

BEFORE THE NATIONAL GREEN TRIBUNAL, PRINCIPAL BENCH,

NEW DELHI

O.A. NO. 687 OF 2023

IN THE MATTER OF

In re: Air Quality Index in Various Cities

**ACTION TAKEN REPORT ON BEHALF OF GOVERNMENT OF BIHAR IN
LIGHT OF ORDER DATED 10.11.2023.**

I, Dharendra Paswan, aged about 59 years, Son of Late Ishwari Paswan, residing at P.S-Phulwarisharif, Patna do hereby solemnly affirm, and state as follows: -

1. That I am posted as Additional Secretary in the Department of Environment and as such I am aware of the facts and circumstances of the present matter. I am competent and duly authorized to file the present Action Taken Report.
2. That the instant matter was last heard on 10.11.2023 when the Hon'ble Tribunal was pleased to direct the answering respondent to take adequate and immediate measures so that the air quality improves and to identify the major contributing source of pollution and to take immediate steps to control it.
3. That the State of Bihar is situated on the foothills of Nepal (the Himalayas), which acts as a barrier with respect to the free flow of air. The State is situated in the Indo-Gangetic Plain (IGP), which carries pollutants from upstream States and these coupled with dry topsoil (alluvial soil) make the air dusty. Therefore, the major

contributing source of pollution is dust and fugitive dust emitted due to construction activities, patchy roads and open burning.

4. That as stated in report dated 09.11.2023, filed by the answering respondent, GRAP has been enforced in the State of Bihar and the District Administration is implementing the GRAP in their respective districts depending on the category of AQI. The immediate remedial steps taken in the State of Bihar to improve the Air Quality in view of dust being identified as major polluting source are as under: -

- i. Daily sweeping of all the roads coming under the jurisdiction of the Municipal Corporations;
- ii. Sprinkling of water on all the roads coming under the jurisdiction of the Municipal Corporations;
- iii. Increase in frequency and in number of times of daily sweeping and water sprinkling;
- iv. Control and Prevention on instances of open burning of solid waste and other waste;

A copy of a tabular chart containing the details of steps taken by the authorities on daily basis to control and improve the air quality of different towns of the districts of the State of Bihar is produced below: -

"Daily Action Taken Report" on Regulation and Control of Air Pollution in Different Cities of Bihar

Cause of Air Pollution	Name of the City																			
	Patna	Gaya	Muzaffarpur	Purnia	Saharsa	Madhubani	Samastipur	Bhagalpur	Beghal	Chhapra	Darbhanga	Munger	Ara	Begusarai	Biharsharif	Katihar	Madhubani	Sasaram	Sitamarhi	Rajgir
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Road Dust Management																				
Total Length of Road in the Jurisdiction of Municipality	2500	530	550	490	456	215	388	601	552	140	485	381	273	431	490	300	445	455	504	64
Total Length of Road Cleaned Daily (km)	2500	530	427	490	456	215	388	601	552	130	485	381	273	422	490	300	445	455	504	64
➤ Manual (km)	700	490	407	490	446	215	388	546	527	130	485	381	260	422	460	270	445	455	504	64
➤ Mechanical (km)	1800	40	20	0	10	0	0	55	25	0	0	0	13	0	30	30	0	0	0	0
Total Number of Persons Engaged in Cleaning Work	8000	2506	1592	1430	556	565	655	1270	970	215	1161	320	856	783	840	1000	430	600	504	219
Number of Mechanical Sweeping Machine Deployed in Cleaning Work	14	2	2	0	1	0	0	02	1	0	0	0	2	0	1	1	0	0	0	0
Total Length of Road Cleaned by Mechanical Sweeping Machine (km)	1800	40	20	0	10	0	0	55	25	0	0	0	13	0	30	30	0	0	0	0
Total Length of Road Cleaned by Mechanical Sweeping Machine with Water Sprinkling Arrangement (km)	1800	40	20	65	10	0	22	55	25	0	150	0	13	Manual	30	30	38	40	0	0
Total Number of Tankers Deployed in Water Sprinkling of Kacchi Sarak (Unpaved Road) and its Capacity.	---	---	2 (4 KL) 4 (3 KL)	---	1 (5 KL)	---	1 (3 KL)	---	1 (3 KL)	2 (5 KL)	---	---	3 (3 KL)	3 (9 KL) 1 (3 KL)	2 (4 KL)	1 (3 KL)	1 (5 KL)	1 (3 KL)	---	---
Water Sprinkling on Plants located on road side																				
Total Number of Tankers Deployed in Water Sprinkling on Plants.	13 and 12 Anti-Smog gun	2	2	2	1	2	1	2	1	2	2	2	1	2	1	1	1	1	2	3
Frequency of Water Spraying	Twice a day (at 16 hour)	Per day	Once in 2 days	Per day	Per day	Per day	Per day	Per day	Per day	Twice a day	Per day	Twice a day	Per day	Twice a day	Per day	Per day	Per day	Per day	Per day	Per day

From perusal of above produced table it can be seen that in various districts of State of Bihar street sweeping and water sprinkling is being done almost in all the roads situated within the jurisdiction of the Municipal Corporation. In districts where facility of mechanical sweeping is not available, the work is being done manually due to which dust from the roads have been removed and as such dust is not becoming air borne and thus air quality is improving.

5. That the Bihar State Pollution Control Board has carried spot inspection from 03.11.2023 to 15.11.2023 in order to identify the hotspots which are a source of pollution in different districts of Bihar. The details of hotspots identified in different towns of the districts in State of Bihar is produced in the table below:

Sl. NO.	District	Name of town	Industry	Uncovered Building Construction and Dump of building construction materials.	Open burning	Unpaved road or dusty road.
1.	Patna	Patna	5	42	14	12
2.	Muzzafarpur	Muzzafarpur	0	16	1	5
3.	Gaya	Gaya	0	18	5	3
4.	Bhagalpur	Bhagalpur	0	3	0	0
5.	Motihari	Motihari	0	2	3	1
6.	Nalanda	Rajgir	0	3	1	0
7.	Begusarai	Begusarai	0	6	0	0
8.	Purnea	Purnea	0	4	1	0
9.	Arrah	Arrah	0	1	1	0
10.	Siwan	Siwan	0	2	0	0
11.	Katihar	Katihar	0	2	0	0
12.	Chapra	Chapra	0	3	0	0
13.	Araria	Araria	0	6	0	0
14.	Samastipur	Samastipur	0	3	1	0
15.	Saharsa	Saharsa	0	2	1	0
16.	Kishanganj	Kishanganj	0	0	2	0

Further the details of hotspots were sent to the District Magistrate of Patna, Gaya, Muzaffarpur and Purnea and to the Municipal authorities to take remedial measures for control and prevention of pollution from the said hotspots.

6. That, the State Board has taken steps on the defaulting industries mostly engaged in the construction work/activities and has issued 'Proposed Direction for Closure and Imposition of Environmental Compensation' of Rs. 61,00,000/- (Sixty One Lacs Only) and Rs. 10,08,900/- (Ten lacs Eight Thousand and Nine Hundred only) to two units namely M/S Vishal Infrastructure Pvt. Ltd., Patna and M/S Ahluwalia Contracts (India) Ltd., Patna respectively and appropriate action is being taken against the other defaulting units.
7. That the steps taken by the authorities has led to improvement in air quality and the AQI of Patna, Purnia and Rajgir has shown some improvement and on 17.11.2023 and 19.11.2023 the AQI was in 'MODERATE' category in Patna, Purnia and Rajgir. The Air Quality of different cities of State of Bihar, though being in 'Very Poor' category, started to improve from 11.11.2023 and came in 'Moderate' category on 18.11.2023 and remained in 'Moderate category' on 19.11.2023. The AQI of Patna, Purnia and Rajgir from 10.11.2023 to 19.11.2023 is produced in table below:-

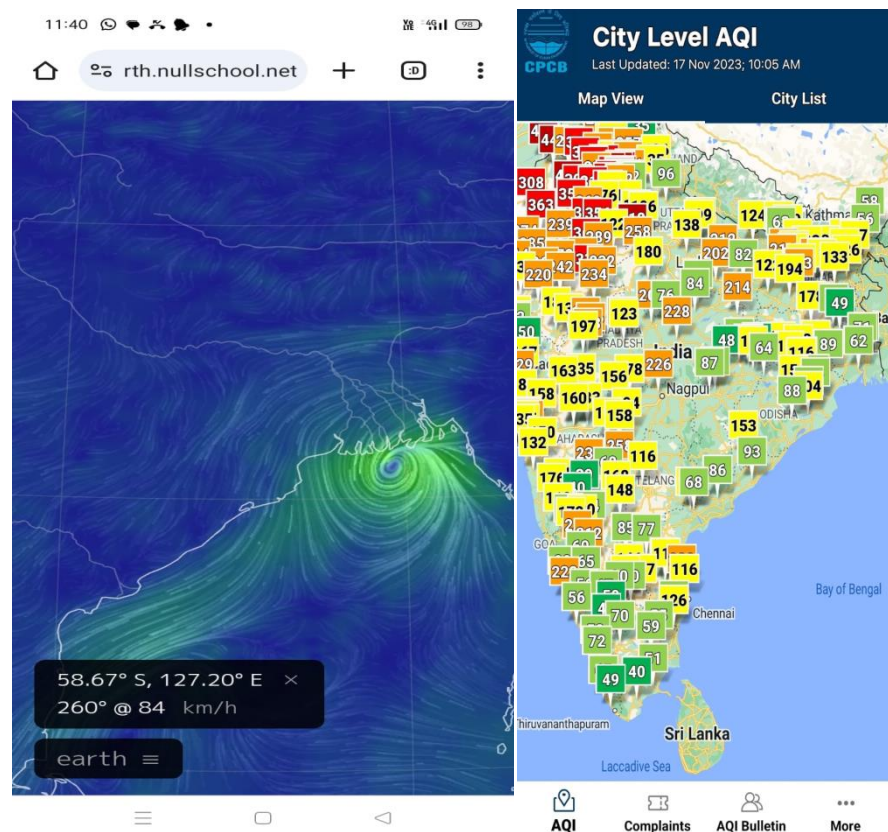
Status of AQI at Patna, Purnia and Rajgir From 10.11.2023 to 18.11.2023

Date	Patna	Condition	Purnia	Condition	Rajgir	Condition
	AQI		AQI		AQI	
10-Nov-23	366	Very Poor	377	Very Poor	279	Poor
11-Nov-23	375	Very Poor	350	Very Poor	329	Very Poor
12-Nov-23	336	Very Poor	322	Very Poor	356	Very Poor
13-Nov-23	333	Very Poor	347	Very Poor	315	Very Poor
14-Nov-23	324	Very Poor	313	Very Poor	273	Poor
15-Nov-23	297	Poor	262	Poor	291	Poor
16-Nov-23	271	Poor	193	Moderate	288	Poor

17-Nov-23	193	Moderate	158	Moderate	268	Poor
18-Nov-23	138	Moderate	103	Moderate
19-Nov-23	129	Moderate	197	Moderate	106	Moderate

Source: Bihar State Pollution Control Board

8. That the improvement in the air quality is due to the remedial measures and actions taken by the state authorities as detailed above and also due to change in the meteorological condition like wind speed. The anticyclonic depression in Bay of Bengal starting from 13.11.2023, wherein the high-speed wind is pressed into the land, resulting in increased wind speed triggering increased Atmospheric Thermal Boundary Layer (ATBL) in the zone of influence. The cumulative impact is the dispersion of accumulated dust, rapid dispersion of dust from the lower atmospheric air, which ultimately has reduced the AQI values as compared to earlier this week.



[The first picture (Left) describes the high wind speed from the Bay of Bengal or rain impact (release of high pressure). The AQI picture (Right) describes the pushing of air pollutants in one corner of India (through the IGP channel). Also, may please see high wind speed dispersed air pollutants resulting in better AQI as compared to earlier this week.]

9. That the air quality of different districts of State of Bihar has improved and the AQI recorded on 18.11.2023 of different district of State of Bihar has been in MODERATE and SATISFACTORY category. AQI of Patna on 18.11.2023 was recorded at 138; Muzaffarpur- 138; Gaya-188; Bhagalpur-100; Hajipur-139; Araria-111; Bettiah-151; Biharsharif- 64; Katihar-62; Kishanganj-77; Motihari-141; Munger-82; Purnia-103; Saharsa-87; Samastipur-114; Sasaram-83 **AND** AQI of Patna on 19.11.2023 was recorded at 129; Muzaffarpur- 207; Gaya-131; Bhagalpur-160; Hajipur-136; Araria-108; Bettiah-192; Biharsharif- 55; Katihar-151; Kishanganj-122; Motihari-186; Munger-90; Purnia-197; Saharsa-188; Samastipur-180; Sasaram-77.
10. That the State Government is committed to maintain better air quality in the State of Bihar and will continue and will take steps to control anthropogenic activities and to take the necessary remedial measures in addition to the steps which is already being taken by the State Government. Further, the State Government undertakes to comply with directions and orders of the Hon'ble Tribunal which may be passed.

11. That I have read the contents of the report and have understood the same and nothing material has been concealed there from and the annexures are true copies of their respective originals.

Divyanka Parvas
DEPONENT 21/11/23