

JHARKHAND STATE POLLUTION CONTROL BOARD

TOWNSHIP ADMINISTRATION BUILDING, HEC COMPLEX, DHURWA, RANCHI 834004 Telephone: 0651-2400850 (Fax)/ 2400851/2400852/2401847/2400979/240013

From,

Y.K.Das,

Member Secretary

To,

The Member Secretary, Central Pollution Control Board Parivesh Bhawan, East Arjun Nagar, New Delhi - 110032

Sub:- Submission of the Action Plan for Severally Polluted Areas (Ramgarh, Hazaribagh & Saraikela) located in Jharkhand: Regarding.

Sir,

With regard to the subject stated above, as directed, the Action Plan for Severally Polluted Areas (Ramgarh, Hazaribagh & Saraikela) located in Jharkhand has been prepared and enclosed, herewith for your reference and further action, please.

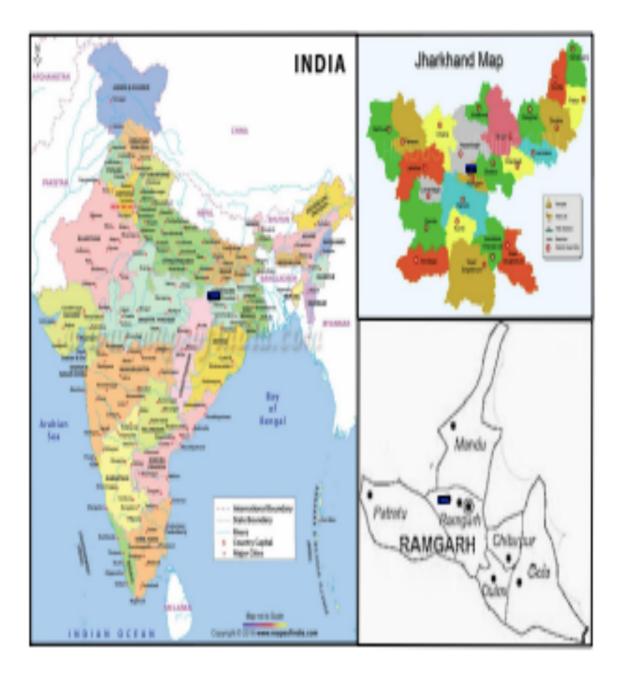
Thanking You

Encl .:- A/a

Yours sincerely

(as) Member cretary

Action Plan for Industrial Cluster in Severally Polluted Areas for Ramgarh, Jharkhand



A.Preamble:

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. For this, CPCB has selected 88 industrial clusters in country out of which 43 Nos. of industrial clusters in 16 states.

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.

Again in year 2017-2018 CPCB carried out monitoring and found that, number of identified polluted areas in country went upto 100. The said number included 38 Critically Polluted (CEPI Score above 70), 31 Severely Polluted (CEPI Score between 60-70) and reaming 31 as Other Polluted (CEPI Score below 60). In identified 100 polluted areas Maharashtra having 4 Nos. of area namely Ramgarh (CEPI Score 67.64), Hazaribagh (CEPI Score 64.20), and Saraikela (CEPI Score 60.26),

Board has prepared comprehensive action plan for Ramgarh CEPI area (Ramgarh Industrial Area & Patratu Industrial Area), which help to reduce CEPI score below 60.

B. Ramgarh

1. Area details including brief history (background information):

Ramgarh district is carved out of erstwhile district of Hazaribagh on 12th September 2007. The district headquarter is at Ramgarh town. It is situated on NH 33, around 46 Km away from the state's capital, Ranchi on northern side and 52 Km away from Hazaribagh on southern side. It is bounded in the north-west by the Hazaribagh district, in the North-East by Bokaro district, in the East by Purulia district of West Bengal state and in the south by Ranchi district. The district is situated between 23°25'30" N to23°58'00" N latitude and 85°12'00" E to85°53'00" E longitude, having an area of 1360.08 Sq. km.



Image -1: Google Map of Ramgarh District

2. Administrative Setup

Ramgarh district lies in the North Chotanagpur Division. Ramgarh district has one subdivision namely Ramgarh and 6 blocks namely Patratu, Mandu, Ramgarh, Dulmi, Chitarpur and Gola. Ramgarh district comprises of 23 towns (one Statutory towns and 22 Census towns), 315 Census villages spread over 143 Panchayats. There are 13 uninhabited villages and 338 inhabited villages in the district of Ramgarh. Gola block has the highest number of villages (91) in the district and Ramgarh block has the lowest number of villages (20). Owing to the presence of 23 towns in the district 44% of the district's population resides in urban area.

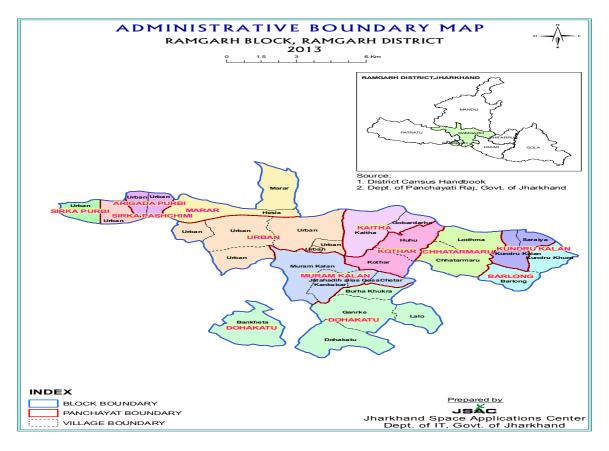


Image -2: Administrative Boundary Map of Ramgarh District

3. Physiography

The district is a part of Chotanagpur plateau. Important physiographic region of the district is Damodar Trough or Upper Damodar Basin. Major area of the district comes under Damodar valley. Damodar valley is bounded by Hazaribagh Plateau in north and Ranchi Plateau in south. Damodar is the main river of the district and it also forms a major river basin, comprising a number of tributaries. Important amongst them are Naikari, Bhervi or Bhera and Bokaro rivers. Swarnrekha river flows in south eastern part of district. Barka Pahar (Marang Buru) 1049 meters high above sea level located along the Ramgarh-Ranchi border is probably the highest peak.

4. Demographics

According to the Census of India, 2011, Ramgarh had a population of 949,443 and the Males constitute 494,230 of the population and females 455,213. Literate people are 596,497 out of 350,031 are male and 246,466 are female. People living in Ramgarh District depend on multiple skills, total workers are 312,125 out of which men are 234,202 and women are 77,923. Total 59,360 Cultivators are depended on agriculture farming out of 44,107 are cultivated by men and 15,253 are women. 21,342 people works in agricultural land as labour, men are 15,224 and 6,118 are women

Ramgarh had an average literacy rate of 73.71%: male literacy was 82.44%, and female literacy was 63.09%.

As per Census 2011, the total population of Ramgarh Urban Agglomeration (UA)/Metropolitan region is 132,425. The male population of which is 70,906 while female population is 61,519.

Sr. No.	Area	Population			
		Female	Male	Total	
1.	Ramgarh	455,213	494,230	949,443	

 Table 1: Population in Ramgarh (Year 2011)

5. Climate

Ramgarh district lies in the sub-humid region of Chotanagpur Plateau and enjoys semiextreme type of climate. The day temperature rises around 40 °C during the summers and drops down to around 10 °C during the winter. Three broad seasons can be recognized as winter season from November to February, summer season from March to May and rainy season from June to October. The average annual rainfall of the district is 1251.2 mm and more than 80% of the precipitation is received during the monsoon months.

6. Forest

The forest area of the district is about 487.93 km. The district is rich in flora and fauna. Forest has a moderating influence against floods and rain and this they protect the soil against erosion. According to classification of forest types of India by Sir H G Champion and Sh. S K Seth, forests of Ramgarh Forest division fall into following types:- 1) 5B/C-1: Northern dry Sal bearing forest 2) 5B/C-2: Northern dry mixed deciduous forest The larger chunk of the forest of the division is composed of 5B/C-1 types. The dominant species in 5B/C-1 forest type is Sal along with its associates.

7. Mineral and Industry

The district holds a strong position on the mineral map of the country. The district is endowed with a large and rich deposit of coal and coal bed methane (CBM) and also possesses various other minerals like limestone, fire clay, etc. The coal deposit of the district mainly found in South Karanpura, West Bokaro and Ramgarh coalfields. Ramgarh is an important industrial district of Jharkhand. Several mineral based industries like steel, sponge iron, cement, refractory and thermal power plant etc. are established due to availability of coal and other minerals. As in other districts of Chhotanagpur, Ramgarh district too is endowed with mineral resources. In the district, minerals such as Limestone, Fire Clay, China Clay, Quartz & some quantity of coal are found. These can be termed as Major Minerals. Minor minerals such as Granite, sand etc. are also available in the District.

The following table gives the details of production of major and minor minerals produced during 2010-2011 (Mirco-Small & Medium Enterprises report: Industrial Profile):

S. No.	Name of Minerals	Production in Tones 2010-11					
	MAJOR MINERALS						
Ι	Coal	153.65 MT					
II	Limestone	13.44 MT					
III	Fire Clay	0.60 MT					
	MINOR M	IINERALS					
Ι	Stone	38.54 Lac cft.					
II	Bricks	32.95 Cr					
III	Sand	14.54 Lac cft.					

8. Ramgarh & Patratu Industrial Area

a. Ramgarh Industrial Area-

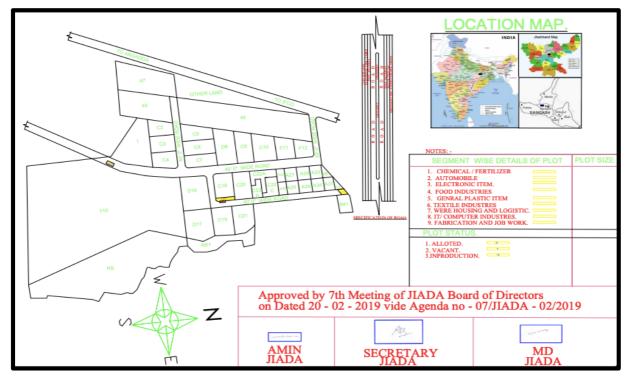


Image-3: Boundary Map Ramgarh Industrial Area

The existing status of Industrial Areas in the district RAMGARH

S1.	Name of	Land	Land	No. of	No. of	No of	No. of
No.	Ind. Area	Acquired	Developed	Plots	Plots	Vacant	Units
		(Ha.)	(Ha.)		Allotted	Plots	Producing
1.	Ramgarh	17.76	17.76	24	24	-	19

Table:2- Status of Plots

The industries present in Ramgarh Industrial Area are as follows:

Scale/Category	Red	Orange	Green	Total
Large	03	01		04
Medium	0	03	01	04
Small	0	02	01	03
Total	03	06	02	-

Table:3- Industries Category Wise information

The details pertaining to the 17 Category Industries present in Ramgarh Industrial Area are as follows:

17 Category Industries					
Sl. No.	In-operation	Closed			
1.	M/s Bihar Foundary & Casting Ltd. (Unit H.A				
	Sopnge & Power)				

Table:4- Industries Category Wise information

b. Patratu Industrial Area-

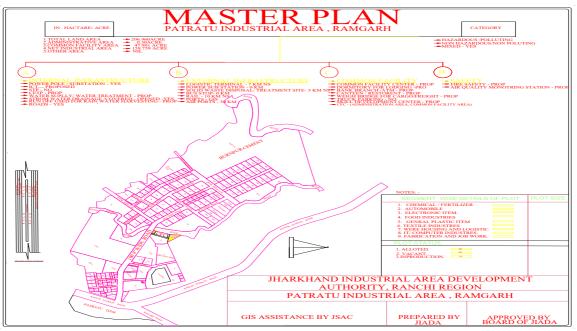


Image-3: Boundary Map Patratu Industrial Area

S1.	Name of	Land	Land	No. of	No. of	No of	No. of
No.	Ind. Area	Acquired	Developed	Plots	Plots	Vacant	Units
		(Ha.)	(Ha.)		Alloted	Plots	Producing
1.	Patratu	83.61	83.61	27	27	-	21

Table:5- Status of Plots

The industries present in Patratu Industrial Area are as follows:

Scale/Category	Red	Orange	Green	Total
Large	04	0	0	04
Medium	01	0	0	01
Small	02	0	0	02
Total	07	0	0	-

Table:6- Industries Category Wise information

The details pertaining to the 17 Category Industries present in Patratu Industrial Area are as follows:

	17 Category Industries				
Sl. No.	In-operation	Closed			
1.	M/s Barnpur Cement Ltd.				
2.	M/s Gupta Industries.				
3.	M/s Pali Hills Breweries (P)				
	Ltd.				
4.	M/s Evergreen Plastic				

Table:7- Industries Category Wise information

9. Water Quality Monitoring carried out by Jharkhand State pollution (JSPCB):

JSPCB has carried out ambient air quality monitoring under NWMP at various location at Ramgarh are as below:

Sl. No.	Location	Station	Latitude	Longitude
		Code		
1.	D/S Confluence of Damodar	2378	23.633128	85.711572
	& Bhairvi River,			
	At - Rajrappa, Dist			
	Ramgarh.			
2.	Nalkari Tributary,	2379	23.671907	85.36003
	At - Patratu, Dist Ramgarh			
3.	Damodar River,	2380	23.641359	85.51161
	At - Ramgarh Road Bridge,			
	Ramgarh, Dist - Ramgarh.			

Table:8- Water Quality Monitoring Stations

C. EFFORTS TAKEN FOR POLLUTION REDUCTION:

1. Water Environment

- Encouraging use of waste water obtained from domestic activities i.e. sullage is treated & recycle for toilet flushing & gardening, reducing fresh water requirement by 60%.
- Encouraging rain water collection & using same for non-consumptive purpose.
- Mandating both Rain water harvesting & Sullage Recycle for new large complexes.
- Educating Industries about water conservation by conducting water audits & Implementing the recycle & Reuse method of water.
- Optimize use of water through recycling.
- Avoiding the discharge of untreated effluents entering the surface water bodies.
- Modifying sewage treatment plants.
- Discouraging mass bathing in the holy river in order to reduce pollution.
- Prohibition of immersing chemicals painted idols in water bodies.
- The eco-friendly and economical treatment & recycle of industrial effluent, sewage sullage also provides a solution to increasing problems of pollution & water scarcity.

• Awareness program shall be continued for the community residing alongside the River Damodar to prevent & protect the river pollution.

2. Air Environment

- RMC has satisfactory road infrastructure, however, to execute ongoing projects like lying of sewerage and storm water drainage, some of the roads has been excavated and undergoing repair. All efforts will be made by the NMC to prevent dust pollution in the vicinity of those roads. Besides, NMC, as per its routine, constructs new pakka road and maintains the existing pakka road to prevent dust pollution likely to arise from such roads in windy weather.
- PUC check-up in RMC area to made mandatory in coordination with Regional Transport Officer (RTO).
- Comprehensive Air Quality Monitoring of Ramgarh Region in coordination with MPCB

3. Land Environment

- RMC has adequate infrastructure to process municipal solid waste generated in its jurisdiction but improvement needs to be done towards operation. Besides, it has acquired adequate land to deal with future requirements. RMC produces compost through its compost processing plant which enhances the essential nutrient content in soil.
- Awareness program shall be launched in relatively comprehensive way for the community to practice segregation at source so as to minimize quantity of waste likely to consume the place in the sanitary landfill.

4. Green Belt Development:

- Conservation of green belts.
- Improvements of Footpaths.
- Developments of Tree plantation on the road side in order to increase beauty.
- Periodic manicure of tree planted on roads.
- Prohibition of Spiting, peeing & throwing waste on the roads.
- Improvement of Traffic island & junctions.

- Awareness to citizens to keep city clean through slogans, messages, media etc.
- Maintenance of public utility buildings and Monuments.
- Increase in number of parks & play grounds for public use.
- Total use of open land for green belt development
- Arranging the seminar/awareness programme at school & collage levels.

5. Municipal Solid Waste Management

- Segregation of solid wastes into biodegradable and non-biodegradable components in order to undertake composting efficiently.
- Creating more awareness in public for minimizing wastes, non-usage of polythene bags, plastic bags.
- Prohibition on throwing wastes on roadside or in public places.
- Increase in number of mobile garbage collection vehicles, normally cundas places.
- Modernizing method of trash collection.
- Increasing the awareness programme in local people for effective segregation at the source.
- Upgrading the existing MSW Treatment Facilities and Enhance the proposed site for MSW Treatment Technically.

D. Action To Be Taken

(i) Control of Industrial Emissions

Sl. No.	Action Points	Time line for	Concerned
		Implementation	Stakeholder

	a. Long Term A	ction Plan	
1.	Conversion of natural draft brick kilns	Implemented	Jharkhand State
	to induced draft using zigzag		Pollution Control
	technique in a phased manner.		Board.
2.	Installation of appropriate air	Implemented and	Jharkhand State
	pollution control devices in	ongoing process	Pollution Control
	units/industries.		Board.
3.	Regular inspection of all the	Ongoing Process	Jharkhand State
	industries to check the compliance of		Pollution Control
	emission norms.		Board.
4.	Only cleaner fuel consumption is	Implemented and	Jharkhand State
	mandatory to establish new industries	ongoing process	Pollution Control
	i.e. Natural Gas (PNG/CNG),		Board.
	Liquefied Petroleum Gas, Bio-Gas		
	Propane, Butane, etc.		
5.	Regular Monitoring of DG sets in	Ongoing Process	Jharkhand State
	industrial area and action against		Pollution Control
	violations.		Board.
6.	Manual ambient Air Quality	Regularly	Jharkhand State
	Monitoring during Diwali period in	Implemented	Pollution Control
	residential and commercial area for		Board.
	Air Quality Management.		
	b. Short Term A	ction Plan	
1	Identification of brick kilns and their	Implemented and	Jharkhand State
	regular monitoring including use of	ongoing process	Pollution Control
	designated fuel, and closure of		Board.
	unauthorized units		
	Monitoring of industrial emission	Implemented and	Jharkhand State
	including real time online monitoring	ongoing process	Pollution Control
	through OCEMS (Online Continuous		Board.

	Emission Monitoring Crystons) - 1		
	Emission Monitoring System) and		
	live camera feed and to take action		
	against non-complying industrial		
	units		
	Installation of web cams and	Implemented and	Jharkhand State
	OCEMS in 17 Category of Polluting	ongoing process	Pollution Control
	Industries.		Board.
	Strict enforcement against illegal use	Ongoing Process	Jharkhand State
	of such fuels, including fuels which		Pollution Control
	do not have specifications laid down		Board.
	or are included in the acceptable		
	fuels as mandated by Jharkhand State		
	Pollution Control Board.		
	Night patrolling during winter season	Ongoing Process	Regional
	in industrial areas to ensure no illegal		transport Officer, Nashik
	fuel burning takes place.		11031116

(ii) Control of Industrial Effluent Discharge

Sl. No.	Action Points	Time line for Implementation	Concerned Stakeholder
1.	Compliance of industries located in	Ongoing Process	Jharkhand State
	catchment area with respect to		Pollution Control
	effluent discharge standards and its		Board.
	disposal as per consent conditions		

2.	Inventorization of the industries in the	Ongoing Process	Jharkhand State
	catchment area of Rivers covering		Pollution Control
	assessment on aspects relating to		Board.
	Status of Consents under Water & Air		
	Acts and Authorization, Effluent		
	Generation, ETP capacities and final		
	mode of effluent discharges		
3.	Actions against the Identified	Ongoing Process	Jharkhand State
	industries in operation without		Pollution Control
	Consents under Water & Air		Board.
	Acts/Authorization under the H&		
	OW (M & TM) Rules, 2016 as		
	amended		
4.	Action against the industries not	Ongoing Process	Jharkhand State
	installed ETPs or ETPs exist but not		Pollution Control
	operating or ETP outlet or treated		Board.
	effluent is not complying to the		
	effluent discharge standards or norms		
5.	Action against the red category	Ongoing Process	Jharkhand State
	industries for installation of OCEMS		Pollution Control
	and not transferring data to CPCB and		Board.
	JSPCB		
6.	Small scale/tiny and service	1 year	Local Authorities/
	providing units located in urban or		Municipal
	semi-urban limits like Dairies, Auto		Corporation
	Service Stations to have minimum		
	provision of O & G traps		
7.	Estimation of industrial effluent	1 year	State
	generation and the existing CETP		Government,
	capacity and to arrive gap between the		District/Local
	industrial effluent generation and the		Administration
	existing treatment capacity		

8.	Channelization of industrial effluents	1 year	State
	to CETPs for ensuring treatment to		Government,
	comply with the discharge standards.		District/Local
			Administration
	Identification of suitable site within		
	industrial areas, Execution and		
	Commissioning of Adequate		
	Capacity CETPs.		

(iii)Control of air pollution from construction and demolition activities

Sl. No.	Action Points	Time line for Implementation	Concerned Stakeholder
1.	Enforcement of Construction & Demolition Rules 2016. Fine should be imposed on defaulting units.	Regular Activity	Urban Development Dept./ Development Authorities
2.	Control measures for fugitive emissions from material handling, conveying and screening operations through water sprinkling, curtains, barriers and dust suppression units;	Regular Activity	Urban Development Dept./ Development Authorities
3.	Ensure carriage of construction material in closed/covered vessels	Regular Activity	Regional Transport Dept./ Development Authorities
4.	Builders should leave 33% area for green belt in residential colonies. Plantation should be done as per Office order No.	Within a reasonable timeframe	Urban Development Dept./ Development Authorities/ Housing Companies

5.	Construction and Building required	Implemented and	SEIAA/RMC/JSPCB
	Environmental Clearance in case of	ongoing process	
	the projects covered under, EIA		
	Notification dated 14.09.2006 have		
	to installed Anti Smog Gun during		
	construction phase.		
6.	All construction areas must be	Ongoing Process	RMC/ Development
	covered to avoid dispersion of		Authorities
	particulate matter.		

(iv) Other Steps to Control Air Pollution

Sl. No.	Action Points	Time line for	Concerned Stakeholder
		Implementation	Stakenoluer
	a. Long Term Ad	ction Plan	1
1.	Dead Bodies of Animals should be	01 Year	RMC
	disposed through proper treatment		
	facility like rendering plant etc.		
2.	Installation of Online Monitoring	01 Year	Jharkhand State
	Devices on Air & Water polluting		Pollution Control
	units for regular compliance.		Board.
	b. Short Term A	ction Plan	
1.	Use of retrofitted emissions control	02 Year	CPCB/ Jharkhand
	Equipment in the DG sets installed by		State Pollution
	societies, colonies, industries,		Control Board.
	commercial buildings, shopping		
	malls etc. with a minimum specified		
	PM capturing efficiency of at least		
	70%, type approved by one of the five		
	CPCB recognized labs		

2.	Establish an Air Quality Management	Ongoing process	Jharkhand State
	Division at SPCB/PCC Head		Pollution Control
	Quarters to oversee air quality		Board.
	management activities in the State		
	and interact with CPCB		
3.	Restrict on CTE to new Tyre	Implemented and	Jharkhand State
5.	pyrolysis plants throughout the State	ongoing process	Pollution Control
	protypic plants anoughout the state	ongoing process	Board.
4.	Engage with concerned authorities on	2 Years	District Food &
4.		2 1 cars	
	continual basis for maximizing		Supply Controller
	coverage of LPG/PNG for domestic		
	and commercial cooking with target		
	of 100% coverage		
5.	Monitoring of DG sets and action	1 Year	District
	against violations. Fine should be		Administration/
	imposed on defaulters.		Jharkhand State
			Pollution Control
			Board.
6.	Street vendors are to be controlled	2 months	
	strictly in respect of removing their		
	wastes and debris before leaving the		
	site of operation		
	-		

(v) Suspension of road dust and other fugitive emissions control

Sl. No.	Action Points	Time line for Implementation	Concerned Stakeholder
	a. Long Term A	ction Plan	
1.	Regular/ mechanized cleaning of	Ongoing Process	RMC/ District
	roads of Faridabad to control dust		Administration
	emitting from the roads and road		
	shoulders.		

2.	All the canals/nallah's side roads	03 Year	District
	should be brick lined. Proper		Administration/
	plantation also carried out.		Forest
			Department
	b. Short Term A	ction Plan	1
1.	Prepare plan for creation of green	01 Year	Forest
	buffers along the traffic corridors.		Department/MCF
	Plantation of specific types of species		& Development
	of plants which are helpful in		Authorities
	pollution control.		
	Maintain nathalas fras na 1. fas f	Onacina	
2.	Maintain potholes free roads for free- flow of traffic	Ongoing process	RMC/
	now of traffic		Development
			Authorities
3.	Greening of open areas, gardens,	1 Year	RMC/
	community places, schools and		Development
	housing societies		Authorities /
			Forest
			Department
4.	Blacktopping of metalled road	8 months	RMC/
	including pavement of road shoulders		Development
			Authorities
5.	Use of treated effluent of STPs in	6 months	RMC/
	sprinkling on roads, agriculture and		Development
	for irrigation purpose.		Authorities
6.	Water spraying on road through	Regular	RMC/
	portable tankers on regular basis.		Development
			Authorities

(vi)Control of emissions from biomass/crop residue/garbage/municipal solid waste burning.

Sl. No.	Action Points	Time line for Implementation	Concerned Stakeholder
1.	Launch extensive drive against open burning of bio-mass, crop residue,	Implemented and ongoing process.	RMC/ District Administration
	garbage, leaves, etc.		
2.	Regular check and control of burning	Implemented and	District
	of municipal solid wastes and use of	ongoing process.	Administration/
	fire extinguisher for control of fire in		RMC/ Panchayati
	municipal solid waste and bio mass.		Raj
3.	Proper collection of horticulture	Implemented and	RMC/ District
	waste (bio-mass) and its disposal	ongoing process.	Administration
	following composting-cum-		
	gardening approach		
4.	Ensure ban on burning of agriculture	Implemented and	Agriculture
	waste and crop residues and its	ongoing process.	Department
	implementation		
5.	Door to Door collection of segregated	Implemented and	RMC/ District
	waste by agency and then its disposal	ongoing process.	Administration
	directly in plant without dumping it		
	on land.		
6.	Establishment of composting pits in	1 Year	RMC/
	Parks/ residential societies etc. for		Development
	management of biodegradable waste.		Authorities

(vii) Control of Water Pollution.

Sl. No.	Action Points	Time line for	Concerned
		Implementation	Stakeholder

1.0	a. Long Term A	ction Plan	
1.0	Industrial Source		
1.1	Proposed Action Plan for effective	Frequency	Jharkhand
	control of Water Pollution: Regular	Red category- 6	
	effluent sample collection and	months	Control Board/
	analysis of Pollution Control System	Orange category - 6	
	in Red, Orange & Green category	months	Industry
	Industries to be done to ensure strict	Green category -12	
	compliance of prescribed effluent	months	
	norms.	(By JSPCB) or By	
		Individual Industries	
		as follows.	
1.2	Installation of energy meter, on line	Ongoing	Individual
	PH meter, automatic chemical dozing		Industries
	system, on line effluent quality &		(Large
	flow measurement (OCEMS) and		Category)
	installation of independent laboratory		
	to monitor critical parameters like		
	MLSS, SVI etc. and other inlet and		
	outlet parameters of ETP for Large &		
	Medium Industries		
1.3	Upgradation of ETP in existing water	01 Year	Individual
	polluting units is to be done on case to		Industries
	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.		
2.0	Ground Water Pollution		

2.1	Regular monitoring of Over Head	Ongoing process	Jal Nigam/
	Tanks supplying drinking water in the		State Ground
	region and Rainy wells shall be		Water
	carried out. Also, intensive surveys		Authority
	will be done to ensure that practice of		
	reverse boring is not prevalent in		
	there region.		
3.0	Domestic Waste Water (Sewage)	<u> </u>	
3.1	Domestic sewage contributes to about	Ongoing	Urban
	80% of Water. The status of Sewage		Development
	Pollution Control is as follows:		Dept./
			Jharkhand
			State Pollution
			Control Board.
3.2	STPs are Operational	Ongoing	Urban
			Development
			Dept./ RMC
3.3	Combined Inspection of STPs by	Ongoing Process	Urban
	JSPCB and Urban Development		Development
	Department		Dept./ Local
			Authority /
			Jharkhand
			State Pollution
			Control Board.
3.4	Upcoming High Rise Buildings,	Ongoing Process	Project
	Commercial Project, Educational		proponent
	Institution, Multiplex, Town ship &		Local
	Building Projects are major source of		Authority &
	sewage generation and Municipal		Jharkhand
	Solid Waste. Such projects must		State Pollution
	ensure setting up of STPs,		Control Board.
	recirculation of treated water for		
	flushing/gardening regarding purpose		
		1	1

	& ensure compliance of the					
	conditions of the Environment					
	Clearance and NOC from PCB.					
b. Long Term Action Plan						
1.0	Industrial Source					
1.1	Adoption of Cleaner Technology to	1 Year	Jharkhand			
	reduce quantity of waste water,		State Pollution			
	Promote recycle after treatment for		Control Board/			
	sector like Paper, Tannery. Strategies		Individual			
	regarding cleaner technologies in		Industry			
	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					
1.1	Widening and Covering of major		ULBs/ Local			
	open Nalas carrying domestic		Administration			
	sewage.					