

**BEFORE THE NATIONAL GREEN TRIBUNAL, PRINCIPAL
BENCH, NEW DELHI.**

Original Application No.- 687/2023

In The Matter of:

In re: Air Quality Index in Various Cities

**Action Taken Report on Behalf of Government of Jharkhand in
compliance of order dated 05.12.2023.**

I, John Kerketta, Son of Late Tej Kumar Kerketta, Residing at Kokar, P.O-Sadar, P.S-Bariyatu, Ranchi do hereby solemnly affirm and state as follows :-

1. That I am posted as Officer on Special Duty in Department of Forest, Environment and Climate Change, Government of Jharkhand, Ranchi and as such I am well acquainted with the facts and circumstances of the present matter. I am duly authorized by the Principal Secretary, Forest, Environment & Climate Change Department, Jharkhand to file the present Action Taken Report.
2. That the answering respondent craves leave before this Hon'ble Tribunal to file further affidavit as and when required and/ or directed by this Hon'ble Tribunal.
3. That the instant matter was last heard on 05.12.2023 when the Hon'ble Tribunal was pleased to direct the 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 and therefore humbly submitted that the instant affidavit is being filed in compliance of order dated 05.12.2023 passed by the Hon'ble Tribunal.

4. That, The Air Quality Index (AQI) in Dhanbad City falls below the desired standards due to heightened vehicular activities, mainly from the Coal Industry, during the night hours after the restricted entry period for heavy vehicles. This phenomenon, exacerbating during the period after starting from 10 p.m., aligns with decreasing nighttime temperatures, resulting in the entrapment of pollutants near the ground level and hindering their dispersion
5. That, now is the onset of winter in Dhanbad giving rise to the meteorological phenomenon of thermal inversion—a characteristic occurrence during the winter season. This phenomenon, known as temperature inversion, is marked by the entrapment of cool air at ground level beneath a layer of warmer air. In such conditions, the warmer air functions as a lid, confining pollutants in proximity to the ground and impeding their dispersion until meteorological conditions undergo a change. This climatic pattern is considered a plausible explanation for the consistent elevation in air quality observed during the winter season.
6. That, Numerous measures have been implemented, including the issuance of advisories and active engagement with vehicle proprietors and transport entities, to ascertain the comprehensive covering of loaded vehicles transporting minerals and other materials.
7. That, Nighttime operations for dust suppression, involving water sprinkling and mechanical 4 hourly sweeping at intervals, are underway to mitigate dust emissions. This proactive approach is particularly crucial during the dry season or when temperatures decrease, leading to heightened airborne dust levels. To further assist these efforts, the corporation is in the process of acquiring three new mechanical road-sweeping machines for supplementing the ongoing use of seven existing mechanical sweepers, seven water sprinklers, and various other tools and equipment.
8. That, A Command-and-Control Center has been instituted at the Dhanbad Nagar Nigam headquarters to systematically monitor and record daily air pollution levels. These proactive measures underscore the corporation's unwavering commitment to effectively address and control air pollution in the region.
9. That, Efforts have been undertaken to install additional paver blocks and facilitate green patch development over the remaining road flank. This initiative aims to mitigate the dispersion of dust particles, thereby contributing to pollution control and the enhancement of the Air Quality Index within the locality.
10. That, The guidelines for construction and demolition activities, as stipulated by regulations, are currently being adhered to, and the installation process of the Construction and Demolition (C&D) Plant is also under progress.

11. That, The City Level Monitoring Committee, comprising of representatives from the main mining industry organisation namely BCCL, Forest Department, IIT-ISM; District Mining Department, JSPCB (Regional Office), the District Transport Office among its members, has been established with a specific mandate to address the declining Air Quality Index (AQI) situation in Dhanbad city.

12. List of the various activities undertaken by the corporation for the improvement of Ambient Air Quality in the city is produce as under:

Sl. no	Activities	Area Covered/ Units Kms, Sqm., No., etc	Expenditure in Cr.	Allotment in Cr	Status of work Completed/ Ongoing etc.
1.	End-to-end pavement	135428 Sqm.	17.27	23.65 Cr	Ongoing
2.	Road sweeping Machine	7 Nos	4.45	4.45	Completed
3.	Bituminous Road	16 Km.	9.12	12.70	Ongoing
4.	Installation of Continuous Air Quality Monitoring System with O&M	10 Nos.	7.37	8.25	Completed
5.	Water sprinkling system (WSS) (3000, 9000 & 5000 Ltr.) with ante smog gun	6 Nos	2.20	2.20	Completed
6.	Construction of electric crematorium	02 Nos.	1.73	4.0	Ongoing (Matkuria and Mohalbani)
7.	Development of Green Patch	2260 Sqm	0.45	11.03	Ongoing
8.	Construction of Playgrounds at various locations	04 Nos.	5.1 Cr.	9.37	Ongoing a) Barmasia Maidan In Ward No.30 b) Patrakulhi Maidan In Ward No. 30 c) Birsa Samiti Football Ground In Ward No.55 d) Telipada In Ward No. 25

9.	Purchase of Desludging Machine	01 Nos.	3.03 Cr.	3.25	Completed (O&M is going on)
10.	Purchase of Cold Fogging Machine	05 Nos.	1.69 Cr.	2.0	Completed (O&M is going on)

Fund Allotment			Amount	Letter No. and Date
1	NCAP	2019 - 2020	3 Crore	B-77/31.03.2021
2	15 th Finance	2020 - 2021	26 Crore	261/31.03.2021
			26 Crore	265/31.03.2021
3	15 th Finance	2021 - 2022	6.5 Crore	340/31.03.2022
	NCAP		3 Crore	RTGS from JSPCB (31.03.2022)
4	15 th Finance	2022 - 2023	4.59 Crore	27/ 10.06.2022
TOTAL			69.09 Crore	

Expenditure	
2020 - 2021	3 Crore
2021 - 2022	9.41 Crore
2022 - 2023	31.12 Crore
2023 - 2024	13.09 Crore
Total	56.62 Crore

13. That, A dedicated task force has been established to execute the Graded Response Action Plan, consistently monitoring air quality conditions and implementing rigorous measures as deemed necessary.

14. That, the corporation in association with JSPCB is diligently implementing stringent measures to address environmental concerns associated with the 29 red-flag industries currently operational within the city. The proactive actions taken by the municipal authorities underscore their commitment to regulating and mitigating potential adverse impacts on the environment and public health posed by these specific industrial activities.

15. That, A weekly air quality bulletin has been initiated, shared with the public through social media, traditional media, and LED display boards.

16. That, A public health advisory, along with the regular display of do's and don'ts for the public, is being shown on five display boards installed in different places of the city.

17. A meeting with mining authorities has taken place to ensure compliance with air emissions regulations at their sites.

18. Plan for 2024-2025 under NCAP/Fifteen Finance Commission (Points are based on the Clean Air Action Plan of Dhanbad):

(I) Infrastructure Development

- a. Complete Concretizing of road stretches with high dust generation and route of coal transportation.
- b. Greening of corridors of high dust generation and route of coal transportation.
- c. Setting up a network of decentralized C&D waste segregation and collection sites across the city.
- d. Development of Construction and Demolition Waste plant.
- e. A city bus system of appropriate fleet size of small buses and desirable bus type.
- f. Setting up Public Grievances Redressal System (IT enabled) – App
- g. Creation of an Enforcement team for dispersed sources of pollution.
- h. Setting up of Air Quality Forecasting and a Health Based program for Air Pollution

(II) Annual Capacity Building & Public Outreach Strategy Under NCAP

- a. Conference on Exchange of learning and best practices on Implementing Clean Air Action Plan
- b. Vayu Mitra (Citizen Volunteer Program) engagement plan
- c. Workshop with college Students on identifying the dispersed sources of pollution and announcement of photography competition.
- d. Celebration of Paryavaran Utsav -2023 (A month-long campaign on clean air targeting 1000s of citizens of Dhanbad)

(III) Scientific Study to understand and plan mitigation strategies for air pollution control

- a. Study of Coal Mining Contribution
- b. Cost and Benefit analysis of mitigation strategies

19. That, it is most humbly submitted that from the facts stated above it is evident that the State Government has taken several steps for prevention and control of air pollution and is regularly monitoring the compliance and enforcement of the steps so taken through various committees constituted at all levels.

20. That I have read and understood the contents of the accompanying the Action taken Report, I say and submit that the facts stated therein are true and correct to the best of my knowledge and belief.

21. That I have read the contents of the report of Dhanbad Municipal Corporation and have understood the same and nothing material has been concealed there from.

John Kishore
DEPONENT *16/02/2024*

LIST OF CAAOMS (Continuous Ambient Air Quality Monitoring Stations) IN DHANBAD

S. No	Station Name	Location
1	Luby Circular Road	Golf Ground, Luby Circular Road
2	IIT ISM	IIT ISM Campus
3	Kolakusma	Vibha Bhawan, Kolakusma
4	Bhuda	Vibha bhawan, Bhuda
5	Chasnala	Vibha bhawan, Chasnala
6	Mohalbani	Mohalbani Samshan Ghat
7	Baniahir	Baniahir, Nigam Anchal Office (Jharia)
8	Bhagabandh	Samudaye Bhawan, Bhagabandh
9	Lilori Park	Lilori Park, Katras
10	Birsa Munda Park	Birsa Munda Park

LED DISPLAYS

S. No	Location
1	Main Gate, DMC Office
2	Bank More, Dhanbad
3	IIT ISM Main gate
4	Katras More, Jharia
5	Birsa Munda Park, near new DMC office

VARIOUS ACTIVITIES / STEPS UNDERTAKEN BY THE DHANBAD MUNICIPAL TO IMPROVE THE AMBIENT AIR QUALITY IN DHANBAD:

1. The corporation has installed 10 continuous Ambient Air Quality Monitors in different part of the city which makes Dhanbad the first city in Jharkhand to have installed so many air quality monitors.
2. A command control centre has been set up at Dhanbad Nagar Nigam head quarter to track and maintain the record for controlling the daily level of air pollution by taking appropriate measures.
3. The corporation is also using water sprinklers to suppress dust on unpaved roads and construction sites. This is especially important during the dry season/decrease temperature when there is more dust in the air.
4. The corporation is using mechanical sweeping machines to clean roads regularly. This helps to remove dust and other pollutants from the air and the corporation has taken steps to purchase 03 new

mechanical road sweeping machines to maintain the pollution in air besides the continuing use of existing 07 mechanical sweeping machines.

5. The corporation is monitoring air quality regularly to track the progress of its efforts and the collected data is used to identify the areas where further action is needed.
6. Regularly issuing advisories and engaging with vehicle owners and transporters, to ensure that vehicles carrying minerals and other materials are covered.
7. The Information, Education, and Communication (IEC) and other allied activities for reducing Air Pollution are being communicated and circulated for the people of the locality at large. The Citizen Volunteer Program 'Vayu Mitra' has been launched and is being implemented through rounds of Citizen Dialogues to empower and sensitize the citizens at the ward level to maintain the level of clean air.
8. Regularly issuing advisories for construction and demolition activities within the rules and installation of the C&D Plant is under construction process.
9. Dhanbad Nagar Nigam in association with JSPCB is diligently implementing stringent measures to address environmental concerns associated with the 29 red-flag industries currently operational within the city. The proactive actions taken by the municipal authorities underscore their commitment to regulating and mitigating potential adverse impacts on the environment and public health posed by these specific industrial activities.
10. The City Level Monitoring Committee, comprising representatives from BCCL, Forest Department, IIT-ISM, District Mining Department, JSPCB (Regional Office), the District Transport Office among its members, has been established with a specific mandate to address the declining Air Quality Index (AQI) situation in Dhanbad city.
11. A task force has been constituted to implement the Graded Response Action Plan, regularly taking stock of the air quality situation and implementing stringent measures as and when required.
12. A weekly air quality bulletin has been initiated, shared with the public through social media, traditional media, and LED display boards.