

**STATE ENVIRONMENT PLAN  
FOR  
CHHATTISGARH**

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**Department of Housing and Environment**

**Government of Chhattisgarh**

**State Environment Plan for State of Chhattisgarh as per Direction Given by Hon'ble NGT in The  
Matter of O.A. No. 360 of 2018  
(Dated 26.09.2019)**

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## 1. INTRODUCTION:

Hon'ble National Green Tribunal, Principal Bench, New Delhi issued direction in OA No 710/2017 Shailesh Singh vs. Sheela Hospital & Trauma Centre and Shahjahanpur and ors. On dt. 15/07/2019 and in OA No 360/2018 Shreenath Sharma vs. Union of India & ors. on dt. 26/09/2019 to prepare District Environmental Plan. The order passed by Hon'ble NGT are as follows:

### 1. **Shailesh Singh vs. Sheela Hospital & Trauma Centre:**

In the matter of NGT order dated 15.07.2019 in case no. OA 710/2017, the Tribunal held that *'We find it necessary to add that in view of Constitutional provisions under Articles 243 G, 243 W, 243 ZD read with Schedules 11 and 12 and Rule 15 of the Solid Waste Management Rules, 2016, it is necessary to have a District Environment Plan to be operated by a District Committee (as a part of District Planning Committee under Article 243 ZD) with representatives from Panchayats, Local Bodies, Regional Officers, State PCB and a suitable officer representing the administration, which may in turn be chaired and monitored by the District Magistrate. Such District Environment Plans and Constitution of District Committee may be placed on the website of Districts concerned. The monthly report of monitoring by the District Magistrate may be furnished to the Chief Secretary and may be placed on the website of the District and kept on such websites for a period of one year. This may be made operative from 1.08.2019. Compliance of this direction may also be seen by the Chief Secretaries of the States/UTs. This may not only comply with mandate of law but provide an institutional mechanism for effective monitoring of environment norms'*

### 2. **Shreenath Sharma vs. Union of India & ors:**

In the matter of NGT order dated 26.09.2019 in case no. OA 360/2018, the Tribunal held that *'To facilitate preparation of such District Environment Plan, it will be appropriate that CPCB prepares a Model/Models and places the same on its website which may be adopted with suitable changes as per local requirements for all Districts in the country and monitored by the Chief Secretaries with reports to the Tribunal in O.A. No. 606/2018. The Department of Environment of all States and Union Territories may collect such District Environment Plans of their respective States and finalize the 'State Environment Plan' covering the specific thematic areas referred in Para-7 including information as contained in Para-8 and template of Model/Models District Environment Plan provided by the CPCB. The action for preparation of State's Environment Plan shall be monitored by the respective Chief Secretaries of States and Administration of UTs. Let this action be completed by 15.12.2019 and compliance be reported to the Tribunal by 31.12.2019.'*

In view of the aforesaid order of the Hon'ble National Green Tribunal, District Environment Plans for all the existing 27 districts of Chhattisgarh State have been prepared by the concerned district collectors. Based on the District Environment Plans for all the existing 27 districts, the State Environment Plan has been prepared in consultation with various authorities responsible for implementation of the plan. The plan thus prepared after extensive consultation with the state authorities is as follows:

### **3. Brief Details:**

Chhattisgarh is situated in the central India. Raipur is the capital of Chhattisgarh and also Chhattisgarh is the 10th largest state in India. The northern and southern parts of the state are hilly areas and the central part is a plain land. In the north lies the edge of the great Indo-Gangetic plain. A tributary of the Ganges, the Rihand Rives is flowing in this area and the eastern end of the Satpura Range and the western edge of the Chota Nagpur Plateau separates Mahanadi River basin from the Indo-Gangetic plain. Chhattisgarh's core strength is mineral resources and it is a leading producer of minerals such as coal, iron ore and dolomite. Also, Korba district in Chhattisgarh is famous as the power capital of India. However, considerable reserves of bauxite, limestone, and quartzite are available in the State. Chhattisgarh is the only state in India which produces tin concentrates. The State contributes 35.4 % of tin ore reserves of India.

### **4. Physiography:**

Chhattisgarh's geographical location is 17<sup>0</sup> 46' North to 24<sup>0</sup> 5' North latitude and from 80<sup>0</sup> 15' East to 84<sup>0</sup> 20' East longitude. In the north-west region, Madhya Pradesh connects with Chhattisgarh and Maharashtra covers on the west and Andhra Pradesh lies in its south. Orissa is on the eastern side. In the north-eastern part, Jharkhand is the neighbour state.

The topography of Chhattisgarh can be distributed into various physiographic divisions. The Indo-Gangetic plain in the state is fertile. The Satpura Range, Vindhya Mountain Range and the Maikal Range are parts of the hilly region of Chhattisgarh. The Chhota Nagpur Plateau is another crucial topographical division of Chhattisgarh.

The vegetation of Chhattisgarh includes the deep forest which is about 44% of the total area of Chhattisgarh. The trees found in the state are Sal, Bamboo, Teak, and trees of mixed deciduous variety. The soil in the riverine plains is favourable for agricultural activities. Mahanadi, Seonath, Hasdeo, Kelo, Rehar and Indravati are major important rivers in Chhattisgarh.

Various types of minerals such as Coal, Iron ore, Bauxite, Limestone, Tin ore, Diamond, Corundum, Gold and Quartzite are found in the state of Chhattisgarh. Also, northern and southern parts of the state are hilly areas and central part is plain land.

## 5. Climate

Chhattisgarh state is having a tropical type of climate. It is surrounded by land on all sides. The major geographical factors are distance from the sea and altitude of the state which have controlled the Chhattisgarh's climate. The climatic condition in the summer month is hot and dry wind blows over the state. During winter the temperature falls to some extent. In the summer season, the temperature ranges from 40 degree to 42.5 degree Celsius. From the month of March, the temperature begins to rise in Chhattisgarh. The summer season prevails from April to the middle of June. In summer very dry wind blows over most parts of the state. The rainy season is from late June to October and the average rainfall in Chhattisgarh is 1,292 millimetres (50.9 in). The winter season is from November to January.

## 6. Mineral Resources:

Chhattisgarh is having strong mineral resource in the country. There are 28 known varieties of minerals available including precious stones & diamonds, iron ore, coal, limestone, dolomite, tin ore, bauxite and gold. Also, India's only active tin mine (in Bastar district) and one of world's best quality of iron ore deposits in the world (at Bailadila in Dantewara district) are in this state. The State has high potential for mining good quality of diamonds. Details of minerals in Chhattisgarh is given in **Table 1**.

Sr.No.	Name of the Mineral	Reserves in India (Lakh tones)	Reserves in State (Crore tones)
1	Iron ore	1,05,520	2069
2	Coal	20,46,530	2561
3	Bauxite	24,62,543	193
4	Limestone	7,56,590	3177
5	Dolomite	43,870	580
6	Quartzite	27,070	4,40
7	Tin ore	28907000*	1213
8	Gold	68*	3*
9	Corundum	28337*	25*

\* Reserves in tones.

**Table 1: Details of Minerals**

## 7. Administrative Divisions:

Chhattisgarh is one of the fastest-growing states in India. Also, it is a source of power and steel for the country and it has produced 15% of the steel in India. As per the 2011 population data, it is the 16<sup>th</sup> most populated (25.5 million) state in the country. It has an area of 135,192 km (52,198 sq mi).

**(i) Divisions:**

Bastar Division	Durg Division	Raipur Division	Bilaspur Division	Surguja Division
Bastar (Jagdalpur) Bijapur Sukma Dantewada (Dakshin Bastar) Kondagaon Narayanpur Kanker (Uttar Bastar)	Kawardha (Kabirdham) Rajnandgaon Balod Durg Bemetara	Dhamtari Gariyaband Raipur Baloda Bazar Mahasamund	Bilaspur Mungeli Korba Janjgir-Champa Raigarh Gaurela-Pendra-Marwahi	Koriya Surajpur Surguja (Ambikapur) Balrampur- Ramanujanj Jashpur

**(ii) Districts & Other details:**

S. No.	Name of District	Population (2011)	Area (km <sup>2</sup> )
1	Balod	826,165	3,527
2	Baloda Bazar	1,305,343	-
3	Balrampur	598,855	3,806
4	Bastar	1,302,253	4,030
5	Bemetara	197,035	2,855
6	Bijapur	229,832	6,562
7	Bilaspur	1,961,922	5,818
8	Dantewada	719,065	3,411
9	Dhamtari	703,569	2,029
10	Durg	1,721,726	2,238
11	Gariaband	5,97,653	5,823
12	Gaurela-Pendra-Marwahi		1,682
13	Janjgir-Champa	1,619,707	4,466
14	Jashpur	7,75,607	6,457
15	Kabirdham	5,84,667	4,447
16	Kanker	6,51,333	6,424
17	Kondagaon	5,78,326	7,769
18	Korba	1,206,563	7,145
19	Koriya	6,58,917	5,978
20	Mahasamund	1,032,754	4,790
21	Mungeli	701,707	2,750
22	Narayanpur	140,206	7,010
23	Raigarh	1,493,627	7,086
24	Raipur	2,160,876	12,383
25	Rajnandgaon	1,537,133	8,070
26	Sukma	2,49,841	5,636
27	Surajpur	6,60,280	2,787
28	Surguja	8,40,352	16,359

**\*One New District Namely Gaurela-Pendra-Marwahi has been created on 10<sup>th</sup> Feb, 2020 from then existing Bilaspur District.**

## **8. Biodiversity**

Chhattisgarh State is in Vindhyan hill regions and Deccan plateau of central India and 44% of its land areas are covered by forests. Also, 7.8 Million indigenous and tribal communities are living in the state depending on these forests and biological resources. These forests are also the origin of major rivers – Mahanadi, Indravati and Narmada. The state has three national parks (0.29 million ha), eleven wildlife (0.36 million ha) sanctuaries and three tiger reserves, and has endangered fauna like Wild Buffalo, the State animal of Chhattisgarh. Birds such as Jungle crow, Cattle egret, Pond heron, Babblers, Parrots, Blue jay, Wagtails etc. are observed in the state. Major wildlife species like Blue bull, Chinkara, black buck, Sambhar, Barking Deer, Wild dog, Wild boar, Bison, Indian sloth bears, Jackals, Hyena, and Crocodiles are also found in the forest areas of Chhattisgarh. Tigers are available in the Kurandi reserve forest and Kanger Valley National Park. Panthers are distributed almost all over Bastar, especially in the Northern plains.

**Figure – I.** Map showing national parks and wildlife sanctuaries in Chhattisgarh are as follows:





## 2. WASTE MANAGEMENT PLAN:

The waste management plan of the state has been categorized into 6 heads, namely, (i) Solid Waste Management, (ii) Plastic Waste Management, (iii) C&D Waste Management, (iv) Biomedical Waste Management, (v) Hazardous Waste Management and (vi) E-Waste Management. Each of the aforesaid plans have been elaborated as follows:

### i. SOLID WASTE MANAGEMENT:

- 1. Overview:** Chhattisgarh has 168 Urban Local Bodies, Comprising of 13 Municipal Corporation, 44 Municipal Council and 111 Nagar Panchayat. Rule 11(1) of the Solid Waste Management Rules, 2016 requires that the Department of Urban Administration and Development should prepare State Policy and Solid Waste Management Strategy for the state. The same have been prepared by UAD and all 168 ULBs in the State have been directed to adopt the same. The action plan broadly covers all the mandates of SWM Rules, 2016. Further, timely monitoring is being done using MIS database and regular follow-ups to make effective implementation of the plan and policy.
- 2. Mission Clean City Model:** As per action plan, 166 local bodies (out of 168) have adopted Ambikapur model for disposal of municipal solid wastes. 02 remaining local bodies of Raipur & Bilaspur will have land fill based waste disposal facility. Suitable land has been allotted to all 166 ULBs for setting-up of Solid Liquid Resource Management (SLRM) centres. The MCC (Mission Clean City Model of Ambikapur) is based on waste segregation at source, composting of organic waste and re-use / re-cycle the non-organic waste. Under this MCC Model source segregated Municipal waste ('resource') is being collected on door to door basis by business entities like women SHGs/ Contractor by Tricycle, e-Rickshaws and Mini tippers. The inorganic waste is further segregated to various recyclable resources. The non-recyclable combustible waste is stored separately to be transported to cement plants as Alternate Fuel (AFR). The organic waste is manually sorted to recover certain resources that enjoy a direct market. The balance organic waste is sent to the Compost Shed for Composting. The need for landfill is eliminated, as MCC, a zero landfill model is adopted.
- 3. Solid Waste Management in Gram Panchayats:** Under the approved action plan under the Swach Bharat Mission, SLRM centers in 2703 gram panchayats have to be established by March 2020. Out of the proposed 2703 Gram Panchayats, DPRs have been prepared for 2657 Gram Panchayats out of which DPRs of 2538 Gram Panchayats have been approved. Approval of 165 DPRs is under process. Construction of 221 SLRM centers have already been started.

**Target:**

*In 2019-20: MSW Wastes in 2703 Gram-Panchayats will be processed and 24.62% Gram-Panchayat will be covered.*

*In 2020-21: MSW Wastes in 2500 Gram-Panchayats will be processed and 47.39% Gram-Panchayat will be covered.*

*In 2021-22: MSW Wastes in 2500 Gram Panchayats will be processed and 70.16% Gram-Panchayat will be covered.*

*In 2022-23: MSW Wastes in 2500 Gram Panchayats will be processed and 92.93% Gram-Panchayats will be covered.*

*In 2023-24: MSW Wastes in 726 Gram-Panchayats will be processed and 100% Gram-Panchayat will be covered.*

4. **Integrated Solid Waste Processing Facility:** The 166 ULBs of the State which follow the MCC (Mission Clean City Model of Ambikapur) model incorporates maximum utilization of waste by recycling of the dry fraction and composting of wet fraction. Thus, it eliminates the need of landfills for disposing rejects. Remaining 02 ULBs (Bilaspur and Raipur) require sanitary landfill. In **Bilaspur** , Solid waste processing facility (Composting Shed and RDF Plant) of capacity 100 TPD RDF and 150 TPD compost plant, has been established and started its operation on 06.03.2019. As per the third quarterly progress report submitted on 29<sup>th</sup> January, 2020, establishment of Solid waste processing facility (Composting Shed and RDF Plant) was planned to be commissioned by 31<sup>st</sup> March 2020 in Raipur. However, Raipur Municipal Commissioner in matter WPIL no. 31 of 2018 vide order dated 04/02/2020 has committed before the Hon'ble High Court of Chhattisgarh to establish the plant by June 2020. Raipur Municipal Corporation has notified the buffer zone on 09.07.2019 and Bilaspur Municipal Corporation has notified the buffer zone on 10.07.2019 for the solid waste processing and disposal facilities at Raipur (Sakri) and Bilaspur (Kachhar) respectively.

**Target:** *To establish and commission Integrated Solid Waste Processing Facility with Sanitary Landfill in Raipur by 30<sup>th</sup> June 2020.*

5. **Inventory of Solid Waste Generation:** As per the District Environment Plans received from 27 districts of the State, the inventory of solid waste generation in the ULBs of the State is as follows:

	<b>Heads</b>	<b>MT/Day</b>
1.	Total Solid Waste Generation	1884
2.	Total quantity of Dry Waste segregated	841

3.	Total quantity of Wet Waste segregated	981
4.	Total quantity of C&D Waste segregated	156
5.	Total quantity of Street Sweeping	29
6.	Total quantity of Drain Silt	61
7.	Total quantity of Domestic Hazardous Waste(DHW) collected	5
8.	Total quantity of Other Waste (Horticulture, sanitary waste, etc.)	10
9.	Total No. of Old dump sites	08 (Bhilai, Jagdalpur, Korba, Raigarh, Dhamtari, Durg, Bilaspur and Raipur)
10.	Total quantity of waste stored in dumpsites	763469
11.	Total No. of Sanitary landfills	02 (Bilaspur and Raipur)

6. **Legacy Waste:** There are old dumpsites in 168 ULBs. Remediation of legacy waste has already been completed in 160 ULBs. DPRs have been prepared for the bio-remediation of dumpsites in remaining 08 ULBs namely Bhilai, Jagdalpur, Korba, Raigarh, Dhamtari, Durg, Bilaspur and Raipur and the same will be remediated before 31<sup>st</sup> March 2021 i.e. before the timeline prescribed under the SWM Rules 2016.

7. **Segregated Waste Collection:**

	Heads	MT/Day
1.	Total Solid Waste Generation	1884
2.	Wet Waste	841
3.	Dry Waste	981
4.	C&D Waste	156

8. **Waste Management Operations:** Under MCC, 166 ULBs is collecting segregated waste separately in wet and dry fractions through two bin system (Green and Blue) and transport the same on daily basis in compartmentalized tricycles and mini tippers. The dry fraction is being segregated at SLRM centres in to various usable fractions and sold to waste recyclers. The wet fraction is being converted into compost. The detailed guidelines for the same have been provided to 166 ULBs under MCC. In Bilaspur and Raipur, the waste is daily collected and transported to Integrated Solid Waste Processing Facility.

All public and commercial areas are being swept twice daily, including night sweeping and residential areas are being swept once in a day and the street sweeping waste is being disposed in scientific manner. This is being done by every ULB through departmental sweepers. Necessary logs for the same is also being maintained. The street sweepings and silt removed from drain cleanings are being collected directly by suitable vehicles. In case where direct collection is not convenient, these waste are temporarily stored at processing facilities. Registration of the waste pickers has already done under MCC scheme. Every year survey of waste pickers has been conducted by ULBs to identify new waste pickers.

S. No.	Heads	Percentage
1.	Door to Door Collection	100%
2.	Mechanical Road Sweeping	Mechanized Road Sweeping has been initiated in 5 districts namely Bilaspur, Korba, Baloda bazar, Balod and Mungeli.
3.	Manual Sweeping	100%
4.	Segregated Waste Transport	All 27 districts are transporting the waste in a 100% segregated manner.
5.	Composting operation	100 % wet waste composting is being done in 26 out of 27 districts through SLRM Centers. Currently, There are total 354 nos. of SLRM Centers in the State.
6.	MRF Operation	MRF (Material Recovery Facility) has been established in all the 27 districts.
7.	Use of Sanitary Landfill	1 (Sanitary landfill facility in Bilaspur is operational.)
8.	Reclamation of old dumpsites	There are old dumpsites in 168 ULBs. Remediation of legacy waste has already been completed in 160 ULBs. DPRs have been prepared for the bio-remediation of dumpsites in remaining 08 ULBs namely Bhilai, Jagdalpur, Korba, Raigarh, Dhamtari, Durg, Bilaspur and Raipur and the same will be remediated before 31 <sup>st</sup> March 2021 i.e. before the timeline prescribed under the SWM Rules 2016.
9.	Linkage with Waste to Energy Boilers / Cement Plants	66 ULBs have agreement with 10 cement plants situated in the State to co-process the segregated combustible fraction of the waste.
10.	Linkage with Recyclers	Linkage with recyclers have been established in 20 districts except for 7 districts of Bemetara, Bilaspur, Janjgir-Champa, Jashpur, Bastar, Raigarh and Surajpur.
11.	Authorization of waste pickers	Initiated in all 27 districts. The survey of informal waste pickers is being carried out in regular intervals to identify and organize them into the waste management system
12.	Linkage with TSDF / CBMWTF	TSDF is yet to be established in the state. HCFs of 13 districts have been linked with the existing CBWTFs and HCFs of remaining 14 districts i.e. Balod, Balrampur, Kanker, Kabirdham, Bastar, Bijpaur, Dantewada, Jashpur, Kondagaon, Koriya, Sukma, Surajpur, Surguja, and Narayanpur dispose of their waste through deep burial system / captive disposal facility.
13.	Involvement of NGOs	Approximately 9000 Women Self Help Group members are being engaged in the Mission Clean City Model across the State. The survey of informal waste pickers is being carried out in regular intervals to identify and organize them into the waste management system
14.	Linkage with Producers / Brand Owners	Linkage with producers/ brand-owners have not been done in the state.
15.	Issuance of ID Cards	Issuance of ID cards to waste pickers has been started in 25 districts. 2 districts namely Balod and Korea have not been initiated the issuance of ID cards.

**Target:** To remediate remaining 08 ULBs namely Bhilai, Jagdalpur, Korba, Raigarh, Dhamtari, Durg, Bilaspur and Raipur before 31<sup>st</sup> March 2021.

9. **Model Towns (UAD):** UAD has notified 03 Municipal Corporations (big cities), 25 towns and the same is also published on UAD website. The environmental norms and parameters in the context of Urban Local Bodies have been fixed for the development model cities in the State of Chhattisgarh. An orientation program was conducted on 10.07.2019 to explain the environmental parameters with the officials of model cities. Further, in these cities, field level inspection for the Garbage Free City (GFC) Certifications have been carried out by MoHUA's Third party empanelled agency and results are waited for the same. FSTP plants are constructed for the treatment of septage generated in these model cities. Additionally, ULBs are developing proposals for the fulfilling of norm of model city and Department is mapping funding sources for the development of Model cities. Out of 28 Model Cities, 08 Cities namely Saja, Kasdol, Sirgitti, Dhamdha, Aarang, Mahasamund, Mungeli and Gobra-Nawapara have signed agreement with Cement Plant for utilization of SCF in cement kilns. Remaining 20 cities are in process of signing agreement.

**Target:** SCF utilization in Cement Plants, Processing of Domestic Hazardous Waste, establishment of C&D processing Plants and treatment of waste water is to be done in these Model Cities by 31<sup>st</sup> December 2020.

10. **Model Villages (Panchayat):** Panchayat and Rural Development Department has vide notification dated 12.06.2019 notified 81 Village panchayats as Model Village panchayats which will be made fully compliant within prescribed timeline of 31.03.2020. DPR of all Gram Panchayats have been approved and work has been completed in 67 Gram Panchayats.

**Target:** To ensure that all notified 81 Model Village Panchayats are made fully compliant within 31<sup>st</sup> March 2020.

11. **Adequacy of Infrastructure:** Solid Waste Management Rules 2016 require that the town planning department of the State should ensure the provision for setting up of solid waste processing and disposal facilities in the master plan of every city in the State. Currently, out of the 34 Master Plans provision for solid waste management have already been made in 28 Master Plans.

	Heads	Details
1.	Waste Collection Trolleys	1547 Nos.
2.	Mini Collection Trucks	832 Nos.

3.	Segregated Transport	56 Nos.
4.	Bulk Waste Trucks	59 Nos.
5.	Waste Transfer points	90 Nos.
6.	Material Recovery Facilities	MRF (Material Recovery Facility) has been established in all the 27 districts.
7.	Waste to RDF	Established in 1 district (Bilaspur).
8.	Sanitary Land fills	Sanitary Landfill and waste to RDF facility in Bilaspur is operational and the facility in Raipur is under construction.
9.	Capacity of sanitary landfills	The capacity of Solid waste processing facility (Composting Shed and RDF Plant) of Bilaspur is 100 TPD for Waste to RDF and 150 TPD for compost plant.
10.	Waste Deposit Centers (DHW)	110 Waste Deposit Centers have been established in 13 Districts.

**Target:** To ensure provision for setting up of solid waste processing and disposal facilities in the master plan of remaining 05 cities, except NRDA, is done by 31<sup>st</sup> March 2020.

**12. Notification and Implementation of By-Laws:** The necessary bye laws have been framed and notified on Chhattisgarh gazette. The same has also sent to ULBs for the approval from PIC/MIC and its publication on ULB level for its timely implementation. SWM bye-laws for collection of fine have been notified for Municipal Corporation, Municipal Council/ Nagar Panchayat on 28.01.2019 and necessary directions have been sent to the waste generators not to litter. IEC campaigns have been conducted on regular basis across all ULBs for the same. Rs. 45.70 Crores has been collected from waste generators as user fees by the ULBs w.r.t. the notified SWM bye-laws as on 15th December 2019. The necessary bye laws for levying of spot fine for littering of waste etc. have been framed and notified on Chhattisgarh gazette. Rs. 56.29 Lakh fine have been collected from 29,700 violators as on 15th December 2019.

1.	Notification of By-laws	The necessary bye laws have been framed and notified on Chhattisgarh gazette. The same has also sent to ULBs for the approval from PIC/MIC and its publication on ULB level for its timely implementation.
2.	Implementation of by-laws	All 27 District have started implementing the notified bye-laws.

13. **Compliance by Bulk Waste Generators:** Bulk generators means and includes buildings occupied by the Central government departments or undertakings, State government departments or undertakings, local bodies, public sector undertakings or private companies, hospitals, nursing homes, schools, colleges, universities, other educational institutions, hostels, hotels, commercial establishments, markets, places of worship, stadia and sports complexes having an average waste generation rate exceeding 100kg per day.

- a. **SWM by Group Housing and Commercial Complex:** Solid Waste Management Rules 2016 require that Town and Country Planning Department and local bodies should ensure that provision is made for separate space for segregation storage and processing of solid waste is demarcated in development plan for group housing or commercial or any other non-residential complex exceeding 200 dwelling or having a plot are exceeding 500 square meter.

1.	No. of BW Generators in the state:	406 Nos of bulk waste generators are there in the State.
2.	No. of on-site facilities for Wet Waste:	There is no provision of on-site facility of wet waste as the wet waste composting takes place in the 354 SLRM centres that have been established in 166 ULBs.

- b. **SWM by Industries:** Solid Waste Management Rules 2016 require that developers of SEZ, Industrial park should earmark at-least five percent of the total area of the plot or minimum five plots or sheds for recovery and recycling facility. Presently, there is no vacant space in the existing industrial area of the state. As per Chhattisgarh State Industrial Development Corporation (CSIDC), 5% of the total area of the plot or minimum five plots or sheds for recovery and recycling facility shall be earmarked in new industrial parks, industrial estates, SEZs etc. in the future. Presently, the Solid Waste generated in the industrial areas however is being disposed off through ULBs in which the said industry is located or through the nearest ULB, as the case maybe.

**Target:** To bring into effect the notification for demarcation of separate space in development plan for group housing or commercial or any other nonresidential complex exceeding 200 dwelling or having a plot are exceeding 500 square meter by 30.04.2020. The draft notification has been sent to the Law Department for vetting by the Department of Town and Country Planning.

- c. **SWM by Public Sector Undertakings:** All the Public Sector Undertakings like Bhilai Steel Plant (BSP), Chhattisgarh State Power Generation Company Limited, National Mineral Development Corporation Limited (NMDC), National Thermal Power Corporation Limited (NTPC), South Eastern Central Railway (SECR), SECL were

called-upon in the 2nd meeting of the State Level Committee constituted under NGT order in the matter of 606/2018 (headed by Retd. Justice Dharendra Mishra) to submit the compliance of Rules in the respective colonies maintained by them. During the said meeting, it came to light that SECR and SECL have been in major non-compliance of the aforesaid Rules and that SECR have been indiscriminately dumping the waste generated by it at random places in the city. Accordingly, it was proposed that for the two major cities of Raipur and Bilaspur - SECR shall enter into an MoU with respective ULBs for treatment and disposal of the municipal solid waste generated by the colonies of SECR. The MoU has been signed by the parties for city of Raipur and Bilaspur.

***Target: MoU for disposal of Municipal Solid Waste shall be signed between SECR and ULBs for remaining colonies of Korba, Bhilai, Durg, Raigarh, Champa, Manendragarh, Ambikapur, Pendra and Dongargarh by 31<sup>st</sup> March 2020.***

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## ii. PLASTIC WASTE MANAGEMENT PLAN:

The usage and unregulated disposal of non-biodegradable waste like plastic carry bags, disposable plastic catering items like spoon, bowl, plate fork, cup, glass, thermocol decorations etc. is causing grave danger to the ecology and environment of the state by accumulation of plastic waste in landfills and water bodies, clogging of drains, damaging the ecosystem, consumption of plastic by stray animals, adverse impact on fisheries, leaching of chemicals from plastic products and transfer of chemicals from plastic to humans and other living creatures. There is thus, an urgent requirement to control and prevent the pollution and environmental damage caused by the unregulated use and disposal of non-biodegradable material in the state. Taking cognizance of this issue, the Hon'ble NGT, in the matter of O.A. 247/ 2017, '**CPCB v. State of Andaman and Nicobar**' vide order dated 12.03.2019, directed all the states to prepare and enforce action plan for implementation of Plastic Waste Management Rules, 2016. The same was accordingly prepared and submitted to CPCB on 27.04.2019. The plastic waste management plan according to this action plan is as follows:

1. **Inventorization:** All the plastic manufacturing units of the state has been identified. As per the progress report sent to CPCB on 27/09/2019 in O.A. 247/ 2017, the total numbers of plastic manufacturers in the state is 187 and the estimated quantity of plastic waste generated in the state is 88 MT Per Day.
2. **Collection of Plastic Waste at the Material Recovery Facilities:** 100% plastic waste is collected through door-to-door collection and the same is collected at the SLRM Centres / Processing Plant in the 168 ULBs and authorized rag pickers collect waste from the said SLRM centre. At present, 521 SLRM Centres (Material Recovery Facilities) have been established in 166 ULBs and these have the provision and infrastructure for segregation, collection, storage, disposal of the recyclable plastic waste, which are working efficiently through SHGs. At the SLRM centres, the total plastic waste is further segregated into Recyclable and Non-recyclable fraction. In Bilaspur, the construction of Integrated Solid Waste Management Facility has been commissioned in October 2018. The integrated Solid Waste Management Facility in Raipur is under construction and the same shall be established by 31.03.2020. As per the District Environment Plans received from 27 districts of the state, the total number of authorized rag pickers in the state is 2076 and whereas in Baoda Bazar, Balrampur, Bijapur, Bilaspur, Dantewada, Gariyaband, Janjgir-Champa, Kondagaon and Narayanpur districts, no authorization has been given to the rag-pickers yet.

**Target:** To complete authorization of rag-pickers in the remaining districts of Baoda Bazar, Balrampur, Bijapur, Bilaspur, Dantewada, Gariyaband, Janjgir-Champa, Kondagaon and Narayanpur by 31<sup>st</sup> August 2020.

3. **Extended Producer Responsibility:** EPR byelaws have been published by the Department of Urban Administration and Development on 14.12.2018 for ensuring setting up system for plastic waste management with assistance of producers. In the meeting dated 24.06.2019 of State Level Committee constituted vide order dated 16.01.2019 (under NGT OA 606/2018), all the brand owners/ producers have accepted the EPR model suggested by the Department of Urban Administration and Development. The selection of consultant for implementation of EPR under Plastic Waste Management Rules, 2016 in the State of Chhattisgarh is under process and shall be completed by 31<sup>st</sup> March, 2021.

**Target:** Selection of third party PRO and implementation of Extended Producer Responsibility in the state by 31<sup>st</sup> March 2021.

4. **Recycling/ Co-processing/ Road Construction:**

- a. **Plastic Recyclers:** As on date, Chhattisgarh Environment Conservation Board has registered 10 plastic recyclers in the state.
- b. **Utilization of Plastic Waste in Road Construction:** 02 ULBs namely Ambikapur and Rajnandgaon have used plastic wastes in road construction so far. The urban local bodies have been encouraged to use plastics waste preferably the non-recyclable one for road construction as per the Indian road congress guidelines or for energy recovery or waster to oil etc. Chairperson of State Level Advisory Board (PWM Rule, 2016) has requested Works Department (PWD, P&RD, PHED, WRD) to introduce Schedule of Rates (SOR) items for use of plastic waste on road works and the same shall be completed by 31<sup>st</sup> March 2020.

**Target:** Utilization of plastic waste in road construction by PWD, P&RD, PHED, WRD through inclusion of SOR items by 31<sup>st</sup> March 2020.

- c. **Co-processing of plastic waste by cement plants:** 10 Cement Plants have signed the agreements with 67 ULBs to utilize the Segregated Combustible Fraction (SCF) in their Cement Kiln. In the first phase, all the 10 cement plant have signed with ULBs situated within 100 km radius. Initially MoU will be executed for a trial period of 03 months. Based on mutual consultation between ULB and Cement Plant, period of MoU shall be extended thereafter. All the remaining MoUs for co-processing are scheduled to be signed by 30<sup>th</sup> June, 2020.

**Target:** To Complete signing of MoUs between all Cement Plants and remaining Local Bodies (Beyond 100 km radius) for co-processing of plastic waste by 30<sup>th</sup> June 2020.

5. **Ban on Carry-bags and single use plastic:** The State government vide notification dated 27.09.2017 banned the use, manufacture, sale, import and transport of plastic carry bags (woven and non-woven), plastic disposable items used for catering and advertising materials made from PVC and chlorinated plastic. However, since the above notification was passed under the Environment Protection Act and this act does not give powers to impose fine to the state officers, therefore, for effective implementation of ban on single use plastic, the State Government of Chhattisgarh has proposed a new Act for the State called the Chhattisgarh Plastic and Other Non Biodegradable Material (Regulation of Use and Disposal) Act, 2020 to address the above urgent issue of menacing use of plastic in the state and to plug the loopholes contained in the effective enforcement of environmental sanctions. The proposed act will give power to the State Government of Chhattisgarh to restrict, prohibit, regulate or manage the use, manufacture, sale, purchase, storage, distribution of non-biodegradable material within the State. Such non-biodegradable material will contain such items which cannot be decomposed naturally. The proposed Act has laid down such items in the Schedule appended to this Act which shall be called non-biodegradable material. The State shall thus have the power to put restriction on manufacture and use of such Non-Biodegradable Materials or prescribe conditions on the size, weight, type, thickness, composition with respect to non-biodegradable items listed in the Schedule. The State Government shall also have the power to add or remove any item mentioned in the Schedule. The State shall thereafter, by way of a notification under this Act, enforce complete ban on plastic carry bags and disposable catering items manufactured from plastic & thermocol (polystyrene) such as single use disposable dish, cups, plates, glasses, fork, bowl, container, disposable dish/ bowl.

The proposed Act has received the assent of the Cabinet and is scheduled to be put for approval before the current budget session of the legislative assembly of the State Chhattisgarh.

**Target:** Implement the notification after the proposed 'Chhattisgarh Plastic and Other Non Biodegradable Material (Regulation of Use and Disposal) Act, 2020' is published in the official gazette by 31<sup>st</sup> April 2020.

6. **Engaging SHGs:** Approximately 9000 Women Self Help Group members are being engaged in the Mission Clean City Model across the State. The survey of informal waste pickers is being carried out in regular intervals to identify and organize them into the waste management system.

7. **Restriction of open burning of plastic waste:** Department of Urban Administration and Development has issued notification dated 28.01.2019 for imposition of fine for open burning of solid waste including plastic waste. Total approx. Rs. 36.25 Lakh fine have been collected and 9536 nos. of cases have been filed against violators of the rules as on 31<sup>st</sup> December 2019.
  
8. **Plastic Waste Management in Gram Panchayats:** Solid and Liquid Waste Management target of this financial year (2019-20) is 2703 out of which DPR of 2622 Gram Panchayats has been prepared. DPR of 2538 has been approved and construction work has been started in 1313 Gram Panchayats. 223 SLRM centers are functional where segregation, collection, storage, transportation, processing and disposal of plastic has been started. Commissioning of SLRM centers in 2480 Gram Panchayat shall be ensured by 31<sup>st</sup> March 2020.

**Target:** Complete construction and commissioning of SLRM centers in the 2480 Gram Panchayats by 31<sup>st</sup> March 2020.

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iii. **CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT PLAN:**

- 1. C&D Waste Proposed Business Model:** A business model has been prepared by the Department of Urban Administration for management of construction and demolition waste in the state. This model was first put before the 4th meeting of the State Level Committee constituted under NGT order in the matter of 606/2018 (headed by Retd. Justice Dharendra Mishra) and after obtaining the suggestions of SLC members on the same, the final model was presented in the 5th SLC meeting. According to the C&D Waste management Business model, processing centres for collection and disposal of C&D Waste shall be established across 168 ULBs of the state which shall cost around INR 10.93 Lakh for each centre. The proposed model is based on successful model of Ambikapur and shall be implemented in the entire State wherein segregation of different types of C&D waste will be done by SHG workers at the processing centre. The segregated C&D material and by-products (made by SHG) will then be used for road construction, manufacturing of tiles, paver blocks, bricks, home composting pot, plant pot etc. Accordingly, budgetary support of INR 22 Crore is required for the implementation of the aforesaid Model, including one-year Operation and Maintenance. UAD has sent requisition vide letter dated 30.07.2019 to Government of Chhattisgarh for allocation of the budget.

**Target:** *To implement the Business model proposed for the management of C&D waste by 31<sup>st</sup> March 2021.*

- 2.** The concerned construction departments like PWD, PHE, WRD, CGHB, RDA, NRDA, RES and all ULBs have been directed by the Department of Urban Administration vide letter dated 07.12.2018 and 18.12.2018 to prepare their Action plan for management of C&D waste generated by them and submit the same to respective ULB at the time of seeking prior approval for starting any construction activity. As required by Rule 6(7) of the Construction and Demolition Waste Rules 2016, Direction will be sent to waste generators to submit waste management plan within a period of one month or from the date of approval of building plan. Water Resources Department, Govt. of Chhattisgarh has incorporated provision of C&D Waste Management Plan and processing fees in all construction works.

**Target:**

- 1. To ensure that all the work departments submit an action plan for management of C&D waste generated by them and submit the same to respective ULB at the time of seeking prior approval for starting any construction activity.*
- 2. To examine and sanction the waste management plan of the remaining waste generators by 31<sup>st</sup> May 2020.*

- 3. Inventory:** As per the District Environment Plan received from 27 districts, inventory of C&D waste generation has been done in 25 of the 27 districts and remaining to be done in

Surajpur and Sukma districts. As per the DEPs received, the estimated quantity of C&D waste generation in the state is about 225 MT/day.

**Target:** To complete inventory of C&D Waste in remaining districts of Surajpur and Sukma by 31<sup>st</sup> March 2021.

4. **Establishment of C&D Waste Deposition centers:** As per the short-term plan, C&D waste management facilities have been established in the existing SLRM centers and waste is being utilized by ULB's in-house or by making recycled products such as tiles, bricks, paver blocks etc.

1.	Establishment of Deposition Points	25 districts have established the deposition points. District Sukma and Jashpur have not established deposition points yet.
2.	C&D Deposition point identified	26 districts have identified C&D waste deposition points. Identification of C&D waste deposition points in Jashpur is pending.

**Target:** To establish Deposition centers in the Sukma and Jashpur and to identify C&D deposition points in Jashpur by 31<sup>st</sup> March 2021.

5. **Implementation of By-Laws for CD Waste Management:**

1.	Implementation of By-laws	SOP on C&D waste management is notified on 04.12.2018 and necessary directions have also been sent to the ULBs to implement the same. The <i>Vidhvansh Se Srajan</i> model is a low cost, sustainable, decentralized model based on extensive segregation and recycling. It is combined with the benefits of citizen participation and urban livelihood promotion by involving business entities like women SHGs/ Contractor.
2.	Collection of Deposition / disposal Charges	ULBs are collecting, transporting, handling and disposing the C&D waste in their jurisdiction. For this ULBs are entitled to collect user charges from waste generators, on the basis of vehicle load as per the Chhattisgarh C&D waste management policy dated 15.09.2017. No user charge is levied on waste generators, if C&D waste is dumped at designated site by waste generators with its own vehicle.

6. **Establishment of C&D Waste recycling plant or linkage with such facility:** As required under Rule 6(11) of the of the Construction and Demolition Waste Rules 2016, provision for giving incentives for use of material made out of construction and demolition waste in the construction activity including in non-structural concrete, paving blocks, lower layers of road pavements, colony and rural roads is to be done. There is provision of using material made from C&D waste in WBM Roads, Highway roads, bricks, paver etc. within the State for all works undertaken within Govt. funds or municipal fund.

**Target:** Introduction of SOR item for using material made out of C&D waste in Construction activities by 30<sup>th</sup> June 2020.

**iv. BIO-MEDICAL WASTE MANAGEMENT PLAN:**

1. **Inventory of Bio-Medical Waste Generation:** The Inventorization of Bio-Medical Waste Generation in the state has been completed by CECB for all the 27 districts and already been sent to Hon'ble NGT, Principal Bench, New Delhi and CPCB, Delhi vide letter dated 05.10.2019. As per the inventory, the total Bio-Medical Waste Generation in the state in the state for the year 2018-19 is 10.61 MT per day. The details of the same are as follows:-

1.	Total No. of Government HCFs	1,014
2.	Total No. of Private HCFs	3,549
3.	Total No. of Beds	43,550
4.	Total solid and semi-solid waste generated	10,664 kg/day
5.	Total liquid waste generated	1,472 Kilo liter/day
<b>TOTAL WASTE = 10.61 MT PER DAY</b>		

2. **Authorization of HCFs by CECB:** Bio-Medical Waste Management Rules 2016 requires all HCFs to obtain authorization from State Pollution Control Board. Meeting with the representatives of Collectors, CMHOs, IMA and CECB under the Chairmanship of the Revenue Commissioners of Raipur, Bilaspur, Durg, Bastar and Surguja was organized in the month of January 2020 wherein all the concerned authorities were directed to ensure implementation of BMW Management Rules, 2016 by all HCFs including obtaining authorization from CECB. The status of authorization obtained by HCFs under BMW Rules is as follows:

Authorization issued:	<ul style="list-style-type: none"><li>Govt. HCFs - 1010 HCFs</li><li>Pvt. HCFs - 2202 HCFs</li></ul>
Authorization under process :	<ul style="list-style-type: none"><li>Govt. HCFs - Nil</li><li>Pvt. HCFs - 1136 HCFs</li></ul>
HCFs not applied for authorization:	<ul style="list-style-type: none"><li>Govt. HCFs - Nil</li><li>Pvt. HCFs - 211 HCFs</li></ul>

**Target:**

1. *The authorization shall be granted to all the remaining 1136 HCFs by 31<sup>st</sup> March 2020.*
2. 211 Pvt. HCFs, which have not applied for authorization shall also be enforced to apply and grant of authorization by 31<sup>st</sup> May 2020.

3. **Common Biomedical Waste Treatment and Disposal Facilities (CBMWTFs):** At present, there are total 04 CBWTF facilities operating in the state at Raipur, Bilaspur, Raigarh and Korba. Additionally, the process of setting-up 2 additional CBWTFs at Kondagaon (Bastar Division) and at Ambikapur (Surguja Division) is in progress. The CBWTFs proposed at Raigarh and Korba are based on incinerator. The work has been awarded to the selected bidder for the establishment of the same on 09.12.2019. As per the DEPs received, HCFs of 13 districts have been linked

with the existing CBWTFs and remaining 14 districts of Balod, Balrampur, Kanker, Kabirdham, Bastar, Bijpur, Dantewada, Jashpur, Kondagaon, Koriya, Sukma, Surajpur, Surguja, and Narayanpur of dispose of their waste through deep burial system / captive disposal facility.

**Target:** To complete the up gradation of existing facility at Raigarh and Korba by 31<sup>st</sup> December 2020 and commence the new CBWTF facilities at Bastar and Surguja by 31<sup>st</sup> October 2020.

4. **Compliance by CBWTFs:** Out of the 04 existing CBWTFs in the state - two CBWTF Service Providers namely M/s SMS Watergrace Enviro protect Pvt. Ltd (Raipur) and M/s Envirocare International (Bilaspur) have introduced Bar Code System with their respective associated HCFs. 02 CBWTFs at Korba and Raigarh will establish Bar-Coding system after being upgraded to incinerator facility. Bar-coding at other 02 at CBWTFs at Bastar and Sarguja will be done once they are established.

**Target:** To establish Bar-Coding system in remaining 2 CBWTFs at Korba, Raigarh, Baster and Sarguja by 31<sup>st</sup> December 2020.

5. **Effluent treatment plants (ETPs) in HCFs:** Bio-medical Waste Management Rules 2016 requires that all such Health Care Facilities (HCFs) having 10 or more beds shall establish ETPs. At present, 220 HCFs have provided effluent treatment plant. CECB has issued notices to remaining HCFs for installation of ETPs.

Bio-medical Waste Management Rules 2016 requires that all such Health Care Facilities (HCFs) having 10 or more beds shall establish ETPs. At present, 220 HCFs have provided effluent treatment plant. CECB has issued notices to remaining HCFs for installation of ETPs.

6. **Environment Compensation:** As on February 2020, CECB has levied environment compensation of an amount of Rs. 7,74,849/- to 30 HCFs for violation of Bio-medical Waste Management Rules 2016.

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## v. HAZARDOUS WASTE MANAGEMENT PLAN:

The Hazardous Wastes generating units in the State mainly includes Aluminium Plant, Fertilizer Plants, Waste Processing Units, Cement Plants, Iron and Steel Plants, Power Plants, Mine Workshops & Wire Drawing Units etc. The hazardous Wastes generated from these units are mainly used/waste oil, oil sludge, cathode residues, tar residue, lead & zinc-ash/slag/dross, sulphur sludge etc. There are total no. of 4973 large, medium and small scale industries enlisted as Red category and Orange category, which may potentially generate hazardous wastes in the state. The details of the inventory of the same is as follows:

1. **Inventory of Hazardous Waste:** Latest inventorization of hazardous waste generated in the State of Chhattisgarh State has been done by the Regional Offices of CECB in the year 2018-19. Based on the inputs from them, hazardous waste generation is about 1,44,260 MT. The details is shown in the table below:

Summary of Hazardous Waste Generation		
S. No.	Type of Waste	Quantity in MT
1.	Landfillable Waste	15,469
2.	Recyclable Waste	1,01,123
3.	Incinerable Waste	328
4.	Utilizable Waste	2,73,40
Total		1,44,260

It is also submitted that CECB has conducted a third party Inventorization of hazardous waste generating industries which has been submitted on 26.02.2020. As per the report, there are 514 hazardous waste generating industries. The findings and conclusion of the report is under study. Necessary action will be taken for better implementation of the said Rules.

2. **Authorization by CECB:** Every industry which is handling, generating, collecting, storing, packaging, transporting, using, treating, processing, recycling, recovering selling and disposing hazardous waste is required to obtain Authorization under Hazardous Waste Management Rules 2016 from the State Pollution Control Board. As on date the number of authorized industries under Hazardous and Other Waste (Management and Transboundary Movement) Rules, 2016 is 413. Out of which 308 nos. of industries have installed display Board in front of the Gate showing information regarding hazardous waste generation and disposal.

**Target:** To ensure that all the industries which are dealing with hazardous waste in the state are having display board in front of its gate by 31<sup>st</sup> March 2020.

3. **Contaminated Sites and illegal industrial hazardous waste dumpsite:** The MoEF and CPCB had identified 05 contaminated sites in the state and the same were inspected by CECB on 08.04.2019 and 24.10.2019 and has been found remediated. As of now there is no contaminated site in the State of Chhattisgarh.
4. **Establishment of Common TSDF:** 50 acres of land has been identified near Village-Kesda, Simga, Raipur (C.G.) by Chhattisgarh State Industrial Development Corporation (CSIDC) for setting-up common TSDF and CSIDC has also floated RFP for the selection of facility operator. 03 agencies have submitted their proposals technical evaluation is under process. Technical presentation was given by the firms on 05.02.2020. Technical evaluation is under process for finalization of the bidder for the award of work. National Hazardous Waste tracking system shall also be developed after establishment and commissioning of common TSDF.

**Target:** *Setting-up of Common TSDF in the state shall be ensured by 31<sup>st</sup> March 2020.*

5. **State Monitoring Committee:** In compliance with the directions of the Hon'ble National Green Tribunal in the matter O.A 804/2017 an empowered Monitoring Committee under the Chairmanship of Secretary, Department of Environment has been constituted on 07.03.2020 for effective implementation of the provisions of Hazardous and Other Waste (Management and Transboundary Movement) Rules, 2016.
6. **Disposal of Hazardous waste:** In the absence of common TSDF in the state, currently the hazardous waste generated in the state is disposed-off by either common TSDF of the other State or captive incineration, land filling, pre-processing, recycling, utilization, export, storage or co-processing by the cement plants.
7. **Capacity Building / Infrastructure:** Hon'ble NGT in the matter O.A 804/2017, vide orders dated 12.04.2019 directed that State Pollution Control Board needs capacity building in terms of qualified and experienced manpower, tools and techniques for effective governance of hazardous waste generating units. Accordingly, development of online submission of hazardous waste manifest system is underway and the same shall be completed by 30.04.2020. CECB is in the process of setting up of Central Environmental Laboratory with the state of art instruments for capacity building. 1.5 Acre of land has already been procured and design and drawing of the building has been finalized for the same. Construction work will be undertaken by Nava Raipur Atal Nagar Development Authority. Tender work is under process to award the construction work. Target date for completion of building is December 2021. Technical specifications for the procurement of instruments/equipments for the lab are under finalization. A new set-up of 417 manpower has been proposed and sanction is awaited for the same.

**Target:** *To establish Central Environmental Laboratory in the state with state of art facilities and equipments by 30<sup>th</sup> June 2022.*

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**vi. E-Waste Management Plan:**

The Hon'ble NGT in the matter of **Shailesh Singh v. State of UP** (O.A. 512/2018) vide its order dated 10.08.2018, directed MoEF&CC and CPCB to prepare an action plan for enforcement of the e-waste rules as well as taking appropriate action against those violating the said rules. Subsequently, vide order dated 12.02.2019, the Hon'ble NGT has identified activities for SPCBs/PCCs & district administration and directed CPCB to spelt out parameters & methodology for the execution of the activities mentioned in the action plan. All the concerned authorities are working in accordance with the said action plan.

- 1. Collection of E-Waste:** E-waste Management Rules 2016 requires that it is the duty of every manufacturer and producer of any electrical and electronic equipment to collect e-waste generated/produced by it and channelize it for recycling or disposal. Currently, there are 12 producers in the state who have obtained EPR registration from CPCB under section 5 of E-Waste Rules 2016. As per instructions received from CPCB the inspection of the above units have been done by CECB and the reports in the prescribed formats was sent to CPCB Delhi on 16.05.2019, 24.05.2019, 01.06.2019 and 03.08.2019. As per the District Environment Plans received from all 27 districts of the State of Chhattisgarh, the status of collection of E-waste generated in the state is as follows:

1.	Authorized E-waste collectors in the state:	CECB has issued Authorization to 01 collection center at Abhanpur, Raipur.
2.	Collection centers established by ULB in the state:	51
3.	Collection centers established by Producers or their PROs in the state:	4
4.	No. of authorized E-Waste recyclers / dismantlers in the state:	2
5.	Are the citizens are able to deposit or provide E-Waste through Toll-free Numbers in each District:	No
6.	Does the state has linkage with authorized E-Waste recyclers / Dismantlers in the state.	No
7.	Involvement of NGOs:	No NGO has been involved for E-Waste management in the State presently.
8.	Does ULBs have linkage with authorized Recyclers / Dismantler:	Under process.

**Target:** CECB has issued Authorization to 01 collection center at Abhanpur and 01 dismantler unit at Durg. CECB has already given consent to M/s Star E-processor unit at Arang Tehsil Raipur for dismantling and recycling. The capacity of this unit is 6000 MT/Annum. This unit has started recently.

2. **Inventorization of E –waste generation:** CECB had conducted Inventorization of E-Waste on 12.05.2016 through a third party - M/s IRG South Asia Pvt. Ltd. New Delhi, and submitted report to CPCB on 24.06.2017. The quantity of E-waste was verified by CECB on 20.05.2019, 25.05.2019, 27.05.2019 and 31.05.2019, during which 05 EPR authorized producers units were inspected, it was found that 33.60 Tonnes of E-waste has been collected in the year 2018-19.
3. **Creation of Awareness:** Workshop on the theme of ‘Awareness on Environment Hazard of E-waste” a flagship programme was organized by CECB from 17.09.2018 to 20.09.2018 under Digital India Mission and Swachh Bharat, in Phase–II.

**Target:** State Government to come up with an IEC plan for educating public at large about the system of collection, incentive structure and facilities for recycling by 31<sup>st</sup> May 2020.

### 3. Water Quality Management Plan:

The Hon'ble NGT in its order directed the States to review the existing framework of restoration of all the water bodies by preparing an appropriate action plan as per the guidelines prescribed the CPCB. Central Pollution Control Board has identified 351 river stretches as polluted river stretches in the country for not meeting the prescribed water quality standards and in Chhattisgarh, CPCB has been identified 05 river stretches as polluted river stretches. As per Hon'ble NGT order in case no. 673/2018, an action plan for rejuvenation of 05 polluted river stretches have been prepared and submitted to CPCB. This action plan consist of components like identification of polluting sources including functioning/ status of STPs/ETPs and solid waste management and processing facilities, quantification and characterization of solid waste, trade and sewage generated in the catchment area of polluted river stretch. The action plan addresses issues relating to; ground water extraction, adopting good irrigation practices, protection and management of Flood Plain Zones (FPZ), rain water harvesting, ground water charging maintaining minimum environmental flow of river and plantation on both sides of the river. The action plan focus on proper interception and diversion of sewage carrying drains to the Sewage Treatment Plant (STP) and emphasis should be on utilization of treated sewage so as to minimize extraction of ground or surface water. In this regard State Government vide order dated 22.11.2018 constituted 'River Rejuvenation Committee'. The River Rejuvenation Committee, in its meeting dated 29.01.2019 approved revised action plan for the polluted river stretches of Hasdeo, Kharun, Mahanadi, Seonath and Kelo. The Revised action plan was submitted to CPCB, Delhi vide letter dated 30.01.2019. CPCB vide its letter dated 08.04.2019 ask for certain modifications in the action plan. After modification, modified action plans were again sent to CPCB vide letter dated 29/06/2019. The identified polluted river stretches in the state are as follows:

- a. **Hasdeo** river stretch from Korba to Urga (20kms)
- b. **Kharoon** river stretch from Bhatagaon to Bendari (20 kms)
- c. **Mahanadi** river stretch from Sihawa to Arrang (70 kms)
- d. **Seonath** river stretch from Bemta to Simga(10 kms)
- e. **Kelo** river stretch from Raigarh to Kanaktora (15 kms)

The short, medium and long term action plans along with current latest status, desired level of compliance, gap between current status and desired level of compliance along with timeline for attending the gap for rejuvenation of pollution river stretches are as follows:

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statues	Gap between current status and desired levels	Proposal of attending the gap with time lines
1.	Action against defaulting industries discharging un-treated	CECB	Industries are maintaining zero discharge condition. Action against 80 no. of defaulting industries situated in the catchment area of Hasdeo, Kharoon, Mahanadi,	Continuous	NA	NA

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statues	Gap between current status and desired levels	Proposal of attending the gap with time lines
	effluent outside the premises.		Seonath and Kelo River which have not installed ETP has been taken. Closure directions under Section 33(A) of Water (Prevention and Control of Pollution) Act, 1974 have been issued to these industries.			
2.	Cleaning of drains before monsoon.	Nagar Nigam Korba, Raipur, Raigarh, concerned local bodies of Mahanadi Stretch, Seonath Stretch	Major drains of these ULBs have been cleaned before monsoon and screens were installed at strategic locations to check the solid waste entering the rivers.	Continuous	NA	NA
3.	Construction of Sewage Treatment Plant for treatment of sewage flowing in various nalla and re-use treated sewage in thermal power plant on PPP mode in Korba, Raipur (at Chandandih, Kara, Nimora and Bhatagaon), Kanker, Dhamtari, Gobra-Navapra, Rajim, Simga, Badhe-Atarmuda, Banjipali	State Government / Nagar Nigam, Korba, Raipur, Raigarh, concerned local bodies of Mahanadi Stretch, Seonath Stretch / NTPC Korba	Status of construction of sewage treatment plants are as follows:- <b>Raipur</b> (1) 75 MLD at Chandandih – 25% completed (2) 35 MLD at Kara - 25% completed (3) 90 MLD at Nimora and – 30% completed (4) 06 MLD at Bhatagaon – 65% completed <b>Raigarh</b> (1) 25 MLD at Badhe-Atarmuda – 05% completed (2) 07 MLD at Banjipali - 03% completed  Work is yet to be started in Korba (35 MLD), Kanker (7.8 MLD), Dhamtari (19.6 MLD), Gobra-Navapra (7.5 MLD), Rajim (2.8 MLD), Simga ( 2.8 MLD).	Construction of STP in all identified areas	Awaiting fund allocation and project approval for in Korba, Kanker, Dhamtari, Gobra-Navapra, Rajim, Simga.	31 <sup>st</sup> March 2021
4.	Reuse of treated effluent for various purposes i.e. plantation, reuse for industrial	State Government / Nagar Nigam, Raipur, Raigarh, concerned local bodies of Mahanadi Stretch, Seonath Stretch	It will be done after the commissioning of STPs in the concerned ULBs of the polluted river stretches.	Utilization of treated effluent.	Utilization of treated effluent.	31.03.2023

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statues	Gap between current status and desired levels	Proposal of attending the gap with time lines																																						
	purposes, Agriculture etc.																																											
5.	Construction of STP by CSPGCL, Hasdeo Thermal Power Station Korba (West)	CSPGCL	STP commissioned.	Achieved	NA	NA																																						
6.	To ensure rain water harvesting by the industrial, commercial and other institutions to promote ground water recharging.	Industry Department / Town and Country Planning Department / CECB / Nagar Nigam, Korba, Raipur, Raigarh, concerned local bodies of Mahanadi Stretch, Seonath Stretch	<p><b>By industries:</b> CECB has imposed condition regarding rain water harvesting by industries within their premises and the same is being followed by the concerned industries. Regular monitoring is being carried out for verification of the same. Till now 573 industries have installed 950 rain water harvesting systems whereas 85 are under installation. In addition, it has been decided to keep space (5% of total areas / minimum 05 plots) for rain water harvesting in future industrial areas.</p> <p><b>By other establishments:</b></p> <table border="1"> <thead> <tr> <th colspan="2">Progress by UAD</th> <th rowspan="2">Target</th> <th rowspan="2">In Progress</th> </tr> <tr> <th>ULB Name</th> <th>Completed</th> </tr> </thead> <tbody> <tr> <td>Raipur</td> <td>4380</td> <td>8466</td> <td>4086</td> </tr> <tr> <td>Korba</td> <td>817</td> <td>1221</td> <td>404</td> </tr> <tr> <td>Raigarh</td> <td>122</td> <td>297</td> <td>175</td> </tr> <tr> <td>Dhamtari</td> <td>401</td> <td>482</td> <td>81</td> </tr> <tr> <td>Kanker</td> <td>63</td> <td>63</td> <td>00</td> </tr> <tr> <td>Simga</td> <td>47</td> <td>61</td> <td>14</td> </tr> <tr> <td>Rajim</td> <td>62</td> <td>112</td> <td>50</td> </tr> <tr> <td>GobraNavapara</td> <td>66</td> <td>81</td> <td>15</td> </tr> </tbody> </table>	Progress by UAD		Target	In Progress	ULB Name	Completed	Raipur	4380	8466	4086	Korba	817	1221	404	Raigarh	122	297	175	Dhamtari	401	482	81	Kanker	63	63	00	Simga	47	61	14	Rajim	62	112	50	GobraNavapara	66	81	15	Town and Country Planning has already provided the provision in rule 78 of Chhattisgarh Bhumi Vikas Niyam, 1984.	Completion of rain water harvesting system in remaining industries.	30 <sup>th</sup> June 2020
Progress by UAD		Target	In Progress																																									
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7.	Plantation in flood zone in available spaces.	Forest Department / Nagar Nigam, Korba, Raipur, Raigarh, concerned local bodies of Mahanadi Stretch	<p><b>Hasdeo:</b> 6.50 hectare (7150 no. of plants) has been covered with plantation in Korba to Uрга river Stretch of Hasdeo.</p> <p><b>Kharun:</b> 141.160 hectare (248602 no. of plants) has been covered with plantation in Kharun river stretches.</p>	Plantation in all 5 identified flood zone stretches.  Target achieved.	03 out of 05 stretches has been completed. 02 stretch Sihawa to Aarang and Bemta to Simga will be done in next	Next Monson Season  Nil																																						

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statues	Gap between current status and desired levels	Proposal of attending the gap with time lines																																	
			<p><b>Mahanadi:</b> 13 hectare (14300 no. of plants) has been covered with plantation in Sihawa to Aarang river stretch.</p> <p><b>Kelo:</b> 8.50 hectare (16388 no. of plants) has been covered with plantation in Raigarh to Kankatora river Stretch.</p> <p><b>Seonath:</b> Area not available for plantation between Bemta to Simga river stretch of Seonath.</p>	<p>Target achieved.</p> <p>Not applicable.</p>	<p>monsoon.</p> <p>No Gap.</p> <p>No Gap.</p> <p>No Gap.</p>	<p>Nil</p> <p>Nil</p>																																	
8.	Prohibition of disposal of municipal solid waste and plastic waste in river as well as in municipal drains and levy of fine in case found violation.	Nagar Nigam, Korba, Raipur, Raigarh, concerned local bodies of Mahanadi Stretch, Seonath Stretch	<table border="1"> <thead> <tr> <th colspan="3">Rivers and Storm water drains</th> </tr> <tr> <th>Name of ULB</th> <th>No. of cases registered</th> <th>Amount of Fines Collected (INR)</th> </tr> </thead> <tbody> <tr> <td>Raipur</td> <td>616</td> <td>1,63,180</td> </tr> <tr> <td>Korba</td> <td>103</td> <td>1,86,400</td> </tr> <tr> <td>Raigarh</td> <td>1648</td> <td>2,39,580</td> </tr> <tr> <td>Dhamtari</td> <td>100</td> <td>38,380</td> </tr> <tr> <td>Kanker</td> <td>87</td> <td>56,700</td> </tr> <tr> <td>Simga</td> <td>06</td> <td>1,400</td> </tr> <tr> <td>Rajim</td> <td>20</td> <td>1,490</td> </tr> <tr> <td>GobraNavapara</td> <td>81</td> <td>81,820</td> </tr> <tr> <td><b>Total</b></td> <td><b>2661</b></td> <td><b>7,68,950</b></td> </tr> </tbody> </table>	Rivers and Storm water drains			Name of ULB	No. of cases registered	Amount of Fines Collected (INR)	Raipur	616	1,63,180	Korba	103	1,86,400	Raigarh	1648	2,39,580	Dhamtari	100	38,380	Kanker	87	56,700	Simga	06	1,400	Rajim	20	1,490	GobraNavapara	81	81,820	<b>Total</b>	<b>2661</b>	<b>7,68,950</b>	Continuous	NA	NA
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<b>Total</b>	<b>2661</b>	<b>7,68,950</b>																																					
9.	Measurement of flow of river and records Maintained.	State Irrigation Department	Water resource department had prepared standard operating procedures (SOP) for the five rivers Seonath, Mahanadi, Kharun, Kelo and Hasdeo for maintaining e-flow in the rivers and the same is being followed.	There is no mandatory law specifying the level of e-flow to be maintained in the river. Water resource department is maintaining e-flow depending on the availability of water in the structure and conditional requirement.	NA	NA																																	
10.	Requirement of E-flow in the river must be	State Water Resource Department	Water resource department had prepared standard operating procedures (SOP) for the five rivers	There is no mandatory law specifying the	NA	NA																																	



Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statues	Gap between current status and desired levels	Proposal of attending the gap with time lines																				
	Maintained.		Seonath, Mahanadi, Kharun, Kelo and Hasdeo for maintaining e-flow in the rivers and the same is being followed.	level of e-flow to be maintained in the river. Water resource department is maintaining e-flow depending on the availability of water in the structure and conditional requirement.																						
11.	Collection of information on irrigation water used per hectare for different crops by Agriculture Department and evaluate whether use of Irrigation water per hectare has decreased or not? Based on the data obtained techniques like drip irrigation etc. should be promoted.	Agriculture Department	An action plan has been prepared with the help of Agricultural Scientists, the use of water per hectare will be reduced by installation of drip in 1606 ha and sprinkler in 3800 ha in selected river stretches.  Presently, 66.30 ha is covered by drip and 257.21 ha is covered by sprinkler system for different crops.	1606 ha by drip and 3800 ha by sprinkler is targeted to be covered.	1539 ha area for drip and 3542.79 ha area for sprinkler irrigation is yet to be covered.	The farmers are motivated for micro-irrigation and the target will be achieved by 2021.																				
12.	Identification of encroachment area along the banks of the river	Nagar Nigam, Korba, Raipur, Raigarh, concerned local bodies of Mahanadi Stretch, Seonath Stretch / District Administration	<table border="1"> <thead> <tr> <th>Area</th> <th>encroachment identified</th> </tr> </thead> <tbody> <tr> <td>Korba</td> <td>03</td> </tr> <tr> <td>Raipur</td> <td>08</td> </tr> <tr> <td>Dhamtari</td> <td>Nil</td> </tr> <tr> <td>Kanker</td> <td>01</td> </tr> <tr> <td>nawapara</td> <td>Nil</td> </tr> <tr> <td>Rajim</td> <td>Nil</td> </tr> <tr> <td>Simga</td> <td>04</td> </tr> <tr> <td>Raigarh</td> <td>14</td> </tr> <tr> <td><b>Total</b></td> <td><b>30</b></td> </tr> </tbody> </table>	Area	encroachment identified	Korba	03	Raipur	08	Dhamtari	Nil	Kanker	01	nawapara	Nil	Rajim	Nil	Simga	04	Raigarh	14	<b>Total</b>	<b>30</b>	Identification of all encroachment	Identification of all encroachment	31 <sup>st</sup> March 2020
Area	encroachment identified																									
Korba	03																									
Raipur	08																									
Dhamtari	Nil																									
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Raigarh	14																									
<b>Total</b>	<b>30</b>																									
13.	Removal of encroachment from banks of the river and	Nagar Nigam, Korba, Raipur, Raigarh, Birgaon, concerned local	<table border="1"> <thead> <tr> <th>Area</th> <th>encroachment removed</th> </tr> </thead> <tbody> <tr> <td>Korba</td> <td>03</td> </tr> </tbody> </table>	Area	encroachment removed	Korba	03	Removal of all encroachment followed by plantation	Removal of all encroachment	31 <sup>st</sup> March 2021																
Area	encroachment removed																									
Korba	03																									

Sr. No.	Action	Authority	Current Status		Desired level of compliance in terms of statues	Gap between current status and desired levels	Proposal of attending the gap with time lines
	taking appropriate action to prevent re-encroachment by plantation, development of bio-diversity parks etc.	bodies of Mahanadi Stretch, Seonath Stretch / District Administration	Raipur	-			
			Dhamtari	Nil			
			Kanker	01			
			nawapara	Nil			
			Rajim	Nil			
			Simga	Nil			
			Raigarh	Nil			
			<b>Total</b>	<b>04</b>			
14.	Performance guarantee is required to be furnished to CPCB for compliance of the Action Plan.	UAD	Submission of performance guarantee of Rs. 10 Crore as per Hon'ble NGT order dated 08.04.2019 for the 5-polluted river stretches in the Chhattisgarh State is under consideration of State Government.		Submission of Performance guarantee of Rs. 10 Crores to CPCB.	Submission of Performance guarantee of Rs. 10 Crores to CPCB.	31 <sup>st</sup> March 2020

#### 4. Domestic Sewage Management Plan:

The Hon'ble National Green Tribunal in the matter of O.A. 148/2016 '**Mahesh Chandra Saxena v. South Delhi Nagar Nigam**', vide order dated 27.11.2018, noted that the states have failed to utilize treated waste water from STPs because of which it is the fresh water which is being wasted for the purpose of which treated water can be used. Therefore, all the states are being directed to prepare and furnish the action plan for utilization of treated sewage water to CPCB. UAD vide letter dated 26.04.2019 submitted the said action plan to CPCB. Action plan is as follows:

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statuses	Gap between current status and desired levels	Proposal of attending the gap with time lines
1.	Set up a State Level Empowered Committee (SEC).	UAD	Formation of State level empowered committee (SEC) has been done on 23.08.2019.	Achieved	NA	NA
2.	Strengthening of existing Technical Cell (TC) of departments.	UAD	Capacity building of the stakeholders is being done by the Technical Cell of the department.	Achieved	NA	NA
3.	Preparation of City Waste Water Reuse and Recycle Plan (CWWRRP)	UAD	City Waste Water Reuse Action plan has been prepared by Bilaspur and Kawardha and submitted to CPCB on 26.04.2019 and revised action plan on 27.11.2019.	Partially Achieved	Action plan for cities in which STPs construction is in progress is yet to be prepared.	30 <sup>th</sup> June 2020

## 5. **Polluted Industrial Clusters Management Plan:**

In compliance of the matter in O.A. No. 1038/2018, '*News item published in "The Asian Age" Authored by Sanjay Kaw Titled "CPCB to rank industrial units on pollution levels"*' dated 10/07/2019. Central Pollution Control Board (CPCB) vide letter dated 25/10/2019 informed all State Pollution Control Boards (SPCBs) / Pollution Control Committee (PCCs) the protocol to be followed for improvement of environmental quality in the Critically Polluted Areas (CPAs) and Severally Polluted Areas (SPAs):-

The State Government / Union Territories / SPCBs / PCCs may finalize the time bound action plans within three months for the identified CPAs and SPAs to restore environment quality within norms. Short term and long term action points have to be formulated with time frames of up to one year and more than one year, as may be required, respectively.

The action plan may be prepared by a committee constituted by Chief Secretary, Representative of industries association may be included in the committee constituted. The final preparation of action plan including its execution may be overseen by the Chief Secretary of the concerned State. The same may shall be submitted to CPCB for consideration & approval.

While preparing action plans, the committee constituted by the Chief Secretary shall follow the direction, issued by CPCB under section 18(1) (b) of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, 1981 on 26/04/2016, which include (i) environmental quality monitoring in all CPAs, (ii) installation of continuous ambient air quality monitoring stations / Strengthening of manual monitoring stations (iii) installation of continuous water quality monitoring stations, (iv) application of revised CEPI version and (v) action plan & monitoring. Long term and short term action plans, along with sector and region wise action points, should be defined clearly with time line and responsible implementing agencies. Additionally, Source Apportionment Studies may be conducted to ascertain contribution from sources including industries for planning actions.

The progress of implementation of action points may be reviewed by District and State Level Monitoring Committees, quarterly. It would be ensure that there is no slippage either in terms of time frame or the activities to be completed relating to the action plan. In case of delay / inefficiency in implementation of action plan, the concerned State Government will take appropriate action against the responsible authorities, implementing agencies, industries, etc. under the provisions of relevant acts / laws.

The action plans prepared for the CPAs / SPAs, environmental quality monitoring data, evaluated CEPI scores (as per revised CEPI-2016 concept) and progress reports of committee meeting to be placed in public domain through their respective State Govts. / UTs / SPCBs / PCCs websites. CPCB may also review the progress of implementation of action plans of CPAs / SPAs on quarterly basis. In case CEPI scores of a particular CPA continue to be in critical category for a year, MoEF&CC may review the action plans with the concerned State Govt. / Union territory and impose additional safeguards such as revising the time limits for implementation of action points, supplementary

action points and may recommend penal action against the authorities responsible for implementation of action plan for environmental management of CPAs SPAs.

### **Polluted Industrial Clusters**

In the Chhattisgarh State, four polluted industrial clusters namely Raipur, Siltara, Korba and Bhilai have been identified by CPCB. Raipur and Siltara industrial clusters are placed in the category of Critically Polluted Area (CPA); whereas, Korba and Bhilai industrial clusters are placed in the category of Other Polluted Area (OPA).

### **Constitution of State Level Monitoring Committees**

In compliance to above direction a Committee has been constituted by Housing and Environment Department, Government of Chhattisgarh vide order dated 23/12/2019 consisting of various stake holders of State Government and representatives of industries association. The meetings of State Level Committee have held on 06/01/2020 and 29/02/2020. After incorporating the suggestions of State Level Committee the revised action plan has been prepared and sent to CPCB on 11.03.2020. The revised short, medium and long term action plan sent to CPCB is as follows:

### **ACTION PLAN FOR RAIPUR INDUSTRIAL AREA (CPA)**

SOURCE GROUP	ACTION	IMPLEMENTATION PERIOD (SHORT/MID/LONG TERM)	TIME TARGET FOR IMPLEMENTATION	RESPONSIBLE AGENCY	REMARK
<b>VEHICLES</b>	Restriction on using vehicles more than 15 years old in the industry premises.	Short	June 2020	Individual Industry	-
	Regular checking of vehicular emission and issue of Pollution under Control Certificate (PUC).	Short	May 2020	Transport Department and Police Department	-
	Periodic calibration test of vehicular emission monitoring instrument.	Short	June 2020	Transport Department	-
	Good traffic management including redirection of traffic movement to avoid traffic congestion.	Short	June 2020	Transport Department and Police Department	-
	Promotion and operationalization of E-rickshaw.	Short	June 2020	Transport Department and Urban Administration and	-

SOURCE GROUP	ACTION	IMPLEMENTATION PERIOD (SHORT/MID/LONG TERM)	TIME TARGET FOR IMPLEMENTATION	RESPONSIBLE AGENCY	REMARK
				Development	
	Monitoring on vehicle fitness.	Short	June 2020	Transport Department	-
	Checking of fuel adulteration.	Immediate	Immediate	Food and Civil Supply Department/Oil Companies	-
	Restriction on overloading of vehicles.	Immediate	Immediate	Transport Department	-
ROAD DUST	Identification of main roads in industrial cluster (Urla and Bhanpuri) and making pucca / concreted drain to drain	Long	March 2021	CSIDC	-
	Regular cleaning of road dust in the industrial cluster.	Short	June 2020	CSIDC/ CGPWD/Urban Administration and Development / NHAI / Panchayat and Rural Development Department	-
	Water spraying on roads through tankers in the industrial cluster.	Short	June 2020	CSIDC/ CGPWD/Urban Administration and Development / NHAI / Panchayat and Rural Development Department	-
	Maintenance of roads in the industrial cluster to avoid dust emission.	Short	July 2020	CSIDC/ CGPWD/Urban Administration and Development / NHAI / Panchayat and Rural Development Department	-
	Plantation / green belt development in open areas, gardens, parks / community places, schools & housing societies of the industrial cluster.	Short	Coming Monsoon	Concern Government Departments / Urban Administration and Development / Industrial Units / Panchayat and Rural Development Department / CECB	-
	Plantation / green belt development in open areas	Short	Coming Monsoon	CSIDC / Industrial Units / Rolling Mill Association /	-

SOURCE GROUP	ACTION	IMPLEMENTATION PERIOD (SHORT/MID/LONG TERM)	TIME TARGET FOR IMPLEMENTATION	RESPONSIBLE AGENCY	REMARK
	of Urla and Bhanpuri Industrial Area.			Mini Steel Plants Association	
	Introduction of water fountains / water mist / fogging system at major traffic intersection / circle.	Short	June 2020	Urban Administration and Development / CSIDC / Panchayat and Rural Development Department	-
CONSTRUCTION ACTIVITIES	Covering of construction site.	Short	June 2020	Urban Administration and Development / Town and Country Planning Department / CSIDC	-
	Transportation of construction materials like sand, soil, stone chips etc. in covered system.	Immediate	Immediate	Transport Department and Police Department	-
	Restriction on storage of construction materials along the road.	Short	May 2020	Urban Administration and Development / Town and Country Planning Department / CSIDC / Panchayat and Rural Development Department	-
BIOMASS AND GARBAGE BURNING	Restriction on open burning of municipal solid waste, Biomass, plastic horticulture waste etc.	Immediate	Immediate	Urban Administration and Development / CSIDC / Panchayat and Rural Development Department	-
	Transportation of Municipal Solid Wastes, construction materials and debris in covered system.	Immediate	Immediate	Urban Administration and Development / Panchayat and Rural Development Department	-
	Ensuring promotion and use of cleaner fuel for commercial purposes like local dhabas / eateries.	Short	June 2020	District Administration/Oil Companies	-
INDUSTRIES	Ensuring installation and effective operation of pollution control devices, ensuring emission standards in industries and taking stringent action against violating industries.	Immediate	Immediate	CECB	-

SOURCE GROUP	ACTION	IMPLEMENTATION PERIOD (SHORT/MID/LONG TERM)	TIME TARGET FOR IMPLEMENTATION	RESPONSIBLE AGENCY	REMARK
	Control of fugitive dust emission from industries. ➤ Assessment of installed bag filters by third party and up-gradation / modification of bag filter as per requirement in sponge iron plant, power plant and ferro alloys plant.	Short	August 2020	All Industries / CECB	-
	➤ Minimizing the height of raw materials / coal / solid wastes drop to the stockpile and ensuring water spray system.	Short	June 2020	All Industries / CECB	-
	➤ Use of water spray systems / dust suppression systems / chemical fog systems / rain guns in crusher, coal crusher ground hopper / screen, raw materials, fuel, solid wastes storage areas & yards and handling / conveying systems.	Short	September 2020	All Industries / CECB	-
	➤ Storage of solid wastes from pollution control systems like bag filter / scrubber in pucca and covered area and ensuring environmentally safe disposal of these wastes through transportation in covered vehicles.	Immediate	Immediate	All Industries / CECB	-
	➤ Ensuring transportation of iron ore, sponge iron, coal, fly ash, washed coal / reject coal in covered vehicle.	Immediate	Immediate	All Industries / CECB	-



SOURCE GROUP	ACTION	IMPLEMENTATION PERIOD (SHORT/MID/LONG TERM)	TIME TARGET FOR IMPLEMENTATION	RESPONSIBLE AGENCY	REMARK
	➤ Ensuring short time storage of solid waste within premises and regular disposal in environmentally safe manner.	Immediate	Immediate	All Industries / CECB	-
	➤ Ensuring properly maintained pucca internal roads. Ensuring regular cleaning of dust and water sprinkling on internal roads through fixed sprinklers / water tankers.	Short	June 2020	All Industries / CECB	-
	➤ Use of mechanized sweeping machine at integrated steel plants, sponge iron plants and power plants.	Short	August 2020	All Industries / CECB	-
	Increasing the height of all stacks attached to emission sources such as auxiliary process equipment / bag filter / scrubber to minimum 30 meter.	Short	August 2020	All Industries / CECB	-
	Ensuring use of all treated effluent within plant premises and no discharged outside the premises of any effluent. Ensuring no mixing of any treated / untreated effluent from industries in any nalla / kharun river.	Immediate	Immediate	All Industries / CECB	-
	Provisions of wind breaking wall, installation of rain gun, wheel washing arrangement, treatment of wash water and arrangement of CCTV cameras at coal / washed coal / reject coal handling and storage areas, entrance and exit gates in all coal washeries.	Short	August 2020	All Coal Washeries / CECB	-
	Ensuring proper collection and disposal of Municipal	Immediate	Immediate	Urban Administration and Development / All	-

SOURCE GROUP	ACTION	IMPLEMENTATION PERIOD (SHORT/MID/LONG TERM)	TIME TARGET FOR IMPLEMENTATION	RESPONSIBLE AGENCY	REMARK
	solid wastes as per MSW Rules, 2016 generated from industries through Local Bodies.			Industries / CECB	
	Prohibition of storage of solid wastes (such as Char, dolochar, ESP dust, fly ash etc.) storage area established and operating in and nearby industrial areas.	Short	August 2020	CECB	-
	Plantation in between the area of industry boundary (outside) and road.	Short	Coming Monsoon	All Industries / CSIDC	-
SEWAGE TREATMENT	Construction of four Sewage Treatment Plants to improve water quality of River Kharoon at (1) 75 MLD at Chandandih (near Atari Nala) (2) 35 MLD at Kara (near the confluence of Tendua Nala and Kharun River) (3) 90 MLD at Nimora (near the confluence of Chhokra Nala with Kharun River) and (4) 06 MLD at Bhatagaon	Long	March 2021	Urban Administration and Development	Status of construction of sewage treatment plants are as follows (1) 75 MLD at Chandandih – 25% completed (2) 35 MLD at Kara - 25% completed (3) 90 MLD at Nimora and – 30% completed (4) 06 MLD at Bhatagaon – 65% completed
	Cleaning of drains before monsoon.	Short	Before monsoon (June 2020)	NagarPalik Nigam, Raipur / NagarPalik Nigam, Birgaon	-
	Prohibition of disposal of municipal solid waste and plastic waste in river as well as in municipal drains and levy of fine in case found violation.	Immediate	Immediate	NagarPalik Nigam, Raipur / NagarPalik Nigam, Birgaon	-
STRENGTHENING OF MONITORING	Installation of two CAAQMS in industrial cluster area.	Short	May 2020	CECB / Industrial Units	-
	Installation of two CWQMS in Kharun River.	Short	May 2020	CECB / Industrial Units	-
	Measurement of flow of river and records maintained.	Immediate	Regularly	State Water Resource Department	-

SOURCE GROUP	ACTION	IMPLEMENTATION PERIOD (SHORT/MID/LONG TERM)	TIME TARGET FOR IMPLEMENTATION	RESPONSIBLE AGENCY	REMARK
	Requirement of E-flow in the river must be maintained.	-	As per requirement	State Water Resource Department	-
	Collection of information on irrigation water used per hectare for different crops by Agriculture Department and evaluate whether use of Irrigation water per hectare has decreased or not? Based on the data obtained techniques like drip irrigation etc. should be promoted.	Short	Regularly	Agriculture Department	-
PUBLIC AWARENESS	Issue of advisory to public for prevention and control of air pollution.	Immediate	-	CECB	Already in place.
	Involvement of school and other academic institution in awareness program.	Continuous	-	CECB	-
OTHERS	To ensure rain water harvesting by the industrial, commercial and other institutions to promote ground water recharging.	Short	June 2020	CSIDC / Town and Country Planning Department/ CECB / NagarPalik Nigam, Raipur / NagarPalik Nigam, Birgaon	-
	Plantation in flood zone in available spaces.	Short	Before monsoon (June 2020)	Forest Department / NagarPalik Nigam, Raipur / NagarPalik Nigam, Birgaon	-
	Providing web portal for redressal of public complaints.	Immediate	-	CECB	Already in place.
	Third Party Environmental quality monitoring for CEPI evaluation.	Short	Pre – Monsoon and Post – Monsoon season	CECB	-
	Carrying capacity study including source apportionment study	Long	March 2022	CECB	-

## **ACTION PLAN FOR SILTARA INDUSTRIAL AREA (CPA)**

SOURCE GROUP	ACTION	IMPLEMENTATION PERIOD (SHORT/MID/LONG TERM)	TIME TARGET FOR IMPLEMENTATION	RESPONSIBLES AGENCY	REMARK
<b>VEHICLES</b>	Restriction on using vehicles more than 15 years old in the industry premises.	Short	June 2020	Individual Industry	-
	Regular checking of vehicular emission and issue of Pollution under Control Certificate (PUC).	Short	May 2020	Transport Department and Police Department	-
	Periodic calibration test of vehicular emission monitoring instrument.	Short	June 2020	Transport Department	-
	Good traffic management including redirection of traffic movement to avoid traffic congestion.	Short	June 2020	Transport Department and Police Department	-
	Promotion and operationalization of E-rickshaw.	Short	June 2020	Transport Department and Urban Administration and Development	-
	Monitoring on vehicle fitness.	Short	June 2020	Transport Department	-
	Checking of fuel adulteration.	Immediate	Immediate	Food and Civil Supply Department/Oil Companies	-
	Restriction on overloading of vehicles.	Immediate	Immediate	Transport Department	-
<b>ROAD DUST</b>	Identification of main roads in Siltara Industrial Area (Phase – I and Phase - II) and making pucca / concreted drain to drain	Long	March 2021	CSIDC / Ispat Bhumi Limited	-
	Regular cleaning of road dust in the industrial cluster.	Short	June 2020	CSIDC/ CGPWD/Urban Administration and Development / NHAI / Panchayat and Rural Development Department / Ispat Bhumi Limited	-
	Water spraying on roads through tankers in the industrial cluster.	Short	June 2020	CSIDC/CGPWD/Urban Administration and Development / NHAI / Panchayat and Rural Development Department / Ispat Bhumi Limited	-
	Maintenance of roads in the industrial cluster to avoid dust emission.	Short	July 2020	CSIDC/CGPWD/Urban Administration and Development / NHAI / Panchayat and Rural	-

SOURCE GROUP	ACTION	IMPLEMENTATION PERIOD (SHORT/MID/LONG TERM)	TIME TARGET FOR IMPLEMENTATION	RESPONSIBLES AGENCY	REMARK
				Development Department / Ispat Bhumi Limited	
	Plantation / green belt development in open areas, gardens, parks / community places, schools & housing societies of the industrial cluster.	Short	Coming Monsoon	Concern Government Departments / Urban Administration and Development / Ispat Bhumi Limited/ Industrial Units / Panchayat and Rural Development Department / CECB	-
	Plantation / green belt development in open areas of Siltara Industrial Area.	Short	Coming Monsoon	CSIDC / Industrial Units / Sponge Iron Association / Ispat Bhumi Limited	-
	Introduction of water fountains / water mist / fogging system at major traffic intersection / circle.	Short	June 2020	Urban Administration and Development / CSIDC / Ispat Bhumi Limited /Panchayat and Rural Development Department	-
CONSTRUCTION ACTIVITIES	Covering of construction site.	Short	June 2020	Urban Administration and Development / Town and Country Planning Department / CSIDC	-
	Transportation of construction materials like sand, soil, stone chips etc. in covered system.	Immediate	Immediate	Transport Department and Police Department	-
	Restriction on storage of construction materials along the road.	Short	May 2020	Urban Administration and Development / Town and Country Planning Department / CSIDC / Panchayat and Rural Development Department	-
BIOMASS AND GARBAGE BURNING	Restriction on open burning of municipal solid waste, Biomass, plastic horticulture waste etc.	Immediate	Immediate	Urban Administration and Development / CSIDC / Panchayat and Rural Development Department	-
	Transportation of Municipal Solid Wastes, construction materials and debris in covered system.	Immediate	Immediate	Urban Administration and Development / Panchayat and Rural Development Department	-
	Ensuring promotion and use of cleaner fuel for commercial purposes like local dhabas / eateries.	Short	June 2020	District Administration/Oil Companies	-
INDUSTRIES	Ensuring installation and effective operation of pollution control devices, ensuring emission standards in industries and	Immediate	Immediate	CECB	-

SOURCE GROUP	ACTION	IMPLEMENTATION PERIOD (SHORT/ MID/LONG TERM)	TIME TARGET FOR IMPLEMENTATION	RESPONSIBLEs AGENCY	REMARK
	taking stringent action against violating industries.				
	Control of fugitive dust emission from industries. ➤ Assessment of installed bag filters by third party and up-gradation / modification of bag filter as per requirement in sponge iron plant, power plant and ferro alloys plant.	Short	August 2020	All Industries/ CECB	-
	➤ Minimizing the height of raw materials / coal / solid wastes drop to the stockpile and ensuring water spray system.	Short	June 2020	All Industries / CECB	-
	➤ Use of water spray systems / dust suppression systems / chemical fog systems / rain guns in crusher, coal crusher ground hopper / screen, raw materials, fuel, solid wastes storage areas & yards and handling / conveying systems.	Short	September 2020	All Industries / CECB	-
	➤ Storage of solid wastes from pollution control systems like bag filter / scrubber in pucca and covered area and ensuring environmentally safe disposal of these wastes through transportation in covered vehicles.	Immediate	Immediate	All Industries / CECB	-
	➤ Ensuring transportation of iron ore, sponge iron, coal, fly ash, washed coal / reject coal in covered vehicle.	Immediate	Immediate	All Industries / CECB	-

SOURCE GROUP	ACTION	IMPLEMENTATION PERIOD (SHORT/MID/LONG TERM)	TIME TARGET FOR IMPLEMENTATION	RESPONSIBLES AGENCY	REMARK
	➤ Ensuring short time storage of solid waste within premises and regular disposal in environmentally safe manner.	Immediate	Immediate	All Industries / CECB	-
	➤ Ensuring properly maintained pucca internal roads. Ensuring regular cleaning of dust and water sprinkling on internal roads through fixed sprinklers / water tankers.	Short	June 2020	All Industries / CECB	-
	➤ Use of mechanized sweeping machine at integrated steel plants, sponge iron plants and power plants.	Short	August 2020	All Industries / CECB	-
	Increasing the height of all stacks attached to emission sources such as auxiliary process equipment / bag filter / scrubber to minimum 30 meter.	Short	August 2020	All Industries / CECB	-
	Ensuring use of all treated effluent within plant premises and no discharged outside the premises of any effluent. Ensuring no mixing of any treated / untreated effluent from industries in any nalla / kharun river.	Immediate	Immediate	All Industries / CECB	-
	Provisions of wind breaking wall, installation of rain gun, wheel washing arrangement, treatment of wash water and arrangement of CCTV cameras at coal / washed coal / reject coal handling and storage areas, entrance and exit gates in all coal washeries.	Short	August 2020	All Coal Washeries / CECB	-

SOURCE GROUP	ACTION	IMPLEMENTATION PERIOD (SHORT/MID/LONG TERM)	TIME TARGET FOR IMPLEMENTATION	RESPONSIBLES AGENCY	REMARK
	Ensuring proper collection and disposal of Municipal solid wastes as per MSW Rules, 2016 generated from industries through Local Bodies.	Immediate	Immediate	Urban Administration and Development / All Industries / CECB	-
	Prohibition of storage of solid wastes (such as Char, dolochar, ESP dust, fly ash etc.) storage area established and operating in and nearby Siltara industrial area.	Short	August 2020	CECB	-
	Making pucca road / area at all entrance of Siltara Industrial Area from National Highway.	Short	October 2020	NHAI	-
	Plantation in between the area of industry boundary (outside) and road.	Short	Coming Monsoon	All Industries / CSIDC / Ispat Bhumi Limited	-
SEWAGE TREATMENT	Construction of four Sewage Treatment Plants to improve water quality of River Kharoon at (1) 75 MLD at Chandandih (near Atari Nala) (2) 35 MLD at Kara (near the confluence of Tendua Nala and Kharun River) (3) 90 MLD at Nimora (near the confluence of Chhokra Nala with Kharun River) and (4) 06 MLD at Bhatagaon	Long	March 2021	Urban Administration and Development	Status of construction of sewage treatment plants are as follows (1) 75 MLD at Chandandih – 25% completed (2) 35 MLD at Kara - 25% completed (3) 90 MLD at Nimora and – 30% completed (4) 06 MLD at Bhatagaon – 65% completed
	Cleaning of drains before monsoon.	Short	Before monsoon (June 2020)	Nagar Palik Nigam, Raipur / Nagar Palik Nigam, Birgaon	-
	Prohibition of disposal of municipal solid waste and plastic waste in river as well as in municipal drains and levy of fine in case found violation.	Immediate	Immediate	Nagar Palik Nigam, Raipur / Nagar Palik Nigam, Birgaon	-
STRENGTHENING OF MONITORING	Installation of two CAAQMS in industrial cluster area.	Short	May 2020	CECB / Industrial Units	-
	Installation of two CWQMS in Kharun River.	Short	May 2020	CECB / Industrial Units	-



SOURCE GROUP	ACTION	IMPLEMENTATION PERIOD (SHORT/MID/LONG TERM)	TIME TARGET FOR IMPLEMENTATION	RESPONSIBLES AGENCY	REMARK
	Measurement of flow of river and records maintained.	Immediate	Regularly	State Water Resource Department	-
	Requirement of E-flow in the river must be maintained.	-	As per requirement	State Water Resource Department	-
	Collection of information on irrigation water used per hectare for different crops by Agriculture Department and evaluate whether use of Irrigation water per hectare has decreased or not? Based on the data obtained techniques like drip irrigation etc. should be promoted.	Short	Regularly	Agriculture Department	-
PUBLIC AWARENESS	Issue of advisory to public for prevention and control of air pollution.	Immediate	-	CECB	Already in place.
	Involvement of school and other academic institution in awareness program.	Continuous	-	CECB	-
OTHERS	To ensure rain water harvesting by the industrial, commercial and other institutions to promote ground water recharging.	Short	June 2020	CSIDC / Town and Country Planning Department/ CECB / Nagar Palik Nigam, Raipur / Nagar Palik Nigam, Birgaon	-
	Plantation in flood zone in available spaces.	Short	Before monsoon (June 2020)	Forest Department / Nagar Palik Nigam, Raipur / Nagar Palik Nigam, Birgaon	-
	Providing web portal for redressal of public complaints.	Immediate	-	CECB	Already in place.
	Third Party Environmental quality monitoring for CEPI evaluation.	Short	Pre – Monsoon and Post – Monsoon season	CECB	-
	Carrying capacity study including source apportionment study.	Long	March 2022	CECB	-

## 6. Air Quality Management Plan:

CPCB, Delhi has identified 03 cities Raipur, Korba and Bhilai as non-attainment cities. Hon'ble NGT in its order in the OA No. 681/2018 ordered to prepare the action plan to improve the air quality in the non-attainment cities.

In this regard, State Government vide order dated 28.11.2018 constituted 'Air Quality Monitoring Committee' for the State of Chhattisgarh. The Air Quality Monitoring Committee, in its meeting dated 01.12.2018 approved the action plan for the non-attainment cities of Raipur, Korba and Bhilai. The action plan was submitted to CPCB, Delhi vide letter dated 06.12.2018. CPCB vide letter dated 12.02.2019 intimated about the approval of Raipur action plan and directed to revise the action plan of Korba and Bhilai incorporating the recommendations of three members committee. Accordingly, revised action plan has been sent to CPCB vide letter dated 15.03.2019. The quarterly progress report of Raipur, Bhilai and Korba has been sent to CPCB on 05.02.2020, in the format prescribed by CPCB.

The short, medium and long term action plans along with current latest status, desired level of compliance, gap between current status and desired level of compliance along with timeline for attending the gap for improvement of the air quality in the non-attainment cities Raipur, Korba and Bhilai are as follows:

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statuses	Gap between current status and desired levels	Proposal of attending the gap with time lines
1.	Restriction on plying and phasing out of 15 years old commercial diesel driven vehicles.	Transport Department	State government has laid down age limit for permit condition for buses (12 years) and trucks (15 years) under CG Motor Vehicle Rules 70A, which has been struck down by the Hon'ble High Court of Chhattisgarh in its order dated 26.07.2018 in WPC No. 2004/2017.  Permit is not being issued to auto rickshaws older than 10 years in Urban areas and 12 years in rural areas.	NA	NA	NA
2.	Regular checking of vehicular emission and issue of Pollution under Control Certificate (PUC).	Transport Department and Police Department	<b>Raipur:</b> 75 PUC Centres are currently operating in Raipur and Transport Department has taken action against 936 vehicles in the year 2019 and a total fine of Rs. 15,03,500/- has been collected in this regard.  <b>Bhilai:</b> 47 PUC Centres have been operating in Bhilai, 137 vehicles were found to be	<b>Raipur:</b> 150 PUC Centres  <b>Bhilai:</b> 130 PUC Centres	<b>Raipur:</b> 75 additional PUC Centres are required to be established.  <b>Bhilai:</b> 83 additional PUC Centres are	31 <sup>st</sup> October 2020

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statuses	Gap between current status and desired levels	Proposal of attending the gap with time lines
			<p>operating without PUC in the year 2019 and a total fine of Rs. 2,16,000/- has been collected in this regard.</p> <p><b>Korba:</b> 13 PUC centers are currently operating in Korba and 39 vehicles were checked for PUC certificate in the year 2019 and a total fine of Rs. 64,500/- has been collected in this regard.</p>	<p><b>Korba:</b> 28 PUC Centres</p>	<p>required to be established.</p> <p><b>Korba:</b> 15 additional PUC Centres are required to be established.</p>	
3.	Periodic calibration test of vehicular emission monitoring instrument.	Transport Department	<p>As per the guidelines issued by Govt. of India, Ministry of Road Transport and Highway, New Delhi Computerized pollution checking arrangement has been made from 01/04/2019. Planning of Computerized PUC centers and Centralized network is under process.</p> <p><b>Raipur:</b> Nil</p> <p><b>Bhilai:</b> There are 02 calibration kits available in the transport department. The Periodic calibration test of vehicular emission monitoring instrument of all the PUC centres were completed.</p> <p><b>Korba:</b> Nil</p>	<p><b>Raipur:</b> Period Calibration test needs to be done.</p> <p><b>Korba:</b> Period Calibration test needs to be done.</p>	<p><b>Raipur:</b> Period Calibration test needs to be done.</p> <p><b>Korba:</b> Period Calibration test needs to be done.</p>	31 <sup>st</sup> March 2020
4.	Good traffic management including redirection of traffic movement to avoid traffic congestion.	Transport Department and Police Department	<p><b>Raipur:</b> Vendor stalls and vehicles parked on road are being removed, diversion of road is done wherever necessary, traffic jam areas are monitored using ITMS cameras and regular patrolling is done areas of high congestion. Integrated Traffic Management System (ITMS) has been implemented by Raipur Smart City in co-ordination with Police and Transport Department. Challan is being</p>	<p><b>Raipur:</b> NA</p>	<p>NA</p>	31 <sup>st</sup> March 2020

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statuses	Gap between current status and desired levels	Proposal of attending the gap with time lines
			<p>generated automatically in case of violation of traffic rules in this system.</p> <p><b>Bhilai:</b> CSIDC has constructed 3.5 kms of concrete road in industrial area of hathkhoj, DPS chowk to Hudko railway chowk and JP cement Ltd to Supela has been converted to 4 lane, Globe chowk to DPS chowk and DPS chowk to Maitri Vidya Chowk has also been converted to 4-lane, 883 meter long railway flyover has been constructed, 592 meter long over-bridge has been constructed at Nehru Nagar Railway Crossing. For transportation of heavy vehicles of industries Bhilai Steel Plant, flyover in Sector 03 has been constructed. 2.8 km road from Potiya to Borsi has been widened.</p>	<b>Bhilai:</b> NA		
5.	Promotion and operationalization of E-rickshaw.	Transport Department and Urban administration and Development	<p><b>Raipur:</b> 1605 e-rickshaws and 223 E carts are currently plying in Raipur. Tax-exemption has been given for e-rickshaw registration.</p> <p><b>Bhilai:</b> 247 e-rickshaws and 21 E carts are currently plying in Durg. Tax-exemption has been given for e-rickshaw registration.</p> <p><b>Korba:</b> 35 e-rickshaws and 07 E carts are currently plying in Korba. Tax-exemption has been given for e-rickshaw registration.</p>	Continuous	<b>Bhilai:</b> 05 new e-rickshaw charging stations have also been identified which will be set-up.	31 <sup>st</sup> March 2020

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statuses	Gap between current status and desired levels	Proposal of attending the gap with time lines
6.	Monitoring on vehicle fitness.	Transport Department	<p><b>Raipur:</b> 43581 vehicles have been tested in the year 2019, out of which 54 vehicles were found unfit and fine of Rs. 98000/- was collected from them.</p> <p><b>Bhilai:</b> 19619 vehicles have been tested in the year 2019, out of which 91 vehicles were found unfit and fine of Rs. 183000/- was collected from them. Testing is done regularly.</p> <p><b>Korba:</b> 10001 vehicles have been tested in the year 2019, out of which 09 were found unfit and a total fine of Rs. 37000/- was collected from them.</p>	Continuous	NA	NA
7.	Checking of fuel adulteration.	Food and Civil Supply Department/Oil Companies	<p><b>Raipur:</b> Hindustan Petroleum Corporation Limited collected 963 samples in 2018 and 292 samples in 2019-20 which were found unadulterated. Food Department also collected 01 sample in 2018-19 which was found unadulterated.</p> <p><b>Bhilai:</b> 55 petrol/diesel fuel stations have been inspected since 2019 by food department and Oil companies and none were found adulterated.</p> <p><b>Korba:</b> 30 out of 66 petrol/diesel fuel stations have been inspected so far and none were found adulterated.</p>	Continuous	NA	NA
8.	Restriction on overloading of vehicles.	Transport Department	<p><b>Raipur:</b> Actions have been taken against 1046 vehicles for overloading in the year 2019 and a total penalty of Rs. 1,84,71,800/- have been</p>	Continuous	NA	NA

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statuses	Gap between current status and desired levels	Proposal of attending the gap with time lines
			<p>collected in this regard.</p> <p><b>Bhilai:</b> Actions have been taken against 618 vehicles for overloading in the year 2019 and a total penalty of Rs. 93,27,500/- have been collected in this regard.</p> <p><b>Korba:</b> Actions have been taken against 476 vehicles for overloading in the year 2019 and a total penalty of Rs. 58,03,000/- have been collected in this regard.</p>			
9.	Augmentation of public transport system	Transport Department / Nagar Nigam Korba, Bhilai / DM korba and Bhilai	Detail action plan is yet to be submitted by the concerned departments.	Action required as per action plan.	Action required as per action plan.	31 <sup>st</sup> March 2020
10.	Regular cleaning of road dust. 1. Washing of road 2. Mechanized road sweeping	Urban administration and Development	<p><b>Raipur:</b> Total Length of road in Nagar Palik Nigam, Raipur is 2274 Km out of which 1978 Km of Road has been cleaned since April 2019. Roads having width 30 ft. or less are cleaned twice a week. Heavy dust roads are washed from time to time. Water spraying is also done regularly with the help of 8 tankers.</p> <p><b>Bhilai:</b> Total Length of road in Nagar Palik Nigam, Bhilai is 1233 Km out of which 954 Km of Road has been cleaned since April 2019 with the help of 882 cleaning staff of Bhilai Nagar Nigam. Water spraying is also done regularly with the help of 8 tankers.</p> <p><b>Korba:</b> Total Length of road in Nagar Palik Nigam, Korba is 655 Km out of which 582 Km Road has been cleaned since April 2019. Frequency of Road Cleaning twice a day. 285 staff members are involved in road cleaning.01 Mechanized sweeping</p>	Mechanized sweeping needs to be strengthened in Raipur and Bhilai.	<p><b>Raipur:</b> Presently Nagar Palik Nigam, Raipur does not have the facility of mechanized sweeping. DPR has been prepared.</p> <p><b>Bhilai:</b> Presently Nagar Palik Nigam, Bhilai does not have the facility of mechanized sweeping. DPR is under Preparation.</p> <p><b>Korba:</b> DPR under preparation for additional mechanized sweeping machine.</p>	31 <sup>st</sup> March 2020

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statuses	Gap between current status and desired levels	Proposal of attending the gap with time lines
			machine is also used for road Cleaning. Water spraying is also done regularly with the help of 2 tankers.			
11.	Regular cleaning of road dust in industrial area.	CSIDC	<p><b>Raipur:</b> Pucca road (C.C. &amp;B.T.) in industrial area Urla, Bhanpuri, Rawabhata and Siltara. Mechanised cleaning of road is done in the industrial area.</p> <p><b>Bhilai:</b> Regular cleaning of roads and water spraying through tankers is being done by CSIDC for the roads in industrial areas (Heavy Industrial Area, Hathkhoj, Light Industrial Area, Industrial Estate and Engineering Park) of Durg District. 05 km CC road and 35 km BT road has been constructed in Industrial Cluster Bhilai.</p> <p><b>Korba:</b> 02 Water Tanker are being used for water spraying on road in the industrial areas.</p>	Continuous	NA	NA
12.	Water spraying on roads through tankers.	Urban administration and Development / CSIDC	<p><b>Raipur:</b> Timely cleaning and washing of roads is being done in the roads under ULBs as well as Industrial Areas Urla, Bhanpuri, Rawabhata and Metal park, Raipur.</p> <p><b>Bhilai:</b> Water spraying work is being done every day using 08 water-tankers. Additional 04 water-tankers are proposed by CSIDC.</p> <p><b>Korba:</b> 02 Water Tanker are being used for water spraying on road in the industrial areas.</p>	Continuous	NA	NA
13.	Maintenance of roads to avoid dust emission.	CGPWD/Urban administration and	<p><b>Raipur:</b> Repairing of damages and black topping of roads is done from time to time. 15</p>	Continuous	NA	NA

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statuses	Gap between current status and desired levels	Proposal of attending the gap with time lines
		Development/N HAI/ CSIDC	<p>km of CC pucca road and 05 km of BT pucca road has been made in the industrial area of Urla, Bhanpuri and Rawabhata and 25.6 km of CC pucca road and 11.2 km of BT pucca road has been made in Siltara Industrial Area. Apart from this drain to drain Paver block has also been made.</p> <p><b>Bhilai:</b> BSP management has black topped all roads within their area. Bhilai Nagar Nigam has black topped 1784 kms of road within their area. Bhilai Nagar Nigam has black topped 22 major roads in Nov-Dec 2018 within their area. 0.5 km of CC road and 35 km BT road has been constructed in Industrial Cluster Bhilai.</p> <p><b>Korba:</b> Total 1745 sq. mt. of road patches has been repaired since April 2019.</p>			
14.	Development of green belt in open areas, gardens, parks/ community places, schools & housing societies.	CECB/Concern Government Department/ Urban administration and Development	<p><b>Raipur:</b> 10000 trees has been planted in public places, gardens, open areas, school and housing societies. 40,000 plants have been planted in the industrial cluster of Urla - Bhanpuri-Rawabhata-Metal park and 55,000 plants in Siltara industrial area. 21,871 plants have been planted by forest department in 13.7 hectare of industrial area.</p> <p><b>Bhilai:</b> With the help of Chhattisgarh Van Vikas Nigam, BSP management has planted 100000 nos. of saplings in their area. The plantation work of average 3000 plants per year is being done continuously by the Horticulture Department of BSP. BSP has established</p>	NA	<p><b>Raipur:</b> Plantation will be done by Nagar Palik Nigam Raipur in the Coming monsoon.</p> <p><b>Bhilai:</b> 04 greenbelts are approved in industrial area. Collector, Durg has provided total two plots (1.69 hectares and 0.40 hectares area respectively) to</p>	Coming Monsoon 2020 for Raipur, Korba and Bhilai.



Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statuses	Gap between current status and desired levels	Proposal of attending the gap with time lines
			<p>Maitri garden in 41.67 hectares area and Jawahar Nehru garden in 24 acres area in Bhilai city. Bhilai Nagar Nigam has developed gardens in 62 places. Industrial units have planted approx. 20000 nos. of plants in the industrial area of Bhilai under Hariyali scheme.</p> <p><b>Korba:</b> 37 Green spaces have been identified in urban area and 10,000 plants have been planted by forest department in Hasdeo Thermal Power Plant (Korba West).</p>		<p>Forest Department in Hathkhaj industrial area for development of 02 greenbelts. Total 2299 nos. of plants are proposed to be planted in these greenbelts.</p> <p><b>Korba:</b> Total No. of Plant to be planted in identified green spaces is 22000 and the estimated cost of plantation is 1.55 Crore.</p>	
15.	Introduction of water fountains at major traffic intersection / circle.	Urban administration and Development	<p><b>Raipur:</b> There are 77 major traffic intersections in Raipur, out of which Fountain has already been installed at 04 intersections.</p> <p><b>Bhilai:</b> There are 53 major traffic intersections in Bhilai, out of which Fountain has already been installed at 38 intersections.</p> <p><b>Korba:</b> There are 30 major traffic intersections in korba, out of which Fountain has already been installed at 06 intersections.</p>	NA	<p><b>Raipur:</b> Installation of fountain at 05 other traffic intersections.</p> <p><b>Bhilai:</b> Nagar Nigam, Bhilai has planned to install 03 more fountains.</p> <p><b>Korba:</b> Installation of fountain at 24 other traffic intersections.</p>	31 <sup>st</sup> March 2020
16.	Covering of construction site.	Urban administration and Development / Town and Country Planning Department	<p><b>Raipur:</b> 18 uncovered construction sites have been identified and have been issued notice, while 66 sites have been found to be covered.</p> <p><b>Bhilai:</b> 312 uncovered construction sites have been identified and have been issued notice, while 306 sites have been found to be</p>	Continuous	NA	NA

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statuses	Gap between current status and desired levels	Proposal of attending the gap with time lines
			<p>covered. Penalty of Rs. 3,07,000/- has been recovered from total 42 cases for storage of unauthorized C&amp;D waste along roadside since January 2019.</p> <p><b>Korba:</b> 391 uncovered construction sites have been identified and have been issued notice, while 298 sites have been found to be covered.</p>			
17.	Transportation of construction materials like sand, soil, stone chips etc. in covered system.	Transport Department and Police Department	Construction materials like sand, soil, stone chips etc. is transported in covered vehicle.	Continuous	NA	NA
18.	Restriction on storage of construction materials along the road.	Urban administration and Development	<p><b>Raipur:</b> 982 cases have been registered and fine to the tune of Rs. 45.19 lakhs have been collected in the last 03 months.</p> <p><b>Bhilai:</b> Fine to the tune of Rs. 4.55 lacs have been collected in the last 03 months.</p> <p><b>Korba:</b> 45 cases have been registered and fine to the tune of Rs. 30950/- have been collected in the last 03 months.</p>	Continuous	NA	NA
19.	Restriction on open burning of municipal solid waste, Biomass, plastic, horticulture waste etc.	Urban administration and Development	<p><b>Bhilai:</b> Flying squad has been constituted by Nagar Nigam, Bhilai which monitor the littering and burning of solid waste regularly and 32 cases of open burning has been registered and a fine to the tune of Rs. 53,610/- has been collected so far.</p> <p><b>Korba:</b> 28 cases of open burning has been registered and a fine to the tune of Rs. 8800/- has been collected so far.</p>	Continuous	NA	NA

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statuses	Gap between current status and desired levels	Proposal of attending the gap with time lines
20.	Transportation of Municipal Solid Wastes, construction materials and debris in covered system.	Urban administration and Development	Transportation in all 03 cities is done in covered vehicles.	Continuous	NA	NA
21.	Ensuring promotion and use of cleaner fuel for commercial purposes like local dhabas/eateries.	District Administration/ Oil Companies	<p><b>Raipur:</b> Local dhabas/eateries are inspected by food department from time to time.</p> <p><b>Bhilai:</b> Commissioner Nagar Nigam, Bhilai has organized a meeting of all hotels and dhabas on 23/03/2019 and advised not to use coal, wood etc. as fuel. Use of LPG should be encouraged. Publicity in this regard is being done in the city.</p>	Continuous	NA	NA
22.	CSPGCL, Korba (East) Up-gradation of air pollution control equipments to bring emission to 50 mg/NM <sup>3</sup> .	CSPGCL, Korba (East)	Bank guarantee has been obtained by CECB from CSPGCL to reduce the stack emission of particulate matter from 150 milligram/Nm <sup>3</sup> to 50 milligram/Nm <sup>3</sup> and the same will be forfeited in case CSPGCL is unable to upgrade the ESP within prescribed timeline. Actions are being taken to reduce stack emission like Injection of anhydrous ammonia at the inlet of ESPs, installation of rectifier transfer set.	Up-gradation of air pollution control equipments to bring emission to 50 mg/NM <sup>3</sup>	Up-gradation of ESP	31 <sup>st</sup> December 2020
23.	CSPGCL, Korba (West) Up-gradation of air pollution control equipments to bring emission to 50 mg/NM <sup>3</sup> .	CSPGCL, Korba (West)	<p>Erection of ESP has been completed in 4 out of 9 units and is in progress in rest of the units.</p> <p>Bank guarantee has been obtained by CECB from CSPGCL to reduce the stack emission of particulate matter from 150 milligram/Nm<sup>3</sup> to 50 milligram/Nm<sup>3</sup>, and the same</p>	Up-gradation of air pollution control equipments to bring emission to 50 mg/NM <sup>3</sup>	Up-gradation of ESP	31 <sup>st</sup> December 2020

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statuses	Gap between current status and desired levels	Proposal of attending the gap with time lines
			will be forfeited in case CSPGCL is unable to upgrade the ESP within prescribed timeline.			
24.	Control of fugitive emission in Gevra Open Cast Mine by use of mechanized sweeping machine, long range fogging machine.	SECL, Gevra (Korba)	Mechanized sweeping machine has been received in august 2019 and commissioned. Long range fogging machine is being used from April 2019. Installation of Inpit conveying system has already been completed on 08.11.2018. Loading of coal through Junadih siding has already been completed on 24.10.2018. Coal loading through silo has already been taking place since 24.11.2018 and this year 2019-20, 62750 saplings have been planted over an area of 25 Ha. including 1000 nos. Sal Species.	Continuous	NA	NA
25.	Control of fugitive emission in Dipka Open Cast Mine by use of mechanized sweeping machine, long range fogging machine.	SECL, Dipka (Korba)	Mechanized sweeping machine has been commissioned since August 2019 and long range fogging machine is in use from April 2019. Installation of Inpit conveying system has already been completed. Foundation and Rails for WBS has been erected at Railway Siding and procurement of GI Sheet are underway, Coal loading through silo has already been taking place and plantation target of 1.5 lakhs for 2019-20 has been achieved on 07-09-2019.	-	Installation of wind shield on Railway siding is pending.	31 <sup>st</sup> March 2020
26.	Control of fugitive emission in Kusmunda Open Cast Mine by use of long range fogging machine.	SECL Kusmunda (Korba)	Long range fogging machine has been installed and is in operation.	Achieved	NA	NA
27.	Construction of four number SILO	SECL Kusmunda (Korba)	Construction of SILO is in progress as per schedule, as	Construction of four number SILO with	Remaining construction of	31 <sup>st</sup> December 2021

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statuses	Gap between current status and desired levels	Proposal of attending the gap with time lines
	with rapid loading system along with new railway siding and plantation in the designated area.		of today- 62% of the work has been completed and targeted plantation completed on 14.08.2019 (70000 nos. of saplings planted).	rapid loading system along with new railway siding and installation of Inpit conveying system.	SILO is pending along with new railway siding and Installation of Inpit conveying system.	
28.	Maintenance of existing ash dykes to prevent spreading of ash in nearby areas by keeping dyke wet, by covering it with soil etc.	All Power Plant	It is being maintained regularly.	Continuous	NA	NA
29.	Ensuring installation and operation of air pollution control devices in industries and taking action against defaulting industries.	CECB	<p><b>Raipur:</b> All industries have installed necessary air pollution control arrangements and regular operation is being ensured.</p> <p><b>Bhilai:</b> All industries have installed necessary air pollution control arrangements and regular operation is being ensured.</p> <p><b>Korba:</b> All industries have installed necessary air pollution control arrangements and regular operation is being ensured. ESP augmentation and retrofitting work is in progress in CSPGCL East &amp; West, Korba.</p>	<p>Action against defaulting industries is taken as and when required.</p> <p>In CSPGCL East &amp; West, Korba. Emission levels from stacks yet to be achieved.</p>	<p>Continuous</p> <p>Augmentation of ESP in CSPGCL East &amp; West, Korba is being carried out in all unit.</p>	<p>NA</p> <p>31<sup>st</sup> December 2020</p>
30.	Up gradation of existing air pollution system by installation of ESP in sinter plant no. II	Bhilai Steel Plant	Order has been placed for ESP.	-	Work in progress	29 <sup>th</sup> February 2020
31.	Up-gradation of ESP in sinter plant no. III	Bhilai Steel Plant	Civil structural works have been completed.	-	Work in progress	31 <sup>st</sup> October 2020
32.	De-fuming system installation in cast house of Blast Furnace 7	Bhilai Steel Plant	Supply of all major equipments completed. ESP installation job completed. Erection of chimney in	-	Ducting jobs along the railway track & erection of manipulator in cast house are pending.	30 <sup>th</sup> June 2020

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statuses	Gap between current status and desired levels	Proposal of attending the gap with time lines
			progress. Ducting job in progress.			
33.	Installation of bag filters in refractory material plant no. 2.	Bhilai Steel Plant	Pile testing completed. Foundation of bag filter is completed. Pilling work completed for chimney. Foundation of MCC room completed.	-	Work in progress.	31 <sup>st</sup> October 2020
34.	Ensuring emission standards in industries.	CECB	<b>Raipur:</b> CECB has issued Standard Operating Procedure (SoP) for 17 types of highly polluting industries and rolling mills to ensure emission standards. <b>Bhilai:</b> It's being regularly monitored. <b>Korba:</b> It's being regularly monitored.	Continuous	NA	NA
35.	Installation of CAAQMS	CPCB	<b>Raipur:</b> Stations identified for installation of CAAQMS stations at RDA Building, New Rejendra Nagar and Indoor Stadium near Buda Talab in Raipur. Supply of instruments awaited from CPCB. <b>Bhilai:</b> 01 CAAQMS is operational at Civic Center by Bhilai Steel Plant. RFP has been floated for 2 additional CAAQMS stations. Proposals have been obtained, which are under evaluation. <b>Korba:</b> 02 CAAQMS are operational at Indra Complex, Jamnipali and Balco Parisar, Balco nagar by M/s NTPC and BALCO respectively.	CAAQMS stations to be installed.	CAAQMS stations to be installed.	31 <sup>st</sup> March 2020
36.	In Raipur installation of six additional Ambient Air Quality Monitoring Stations under NAMP.	CECB	04 Ambient Air Quality Monitoring Stations has been installed and operating at : 1. Zone Office, Zone no. 1, Nagar Palik Nigam, Khamtarai, Raipur 2. AIIMS Campus, G.E. Road, Tatibandh, Raipur 3. Nagar Palik Nigam, Water Treatment Plant,	02 NAMP Stations to be installed.	02 NAMP Stations to be installed.	31 <sup>st</sup> March 2020

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statuses	Gap between current status and desired levels	Proposal of attending the gap with time lines
			Bhatagaon, Raipur 4. District Hospital, Pandari, Raipur Installation of remaining 02 Ambient Air Quality Monitoring Station is under process.			
37.	Issue of advisory to public for prevention and control of air pollution.	CECB	Advisory has been uploaded on the website of CECB.	Achieved	NA	NA
38.	Involvement of school and other academic institution in awareness program.	CECB	Eco-clubs have already been formed in schools for awareness program. CECB also organize awareness programmes during occasions like World Environment day, Earth Day, Ozone Day etc.	Continuous	NA	NA
39.	Develop interactive public grievance redressal portals on the pattern of CPCB portal "Sameer"	CECB	Web-portal for redressal of public complaint has been uploaded on the website of CECB	Achieved	NA	NA
40.	Conduct Source apportionment study and carrying capacity assessment	CECB / CPCB	Carrying capacity study of Raipur and Korba region has been completed. Order has been issued to IIT Kanpur for Source Apportionment Study of Bhilai region. Agreement has been signed with IIT Kanpur in this regard and work order has been issued.	Source Apportionment Study of Raipur, Korba & Bhilai.	Source Apportionment Study of Bhilai region is under progress.	31 <sup>st</sup> March 2021
41.	Noise Limiters need to be installed on potential noise polluting devices, including retrofitting the existing devices	Housing and Environment Department	Notification in this regard has been issued by State Government on dated 04.11.2019. No operation of sound devices without installation of noise limiter.	Continuous	NA	NA

**7. Mining Activity Management plan:**

Hon'ble National Green Tribunal, Principal Bench, New Delhi, and in the matter of ***Sudarshan Das v. State of W.B.***, OA 173/2018, vide order dated 04/09/2018 has highlighted the issue of large scale unchecked and illegal mechanized sand mining in certain states of India, accordingly certain directions were issued to Mining Department for compliance of 'Sustainable Sand Mining and Management Guidelines 2016' and other issues. The compliance of directions issued by Hon'ble National Green Tribunal, Principal Bench, New Delhi along desired level of compliance, gap between current status and desired level of compliance along with timeline for attending the gap is as follows:

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statuses	Gap between current status and desired levels	Proposal of attending the gap with time lines
1.	Mining Department to ensure that the Project Proponent is guaranteeing that the security features of Transport Permission viz. (a) Printed on Indian Bank Association (IBA) approved Magnetic Ink Character Recognition Code (MICR) paper; (c) Unique Barcode; (d) Unique Quick Response Code (QR); (e) Fugitive Ink Background; (f) Invisible Ink Mark; (g) Void Pantograph; (h) Watermark	Department of Mining.	At present transit pass issued by the Mining Department for transportation of sand is printed by the Government Press, Rajnandgaon.	The Chhattisgarh Mineral Resources Department is developing a web-based Khanij Online system for mineral administration. The security measures like bar-coded e transit pass will be issued once the system goes live.	Concerned Mining Authority will ensure the desired compliance through the Project Proponent, as soon as the Portal Development and Integration for Minor Minerals is completed.	31 <sup>st</sup> December 2020
2.	Mining Department to ensure that the Project Proponent is guaranteeing that the CCTV camera, Personal Computer (PC), Internet Connection, Power Back up, access control of mine lease site; and arrangement for weight or approximation of weight of mined out mineral on basis of volume of the trailer of vehicle used at mine lease site are available.	Department of Mining.	The royalty rate of sand in CHHATTISGARH is in <b>cubic meters</b> . Hence approximation of weight of mined out mineral on the basis of volume of the vehicle used for transportation is the current practice in Chhattisgarh.	Compliance regarding approximation of weight of mined out mineral on basis of volume of the trailer of vehicle used at mine lease site is already being followed.	Installation of CCTV camera will be ensured through the Project Proponent.	31 <sup>st</sup> December 2020



Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statues	Gap between current status and desired levels	Proposal of attending the gap with time lines
3.	Mining Department to ensure that the Project Proponent is guaranteeing Scanning of Transport Permit or Receipt and uploading the same on the on Server.	Department of Mining.	Currently the transit pass printed by the Govt. Press is issued in two copies, one for transporting vehicle and the second carbon copy for submitting to concerning District Mining Officer for further issuance of transit pass hence scanning of transit pass is not required.	In future, the Project Proponent registered in Khanij Online will have an exhaustive MIS of all details incorporated in e-TP, available in MS Excel and PDF format for ready reference.	Integration is under process.	31 <sup>st</sup> December 2020
4.	The Mining Department should print the Transport Permits/Receipt with security features enumerated at item (1) above and issue them to the mine lease holder through the District Collector. Once these Transport Permits or Receipts are issued, they would be uploaded on the server against that mine lease area. Each receipt should be preferably with pre-fixed quantity, so the total quantity gets determined for the receipts issued. When the Transport Permit or Receipt barcode gets scanned and invoice is generated, the particular barcode gets used and its validity time is recorded on the server. So all the details of transporting of mined out material can be captured on the server and the Transport Permit or Receipt cannot be	Department of Mining.	The transit pass for transportation of the excavated sand is printed by the authorized Government Press, on paper approved by Chhattisgarh Government. Such printed transit passes are then issued by the concerning District Collectorate, Mining Branch.  Currently the transit pass printed by the Govt. Press is issued in two copies, one for transporting vehicle and the second carbon copy for submitting to concerning District Mining Officer for further issuance of transit pass.  The transit passes issued in the state are based on Advance Royalty payment. For this, mined out material is calculated by the details of the second copy of the	Mineral Resources Department, Chhattisgarh is developing a web-based Khanij Online system for mineral administration. The security measures like bar-coded e transit pass will be issued once the system goes live for Minor Minerals.	Portal Development and Integration for Minor Minerals.	31 <sup>st</sup> December 2020

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statues	Gap between current status and desired levels	Proposal of attending the gap with time lines
	reused.		used Transit Passes (cannot be reused) and relevant adjustments in payment are made before issuing transit passes again.			
5.	To ensure that the staff deployed for the purpose of checking of vehicles carrying mined mineral should be in a position to check the validity of Transport Permit or Receipt by scanning them using website, Android Application and SMS.	Department of Mining.	At present Double carbon printed copies of the Transit Passes are checked by the field staff and members of Flying Squad. In cases where the Transit Passes are tempered in anyways viz, cutting or overwriting, the vehicles are seized for Illegal Mining/Transportation. However, the State would like to submit that for effective monitoring of Sand Mines, amply equipped Modernized Check Posts and Departmental Monitoring Units with new <b>Departmental</b> Officers/Inspectors and new <b>Departmental</b> technical staff at all levels is needed.	Use of mobile application for verification of e-transit passes will be incorporated in the web-based Khanij Online Portal for ease of monitoring.	Integration is under process.	31 <sup>st</sup> December 2020
6.	To ensure that in case the Vehicle breakdown, the validity of Transport Permit or Receipt shall be extended by sending SMS by driver in specific format to report breakdown of vehicle. The server will register this information and	Department of Mining.	Currently no such guideline or system is in practice in CHHATTISGARH.	Will be incorporated once the system goes online as the system already has features like vehicle breakdown module and a 24/7 Helpdesk.	Integration is under process.	31 <sup>st</sup> December 2020

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statuses	Gap between current status and desired levels	Proposal of attending the gap with time lines
	<p>register the breakdown. The State can also establish a call centre, which can register breakdowns of such vehicles and extend the validity period. The subsequent restart of the vehicle also should be similarly reported to the server/call centre.</p>					
7.	<p>To ensure that the route of vehicle from source to destination should be tracked through the system using check points, Radio-frequency identification (RFID) Tags, and Global Positioning System (GPS) tracking.</p>	<p>Department of Mining</p>	<p>Currently, source, destination and the route are already there in the transit pass. The same can be checked in the Mining Check Posts of the way. In case the vehicle is found to be diverted, it is treated as a case of illegal transportation. It is also submitted that sand being one of the basic needs for development the lessee is free to sell anywhere.</p>	<p>Will be incorporated once the GPS Monitoring System is finalized and is integrated with Khanij Online.</p>	<p>Integration is under process.</p>	<p>31<sup>st</sup> December 2020</p>
8.	<p>Mining Department to develop periodic report on different parameters like daily lifting report, vehicle log/history, lifting against allocation, and total lifting and to block the scanning facility of any site found to be indulged in irregularity.</p>	<p>Department of Mining</p>	<p>As per rule, lessee is required to submit monthly, 6-monthly and annual returns in prescribed format.</p>	<p>In future, the project proponent registered in Khanij Online will have an exhaustive MIS of all details incorporated in e-TP, available in MS Excel and PDF format for ready reference and investigation.</p>	<p>Integration is under process.</p>	<p>31<sup>st</sup> December 2020</p>
9.	<p>To intercepts any vehicle transporting illegal sand, and get it registered on the server and the officer to mandatorily fill in the report on action taken. Every intercepted vehicle should be</p>	<p>Department of Mining</p>	<p>As per MMDR, 1957 Act 21, cases of Illegal Mining and Transportation are registered.</p>	<p>Will be incorporated once the system goes online as the system will have features like various reports under grievances, GPS tracking etc.</p>	<p>Integration is under process.</p>	<p>31<sup>st</sup> December 2020</p>

Sr. No.	Action	Authority	Current Status	Desired level of compliance in terms of statues	Gap between current status and desired levels	Proposal of attending the gap with time lines
	tracked.					
10.	To ensure that Demarcation of mining area with pillars and geo-referencing is done prior to start of mining.	Department of Mining	The geo-referenced coordinates are fixed before the NIT of a sand mine area is published.	Achieved (Continuous)	NA	NA
11.	To ensure Mining depth is restricted to 03 meter and distance from the bank is 03 meter or 10 percent of the river width whichever less.	Department of Mining.	Are already being followed as per EC guidelines.	Achieved (Continuous)	NA	NA
12.	Compliance of <b>'Sustainable Sand Mining and Management Guidelines 2016'</b> , particularly in view of the points highlighted in Para 15 of the aforesaid order.	Department of Mining.	<b>'Sustainable Sand Mining and Management Guidelines 2016'</b> and EC conditions are being followed.	Achieved (Continuous)	NA	NA

## 8. Noise Pollution Management Plan:

The action plan along with current latest status, desired level of compliance, gap between current status and desired level of compliance along with timeline for attending the gap for improvement of the air quality in the non-attainment cities Raipur, Korba and Bilai are as follows:-

Sr. No.	Content	Current Status	Desirable	Gap	Time Line
1.	Hon'ble NGT, in the matter of O.A 681/2018 vide order dated 15.03.2019.	CECB has asked IIT Kharagpur, NIT Raipur etc. to submit proposal for detailed noise mapping, identification of hot spot etc. in Raipur city. Proposal is still awaited.	Noise mapping, identification of hot spots.	Noise mapping, identification of hot spots.	31 <sup>st</sup> May 2020
2.	No. of Stations for Ambient Noise Monitoring	CECB undertakes sound monitoring during Diwali festival every year and submits report to CPCB.	Permanent Ambient Noise Monitoring Stations are yet to be fixed.	Permanent Ambient Noise Monitoring Stations are yet to be fixed.	31 <sup>st</sup> May 2020
3.	No. of Stations in Industrial Zone	After noise mapping and identification of hot spots, no. of stations for monitoring will be decided.	Installation of stations for monitoring.	Installation of stations for monitoring.	31 <sup>st</sup> May 2020
4.	No. of Station in Commercial Zone	-do-	-do-	-do-	31 <sup>st</sup> May 2020
5.	No. of Station in Residential Zone	-do-	-do-	-do-	31 <sup>st</sup> May 2020
6.	No. of Station in Silence Zone	-do-	-do-	-do-	31 <sup>st</sup> May 2020
7.	Compliance of Ambient Standards (No. of Station) Industrial Zone Residential Commercial Zone Residential Zone	-do-	-do-	-do-	31 <sup>st</sup> May 2020
8.	Identification of Hot Spots	CECB has asked IIT Kharagpur, NIT Raipur etc. to submit proposal for detailed noise mapping, identification of hot spot etc. in Raipur city. Proposal is still awaited.	Noise mapping, identification of hot spots.	Noise mapping, identification of hot spots.	31 <sup>st</sup> May 2020
9.	Designated Authorities defined as per Noise Rules (Y/N) (Details to be provide)	-	-	-	-
10.	Has Methodology been prepared for granting permission for installation of public Address System ? (Y/N) (Details to be provide)	-	-	-	-
11.	Has Methodology been prepared for redressal of complaint on noise pollution ? (Y/N) (Details to be provide)	-	-	-	-

Sr. No.	Content	Current Status	Desirable	Gap	Time Line
12.	No. of Police Stations equipped with sound level meter	CECB has distributed total 648 nos. of sound level meters to all 27 districts Superintendent of Police (24 nos. of sound level meters for each districts). 301 Police Stations are equipped with sound level meter presently.	452	151	30 <sup>th</sup> April 2020
13.	No. of Police Station having officers trained as per Noise pollution Rules by SPCBs/PCs.	134	452	318	30 <sup>th</sup> April 2020
14.	Has Protocol been developed for taking appropriate action against the defaulters ?	Yet to be submitted by Department of Home.	Development of protocol for taking appropriate action against the defaulters.	Development of protocol for taking appropriate action against the defaulters.	30 <sup>th</sup> April 2020
15.	No. of cities in which Noise Mapping has been done (if applicable)	CECB has asked IIT Kharagpur, NIT Raipur etc. to submit proposal for detailed noise mapping, identification of hot spot etc. in Raipur city. Proposal is still awaited.	Noise mapping, identification of hot spots.	Noise mapping, identification of hot spots.	31 <sup>st</sup> May 2020