COMPREHENSIVE ENVIRONMENTAL POLLUTION INDEX (CEPI)

DRAFT ACTION PLAN

FOR

CRITICALLY/SEVERELY POLLUTED AREA (FIROZABAD)

PREPARED BY:

U.P. POLLUTION CONTROL BOARD

COMPREHENSIVE ENVIRONMENTAL POLLUTION INDEX (CEPI)

DRAFT ACTION PLAN

UTTAR PRADESH POLLUTION CONTROL BOARD REGIONAL OFFICE, FIROZABAD

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 went upto 100 clusters as may referred to order issued by Hon'ble National Green Tribunal for Original Application No. 1038/2018 dated 13.12.2018.

The industrial clusters/areas having aggregated CEPI scores of 70 and above were considered critically polluted clusters/areas and those with scores above 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 has identified with under CEPI within Firozabad city having cumulative geographical area and when was demarcated as one of the CEPI area.

(Insert a location map showing CEPI areas in the city- Sample map has been attached below and provide other details as well)

LOCATION MAP

PROJECT SITE

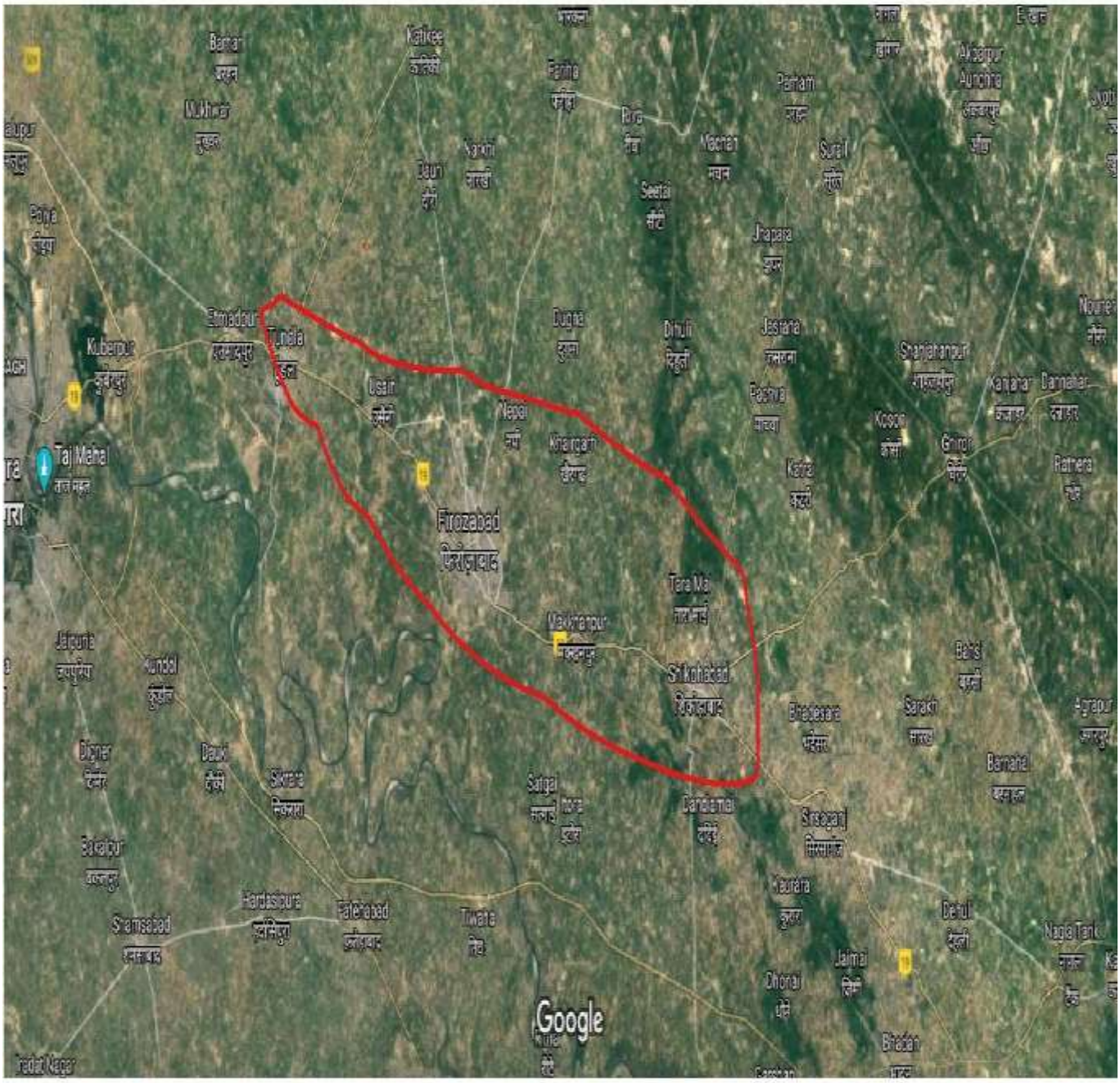
1.2 LOCATION

The coordinates of the cluster boundary are as follows:

Direction	Latitude	Longitude
East	27.108416	78.584602
West	27.213522	78.239075
North	27.159101	78.395760
South	27.15910100	78.39576000

1.3 Digitized map showing geographical boundaries and Impact Zones

IMAGE 1: AERIAL VIEW – INDUSTRIAL CLUSTER



1.4 CEPI Score (Air, Water, Land and Total)- 76.00, 72.00, 35.20, 81.62

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	-	-	0	02	0	01	0	1	0	0

1.6 ECO-GEOLOGICAL FEATURES: Impact Zones [the area comprising of geographical area of the cluster and its impact zone (minimum 2 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	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	0	0	0

(Insert a Google Earth image showing above given zones)

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	01	01	3 km East

1.7 Industry classification: Distribution (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	-
MEDIUM	03	03	-
TOTAL	**03**	**03**	

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	0	0	-
MEDIUM	10	10	02
SMALL	01	02	07
TOTAL	**11**	**12**	**09**

1.7.3 ORANGE AND GREEN CATEGORY INDUSTRIES

SCALE OF INDUSTRIES	HIGHLY POLLUTING INDUSTRIES		
	AIR	WATER	NO. OF E-WASTE/HAZARDOUS WASTE GENERATING INDUSTRIES
LARGE	10	0	10
MEDIUM	82	0	01
SMALL	113	0	6
TOTAL	**205**		**17**

1.7.4 GROSSLY POLLUTING INDUSTRIES

SCALE OF INDUSTRIES	HIGHLY POLLUTING INDUSTRIES		
	AIR	WATER	NO. OF E-WASTE/HAZARDOUS WASTE GENERATING INDUSTRIES
LARGE	0	0	-
MEDIUM	05	05	-
SMALL	0	0	-
TOTAL	**05**	**05**	

Water Environment

2. WATER ENVIRONMENT

2.1.1 PRESENT STATUS OF WATER ENVIRONMENT SUPPORTED WITH MINIMUM ONE-YEAR ANALYTICAL DATA

S. No	Parameters	Observed values	Standards
1	pH,	7.1	6.5-8.5
2	B.O.D.	21.6 mg/l	30 mg/l
3	C.O.D.	51.7 mg/l	-
3	D.O.	7.8 mg/l	-

2.1.2 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	Yamuna	02	53

2.1.3 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
1	Nil	Nil	-

2.1.4 PREDOMINANT SOURCES CONTRIBUTING TO VARIOUS POLLUTANTS

S.NO.	Sources	Effluent discharge	Major Pollutants
1	Domestic	53	COD, BOD

2.2 SOURCES OF WATER POLLUTION

2.2.1 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.	No	No	No	No	No	No	No	No	No

2.2.2 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.	Firozabad	02	Domestic	0	02	0	0	53	53	53

Source:

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.	3 MLD S.T.P. Collectorate, Firozabad	`		3 MLD			U P Jal Nigam	Utilized in horticulture
2.	67 MLD STP in Firozabad			67 MLD	Under construction near Sofisaha Dargah, Firozabad			

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	No	No	No	No	No	No	No	No

2.2.3 OTHERS (AGRICULTURAL RUNOFF, LEACHATE FROM MSW DUMP, ILLEGAL DUMP SITES ETC.): Please provide details

2.2.4 IMPACT ON SURROUNDING AREA (OUTSIDE THE CEPI AREA): On The Water Sources/Drainage System Of The Area Under Consideration.

2.3 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
	Greater Industrial Estate Firozabad									
1.	Dalyaljee Board Ind Pvt.Ltd.,. A-35,37 Ind. Estate, Firozabad	Media Craft Paper	-	-	Pulp & Paper/PU	ETP	ZLD	-	Granted	Granted
2.	Laljee Board Industries (P) ltd. A-34, Ind. Estate, Firozabad	Media Craft Paper	-	-	Pulp & Paper/PU	ETP	ZLD	-	Granted	Granted
3.	Singal Chemical Industries, Bhau Ka Nagla, Agra Road, Near Industrial Estate, Firozabad	Cobalt oxide, Cobalt Diaoxide, Cobalt sulphate	-	-	-			-	Granted	Granted
4.	Krishna Chemical Industries, Lalau Road, Firozabad	Cadmium Sulphide	-	-	-			-	Granted	Granted

5.	M/S Gold India, Industrial Estate, Firozabad	Metalising	-	-	-			-	NO	NO
6.	M/S Girdhari lal Manohar Lal Glass Works Unit-2, C-12, Industrial Estate, Firozabad	Metalising	-	-	-			-	No	No
7.	Opecial Pigment & Chemical Pvt. Ltd. Coal Siding	Led Oxide	-	-	-			-	Granted	Granted
	Greater Industrial Area, Shikohabad									
8.	S.R.Mittal Paper Mills ltd.Mainpuri Road, Sikohabad, Firozabad	Pulp & Paper	-	-	Pulp & Paper/PU	ETP	ZLD	-	Granted	Granted
9.	A LP Milk Product Pvt.Ltd., Etah Road, Sikohabad, Firozabad	Dairy	-	-	Dairy/PU	ETP	1400	On land	Granted	Granted
10.	Hardayal Milk Product Pvt.Ltd., Etah Road, Sikohabad, Firozabad	Dairy	-	-	Dairy/PU	ETP	1400	On land	-	-
11.	M/s Hind Lamp Ltd., Shikohabad,	G.L.S. LAMP, FLORESCEN T LAMP, CAP	-	-	-				Granted	Granted

	Firozabad	FOR G.L.S. LAMP ASSEMBLIN G								
12.	M/s Jai Kaila Devi Pigment Chemicals Pvt. Ltd. Shikohabad, Firozabad	Lead Oxide	-	-	-				Granted	Granted
13.	Agra Chemicals, Shikohabad, Firozabad	Lead Oxide	-	-	-				Granted	Granted
14.	Vinayak Industries, Industrial Area, Shikohabad, Firozabad	Lead Oxide	-	-	-				Granted	Granted
15.	Prahalad Oil Pvt. Ltd., Asua, shikohabad, Firozabad	Zinc Oxide	-	-	-				Granted	Granted
16.	Rise Chemicals, Industrial area, Shikohabad, Firozabad	Cadmium Sulphide	-	-	-				Granted	Granted
17.	Bhole Nath & Company, Khasra No. 187/2, Mauja Aronj, Shikohabad, Firozabad	Cadmium Sulphide	-	-	-				Granted	Granted
18.	Shri Nath Ji Chemical, industrial estate, Shikohabad, Firozabad	Cadmium Sulphide	-	-	-				Granted	Granted

2.4 EFFLUENT DISPOSAL METHODS- RECIPIENT WATER BODIES ETC

2.5 QUANTIFICATION OF WASTEWATER POLLUTION LOAD AND RELATIVE CONTRIBUTION BY DIFFERENT SOURCES VIZ INDUSTRIAL/ DOMESTIC

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.	No	No	No	No	No	No	No	No	No	No

DOMESTIC

S No.	No. of Drains	Type of Drains			Status of Drains			Industries		Sewage Discharge (MLD)			Total Discharge in the River (MLD)
		Domestic	Industrial	Mixed	Tapped	Unapped	Partially Tapped	Number	Treated Effluent (MLD)	Treated	Untreated	Total	
	02	01	0	01	0	02	0	0	0	0	53	53	53

2.6 ACTION PLAN FOR COMPLIANCE AND CONTROL OF POLLUTION

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

S. No.	Action Points (Source and Mitigation)	Responsible Agencies/Stake Holders	Time Limit/Frequency	Remarks/Progress
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 Large & Medium & Small Scale Polluting Industries to be done to ensure strict compliance of prescribed Norms.	UPPCB Individual Industry	**<u>Frequency</u>** Large & Medium Industries -**3 months** Small Scale Industries -**6 months** (By UPPCB) & 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.	Individual Industries (Large and Medium)	Ongoing	
	• 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.	Individual Industries.	With in 06 months.	
	• **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.	UPPCB & Individual Industries.	06 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.	UPP & CB Individual Industries.	06 months	

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.	UPPCB UPPCB	Ongoing Ongoing	
c)	**Domestic Waste Water (Sewage)** Domestic sewage contributes to about 80% of Water. The status of Sewage Pollution Control is as follows:			
	➢ STPs are Operational: ➢ Effective operation & maintenance ofinstalled 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.	UPPCB and Jal Nigam Project proponent Local Authority & UPPCB.	Ongoing	

2.6.1 EXISTING INFRASTRUCTURE FACILITIES- Water quality monitoring network, etps, cetps, sewerage treatment plant of industry (STPs), surface drainage system, effluent conveyance channels/ outfalls etc.

2.6.2 POLLUTION CONTROL MEASURES INSTALLED BY INDUSTRIES.

S. Nos	Name of industry	Product	Category	Pollution control measures installed(Y/N)	Consent Status
1	Dalyaljee Board Ind Pvt.Ltd.,. A-35,37 Ind. Estate, Firozabad	Media Craft Paper	Red	Y	Granted
2	Laljee Board Industries (P) ltd. A-34, Ind. Estate, Firozabad	Media Craft Paper	Red	Y	Granted
3	S.R.Mittal Paper Mills ltd.Mainpuri Road, Sikohabad, Firozabad	Media Craft Paper	Red	Y	Granted
4	A LP Milk Product Pvt.Ltd., Etah Road, Sikohabad, Firozabad	Ghee	Red	Y	Granted
5	Hardayal Milk Product Pvt.Ltd., Etah Road, Sikohabad, Firozabad	Ghee	Red	Y	Granted

2.6.3 TECHNOLOGICAL INTERVENTION

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

2.6.3.1 INVENTORISATION OF PROMINENT INDUSTRIES WITH TECHNOLOGICAL GAPS.

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

2.6.3.2 IDENTIFICATION OF LOW COST AND ADVANCED CLEANER TECHNOLOGY FOR POLLUTION CONTROL

S. Nos	Number of industries adopted cleaner technologies	Previous technologies	New technologies
1	02	03	-

2.6.4 Infrastructure Renewal

2.6.4.1 Details of existing infrastructure facilities- Please provide details

2.6.4.2 Need of up gradation of existing facilities - Please provide details if any

2.6.4.3 De-silting of water tanks, drains, revulets, etc.- Please provide details

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

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

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

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

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

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

2.6.5 Managerial and Financial aspects

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

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

2.6.5.3 Government Budgetary support requirement

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

2.6.5.4 Hierarchical and structured managerial system for efficient implementation

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

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

2.6.7 Data linkages to SPCB / CPCB (of monitoring devices)- Please provide details

1	No	No	No

2 MONITORING: SURFACE WATER, GROUND WATER& AIR QUALITY

SURFACE WATER MONITORING STATIONS:

#	Location/Station	Location Code	#	Location/Station	Location Code
1	Ante Ki Madiya, Near Sofishah Dargah, Firozabad	SW1	3		SW3
2	Naya Bans, Near Sofishah Dargah, Firozabad	SW2	4		SW4

GROUND WATER MONITORING STATIONS:

#	Location/Station	Location Code	#	Location/Station	Location Code
1	Industrial Estate, Shikohabad, Firozabad	GW1	3	-	GW3
2	-	GW2	4	-	GW4

Air Environment

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

S. Nos	Cluster	Months(2019)	AQI (RSPM)	Condition
1	CDGI	JAN-19	272	
2	TILAK NAGAR		278	
3	RAJA KA TAL		267	
1	CDGI	FEB.-19	166	
2	TILAK NAGAR		183	
3	RAJA KA TAL		164	
1	CDGI	MARCH.-19	211	
2	TILAK NAGAR		210	
3	RAJA KA TAL		207	
1	CDGI	APRIL.-19	239	
2	TILAK NAGAR		241	
3	RAJA KA TAL		252	
13	CDGI	MAY-19	228	
14	TILAK NAGAR		234	
15	RAJA KA TAL		240	
16	CDGI	JUNE-19	187	
17	TILAK NAGAR		202	
18	RAJA KA TAL		185	
19	CDGI	JULY-19	107	
20	TILAK NAGAR		94	
21	RAJA KA TAL		115	
22	CDGI	AUGUST-19	94	
23	TILAK NAGAR		92	
24	RAJA KA TAL		102	
25	CDGI	SEP.-19	105	
26	TILAK NAGAR		99	
27	RAJA KA TAL		89	
28	CDGI	OCT..-19	250	
29	TILAK NAGAR		253	
30	RAJA KA TAL		278	
31	CDGI	NOV.-19	327	
32	TILAK NAGAR		323	
33	RAJA KA TAL		315	
34	CDGI	DEC.-19	363	
35	TILAK NAGAR		385	
36	RAJA KA TAL		335	

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

S. Nos.	Locations identified	Coordinates		Distance and direction
		Latitude	Longitude	
1	CGDI	-	-	2.5 km in East
2	Tilak Nagar	-	-	2.0 km in North
3	Raja ka Tal	-	-	1.0 km in West

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. SO2 , NO2 , PM10 , PM2.5, Pb, Lead (for 24 hourly average monitoring values)

S. No	Parameters	Observed values	Standards
1	SO2	8	80
2	NOx	31	80
3	PM10	214	100

ii. O3 , CO (for 1 hrly average and 8 hrly average)

S. No	Parameters	Observed values	Standards
1	Nil	Nil	Nil

iii. Benzene, Benzo(O) Pyrene, Arsenic & Nickel (for 24 hrly average value)

S. No	Parameters	Observed values	Standards
1	Nil	Nil	Nil

3.1.3 Predominant sources contributing to various pollutants

S. No	Sources	Percent contribution	Main Pollutants
1	Industries	20	PM, NOx, As, Ni, Zn, Cu
2	Vehicular	40	PM, SOx, NOx, CO, Benzene
3	Biomass burning	40	PM, SOx, NOx, CO, CH4

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

3.3 Air Polluting Industries in the area/ cluster

S. No	Name of Air Polluting industries	Distance and direction
Greater Industrial Estate Firozabad		
1	A.M. Patel Glass Industries, Byepass Road Hazipura, Firozabad	
2	Aakash Deep Pottery, Saili, Firozabad	
3	Adrarsh Glass Works, Station Road, Firozabad	
4	Adrarsh Kanch Udyog Coal Siding Road, Firozabad	
5	Advance Glass Works, STN. Road, Firozabad	
6	Ajanta Glass works, S.N. Road, Firozabad	
7	Ajay Glass Works Chameli bagh Agra Road, Firozabad	
8	Akashwani Glass Works, Byepass rd Hazipura, Firozabad	
9	Alankar Glass Works, Industrial Estate, Firozabad	
10	Alok Glass Works STN. Road, Firozabad	
11	Amrit Glass Works Agra Gate, Firozabad	
12	Anand Glass Works, Ind. Estate Agra Road, Firozabad	
13	Ansar Glass Works, S.N.Marg, Firozabad	
14	Anup Glass Industries, Mainpuri Gate, Firozabad	
15	Anup General Ind. Agra Road, Firozabad	
16	Aone Glass Works, Murlinagar Coalsiding	
17	Atul Industries No. 2 Ind Estate, Firozabad	
18	B.M. Glass Works, Station Road, Firozabad	
19	Baby Glass Works Agra Road, Firozabad	
20	Bansal Elect. Ind. New Basti, Firozabad	
21	Bapu Industries, Agra Road, Firozabad	
22	Bhagwati Glass Enterprises by Pass Road, Firozabad	
23	Cafrihan Chemicals& Metal Glass Works Nai Basti, Firozabad	
24	Chandra Beeds Industries, Islamganj, Firozabad	
25	Chandra bhan Anil Kumar Glass Works, S.N. Road, Firozabad	
26	Coronation Glass Works, Agra Road, Firozabad	
27	Crown Glass Ind. Karbla, Firozabad	
28	Delux Glass Industries, Agra Road, Firozabad	
29	Dinesh Glass Industries, Noor Nagar, Byepass Road, Firozabad	
30	Dubey Glass Ind. C-3 Ind. Estate, Firozabad	
31	Durgesh Block & China Glass Works Agra Road,	

	Firozabad	
32	Eastern Glass works, Ind. Estate, Firozabad	
33	Electronic Glass Ind, A24, 25 Ind. Estate, Firozabad	
34	Ellora Glass Ind., Byepass Road, Firozabad	
35	Everest Glass Works Hazipura, Firozabad	
36	Express Glass Works, Islam Ganj, Firozabad	
37	Fine Glass Beeds Industries, Byepass Road, Firozabad	
38	Firozabad Block Glass Enterprizes, Agar Road, Firozabad	
39	Firozabad Ceramics P LTD. A-30, 31 I.E., Firozabad	
40	G.K. Glass Ind. Pameshwar Gate, Firozabad	
41	Ganesh Block Glass Works, Coal Siding, Firozabad	
42	Gauri Shanker Ram Gopal Glass Works, Station Road, Firozabad	
43	Geeta Glass Works, Agra Gate, Firozabad	
44	General Traders A-10 Ind Estate, Firozabad	
45	Girdhar Glass Works Station Road, Firozabad	
46	Girdhari Lal Manoharlal Glass Works, Nai Basti, Firozabad	
47	Girnar Glass Works, Purushottam Nadar, Firozabad	
48	Golden Glass Works, Coal Siding Road, Firozabad	
49	Gyan Chand Mahavirprasad Glass Works Ind. Etate, Firozabad	
50	Hadoria Bock Glass Works Asfabad, Firozabad	
51	Hariom Glass Industries Labour colony, Firozabad	
52	Hind Glass Industries Agra Road, Firozabad	
53	Ind. & Building Glass Ind. A-16 I.E. , Firozabad	
54	India Electrical Glass Works Coal Siding, Firozabad Road	
55	India optical Glass Industries S.N. Road, Firozabad	
56	Indian Glass Works Coal Siding Road, Firozabad	
57	International Glass Industry Ind. Estate, Firozabad	
58	Irfan Glass works S.N. Road, Firozabad	
59	Jagdamba Glass Works. Nai Basti , Firozabad	
60	Jagdish Glass Works (Unit-2) Dholpura Agra Road, Firozabad	
61	Jain Block Glass Works Coal Siding Road, Firozabad	
62	Jain Enterprises Industrial Eatate, Firozabad	
63	Jain Industries Mainpuri Gate, Firozabad	
64	Jaina Glass Industry Agra Road, Firozabad	
65	Jeevan Glass Works Shishagrah, Firozabad	
66	Jupitor Glass Works Agra Gate , Firozabad	

67	K.S. Mirja Khairatibeg Shambudayal, Firozabad GW.CIR. Road	
68	Kohinoor Glass Banlge Ind. Noor Nagar Byepass, Firozabad	
69	Labour Glass Works Asfabad Road, Firozabad	
70	Liberty Industries Sailai , Firozabad	
71	Mahaveer Glass Works Sheetal Khan Road, Firozabad	
72	Mahesh Glass Works S.N. Road, Firozabad	
73	Manohar Glass Works Station Road, Firozabad	
74	Mateshwari Glass Works Agra gate , Firozabad	
75	Meera Glass Industries, Agra Road, Firozabad	
76	Meera Glass Industry Byepass Road, Firozabad	
77	Mittal Ceremics, Industrial Estate, Firozabad	
78	Modern Industries, A--9 Industrial Estate, Firozabad	
79	Mona Glass Enterprises A19, 20, 21 Ind. E. , Firozabad	
80	Mukesh Glass Industries Coal Siding Road, Firozabad	
81	N.R. Glass Indsts (Vimal GL WKS) Coal Siding, Firozabad	
82	N.U. Glass Works, Byepass Road, Firozabad	
83	Nader Baksh & Co. Mainpuri Gate, Firozabad	
84	Nannumal Glass Works Islamganj , Firozabad	
85	Narayan Glass Works Ind. Estate Agra Road, Firozabad	
86	National Glass Works Byepass Road, Firozabad	
87	Nav Jeevan Glass Works Near Ind. Area, Firozabad	
88	Naveen Glass products. Labour Colony, Firozabad	
89	Neelam Glass Works Industrial Estate , Firozabad	
90	New Bright Glass Works Coolsiding Road, Firozabad	
91	New Super Glass Indstrs Mainpuri Gate , Firozabad	
92	Novelty Glass Works Station Road, Firozabad	
93	Om Glass Works Agra Road , Firozabad	
94	Oriental Glass Works Station Road, Firozabad	
95	Padmavati Kanch Udyog Purushottam Nagar, Firozabad	
96	Pankaj Glass Works Agra Road, Firozabad	
97	Pitambar Glass Works Agra Road, Firozabad	
98	Pooja Glass Works Raja Ka Tal Agra Road, Firozabad	
99	Pragatei Industries, Industrial Estate, Firozabad	
100	Prem Glass Works Station Road , Firozabad	
101	Prince Glass Works S.N. Road, Firozabad	
102	Purushottam Glass Works Purshottam Nagar, Firozabad	

103	Quality Glass Works Nai Basti, Firozabad	
104	R.R. Glass Works Bhao Ka Nagla, Firozabad	
105	Rachana Glass Industries Industrial Estate, Firozabad	
106	Radha Glass Works Coal Siding, Firozabad	
107	Raja Glass Works A-15 Ind. Estate, Firozabad	
108	Rama Glass Works Nai Basti, Firozabad	
109	Refuzee Glass Works Coal Siding, Firozabad	
110	Renu Glass Works Agra Road, Firozabad	
111	Ruby Novelty Glass Works S.N. Road, Firozabad	
112	S.B. Glass Works Coal Siding Road, Firozabad	
113	S. Gopal Insustries Agra Road, Firozabad	
114	S.R. Glass Ind. Mainpuri gate, Firozabad	
115	S. Rajiv Glass Works Pamashwar gate, Firozabad	
116	Sanjay Glass Works, Station Road, Firozabad	
117	Santosh Glass Works Purshottam Nagar, Firozabad	
118	Saraswati Beed Industries Babuji ki jeen, Firozabad	
119	Saraswati Glass Indstres. Sheetal Khan Road, Firozabad	
120	Sarojini Nayadu Glass Works S.N. Road, Firozabad	
121	Sarvodya Glass Ind Jain Nagar , Firozabad	
122	Satya Narayan Glass Works Station Road, Firozabad	
123	Seema Glass IND. Byepass Road , Firozabad	
124	Shiva Glass Industries Coal Siding, Firozabad	
125	Shivcharanlal Ambika PD. Glass Works Mathura Nagar, Firozabad	
126	Shri Durga Glass Works Station Road, Firozabad	
127	Shri Shyama Glass WorksPurushottanagar, Firozabad	
128	Shri Sitaram Glass Works Agra Raod, Firozabad	
129	Shyam Glass Works Coal Siding, Firozabad	
130	Shri Bhawani Glass Works Agra Road, Firozabad	
131	Shri Guru Nanak Glass Works Station Road, Firozabad	
132	Shri Nathji Glass Works Ind. Estate, Firozabad	
133	Shri Raghav Glass Works Station Road, Firozabad	
134	Shri Krishan Glass Works Stn Road, Firozabad	
135	Star Glass Works S.N. Road Firozabd	
136	Subhash Novelty Medical GL Works Byepass Road , Firozabad	
137	Suhag Kanch Udyog B.ST. Johns School, Firozabad	
138	Sunrise Glass Works Purshottam Nagar, Firozabad	

139	Super Glass Works Agra Gate , Firozabad	
140	Swastik Glass Enterprises Agra Gate, Firozabad	
141	Technical Glass Industries Agra Road, Firozabad	
142	Tiger Sons Pemeshear Gate, Firozabad	
143	Uma Glass Works Industrial Estate , Firozabad	
144	United Chemical Ind. Agra Road, Firozabad	
145	Universal Glass Industries Mainpuri Gate, Firozabad	
146	Uttam Glass Works Moda Asfabad, Firozabad	
147	Vaishya Glass works Mainpuri Gate, Firozabad	
148	Vardhman Project (Ind) Ind. Estate , Firozabad	
149	Vijeta Glass Pvt. Ltd. Coal Siding Road, Firozabad	
150	Vinoba Glass Works Hazipura, Firozabad	
151	Wondar Glass Works S.N. road, Firozabad	
152	Yadav Glass Works Coal Siding , Firozabad	
153	Churi PK. BHT. Synd Chauki Gate Sheetal Khan, Firozabad	
154	Janhit Pakai Bhatti Sewa Samiti 102 Pameshwar Gate, Firozabad	
155	Pakai Bhatti Vikas Prishad, 115 Pameshwar Gate, Firozabad	
156	Suhag Nagri Choori Pk. Bhatti Assn., Sheetal Khan Road, Firozabad	
157	Bajrang Potteries, Dholpura Road, Agra Road, , Firozabad	
158	Vishesh Industries, Dholpura Road, Agra Road, Firozabad	
159	Vinus Chemical Industry, Agra Road, Firozabad	
160	Gaurav Glass Industries, Near St. Johns School, Agra Road, Firozabad	
161	Sri B.K. Glass Works, Dholpura Road, Agra Road, Firozabad	
162	Ganesh Beads Industries, Dholpur Road, Agra Road, Firozabad	
163	Sri Jagdamba Ind., Ind. Area, , Firozabad	
164	National Glass Ind, Station Road, Firozabad	
165	Saubhagya Glass Industry, Sheetal Khan, Bye Pass Road, Firozabad	
166	Bhoore Khan Shahbuddin Khan Glass Bengal Factory, Bye Pass Road, Firozabad	
167	Alankar Industries No. 2, A-12, Ind. Estate, , Firozabad	
168	Kadri Glass Works, Railway Road, Kotla, Firozabad	
169	Paras Foundry 68 Nunhai I.E.Agra / Paras Glass Industries, Firozabad	
170	Goyal Iron &Steel works (India),Nagla Kishan Lal, Hathras Road, Firozabad	
171	Shri Sant Glass Works Lalau Agra Road	
UPSIDC Industrial Estate, Firozabad		

172	CDGI, Jalesar Road, Industrial Estate, Firozabad	
173	Laghu Udyog PK. Bht. Chamber Sah.Samiti UPSIDC, Firozabad	
174	Empire Glass Industeies, B12,UPSIDC, Jalesar Road, Firozabad	
175	Shiv Engineering Works, Jalesar Road E-6 UPSIDC, Firozabad	
Industrial Estate, Makkhanpur, Firozabad		
176	Akash Deep Glass works Monda Makkhanpur, Firozabad	
177	Arkay Glass Works, Nabada Makhanpur, Firozabad	
178	Bankey Bihari Glass Works, Unit 2 Makkhanpur, Firozabad	
179	Bansal Glass Works Makkhanpur, Firozabad	
180	Choice Glass Ind. Nawada, Makhanpur, Firozabad	
181	Crystal Glass Works Makkhanpur, Firozabad	
182	Dammamal Nannum Glass IND. Makkhanpur, Firozabad	
183	Farukhi Glass Ind. Makkhanpur, Firozabad	
184	Firozabad Glass Shell Ind. Makkhanpur, Firozabad	
185	Impesil Glass Works. Makkhanpur , Firozabad	
186	J.P. Glass Industries Makkhanpur, Firozabad	
187	Kaycee Glass Works Makhanpur, Firozabad	
188	Manoj Glass Works Makkhanpur Firozabd, Firozabad	
189	Mathur Glass Industries Makkhanpur, Firozabad	
190	Modern Glass Industries Makkhanpur, Firozabad	
191	New Bansal Glass Works Makkhanpur , Firozabad	
192	Okay Glass Industries Jijholi Makkhanpur, Firozabad	
193	Prem Glass Industries Makkhanpur, Firozabad	
194	Shri Ram Glass works Makkharpur , Firozabad	
195	Sun Glass Works P Ltd. Makhanpur, Firozabad	
196	Sushila Glass Works Makkhanpur, Firozabad	
197	Ved Glass IND. Makkhanppur , Firozabad	
198	Advance Lamp Components Pvt. Ltd., Makkhanpur, Firozabad	
199	Pioneer Glass Industries, Makkhanpur,	
200	Modern Kanch Ayodyogik utpadan sahkari samiti ltd. Gram jijhauli makkhanpur, Firozabad	
Greater Industrial Area, Shikohabad		
201	Shri Krishna International, Nagla Saindlal, Shikohabad, Firozabad	
202	Maa Kaila Foundry, Asua Road, Shikohabad, Firozabad	
203	Shiv Shakti Iron foundary, B-9, Industrial Estate, Shikohabad, Firozabad	

204	Maa Shakti Iron Foundry, Village- Sahajalpur, Shikohabad, Firozabad	
205	Prahalad Ispat rolling mill, Shikohabad, Firozabad	

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

S. Nos	Air Pollution Sorces	Category	Pollution Load	Percentage
1	Industries	-	-	20
2.	Vehicular	-	-	40
3.	Open burning	-	-	40

3.6 Action plan for compliance and control of pollution

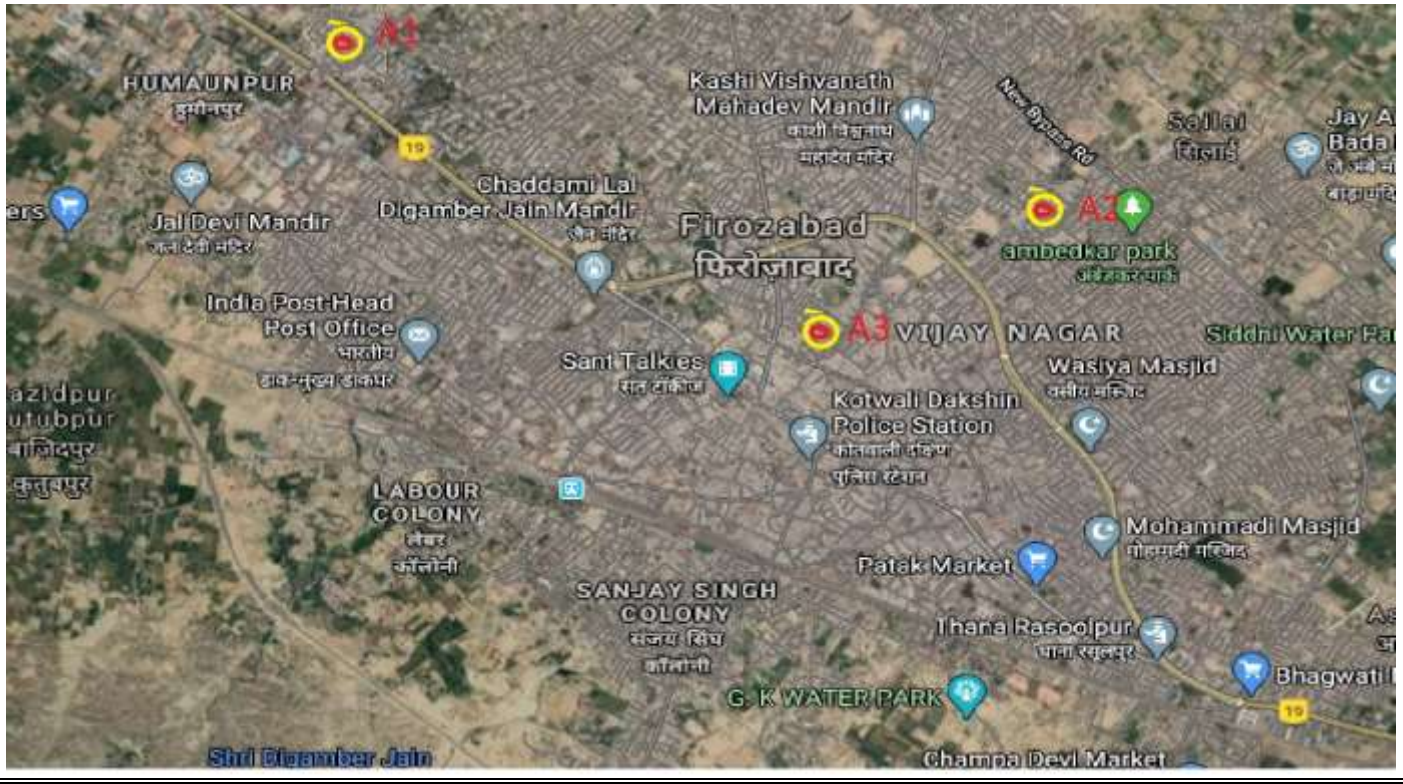
Short Term Action Points (upto 1 year, including continuous activities)				
	Action Points (Source and Mitigation)	**Responsible Stake Holders**	**Time Limit**	**Remarks**
2. a)	**Air Pollution** **Industrial:** A total air polluting industries have been identified in the region. **Proposed Action Plan for effective control of Air Pollution**: □ Regular Monitoring of Pollution Control System in Industries in order to ensure strict compliance of prescribed Norms.	UPPCB & Individual Industries.	Stack Monitoring of Large & Medium units every 06 months and once in a Year for SSI units. (By UPPCB & by individual Industries)	
Long Term Action Points (more than 1 year)				
	Action Points (Source and Mitigation)	**Responsible Stake Holders**	**Time Limit**	**Remarks**
	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	UPPCB and Individual industry Individual industry, UPPCBIGL		

	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 bestoption 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			
	Introduction of Cleaner Fuel for Industrial Uses : Currently industries are using Coal/ Petro Coke/Wood and FO/LDO/LSHS as a fuel which emits SPM and SO_2 and other pollutants. If CNG 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 at the earliest.	Gas and Oil Companies	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.	
	Clean fuel for vehicles: At present CNG stations have been build to supply clean fuel. These stations have compression capacity Also, all commercial Phasing out of old diesel commercial vehicles is being done as per policy.	RTO & Gas Companies	01 year / As per plan submitted by Gas agencies.	
	Installation of NAAMP 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	UPPCB and CPCB		

	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.			
	Display of AAQM data On line display of AAQM data at two different locations in the area need to be under taken by Industries Association and UPPCB	UPPCB, CPCB Proposal to be made by UPPCB & sent to CPCB	1.5 Years	
	Use of Cleaner fuel Time frame to be chalked out by RTO for conversion of all commercial vehicles such as Auto, Bus & Vikram into CNG.	RTO in consultation with Gas Companies	01 Year	
	Development of Green Belt should develop green belt from 20% to 33% of the total area.		Ongoing	

3.6.1 Existing infrastructure facilities- Ambient Air Quality Monitoring Network

Number of manual AQ monitoring station	Number of CAAQMS	Total Monitoring station
03	00	03



#	Location/Station	Location Code	#	Location/Station	Location Code
1	Tilak Nagar	A1	3	CGDI	A3
2	Raja ka Taal	A2	4	-	A4

3.6.2 Pollution control measure installed by the individual sources of pollution

S. Nos	Pollution Sources	Category	APCS installed(Y/N)
1	Industries	-	Y
2	Vehicular	-	Y
3	Biomass burning	-	-

3.6.3 Technological intervention

3.6.3.1 Inventorisation of prominent industries with technological gap

S. Nos	Industries	Category	APCS installed(Y/N)
1	-	-	-

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

3.6.3.3 Introduction and switch over to cleaner fuel

S. Nos	Number of industries adopted cleaner fuel technologies	Previous fuel	New fuel
1	207	Coal	Natural Gas

3.6.4 Need of infrastructure renovation

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

S. Nos	Identified damaged roads	Length	Remarks
1.	Sikohabad Ind Area	2.5 km	Road and drain needs

			reconstruction

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

S. Nos.	CEPI score before APCS	CEPI score after APCS installed	Percent improvement
	-	-	-

3.6.6 Managerial and financial aspects- cost and time estimates

3.6.6.1 Cost and time estimates

Details of cost estimated for any infrastructure renewal related works, if any.

3.6.6.2 identified private/ sector potential investors and their contribution/ obligations

If any, investement from private sector potential investors please provide details.

3.6.6.3 Government budgetary support requirement

S. Nos	Amount of budget allocated to CEPI area	Remarks
	-	-

3.6.6.4 Hierarchical and structured managerial system for efficient implementation

3.6.7 Self monitoring system in industries (stacks, APCDs)

S. Nos	Industries	Category	APCS/APCDs installed(Y/N)
1	17	Red	Y
2	205	Orange	Y

3.6.8 Data linkages to SPCB/ CPCB (of monitoring devices)

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

Land Environment

4. LAND ENVIRONMENT (Soil and ground water)

1.1 Soil contamination

4.1. 1. Present status of land environment supported with minimum one-year data

S. Nos	Cluster	Months(2019)	Present status	Condition
1	**Nil**	**Nil**	**Nil**	**Nil**

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

S. Nos.	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

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

4.1.5. Sources of soil contamination

S. No	Sources	Coordinates		Distance and direction
		Latitude	Longitude	

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. Nos	Cluster	Months(2019)	Present status	Condition
1.	Ind. Area Sikohabad	November	-	Semi-critical

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
1	Srinath ji chemical Ind Area Sikohabad		-	**pH-7.59, TSS-4.6, TS-1667.2, BOD-<1.0,COD-<5.0**

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

Short Term Action Points (upto 1 year, including continuous activities)				
	Action Points (Source and Mitigation)	**Responsible Stake Holders**	**Time Limit**	**Remarks**
A	**Land Pollution** Proper Storage & Disposal of Hazardous Waste & Solid Waste.	Individual Industry	To send waste every 03/04 months	
Long Term Action Points (more than 1 year)				
	Action Points (Source and Mitigation)	**Responsible Stake Holders**	**Time Limit**	**Remarks**
A	**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 recognized laboratory.	UPPCB	01 Year	

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

4.2.6. Impact on CEPI Score after abatement of pollution:

S. Nos	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	Municipal solid waste	-	283 MT/D

4.3.1.1. HAZARDOUS WASTE

S. no.	Source	Quantity
1	M/s Transparent Overseas, Agra Road, Firozabad	-
2	M/s United Chemical Industries, Agra Road, Firozabad	**1500 MT/Annum**
3	M/s Paras Glass Wares Pvt. Ltd., Dholpura, Firozabad	**9000 MT/Annum**
4	Adarsh Kanch Udyog Pvt. Ltd., Coal Siding Road, Firozabad	**250 MT/Month**
5	M/s Jai Kaila Devi Pigment Chemicals Pvt. Ltd., Etah Road, Shikohabad, Firozabad	**540 Kg/Annum**
6	M/s Opecial Pigments & Chemicals Pvt. Ltd., Murli Nagar, Firozabad	**1800 Kg/Annum**
7	M/s Bajrang Glass International, Agra Road, Firozabad	-
8	M/s Farukhi Glass Industries, Dholpura, Agra Road, Firozabad	**29200 MT/Annum**
9	M/s Industrial & Building Glass Industries, A-17, 18, Industrial Estate, Firozabad	**23500 MT/Annum**
10	M/s Mittal Ceremics, Industrial Estate, Firozabad	**35175 MT/Annum**
11	Geeta Glass Works, Dholpura Road, Firozabad	**28605 MT/Annum**
12	M/s Shri Sitaram Glass Works, Agra Road, Firozabad	**27697 MT/Annum**
13	M/s Durgesh Block & China Glass Works Ltd., Agra Road, Firozabad	**595 MT/Month**
14	M/s Mateshwari Glass Works, Industrial Estate, Firozabad	**17400 MT/Annum**

15	M/S Girdhari Lal Manohar Lal Glass Works unit-2, Agra Road, Firozabad	**17400 MT/Annum**
16	M/s Goyal Glass Ware Pvt. Ltd., A-11, UPSIDC, Industrial area, Jalesar Road, Firozabad	**625 MT/Month**
17	Rachna Indutries, C.P.F. Industrial estate, Firozabad	**14875 MT/Annum**

1. BIO-MEDICAL WASTE

S. no.	No. of CBWTF	Quantity	Authorization
1	**181**	**403.20**	**152**

2. ELECTRONIC WASTE

S. no.	No. of Electronic waste treatment facility	Quantity	Authorization
1	**No**	**No**	**No**

3. MUNICIPAL SOLID WASTE/ DOMESTIC WASTE/ SLUDGE FROSTPS/ETPS/CETPS AND OTHER INDUSTRIAL SOURCES

S. No.	Type of Pollution Sources	% OF Waste Generated
1	M/s Verdhman Places, Infornt of Jalkal Vibhag, Firozabad	0.06
2	M/s Gokul Resort, Meera Chauraha, Nagla Bhau, Firozabad	0.06
3	M/s Firozabad Club, Infront of Monark Hotel, Firozabad	0.06
4	M/s Bhargav Places, Suhag Nagar, Sabji Mandi, Firozabad	0.06
5	M/s Kiran Palace, Bamba Byepass Road, Firozabad	0.06
6	M/s Feri Merriage Home, 60 Futha Road, Firozabad	0.06
7	M/s Star Places, Infront of Petrol Pump, S.N. Road, Firozabad	0.06
8	M/s G.R. Plaza, Infornt of Petrol Pump, S.N. Road, Firozabad	0.06
9	M/s Kanta Hotel, Kotla Chungi, Gopal Ashram, Firozabad	0.01
10	M/s Rashna Resort, Over Bridge, Firozabad	0.01
11	M/s Rajendra Hotel Pvt. Ltd., Moon Hotel, Agra Road, N.H.-2, Firozabad	0.17
12	M/s Prabhat Hotel, 219, Agra Road, Firozabad	0.09
13	M/s Kamla Hotel Merriage Home, Kotla Chungi, Firozabad	0.01
14	M/s Garg Hotel, Byepass Road, Firozabad	0.09

15	M/s Aman Hotel, Nagla Bhau chauraha, Firozabad	0.06
16	M/s Monark Hotel, Infront of Firozabad club, Firozabad	0.09
17	M/s Paradore, Raja Ka Taal, Firozabad	0.19

4. PLASTIC WASTE

S. no.	No. of Plastic waste Processing facility	Quantity	Authorization
1	M/s Vedanta & Complany (infront of Prabhat oil & Company, Dholpura Agra Road, Firozabad)	Multi layer packaging – 200 Kg./Day	**-**
2	M/s Atul Industries, UPSIDC, Jalesar Road, Firozabad	Plastic Product - 1.5 TPD	**-**
3	M/S Trivani Glass Internation, Ledger Farm House, Jarauli Kala, N.H.-2, Firozabad	Plastic Product - 1.5 TPD	**-**

5. QUANTIFICATION OF WASTE AND RELATIVE CONTRIBUTION FROM DIFFERENT SOURCES

S.no.	Pollution source	Type of Wastes	Relative Contribution

4.3.2. IDENTIFICATION OF WASTE MINIMIZATION AND WASTE EXCHANGE OPTIONS: Please provide details if any

4.3.3. REDUCTION/REUSE/ RECOVERY/ RECYCLE OPTIONS IN THE CO-PROCESSING OF WASTE: Please provide details of co-processing options of waste

4.3.4. INFRASTRUCTURE FACILITIES:

4.3.4.1. Existing Tsdf/Incineration Facilities Including Capacities

S.no.	Tsdf/Incineration Facilities	Capacity	Location
1	Nil	Nil	Nil

4.3.4.2. Present Status / Performance And Need Up Gradation Of Existing Facilities Including Enhancement Of Capacities: Please provide details

1. **Treatment And Management Of Contaminated Waste Disposal Sites Etc:** Please provide details

2. Impact On CEPI Score After Proper Management Of Solid Waste

S.no.	**CEPI Score before management of solid waste**	**CEPI Score after management of solid waste**	**% Change**

5. PPP Model

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

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

18.2. 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.

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

6.1. Green belts

S. Nos.	Green Belt Developed/ upcoming Green belts	Area	Direction

6.2. Development of Industrial Estate(s)

S. Nos.	Development of Industrial Estates	Area	Direction

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

S. Nos.	Shifting of Industrial Estates to non-Industrial areas	Area	Direction

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

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. Nos.	Pollution sources with in-situ remediation facility	Treatment method	Discharge

7.4. Utilization of MSW inert by gas based brick kills

S. Nos.	Number of Brick kilns	Fuel

7.5. Co- processing of wastes in cement industries

S. Nos.	Cement industries	Fuel

8. Public awareness and training programs

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

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

S. Nos.	CEPI score before installation/commissioning of pollution control equipment/ measures	CEPI score after installation/commissioning of pollution control equipment/ measures	Percent change (%)

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

Please provide detailed assessment report.

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

Please ensure the implementation of above mentioned point

12. <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 in Large & Medium & Small Scale Polluting Industries to be done to ensure strict compliance of prescribed Norms	UPPCB & Individual Industry	**Frequency** Large & Medium Industries -**3 months** Small Scale Industries -**6 months** (By UPPCB) & 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 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.	Individual Industries (Large and Medium) Individual Industries. UPPCB & Individual Industries. UPPCB & Individual Industries	Ongoing With in 06 months. 06 Months 06 months			

	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		
	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 Ongoing Process		
	Air Pollution **Industrial:** A total of air polluting industries have been identified in the region. **Proposed Action Plan for effective control of Air Pollution**: □ Regular Monitoring of Pollution Control System in Industries in order to ensure strict	UPPCB & Individual Industries.	Stack Monitoring of Large & Medium units every 06 months and once in a Year for SSI units. (By UPPCB & by individual		

	compliance of prescribed Norms.		Industries)		
	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 Udyog Bandhu	Combined drives every 2 months by UPPCB & District Administratio n. Within 01 month		
	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		
	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		
	Land Pollution **Proper Storage & Disposal of Hazardous Waste & Solid Waste** The status of Hazardous Waste Disposal are as follows:	Individual Industry UPPCB	To send waste every 03/04 months to TSDF To monitor		

			individual industries every six months.		
	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.		

12.2 Long Term Action Points (More than 1 year)

S.No.	Action Points (including source and mitigation measures)	Responsible Stack Holder	Time Limit	Cost	Remarks
	Water Pollution Industrial Pollution Adoption of Cleaner Technology if available, in order 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.	Individual Industries UPPCB & Individual Industries	Within 01 Years. (By Industries)		
	Domestic Waste Water (Sewage) At present, ……..STPs are	UPPCB and	Ongoing		

	functional as follows : Widening and Covering of major open Nalas carrying domestic sewage	Authority				
	Groundwater Pollution : Gound water study may be carried out in all the 6 Industrial Clusters by Out Sourcing Agencies every 06 months.	UPPCB & Designated Agencies.				
	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 bestoption 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	UPPCB and Individual industry Individual industry, UPPCB				

	promote the use of cleaner fuel like CNG, in order to reduce emissions in the industrial					
	Introduction of Cleaner Fuel for Industrial Uses : Currently industries are using Coal/ Petro Coke/Wood and FO/LDO/LSHS as a fuel which emits SPM and SO_2 and other pollutants. If CNG 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 & Adani Group to 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.	Gas and Oil Companies	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.			
	Clean fuel for vehicles: At present 16 CNG stations have been build 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.	RTO & Gas Companies	01 year / As per plan submitted by Gas agencies.			

	Installation of NAAMP Stations	UPPCB and CPCB			
	Display of AAQM data On line display of AAQM data at two different locations in the area need to be under taken by Industries Association and UPPCB	UPPCB, CPCB Proposal to be made by UPPCB & sent to CPCB	1.5 Years		
	Use of Cleaner fuel Time frame to be chalked out by RTO for conversion of all commercial vehicles such as Auto, Bus & Vikram into CNG.	RTO in consultation with Gas Companies	01 Year		
	Development of Green Beltdevelop green belt from 20% to 33% of the total area.		Ongoing		
	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 recognise laboratory.	UPPCB	01 Year		
	Study of impact on Human Health of Water & Air Pollutants	IITR (Earlier ITRC) / Any other designated Agency			
	Municipal solid waste Disposal At present Municipal solid waste is disposed as landfill in	Project proponent to give compliance report to	Every 3 months		

	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 implemetaion 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	UPPCB.				
	Committee Update As per directions from Ministry of Environment and Forest, Government of India shortlisting of Senior citizen candidate and a	UPPCB and District Administration				

	representative of a NGO to be included in the State Level Monitoring Committee has been done and nomination work is in progress.					