

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION NO. 687 OF 2023 (PB)

IN THE MATTER OF :

“IN RE: AIR QUALITY INDEX IN VARIOUS CITIES”

I N D E X

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Date: 16.02.2024

Place: Bhopal



**COUNSEL FOR
STATE OF MADHYA PRADESH**

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION NO. 687 OF 2023 (PB)

IN THE MATTER OF :

“IN RE: AIR QUALITY INDEX IN VARIOUS CITIES”

ACTION TAKEN REPORT ON BEHALF OF STATE OF MADHYA
PRADESH IN COMPLIANCE OF ORDER DATED 05.12.2023

IT IS MOST RESPECTFULLY SUBMITTED HEREINAFTER :-

1. That the present original application is registered in suo-moto exercise of powers on the basis of the Air Quality Bulletins of CPCB posted on their website in respect of Air Quality Index (AQI) for different cities from 20.10.2023 to 01.11.2023. The said reports show that there are various cities where the air quality index has dipped to “very poor” or even to “severe” stage, wherein among the list of cities is Bhopal and Gwalior from the State of Madhya Pradesh with alleged poor air quality.
2. That this Hon’ble Tribunal vide Order dated 05.12.2023 directed the States where the cities AQI has dipped to severe, very poor and poor, to file an Action Taken Report. That for the convenience of this Hon’ble Tribunal, the relevant extract from the aforementioned order is reproduced hereinbelow :

“8. Hence, States are required to utilize the fund promptly and for the purpose it has been allocated without leaving any

gap in utilization. The cities under consideration where apportionment study has not been done are required to complete the said apportionment study in respect of the factors contributing in pollution and focus on those factors which have a larger share in contribution. Further efforts are required to ensure that the air quality improves in the cities under consideration.

9. Hence, all the concerned States are directed to file further action taken report keeping in view the observations made above within eight weeks by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.”

3. That in compliance of the aforementioned directions of this Hon'ble Tribunal, the District Administrations of Bhopal and Gwalior, has undertaken **immediate remedial actions** to improve air quality in the city of Bhopal and Gwalior respectively and **details of funds released under NCAP and the utilization of the same**. The detailed Action Taken Report in tabular form for the city of Bhopal and Gwalior is marked and annexed herewith as **Annexure R-1 (Colly.)** and **Annexure R-2 (Colly.)** respectively.
4. It is pertinent to note here that presently, Bhopal city is subject to monitoring by a total of seven Air Quality Monitoring Systems, comprising of three Continuous Ambient Air Quality Monitoring Stations (hereinafter referred as “**CAAQMS**”) and four Manual stations. Furthermore, the Source Apportionment Study of Bhopal city was conducted by the Automotive Research Association of India, Pune (hereinafter referred as “**ARAI, Pune**”) and

subsequently, ARAI, Pune has submitted the Source Apportionment Study Report, enumerating key findings, including an estimated total PM10 emission load of 10,309.3 tonnes per year in the city of Bhopal, with the primary contributors identified as Dust (62.2%), Transport (13.0%), Construction (12.1% each), and Open Waste Burning (2.9%). Additionally, the total PM2.5 emission load in Bhopal city is estimated at 4121.1 tonnes per year, with the primary contributors identified as Dust (37.7%), Transport (29.3%), Construction (7.6%), and Open Waste Burning (6.7%). That the Proposed Air Quality Action Plan for the city of Bhopal comprising of sector wise suggestions along with executing agency / authority for immediate and short to mid-term actions by ARAI, Pune is marked and annexed herewith as **Annexure R-3**.

5. Furthermore, the city of Gwalior is under the monitoring of four CAAQMS Stations and the Source Apportionment Study for Gwalior city was conducted by the Indian Institute of Technology, Kanpur (hereinafter referred as "**IIT-Kanpur**"). Subsequently, IIT-Kanpur has submitted the Source Apportionment Study Report, outlining significant findings, including an estimated total PM10 emission load of 108 tonnes per day in Gwalior and the primary contributors to PM10 emissions are identified as Road Dust (88%), Vehicles (7%), and Brick Kilns (2%). Similarly, the estimated PM2.5 emission load in Gwalior is 32 tonnes per day, with the top contributors identified as Road Dust (67%), Vehicles (22%),

and Brick Kilns (4%). These assessments are based on annual emissions, recognizing that both seasonal and daily emissions could exhibit considerable variability, particularly in the case of Particulate Matter. That the Proposed Air Quality Action Plan for the city of Gwalior comprising of sector wise suggestions along with executing agency / authority for immediate and short to mid-term actions by IIT-Kanpur is marked and annexed herewith as **Annexure R-3.**

6. It is furthermore submitted that there are a total of seven non-attainment cities, under the National Clean Air Program (hereinafter referred as “**NCAP**”) in the State of Madhya Pradesh and status of Source Apportionment Study of the remaining cities except Bhopal and Gwalior are following:-

Sr. No.	City	Air Quality Monitoring		Agency for SAS	Current Status
		CAAQMS	Manual		
1.	Indore	04	03	World Resources Institute, Delhi	In progress
2.	Jabalpur	01	02	Maulana Azad National Institute of Technology, Bhopal	In progress
3.	Ujjain	01	04	Maulana Azad National Institute of Technology, Bhopal	In progress
4.	Dewas	02	02	Maulana Azad National Institute of Technology, Bhopal	In progress
5.	Sagar	02	01	Maulana Azad National Institute of Technology, Bhopal	In progress

7. That for the convenience of this Hon'ble Tribunal a tabular representation of Air Quality Index in the cities of Gwalior and Madhya Pradesh for the Month of December, 2023 till 13th February, 2024 is marked and annexed herewith as **Annexure R-5**.
8. That an Affidavit in support of the Reply is filled herewith.

Date: 16.02.2024
Place: Bhopal



**COUNSEL FOR
STATE OF MADHYA PRADESH**

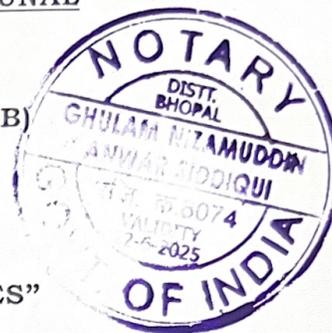
BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION NO. 687 OF 2023 (PB)

IN THE MATTER OF :

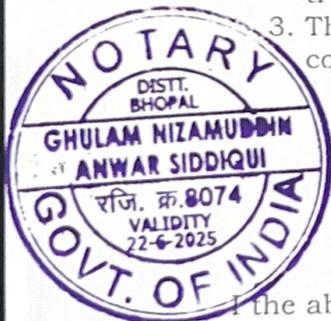
"IN RE: AIR QUALITY INDEX IN VARIOUS CITIES"



AFFIDAVIT

I, Himanshu Singh, S/o Shri A.D. Singh, Joint Director and Officer-in-Charge, office at Directorate of Urban Development and Administration, Shivaji Nagar, Bhopal, M.P. do hereby solemnly affirm on oath as under :

1. That I am Officer in Charge for State of Madhya Pradesh in the present matter, and am fully conversant with the facts of the case and hence competent to swear on this affidavit.
2. That I am filing an Action Taken Report in the aforementioned matter before the Hon'ble Tribunal the contents of which are true and correct and no material fact.
3. That the contents of the Action Taken Report are true and correct and no material fact is concealed or suppressed.



Hw
DEPONENT

VERIFICATION

The above-named deponent do hereby verify that the contents of the affidavit above are true and correct.

Signed and verified on this 16 Day of February, 2024 at Bhopal (MP)

Hw
DEPONENT

IDENTIFIED BY Me
Name. Gauravjit Jain
Address. 602, Lawyers Chamber
Area Hills, Bhopal.
Signature.....

SWORN BEFORE ME TH'
WITHIN NAMED
Hw
16 2 2024
GHULAM NIZAMUDDIN
ANWAR SIDDIQUI
NOTARY PUBLIC, BHOPAL (M.P.)



कार्यालय, नगर पालिक निगम, भोपाल

आई.एस.बी.टी. (द्वितीय तल) भोपाल

जा.क्र. 694/अ.आ.कक्ष/2024

भोपाल, दिनांक 16/02/2024

प्रति,

आयुक्त महोदय,
नगरीय प्रशासन एवं विकास,
मध्यप्रदेश, भोपाल।

विषय:- वायु गुणवत्ता सुधार हेतु माननीय एन.जी.टी. के प्रकरण क्रमांक 687/2023 आगामी सुनवाई दिनांक 19.02.2024 के अंतर्गत रिपोर्ट प्रस्तुत करने के संबंध में।

उपरोक्त विषयांतर्गत लेख है कि नगर पालिक निगम भोपाल की वायु गुणवत्ता सुधार हेतु माननीय एन.जी.टी. के आदेशानुसार मानदण्डों के अनुरूप की गई गतिविधियों एवं आवश्यक कार्यवाही का विस्तृत विवरण पत्र के साथ संलग्न कर प्रेषित है।

संलग्न: उपरोक्तानुसार।

विनीत तिवारी
अपर आयुक्त (SBM)
नगर पालिक निगम, भोपाल

पृ.क्र. / अ.आ.कक्ष / 2024

भोपाल, दिनांक / / 2024

प्रतिलिपि:-

1- आयुक्त महोदय नगर पालिक निगम भोपाल की ओर निज सहायक के माध्यम से सूचनार्थ प्रेषित।

अपर आयुक्त (SBM)
नगर पालिक निगम, भोपाल

**Action Taken Report against the order issued for the
O.A. No. 687/2023 by the Hon'ble National Green
Tribunal Principal Bench, New Delhi**



**BHOPAL MUNICIPAL CORPORATION
BHOPAL, (M.P.)**

Bhopal Municipal Corporation have taken uncountable Initiatives/Measures to improve the overall Air Quality of Bhopal under National Clean Air Program (NCAP).

Fund Utilization Status under XV-FC (NCAP), BHOPAL

Financial Year	Fund Received (in Cr.)	Fund utilized (in Cr.)	Fund Utilization (%)
FY (2019-20)	10 Cr.	10 Cr.	100 %
FY (2020-21)	88 Cr.	88 Cr.	100 %
FY (2021-22)	44 Cr. + 7.35 (Incentives)	51.35 Cr.	100 %
FY (2022-23)	34.5 Cr.	29.05 Cr.	84.20 %
TOTAL	183.85 Cr.	178.40 Cr.	97.03 %

Year wise Fund Utilization details under 15th- Finance Commission (NCAP): for improving the Air Quality (BHOPAL)

S.No.	Financial Year	Fund Received (in Cr.)	Fund utilized (in Cr.)	Fund Utilization (%)	List of the Activities undertaken with the allotted fund to improve the Air Quality of Bhopal
1.	FY (2019-20)	10 Cr.	10 Cr.	100 %	<ul style="list-style-type: none"> ✚ Procurement of 04 no. Mechanical road sweeping machines for cleaning of roads & 08 no. Water fogger machines to suppress the road dust. ✚ Procurement of 03 no. CAAQMS (Continuous Ambient Air Quality Monitoring Station) for air quality monitoring & 04 no. air quality monitoring display board.

2.	FY (2020-21)	88 Cr.	88 Cr.	100 %	<ul style="list-style-type: none"> ✚ Bioremediation of Waste at Dumpsite. ✚ Construction of temporary waste storage cell at Adampur. ✚ 1000 TPD MSW Processing facility (Compost & RDF facility at Adampur Chhawani). ✚ Installation of Construction and demolition waste processing plant (100 TPD capacity). ✚ Procurement of 125 no. CNG powered vehicles for door -to-door waste collection. ✚ Construction of Footpath, Pavements Works & Paver blocks for controlling road dust and Road Repaired (Approx..19 km) ✚ Construction of 110 Nos. Water Fountains in Bhopal City for controlling road dust. ✚ Development of Green Cover, New Plantations & Vertical Gardens, and regular maintenance of old plantations (Approx. 30.22 acres) ✚ Public Awareness (around 180 IEC activities) also through Brandings and 6 groups of deployment of NGO's
3.	FY (2021-22)	44 Cr. + 7.35 (Incentives)	51.35 Cr.	100 %	<ul style="list-style-type: none"> ✚ Construction of 5 C&D Waste Collection Centers. ✚ Installation of 500 KG/hr animal Carcass Plant at Adampur Chhhawni to dispose the dead animals. ✚ Procurement and distribution of 10,000 Home Composting Bins.in all zone of BMC. ✚ Development of Green Cover, New Plantations & Vertical Gardens, and regular maintenance of old plantations (Approx. 27.88 acres) ✚ Repair of Old Road, Construction of Footpath, Pavements Works & Paver blocks for controlling road dust (Approx. 17 km) ✚ BRTS Restoration (Approx. 14.97 km)

4.	FY (2022-23)	34.5 Cr.	29.05 Cr.	84.20 %	<ul style="list-style-type: none">✚ Installation of Ultramodern Garbage Transfer Station.✚ End to End pavement of Road (Approx. 12 km)✚ Creation of New Gardens and regular maintenance of old Plantations. (Approx. 17.6 acres)
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***Note: BMC has received incentive grant of Rs. 7.35 Cr. in FY 2021-22 against the air quality improvement in FY 2020-21**

Annual Action Plan Approved for FY 2023-24

Rs. 36 Cr grant under XV-FC for Improvement of Air Quality (Bhopal)- GRANT AWAITED

Annual Action Plan for FY 2023-24				
Rs. 36 Cr grant under XV-FC for Improvement of Air Quality (Bhopal)				
S. No.	Thematic Area / Components	Action Code	Activity	Fund Required (in crores)
1	Road Dust and Construction & Demolition	RD 1.2	End-to-end paving of roads along with black-topping and maintaining potholes free roads	7
2		RD2.1.	Greening of traffic corridors, open areas, gardens, community places, schools and housing societies	1
3		RD2.2.	Urban Greening with vertical garden	2
4	Vehicles	VE6.2	Introduction of new electric buses (with proper infrastructure facilities such as charging stations) and CNG buses for public transport which will reduce plying of private vehicles on road and help to curb tail-pipe emissions. (CNG Door to Door vehicle)	5
5		VE8.1.	Phase out old vehicles and vehicle scrappage policy (Automated Testing Stations)	1
6	Waste and Biomass - Dumping and Burning	BB2.	Regular collection, segregation and scientific disposal of waste	20
Total Required Fund (FY 2023-24)				36 Crore


 Commissioner
 Bhopal Municipal Corporation
 नगर नियम, भोपाल

*Note: 1. Annual Action Plan approved for FY 2023-24, however the Grant is yet to be received.

2. BMC has awaited incentive grant of Rs. 5.97 Cr. For achieved AQI Good Days >350 in both FY 2022-23 and FY 2021-22.

Photographic Evidence's of some of the Notable Efforts undertaken by Bhopal Municipal Corporation to improve the Air Quality



A. Procurement of Mechanical Road Sweeping Machines:



B. Procurement of 125 CNG Vehicles for Door- to Door Collection of waste



C. Installation of Animal Carcass Plant (500 KG/hr capacity) at Adampur Chhhawni to disposed dead bodies of animal.



Before Remediation



After Remediation

D. Bioremediation & Scientific Closure at Bhanpur Dumpsite: This initiative helped to Reclaim 21.03 acres of Land area.



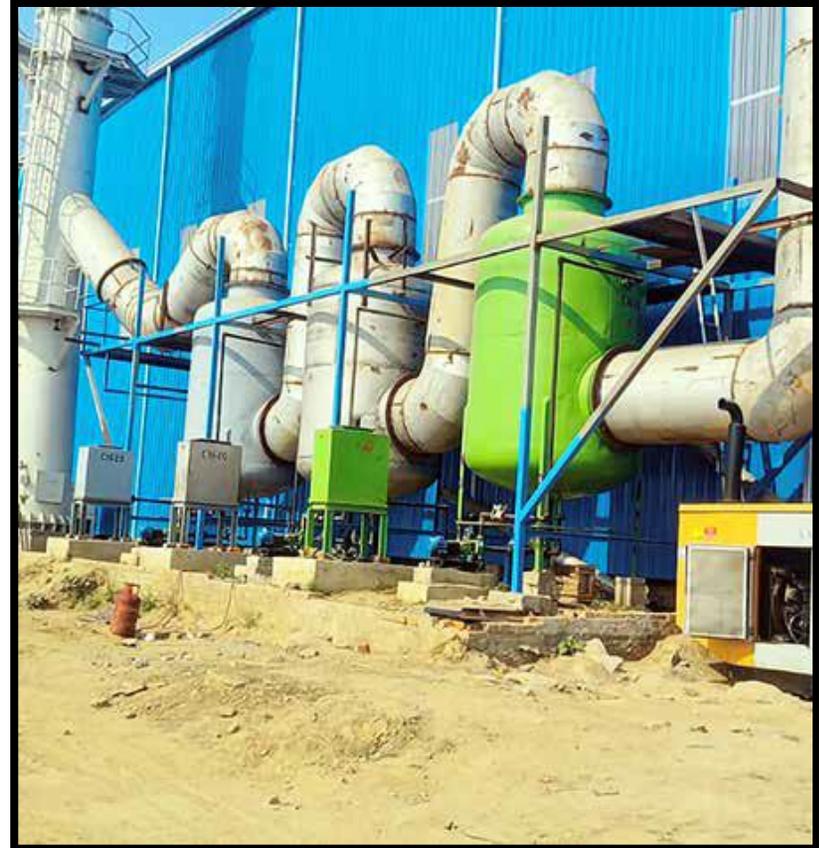
E. Installation of C&D Waste Processing Plant (Capacity 100 TPD)



F. Installation of Ultra-Modern Garbage Transfer Station



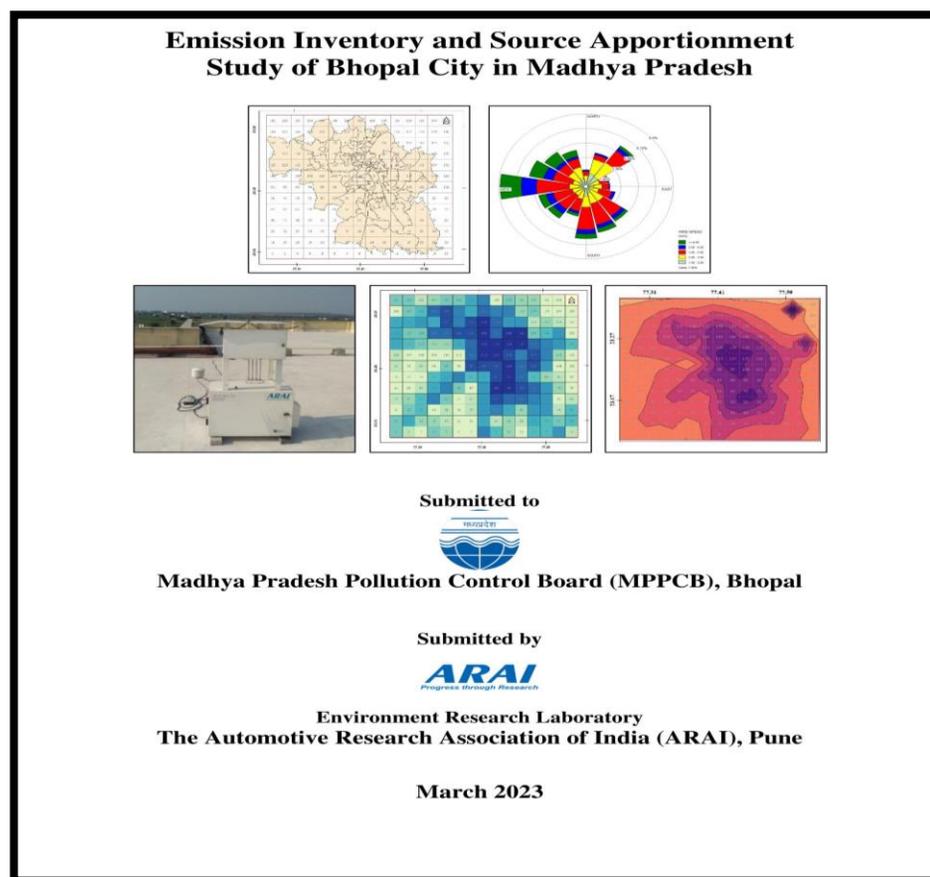
G. Installation of BIO-CNG Plant having (400 TPD) capacity at Adampur. This Bio-CNG plant for wet waste is an innovative facility designed to convert biodegradable waste materials such as food waste, agricultural waste, and sewage sludge into a clean, renewable Energy source.

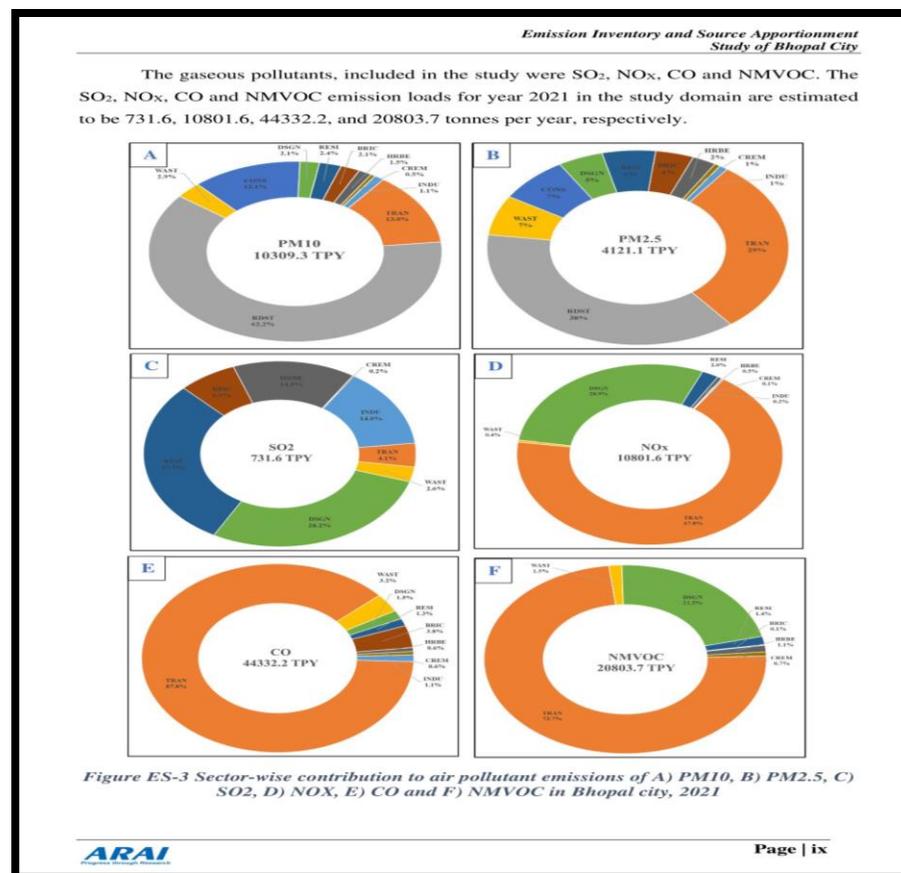


H. National Thermal Power Corporation (NTPC) is going to set up a plant with a capacity 400 TPD, in BHOPAL to produce green coal or torrefied charcoal from Dry waste.

Emission Inventory and Source Apportionment Study of Bhopal City in Madhya Pradesh

- ✚ This report is the outcome of the project “Emission Inventory and Source Apportionment Study of Bhopal City in Madhya Pradesh” sponsored by Madhya Pradesh Pollution Control Board (MPPCB), Bhopal.
- ✚ The study has been completed by MANIT, Bhopal and have submitted the DRAFT Report mentioning the identified sources as the major contributor to the Air Pollution in Bhopal.





- ✚ The total PM10 emission load in the Bhopal city is estimated to be 10,309.3 tonnes per year. **The top four contributors to PM10 emissions are dust (62.2%), transport (13.0%), construction (12.1% each) and open waste burning (2.9%).**
- ✚ Similarly, the total PM2.5 emission load in the Bhopal city is estimated to be 4121.1 tonnes per year. **The top four contributors to PM2.5 emissions are dust (37.7%), transport (29.3%), construction (7.6%), and open waste burning (6.7%).** These emission loads are based on annual emissions whereas daily and seasonal emissions could be highly variable. Daily and seasonal emissions could be highly variable.

After passing the order by Hon'ble NGT on 05.12.2023, following are the remedial actions taken by Bhopal Municipal Corporation for improvement of air quality in the city.

S.No.	Identified Sources/Causes of Air Pollution	Measures taken by Bhopal Municipal Corporation to tackle with Air Pollution
1	Open Dumping and Burning of Biomass & Municipal Solid Waste.	<ul style="list-style-type: none"> ➤ Bhopal Municipal Corporation always ensures efficient door to door garbage collection, segregation, and proper disposal of waste. ➤ Bhopal Municipal Corporation has organized internal meeting to take necessary steps with immediate effects for improvement of air quality in the city. ➤ Separate teams have been deployed (Zones and Ward Wise) to closely monitor the open dumping and burning of Garbage/ biomass and enforce strict penalties/spot fines for any reported violation under SWM rules and C & D rules. ➤ Regular monitoring conducted by Nagar Nigam Staff in their Wards/Zones to ensure that no burning of waste incident should take place. ➤ Bhopal Municipal Corporation has issued Spot Fines/Challans against burning of Waste/Garbage incidents (6th Dec 2023 to 9th Feb 2024): (Annexure-1) Total Challan issued- 75 No.s Penalties Imposed- Rs. 30201/- ➤ Bhopal Municipal Corporation has issued Spot Fines/Challans against burning of Waste/biomass incident and against the restaurants or food outlets around the city who have been using wood /coal-based tandoor for food preparation: (Annexure-2)
2	Road Dust	<ul style="list-style-type: none"> ➤ There is 04 No.s of Mechanized Sweeping Machines runs tirelessly across the city, earlier each machines sweeps around 60 km of road per day, the frequency of each Sweeping Machines has now increased to 70 Km per day. Now, the total length of the road sweep approx. 280 km per day. And regular day and night manual sweeping is also being done to clean the roads. (Annexure-3) ➤ There is total 08 Water Sprinkler/Foggers (04-Truck mounted and 04 Tractor mounted) runs across the city, where each sprinkler sprinkled around 55 km of road per day, the frequency of each Water

		<p>Sprinkler has increased to around 60 Km per day. Now, the total length of the road being sprinkled around 480 km per day. (Annexure-4)</p> <ul style="list-style-type: none"> ➤ Regular monitoring is being done on 21 identified hotspots to check continuous operations of water sprinklers, cleaning of roads and other possible measures to tackle with air pollution.
3	Dust from Construction & Demolition Waste	<ul style="list-style-type: none"> ➤ Nagar Nigam ensures construction sites to be properly covered with Green Net to prevent falling of dust or debris generated during construction. ➤ Challan/Penalties also imposed against reported violations under (C & D waste category) from (6th Dec 2023 to 9th Feb 2024): (Annexure-5) Total No. of Challan issued- 409 Penalty imposed- Rs. 411850/- ➤ Net Volume of C&D waste collected and transported to Processing facility (6th Dec 2023 to 9th Feb 2024) is 7363.79 MT. ➤ There are 110 fountains have also constructed across the city, helpful to suppress the road dust. (Annexure-6) ➤ Another Practices as regular Plantations or Development of Green Belt/Vertical Gardens in open areas, gardens, park/community places, schools & housing societies (Annexure-7) ➤ Nagar Nigam has also imposed restriction on storage of C&D material along the road and ensures the collected C&D waste transported to appropriate sites for disposal or further processing. (Annexure-8) ➤ Bhopal Municipal Corporation has issued Spot Fines/Challans against construction without covered of green net. (Annexure-9)
4.	Vehicular Emissions	<ul style="list-style-type: none"> ➤ Nagar Nigam also ensures regular monitoring of the fitness of the BCLL buses and so that vehicles meet the required emission norms thereby reducing the harmful pollutants released into the air.

5.	IEC activities/Public Awareness	<ul style="list-style-type: none">➤ An event on practicing Yoga for better living life was organized on National Youth Day dated 12.01.2024 (Annexure-10)➤ Cleanliness drive, Plantation, Wall painting etc. activities was conducted under “Swachhata Shramdan” title at Multi level parking M.P Nagar, Zone-1, Bhopal on 01.01.2024. (Annexure-11)➤ Swachh Tirth Campaign Cleanliness drive was organized at various temples from 14.01.2024 to 22.01.2024 (Annexure-12)➤ The seminar title “Solar Panel Development in Bhopal” conducted at Bhopal Municipal Corporation on 24.01.2024 to promote the use of clean and renewable energy source thereby helpful in reducing carbon footprint. (Annexure-13)
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Comparison between current & previous Hon'ble NGT order

SR	After passing the order by Hon'ble NGT on 22.11.2023, following are the remedial actions taken by Bhopal Municipal Corporation (<i>1st Nov 2023 to 30th Nov 2023</i>)	After passing the order by Hon'ble NGT on 05.12.2023, following are the remedial actions taken by Bhopal Municipal Corporation (<i>6th Dec 2023 to 9th Feb 2024</i>)	Improvement
1	Challan/Penalties also imposed against reported violations under (C & D waste category) from (<i>1st Nov 2023 to 30th Nov 2023</i>): Total No. of Challan issued: 144 Penalty imposed- Rs. 123100/-	Challan/Penalties also imposed against reported violations under (C & D waste category) from (<i>6th Dec 2023 to 9th Feb 2024</i>): (Annexure-5) Total No. of Challan issued- 409 Penalty imposed- Rs. 411850/-	2136.82 Rs./day
2	There is 04 No.s of Mechanized Sweeping Machines runs tirelessly across the city, earlier each machines sweeps around 50 km of road per day , the frequency of each Sweeping Machines has now increased to 60 Km per day . Now, the total length of the road sweep approx. 240 km per day . And regular day and night manual sweeping is also being done to clean the roads.	There is 04 No.s of Mechanized Sweeping Machines runs tirelessly across the city, earlier each machines sweeps around 60 km of road per day , the frequency of each Sweeping Machines has now increased to 70 Km per day . Now, the total length of the road sweep approx. 280 km per day . And regular day and night manual sweeping is also being done to clean the roads.	10 km/day
3	There is total 08 Water Sprinkler/Foggers (04-Truck mounted and 04 Tractor mounted) runs across the city, where each sprinkler sprinkled around 40 km of road per day, the frequency of each Water Sprinkler has increased to around 55 Km per day . Now, the total length of the road being sprinkled around 440 km per day .	There is total 08 Water Sprinkler/Foggers (04-Truck mounted and 04 Tractor mounted) runs across the city, where each sprinkler sprinkled around 55 km of road per day, the frequency of each Water Sprinkler has increased to around 60 Km per day . Now, the total length of the road being sprinkled around 480 km per day .	5 km/day
4	Total 15 No.s of Court Challan have also been imposed between 1 st Nov to 30 th Nov. against the Restaurant /Food Outlet owners who have been using wood /coal-based tandoor for food preparation.	1. Press release for spot fine of Rs.10000/- was imposed on Indian coffee house outlet, Trilanga, Bhopal for Using Tandoor/Bhatti on 29.01.2024. 2. Press release regarding suspension of food license by food department on Kukdoo koo restaurent, Ashoka garden, 80 feet road, Bhopal for Using Tandoor/Bhatti on 01.02.2024.	Strictly enforcement of spot fines & suspension of food license

5	Nagar Nigam has also imposed restriction on storage of C&D material along the road and ensures the collected C&D waste transported to appropriate sites for disposal or further processing. Penalty imposed- Rs. 14000/-	Nagar Nigam has also imposed restriction on storage of C&D material along the road and ensures the collected C&D waste transported to appropriate sites for disposal or further processing. Penalty imposed- Rs. 177700/-	2225.76 Rs./day
6	Net Volume of C&D waste collected and transported to Processing facility (<i>from 1st Nov 2023 to 30th Nov 2023</i>) is 2595.81 MT.	Net Volume of C&D waste collected and transported to Processing facility (<i>6th Dec 2023 to 9th Feb 2024</i>) is 7363.79 MT.	25.05 MT/day
7	Bhopal Municipal Corporation has issued Spot Fines/Challans against burning of Waste/biomass incident and against the restaurants or food outlets around the city who have been using wood /coal-based tandoor for food preparation (<i>1st Nov 2023 to 30th Nov 2023</i>): Total No. Challan issued- 81 Penalties Imposed- Rs. 38,500 /-	Bhopal Municipal Corporation has issued Spot Fines/Challans against burning of Waste/Garbage incidents (<i>6th Dec 2023 to 9th Feb 2024</i>) Total Challan issued- 75 No.s Penalties Imposed- Rs. 30201/-	Total No.s of violation was less observed hence not issued Challan (maximum Nos. of wood/coal -based tandoor has been shifted through clean fuel (LPG/electricity)

Annexures

Print

BHOPAL MUNICIPAL CORPORATION
2nd Floor A Wing Isbt Campus
Bhopal
Mobile 9630360068

Date: 2023-12-06 Time: 13:45:55

PAID BY: SALE CASH

BASE AMOUNT: Rs.500.00

SIGNATURE NOT REQUIRED
sharma bhojnlaya
VERSION V-2.0.0
PAYMENT RECEIPT

Name: sharma bhojnlaya
Fine Type: Spot Fine
Fine Sub Type: Burning Waste
spot Fine Type: Segregation/Collection/Delivery Violation

Zone: 21
Ward: 26
Address: n
TxnId: 231206081554970E059282659

Razorpay **Print**

Date- 06.12.2023

Print

AXIS BANK

BHOPAL MUNICIPAL CORPORATION
2nd Floor A Wing Isbt Campus
Bhopal
Mobile 9589028763

Date: 2023-12-19 Time: 18:59:44

PAID BY: SALE CASH

BASE AMOUNT: Rs.1,000.00

SIGNATURE NOT REQUIRED
9575220159@paytm
VERSION V-2.0.0
PAYMENT RECEIPT

MID:037322036340008 TID:89371215
BATCH NO: 1 INVOICE NO: 11671
AUTH CODE: RRN: 371937695778

Name: jeevan malviya
Fine Type: Spot Fine
Fine Sub Type: Burning Waste
spot Fine Type: Segregation/Collection/Delivery Violation

Zone: 15
Ward: 62
Address: raisen road near by Montfort school
TxnId: 231219132943688E110112659

Razorpay **Print**

Date- 19.12.2023

Print

BHOPAL MUNICIPAL CORPORATION
2nd Floor A Wing Isbt Campus
Bhopal
Mobile 9685886033

Date: 2023-12-23 Time: 13:34:39

PAID BY: SALE CASH

BASE AMOUNT: Rs.3,000.00

SIGNATURE NOT REQUIRED
Feliks pharmacy
VERSION V-2.0.0
PAYMENT RECEIPT

Name: Feliks pharmacy
Fine Type: Spot Fine
Fine Sub Type: Burning Waste
spot Fine Type: Segregation/Collection/Delivery Violation

Zone: 18
Ward: 83
Address: saliya raod ward
TxnId: 231223080439236E050101289

Razorpay **Print**

Date- 23.12.2023

Print

BHOPAL MUNICIPAL CORPORATION
2nd Floor A Wing Isbt Campus
Bhopal
Mobile 9755170575

Date: 2024-01-01 Time: 13:45:06

PAID BY: SALE CASH

BASE AMOUNT: Rs.200.00

SIGNATURE NOT REQUIRED
Kailash Kushwaha
VERSION V-2.0.0
PAYMENT RECEIPT

Name: Kailash Kushwaha
Fine Type: Spot Fine
Fine Sub Type: Burning Waste
spot Fine Type: Segregation/Collection/Delivery Violation

Zone: 10
Ward: 50
Address: Danapani road
TxnId: 240101081506170E010076798

Razorpay **Print**

Date-01.01.2024

Annexure 1 : Some random Challan receipt for Imposing Penalties/Spot Fines against the violation of Burning of Waste/Garbage

(from 6th Dec 2023 to 9th Feb 2024)

AXIS BANK Print

BHOPAL MUNICIPAL CORPORATION
2nd Floor A Wing Isbt Campus
Bhopal
Mobile 8319634015

Date: 2024-01-02 Time: 16:43:06

SALE TID: 89371215
MID: 037322036340008 INVOICE NO: 11978
BATCH NO: 1 AUTH CODE: RRN: 400207701661
PAID BY: UPI

BASE AMOUNT: Rs. 500.00
SIGNATURE NOT REQUIRED
9584181828@ybl
VERSION V-2.0.0
PAYMENT RECEIPT

Name: maakerala sauth indian
Fine Type: Spot Fine
Fine Sub Type: Burning Waste
spot Fine Type: Segregation/Collection/Delivery Violation

Zone: 15
Ward: 64
Address: sona giri
Txn Id: 240102111305404E170086958

Razorpay Print

Date- 02.01.2024

Print BHOPAL MUNICIPAL CORPORATION
2nd Floor A Wing Isbt Campus
Bhopal
Mobile 8770086344

Date: 2024-01-25 Time: 11:11:57

SALE CASH
PAID BY: **BASE AMOUNT: Rs. 1,000.00**
SIGNATURE NOT REQUIRED
vikaramji
VERSION V-2.0.0
PAYMENT RECEIPT

Name: vikaramji
Fine Type: Spot Fine
Fine Sub Type: Burning Waste
spot Fine Type: Segregation/Collection/Delivery Violation

Zone: 9
Ward: 38
Address: semra
Txn Id: 240125054157206E050114075

Razorpay Print

Date- 25.01.2024

AXIS BANK Print

BHOPAL MUNICIPAL CORPORATION
2nd Floor A Wing Isbt Campus
Bhopal
Mobile 6261207935

Date: 2024-02-05 Time: 09:31:39

SALE TID: 89371215
MID: 037322036340008 INVOICE NO: 12772
BATCH NO: 1 AUTH CODE: RRN: 403625454845
PAID BY: UPI

BASE AMOUNT: Rs. 500.00
SIGNATURE NOT REQUIRED
7869116723@axl
VERSION V-2.0.0
PAYMENT RECEIPT

Name: Kuldeep
Fine Type: Spot Fine
Fine Sub Type: Burning Waste
spot Fine Type: Segregation/Collection/Delivery Violation

Zone: 15
Ward: 66
Address: bharat nagar
Txn Id: 240205040138448E100088493

Razorpay Print

Date- 05.02.2024

Print BHOPAL MUNICIPAL CORPORATION
2nd Floor A Wing Isbt Campus
Bhopal
Mobile 9131000512

Date: 2024-02-07 Time: 09:32:22

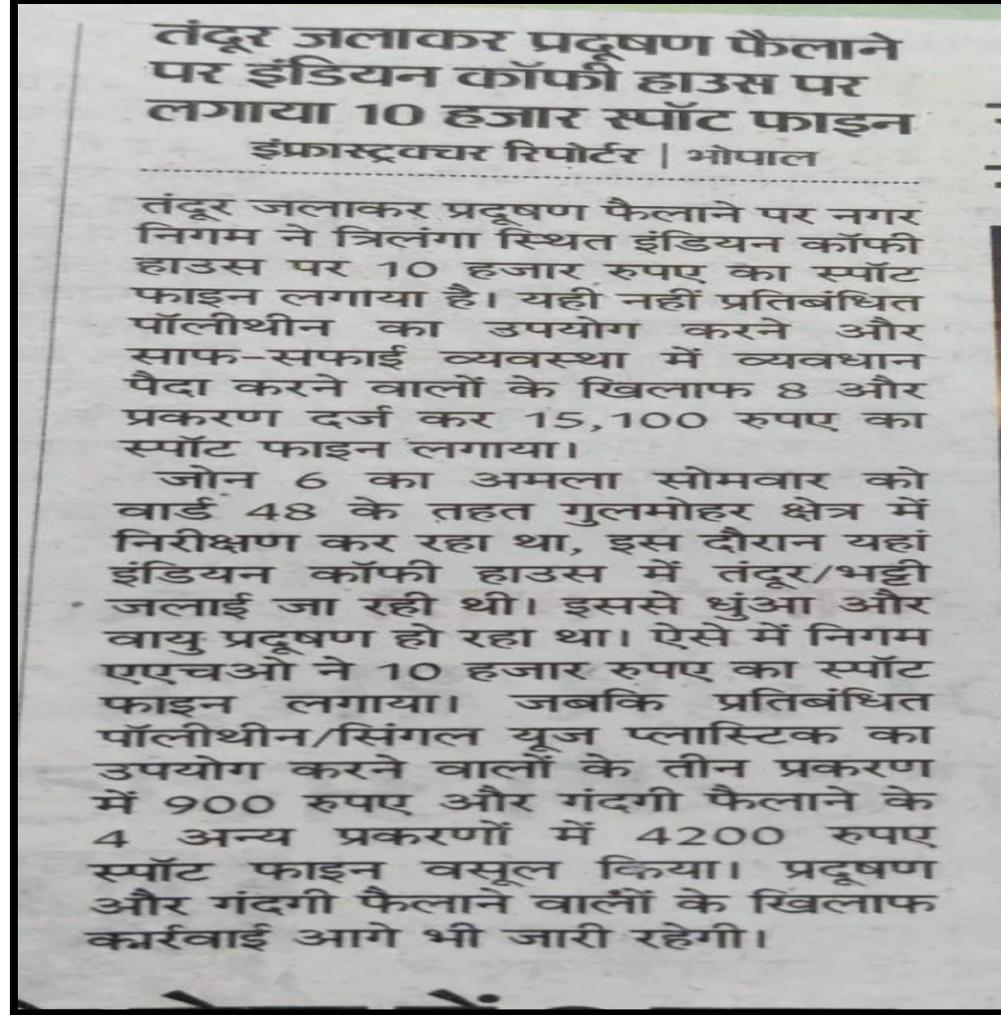
SALE CASH
PAID BY: **BASE AMOUNT: Rs. 1,000.00**
SIGNATURE NOT REQUIRED
uday sahu
VERSION V-2.0.0
PAYMENT RECEIPT

Name: uday sahu
Fine Type: Spot Fine
Fine Sub Type: Burning Waste
spot Fine Type: Segregation/Collection/Delivery Violation

Zone: 17
Ward: 79
Address: shiv nagar
Txn Id: 240207040221872E038663428

Razorpay Print

Date- 07.02.2024



Annexure 2 : Press release for spot fine of Rs.10000/- was imposed on Indian coffee house outlet, Trilanga, Bhopal for Using Tandoor/Bhatti on 29.01.2024



Press release regarding suspension of food license by food department on Kukdoo koo restaurant, Ashoka garden, 80 feet road, Bhopal for Using Tandoor/Bhatti on 01.02.2024



Pictures of Nagar Nigam Officials for Imposing Penalties on Food Outlets against Burning of Coal based Tandoor /Bhattis's



Annexure-3 : There are 04 No.s of Mechanized Road Sweeping Machines tirelessly working day and night to make the streets clean. This not only beautifies our city but also curbs the dispersion of harmful road dust particles, significantly improving the air quality.

Earlier each machines sweeps around 60 km of road per day, the frequency of each Sweeping Machines has now increased to 70 Km per day. Now, the total length of the road sweep approx. 280 km per day.

Water Fogging Activities



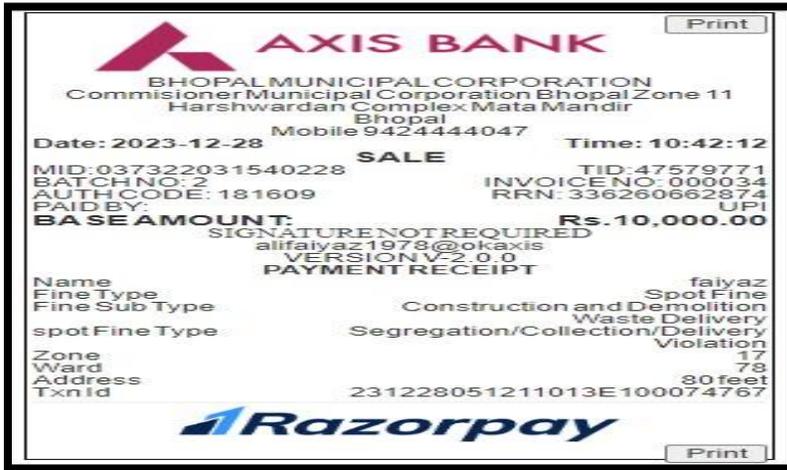
Water Fogging Activities



Annexure 4 : There is total 08 Water Sprinkler/Foggers (04-Truck mounted and 04 Tractor mounted) runs across the city, where each sprinkler sprinkled around 55 km of road per day. The frequency of each Water Sprinkler has increased to around 60 Km per day. Now, the total length of the road being sprinkled around 480 km per day.

Annexure 5 : Some random Challan receipt for Imposing Penalties/Spot Fines against the violation of C&D Waste

(from 6th Dec 2023 to 9th Feb 2024)



AXIS BANK Print

BHOPAL MUNICIPAL CORPORATION
Commissioner Municipal Corporation Bhopal Zone 11
Harshwardan Complex Mata Mandir
Bhopal
Mobile 9424444047

Date: 2023-12-28 Time: 10:42:12

SALE TID: 47579771
MID: 037322031540228 INVOICE NO: 000034
BATCH NO: 2 AUTH CODE: 181609 RRN: 336260662874
PAID BY: UPI

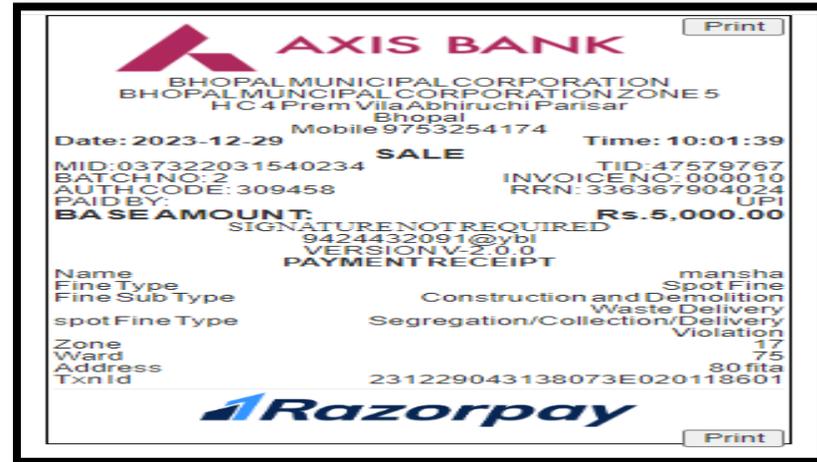
BASE AMOUNT: Rs. 10,000.00
SIGNATURE NOT REQUIRED
alifaiyaz1978@okaxis
VERSION V-2.0.0
PAYMENT RECEIPT

Name: faiyaz
Fine Type: Spot Fine
Fine Sub Type: Construction and Demolition
spot Fine Type: Waste Delivery
Segregation/Collection/Delivery Violation

Zone: 17
Ward: 78
Address: 80 feet
Txn Id: 231228051211013E100074767

Razorpay Print

Date- 28.12.2023



AXIS BANK Print

BHOPAL MUNICIPAL CORPORATION
BHOPAL MUNICIPAL CORPORATION ZONE 5
HC 4 Prem Vila Abhiruchi Parisar
Bhopal
Mobile 9753254174

Date: 2023-12-29 Time: 10:01:39

SALE TID: 47579767
MID: 037322031540234 INVOICE NO: 000010
BATCH NO: 2 AUTH CODE: 309458 RRN: 336367904024
PAID BY: UPI

BASE AMOUNT: Rs. 5,000.00
SIGNATURE NOT REQUIRED
9424432091@ybl
VERSION V-2.0.0
PAYMENT RECEIPT

Name: mansha
Fine Type: Spot Fine
Fine Sub Type: Construction and Demolition
spot Fine Type: Waste Delivery
Segregation/Collection/Delivery Violation

Zone: 17
Ward: 75
Address: 80 feet
Txn Id: 231229043138073E020118601

Razorpay Print

Date- 29.12.2023



AXIS BANK Print

BHOPAL MUNICIPAL CORPORATION
2nd Floor A Wing Isbt Campus
Bhopal
Mobile 9826800145

Date: 2023-12-30 Time: 16:49:34

SALE TID: 47579767
MID: 037322031540234 INVOICE NO: 000010
BATCH NO: 2 AUTH CODE: 309458 RRN: 336367904024
PAID BY: CASH

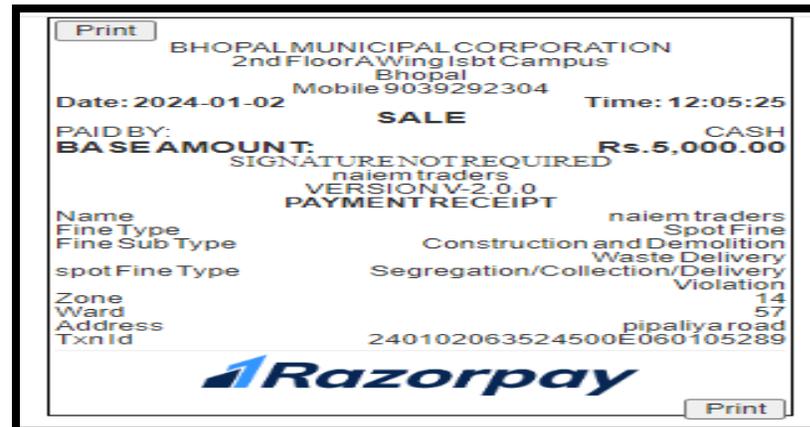
BASE AMOUNT: Rs. 3,000.00
SIGNATURE NOT REQUIRED
Anil Bajpai G
VERSION V-2.0.0
PAYMENT RECEIPT

Name: Anil Bajpai G
Fine Type: Spot Fine
Fine Sub Type: Construction and Demolition
spot Fine Type: Waste Delivery
Segregation/Collection/Delivery Violation

Zone: 10
Ward: 49
Address: E-7/578
Txn Id: 231230111933948E090081101

Razorpay Print

Date- 30.12.2023



AXIS BANK Print

BHOPAL MUNICIPAL CORPORATION
2nd Floor A Wing Isbt Campus
Bhopal
Mobile 9039292304

Date: 2024-01-02 Time: 12:05:25

SALE TID: 47579767
MID: 037322031540234 INVOICE NO: 000010
BATCH NO: 2 AUTH CODE: 309458 RRN: 336367904024
PAID BY: CASH

BASE AMOUNT: Rs. 5,000.00
SIGNATURE NOT REQUIRED
naiem traders
VERSION V-2.0.0
PAYMENT RECEIPT

Name: naiem traders
Fine Type: Spot Fine
Fine Sub Type: Construction and Demolition
spot Fine Type: Waste Delivery
Segregation/Collection/Delivery Violation

Zone: 14
Ward: 57
Address: dipaliya road
Txn Id: 240102063524500E060105289

Razorpay Print

Date- 02.01.2024

2nd Floor A Wing Isbt Campus
Bhopal
Mobile 8109941043

Date: 2024-01-04 Time: 14:26:57

SALE

MID:037322036340008 TID:89371215
BATCH NO: 1 INVOICE NO: 12039
AUTH CODE: RRN: 400491031578
PAID BY: UPI

BASE AMOUNT: Rs.7,100.00

SIGNATURE NOT REQUIRED
nawalsingh5311@okicici
VERSION V-2.0.0
PAYMENT RECEIPT

Name: NAVAL SINGH
Fine Type: Spot Fine
Fine Sub Type: Construction and Demolition
spot Fine Type: Segregation/Collection/Delivery
Zone: 14
Ward: 60
Address: PRAGATINAGAR
Txn Id: 240104085656849E160106849

 Print

Date- 04.01.2024

2nd Floor A Wing Isbt Campus
Bhopal
Mobile 9826295770

Date: 2024-01-15 Time: 10:41:16

SALE

MID:037322036340008 TID:89371215
BATCH NO: 1 INVOICE NO: 12298
AUTH CODE: RRN: 401558334288
PAID BY: UPI

BASE AMOUNT: Rs.5,000.00

SIGNATURE NOT REQUIRED
9826295770@ibbl
VERSION V-2.0.0
PAYMENT RECEIPT

Name: hayat steel and hardware
Fine Type: Spot Fine
Fine Sub Type: Construction and Demolition
spot Fine Type: Segregation/Collection/Delivery
Zone: 17
Ward: 79
Address: karond
Txn Id: 240115051115403E050125917

 Print

Date- 15.01.2024

 **AXIS BANK**

BHOPAL MUNICIPAL CORPORATION
BHOPAL MUNICIPAL CORPORATION ZONE 12
H.G.4 Frem Vila Abhiruchi Parisar
Bhopal
Mobile 8770551410

Date: 2024-02-03 Time: 14:44:49
MID:037322015150206 TID:47576946
BATCH NO: 13 INVOICE NO: 36
AID:A0000005241010 TSI:E800
APP: DOMESTIC TVR: 0400048000
TC: EC6286986408671E

DEBIT SALE

CARD: XXXX-XXXX-XXXX-7839 CHIP
CARD TYPE: RUPAY
AUTH CODE: 827563 RRN: 403414978491
SALE AMOUNT: Rs.5,000.00

PIN VERIFIED OK
SIGNATURE NOT REQUIRED
VISHAL DHAMMERIYA/
I agree to pay as per the card issuer agreement.
VERSION V-2.0.0
PAYMENT RECEIPT

Name: Dixit traders
Fine Type: Spot Fine
Fine Sub Type: Construction and Demolition
spot Fine Type: Segregation/Collection/Delivery
Zone: 15
Ward: 66
Address: sahkari prishar
Txn Id: 240203091448145E120117466

 Print

Date- 03.02.2024

Print BHOPAL MUNICIPAL CORPORATION
2nd Floor A Wing Isbt Campus
Bhopal
Mobile 9993091231

Date: 2024-02-08 Time: 13:12:43

SALE

PAID BY: CASH
BASE AMOUNT: Rs.5,000.00

SIGNATURE NOT REQUIRED
Raj kumaryadav
VERSION V-2.0.0
PAYMENT RECEIPT

Name: Raj kumaryadav
Fine Type: Spot Fine
Fine Sub Type: Construction and Demolition
spot Fine Type: Segregation/Collection/Delivery
Zone: 8
Ward: 29
Address: khushi lal dasera medan
Txn Id: 240208074242334E110071179

 Print

Date- 08.02.2024



Annexure 6 : Fountains have already constructed across the city runs daily, helpful to suppress the road dust



Annexure 7 : Regular day to day Plantation or development of Green Belt at different locations



There are total 5 C&D Waste Collection Centers in Bhopal



Day to Day Collection, Transportation & Processing of C&D Waste



Spot fine of Rs.111700/- was imposed against illegal sales of building & construction material at Raisen road, Bhopal on 05.02.2024



Annexure 8 : Spot fine of Rs.60000/- was imposed against illegal sales of building & construction material at Kalpana nagar, Bhopal on 05.02.2024



Spot fine of Rs. 6000/- was imposed against illegal sales of building & construction material at Pipliya-pende-kha, BHEL, Zone-14, Bhopal on 08.02.2024

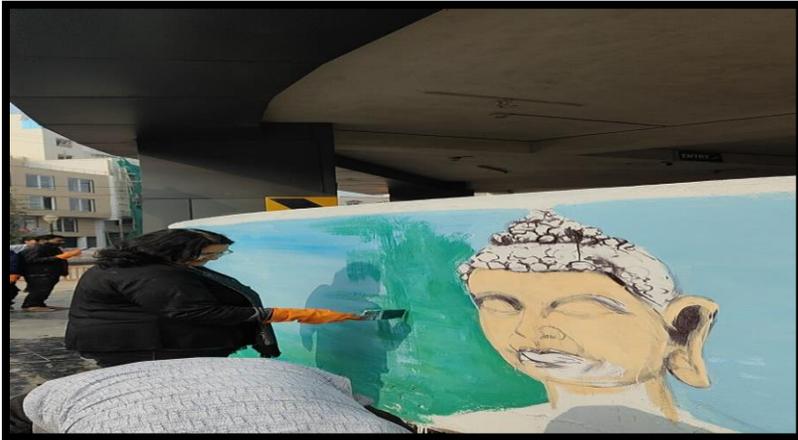


Annexure 9 : Spot fine of Rs. 5000/- was imposed against construction work without covered of green net at Trilanga colony, Ward-48, Bhopal on 08.12.2023

IEC activities/Public Awareness



Annexure 10 : An event on practicing Yoga for better living life was organized on National Youth Day dated 12.01.2024



Annexure 11 : Cleanliness drive, Plantation, Wall painting etc. activities was conducted under “Swachhata Shramdan” title at Multi level parking M.P Nagar, Zone-1, Bhopal on 01.01.2024.



Annexure 12 : Swachh Tirth Campaign Cleanliness drive was organized at religious places from 14.01.2024 to 22.01.2024





Annexure 13 : The seminar title “Solar Panel Development in Bhopal” conducted at Bhopal Municipal Corporation on 24.01.2024 to promote the use of clean and renewable energy source thereby helpful in reducing carbon footprint.

AQI of the Month- Feb 2024

Sr	Date	AQI
1	01/02/24	140
2	02/02/24	106
3	03/02/24	139
4	04/02/24	139
5	05/02/24	102
6	06/02/24	117
7	07/02/24	107
8	08/02/24	102
9	09/02/24	112

1393

OFFICE OF THE COMMISSIONER
GWALIOR MUNICIPAL CORPORATION
Narayan Krishan Shejwalkar Bhawan, City Centre, Gwalior (M.P.)

Annexure R-2
(Colly.)

No. GMC/PIU/

Date: 15/02/2024

To,
Commissioner
Urban Administration Development Department,
Palika Bhawan 6 no. Stop,
Shivaji Nagar, Bhopal, 462016

Subject: NGT case no. 687/2023 for Air Quality Improvement Regarding NGT Compliance Report.

This is in reference to the above-mentioned subject and reference, we herewith submitting the compliance report for air quality improvement in reference to the NGT case no. 687/2023 for presenting before principal bench Delhi during hearing on dated 05/12/2023.

Enclosed:

1. Compliance Report


NODAL OFFICER
NAGAR NIGAM, GWL.

Nodal Officer (NCAP)
Gwalior Municipal Corporation

CC: Regional Officer, Pollution Control Board, DD Nagar Gwalior.


NODAL OFFICER
NAGAR NIGAM, GWL.

Nodal Officer (NCAP)
Gwalior Municipal Corporation

Sr. No.	Action Point	Action Taken
1.	Meeting	<ul style="list-style-type: none"> • Divisional Commissioner has called action plan progress review meetings at regular interval. • District Collector has called a meeting of concerned department heads. • Divisional Commissioner has called a meeting of City level Implementation Committee (CLIC) during the visit of Nodal officer (GPCB). • Divisional Commissioner has formed an air pollution monitoring committee of all the stakeholder departments.
2.	Water Fogging	<ul style="list-style-type: none"> • Gwalior Municipal Corporation has procured 8 nos. of truck mounted water fogging machines to suppress the road dust. • The frequency of water fogging machines has been increased from 8 hrs. to 10 hrs. mainly in high dense public & commercial areas and covering approx. 250kms/day road length cumulatively. • All water fogging machines are being monitored through GPS enabled system at smart city control room. • A dedicated supervisor has been deployed with each water fogging machine for effective execution and monitoring of the task. • Recycled water of STP is being used for the water fogging machine.
3.	Road Sweeping	<ul style="list-style-type: none"> • Gwalior Municipal Corporation has 3 nos. of operational truck mounted road sweeping machine for cleaning of Roads. • 5 nos. of mechanical road sweepers have been procured and will be operational once third-party inspection is conducted. • The frequency of mechanical road sweepers has been increased from 8 hrs. to 10 hrs. mainly at high dust generating roads and covering approx. 80kms/day (2/4 lane) road length cumulatively. • All road sweeping machines are being monitored through GPS enabled system at smart city control room. • A dedicated supervisor has been deployed with each mechanical road sweepers for effective execution and monitoring as per SOP. • Recycled water of STP is being used for the water fogging machine.
4.	Crackers	<ul style="list-style-type: none"> • Advisory was issued to use only green crackers during new year celebration. • GMC had collected cracker waste next morning of the 31st December events for sending to the cement factory along with RDF.


 NODAL OFFICER
 NAGAR NIGAM, GWT

5.	Green Area Development	<ul style="list-style-type: none"> • 1 no. of garden has been developed near Balbhawan. • 2 nos. of gardens are being developed. • 1 no. of waste to wonder park along with green area is being developed. • 1no. Water Fountain has been installed at Phoolbagh and other locations has been identified for the same. • A private company has submitted a proposal to redevelop rotary at railway station which includes water fountain, lighting, using of recycled water for water fountain. • Agency has been appointed for the development of Vertical Garden along the Swarnrekha river. • GMC is developing 1 hac. of land as urban forest in phase-2 at old bara dump site. • Proposal has been sent to MPUADD for developing urban forest on 10 Hac. of land under Nagar van Scheme at Manpur.
6.	SWM, Biomass and Stubble	<ul style="list-style-type: none"> • A ward level team has been deployed in each ward for enforcing SWM rules and imposing fines on individuals for violation of rules (if any). • For effective collection and management of solid waste GMC has 10nos. of existing transfer stations out of which 3nos. are newly constructed with latest technology and another 2nos. are proposed. • A dedicated team along with vehicles & machineries have been deployed for collection of Cow dug and transport it to the cowshed for making byproducts. • The categories wise fine charges have been notified in daily news against the violation of rules. • GMC has constructed compost-pits in each municipal parks/garden to prevent the burning of garden waste and produce compost from it. • The ward level team has issued 220 nos. Challans (December & January) against the violation of SWM Rules and collected Rs. 55000/- as penalty while in November 67 nos. of challans have been issued and collected Rs. 67000/- as penalty. • Agriculture department has issued notification for the restriction of stubble burning and fine charges on burning of stubble. • The agency has been appointed and work is under progress for the remediation of dump site at kedarpur. • Proposal for developing Material Recovery Facility at Kedarpur has been submitted. • Wire mess is being installed along the swarnrekha river and other nallahs.


 NODAL OFFICER
 NAGAR NIGAM, GWT

7.	Road Dust and Vehicular Emission	<ul style="list-style-type: none"> • GMC has deployed dedicated water tanker for sprinkling of water on roads to suppress the road dust. • Traffic department and Gwalior Municipal Corporation are jointly enforcing to make left turn free at traffic intersections. • During CLIC meeting it is instructed to install PUCs at all the fuel stations and Authorised 4-wheeler service center within the city boundary. • Traffic intersection points are being redeveloped at multiple locations of the city for decongestion of road. • 3nos. of rotaries are being redeveloped. • GMC is constructing Dust free roads and road median to prevent the traffic congestion. • GMC has issued tenders for laying of interlocking tiles at the identified locations of the city. • 1 no. of Eco-Friendly Road has been developed at Racecourse Road and 2 nos. are being constructed. • 1 no. of CC road has been constructed at Mahalgaon Pahadi. • 2 nos. of CC roads are being constructed at Patel Nagar and Laltipara. • Increased the frequency of cleaning of roadside dust through mechanical road sweepers. • Increased the frequency of water fogging machines for suppression of road dust settled on trees and generating by the vehicles running of road. • Tender for procurement of 2nos. of pothole repairing machine is technical evaluation. • 3 out of 7 electric charging stations has been installed and remaining 4nos. will be installed in 15 days. • Purchase order for the procurement of 21nos. of electric tippers has been issued and the same will be delivered in next 15 days. • Road medians and Footpaths are being cleaned through water jetting machine to make them dust free. • Awareness through speakers at traffic intersections about vehicular pollution, traffic congestion, waste burning etc. • Traffic department has restricted the entry of transport (Tempo, commercial vehicles) at Maharaj Bada commercial area to prevent from traffic congestion and dust pollution. • Separate Routes have been identified for the operation of E-Rikshaw and Tempos as public transport. • Underground Multilevel level parking cum carbon sink park is being developed by the smartcity at Maharaj Bada. • The proposal for the construction of 1 no. multilevel parking over swarnrekha river at chhparwala pul has been submitted. • Road side Fountain is being constructed at Akashvani. • Patch Repair work is being done at multiple locations.
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Sigdel
 NODAL OFFICER
 NAGAR NIGAM, G.W.

8.	Construction Activity	<ul style="list-style-type: none">• A ward level team has been deployed in each ward for enforcing C&D Waste Management rules and imposing fines on individuals for violation of rules (if any).• A dedicated team along with vehicles & machineries have been deployed for collection of C&D waste and transport it to the C&D waste processing & Recycling Facility for making By-Products.• GMC has Constructed 11 nos. of C&D waste collection centres and 1 no. of 50TPD C&D waste Processing Plant for effective management of C&D waste of the city.• GMC has notified the fine and user charges in daily newspapers.• Zonal Officers, Building Officer and Building Inspectors are monitoring the construction activities in their respective areas to force the owners for covering the construction area with green net and use water sprinklers to suppress the dust. Also,• GMC has collected 750 tons of C&D waste from the city and transported it to the processing facility for processing and recycling.• GMC has collected Rs. 5.5 lacs against the 66 nos. of challans issued for not covering the construction site and sprinkling of water.• GMC has issued notices to the contractors of Railway Station, Underground multilevel parking, Airport authority and other builders to cover the construction areas with green net and use sprinklers for suppressing the dust. Also, Instructed to follow environmental laws for the major construction activities.
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NODAL OFFICER
NAGAR NIGAM, GWT

Activities undertaken for Air Quality Improvement under 15th Finance Commission

Scheme	Code	Activity Description	Total Value of Contract	Work Status	Total Amount Paid	Total Physical Progress (In %)	Total Financial Progress (In %)
XVFC	C&D1.1	Development of C&D waste Processing Facility along with necessary infrastructure	25382485	Done, Plant Commissioned and Infrastructure Developed	23382625	100.00	92.12
XVFC	C&D1.2	Procured 2nos. 3DX Backhoe loader , 4 Dumpers, and 2 nos. of Mini dumper for the C&D waste collection & Transportation from the city to processing facility.	21834800	Procured	21834799	100.00	100.00
XVFC	CD2	Installation of 400KW Solar power Plant for the Operation of C&D waste Plant at Jalalpur	19573600	Installed	13269635	90.00	67.79
XVFC	CB4.2	Agency Appointed for Transaction Advisory and Technical Assistance for NCAP	47100695	Appointed	1357011	25.00	2.88
XVFC	CB4.2	Construction of AQI Cell	9117844	Work in Progress	1169340	25.00	12.82
XVFC	RD1.3	Procurement of 5 nos. of water fogging machine	24905045	Procured	23668797	100.00	95.04
XVFC	RD1.4	Procurement of 5 nos. of Road Sweeping machine	44595000	Delivered, (3.5Cr. Will be paid in 15 days)	0	100.00	0.00
XVFC	RD1.5	Construction of water fountain at Gandhi Park	11849000	Completed	11848999	100.00	100.00
XVFC	RD1.5	Installation of Gazebo at Different Locations	3591053	Completed	3591053	100.00	100.00
XVFC	RD1.7	Construction of Eco-Friendly Road at Roop singh Stadium	12785937	Work in Progress	10488803	85.00	82.03
XVFC	RD1.7	Construction of Eco-Friendly Road at RaceCorse Road	19984115	Work in Progress	13400544	100.00	67.06
XVFC	RD1.7	Construction of High Dust Generation Road at Mahal Gaon Pahadi	11401025	Completed	6163324	100.00	54.06
XVFC	RD1.7	Construction of High Dust Generation Road at Chetakpuri (Paver Block)	10508223	Work in Progress	9097361	90.00	86.57

Scheme	Code	Activity Description	Total Value of Contract	Work Status	Total Amount Paid	Total Physical Progress (In %)	Total Financial Progress (In %)
XVFC	RD1.7	Construction of CC road at Bio-CNG Plant	11367210	LoA to be issued	0	0.00	0.00
XVFC	RD1.7	Construction of CC road from BSNL Head office to Patel Nagar	25001685	Work in Progress	0	30.00	0.00
XVFC	RD1.7	Construction of CC Roads at multiple locations	309966912	Work Done	309966912	100.00	100.00
XVFC	RD1.8	Laying of Interlocking Tiles at 15-Gwalior Constituency	31816721	Work Done	31772744	100.00	99.86
XVFC	RD1.8	Laying of Interlocking Tiles at East Constituency	32287297	Work Done	32274104	100.00	99.96
XVFC	RD1.8	Road Side Paving with interlocking Tiles	35947448	Work Done	35947448	100.00	100.00
XVFC	RD1.9	Development of Vertical Garden along the swarn rekha river	8614172	LoA Issued	0	0.00	0.00
XVFC	RD2.1	Development of Green Area	480000	Work Done	480000	100.00	100.00
XVFC	RD2.1	Development of Green Area	600000	Work Done	600000	100.00	100.00
XVFC	RD2.1	Development of Green Area	5700000	Work Done	5700030	100.00	100.00
XVFC	RD2.2	Development of Urban Forest at Old Bara Dumpsite Phase-II	11936635	Work in Progress	0	20.00	0.00
XVFC	RD2.2	Development of Urban Forest at Old Bara Dumpsite Phase-I	15400000	Work Done. O&M period in Progress	12152240	100.00	78.91
XVFC	RD2.2	Waste to wonder Park	18031000	Work in Progress	8113950	70.00	45.00
XVFC	VE5.2	Construction of Multilevel Parking at Kampoo	13518362	Work Done	13518362	100.00	100.00
XVFC	VE6.4	Procured 12 nos. E-Vehicles for Municipal Officials	17200551	Work Done	17200550	100.00	100.00
XVFC	VE6.4	Procured 21 nos of E-Tipper for door-to-door waste collection	16827540	PO issued, Yet to be delivered	0	0.00	0.00
XVFC	VE6.5	Installation of 7nos. Of Electric charging station	18012611.5	Work in Progress	0	65.00	0.00
XVFC	VE7.2	Repair & Maintenance of road median at South Constituency	9483943	Work Done	9483943	100.00	100.00
XVFC	VE9.1	Preparation of Master Plan of 2 Zones	12000000	Work in Progress	1000000	30.00	8.33
			856820909.5		617482574		



कार्यालय कलेक्टर, जिला-ग्वालियर (म.प्र.)

ओहदपुर, सिरोल रोड, ग्वालियर पिन-474006

क्रमांक/क्यू/स्टेनो/227/2023

ग्वालियर, दिनांक-09/11/2023

II. कार्यवाही-विवरण II

नेशनल ग्रीन ट्रिब्यूनल प्रिंसिपल बेंच, नई दिल्ली द्वारा याचिका क्र. 687/2023 में दिनांक 03/11/2023 को पारित आदेश के परिपालन में दिनांक 10/11/2023 के पूर्व एक्शन टेकन रिपोर्ट प्रस्तुत किया जाना है। उक्त आदेश अनुसार ग्वालियर नगर की AQI Index Very Poor पाया गया। इस संबंध में कार्यवाही हेतु दिनांक 07/11/2023 को कलेक्टर कार्यालय में बैठक का आयोजन किया गया। जिसमें निम्नानुसार स्टेक होल्डर्स उपस्थित रहे :-

1. कलेक्टर, जिला - ग्वालियर
2. आयुक्त, नगर पालिक निगम, ग्वालियर
3. श्री विजय राज, अपर आयुक्त, नगर पालिक निगम, ग्वालियर
4. जिला परिवहन अधिकारी
5. क्षेत्रीय अधिकारी, म.प्र. प्रदूषण नियंत्रण बोर्ड
6. खनिज अधिकारी
7. श्री अमरसत्य गुप्ता, उपायुक्त, एस.बी.एम. सेल, नगर पालिक निगम, ग्वालियर
8. श्री पवन सिंघल, सिटी प्लानर, नगर पालिक निगम, ग्वालियर
9. श्री अतिथल सिंह यादव, मदाखलत प्रभारी, नगर पालिक निगम, ग्वालियर
10. श्री प्रदीप सिंह जादौन, कार्यपालन यंत्री (ट्रैफिक सेल), नगर पालिक निगम, ग्वालियर
11. श्री सुरेश अहिरवार, कार्यपालन यंत्री (सी एण्ड डी वेस्ट प्रबंधन, नगर पालिक निगम, ग्वालियर
12. श्री पवन शर्मा, भवन अधिकारी, नगर पालिक निगम, ग्वालियर
13. श्री महेन्द्र चक्रदा, कन्सलटेंट 15वां वित्त आयोग

09/11/2023.

बैठक में निम्नानुसार चर्चा हुई एवं निर्णय लिये गये :-

(1) प्रदूषण की रोकथाम की निगरानी हेतु वर्तमान में कोई संयुक्त टीम गठित नहीं है। जिस बाबत निर्देश दिये गये कि तत्काल कलेक्टर, पुलिस अधीक्षक और आयुक्त नगर-निगम के संयुक्त हस्ताक्षर से संयुक्त टीम गठित किया जावे।

(कार्यवाही - आयुक्त, नगर-निगम, समयसीमा - 01 दिवस)

(2) समीक्षा में यह आवश्यक पाया गया कि नगर-निगम के अपर आयुक्त स्तर के अधिकारियों को क्षेत्र बांटकर जिम्मेदारी दी जाये कि वह कार्यवाही कराना सुनिश्चित करें।

(कार्यवाही - आयुक्त, नगर-निगम, समयसीमा - 01 दिवस)

(3) बढ़ते प्रदूषण की रोकथाम हेतु जनमानस के मध्य अवेयरनेस अभियान चलाया जावे। मुख्य चौराहों पर होर्डिंग लगाये जावें, स्कूलों में पैम्पलेट बांटे जावें जथा एफएम रेडियो पर प्रचार प्रसार किया जावे।

(कार्यवाही जनसम्पर्क अधिकारी, नगर निगम, समयसीमा - 15 दिवस)

(4) नगर में धूल/मिट्टी से होने वाले प्रदूषण की रोकथाम हेतु निम्नानुसार कार्यवाही की जावे :-

(अ). रोड स्वीपिंग मशीनों से मुख्य मार्गों की लगातार निर्धारित व्यवस्था अनुसार सफाई कराई जावे। मशीनों का अधिकतम उपयोग किया जावे।

(ब). भवन स्वामियों द्वारा निर्माणाधीन भवनों द्वारा रखे सी एण्ड डी वेस्ट के विरुद्ध हटाने की कार्यवाही की जाकर फाइन लगाने की कार्यवाही की जावे साथ ही निर्माणाधीन भवनों को ग्रीन नेट से कवर करवाने की कार्यवाही की जावे।

(कार्यवाही भवन अधिकारी/भवन निरीक्षक, नगर निगम, समयसीमा - 03 दिवस)

(स). नगर में गतिशील शासकीय निर्माणों जैसे - एयरपोर्ट, रेलवे स्टेशन, मल्टीलेवल पार्किंग, महाराज बाड़ा, एबी रोड सहित अन्य निर्माणों को डस्ट मैनेजमेंट हेतु सूचना पत्र जारी किया जाकर डस्ट मैनेजमेंट किया जाना सुनिश्चित करावें।

(कार्यवाही नगर निगम, म.प्र. प्रदूषण नियंत्रण बोर्ड, समयसीमा - 03 दिवस)

(द). नगर में स्थापित समस्त फुव्वारों का अधिकतम उपयोग किया जावे।

(नगर निगम, प्रत्येक दिवस)

09/11/2023.

(ई). नगर के भवन निर्माण हेतु आने वाली भवन निर्माण सामग्री का परिवहन डेकॉर किया जाना सुनिश्चित करें।

(कार्यवाही नगर निगम, पुलिस विभाग एवं संबंधित अनुविभागीय अधिकारी)

(5) नगर में अवैध रूप से संचालित ईट भट्टों को अन्दर तीन दिवस में बंद करवाने की कार्यवाही की जावे।

(कार्यवाही खनिज अधिकारी व म.प्र. प्रदूषण नियंत्रण बोर्ड, समयसीमा - 03 दिवस)

(6) नगर के चौराहों पर यातायात की सुगमता हेतु बनाये गये लेफ्ट टर्न को यातायात हेतु फ्री रखा जावे, ताकि वाहनों को अनावश्यक रूप से न रुकना पड़े।

(कार्यवाही नगर निगम व ट्रैफिक पुलिस, प्रत्येक दिवस)

(7) नगर के मुख्य चौराहों एवं बाजारों में यातायात कन्फेशन को हटाने हेतु परिवहन विभाग, ट्रैफिक पुलिस एवं नगर निगम द्वारा संयुक्त कार्यवाही की जावे। इसके लिये वाहनों के चालान, जब्ती आदि की कार्यवाही की जावे।

(कार्यवाही ट्रैफिक पुलिस, नगर निगम व परिवहन विभाग, समयसीमा - 07 दिवस)

(8) नगर निगम, ट्रैफिक पुलिस, प्रदूषण विभाग एवं निगम मजिस्ट्रेट के द्वारा समस्त संबंधित विभागों के अधिकारी/कर्मचारियों की ट्रेनिंग करवाई जावे।

(कार्यवाही नगर निगम, समयसीमा - 15 दिवस)

कलेक्टर
जिला-ग्वालियर (म.प्र.)

Order 2023.

MoM of the Meeting held on 7/11/2023 chaired by District Collector

NOTARY OFFICER
NAGAR NIGAM, G.W.



कार्यालय आयुक्त, नगर पालिका निगम ग्वालियर (म.प्र.)

क्रमांक/ /2023

ग्वालियर, दिनांक- 10 / 11 /2023

॥ आदेश ॥

नगर पालिका निगम, ग्वालियर क्षेत्र में प्रदूषण नियंत्रण निगरानी हेतु निम्नानुसार दल गठन किया जाता है :-

- (1) अपर कलेक्टर, जिला-ग्वालियर (म.प्र.)।
- (2) अपर आयुक्त, नगर-निगम ग्वालियर (म.प्र.)।
- (3) सहायक क्षेत्रीय परिवहन अधिकारी, जिला-ग्वालियर (म.प्र.)।
- (4) डी.एस.पी., यातायात, ग्वालियर (म.प्र.)।
- (5) क्षेत्रीय अधिकारी, प्रदूषण नियंत्रण बोर्ड, ग्वालियर (म.प्र.)।
- (6) खनिज निरीक्षक, जिला-ग्वालियर (म.प्र.)।
- (7) सहायक नगर निदेशक, नगर-निगम ग्वालियर (म.प्र.)।
- (8) नोडल अधिकारी, मदाखलत, नगर-निगम, ग्वालियर (म.प्र.)।
- (9) B.O./B.I., नगर निगम, ग्वालियर (म.प्र.)।

यह दल प्रतिदिन दिनांक 30/11/2023 तक लगातार सुबह व शायं प्रदूषण निवारण संबंधी चल रही कार्यवाही की निगरानी करेगा एवं संलग्न प्रारूप में प्रतिदिन प्रतिवेदन देगा।

2/ उक्त आदेश तत्काल प्रभाव से लागू होगा।


10-11-23
आयुक्त

नगर-निगम, ग्वालियर (म.प्र.)


पुलिस अधीक्षक

जिला-ग्वालियर (म.प्र.)


कलेक्टर

जिला-ग्वालियर (म.प्र.)

Order 2023.

Monitoring Committee Formed by District Collector to monitor the activity undertaken for Air Quality Improvement


NODAL OFFICER
NAGAR NIGAM, GWT

कार्यालय आयुक्त, ग्वालियर संभाग, ग्वालियर (म.प्र.)**राजस्व भवन, नीडम मार्ग, चन्द्रबदनी चौराहा, ग्वालियर-474002**

क्रमांक 146

/क्षेत्र/प्रजिबो/2024

ग्वालियर, दिनांक 17/11/2024

कार्यवाही विवरण

नेशनल क्लीन एयर प्रोग्राम के अंतर्गत ग्वालियर शहर की परिवेशीय वायु गुणवत्ता में सुधार हेतु एक्शन के कार्यों की समीक्षा हेतु कियान्वयन समिति की बैठक दिनांक 09/11/2023 को संभागायुक्त, श्री दीपक सिंह की अध्यक्षता में संभागायुक्त कार्यालय, राजस्व भवन, चन्द्रबदनी, नीडम रोड, ग्वालियर के सभाकक्ष में संपन्न हुई। उपस्थिति पत्र संलग्न है। उक्त बैठक में कियान्वयन समिति के निम्नलिखित सदस्य/अधिकारी उपस्थित हुये:-

1. श्री अक्षय सिंह, कलेक्टर, जिला-ग्वालियर
2. श्री अंकित पाण्डेय, डीएफओ, ग्वालियर
4. श्री डॉ. वाय.के. सक्सेना, वैज्ञानिक, केंद्रीय प्रदूषण नियंत्रण बोर्ड
5. श्रीविजय राज, अपर आयुक्त, नगर विभाग, ग्वालियर
6. श्री अनिल कुमार जैन, अधीक्षण यंत्री, लोक निर्माण विभाग, ग्वालियर



CLIC meeting held on 09/11/24 under the chairmanship of Divisional Commissioner, Gwalior (M.P.) along with District Collector, Municipal Commissioner, and other stakeholders.

Sigdel
NODAL OFFICER
NAGAR NIGAM, E.M.T



Procured 5 nos. of sweeping Machines

Sigdel
NODAL OFFICER
NAGAR NIGAM, GWT



Sweeping Machine in Public Area

Sigdel
NODAL OFFICER
NAGAR NIGAM, G.W.



Water Fogging in Public Area

Sigdel
NODAL OFFICER
NAGAR NIGAM, E.M.T.



Cleaning of Footpath and Commercial area Through Water Jetting Machine

Sigdel
NODAL OFFICER
NAGAR NIGAM, G.W.



Joint Inspection of District Administration and GMC at Major Construction Activities and took action for not covering the the construction site with green net

Sigdel
NODAL OFFICER
NAGAR NIGAM, GWT



Construction & Demolition Waste Processing & Recycling Plant at Jalalpur, Gwalior

Sigdel
NODAL OFFICER
NAGAR NIGAM, GWT



Construction of Dust free road from BSNL office to Patel Nagar

Sigdel
NODAL OFFICER
NAGAR NIGAM, GWT



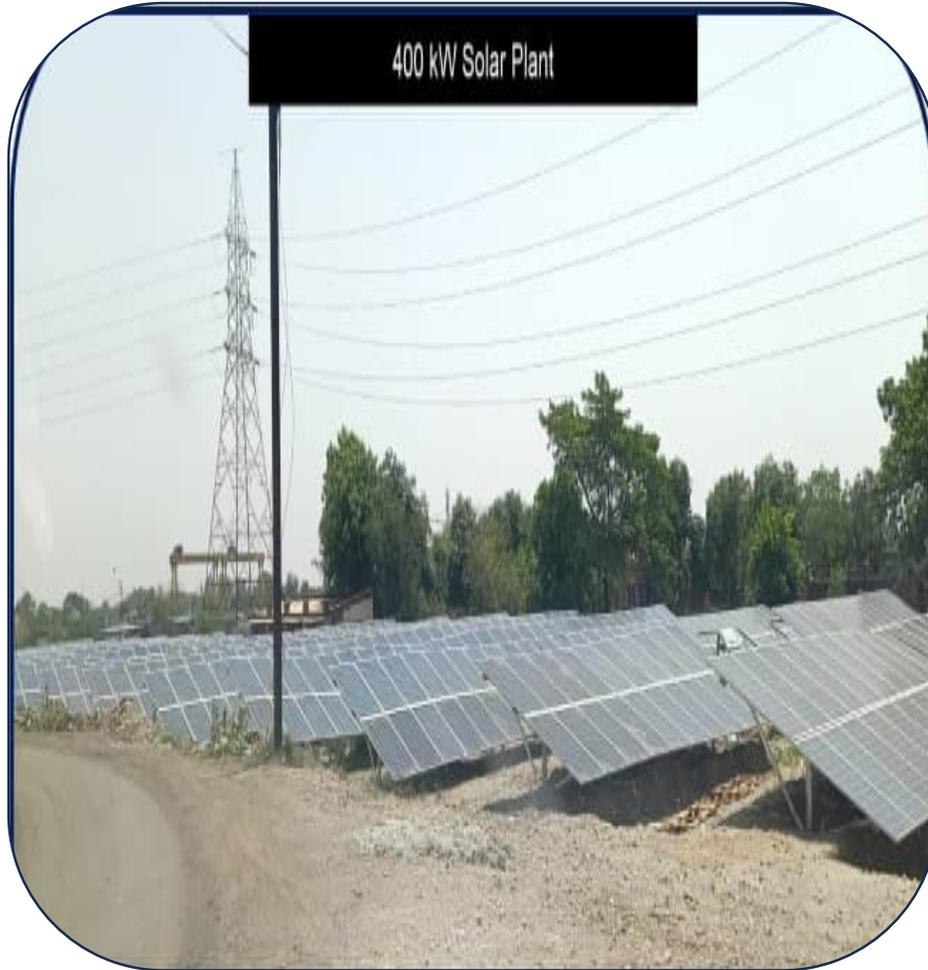
Repairing of Potholes

Sigdel
NODAL OFFICER
NAGAR NIGAM, GWT



Roadside Paver Block Laying work is under Progress at multiple locations

Sigdel
NODAL OFFICER
NAGAR NIGAM, EWT



400kw Solar Plant Installed and 3 out of 7 nos. of electric charging stations have been installed

Sigdel
NODAL OFFICER
NAGAR NIGAM, GWT



Development of Parks is under Progress

Sigdel
NODAL OFFICER
NAGAR NIGAM, GWT



Construction Activity Covered with Green Net

Sigdel
NODAL OFFICER
NAGAR NIGAM, GWT



Construction of Eco-Friendly Road is Under Progress

Sigdel
NODAL OFFICER
NAGAR NIGAM, GWT



Rotary Redevelopment work is in progress for traffic improvement

Sigdel
NODAL OFFICER
NAGAR NIGAM, E.M.T

Action Plan

Table ES-4 presents the proposed air quality action plan for Bhopal city. The action plan constitutes sector wise suggestions along with executing agency / authority for immediate and short to mid-term actions

Table ES-4 Proposed Air quality action plan for Bhopal

Sector	Control Actions	Responsible Agency / Authority	Time Frame
Transport	A) Management		
	TR1. Congestion Management: Identify the hotspot locations of traffic congestion. Introduce traffic actuated signals at such locations. Consider the one-way routes during peak hours at these locations. Also, regulate eateries along the kerb side, especially small ones to avoid traffic congestions.	RTO, Bhopal	Immediate
	TR2. Parking Policy: Formulate vehicle parking policy and ensure its effective implementation. Provide parallel parking system along the major roads of the town. Enforce strict action and penalty for vehicles parked in non-parking areas.	BMC / RTO, Bhopal	6 months
	TR3. Public transport: Improve the public transport infrastructure such as strengthening and modernization of fleet of buses (procurement of new buses), implementation of plan for metro and increase coverage as per plan.	BMC, MPMRCL	3 years
	TR4. Prepare and implement zonal plans to develop an NMT network. Introducing cycle tracks along with the roads	BMC	1-2 years
	TR5. Declare NO-vehicle zones in hot-spots, university / school premises.	BMC / University / School	6 months
TR6. Strict actions against visibly polluting vehicles (i.e. vehicles without PUC certificates) impose penalty and launch extensive awareness drive against polluting vehicles.	RTO, Bhopal	Immediate	

Sector	Control Actions	Responsible Agency / Authority	Time Frame
	TR7. Examine existing framework for removing broken down buses or trucks from roads and create a system for speedy removal and ensuring minimal disruption to traffic from such buses or trucks.	BMC	6 months
	B) Technology		
	TR8. Improve and strengthen PUC program. (SMS based system to alerts, Linking of PUC centres with remote server and elimination of manual intervention in PUC testing, Fitness and calibration audits of PUC centres adopted with defined team for verification, Integration of on-board diagnostic (OBD) system fitted in new vehicles with vehicle inspection, Linking of PUC certificates with annual vehicle insurance, etc.)	RTO, Bhopal	1 year
	TR9. Encourage adoption of cleaner fuels (CNG). CNG infrastructure for auto gas supply in the city and transition of public transport vehicles to CNG mode	BMC / Oil Companies/ GAIL / State Government	3 years
	TR10. The EV adoption initiative for public transport vehicles (buses) and government office-vehicles	BMC, Government Offices	3 years
	TR11. Encouraging EV adoption for personal and commercial vehicles through incentivization or tax relaxation.	State Government, RTO	3 years
Road Dust	RD1. End-to-end paving of roads along with black-topping and maintaining potholes free roads.	PWD / BMC	Immediate / Continuous
	RD2. Road design: The road design should strictly comply with URDPFI / IRC guidelines for urban roads	PWD / BMC	Immediate / Continuous
	RD3. Repair the defects in road to keep them pot holes free as per the PWD guidelines.	PWD / BMC	Immediate / Continuous
	RD4. Immediate lifting of solid waste generated from desilting and cleaning of municipal drains for its disposal	BMC	Immediate / Continuous
	RD5. Implement truck loading guidelines; use of appropriate enclosures for haul trucks; gravel paving for all haul routes	BMC	6 months

Sector	Control Actions	Responsible Agency / Authority	Time Frame
	RD6. All the canals/nallah's side roads should be concrete / brick lined.	BMC	1 year
	Regular cleaning of roads and water spraying to suppress the dust. Remove road dust/silt regularly by using mechanical sweepers.	BMC	Immediate / Continuous
	RD7. Identify road stretches with high dust generation and use Foggers to suppress the dust.	BMC	6 months
	RD8. Greening of traffic corridors, open areas, gardens, community places, schools and housing societies	BMC	1 year
Industries	IN1. All potential industries to be implemented with Continuous Emission Monitoring System (CEMS). Ensure regular calibration and working of this system and its online reporting is required.	MPPCB	1 year
	IN2. Assess the number of industrial units that are non-compliant and prepare unit/plant wise action plan for time bound compliance.	MPPCB	Immediate and Continuous
	IN3. Intensive polluting industries to be restricted from operations within urban zone. Restriction of any new red category industry to open within urban zone.	MPPCB	Immediate
	IN4. Strict compliance to be followed on industrial open waste burning.	MPPCB	Immediate
	IN5. Control of Fugitive Emissions: <ul style="list-style-type: none"> • Use of hoods and enclosure for all process equipment, • Scrap management program for the prevention or minimization of waste and other feed materials. • Use of covered or enclosed conveyors and transfer points 	MPPCB	Immediate
	IN6. Adoption of Cleaner Fuels: <ul style="list-style-type: none"> • Cleaner fuel implementation to be encouraged and incentivized. • Discourage the fuels with high sulphur content. • A favourable taxation and pricing policy for mass adoption. 	MPPCB	1 year
	IN7. Ensuring installation/Up-gradation and operation of air pollution control devices in industries	MPPCB	6 months
	WB1. Improving door to door waste collection efficiency to 100%.	BMC	1 year

Sector	Control Actions	Responsible Agency / Authority	Time Frame
Open Waste Burning	WB2. Enforcing a complete ban on open waste burning. A heavy penalty and stringent action against such activities.	BMC	Immediate
	WB3. Non-recyclable waste with a calorific value of 1,500 kcal or more must not be disposed of into landfills and must be used solely to generate energy	MPPCB, BMC	Immediate / Continuous
	WB4. Collection of horticulture waste (biomass) and its disposal as per SWM rules, 2016, following composting and gardening approach	BMC	Immediate / Continuous
	WB5. Encouraging the reduce, recycle and reuse policy for waste in city	BMC / State Government	Immediate / Continuous
	WB6. Organic waste conversion (OWC) units can be installed in the city at a decentralized scale especially in more prominent societies and colonies based on the MSW characteristics of the area.	BMC	1 year
	WB7. Effective management of landfill sites through increasing the recycling rate, installing waste to energy conversion plants, restricting illegal waste dumping, proper disposal of hazardous waste, as per Hazardous waste management rule 2016, to prevent greenhouse gas emissions from site	BMC	1 year
	WB8. Reduce the VKT of waste collection vehicles with route optimization technique.	BMC	6 months
	Construction	CN1. Adoption of Good Construction Practices (GCP) to minimize the waste generation. Promote recycling of materials. Encourage the use of environmentally friendly material. Ensure compliance check for GCP regularly	BMC / MPPCB
CN2. Strict enforcement of CPCB guidelines for construction activity such as use of green screens, side covering of digging sites, etc.		BMC / MPPCB	Continuous
CN3. Ensure transportation of construction materials in covered vehicles.		BMC / Site Developer	Immediate
CN4. Restriction on storage of construction materials along the road side.		BMC	Immediate
CN5. Provide a control measures against fugitive emissions such as a use of covered or enclosed conveyors while conveying the material.		BMC / MPPCB	Immediate

Sector	Control Actions	Responsible Agency / Authority	Time Frame
	CN6. To maintain facility of tar road inside the construction site for movement of vehicles carrying construction material	BMC / Site Developer	Immediate
	CN7. Develop mechanism for ensuring periodic maintenance of construction equipment and vehicles.	BMC / Site Developer	3 months
	CN8. Develop and implement dust control measures such as site covering, fugitive emission control, installing air pollution controlling devices for all types of construction activities i.e. buildings and infrastructure.	BMC	1 year
	CN9. C&D waste should be sent to construction and demolition processing facility only. Strict action against non-compliance of the same on any individual or developers.	BMC	Immediate
	CN10. Mandatory use of RMC plants at large construction sites and preparation of guidelines for dust control measures for operation of RMC plants.	BMC / MPPCB	1 Year
DG sets	DG1. Ensure uninterrupted electric supply to avoid the use of DG sets, especially in commercial and industrial zones.	State Electricity Board	1 Year
	DG2. Curtail use of DG Sets in social events by providing temporary electric connections	BMC / State Electricity Board	Immediate
	DG3. Discourage use of DG sets in cellular towers and encourage use of alternate power (e.g. Battery)	BMC	6 months
	DG4. Develop the city into a Renewable Energy Hub with a focus on creation of RE Equipment Manufacturing Eco-system as per Madhya Pradesh Renewable energy policy	BMC / State Government	5 years
	DG5. Leverage rooftop solar program to reduce dependence on DG sets	BMC	1 year
	DG6. Installation of Retrofitted Emission Control Devices (RECD) to diesel generators as per CPCB guidelines	MPPCB	1 year
Residential	RS1. Ensure easy availability of affordable cleaner cooking fuels (LPG/ PNG/biogas) for all to achieve 100% LPG adoption.	Department of Food, Civil Supplies and Consumer Affairs and Oil Companies (Indian Oil/HP/BP, etc.)	1-3 years

Sector	Control Actions	Responsible Agency / Authority	Time Frame
	RS2. Expanding coverage of LPG under Pradhan Mantri Ujjwala Yojana (PMUY).	State / Central Government	1-2 years
	RS3. Introduce schemes for providing subsidized LPG connections as well as providing means of finance to small tea vendors/hawkers who are using kerosene stoves in order to reduce emissions from burning of kerosene	State / Central Government	1-2 years
	RS4. Introduction of improved <i>Chullahs</i> (low emission <i>Chullahs</i>) in rural areas	BMC, NGOs	1 year
	RS5. Encouraging use of electricity for domestic cooking. (for example: Induction cooktops)	Department of Food, Civil Supplies and Consumer Affairs	2 year
	RS6. Provide centralized solar based hot water in slum areas to avoid solid fuel usage for water heating purposes	BMC	1 year
Hotel, restaurant and bakeries	HR1. Coal and wood-based cooking in restaurants to be shifted to electricity and LPG.	Department of Food, Civil Supplies and Consumer Affairs and Oil Companies (Indian Oil/HP, etc.)	1-2 years
	HR2. Promoting mini LPG cylinders to small open eateries.	Department of Food, Civil Supplies and Consumer Affairs and Oil Companies (Indian Oil/HP, etc.)	1 year
Brick kilns	BK1. Ensure the compliance checking routinely. Provide design specifications for improved kilns.	MPPCB / BMC	Immediate
	BK2. Enforce restrictions for the operations of brick kilns in urban zone. Zig-zag technology to be encouraged and promoted.	MPPCB / BMC	1-3 years
	BK3. Closure of unauthorized brick kilns, if any.	MPPCB	Immediate
Crematoria	CR1. Convert all existing traditional crematoria (wood based) to electric. Installing new electric crematoria as per requirement.	BMC	1 year
Public awareness	PA1. Launch Public awareness campaign for air pollution control, vehicle maintenance, minimizing use of personal vehicle, lane discipline, etc.	BMC, MPPCB, NGOs	Immediate
	PA2. Encourage the use of public transport for daily commute.	BMC, MPPCB, NGOs	Immediate

Sector	Control Actions	Responsible Agency / Authority	Time Frame
	PA3. Education program to create awareness among citizens through various mass media tools, such as local newspapers, local news channels on TV or radio, street plays, social media platforms, citizen engagement events, recording announcements through waste collection vehicle, organizing awareness seminars at the community level	BMC, MPPCB, NGOs	Immediate
IT enabled services	IT1. Use of mobile application for complaint registration and grievance redressal regarding air pollution	BMC	1 year
CAAQMS	MS1. Increase the number of air quality monitoring stations	MPPCB	1-2 year

Table 2: Action Plan for City of Gwalior

Source	Control Action	Responsible authorities	Time Frame (within a specified time)
Hotels/ Restaurants/Banquet Halls	All Restaurants small or large should not use coal and shift to gas-based or electric (for sitting capacity of more than 15 persons) appliances.	Gwalior municipal corporation	1 year
	Link Commercial license to clean fuel	Gwalior municipal corporation, Department of Food, Civil Supplies and Consumer Affairs and Oil Companies (Indian Oil/HP, etc.)	1 year
	Ash/residue from the tandoor and other activities should not be disposed of near the roadside. Requires ward-level surveillance.	Gwalior municipal corporation	1 year
Domestic Sector	LPG to all. Slums and about 2% of the population are still using wood, biomass, and dung cake as cooking fuel.	Department of Food, Civil Supplies and Consumer Affairs and Oil Companies (Indian Oil/HP, etc.)	1 year
	No new building complex or society be allowed without a PNG supply distribution network	Department of Food, Civil Supplies and Consumer Affairs and Oil Companies (Indian Oil/HP, etc.)	1 year
	By 2030, the city may plan to shift to electric cooking (common in western countries) or PNG at the minimum	Department of Food, Civil Supplies and Consumer Affairs and Oil Companies (Indian Oil/HP, etc.)	5 - 7 years
Municipal Solid Waste (SW) Burning	Any type of garbage burning should be strictly stopped. Current waste collection and surveillance are poor.	Gwalior municipal corporation	Immediate
	Surveillance is required that hazardous waste goes to TSDF.	Gwalior municipal corporation, MPPCB and MPHIDB.	
	Desilting and cleaning of municipal drains	GwaliorMunicipal Corporations	
	Waste burning in Industrial areas should be stopped.	MPIDC, MPPCB	
	Daily, Monthly mass balance of SW generation	Gwalior municipal corporation.	

	and disposal		
	Sensitize people and media through workshops and literature distribution so as not to burn the waste.	Gwalior municipal corporation, MPPCB, and NGOs	
Construction and Demolition	Wet suppression	MP housing board (MPHIDB), Gwalior municipal corporation, Urban Development Department, PWD	Immediate
	Wind speed reduction (for large construction sites)	MPHIDB, Gwalior municipal corporation, Urban Development Department, PWD	
	Enforcement of C&D Waste Management Rules. The waste should be sent to a construction and demolition processing facility	MPHIDB, Gwalior municipal corporation, Urban Development Department, PWD	
	Proper handling and storage of raw material: covered the storage and provide the windbreakers.	MPHIDB, Gwalior municipal corporation, Urban Development Department, PWD	
	Vehicle cleaning and specific fixed wheel washing on leaving the site and damping down of haul routes.	MPHIDB, Gwalior municipal corporation, Urban Development Department, PWD	
	The actual construction area should be covered by a fine screen.	MPHIDB, Gwalior Municipal corporation, Urban Development Department, PWD	Immediate
	No storage (no matter how small) of construction material near the roadside (up to 10 m from the edge of the road)	MPHIDB, Gwalior Municipal corporation, Urban Development Department, PWD	
	Builders should leave 25% area for green belt in residential colonies to be made mandatory.	MPHIDB, Gwalior Municipal corporation, Urban Development Department, PWD	
	Sensitize construction workers and contract agencies through workshops.	MPHIDB, Gwalior Municipal corporation, Urban Development Department, PWD, MPPCB, and NGO	
Road Dust	The silt load in Gwalior varies from 10.5 to 14.3 g/m ² . The silt load on each road should be reduced to under 2 gm/m ² . Regular vacuum sweeping should be done on the road having a silt load	MPHIDB, Gwalior Municipal corporation, National Highway Authority, PWD, MPPCB (for silt load compliance)	Immediate

	above 2 gm/m ² .		
	Convert unpaved roads to paved roads. Maintain pothole-free roads.	MPHIDB, Gwalior Municipal corporation, National Highway Authority, PWD, MPPCB to carry out surveillance	
	Implementation of truck loading guidelines; use appropriate enclosures for haul trucks and gravel paving for all haul routes.	MPHIDB, Gwalior Municipal corporation, National Highway Authority, PWD	
	Increase green cover and plantation. Undertake the green of open areas, community places, schools, and housing societies.	MPHIDB, Gwalior Municipal corporation, National Highway Authority, State Forest Department, PWD	
	vacuum-assisted sweeping is carried out four times a month on major roads with road washing.	MPHIDB, Gwalior Municipal corporation, National Highway Authority, PWD	
Vehicles	Diesel vehicles entering the city should be equipped with DPF which will bring a reduction of 40% in emissions (This option can be implemented with vehicles of the BS-IV category as well)	State Transportation Department	5 years
	Industries must be encouraged to use BS-VI or BS-IV (with DPF) vehicles for the transportation of raw and finished products	Industrial Associations and State transport Department	Immediate
	Restriction on plying and phasing out of 10 years old commercial diesel-driven vehicles.	Transport Department	2 years
	Introduction of cleaner fuels (CNG/ LPG) for all vehicles (other than 2-W).	Department of Food, Civil Supplies and Consumer Affairs and Oil Companies (Indian Oil/HP, etc.)	2 years
	Check to overload: Expedited installation of weigh-in-motion bridges and machines at all entry points to Gwalior.	Transport Department, Traffic Police Gwalior, NHAI, Toll agencies	Six-months
	Electric/Hybrid Vehicles should be encouraged; New residential and commercial buildings to have charging facilities. All new city buses should be electric.	Transport Department, RTO Gwalior	1 year

Bus stop and their parking should be rationalized to ensure more efficient utilization. The depots should include well-equipped maintenance workshops. Adequate charging stations.	Transport Department, RTO Gwalior	1 year
Enforcement of bus lanes and keeping them free from obstruction and encroachment.	Gwalior Municipal corporation, RTO Gwalior	1 year
Route rationalization: Improvement of availability by rationalizing routes and fleet enhancement with requisite modification.	MPHIDB, RTO Gwalior, Traffic Police-Gwalior	1 year
IT systems in buses, bus stops, control centres, and passenger information systems for the reliability of bus services and monitoring.	MPHIDB, RTO Gwalior, Traffic Police-Gwalior	1 year
Movement of materials (raw and product) within the city should be allowed between 10 PM to 5 AM.	Transport Department -Gwalior, MPHIDB, RTO Gwalior, Traffic Police- Gwalior	1 year
All the diesel-based city public transport (school and government/private buses) should be phased out completely in next three years, and city transport should be operated only through metro, e-vehicle or on CNG. All new public transport should be CNG or electric buses.	Transport Department-Gwalior, MPHIDB, RTO Gwalior, Traffic Police- Gwalior	3 – 10 years
Incentivise and aggressively implement e-mobility including required charging infrastructure. Strategic plan for EV charging infrastructure at each 3 km in urban areas, 25 km on highways (both sides) and 100 km for buses and trucks and swappable battery stations.	Transport Department-Gwalior, MPHIDB, RTO Gwalior, Traffic Police- Gwalior	2 years

	Adequate vehicle scrappage infrastructure should be developed in the next three years. Extended Producer Responsibility (EPR) may be considered for vehicle manufacturers, who will have to build required vehicle scrap plants.	Transport Department- Gwalior, MPHIDB, RTO Gwalior, Traffic Police- Gwalior	2 years
	Public transport to be strengthened with metro and/or adequate number of buses, route plan based on commute surveys and Mobile App based ticketing and seating system is developed in all major cities	Transport Department-Gwalior, MPHIDB, RTO Gwalior, Traffic Police- Gwalior	2 – 5 years
Industries and DG Sets	Ensuring emission standards in industries. Shifting of polluting industries.	MPPCB, Industries Department	1 year
	Strict action to stop unscientific disposal of hazardous waste in the surrounding area	Municipal Council and MPPCB	
	There should be separate Treatment, Storage, and Disposal Facilities (TSDFs) for hazardous waste.	Industrial Associations, MPHIDB, MPIDC, Industries Department, MPPCB	2 years
	Industrial waste burning should be stopped immediately	Industrial Associations, MPIDC, MPPCB	Immediate
	Following best practices to minimize fugitive emissions within the industry premises, all leakages within the industry should be controlled	Industrial Associations, MPIDC, MPPCB	Immediate
	Area and road in front of the industry should be the responsibility of the industry	Industrial Associations, MPIDC, MPPCB	
	Category A Industries (using coal and other dirty fuels)		
	About 118 boilers, Heater and furnaces in Gwalior are running by using Coal, Briquettes, Rise Husk, Wood, HSD, Furnace Oil, Waste, Firewood and other dirty solid fuels which should be shifted to	Department of Food, Civil Supplies and Consumer Affairs and Oil Companies (Indian Oil/HP, etc.), Industrial Associations, MPPCB	2 years

	natural gas and electricity.		
	Almost all rotary furnaces having significant emissions are running on coal that needs to be shifted to natural gas and electricity.	Industrial Associations, MPPCB	2 years
	Multi-cyclones should be replaced by baghouses. Ensure installation and operation of air pollution control devices in industries.	Industrial Associations, MPPCB	2 years
	Category B Industries (Induction Furnace)		
	Recommended Fume gas capturing hood followed by Baghouse should be used to control air pollution.	Industrial Associations, MPPCB	2 years
	Diesel Generator Sets		
	Strengthening of grid power supply, uninterrupted power supply to the industries.	State Energy Department, MPMKVCL	2 years
	Renewable energy should be used to cater to the need of office requirements in the absence of power failure to stop the use of DG Set.	Industrial Associations	2 years
	Efficient recovery system for solvents in chemical industries: The technologies suggest 95% recovery of VOCs is feasible and same may be adopted	Industrial Associations	1 year
Decongestion of Roads in high traffic areas	Strict action on roadside encroachment. Disciplined movement of tempos to stop only at designated spots. Action on driving in the wrong lane.	MPHIDB, Gwalior Municipal corporation, RTO Gwalior, Traffic Police- Gwalior	1 year
	Disciplined Public transport (designate one lane stop).	RTO Gwalior, Traffic Police-Gwalior	
	Removal of the free parking zone. No parking within 50 m of any major crossing and or chaurahs, rotaries. Strictly follow Indian Road Congress guidelines.	MPHIDB, Gwalior Municipal corporation., RTO Gwalior, Traffic Police- Gwalior	
	Examine the existing framework for removing broken vehicles from roads and create a system	MPHIDB, RTO Gwalior, NHAI, Traffic Police, Gwalior	

	for speedy removal and ensure minimal disruption to traffic.		
	Synchronize traffic movements or introduce intelligent traffic systems for lane-driving.	MPHIDB, RTO Gwalior, NHAI, Traffic Police, Gwalior	
	Mechanized multi-story parking at bus stands, and big commercial areas. Remove at least 50 percent of on-street parking in the city.	MPHIDB, RTO Gwalior, Greater GwaliorMunicipal Corporation, NHAI, Traffic Police, Gwalior	
	Identify traffic bottleneck intersections and develop a smooth traffic plan. For example, Shikroda Tihara, Shivpur Tihara, Maharaj Bada, Swami Vivekanand Statue, Jiwaji University, Phool Bagh, Kampoo, Hazira Thana, Gole Ka Mandir, 7. No. Chowk, Gwalior-Chitora Chauraha, Tansen Chowk and Dabra Passare the main bottlenecks for traffic.	MPHIDB, RTO Gwalior, Greater GwaliorMunicipal Corporation, Traffic Police, Gwalior	
	Parking policy in congested areas (high parking cost, at city centres, only parking is limited for physically challenged people, etc).	MPHIDB, RTO Gwalior, Greater GwaliorMunicipal Corporation, NHAI, Traffic Police, Gwalior	
	The important points of congestion are Gole ka mandir, kampoo and 7 No. chowk. Parking on these Roads, should be strictly prohibited.	RTO Gwalior, Traffic Police	2 years
*The above steps should not only be implemented in Gwalior municipal Corporation area but these should be extended up to Outer city boundary.			

**AIR QUALITY INDEX (AQI) OF BHOPAL AND GWALIOR
CITIES OF MADHYA PRADESH (CAAOMS DATA)**

(WITH PROMINENT POLLUTANT)

Month: December-2023

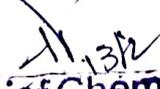
S. No.	Date	Bhopal	Gwalior
1.	01/12/23	MODERATE (106) (PM2.5)	SATISFACTORY (93) (PM10)
2.	02/12/23	SATISFACTORY (88) (PM2.5)	MODERATE (166) (PM10, PM2.5)
3.	03/12/23	MODERATE (140) (PM2.5)	POOR (236) (PM2.5)
4.	04/12/23	POOR (209) (PM2.5)	MODERATE (105) (PM10, PM2.5, CO)
5.	05/12/23	MODERATE (182) (PM2.5)	SATISFACTORY (98) (PM10, CO)
6.	06/12/23	MODERATE (136) (PM2.5)	MODERATE (199) (O3, PM2.5)
7.	07/12/23	MODERATE (108) (PM2.5)	MODERATE (193) (O3, PM2.5)
8.	08/12/23	SATISFACTORY (66) PM10	VERY POOR (303) PM10, PM2.5
9.	09/12/23	MODERATE (146) PM2.5	POOR (268) PM10, PM2.5
10.	10/12/23	MODERATE (130) PM2.5	POOR (201) PM2.5
11.	11/12/23	MODERATE (132) PM2.5	POOR (203) PM2.5
12.	12/12/23	MODERATE (107) PM10, PM2.5	MODERATE (187) PM2.5
13.	13/12/23	MODERATE (101) O3, PM10	POOR (205) PM2.5
14.	14/12/23	MODERATE (111) PM10, PM2.5	POOR (203) PM2.5, PM10
15.	15/12/23	MODERATE (118) PM10, PM2.5	MODERATE (198) PM2.5, PM10
16.	16/12/23	MODERATE (160) PM10, PM2.5	MODERATE (195) PM2.5
17.	17/12/23	MODERATE (183) PM2.5	POOR (236) PM10, PM2.5
18.	18/12/23	MODERATE (113) PM10, PM2.5	POOR (239) PM2.5
19.	19/12/23	MODERATE (137) PM10, PM2.5	MODERATE (175) O3, PM2.5
20.	20/12/23	MODERATE (164) PM2.5	POOR (217) PM10, PM2.5
21.	21/12/23	MODERATE (144) PM2.5, PM10	POOR (250) PM2.5
22.	22/12/23	MODERATE (141) PM10, PM2.5	VERY POOR (301) PM2.5
23.	23/12/23	POOR (226) PM2.5	VERY POOR (318) PM2.5
24.	24/12/23	POOR (226) PM2.5	VERY POOR (384) PM10, PM2.5
25.	25/12/23	VERY POOR (301) PM2.5	VERY POOR (342) PM2.5

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S. No.	Date	Bhopal	Gwalior
26.	26/12/23	POOR (284) PM2.5	VERY POOR (314) PM2.5
27.	27/12/23	POOR (228) PM2.5	POOR (299) PM2.5
28.	28/12/23	MODERATE (156) PM2.5	POOR (264) PM2.5
29.	29/12/23	MODERATE (142) PM2.5, PM10, O3	POOR (280) PM2.5
30.	30/12/23	POOR (227) PM2.5	POOR (251) PM2.5
31.	31/12/23	POOR (273) PM2.5	MODERATE (157) PM10, PM2.5

Month: January-2024

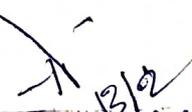
S. No.	Date	Bhopal	Gwalior
1.	01/01/24	POOR (265) PM2.5	MODERATE (147) PM10, PM2.5
2.	02/01/24	POOR (238) PM2.5	MODERATE (138) PM10, PM2.5
3.	03/01/24	POOR (232) PM2.5	POOR (231) PM2.5
4.	04/01/24	VERY POOR (305) PM2.5	VERY POOR (346) PM2.5
5.	05/01/24	MODERATE (160) PM2.5	MODERATE (183) PM2.5, PM10
6.	06/01/24	MODERATE (156) PM2.5	POOR (210) PM2.5
7.	07/01/24	MODERATE (151) PM2.5	POOR (219) PM2.5
8.	08/01/24	MODERATE (173) PM2.5	POOR (248) PM2.5, PM10
9.	09/01/24	POOR (217) PM2.5	MODERATE (194) PM2.5
10.	10/01/24	POOR (205) PM2.5	POOR (222) PM2.5
11.	11/01/24	MODERATE (160) PM2.5	POOR (211) PM10, PM2.5
12.	12/01/24	MODERATE (136) PM2.5	POOR (233) PM10, PM2.5
13.	13/01/24	MODERATE (119) PM10, PM2.5	POOR (225) PM10, PM2.5
14.	14/01/24	MODERATE (126) PM2.5	MODERATE (195) PM10, PM2.5
15.	15/01/24	MODERATE (105) PM10, PM2.5	POOR (230) PM2.5
16.	16/01/24	MODERATE (146) PM10, PM2.5	MODERATE (192) PM10, PM2.5
17.	17/01/24	MODERATE (142) PM2.5	MODERATE (115) PM10, PM2.5
18.	18/01/24	MODERATE (136) PM2.5	MODERATE (116) PM2.5
19.	19/01/24	MODERATE (137) PM2.5	MODERATE (180) PM2.5
20	20/01/24	POOR (210) PM2.5	MODERATE (155) PM2.5


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S. No.	Date	Bhopal	Gwalior
21	21/01/24	POOR (273) PM2.5	POOR (242) PM2.5
22	22/01/24	POOR (201) PM2.5	POOR (273) PM2.5
23	23/01/24	MODERATE (113) PM10, PM2.5	MODERATE (185) PM2.5
24	24/01/24	MODERATE (113) PM10, PM2.5	MODERATE (188) PM2.5
25	25/01/24	MODERATE (159) PM10, PM2.5	MODERATE (189) PM2.5
26	26/01/24	MODERATE (134) PM10	MODERATE (175) PM2.5
27	27/01/24	MODERATE (153) PM10, PM2.5	POOR (219) PM2.5
28	28/01/24	MODERATE (177) O3, PM2.5	MODERATE (199) PM10, PM2.5
29	29/01/24	MODERATE (176) PM2.5	POOR (230) PM2.5
30	30/01/24	MODERATE (134) PM2.5	VERY POOR (313) PM2.5
31	31/01/24	MODERATE (146) PM10, PM2.5	POOR (255) PM2.5

Month: February-2024

S. No.	Date	Bhopal	Gwalior
1.	01/02/24	MODERATE (140) PM10, PM2.5	MODERATE (161) PM10, PM2.5
2.	02/02/24	MODERATE (106) PM10	MODERATE (188) PM10, PM2.5
3.	03/02/24	MODERATE (139) PM2.5	MODERATE (154) PM10, PM2.5
4.	04/02/24	MODERATE (139) PM10	MODERATE (177) PM10, PM2.5
5.	05/02/24	MODERATE (102) PM10	MODERATE (132) PM10, PM2.5
6.	06/02/24	MODERATE (117) PM10	MODERATE (143) PM10, PM2.5
7.	07/02/24	MODERATE (107) PM10	MODERATE (168) O3, PM2.5
8.	08/02/24	MODERATE (102) PM10	MODERATE (110) PM10, O3
9.	09/02/24	MODERATE (112) PM10, O3	MODERATE (116) PM10, PM2.5
10.	10/02/24	SATISFACTORY (94) PM10, O3	MODERATE (161) PM10, PM2.5
11.	11/02/24	SATISFACTORY (96) PM10	POOR (223) PM2.5
12.	12/02/24	MODERATE (127) PM10, PM2.5	POOR (257) PM2.5
13.	13/02/24	POOR (215) PM2.5	POOR (236) PM2.5


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