BEFORE THE NATIONAL GREEN TRIBUNAL
CENTRAL ZONE BENCH, BHOPAL
Original Application No. 175/2025 (CZ)

IN THE MATTER OF:

News Item Titled Raipur Bhilai Va Korba Ki Hawa Kharab Panch Shal Me Do Sho Carod Karch Phirb Bhi Nahi Sudhari" Appearing in Dainik Bhaskar Raipur Dated 20th November, 2025 .....*Suo Motu*

Versus

State of Chhattisgarh & Ors. ...Respondent(s)

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Joint Committee Report

Hon'ble National Green Tribunal (CZ) vide its order dated 16.01.2026 in the Suo Moto matter Original Application no. 175/2025(CZ) w.r.t. the News item titled *Raipur, Bhilai va Korba ki hawa kharab panch saal me do sho carod karch phir bhi nahi sudhari"* appearing in the Dainik Bhaskar, Raipur dated 20th November, 2025 directed as under:

Para 11 " We deem it just and proper to call a report on the matter in issue in present Original Application, from a Joint Committee consisting of:-

i. One representative from Principal Secretary (Environment), Chhattisgarh
ii. One representative from Principal Secretary, Urban Development, Chhattisgarh
iii. One representative from State Pollution Control Board, Chhattisgarh
iv. One representative from Central Pollution Control Board, Chhattisgarh

Para 12 " The Committee is directed to visit the place and submit the factual and action taken report within six weeks. The State PCB will be the nodal agency for coordination and logistic support".

Para 13 "The Committee shall also formulate and implement an Air Pollution Response Mechanism akin to the Graded Response Action Plan (GRAP) customized for the State more specifically Raipur and other cities having a maximum population where the air quality is deteriorating to ensure mandatory enforcement of state-wise restrictions whenever AQI reaches prescribed limit."

In compliance of the Hon'ble NGT order, the committee of following officers was constituted:

i. Sh A C Maloo, Officer on Special Duty, Dept of Housing & Env, Raipur
ii. Sh Pulak Bhattacharya, Add. Director, UADD, Raipur
iii. Sh Devvrat Mishra, Executive Engg, CECB, Raipur
iv. Sh Sunil Kumar Meena, Scientist-E, CPCB, Bhopal

To record the factual status & action taken so far for the improvement of air quality by the concern departments of cities under National Clean Air Program (NCAP) and XV finance commission a field visit was conducted

during 26th to 27th March 2026. The committee visited all the 03 non-attainment cities (Korba, Raipur & Durg-Bhilai) of Chhattisgarh state funded under NCAP & XV Finance commission. The sites viz. installed continuous monitoring stations, Construction & Demolition (C&D) processing plant, road pavement works, plantation, coal sidings, fly ash dyke, coal transport road, traffic road etc. were visited.

1.0 City-wise factual status

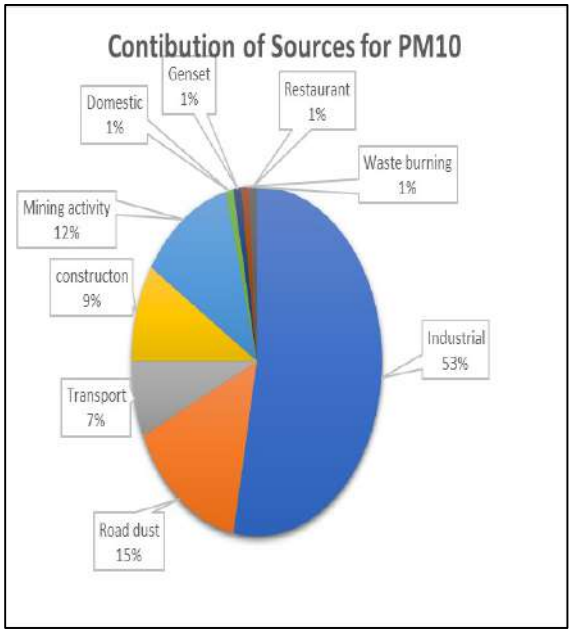
1.1 Korba

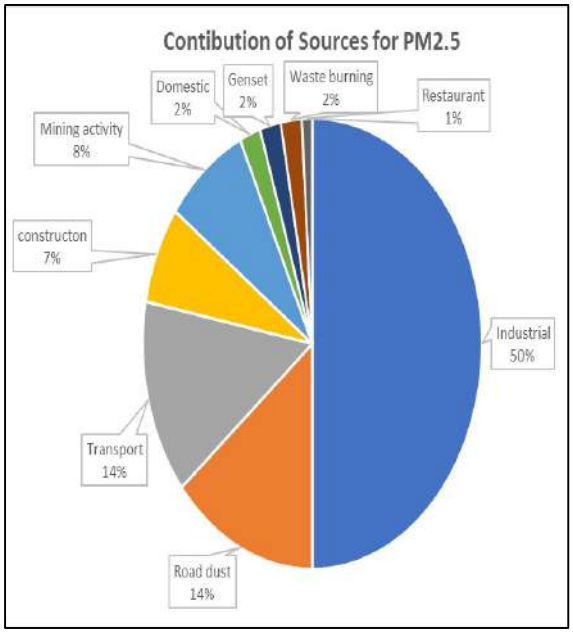
City located in the northern part of Chhattisgarh (22.3595° N, 82.7501° E), is a critically industrialized district widely recognized as the "Power Capital of Chhattisgarh." The district spans approximately 7145 sq. km, with substantial forest cover (~40%), and is traversed by the Hasdeo River system. The region experiences a hot tropical climate with high summer temperatures and monsoon-driven rainfall (~1500 mm annually), which significantly influences pollutant dispersion dynamics. Korba city itself functions as an industrial-urban agglomeration with mixed land use comprising dense residential settlements, industrial estates, mining zones, and transportation corridors, leading to close proximity between emission sources and receptors.

The Korba industrial cluster comprises multiple high-emission sectors including coal-based thermal power plants (NTPC, CSEB, and private units), aluminium production (BALCO), coal washeries, and associated ancillary industries. The region is also a major coal mining hub under SECL, hosting some of the largest open-cast mines in India such as Gevra, Kusmunda, and Dipka, which significantly contribute to fugitive dust emissions and heavy vehicular movement. The cumulative industrial profile results in a complex emission scenario involving point, line, and area sources.

Source apportionment and emission inventory assessments conducted by IIT Kharagpur in 2024 indicate that the major contributors to air pollution in Korba include stack emissions from thermal power plants (SO_2, NOx, PM), fugitive emissions from mining and coal handling operations, vehicular emissions from intensive coal transportation, and secondary sources such as road dust resuspension, open burning, and use of solid fuels in informal

sectors. The interaction of these sources leads to elevated levels of particulate matter (PM_{10} and $PM_{2.5}$), which remain the dominant pollutants of concern. Meteorological analysis, including Windrose assessment, indicates seasonal variability in wind direction and dispersion patterns, with relatively stable atmospheric conditions during winter leading to pollutant accumulation, while improved dispersion is observed during summer and monsoon periods. Source apportionment analysis indicates that industrial emissions are the dominant contributor to particulate pollution in Korba, accounting for ~53% of PM_{10} and ~50% of PM2.5, primarily from coal-based thermal power plants and allied industries. Road dust and mining activities are the next major contributors to PM_{10} (15% and 12% respectively), reflecting the influence of fugitive emissions and material handling. Vehicular emissions contribute relatively lower to PM_{10} (~7%) but have a higher share in $PM_{2.5}$ (~14%), indicating their significance in fine particulate formation. Other sources including construction activities, domestic fuel use, DG sets, waste burning, and commercial activities contribute marginally but cumulatively add to the overall pollution load. The representation of contributing sources are as given below:

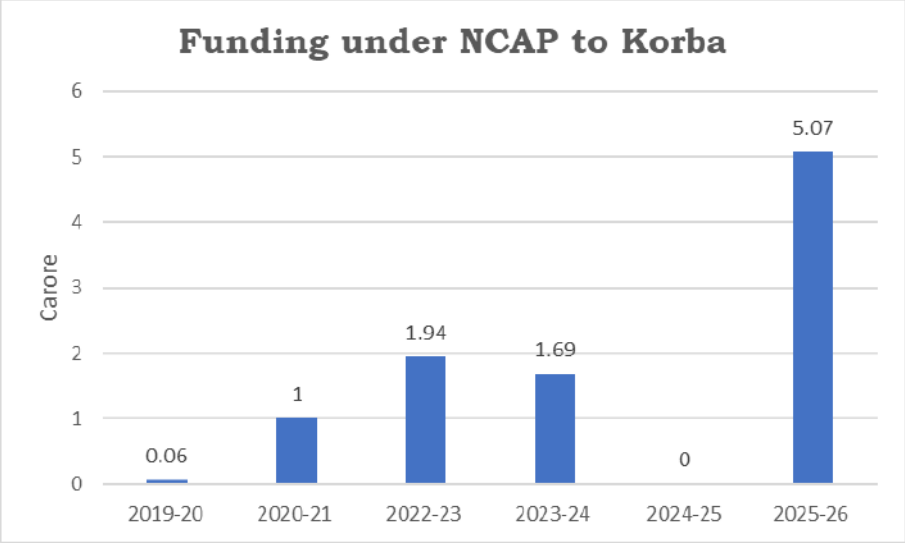




Overall, Korba represents a highly stressed industrial airshed characterized by the co-existence of large-scale thermal power generation, intensive coal mining, and urban activities within a confined geographic region. The cumulative pollution load, particularly from particulate matter and combustion-related emissions, often approaches or exceeds the assimilative carrying capacity of the region.

1.2 Fund utilization:

Korba (municipal boundary) having population of 3.65 lakh as per Census 2011, classified as non-attainment city based on the air quality status. To improve the air quality, city was funded under NCAP program since FY 2019-20. The major thematic activities are to be taken under this NCAP fund on are capacity building, road dust, biomass burning, vehicle pollution, industrial pollution, plantation, construction & demolition etc. Since 2019-20 to 2025-26, Korba has received total 9.76Cr funding. Out of this, only 6.69 CR (68.5%) is utilized till date. The year-wise funding is as depicted below:



Following are the major activities on which the Municipal Corp, Korba spent the funded amount to improve the air quality.

Work head	Completed Works
Road dust	Procured & deployed 02 nos. of mechanical road sweeper machine.
	Constructed 4 nos. of water fountains establishment

	Deployed 2 nos. of Water Canon Mist Fogging Machine
	End to End Pavement work: • Jaiswal Petrol Pump to Furniture Godown Sharda Vihar Ward No.- 12 • Kohadiya ward No.- 16 • MP Nagar main road to Kathal garden ward No.- 22
Plantation & green area development	Development of gardens: • 1098 square meter Garden at Ward No.- 33 • 12964 square meter Kathal Garden at Ward No.- 22 • 8217 square meter Garden Near WTP Plant Kohadiya Ward No.- 16 • Development of Oxyzone of Ward No.- 29 Podi bahar near SLRM centre • Supply of self-watering tree guard.
Vehicular Emission	• 7 nos. of PUC testing centres established & integrated • 540 Public buses & 100 nos. e-mobility register vehicles available. EV charging station established at Ghantaghar.

The cumulative fund utilization under NCAP for Korba indicates that management of road dust and construction & demolition waste constitutes the largest share (~49.9%), followed closely by plantation and greening activities (~44.8%). A relatively smaller proportion (~5.2%) has been allocated towards E.V. charging infrastructure, indicating initial efforts towards cleaner mobility.

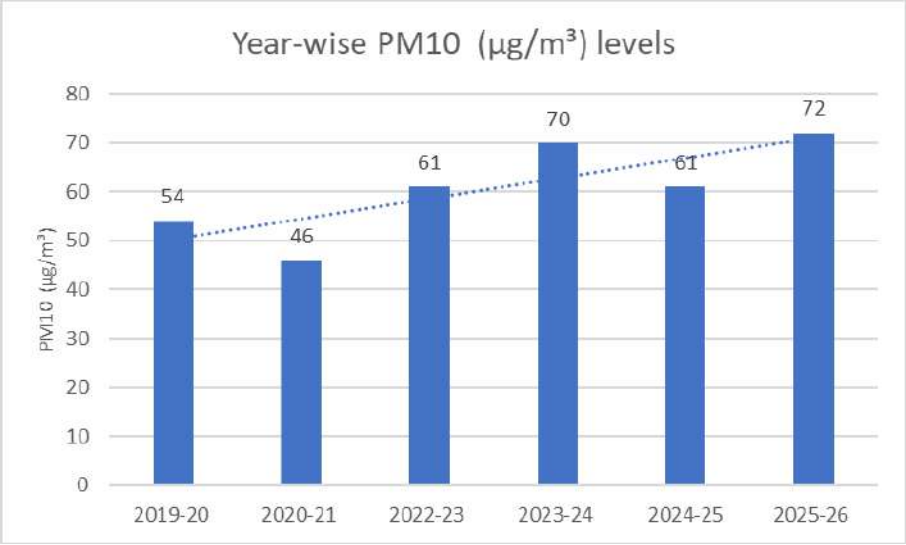
Following major declaration was made by ULB, Korba & other dept under the Swachh Vayu Sarvekshan (SVS) 2024-25 w.r.t. roads, C&D waste, MSW, Industrial pollution, electricity etc.

S.No.	Particulars	Declaration
1.	Road dust	• Out of 403 total roads, 367 (91.07%) are maintained/pothole free. • Out of total 445KMs length of road shoulders, 389KMs (87.42%) has been paved. • Out of 89KMs of road length to be greened, 87KMs (97.52%) is greened. • Out of total 1340KMs road length, 1240KMs (92.54%) is metalled/concreted/blacktopped. • Out of 1340KMs road length, 618KMs (46.12%) is mechanically swept.

2.	C&D waste	• Out of total 5.6TPD C&D waste, 100% is collected and processed. • Out of this 4.5T (80.35%) is utilised.
3.	Electricity	• 23Hrs 40Min electricity supply. • Out of 75839 houses, 59450 (78.4%) are covered under LPG/PNG.
4.	IEC activities	• All the 79802 houses were covered under door-to-door campaign. • All the 784 schools were also covered under awareness program
5.	Industrial emission	• All the 11, highly polluting industries are complying the emission norms.
6.	Vehicular pollution	• Out of total 55482 registered vehicle, 100 nos (0.18%) are E-vehicle.
7.	Biomass burning	• Out of 115TPD MSW generated, 100% collected and out of this 113Ton (98.26%) is processed

1.3 Air quality:

There are 02 Continuous Ambient Air Quality Station (CAAQMS) are installed. One at CECB office, Rampur (22.368132, 82.746592) & another at Urja Nagar, near Gevra coal mine (22.348474, 82.549252). The cumulative annual air quality of these stations reveals that the air quality deteriorated in last 5 years since 2019-20.



1.4 Observation of the committee for Korba city:

The Committee conducted field inspections at multiple locations in Korba to assess on-ground implementation of air pollution control measures and noted the following:

i. The Committee visited the garden developed near the Water Treatment Plant, Kohadiya (Ward No. 16), which has been converted from a former waste dumping site by the Municipal Corporation. Pavement works have been executed in the area, and self-watering plantation systems were observed, indicating positive urban greening interventions.
ii. At the Mudhpar Bypass, a major coal transportation corridor, it was informed that daytime movement of heavy vehicles is restricted. Mist cannon systems were found operational during the visit. However, significant accumulation of road dust was observed along pavement edges, indicating the need for improved dust management practices.
iii. The Committee inspected the Manikpur Railway Siding area, identified as a hotspot, where heavy coal dust accumulation was observed along transportation routes. The roads were found to be unpaved/non-concretized, contributing to fugitive dust emissions.
iv. The EV charging station at Ghataghar, Niharika established by the Municipal Corporation was yet to start.
v. At the CAAQMS station located at CECB Regional Office, Rampur, the Committee observed that ambient air quality is significantly influenced by nearby kaccha road, thermal power plants, with visible emissions from stacks of NTPC and HTPS, Korba & others.
vi. The Committee visited the C&D waste processing plant at Transport Nagar, where it was observed that air pollution control systems (APCs) and water sprinkling arrangements were not in place, leading to potential dust emissions during processing operations. Also the C&D facility is just a showcase having no practical operation.
vii. At the CAAQMS station located within DAV Public School Campus, Urja Nagar (Gevra), it was noted that the station lies outside municipal limits. Evidence of open burning of biomass (tree leaves) and coal usage in nearby households was observed, which may adversely affect monitoring data and result in variability in recorded values.
viii. The Committee also inspected the SECL coal transportation route at Gevra, where roads were found to be unpaved and poorly maintained,

resulting in significant dust generation during vehicular movement. As per the data analysis for year 2025-26, the air mostly deteriorates during 8PM to 3AM during heavy coal transportation activity.

ix. At the NTPC, Korba ash dyke area**,** significant fugitive dust emissions were observed. Although water sprinkling systems have been installed, they were not found operational during the inspection**,** contributing to localized air pollution. Further, ongoing ash excavation activities for enhancing ash utilization necessitate continuous and effective operation of dust suppression measures, including water sprinkling.

x. It was observed that ash is being disposed in low-lying areas without adequate compaction and soil covering**,** resulting in increased susceptibility to wind entrainment and consequent deterioration of ambient air quality.

The field assessment indicates that, although certain measures such as urban greening and deployment of mist cannons have been undertaken, substantial gaps persist in effective dust control, infrastructure upkeep, operationalization of installed facilities, and enforcement of prescribed mitigation measures, particularly in coal handling areas, transportation corridors, and industrial zones. The current level of NCAP fund allocation and utilization appears inadequate considering the intensity and scale of pollution sources in Korba airshed.

Key concerns include high industrial emission load, coal transportation through urban areas, poorly managed coal sidings (inadequate wind-breaking arrangements and non-functional water sprinkling systems), sub-optimal ash dyke management, and instances of open biomass burning near CAAQMS locations, all of which are contributing to adverse air quality conditions.

In view of the above, intensified and coordinated action is required from the Government of Chhattisgarh, State Environment Department, and State Pollution Control Board. Strict enforcement measures, including imposition of environmental compensation on non-complying industries and associated activities, need to be undertaken in accordance with CPCB guidelines.

Further, it is recommended that highly polluting industries shall deploy adequate dust mitigation infrastructure, including mechanized road sweeping machines and mist-based dust suppression systems, in and around their operational areas and along transportation routes, to ensure effective control of fugitive emissions.

1.5 Recommendation of the Committee:

i. Adequate and continuous water sprinkling arrangements shall be ensured at Mudhpar Bypass, being a major coal transportation corridor, along with periodic mechanized cleaning to prevent dust accumulation. *(Implementing Agency: Concerned Municipal Authority)*

ii. ii. Coal transportation at Manikpur railway siding and other similar locations shall be carried out only through covered (tarpaulin-fitted) vehicles, with strict enforcement by CECB and Transport Department. Paving of internal roads, installation of water sprinkling systems, and regular mechanized cleaning shall be ensured. Violations shall attract penalty/ environmental compensation against the siding management. *(Implementing Agency: SECL, Railway Siding Management, CECB, Transport Department, Concerned Road Development Agency, Municipal Authority)*

iii. Chhattisgarh Environment Conservation Board (CECB) shall ensure that all industries comply with prescribed emission norms, including verification of OCEMS data and functioning of pollution control equipment, with action against non-compliance as per applicable provisions. *(Implementing Agency: CECB)*

iv. Construction and demolition (C&D) waste generated within the city shall be scientifically managed, processed, and reused, and the existing C&D facility shall be made fully functional with adequate air pollution control systems and dust suppression arrangements. *(Implementing Agency: Concerned Municipal Authority)*

v. All unpaved roads outside industrial premises, particularly in industrial and transport corridors, shall be identified and converted into drain-to-drain paved roads in a phased manner, with interim dust control measures. *(Implementing Agency: CSIDC / Concerned Road Development Agency)*

vi. The area surrounding CAAQMS stations shall be paved and maintained as a pollution-free buffer zone, and the concerned authority shall ensure complete prohibition of open burning (including dry leaves/biomass) in the vicinity. *(Implementing Agency: Concerned Municipal Authority)*

vii. The SECL coal transportation routes at Gevra, Korba shall be paved, properly maintained, and subjected to continuous dust suppression measures, including mechanized sweeping and water sprinkling, to minimize fugitive emissions. *(Implementing Agency: Concerned Municipal Authority and Road Development Agency)*

viii. NTPC, Korba and other thermal power plants shall ensure that ash dyke areas are equipped with functional water sprinkling systems, with continuous operation during ash handling and disposal. Further, proper compaction and soil covering of ash shall be ensured to prevent windblown emissions. CECB shall monitor compliance across all such facilities. *(Implementing Agency: CECB and NTPC / Concerned Thermal Power Plants)*

ix. All coal handling areas, stockyards, and sidings shall install and maintain wind-breaking walls/barriers and fixed dust suppression systems, and ensure their continuous operation. *(Implementing Agency: SECL, Industry Operators, CECB)*

x. The State Government shall augment air quality monitoring infrastructure, including installation of additional CAAQMS stations at identified hotspots and strengthening of data validation mechanisms. *(Implementing Agency: State Environment Department, CECB)*

xi. A complete ban on open burning shall be strictly enforced across the city, with a penalty mechanism and monitoring system to ensure compliance. *(Implementing Agency: Municipal Authority, CECB, SECL)*

xii. All highly polluting industries shall deploy adequate dust mitigation infrastructure, including mechanized road sweepers and mist cannon systems, within and around their premises and along transportation routes. *(Implementing Agency: Concerned Industries, CECB)*

2.1 Bhilai

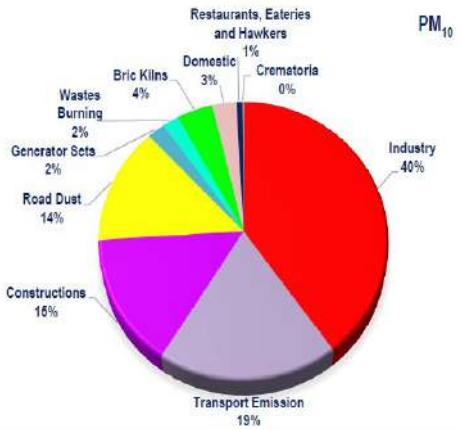
Bhilai city, located in the central part of Chhattisgarh, forms part of the Durg–Bhilai urban agglomeration, comprising seven Urban Local Bodies (ULBs), namely Bhilai, Durg, Risali, Charoda, Jamul, Khumhari, and Utai. The region represents a critically industrialized airshed with dense population distribution and mixed land-use patterns. As per the source apportionment study (2024) conducted by Indian Institute of Technology Kanpur, the study domain encompasses a ~25 km radius with Bhilai Steel Plant as the epicenter, reflecting close spatial proximity of industrial, residential, and commercial activities.

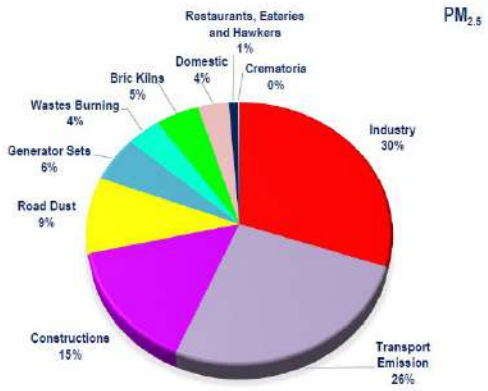
The city functions as a major metallurgical and manufacturing hub, anchored by the Bhilai Steel Plant, one of India's largest integrated steel plants. The industrial landscape includes steel production units, ferro-alloy industries, engineering units, sponge iron plants, rolling mills, cement industries, and brick kilns, resulting in a highly emission-intensive industrial cluster with dominant combustion and process-related emissions.

Climatically, Bhilai experiences a tropical regime with pronounced seasonal variation. Winter conditions are characterized by low mixing height and stable atmosphere, leading to pollutant accumulation, whereas summer and monsoon seasons support improved dispersion. Windrose analysis (IIT Kharagpur, 2024) indicates predominant wind movement across industrial–residential corridors, facilitating the transport of pollutants across the airshed. The major traffic congestion hotspots identified within the Bhilai Municipal area include Nehru Nagar Chowk, Supela Chowk, Chandra Maurya Chowk, Power House Chowk, Khursipar Chowk, Chhawni Chowk, and Surya Mall Chowk, where high vehicular density and intersection load contribute to frequent traffic bottlenecks.

During Source apportionment study conducted by IIT Kharagpur & Kanpur, air quality monitoring has been undertaken across multiple representative locations, including industrial (SAIL, Hathkhoj), residential (Kohka, Morid), commercial (Risali), and background sites, capturing the influence of diverse emission sources such as industrial activities, vehicular traffic, road dust resuspension, domestic fuel use, and waste burning.

Emission inventory and source apportionment studies indicate that industrial sources are the dominant contributors, accounting for approximately 40% of PM_{10} and 30% of $PM_{2.5}$ emissions, with a significant share attributable to the Bhilai Steel Plant and associated industries. Transport emissions contribute about 19% of PM_{10} and 26% of $PM_{2.5}$, highlighting their importance in fine particulate formation. Construction activities contribute ~15%, followed by road dust (14% for PM_{10} and 9% for $PM_{2.5}$). Additional contributions arise from domestic fuel use, brick kilns, DG sets, and waste burning, cumulatively increasing the particulate load. The PM_{10} & $PM_{2.5}$ emission estimates (% share) from various sectors in Bhilai as per IIT, Kharagpur source apportionment study (2024) is as below:





The urban environment is characterized by intensive vehicular movement and traffic congestion, particularly along major corridors connecting industrial zones and material transport routes. Coal usage in informal sectors (e.g., roadside eateries, ironing units) and open burning of municipal waste further contribute to localized emissions.

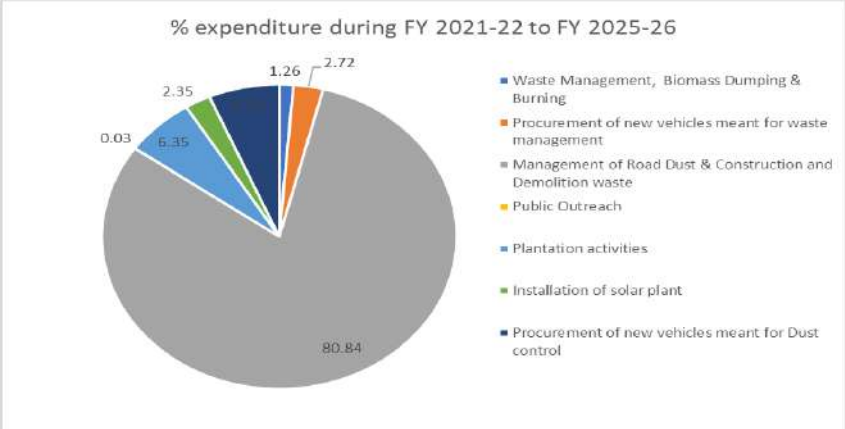
Unlike coal-dominated regions such as Korba, Bhilai does not host major coal mining operations within its immediate boundary; however, substantial coal consumption occurs within industrial processes, particularly in steel production. Additionally, cement and sponge iron industries in the surrounding Durg region contribute to the cumulative pollution load, indicating a regional airshed impact beyond municipal limits.

Overall, Bhilai represents a highly stressed industrial-urban airshed, where industrial emissions, vehicular pollution, road dust resuspension, and secondary aerosol formation collectively contribute to elevated PM_{10} and $PM_{2.5}$ levels, frequently exceeding NAAQS limits, particularly during winter. The airshed is characterized by a multi-source pollution regime involving point (industry), line (transport), and area sources (dust, domestic combustion, waste burning). The close proximity of industrial clusters to residential areas and lack of adequate buffer zones further aggravate exposure risk and indicate limited assimilative capacity of the region.

2.2 Fund utilization:

Durg–Bhilai Urban Agglomeration in Chhattisgarh, covering a current population of approximately 15.54 lakh over an area of 295 sq. km., classified as non-attainment city based on the air quality status. To improve the air quality, city was funded under NCAP as well as under XV Finance Commission since FY 2019-20. The major thematic activities are to be taken under this NCAP fund on are capacity building, road dust, biomass burning, vehicle pollution, industrial pollution, plantation, construction & demolition etc. The financial summary for Durg–Bhilai Urban Agglomeration indicates that under NCAP, a total fund of ₹6.00 crore has been received, out of which ₹5.57 crore has been utilized, reflecting a high utilization rate of approximately 92.8%, with a remaining balance of ₹0.43 crore. In comparison, under the 15th Finance Commission grants, a substantially

higher allocation of ₹135.60 crore has been received, of which ₹111.42 crore has been utilized, resulting in a utilization rate of about 82.2%, leaving a balance of ₹24.18 crore. The activity-wise expenditure is as below:



The expenditure pattern is heavily skewed towards road dust and C&D waste management (~80.8%), indicating a strong focus on particulate matter control through dust mitigation measures. Other sectors such as plantation, waste management, and clean energy interventions have received minimal allocation, reflecting limited diversification of air pollution control strategies.

Following work were executed in the Durg-Bhilai agglomeration to improve the air quality:

Bhilai Municipal Corporation		
Work head	**Name of work**	**Completed Works**
Waste and Biomass - Dumping and Burning	Providing organic waste compost machines, decentralization of processing of waste, dry waste collection centers	3 nos. shed for segregation of MSW, construction of guard room, toilet and CC roads and other development works
	Proper collection of horticulture waste and its disposal following composting-cum gardening approach	6 nos. compost pit and water supply work
Industrial emission	Leverage rooftop solar programme to reduce dependence on DG sets	Establishment of 150 KW of solar power plant.
Road dust	Lifting of solid waste generated from desilting and cleaning of municipal drains	Purchase of 15 nos. tractor with hydraulic trolley

	2 nos. of road repair works	18449 square meter road repair work undertaken
	21 nos. of End-to-end paving of roads works in various wards	54164 square meter paving work undertaken
	Spraying of water to suppress dust	1 nos. of water spraying machine
	2 nos. of Road widening works in various wards	3195 square meter road widening work undertaken
	5 nos. of Urban Greening with vertical garden	5 nos. of vertical garden works undertaken
	7 nos. of road repair works	35910 sq.m road repair work
	5 nos. of End-to-end paving of roads works in various wards	8540 sq.m paving work undertaken
	3 nos. of Road widening works in various wards	16002 sq.m road widening work undertaken
Public outreach program	Creation of public awareness on pollution source and control measures	Public Awareness Activity
Vehicular emission	Charging infrastructure for E-vehicles	1 nos. of shed for charging of e-vehicle
Vehicular emission	Prevent parking of vehicles in the non-designated areas	–
Durg Municipal Corporation		
Work head	**Name of work**	**Completed Works**
Road dust	Lifting of solid waste generated from desilting and cleaning of municipal drains	Purchase of 7 nos. tractor with hydraulic trolley
	4 nos. of Road repair & BT road renewal works in various wards	8294 sq.m. road repair works undertaken
	Regular cleaning of street surfaces and spraying of water to suppress dust	Purchase of 4 nos. of water sprinkler machine
	2 nos. of Road widening works in various wards	1850 sq.m road widening work undertaken
	Greening of traffic corridors, open areas, gardens, community places, schools and housing societies	1 No. Fencing work 2670 RMT and 8000 Plants

	13 nos. of End to end paving by paver block works	15062 sq.m. road repair works undertaken
	Solar Cat-1 & road marking	500
	18 nos. of Road widening works in various wards	40251 sq.m. road widening work undertaken
	End to end paving by paver block works in different wards	-
	Road widening works in various wards	29295 sq.m road widening work
Vehicular emission	Charging infrastructure for E-vehicles	2 nos. of E- rickshaw charging Station
Risali Municipal Corporation		
Work head	**Name of work**	**Completed Works**
Road dust	70 nos. of Road widening works taken under various wards	12465 meter road widening done at 70 places
	35 nos. of Road Repairing and End to end paving works	35 nos. of Road Repairing and End to end paving works done
	08 nos. of Tree plantation works taken under various wards	4200 sq.m. / 5500 nos. plantation
	Lifting of solid waste generated from desilting and cleaning of municipal drains	Purchase of 4 nos. tractor with hydraulic trolley
	Regular cleaning of street surfaces and spraying of water to suppress dust	Purchase of 2 nos. of water sprinkler machine
Vehicular emission	Charging infrastructure for E-vehicles	Established 5 nos. e-vehicle charging infrastructure
Charoda Municipal Corporation		
Work head	**Name of work**	**Completed Works**
Road dust	8 nos. of Road repair & BT road renewal works in various wards	29872 sq.m. road renewal work undertaken
	End to end paving by paver block works	7000 sq.m. paver block work undertaken
	Regular cleaning of street surfaces and spraying of water to suppress dust	Purchase of 2 nos. of water sprinkler machine

	8 nos. of Road repair & BT road renewal works in various wards	10014 sq.m. road renewal works undertaken
Vehicular emission	Charging infrastructure for E-vehicles	Establishing 3 nos. e-vehicle charging infrastructure
Waste and Biomass - Dumping and Burning	Regular collection, segregation and scientific disposal of waste	Purchase of 3 nos. tractors and trolley
Kumhari Municipal Council		
Work head	**Name of work**	**Completed Works**
Road dust	6 nos. of Road repair & BT road renewal works	14000 sq.m. road renewal work undertaken
	End to end paving by paver block works	4510 sq.m. paver block work undertaken
	5 nos. of road widening works	19556 sq.m. road renewal work undertaken
	Regular cleaning of street surfaces and spraying of water to suppress dust	Purchase of 2 nos. of water sprinkler machine
Jamul Municipal Council		
Work head	**Name of work**	**Completed Works**
Road dust	Lifting of solid waste generated from desilting and cleaning of municipal drains	Purchase of 1 nos. tractor with hydraulic trolley
	Regular cleaning of street surfaces and spraying of water to suppress dust	Purchase of 2 nos. of water sprinkler machine
Utai Town Council		
Work head	**Name of work**	**Completed Works**
Road dust	1 nos. End to end paving works	2500 meters work done.
	Lifting of solid waste generated from desilting and cleaning of municipal drains	Purchase of 1 nos. tractor with hydraulic trolley
	Introduce water fountain at major traffic intersection	1 nos. fountain establishment
	Regular cleaning of street surfaces and spraying of water to suppress dust	Purchase of 1 nos. of water sprinkler machine

Following major declaration was made by ULB Bhilai & other dept under the Swachh Vayu Sarvekshan (SVS) 2024-25 w.r.t. roads, C&D waste, MSW, Industrial pollution, electricity etc.

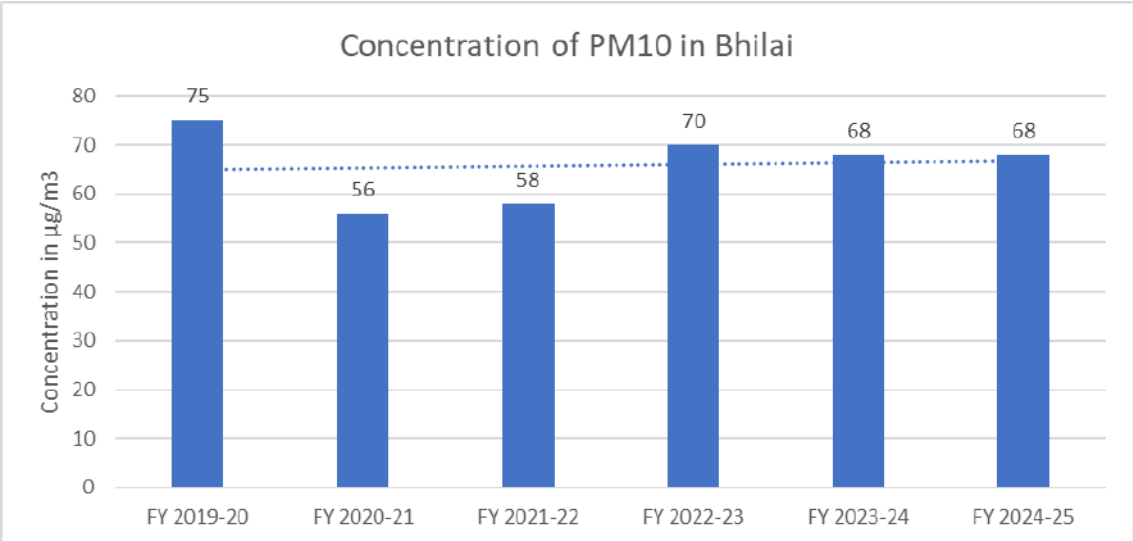
S.No.	Particulars	Declaration
1	Road Dust	• Out of total 2835 roads, 2165 (76.37%) are maintained/pothole free. • Out of total 3977.52 km road shoulders, 1633.90 km (41.08%) has been paved. • Out of total 3125.97 km roads, 2617 km (83.73%) are metalled/concreted/blacktopped. • Out of total 2297.70 km area to be greened, 1659.65 km (68.31%) has been greened. • Out of total 3125.97 km roads, 1487.40 km (47.58%) is mechanically swept.
2	C&D Waste	• Out of total 12.40 TPD C&D waste generated, 12.25 TPD (98.79%) is collected. • Out of total generated waste, 11.56 TPD (93.26%) is processed. • Out of total generated waste, 11.11 TPD (94.88%) is utilised. • Out of 89 construction sites, 81 (91.01%) comply with CPCB dust mitigation guidelines.
3	Electricity	• Average 23.58 hours/day electricity supply is being provided.
4	IEC Activities	• 127 advertisements/month conducted through social media and public platforms. • Out of 300199 houses, 283658 (94.48%) covered under door-to-door awareness campaigns. • All 320 schools (100%) covered under awareness programmes.
5	Industrial Emission	• Out of 6 Red category industries, 100% (6 industries) have installed OCEMS. • Out of 413 industries, 100% are complying with emission norms. • However, no industry has shifted to clean fuel.
6	Vehicular Pollution	• Total 1,59,451 registered vehicles with 51 PUC centres (31 per lakh vehicles). • 100% PUC centres integrated with centralized server. • 43.58% vehicles have valid PUC certificates.

		• 8925 E-vehicles (5.59%) registered. • 1588 public buses (~92 per lakh population) available. • 100% (20/20) fuel stations inspected for adulteration.
7	Biomass / MSW Burning	• Out of 419.82 TPD MSW generated, 411.65 TPD (98.05%) is collected. • 411.65 TPD (98.05%) is processed. • 100% plastic waste collected (9.07 TPD). • No complaints of waste burning reported.

The assessment indicates that road dust management remains a critical gap, with limited road shoulder paving (~41%) and mechanical sweeping (~48%) despite relatively good road paving (~84%). In contrast, C&D waste management and MSW handling are highly efficient, with >93% processing and near-complete compliance, including effective control of open burning. Industrial emissions are well regulated, with 100% compliance and OCEMS coverage, though absence of clean fuel transition remains a concern. Vehicular pollution control shows mixed performance, with strong infrastructure but low PUC compliance (~44%) and limited e-mobility penetration (~5.6%). IEC activities demonstrate strong outreach, covering ~94% households and all schools. Overall, while institutional and infrastructure systems are largely in place, targeted strengthening of dust control and vehicular emission compliance is required for effective air quality improvement.

3.3 Air quality:

There are 03 Continuous Ambient Air Quality Station (CAAQMS) are installed. One at Bhilai Steel Plant, CECB office (32 Bungalow) & Hathkhoj Industrial Area (IA). The cumulative annual air quality of these stations reveals that the annual air quality is exceeding the annual standard of 60µg/m3 for PM10. The 5 years air quality trend is as given below:



The CAAQMS location are majorly in upwind direction, installation of new CAAQMS need to be in downwind direction to state the real picture of the city agglomeration air quality.

2.4 Observations of the Committee for Bhilai City

The Committee conducted field inspections at multiple locations in Bhilai to assess on-ground implementation of air pollution control measures and noted the following:

i. The Continuous Ambient Air Quality Monitoring Station (CAAQMS) at 32 Bungalow, CECB Office, Bhilai is located adjacent to an ongoing construction site (laboratory building), and past instances of biomass (leaf) burning were observed in the vicinity, which may influence monitoring results. The construction work needs to be executed as per the CPCB guideline for construction site.

ii. In the industrial areas adjoining Bhilai, significant accumulation of road dust along central dividers was observed, indicating inadequate cleaning practices. Resuspension of this dust due to heavy vehicular movement contributes to localized air pollution.

iv. At the CAAQMS station in Hathkhoj industrial area, the approach road and surrounding area are unpaved, and presence of dry vegetation poses a risk of fire incidents, potentially affecting monitoring data integrity.

v. Improper handling and disposal of construction and demolition (C&D) waste was observed at multiple locations, contributing to fugitive dust emissions.

vi. Roads outside industrial premises were found to be unpaved (non-drain-to-drain), leading to increased dust generation during movement of heavy vehicles.

2.5 Recommendations of the Committee

i. Construction activities near CAAQMS stations shall be undertaken with adequate dust control measures, including green net covering and regular water sprinkling, ensuring that monitoring results are not adversely affected. *(Implementing Agency: Chhattisgarh Environment Conservation Board)*

ii. CAAQMS network shall be optimized based on meteorology (downwind placement) and source distribution, supported by GIS-based emission inventory and dispersion modelling for real-time decision-making and

targeted interventions. *(Implementing Agency: Chhattisgarh Environment Conservation Board)*

iii. All remaining unpaved road shoulders (~59%) shall be paved on priority, and mechanized sweeping coverage shall be increased from ~48% to at least 80%, particularly on high-traffic corridors. Regular vacuum sweeping and water sprinkling (minimum 2–3 cycles/day) shall be ensured, along with maintenance of green buffers along roads. *(Implementing Agency: Municipal Authority / CSIDC)*

iv. The areas surrounding CAAQMS stations shall be paved and maintained as controlled zones, and measures shall be taken to prevent biomass burning or fire incidents in the vicinity. *(Implementing Agency: Concerned Municipal Authority)*

v. All major industries including steel, sponge iron, ferro-alloy and cement units shall ensure that the adequate install APCDs runs optimally and ensure continuous compliance through OCEMS along with periodic third-party environmental audits, considering the dominant contribution of industrial emissions to particulate pollution. *(Implementing Agency: Chhattisgarh Environment Conservation Board (CECB) and Concerned Industries)*

vi. Chhattisgarh Environment Conservation Board (CECB) shall ensure strict compliance of emission norms by industries, including monitoring of pollution control systems and necessary enforcement action. *(Implementing Agency: CECB)*

vi. While collection and processing are satisfactory, the ULB shall ensure 100% utilization of processed C&D waste and enforce mandatory on-site dust mitigation compliance at all construction sites, including real-time monitoring and penalties for violations. *(Implementing Agency: Municipal Authority)*

vii. All unpaved roads outside industrial premises shall be identified and converted into drain-to-drain paved roads in a phased manner to control fugitive dust emissions. *(Implementing Agency: CSIDC / Concerned Road Development Agency).*

vii. Strict enforcement measures shall be undertaken to increase PUC compliance from ~44% to >90%, including penalty for non-compliance and integration with vehicle registration systems. Further, e-mobility adoption shall be accelerated through expansion of charging infrastructure and incentives. *(Implementing Agency: Transport Department / Municipal Authority)*

The overall assessment indicates that Bhilai's air quality management framework has basic systems in place, however, gaps persist in monitoring representativeness, road dust control, and enforcement of

vehicular and industrial emissions. The dominance of industrial and fugitive dust sources necessitates a multi-sectoral, enforcement-driven approach rather than isolated interventions. Strengthening of the CAAQMS network with scientifically appropriate siting is essential to ensure reliable data for decision-making. Simultaneously, aggressive road dust mitigation (paving, mechanized sweeping) and strict compliance enforcement (PUC, OCEMS, C&D rules) are required to address major emission sources. There is also a need to transition towards cleaner fuels and sustainable transport systems to achieve long-term reductions. Effective coordination among CECB, municipal authorities, transport department, and industrial stakeholders will be critical to ensure time-bound implementation. Overall, focused regulatory enforcement coupled with infrastructure strengthening is imperative to bring air quality within prescribed standards.

3.1 Raipur

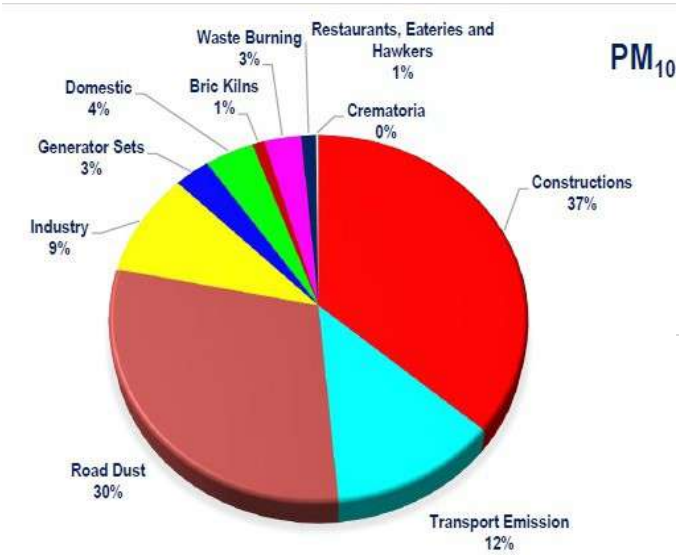
The Raipur–Siltara region represents a critically polluted industrial airshed in central Chhattisgarh, characterized by a dense integration of urban, industrial, and transportation activities. Raipur, the state capital, lies in the central plains and forms a contiguous industrial cluster with Siltara, located approximately 10–15 km away, along with other industrial areas such as Urla. The IIT Kharagpur source apportionment study (2024) typically covers a ~15 km radius, reflecting a mixed land-use pattern where residential areas exist in close proximity to heavy industries, thereby increasing population exposure to emissions. The region experiences a tropical wet and dry climate with pronounced seasonal variability—high temperatures in summer aid dispersion, monsoon rainfall facilitates pollutant washout, while winter conditions with low mixing heights and stable atmosphere lead to significant pollutant accumulation.

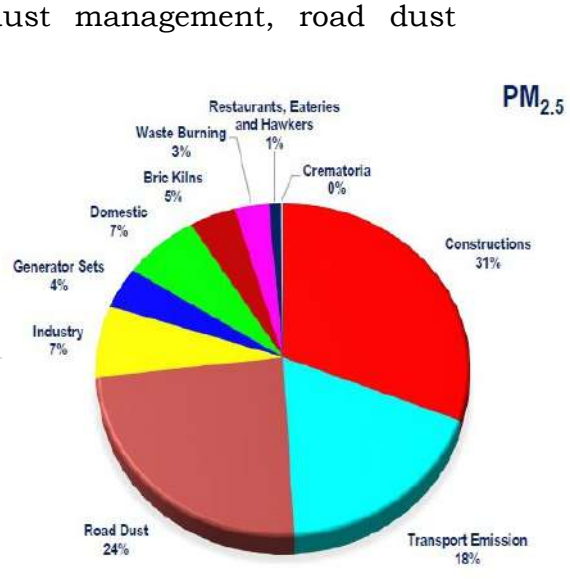
The industrial profile of the region is dominated by metallurgical and mineral-based industries, particularly sponge iron units, steel rolling mills, ferro-alloy plants, cement industries and associated ancillary units, with Siltara emerging as a major cluster of red-category industries contributing substantially to point source emissions. Emission inventory and source apportionment assessments indicate that industrial emissions form the dominant pollution source, supplemented by significant contributions from road dust resuspension, vehicular emissions due to intensive freight and urban traffic, construction activities, and area sources such as biomass burning and coal use in informal sectors. The region also experiences considerable traffic congestion along key industrial-urban corridors, where

heavy vehicle movement between Siltara and Raipur leads to both exhaust emissions and resuspension of dust, further aggravating particulate pollution.

Air quality assessment indicates that the region frequently exceeds National Ambient Air Quality Standards (NAAQS), particularly for PM_{10} and $PM_{2.5}$, and is categorized as a Critically Polluted Area (CPA) with limited assimilative carrying capacity. Seasonal trends show peak pollution levels during winter due to unfavourable dispersion conditions. Meteorological analysis, including windrose studies, suggests that prevailing winds facilitate transport of pollutants from industrial zones such as Siltara towards urban Raipur, thereby establishing a strong airshed linkage. Dispersion modelling further confirms that pollutant plumes extend across the study domain, highlighting that Raipur and Siltara function as a single integrated airshed influenced by combined industrial, vehicular, and area sources . Overall, the region exhibits a multi-source pollution regime with significant cumulative impacts, necessitating coordinated airshed-level management focusing on industrial emission control, road dust mitigation, traffic management, and regulation of dispersed emission sources.

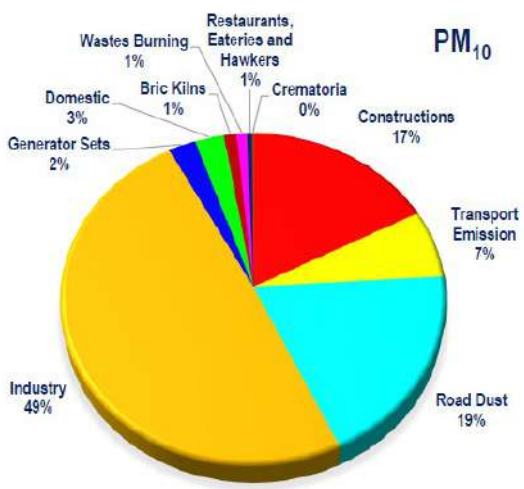
The source apportionment study for Raipur indicates that construction activities are the dominant contributor to particulate pollution, accounting for approximately 37% of PM_{10} and 31% of $PM_{2.5}$ emissions, reflecting the significant impact of ongoing urban development and associated dust generation. Road dust resuspension emerges as the second major contributor, contributing around 30% to PM_{10} and 24% to $PM_{2.5}$, highlighting inadequate road maintenance and dust control practices. Transport emissions contribute ~12% to PM_{10} and 18% to $PM_{2.5}$, indicating their relatively higher influence on fine particulate matter. Industrial sources have a moderate contribution (~9% in PM_{10} and ~7% in $PM_{2.5}$), while other sources such as domestic fuel use, DG sets, brick kilns, and waste burning contribute smaller yet cumulatively significant shares. Overall, the emission profile reflects a dominance of fugitive and area sources over point sources, emphasizing the need for targeted interventions in construction dust management, road dust

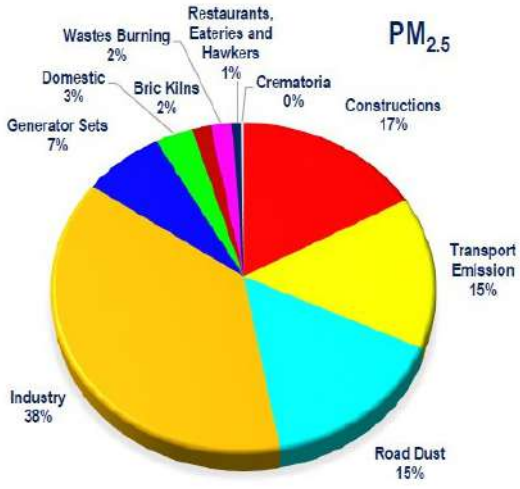




control, and vehicular emissions to achieve effective air quality improvement in Raipur. The PM_{10} & $PM_{2.5}$ emission estimates (% share) from various sectors in Raipur as per IIT, Kharagpur source apportionment study (2024) is as below:

The source apportionment study for Siltara Industrial Area indicates that industrial emissions are the predominant contributor to particulate pollution, accounting for approximately 49% of PM_{10} and 38% of $PM_{2.5}$, reflecting the dominance of metallurgical and process industries in the region. Road dust resuspension is the next major contributor, contributing around 19% to PM_{10} and 15% to $PM_{2.5}$, followed by construction activities (~17% for both PM_{10} and $PM_{2.5}$), indicating the role of fugitive dust sources. Transport emissions contribute relatively lower to PM_{10} (~7%) but have a higher share in $PM_{2.5}$ (~15%), highlighting their significance in fine particulate formation. Other sources such as DG sets, domestic fuel use, brick kilns, waste burning, and commercial activities contribute marginally but cumulatively add to the pollution load. Overall, the emission profile is dominated by industrial point sources supplemented by significant fugitive dust emissions, necessitating focused control on industrial emissions along with dust mitigation measures. The PM_{10} & $PM_{2.5}$ emission estimates (% share) from various sectors in Siltara as per IIT, Kharagpur source apportionment study (2024) is as below:





3.2 Fund utilization:

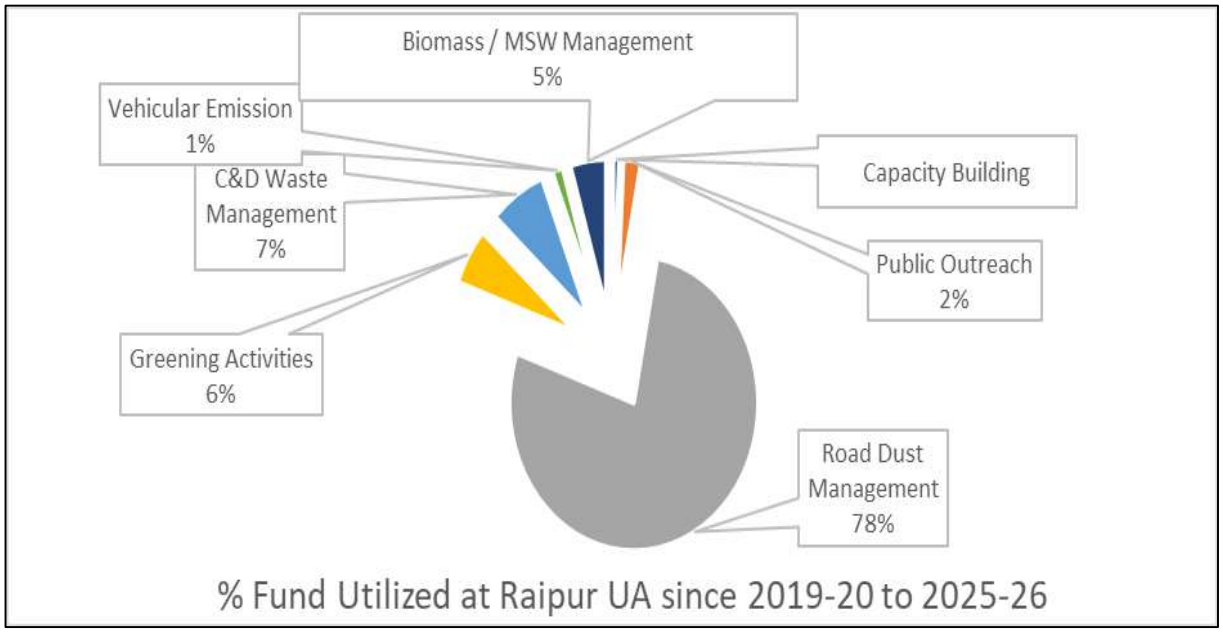
Raipur and Birgaon Municipal Corporations, located in the state of Chhattisgarh, together constitute a major urban agglomeration with a current population of approximately 16.90 lakh, reflecting significant urban growth over the past decade. As per the Census 2011, the population of the area was 11.24 lakh, indicating rapid urbanization and expansion of municipal limits, which has implications for infrastructure demand, environmental management, and air quality. The city was classified as non-attainment city based on the air quality status 2017-18. To improve the air quality, city was funded under NCAP as well as under XV Finance Commission since FY 2019-20. The major thematic activities are to be taken under this NCAP fund on are capacity building, road dust, biomass burning, vehicle pollution, industrial pollution, plantation, construction & demolition etc. The financial summary for Raipur–Birgaon Urban Agglomeration indicates that under the 15th Finance Commission (XVFC), a total of ₹145.59 crore has been received, out of which ₹88.79 crore has been utilized, reflecting an overall utilization of approximately 61%. Raipur Municipal Corporation accounts for the major share with ₹128.46 crore received and ₹78.39 crore utilized (~61%), while Birgaon Municipal Corporation has received ₹17.13 crore and utilized ₹10.40 crore (~61%). Year-wise trends indicate relatively better utilization during FY 2021–22 and FY 2022–23, followed by comparatively lower expenditure in recent years.

Under the NCAP (CoP) framework, a total of ₹5.97 crore has been released during FY 2019–20 to FY 2025–26, comprising ₹2.82 crore to Raipur Municipal Corporation and ₹3.15 crore to CECB. Since the NCAP table reflects fund release rather than detailed utilization, percentage utilization is not explicitly indicated; however, the distribution shows peak allocation during FY 2021–22 with comparatively lower releases in subsequent years. Overall, while XVFC funds show moderate utilization (~61%), NCAP funds remain limited in scale, highlighting the need for better convergence and targeted deployment towards air pollution mitigation measures. Activity-wise Physical Progress & Fund Utilization – Raipur UA (XV-FC AQI Grants) is as given below:

S.No.	Thematic Area	Key Activities	Physical Progress	Fund Utilized (₹ Lakh)
1	Capacity Building	Training programs, AQM Cell, Mist Vehicles	3 trainings, 1 AQM Cell, 2 vehicles	79.65
2	Public	AQI App integration,	App integrated,	228.78

	Outreach	awareness campaigns, painting, MSW awareness	24,000 sqm painting, 20 activities	
3	Road Dust Management	Road repair, paving, sweeping, road marking, drainage	81.9 km roads, 72,232 sqm paving, 256 km sweeping	7900
4	Greening Activities	Plantation & garden development	43,382 plantations, 5 gardens	636.74
5	C&D Waste Management	Plant upgradation & equipment procurement	65 TPD plant, vehicles & machinery procured	744.02
6	Vehicular Emission	EV charging & parking infrastructure	5 EV stations, 1 parking system	139.95
7	Biomass / MSW Management	MSW vehicles & dustbin distribution	16 vehicles, 71,686 dustbins	470.46

Activity-wise fund utilization is as given below:



The fund utilization pattern for Raipur UA indicates a highly skewed allocation towards road dust management (~78%), reflecting prioritization of fugitive dust control measures. Other sectors such as C&D waste (7%), greening (6%), and MSW management (5%) receive moderate attention, while capacity building, public outreach, and vehicular emission control remain minimally funded (<3%).

Following major declaration was made by ULB Raipur & other dept under the Swachh Vayu Sarvekshan (SVS) 2024-25 w.r.t. roads, C&D waste, MSW, Industrial pollution, electricity etc.

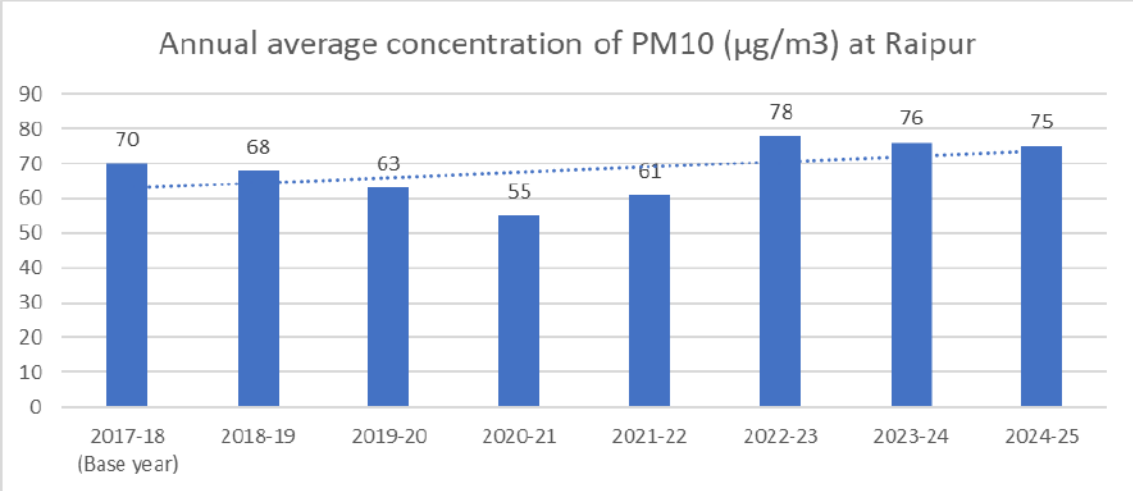
S.No.	Particulars	Declaration
1	**Road Dust**	• Out of total 21,825 roads, 19,870 (91.04%) are maintained/pothole free. • Out of total 533 km road shoulders, 432 km (81.05%) has been paved. • Out of total 2652 km roads, 2335 km (88.05%) are metalled/concreted/blacktopped. • Out of 313 km area to be greened, 64.06 km (20.46%) has been greened. • 100% (2652 km) road length is covered under sweeping including mechanized sweeping.
2	**C&D Waste**	• Out of total 69 TPD C&D waste generated, 100% is collected. • 100% of generated waste is processed. • 100% of generated waste is utilized. • All 46 construction sites (100%) comply with CPCB dust mitigation guidelines.
3	**Electricity**	• Average 23 hours 57 minutes/day electricity supply is being provided (~99.8% reliability).
4	**IEC Activities**	• 30 advertisements per month conducted on social media and platforms. • Out of 3,23,227 houses, 100% covered under door-to-door awareness campaigns. • Out of 97 schools, 91 (93%) covered under awareness programmes.
5	**Industrial Emission**	• All 12 red category industries (100%) have installed OCEMS. • All 186 industries (100%) comply with emission norms. • 96 out of 186 industries (51%) have shifted to clean fuel.
6	**Vehicular Pollution**	• Total 17,35,639 registered vehicles with 112 PUC centres (~6 per lakh vehicles). • 100% PUC centres integrated with centralized server. • 14,32,821 vehicles (83%) have valid PUC certificates. • 25,529 E-vehicles (~1.5%) registered. • 2,426 public buses (~126 per lakh population) available. • 100% (293/293) fuel stations inspected for adulteration. • 22 EV charging stations with ~88% spatial coverage achieved.

7	**Biomass / MSW Burning**	• Out of total 700 TPD MSW generated, 100% is collected and processed. • Legacy waste processing achieved ~91.03% (409,628 MT out of 450,000 MT). • 100% plastic waste (111 TPD) is collected.
8	**Other Emissions**	• 100% households (3,23,227) covered under LPG/PNG scheme. • 100% grievances (184/184) resolved through PGRS.

The assessment indicates that Raipur has achieved near-complete compliance in key sectors such as C&D waste management, MSW handling, and industrial emissions, reflecting strong institutional control and infrastructure. Road infrastructure and mechanized sweeping coverage are also substantial; however, urban greening remains limited (~20%), indicating scope for ecological interventions. Vehicular management is relatively robust with high PUC compliance (83%), though e-mobility penetration remains low, limiting long-term emission reduction. Despite these measures, only marginal improvement (1.31%) in PM_{10} levels suggests that existing interventions are not yet translating into significant ambient air quality gains. Overall, the city demonstrates good compliance-driven performance but requires targeted, outcome-oriented strategies for measurable air quality improvement.

3.3 Air quality:

There are 04 Continuous Ambient Air Quality Station (CAAQMS) are installed at AIIMS, New ISBT, Krishak Nagar & Siltara Phase-II IA. The cumulative annual air quality of these stations reveals that the annual air quality is exceeding the annual standard of 60µg/m3 for PM10. The few years air quality trend is as given below:



The trend shows an initial decline in PM_{10} levels from 70 µg/m³ (2017-18) to a low of 55 µg/m³ (2020-21), indicating temporary improvement in air quality. However, post-2020-21, there is a consistent increase, reaching 78 µg/m³ in 2022-23, followed by a slight decline but still elevated levels (~75 µg/m³ in 2024-25). The overall trend line indicates a gradual upward trajectory, suggesting that recent interventions have not sustained earlier gains. This reflects persistent emission pressures and limited long-term effectiveness of control measures.

3.4 Observations of the Committee for Raipur UA

The Committee conducted field inspections at multiple locations in Raipur UA to assess on-ground implementation of air pollution control measures and noted the following:

- The Continuous Ambient Air Quality Monitoring Station (CAAQMS) at AIIMS, Raipur is located in proximity to the Raipur–Bilaspur National Highway, resulting in elevated NOx & Benzene levels due to heavy vehicular movement. Additionally, operation of chulhas associated with nearby food service activities in the vicinity of the station may influence ambient air quality readings, thereby affecting data representativeness.
- In the industrial areas adjoining Raipur, significant accumulation of road dust along central dividers was observed, indicating inadequate cleaning practices. Resuspension of this dust due to movement of heavy vehicles contributes to localized air pollution.
- At the CAAQMS station in Siltara industrial area Phase-II, the surrounding area is unpaved, leading to dust generation and impacting the monitoring environment.

- Roads outside industrial premises were found to be unpaved (non drain-to-drain), resulting in increased fugitive dust emissions during vehicular movement.

3.5 Recommendations of the Committee

i. Regular and effective cleaning of road dust, particularly along road dividers in industrial areas, shall be ensured through mechanized sweeping and maintenance. *(Implementing Agency: CSIDC)*

ii. The areas surrounding CAAQMS stations shall be paved and maintained as dust-free zones to ensure accurate monitoring of ambient air quality. *(Implementing Agency: CSIDC)*

iii. Chhattisgarh Environment Conservation Board (CECB) shall ensure strict compliance of emission norms by industries, including continuous monitoring and enforcement actions. *(Implementing Agency: CECB)*

iv. Construction and demolition (C&D) waste generated within the city shall be scientifically managed, disposed, or reused in compliance with applicable guidelines. *(Implementing Agency: Concerned Municipal Authority)*

v. All unpaved roads outside industrial premises shall be identified and converted into drain-to-drain paved roads in a phased manner to control fugitive dust emissions. *(Implementing Agency: CSIDC & CECB)*

vi. The location of CAAQMS at AIIMS shall be reviewed for representativeness, and nearby localized sources such as chulha-based cooking activities shall be regulated/relocated to avoid distortion in monitoring data. *(Implementing Agency: CECB & Concerned Municipal Authority)*

vii. A dedicated traffic management plan for Raipur–Bilaspur corridor shall be implemented, including restriction of heavy-duty vehicles during peak hours and development of bypass routes, to reduce vehicular emission load near sensitive receptors. *(Implementing Agency: Transport Department / Traffic Police / NHAI)*

viii. Considering that construction contributes ~37% to PM_{10}, strict enforcement of dust mitigation measures (anti-smog guns, barricading, covering of materials, on-site monitoring) shall be ensured at all construction sites. *(Implementing Agency: Municipal Authority / CECB)*

ix. The current fund allocation pattern shall be rebalanced, with increased investment in vehicular emission control, e-mobility infrastructure, and public transport augmentation, in line with source contribution trends. *(Implementing Agency: Municipal Authority / Transport Department / State Govt.)*

x. In Siltara industrial area, industries shall be mandated to implement fugitive emission control measures, including wind-breaking walls, water sprinkling systems, and covered material handling, along with third-party environmental audits. *(Implementing Agency: CECB & Concerned Industries)*

xi. A comprehensive airshed-level action plan integrating Raipur–Siltara shall be developed using dispersion modelling and GIS-based emission inventory, to enable targeted and coordinated pollution control measures. *(Implementing Agency: CECB / CPCB / State Environment Department)*

xii. Urban greening shall be significantly enhanced from the current ~20% coverage, focusing on roadside plantations, green buffers along industrial corridors, and development of urban forests to improve dust suppression and micro-climate. *(Implementing Agency: Municipal Authority / Forest Department)*

4.0 Graded Response Action Plan:

The Graded Response Action Plan (GRAP) for non-attainment cities (Korba, Raipur, Durg-Bhilai) of Chhattisgarh has been prepared by the Chhattisgarh Environment Conservation Board (CECB) in compliance with national directives under NCAP and regulatory framework. The document reflects implementation aligned with orders issued during 2018–2019, with subsequent operationalization through state-level and district-level institutional mechanisms. The plan has been formally adopted and operationalized through district-level committees constituted by the State Government for enforcement and monitoring.

- GRAP is a predefined, graded emergency response mechanism designed to:
  - Prevent further deterioration of air quality during pollution episodes
  - Ensure time-bound, level-specific interventions based on AQI categories
  - Protect public health, particularly vulnerable groups
  - Facilitate coordinated action among multiple agencies
  - Bring ambient air quality to at least “Moderate” or better category

The plan is dynamic and temporary in nature, activated during adverse meteorological conditions and withdrawn once air quality improves.

- The GRAP framework includes:
  - AQI-based classification system (Good to Severe/Emergency)

- Source-specific control measures (industry, transport, dust, waste, DG sets)
- Cumulative action strategy (measures intensify with worsening AQI)
- Real-time monitoring and forecasting-based activation
- Public advisory and health alerts dissemination system

It integrates regulatory, enforcement, and public participation measures for comprehensive air quality management.

- GRAP Actions as per AQI Levels

(A) Moderate to Poor (AQI 101–300)

- Strict ban on garbage burning
- Enforcement of pollution norms in industries & brick kilns
- Mechanized road sweeping & water sprinkling
- PUC enforcement and control of visibly polluting vehicles
- Dust control at construction sites
- Traffic management & diversion of heavy vehicles

(B) Very Poor (AQI 301–400)

- Restriction on DG set usage
- Increased parking fees to discourage private vehicles
- Augmentation of public transport services
- Ban on coal/firewood use in eateries
- Public health advisories for vulnerable groups

(C) Severe (AQI 401–500)

- Closure of brick kilns, hot mix plants, stone crushers
- Shutdown/restriction of polluting industries
- Intensified road cleaning and dust suppression
- Restriction on truck movement in industrial/mining areas

(D) Severe + Emergency

- Ban on entry of diesel trucks (except essential goods)
- Complete halt of construction activities
- Vehicle restriction schemes (odd-even / low emission zones)
- Closure of schools and emergency public health actions

- Responsible/Implementing Agencies

GRAP implementation involves multi-agency coordination, including:

- Chhattisgarh Environment Conservation Board (CECB) – Monitoring, enforcement, advisories
- District Administration (Collector/DM) – Activation of GRAP, emergency decisions
- Urban Local Bodies (ULBs) – Road dust, MSW, construction control
- Transport Department & Traffic Police – Vehicular emission control, traffic management
- Public Works Department (PWD) – Road maintenance and dust control
- Industry / Power Plants – Compliance with emission norms
- Police Department – Enforcement support
- Directorate of Public Relations – Public communication
- CECB provides real-time AQI data and forecasting, based on which actions are triggered.

➢ Monitoring Committee and Institutional Mechanism

District Level Monitoring Committee has been constituted for implementation and oversight of GRAP having following composition:

- District Collector / District Magistrate – Chairman
- Sub-Divisional Magistrate (HQ) – Member Secretary
- Chairman, Municipal Corporation – Member
- Superintendent of Police – Member
- Regional Officer, CECB – Member
- Transport Department Representative – Member
- Urban Development Authority (UDA) – Member
- Industrial Development Corporation Representative – Member
- Forest Department Representative – Member
- CREDA Representative – Member
- All RTOs of the District – Members
- NGO Representative (Environment) – Member
- Academic Expert (Environment) – Member

The committee is empowered to:

- Review daily AQI and forecasts
- Issue implementation directions to line departments
- Ensure inter-departmental coordination
- Take emergency decisions including restrictions/closures

Copy of the GRAP plan is enclosed as **Annexure-01**

5.0 Time-bound suggestive action plan to improve the air quality in Raipur, Bhilai and Korba Cities:

Based on the field observations, factual status on the work executed under NCAP & XV Finance Commission, available source apportionment study report outcomes, the committee proposes following time-bound suggestive action plan for all the 03 non-attainment cities:

i. KORBA (Critically Polluted Industrial–Mining Airshed)

Dominated by thermal power plant emissions (~50%), mining dust, coal transport, and secondary particulates, with frequent exceedance of carrying capacity due to cumulative industrial load.

Short Term (0–6 Months)

Action	Details	Implementing Agency
Industrial Emission Compliance Drive	100% compliance of ESP efficiency (>99.9%), stack emissions within norms, real-time OCEMS data validation	CECB
Coal Transport Regulation	Mandatory tarpaulin covering, GPS-based tracking, restriction during peak hours	Transport Dept / SECL
Dust Suppression on Corridors	Continuous water sprinkling (3–4 cycles/day), deployment of mechanical sweepers	ULB / PWD
Hotspot Control (Rail siding, ash dyke, mines)	Immediate cleaning, wind barriers, operational sprinklers	SECL / NTPC / Industries
Strict Enforcement	Environmental compensation on violations (ash handling, dust emission)	CECB / District Administration

Mid Term (1–2 Years)

Action	Details	Implementing Agency
Rail-Based Coal Evacuation	Shift ≥50% coal transport from road to rail	MoC / Railways / SECL
FGD Installation in TPPs	SO_2 reduction across all major units	MoP / NTPC / State Power

		Utilities
Mine Dust Control Infrastructure	Paving of haul roads, fixed mist systems, enclosure of crushers	SECL
Urban Buffer Zone Development	3-tier plantation along transport corridors & industries	Forest Dept / ULB
Dedicated Truck Terminals	Reduce congestion and idling emissions	PWD / Urban Dev Dept

Long Term (2–3 Years)

Action	Details	Implementing Agency
Airshed Management System	Integrated modelling for Korba cluster	CECB
Industrial Load Rationalization	No further expansion beyond carrying capacity	State Govt / MoEFCC
Energy Transition	Gradual reduction of coal dependency, renewable integration	State Energy Dept
Continuous Monitoring & Predictive Control	AI-based AQ forecasting	CECB

ii. RAIPUR (Urban–Industrial Mixed Airshed)

Major contribution from road dust (~30–37%), construction, vehicular emissions, and industrial cluster (Siltara), with secondary aerosol formation.

Short Term (0–6 Months)

Action	Details	Implementing Agency
Road Dust Control Intensification	Mechanized sweeping ≥80% road length; vacuum sweeping on arterials	ULB
Construction Dust Regulation	Mandatory green net, anti-smog guns, penalties for violations	ULB / CECB
Vehicular Emission Control	Increase PUC compliance >90%; roadside checks	Transport Dept / Police
Hotspot Mitigation (Traffic nodes)	Signal optimization, congestion management	Traffic Police
CAAQMS Optimization	Relocation/validation of stations, control of nearby	CECB

	local sources	

Mid Term (1–2 Years)

Action	Details	Implementing Agency
Public Transport Expansion	Electric buses, route optimization	UADD
Peripheral Road Development	Divert heavy vehicles outside city	PWD / NHAI
Industrial Emission Control (Siltara)	Retrofitting APCDs, fugitive emission control	CECB
C&D Waste Infrastructure	100% processing and reuse	ULB
Urban Greening (≥30% target)	Roadside plantation, urban forests	Forest Dept

Long Term (2–3 Years)

Action	Details	Implementing Agency
Low Emission Zones (LEZ)	Restrict polluting vehicles in core areas	District Administration
E-Mobility Transition	≥30% EV share in public transport	State Govt
Integrated AQ Management System	GIS + dispersion modelling based decisions	CECB
Urban Planning Reform	Separation of industrial & residential zones	Town Planning

iii. DURG–BHILAI (Industrial Agglomeration)

Dominated by steel industry (~40%), transport, construction, and road dust, with high secondary PM formation.

Short Term (0–6 Months)

Action	Details	Implementing Agency
Industrial Compliance Audit	Third-party audit of all steel & sponge iron units	CECB
Fugitive Emission Control	Covered conveyors, water spraying, enclosure	Industries
Dust Removal from Dividers & Roads	Daily cleaning with vacuum systems	ULB / CSIDC
Ban on Biomass Burning	Strict enforcement in residential areas	ULB

Mid Term (1–2 Years)

Action	Details	Implementing Agency
Advanced Pollution Control (DeNOx, FGD)	Reduction of NOx & SO_2 emissions	Industries
Clean Fuel Transition	PNG/LPG adoption in domestic/commercial sector	State Govt
Green Belt around Steel Plants	Minimum 100 m buffer zone	Forest Dept
Traffic Management Plan	Dedicated freight corridors	PWD

Long Term (2–3 Years)

Action	Details	Implementing Agency
Industrial Restructuring	Align with carrying capacity limits	State Govt
Secondary Aerosol Control Strategy	Integrated NOx + SO_2 reduction	CECB
Smart Monitoring System	Satellite + AI-based emission tracking	CECB

iv. SILTARA (Polluted Industrial Area – CPA)

Dominated by industrial emissions (~49% PM10), road dust, and combustion sources, with high localized pollution.

Short Term (0–6 Months)

- 100% OCEMS connectivity and validation
- Immediate closure of non-compliant industries
- Dust suppression in internal roads & yards
- Ban on open storage of raw materials

Agency: CECB / Industries / District Administration

Mid Term (1–2 Years)

- Common pollution control infrastructure (cluster-based)
- Fly ash and hazardous waste management strengthening
- Green belt development ≥33% area coverage

Long Term (2–3 Years)

- Transition to clean fuels (gas-based systems)

➢ **Mandatory regulatory framework for all cities**

Short Term

- Strict GRAP activation linked to AQI thresholds
- Daily AQI-based review by District Collector
- Real-time data disclosure and public advisories

Mid Term

- Expansion & rationalization of CAAQMS network
- Periodic emission inventory (every 2 years)
- Capacity building of ULBs and enforcement agencies

Long Term

- Airshed-based governance (regional approach)
- Integration of satellite monitoring + modelling + forecasting
- Environmental compensation regime strengthening

The proposed action plan is scientifically anchored in source apportionment and carrying capacity assessments, and addresses sector-specific emission sources through phased interventions.

(Devvrat Mishra)
Executive Engineer
Chhattisgarh Environment Conservation Board
Raipur (C.G.)

Sd/-
(Pulak Bhattacharya)
Additional Director
Urban Administration & Development Department,
Raipur (C.G.)

(Sunil Kumar Meena)
Scientist-E
Central Pollution Control Board
Bhopal (M.P.)

(A.C. Maloo)
Officer of Special Duty
Department of Housing and Environment
Raipur (C.G.)

GRADED RESPONSE ACTION PLAN FOR THE NON ATTAINMENT CITIES OF CHHATTISGARH

CHHATTISGARH ENVIRONMENT CONSERVATION BOARD
(Department of Housing and Environment, Government of Chhattisgarh)
Paryavas Bhawan, North Block, Sector-19
Nava Raipur, Atal Nagar (C.G.) 492002

CONTENTS

1.0 Background

The air qualities in cities are influenced by regional-level activities and meteorological conditions. During certain period in a year, due to high intensity activities and adverse metrological conditions, the air quality deteriorates to such an extreme level that it poses significant health risk. Particularly the elderly people, sick persons, women and children are worst affected.

Air quality is measured through several parameters. In order to present the air quality in a comprehensive and simple manner, the Central pollution Control Board (CPCB) has developed an Air Quality Index (AQI) that is used across the country. The AQI classifies the air quality in a scale ranging from '*Good*' to '*Severe*' following a protocol that uses PM_{10}, $PM_{2.5}$, SO_2 and NOx as the input air quality parameters.

Due to intense urban activities, air qualities in urban areas are observed to be falling below 'satisfactory' quality in unfavorable meteorological condition, particularly during winters at a greater frequency. Therefore, an appropriate intervention mechanism has become essential to put a check on further deterioration and to restore air quality including precautionary measure to minimize health risk.

Management of air quality involves multiple agencies like, State Pollution Control Board, Forest & Environment Department, District Administration, Urban Local Bodies, Traffic Police, Transport Department and Education Department etc. This document outlines the actions to be taken by different agencies and departments, in case an emergency situation arises in terms of air quality in **the non attainment cities of Chhattisgarh state** to bring back the air quality to an acceptable level.

2.0 Air Quality Index

Air Quality Index is the tool to categorize the air quality to express in terms of human health. Air Quality index is calculated based on the any three air quality parameters which must include one parameter of particulate matter (either PM10 or PM2.5). Daily and Annual average concentration for these pollutants as notified under Environment (Protection) Rules, 1986 by Government of India is as follows: -

Table-1: Daily and Annual average concentration of the Pollutants

S.No.	Name of Pollutant	Standards (24 Hr)	Standards (Annual average)
1.	PM10	100	60
2.	PM2.5	60	40
3.	Sulphur Dioxide	80	50
4.	Oxide of Nitrogen	80	40

The AQI is used to provide information about the city air quality in a simple manner. The expression of AQI is reflective of possible health effects which may cause over an exposure of a few hours or days to such unhealthy air. Higher the AQI value, the greater is the level of air pollution and the greater the health concern. The classification of air quality in terms of AQI and corresponding health effect are presented in Table –2.

Table-2: Air Quality Index and Health Effect

Air Quality Index	Category	Possible Health Impact
0-50	Good	Minimal Impact
51-100	Satisfactory	Minor Breathing discomfort to sensitive people
101-200	Moderate	Breathing discomfort to the people with lungs, asthma and heart diseases
201-300	Poor	Breathing discomfort to most people on prolonged exposure
301-400	Very Poor	Respiratory illness on prolonged exposure
401-500	Severe	Affects healthy people and seriously impacts those with existing diseases

Source: Central Pollution Control Board.

Since there are various levels of AQI and respective AQI has a significant health issue which is given in the table-2 above, so graded response action plan is required to be prepared to address the enhanced air pollution level, its control and preventive measures during such situations. Each plan is aim to bring down the concentration of ambient air pollutant at any location in no-attainment cities of Chhattisgarh state to at least moderate level or better as per table -2 above.

3.0 Graded Response Action Plan for Air Pollution (GRAP)

The proposed Graded Response Action Plan (GRAP) for Air Pollution measure approach for each pollution source according to the Air Quality Index (AQI) categories includes appropriate measures for each level of pollution (PM10 / PM2.5).The GRAP measures are meant to be temporary measures for duration of pollution episodes and are implemented according to the severity of the air pollution levels. Once the levels come down and stabilize, measures are withdrawn. The objective of the GRAP is to prevent pollution from getting worse when adverse weather conditions trap and spike pollution. GRAP has been prepared, which may be implemented as and when required and when severe conditions are forecasted.

The proposed GRAP includes set of measures to be implemented with greater vigour and stringency to prevent and avoid high level of air pollution in cities. This is linked to the national air quality index that categorises daily air quality as good, satisfactory, moderate, poor, very poor, severe, and emergency. All actions suggested for each category are cumulative and add up to the level of emergency as air quality worsens.

For implementation of GRAP, Chhattisgarh Environment Conservation Board (CECB) will advise the District Level monitoring committee on the daily pollution levels and forecasting based on real time monitoring. Accordingly the Committee may issue notices to the city authorities to implement the pre-defined action. Each implementing department will appoint a nodal officer to facilitate implementation. The action notified for moderate and poor categories that are largely about stringent enforcement in different sectors can become default action for continuous implementation throughout the year. Additional measures meant for very poor and severe maybe notified which such situation develops especially during adverse meteorological conditions.

This system have input of daily air quality data into the CECB website and public dissemination system on air quality and health alert through electronic media or social networking. The measures can be customized based on the special needs and the unique pollution profile of the city.

Announcement of the initiation and termination of an Air Pollution Emergency will be made by the District Magistrate concern. Conditions justifying the proclamation of an internal episode watch, alert, warning, or emergency will be deemed to exist whenever the level of AQI in any place of the city is attaining or has attained levels above 200 i.e. above moderate category and if such levels are sustained for 72 hours and District Magistrate determines that such level in any place is threat to the health of the public and action is required.

Moderate to poor

Poor - When PM2.5 levels are between 91-120 microgramme per cum or PM10 levels are between 251-350 microgramme per cum;

Moderate - When PM2.5 is between 61-90 microgram per cum or PM10 is between 101 250 microgram per cum.

S. No.	Action to be taken	Agency responsible
1	Stringently enforce/stop garbage burning in landfills and other places and impose heavy fines on person responsible.	• Urban Local Bodies
2	Close/stringently enforce all pollution control regulations in brick kilns and industries.	• Chhattisgarh Environment Conservation Board(CECB)
3	Stringently enforce pollution control in thermal power plants through Pollution Control Board monitoring.	• Chhattisgarh Environment Conservation Board.
4	Do periodic mechanized sweeping on roads particularly in roads with heavy traffic and water sprinkling every two days.	• Urban Local Bodies • Traffic Police department • PWD
5	Strict vigilance and no tolerance for visible emissions – stop plying of visibly polluting vehicles by impounding or heavy fine.	• Department of Transport • Traffic Police
6	Stringently enforce rules for dust control in construction activities and close non-compliant sites.	• District Administration • Police department
7	Deploy Traffic Police department for smooth traffic flow at identified vulnerable areas.	• Traffic Police department
8	Divert non-destined truck traffic.	• Urban Local Bodies • Traffic Police department
9	Strictly enforce Supreme Court orders on firecrackers.	• Chhattisgarh Environment Conservation Board • District Administration in consultation with Chief Controller of Explosives,

		Petroleum and Explosive Safety Organization (PESO) • Police department.
10	Ensure fly ash ponds are watered every alternate day during summer months (March-May)	• Plant in-charge of Power Plants. • Chhattisgarh Environment Conservation Board • District Administration
11	Information dissemination, social media, mobile Apps should be used to inform people about the pollution levels, contact details of control room, enable them to report polluting activities/sources to the concerned authorities, and actions that will be taken by government based on the level of pollution.	• Chhattisgarh Environment Conservation Board • District Administration • Directorate of Public Relation.

Very Poor

When PM 2.5 levels are between 121-250 microgramme per cum or PM10 levels are between 351-430 microgramme per cum

S. No.	Action to be taken	Agency responsible
1	Control use of diesel generator sets by improving electricity supply.	• Chhattisgarh Environment Conservation Board
2	Restrict parking and enhance parking fee by 3-4 times in commercial areas to reduce usage of personal vehicles.	• Urban Local Bodies
3	Augment public transport services by increasing frequency and ensure adequate para-transit services.	• Department of Transport • State Transport Corporation
4	Stop use of coal/firewood in hotels and open eateries.	• Urban Local Bodies
5	Alert in newspapers/TV to advice people with respiratory and cardiac patients to avoid polluted areas and restrict outdoor movement.	• Chhattisgarh Environment Conservation Board • Directorate of Public Relation.

Severe

When PM2.5 levels are above 250 microgramme per cum or PM10 levels are above 430 microgramme per cum

S. No.	Action to be taken	Agency responsible

1	Close brick kilns, Hot Mix plants, Stone Crushers and other highly polluting units or as applicable locally	• Chhattisgarh Environment Conservation Board • District Administration • Police Department
2	Shut down / minimize operation of coal based polluting industrial units and plants if the emission are found to be beyond permissible limit; Allow plants on cleaner fuels like natural gas, electricity etc.	• Chhattisgarh Environment Conservation Board
3	Intensify public transport services. Introduce differential rates to encourage off-peak travel.	• Transport Department • State Transport Corporations
4	Increase frequency of mechanized cleaning of road and sprinkling of water on roads. Identify road stretches with high dust generation.	All road owning agencies including: • Urban Local Bodies • Public Works Department • National Highway Authority of India
5	Restrict movement of trucks inside the coal field mine areas.	• Chhattisgarh Environment Conservation Board. • Department of mining.

Severe + Emergency

When PM2.5 levels cross 300 microgram per cum or PM10 levels cross 500 microgram per cum (or 5 times above the standard) or persist for 48 hrs or more.

S. No.	Action to be taken	Agency responsible
1	Stop entry of diesel truck traffic into city (except essential commodities).	• Traffic Police. • Urban Local Bodies.
2	Stop construction activities.	• Chhattisgarh Environment Conservation Board. • Urban Local Bodies.
3	Introduce some form of vehicle restraint measures for private vehicles based on license plate numbers, or introduce low emissions zones in the city to stop entry of polluting vehicles (old and ageing and polluting diesel vehicles etc).	• Transport Department. • Traffic Police.
4	State Pollution Control Board Task Force to take decision on any additional steps including shutting of schools.	• Education Department • Chhattisgarh Environment Conservation Board • District Administration

4.0 Action to be taken by public in Emergency

While the National Air Quality Index (AQI) and health advisory will inform people about the dangers of exposure, people are also expected to take precautionary measures to protect themselves. Suggested actions by public are listed below:-

Level according to AQI	Action
Very poor, severe and emergency	• Those suffering from heart diseases, asthma, and other respiratory disease may consider avoiding undue and prolonged exposure
	• Schools to suspend all outdoor activities and sport events
	• Report visible emissions from vehicles, industries, power plants, garbage burning, and other non-compliances to the respective control rooms
	• Do not use diesel and kerosene generators
	• Maintain vehicles properly (PUC certificate, replace car air filter, maintain right tyre pressure)
	• Minimize unnecessary travel, use public transport & avoid using private vehicles

5.0 Institutional Mechanism for Implementation of GRAP

In order to implement and monitor progress of the proposed actions, a district level monitoring committee is proposed, which will also provide for the institutional mechanism for implementation. The committee may co-opt members as and when required. Proposed composition of District Level Monitoring Committee for GRAP:

Name of the Official	Designation
District Collector/ District Magistrate	Chairman
Sub-divisional Magistrate of District Head Quarter	Member Secretary
Chairman, Municipal Corporation	Member

Superintendent of Police	Member
Regional officer of Chhattisgarh Environment Conservation Board	Member
Representative of leading NGOs working on environment related issues (nominated by Chairman)	Member
Regional officer from Transport Department	Member
Urban Development Authority (UDA)	Member
One academician from the field of environment (nominated by Chairman)	Member
Regional Officer from Chhattisgarh State Industrial Development Corporation	Member
Nominated Official from CREDA	Member
All RTOs of the district	Member(s)
Nominated Official from Forest Department	Member

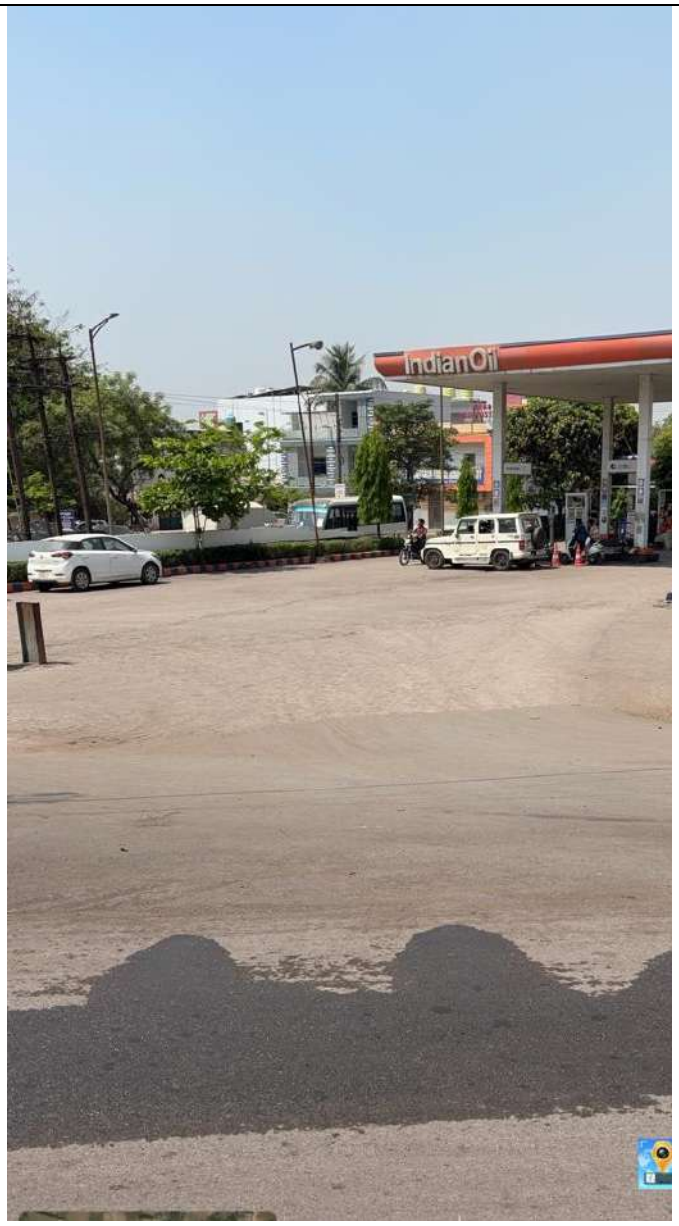
Annexures for Korba City

Annexure – K1

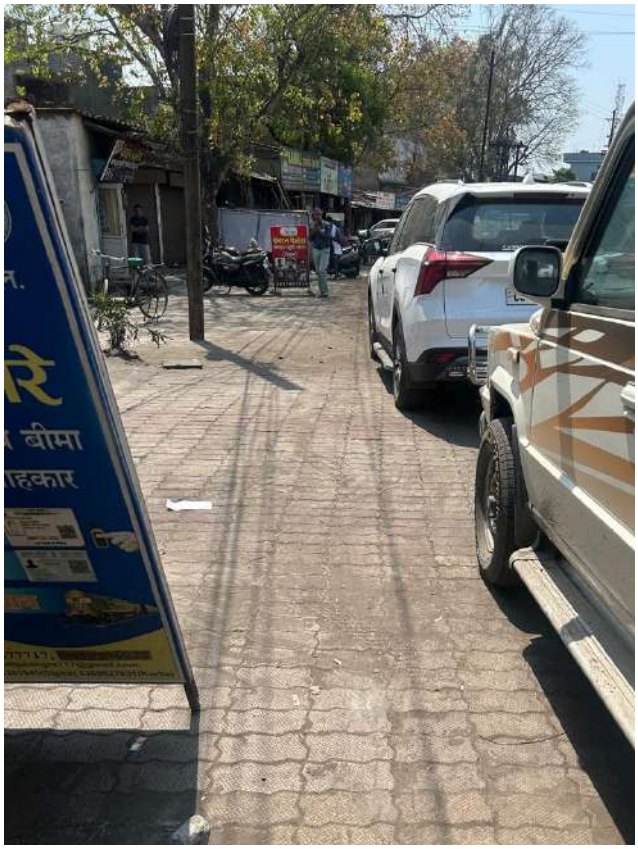
The garden near water treatment plant, Kohadiya, Ward No.- 16

Self Watering Plants

Annexure – K2
Mudhpar bypass



Road Shoulders Paved but not cleaned



Operational Fog Canon/Mist Canon

Annexure – K3
Manikpur railway siding area

Dust accumulation on sides of road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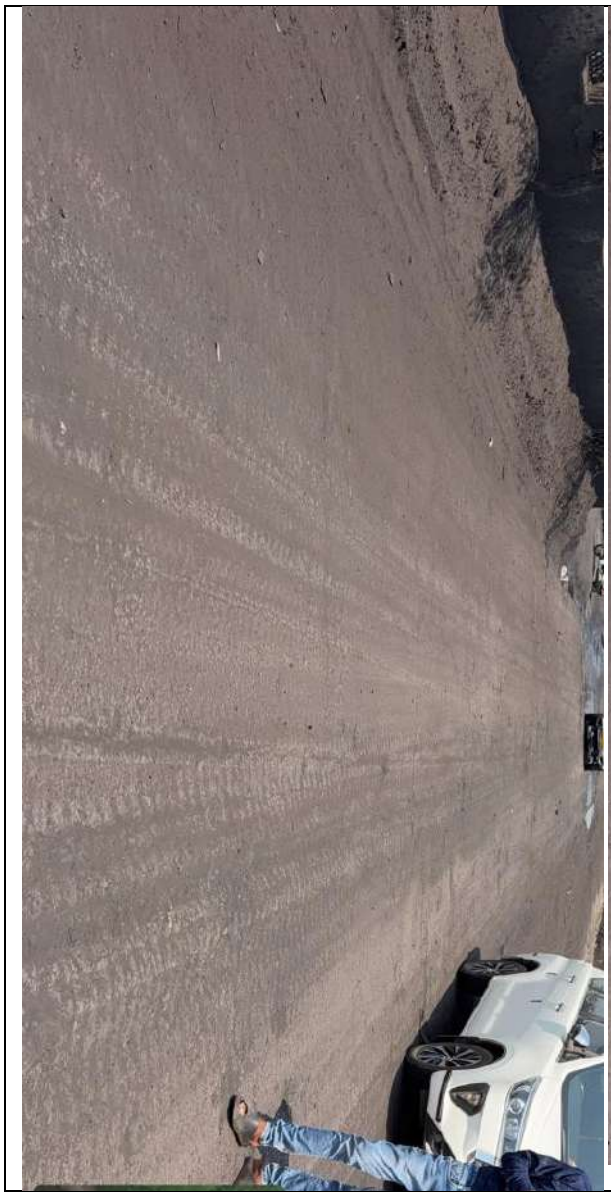

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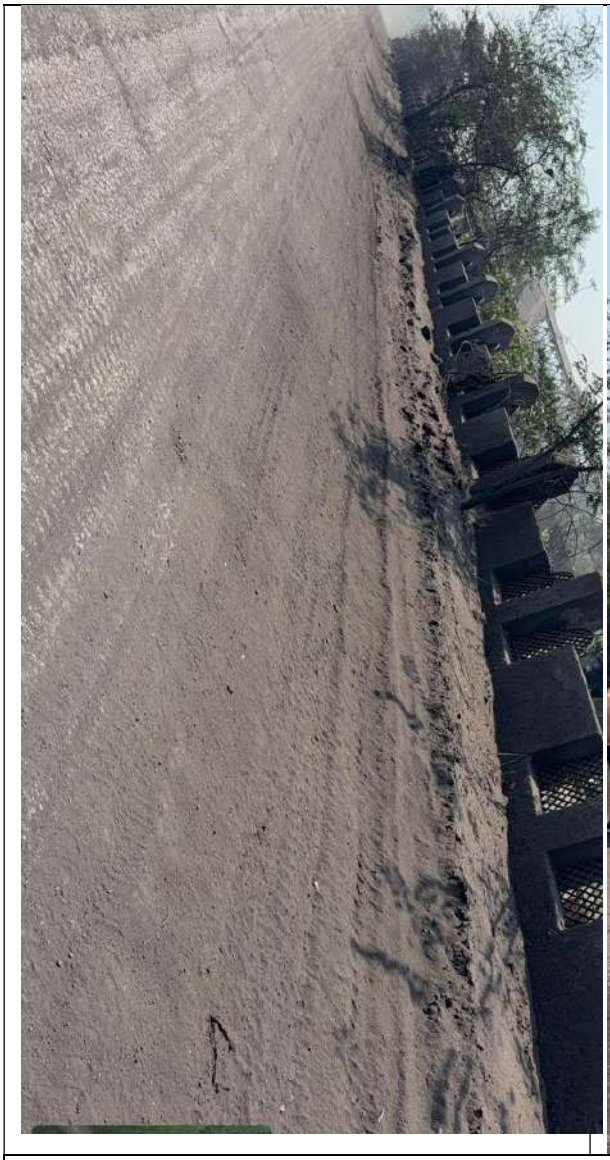
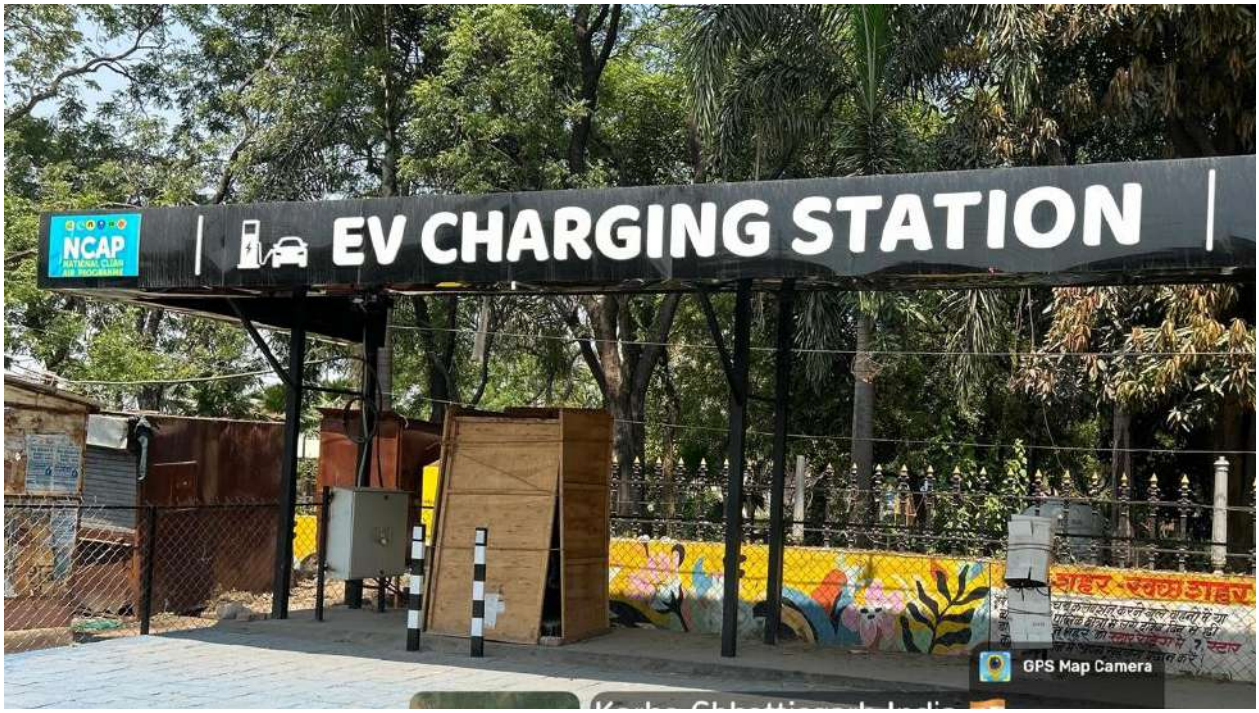


Without Tarpaulin Covered Truck Transportation

Annexure – K4
EV Charging Station



Annexure – K5
The emissions from the stacks of Industries

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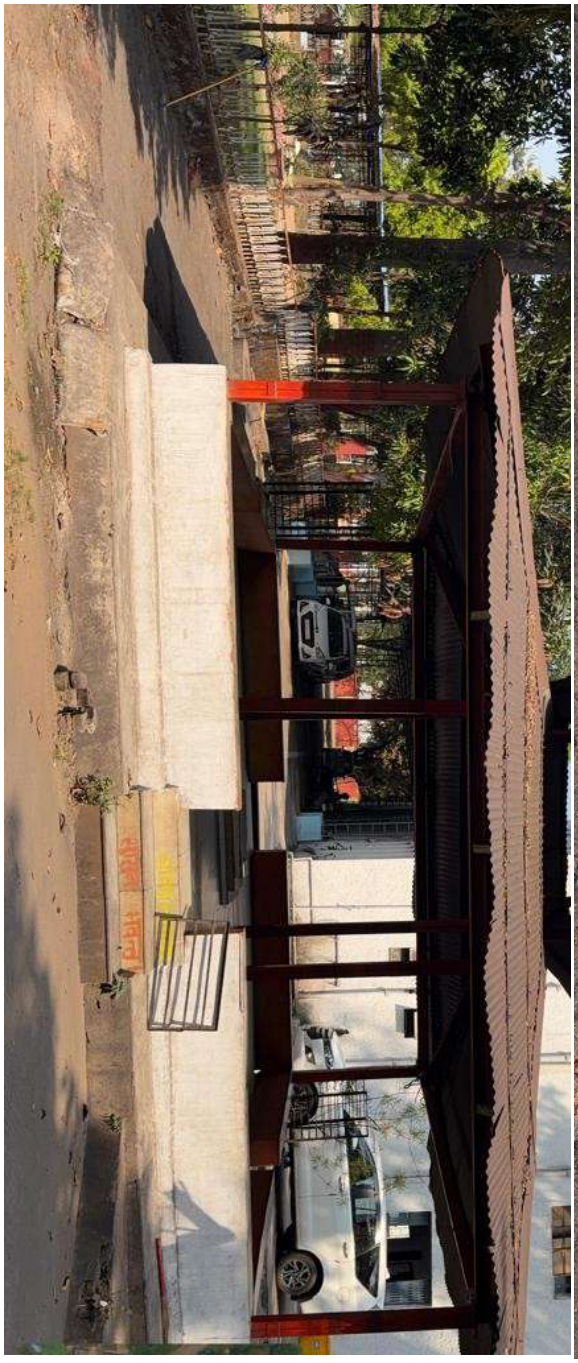
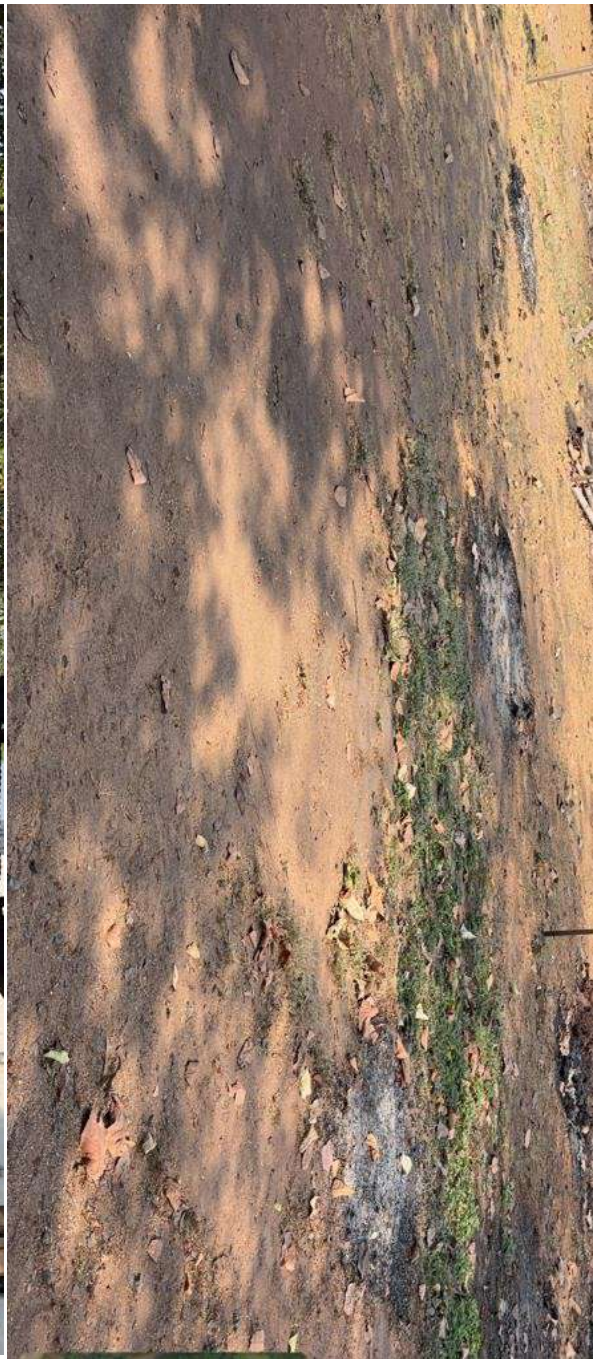
Annexure – K6
Construction and demolition waste processing plant at Transport Nagar, Korba

Annexure – K7
CAAQMS Station at DAV Public School, Gewra, Korba

Open Burning of Tree Leaves found at Various locations inside school Premises





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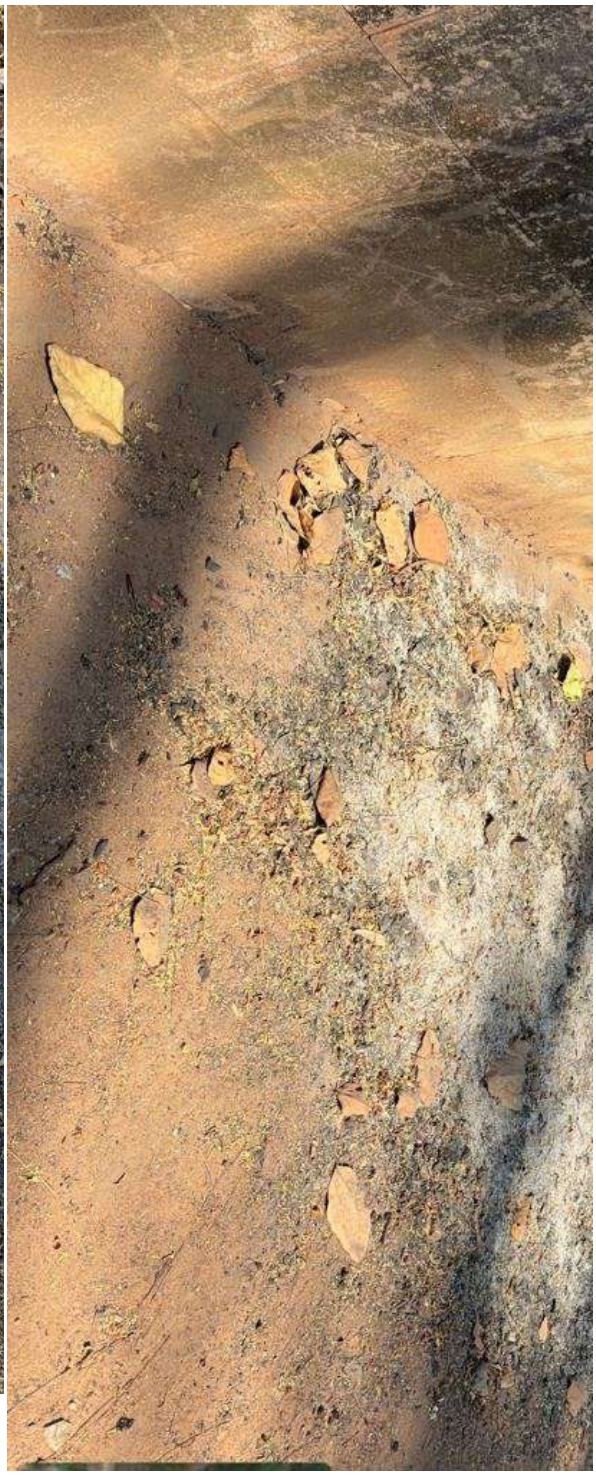

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Annexure – K8
SECL Gewra Area Coal Transportation Route Status

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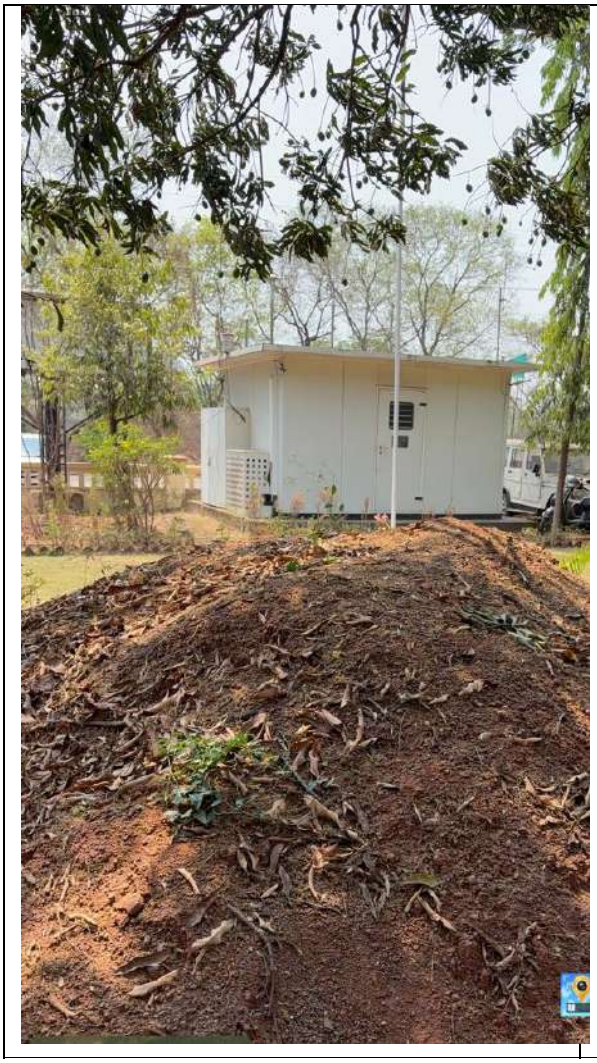
Annexure – K9
Ash dyke area of NTPC, Korba

Annexures for Bhilai City

Annexure –B1

Continuous Ambient Air Quality Monitoring Station at 32 Banglow, CECB office, Bhilai



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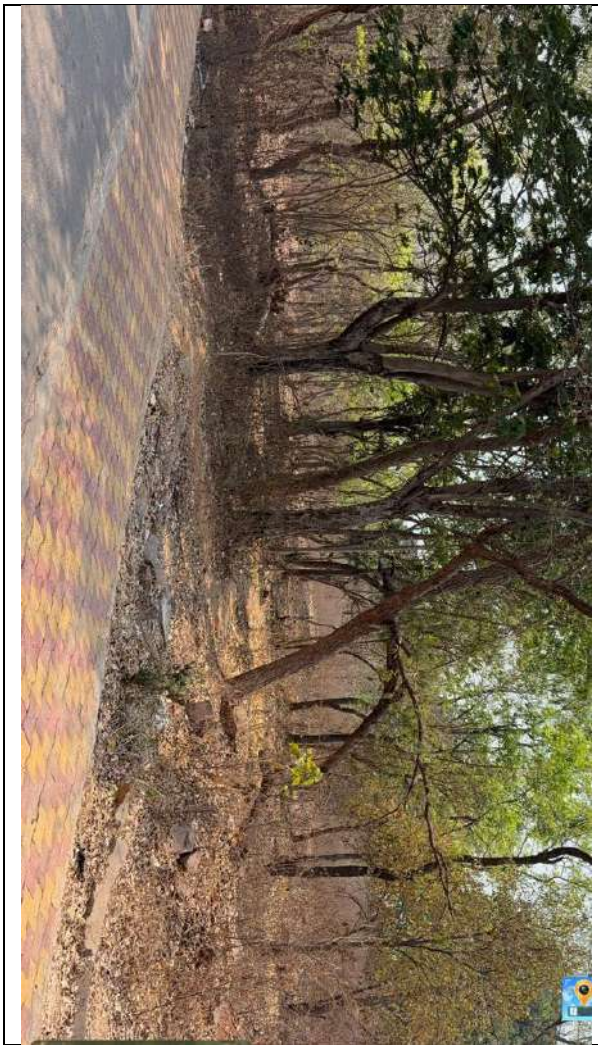

Annexure – B2
Dust accumulation near the road divider

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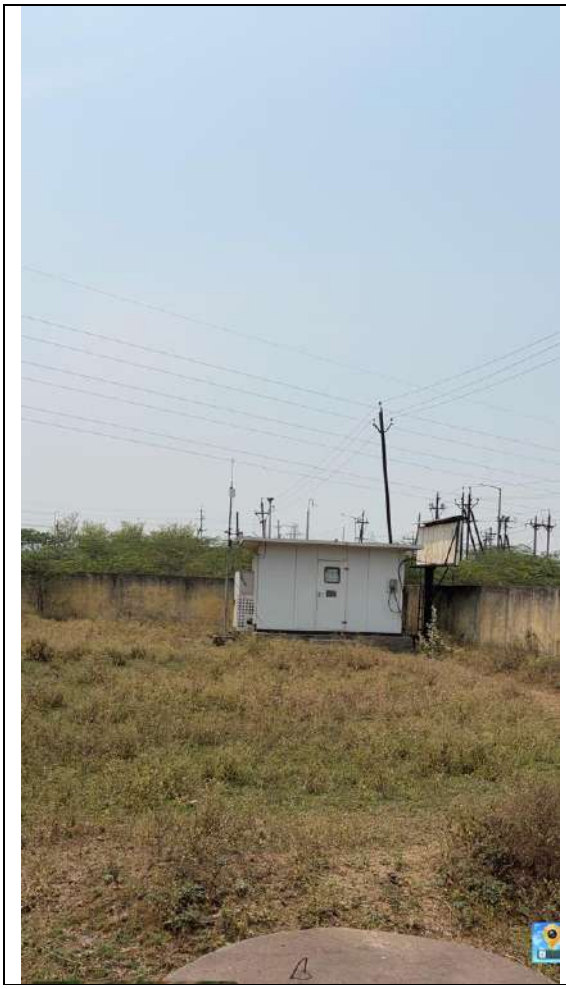
Annecure – B3
CAAQMS station at Hathkhoj industrial area, Bhilai



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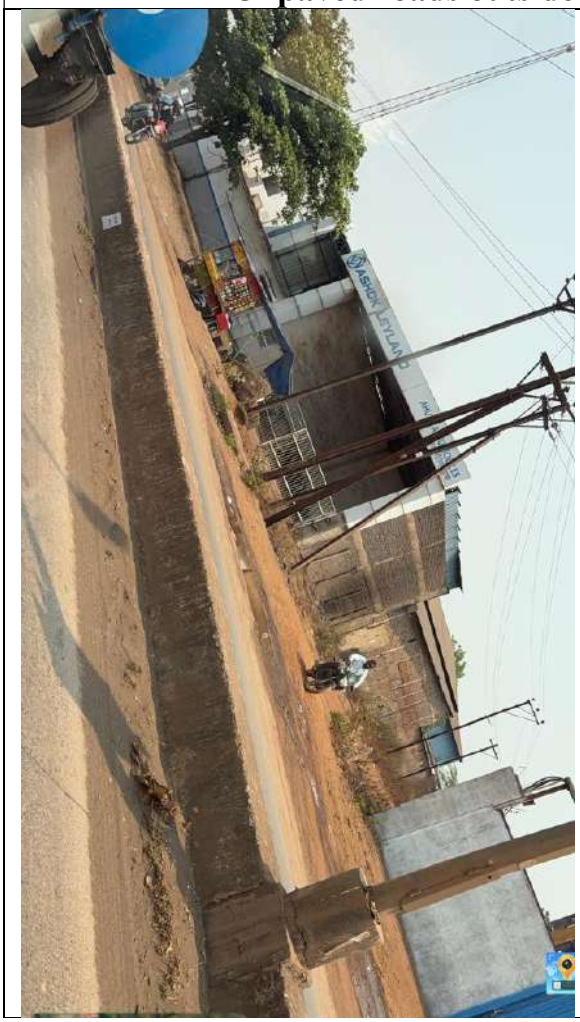
Annexure – B4
Unpaved roads outside the Industrial Premises



Annexures for Raipur City

Annexure – R1

Area near to Continuous Ambient Air Quality Monitoring Station at AIIMS, Raipur and Water Fountain Established Near to Station


नगर पालिका निगम
15th FINANCE COMM
कार्य का नाम : NCAP के अंत
फाउंटेन स्थापना
एजेंसी : बालाजी फाउंटेन
संधारण : 2 वर्ष
फोन नं. : 9406247237
समय : सुबह 8.00 से 11.
दोपहर 1.00 से 2.
शाम 6.00 से 8.0

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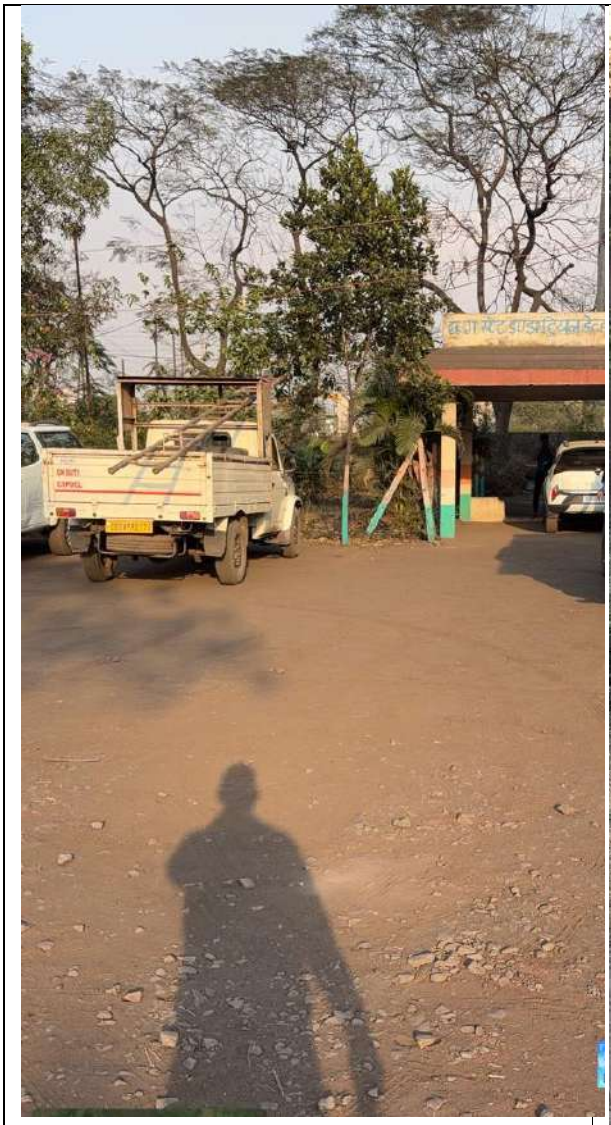
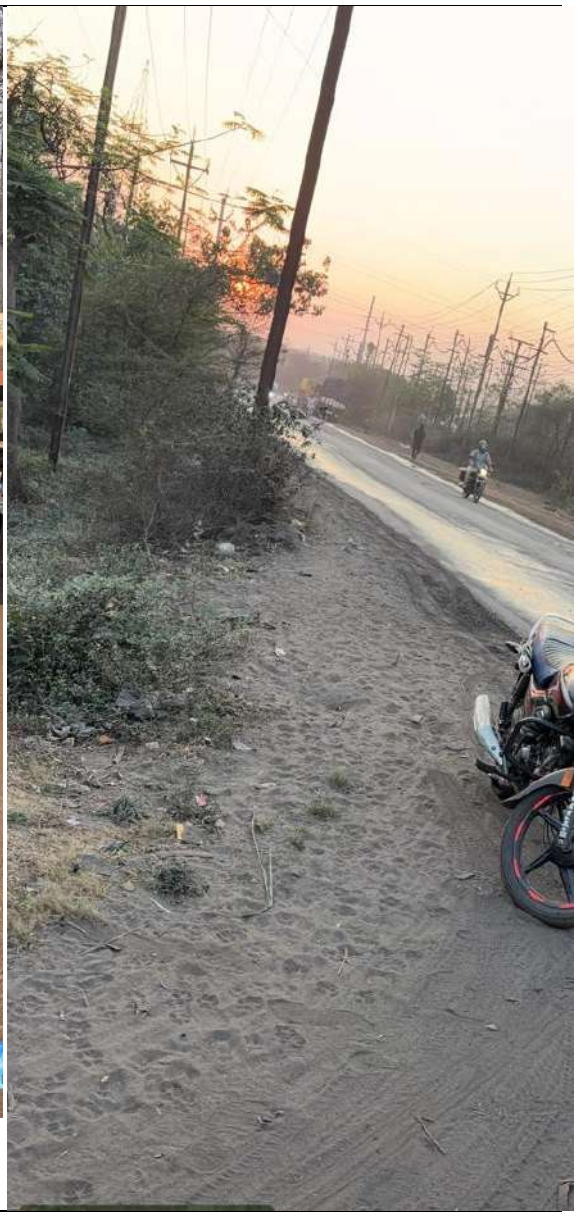
Annexure – R2

CAAQMS station at Siltara, Raipur and Area nearby





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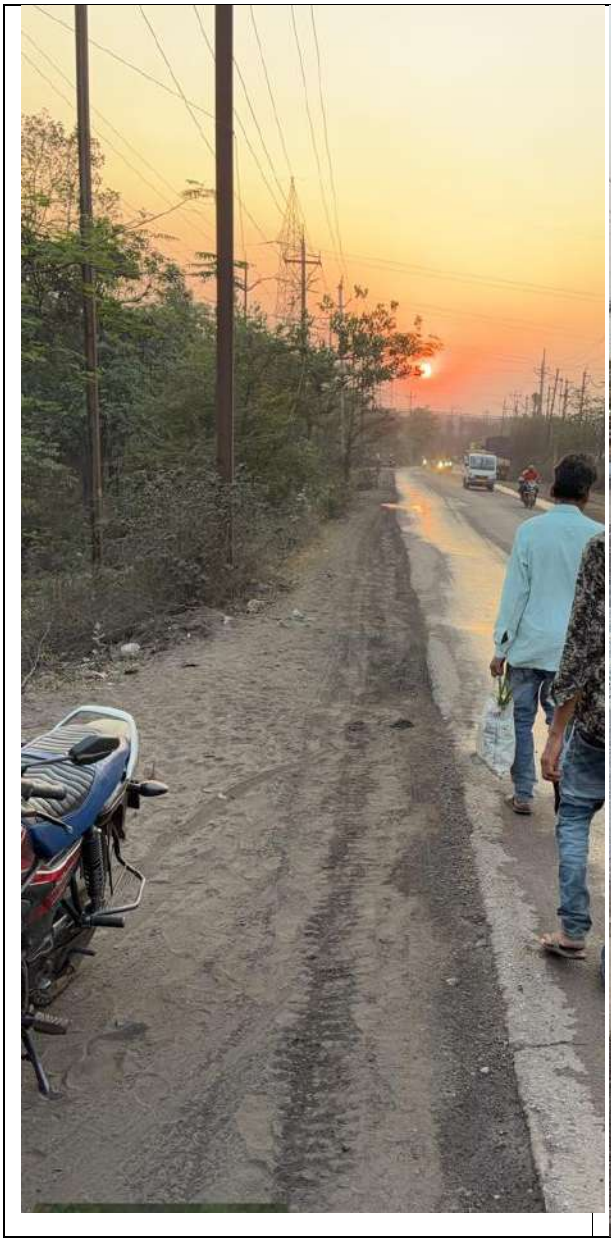

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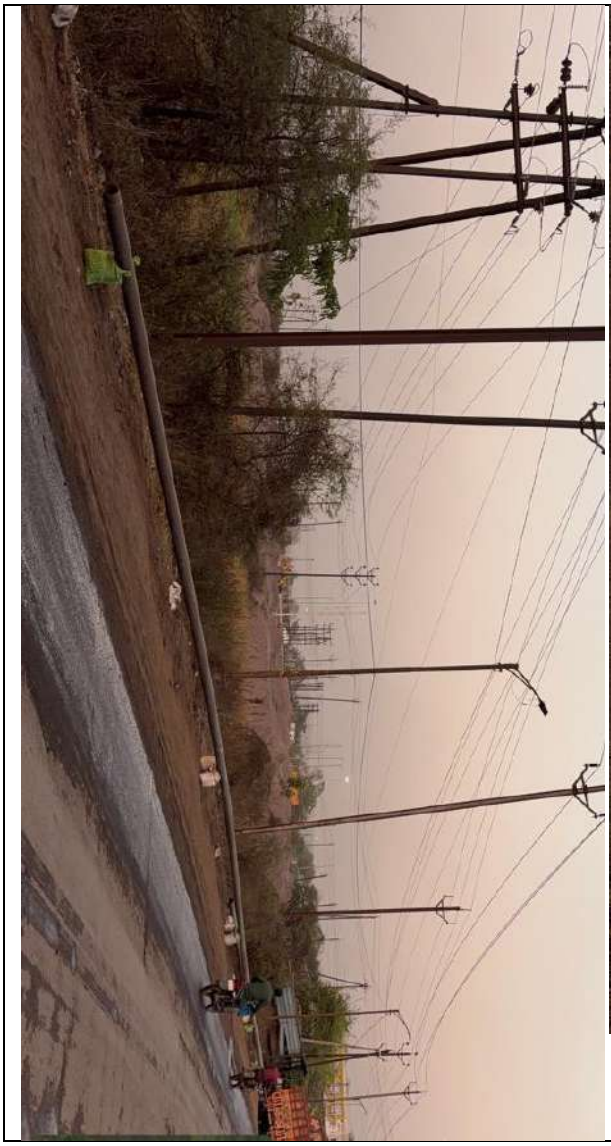

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BEFORE THE NATIONAL GREEN TRIBUNAL
CENTRAL ZONE BENCH, BHOPAL
Original Application No. 175/2025 (CZ)

IN THE MATTER OF:

News Item Titled "Raipur Bhilai Va Korba Ki Hawa Kharab Panch Shal Me Do Sho Carod Karch Phirb Bhi Nahi Sudhari" Appearing in Dainik Bhaskar Raipur Dated 20th November, 2025 *Suo Motu*

Versus

State of Chhattisgarh & Ors. ...Respondent(s)

V A K A L A T N A M A

KNOW ALL to whom these presents shall come that I/we, Mr. Devvrat Mishra, Executive Engineer, Authorized Representative of Chhattisgarh Environment Conservation Board, the Respondent No. 4 in the captioned matter. The above-named person do hereby appoint,
Abhinay Sharma (D/2192/2011), Kirti Vyas (MP/3250/2021), Parul Khurana (D/5897/2022) and Deeksha Prakash (D/4182-A/2022), Sakshi Jain (MP/2221/2020), Sakshi Tripathi (D/13306/2025) (Hereinafter called the Advocate) to be my/our Advocate in the above-noted case and authorize him:-

To act, appear, and plead in the above-noted case before this Tribunal and/or in any other Court in which the same may be tried or heard and also in the appellate Court including High Court to payment of fees separately for each court by me/us.

To sign, file verify and present pleadings, replications appeals cross-objections or petitions for executions, review, revision, restorations withdrawal compromise or other petitions, replies, objections or affidavits, or other documents as may be deemed necessary or proper for the prosecution of the said case in all its stages.

To file and take back documents.

To withdraw, or compromise the said case or submit to arbitration any differences or disputes that may arise touching or in any manner relating to the said case.

To take out execution proceedings. To take out execution proceedings.

To deposit, draw and receive moneys, cheque and grant receipt thereof and to do all other acts and things which may be necessary to be done for the progress and in the course of the prosecution of the case.

To appoint and instruct other Legal Practitioners authorizing him to exercise the power and authority hereby conferred upon the attorney on our behalf.

And I/We the undersigned do hereby agree to rectify and confirm acts done by the Advocate or his substitute in the matter as my/our own acts, as if done by me/us to all intents and purposes.

And I/We undertake that I/We or my/our duly authorized agent would appear in Court on all hearings and will inform the Advocate for appearance when the case is called.

And I/We undersigned do hereby agree not to hold the advocate or his substitute responsible for the result of the said case in consequence of his absence from the Court when the said case is called up for hearing, or any negligence of the said Advocate/s or his/their Substitute.

And I/We the undersigned do hereby agree that in the event of the whole or any part of the fee agreed by me/us to be paid to the Advocate remaining unpaid, he/they shall be entitled to withdraw from the prosecution of the said case until the same is paid up. If any costs are allowed for an adjournment, the Advocate would be entitled to the same. The fee settled Is only for the above case and Court.

IN WITNESS WHEREOF I/We do hereunto set my/our hand to those presents the contents of which have been understood by me/us this .....18..... day of .....February..... 2026.

Accepted subject to the terms of fees.

Abhinay Parul

Advocates

Kirti Vyas Deeksha Sakshi

Devvrat Mishra
Client
18/02/2026

CHHATTISGARH ENVIRONMENT CONSERVATION BOARD

ParyavasBhawan, North Block, Sector-19
Atal Nagar, Nava Raipur (C.G.)
Email - hocecb@gmail.com

No. 11644 /Legal/CECB/2026 Atal Nagar Raipur , Date 20/1 /2026

1. **Mr. Devvrat Mishra, EE,**
   Office-In-Charge,
   Chhattisgarh Environment Conservation Board, Atal Nagar, Nawa Raipur.

2. **Mr. Abhinay Sharma,**
   Advocate,
   H-29, First Floor Jangpura Extension New Delhi 110014.

Sub:- **APPOINTMENT OF THE OIC AND CASE ALLOTMENT IN THE MATTER OF NEWS ITEM TITLED "RAIPUR BHILAI VA KORBA KI HAWA KHARAB PANCH SHAL ME DO SHO CAROD KARCH PHIR BHI NAHI SUDHRI" APPEARING IN DAINIK BHASKAR RAIPUT DATED 20.11.2025 (OA No. 175 /2025 CZ)**

Mr. Devvrat Mishra, EE, Chhattisgarh Environment Conservation Board, Atal Nagar, Nawa Raipur is hereby appointed the Officer-In-Charge in the The Matter of News item Titled "Raipur Bhilai Va Korba ki hawa kharab panch shal me do sho carod karch phir bhi nahi sudhri" appearing in dainik bhaskar raiput dated 20.11.2025 (OA No. 175 /2025 CZ) before the Hon'ble National Green Tribunal, Central Zonal Bench, Bhopal on behalf of Member Secretary, Chhattisgarh Environment Conservation Board, Nawa Raipur, Atal Nagar (CG) (Respondent).

The said case is allotted to Board's empaneled Advocate to **Mr. Abhinay Sharma.** The OIC is hereby directed to contact the Advocate as soon as possible via email: **abhinay@aslpartners.in or phone +919899272882** and ensure timely representation of the Board before the Court in the said matter.

The OIC and the Advocate appointed herein shall handle and deal with the matter in accordance with the **Annexure I.**

The OIC and the Advocate shall, from time to time, inform the Board of the updated status of the case via email at hocecb@gmail.com.

Enc-Petition copy

Member Secretary
Chhattisgarh Environment Conservation Board
Atal Nagar, Nava Raipur (CG)

Officer-in Charge **Annexure I**

1. The OIC so appointed shall be responsible for the following:
   a. The OIC shall contact the empaneled advocate as given in the appointment letter and give necessary instructions supported by all required documents.
   b. The OIC shall assist the Advocate in preparation of the reply/ petitions/ complaints/ appeals/ applications by supplying such documents or briefs as required by the Advocate from time to time.
   c. The OIC shall ensure timely submission of the reply/ petitions/ complaints/ appeals/ applications by the Advocate.
   d. The OIC shall not conceal or withhold any relevant information or document required for representing the case on behalf of the Board.
   e. The OIC should be aware of the updated status of the matter allotted to him/her and ensure compliance of the order/judgment of the Court as issued from time to time.
   f. The OIC shall vet the reply/ petitions/ complaints/ appeals/ applications prepared by the Advocate and give comments (if any) before the same is filed before the Court.
   g. The OIC appointed is authorized to sign/ approve documents and do any such action as required on behalf of the Board including but not limited to signing of Vakalatnama/ affidavit etc.

Empaneled Advocate:

2. The Advocate shall keep the OIC and the Board informed about the developments in the matters entrusted, on regular basis, using all digital modes of communication and shall intimate through call if the situation so demands including the date of hearing of the case.
3. The Advocate shall prepare and file reply/ petitions/ complaints/ appeals/ applications based on the instructions from and in consultation (oral or written) with the OIC of the matter and furnish a scanned copy of the same to the OIC and the Board within 5 days of filing of the same.
4. The Advocate shall obtain approval of the OIC on the final draft of reply/ petitions/ complaints/ appeals/ applications before filing the same before the Court.
5. When any case attended to by the Advocate is decided against the Board, he/she shall give his/her opinion regarding filing an appeal from such a decision not later than 5 working days of the order.
6. The Advocate shall furnish the copies of the Order or Judgment of the Court as is passed by the Court from time to time to the OIC and the Board with a brief note on any particular compliance/directions required to be done by the Board or any other relevant consideration within 5 days of the issuance of the order.
7. The Advocate shall not give any oral or written submission before the Court without consulting the concerned OIC in the matter.
8. No empanelled advocate shall appear in any matter against Chhattisgarh Environment Conservation Board. In case conflict of interest arises in any matter, the advocate shall inform the Board of the same as soon as the matter is allotted to him/her.
9. The Advocates will not delegate cases and shall himself / herself appear before the Court and deal with the same.
10. The Advocate shall maintain absolute secrecy and confidentiality of the cases of the Board.
11. An advocate including his junior/s shall not advise any party or accept any case against the Board in which he has appeared or is likely to be called upon to appear or advice.
12. If a case is dismissed by the Court or decided against the Board on account of non-appearance of the empanelled Advocate/ non-payment of court fee or non-submission of reply, then no fee shall be payable to the said Advocate.

Member Secretary
Chhattisgarh Environment Conservation Board
Atal Nagar, Nava Raipur (C.G.)