Road Khurja Distt Bulandshahar.	28°17'11.9"N	77°51'17.8"E	Within CEPI
10	M/s Quality Packaging, Vill Wajidpur, Behind Dadu Pottery, NH-91 Khurja Distt Bulandshahar.	28°13'31.3"N	77°52'16.9"E	Within CEPI
11	M/s Shree Paras Steel Rolling Mill, Junction Road, Khurja Distt. Bulandshahr	28°13'49.6"N	77°50'13.6"E	Within CEPI

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	Percentage
1	Transport	Mobile	14
2	Industry	Stationary	8
3	Dust and construction	Stationary	45
4	Waste Burning	Stationary	17
5	Diesel Generator	Stationary	9
6	Domestic Cooking	Area source	7

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**	**Remarks**
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.	Regular Monitoring of Pollution Control System in Industries in order to ensure strict compliance of prescribed norms is being done and notice has been sent to concerned industries for compliance.
Long Term Action Points (more than 1 year)				
Sr. No.	**Action Points**	**Timeline**	**Responsible Agencies/ Stake Holders**	**Remarks**
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	1 Year	UPPCB/ Individual Industry/ IGL	PNG as fuel is using by ceramic industries

	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			
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	PNG as fuel is using by ceramic industries
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	In progress
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	Ambient Air Quality in critical industrial Zones is monitored manually one in every week on 24 hours basis by CGCRI Khurja. Continuous AAQM stations need to be set up.
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	Letter has been sent to HO for set up continues AAQM stations
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	In progress
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	05 years Plantation scheme based on wind pattern of Khurja city has been sent to Head office, UPPCB Lucknow for necessary action. Details enclosed.

3.6.1 Existing infrastructure facilities- Ambient Air Quality Monitoring Network

Number of manual AQ monitoring station	Number of CAAQMS	Total Monitoring station
2	0	2

Air Monitoring station Khurja Bulandshahar

No.	Location/Station	Station code
1	**CGCRI, Khurja**	534
2	**Aheerpara Khurja**	535

3.6.2 Pollution control measure installed by the individual sources of pollution

S. No.	Pollution Sources	Category	APCS installed(Y/N)
1	M/s Al-Hamd Frozen Foods (Slaughtering Unit) Mundakhera Road, Khurja, Distt. Bulandshahr	Slaughter House	**Yes**
2	M/s Madina Frozen Foods (Slaughtering Unit), Mundakhera Road, Khurja, Distt. Bulandshahr	Slaughter House	**Yes**
3	M/s Laham Export India P. Ltd. (Slaughtering Unit), Mundakhera Road, Khurja, Distt. Bulandshahr	Slaughter House	**Yes**

4	M/s Param Dairy Ltd., G.T. Road, Khurja, Distt. Bulandshahr	**Dairy**	**Yes**
5	M/s Creamy Foods Ltd. G.T. Road, Khurja, Distt. Bulandshahr	**Dairy**	**Yes**
6	M/s Sri Guru Nanak Rubber Industries, Hospital Road, Khurja, Distt. Bulandsharhr	**Rubber**	**Yes**
7	M/s Khurja Refinery, G.T. Road Khurja Distt Bulandshahar.	**Refinery unit**	**Yes**
8	M/s Quality Packaging, Vill Wajidpur, Behind Dadu Pottery, NH-91 Khurja Distt Bulandshahar.	**Packaging Unit**	**Yes**
9	M/s Shree Paras Steel Rolling Mill, Junction Road, Khurja Distt. Bulandshahr	Rolling mills	**Yes**

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	**Nil**	**Nil**	**Nil**

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	**195**	HSD	PNG/LPG

3.6.4 Need of infrastructure renovation

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

S. No.	Identified damaged roads	Length	Remarks
1	**Nil**	**Nil**	**Nil**

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	**Not available**	**79.50**	**NA**

3.6.6 Managerial and financial aspects- cost and time estimates

3.6.6.1 Cost and time estimates: Not available

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	**Nil**	**---**

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	M/s Al-Hamd Frozen Foods (Slaughtering Unit) Mundakhera Road, Khurja, Distt. Bulandshahr	Slaughter House	**Yes**
2	M/s Madina Frozen Foods (Slaughtering Unit), Mundakhera Road, Khurja, Distt. Bulandshahr	Slaughter House	**Yes**
3	M/s Laham Export India P. Ltd. (Slaughtering Unit), Mundakhera Road, Khurja, Distt. Bulandshahr	Slaughter House	**Yes**
4	M/s Param Dairy Ltd., G.T. Road, Khurja, Distt. Bulandshahr	**Dairy**	**Yes**
5	M/s Creamy Foods Ltd. G.T. Road, Khurja, Distt. Bulandshahr	**Dairy**	**Yes**

3.6.8 Data linkages to SPCB/ CPCB (OCEMS)

S. No.	Industries	Category	Data linkage (Y/N)
1	M/s Al-Hamd Frozen Foods (Slaughtering Unit) Mundakhera Road, Khurja, Distt. Bulandshahr	Slaughter House	Yes
2	M/s Madina Frozen Foods (Slaughtering Unit), Mundakhera Road, Khurja, Distt. Bulandshahr	Slaughter House	Yes
3	M/s Laham Export India P. Ltd. (Slaughtering Unit), Mundakhera Road, Khurja, Distt. Bulandshahr	Slaughter House	Yes
4	M/s Param Dairy Ltd., G.T. Road, Khurja, Distt. Bulandshahr	**Dairy**	Yes
5	M/s Creamy Foods Ltd. G.T. Road, Khurja, Distt. Bulandshahr	**Dairy**	Yes

3.6.9 AAQM Status of Districts

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

4. 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	Nil			

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	Nil			

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	Nil		

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	Industrial	Not measured	Inorganic pollutants including heavy metals.
2	Domestic	Not measured	Inorganic pollutant
3	Agricultural	Not measured	Organochlorine,

			pesticides, insecticide herbicides heavy metals etc.

4.1.5 Sources of soil contamination

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

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	Nil			

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

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

4.2.3. Ground water quality monitoring program

S. No.	Sampling Locations	Coordinates	Frequency	Parameters tested

1	Handpump Mundakhera Road Khurja Bulandshahar	28° 15′ 58.6" N 77° 52′ 10.9" E	Twice a years	pH Conductivity CO_3(mg/l) HCO_3(mg/l) Cl(mg/l) F(mg/l) NO_3(mg/l) SO_4(mg/l) Hardness(mg/l) Ca Hardness (mg/l) Mg Hardness (mg/l) Na(mg/l) K(mg/l) SiO_2(mg/l) PO_4(mg/l) Cr(ppb) Fe(ppb) Mn(ppb) Cu(ppb) Zn(ppb) As(ppb) Pb(ppb) U(ppb)

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**	**Remarks**
4.2.4 a)	**Land Pollution** Proper Storage & Disposal of Hazardous Waste & Solid Waste**.**	To send waste every 03/04 months	To sent waste every 03/04 months.	Presently all the registered units send there HW to Ramkee, Kanpur and Bharat Oil and Waste Management, Kanpur Dehat/Ghaziabad which is too far from the generation point. New HW disposal site is proposed to develop in industrial area sikandrabad to develop which is more convenient and cost effective to industries so that all the waste can be property/frequently disposed.
Long Term Action Points (more than 1 year)				
Sr. No.	**Action Points**	**Timeline**	**Responsible Agencies/ Stake Holders**	**Remarks**

4.2.4 b)	**Land Pollution 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	Comprehensive study, inventrization and verification to be insured by UPPCB

2.5. Treatment and management of contaminated ground water bodies etc: Nil

4.2.6. Impact on CEPI Score after abatement of pollution:

S. No.	CEPI score before	CEPI score after	Percent improvement
1.	Not available	36.75	Not available

4.3 Solid Waste Generation and Management

4.3.1. WASTE CLASSIFICATION AND QUANTIFICATION

S. No.	Source	Category	Quantity (approx.)
1.	Municipal area	Domestic	45.0 MTD
2.	Industries	Industrial	3000 MT/Yr
3.	Construction activities	C&D	0.50 MTD
4.	Health care facilities	BMW	0.0168 MTD

4.3.1.1. HAZARDOUS WASTE

S. No.	Source	Quantity
1.	Industrial and commercial	10 MT/Annum

4.3.1.2 BIO-MEDICAL WASTE

S. No.	No. of CBWTF	Quantity	Authorization
1.	Health care facilities	0.0168 MTD	Yes

4.3.1.3 ELECTRONIC WASTE

S. No.	No. of Electronic waste treatment facility	Quantity	Authorization
1.	Household, Industrial and commercial	Not inventorised	Not inventorised

4.3.1.4 MUNICIPAL SOLID WASTE/ DOMESTIC WASTE/ SLUDGE FROM STPs/ETPs/CETPs AND OTHER INDUSTRIAL SOURCES

S. No.	Type of Pollution Sources	% of Waste Generated
1.	Municipal/Domestic Waste	45.0 MTD
2.	Sludge from STPs/CETPs	STPs/CETPs not installed

4.3.1.5 PLASTIC WASTE

S. No.	No. of Plastic waste Processing facility	Quantity	Authorization
1	**Plastic waste Processing facility not installed in Khurja**		

4.3.1.6 Construction and Demolition Waste

S. No.	No. of C&D waste Processing facility	Quantity	Authorization	Compliance status
1	**C & D waste Processing facility not installed in Khurja**			

4.3.1.7 Quantification Of Waste And Relative Contribution From Different Source

S. No.	Pollution source	Type of Wastes	Relative Contribution
Mentioned as above			

4.3.2. IDENTIFICATION OF WASTE MINIMIZATION AND WASTE EXCHANGE OPTIONS: Nil

4.3.3. REDUCTION/REUSE/ RECOVERY/ RECYCLE OPTIONS IN THE CO-PROCESSING OF WASTE: Nil

4.3.4. INFRASTRUCTURE FACILITIES:

4.3.4.1. Existing TSDF/Incineration Facilities Including Capacities

S. No.	TSDF/Incineration Facilities	Capacity	Location
	No TSDF/Incineration Facilities installed in Khurja city.		

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

1. **Treatment And Management Of Contaminated Waste Disposal Sites Etc:** Please provide details- None
2. **Impact On CEPI Score After Proper Management Of Solid Waste**

S.no.	CEPI Score before management of solid waste	CEPI Score after management of solid waste	% Change
	Data not available		

5. PPP Model

5.1Identification 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 proposal proposed by any private party

5.2 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. None

6. <u>Other infrastructural Renewal measures</u>:

6.1. Green belts

S. No.	Green Belt Developed/ Upcoming Green belts	Area	Direction
1	05 years Plantation scheme based on wind pattern of Khurja city has been sent to Head office, UPPCB Lucknow for necessary action. Details enclosed.		

6.2. Development of Industrial Estate(s)

S. No.	Development of Industrial Estates	Area	Direction
	None		

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

S. No.	Shifting of Industrial Estates to non-Industrial areas	Area	Direction
	No proposal received		

7. <u>Specific Schemes:</u>

7.1. GIS-GPS System for pollution sources monitoring

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

S. Nos.	GIS-GPS System enabled Pollution sources	Remarks
	Not available	

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
	No facility available		

7.4. Utilization of MSW in brick kilns

S. No.	Number of Brick kilns	Fuel
	None	

7.5. Co- processing of wastes in cement industries

S. No.	Cement industries	Fuel
	No Unit installed	

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.
In progress

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 (%)
	NA		

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

Please provide detailed assessment report-**Under process**

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)-Nil

12. <u>Summary of proposed action points</u>

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

S.No.	Action Points (including source and mitigation measures)	Responsible Stack Holder	Time Limit	Cost	Remarks
	Water Pollution Industrial Source - Proposed Action Plan for effective control of Water Pollution:1 ☐Regular effluent sample collection and analysis of Pollution Control System	UPPCB & Individual Industry	**Frequency** Large & Medium Industries -**3 months** Small Scale Industries -**6 months** (By UPPCB)	25 Lakh/Year	Strengthening and upgradation of Laboratory and skilled staff is required

	in Large & Medium & Small Scale Polluting Industries to be done to ensure strict compliance of prescribed Norms		& By Individual Industries as follows - L & M - Every 3 Months. Small - Once a Year		
	❑Installation of energy meter, on line PH meter, automatic chemical dozing system, on line flow measurement 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 and industries situated. ❑Upgradation of ETP in existing water polluting units is to be done on case to case basis. Under the upgradation plan, suitable tertiary tretment methods are to be installed in a time bound manner in order to ensure that treated water is recycled / reused to the maximum extend. ❑**Upgradation of ETP's**: Conversion of conventional reduction treatment of electroplating waste water to Ion exchange method and its recycling in Large & Medium sector units, wherever existing ETP is not functioning properly. Prospective agents with expertise in this field shall be shortlisted in next 6 months. Also, small industries in the region currently using physico chemical treatment methods to treat their effluent shall be upgraded such as installation of dual media filter and Activated Carbon filter. Directions regarding	Individual Industries (Large and Medium) Individual Industries. UPPCB & Individual Industries. UPPCB & Individual Industries	Ongoing With in 06 months. 06 Months 06 months	Depends on the available latest technology and required structure	As per the categorization of industries by CPCB all concerning units provided online monitoring system in their industries. Technology upgradation of existing facility may be considered.

	installation of pH meter, automatic dozing and maintenance and proper running of ETPs have also been given in the District Level Committee held on 28/5/2012.					
	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.	UPPCB and local Authority. UPPCB	Ongoing Ongoing	Depends on the available latest technology and required structure		
	Domestic Waste Water (Sewage) Domestic sewage contributes to about 80% of Water. The status of Sewage Pollution Control is as follows: Effective operation & maintenance of installed STP. □Combined Inspection of STPs by UPPCB and Jal Nigam □Upcoming High Rise Buildings, Commercial Project, Educational Institution, Multi Plexes, 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	Letter has been sent to Nagar Palika Parishad Khurja to provide land for STP	Detailed study should be carried out by Nagar Palika for installation of Sewage treatment plant generated from municipal area. (Presently no facility is available in this area. Untreated sewage is being disposed in Khurja Drain)	
	Air Pollution Industrial: A total of air polluting industries have been identified in the region.	UPPCB & Individual Industries.	Stack Monitoring of Large & Medium units every 06 months and once in a	Depends on detailed study/ DPR prepared by UPPCB	Setup of Air monitoring laboratory in UPPCB Bulandshahar and Strengthening and upgradation of	

	Proposed Action Plan for effective control of Air Pollution: □Regular Monitoring of Pollution Control System in Industries in order to ensure strict compliance of prescribed Norms.		Year for SSI units. (By UPPCB & by individual Industries)		Laboratory and skilled staff is required
	Illegal setup of Industrial activities Regular combined drives are to be carried out by Pollution control board and District Administration to identify and seal illegally operating industrial activities. UPPCL to ensure that electric connection is not sanctioned in favour of such industries which are not in conforming area.	UPPCB and District Admn. UPPCL and UdyogBandhu	Combined drives every 2 months by UPPCB & District Administration. Within 01 month	**5 Lakh**	Regular combined drives are to be carried out by UPPCB and District administration
	Monitoring of D.G Sets: □Inventorisation 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. □Post inventorisation remedial action with respect to air and noise pollution from likely sources shall be taken against defaulters □Installation of Acoustic Enclosure with adequate stack height in Old D G Sets to be ensured.	UPPCB	06 Months. Ongoing 9 months	Depends on detailed study/ DPR prepared by UPPCB	Setup of Air monitoring laboratory in UPPCB Bulandshahar and Strengthening and upgradation of Laboratory and skilled staff is required
	Noise Monitoring Board is procuring real time noise monitoring system. This will be installed in Commercial, Residential, Industrial and Sensitive Zones of the Region.	UPPCB	Ongoing	Depends on detailed study/ DPR prepared by UPPCB	Setup of Air monitoring laboratory in UPPCB Bulandshahar and Strengthening and upgradation of Laboratory and skilled staff is required
	Land Pollution **Proper Storage & Disposal of Hazardous Waste & Solid Waste**	Individual Industry	To send waste every 03/04 months to TSDF	Depends on detailed study/ DPR prepared by UPPCB	Already done by the concerning industries situated in the region. Regular monitoring

	The status of Hazardous Waste Disposal are as follows:	UPPCB	To monitor individual industries every six months.		shall be done by UPPCB.
	Bio-Medical Waste Disposal member of authorized Common BMW Treatment Facilities Regular Inspection and monitoring of Hospitals / Nursing Homes has to be done	Regional Office, UPPCB	Inspection of Big Hospitals Every 03 months & Small Hospitals every 06 months by UPPCB.	Depends on detailed study/ DPR prepared by UPPCB	Most of the HCFs situated in this area have agreement with CBMWTF, Meerut and have obtained authorization from 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 andLDO/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	Gas & Oil Companies are in process of getting more and more industries on board and complete switch from solid fuel	Gas and Oil Companies

	provide CNG in Noida for vehicles as well as industrial & domestic use. These companies need to expedite there distribution network for the same at the earliest.	to clean fuel will be done in a time boundmanner.	
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

Environmental Management Plan for Critically Polluted Area- Khurja, Bulandshahr

Prepared By

Regional Office
U.P. Pollution Control Board
Bulandshahar

Approved By:
District Environment Committee, Bulandshahr.

(G.S. Srivastav)	(Ganga Prasad)	(Ravindra Kumar)
Regional Officer	District Forest Officer	District Magistrate
UPPCB Bulandshahar	Bulandshahar	Bulandshahar