BEFORE THE NATIONAL GREEN TRIBUNAL SOUTHERN ZONE AT CHENNAI

O.A. No. 87 OF 2024

Mr. Krishnan CS

…Applicant

Versus

The State of Karnataka & Anr.

…Respondents

CONVENIENCE TYPESET FILED ON BEHALF OF THE APPLICANT

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Dated at Chennai on this the 10th day of June, 2025.

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far as the co-accused appellants are concerned, despite the fact that the accused are residents of the same village where the occurrence took place and no other prosecution witnesses have identified them as the persons present at the scene of offence nor is there any recovery alleged to have been made from them or at their instance. In the aforesaid circumstances and for the infirmities, we are in agreement with the submission of learned counsel appearing for the accused-appellants that the said confessional statement ought not to have been relied upon by the court for convicting the accused-appellants.

8. In the result, Criminal Appeal No. 752 of 2001 filed by A-2 Bihari Manjhi, A-4 Ramautar Dusadh @ Lakhan Dusadh and A-7 Wakil Yadav and Criminal Appeal No. 765 of 2001 filed by A-6 Rajendra Paswan are allowed and the judgment and order convicting the appellants is set aside and they are acquitted of the offences for which they were charged and it is ordered that they be released forthwith, if not required in any other case.

(2002) 4 Supreme Court Cases 356

(BEFORE B.N. KIRPAL, V.N. KHARE AND ASHOK BHAN, JJ.)

M.C. MEHTA .. Petitioner;

Versus

UNION OF INDIA AND OTHERS .. Respondents.

Writ Petition (C) No. 13029 of 1985†, decided on April 5, 2002

A. Environment Protection and Pollution Control — Air pollution — Supply of CNG fuel and phasing out of diesel buses — Time-bound orders — Transport sector in Delhi and other polluted cities — Held, Union of India to give priority to transport sector, including private vehicles, for purposes of allocation of CNG — Union of India to allocate 16.1 lakh kg per day (2 mmscmd) of CNG in Delhi by 30-6-2002 — Industries to receive CNG if any left over thereafter — Union of India's application for extension of time to run diesel buses dismissed with costs (Rs 20,000) — Permit-holders having placed orders with bus manufacturers directed to take delivery within 2 weeks of Supreme Court order or face automatic cancellation of their permits — Fine to be collected from owners of buses continuing to ply diesel buses after 31-1-2002 (Rs 500 per day; Rs 1000 per day after 30 days of operation) — NCT to phase out 800 diesel buses per month — Union of India also directed to prepare scheme containing time schedule for supply of CNG to other polluted cities of India by 9-5-2002 — Union of India also directed to frame a financing scheme for taxis and for diesel bus-owners whose permits cancelled — Priority to be given to SC/ST and other weaker sections — Compliance report to be submitted within 4 weeks — Air (Prevention and Control of Pollution) Act, 1981, Ss. 16, 17 and 18

B. Constitution of India — Arts. 144, 142 & 141 and 73 & 162 — Order and directions of Supreme Court — Held, cannot be nullified or modified or

† Under Article 32 of the Constitution of India

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in any way altered by any administrative decision of Central or State Govts. — Administrative Law — Administrative action

a C. **Constitution of India — Arts. 39(e), 47 and 48-A — Held, these directive principles individually and collectively impose a duty on the State to create conditions to improve the general health level in the country, and to protect and improve the natural environment — Strong criticism voiced by Supreme Court against governmental agencies and Union of India for allowing air pollution levels to spiral because of their lack of concern and effort, regardless of existence of adequate anti-pollution laws**

b D. **Environment Protection and Pollution Control — Sustainable Development — Held, is one of the principles underlying environmental law — The two essential features of such development are (i) the precautionary principle; and (ii) the polluter-pays principle**

E. **Environment (Protection) Act, 1986 — S. 3 — Environment Pollution (Prevention and Control) Authority — Directions of, held, are final and**
c **binding on all persons and organisations concerned**

F. **Constitution of India — Arts. 39(e), 47 and 48-A — Shortage of CNG pleaded for delay in converting diesel vehicles — CNG also supplied to private industries — Held, if plea of shortage is truthful then concern for public health by reducing air pollution must take precedence over requirement of CNG by the industrial units**

d Allowing the writ petition till 9-5-2002, the Supreme Court

Held :

Articles 39(*e*), 47 and 48-A of the Constitution of India by themselves and collectively cast a duty on the State to secure the health of the people, improve public health and protect and improve the environment. It was by reason of the lack of effort on the part of the enforcement agencies, notwithstanding adequate
e laws being in place, that the Supreme Court has been concerned with the state of air pollution in the capital of India. Lack of concern or effort on the part of various governmental agencies had resulted in spiralling pollution levels. The quality of air was steadily decreasing and no effective steps were being taken by the administration in this behalf. (Para 1)

The concern of the Supreme Court in passing various orders since 1986 has only been one, namely, to protect the health of the people of Delhi. It is only with
f this objective in mind that directions had been issued in an effort to persuade the governmental authorities to take such steps as would reduce the air pollution. (Para 3)

The Environment Pollution (Prevention and Control) Authority is a statutory authority constituted under Section 3 of the Environment (Protection) Act, 1986, and its directions are final and binding on all persons and organisations concerned. (Para 4)

g *Sector 14 Residents' Welfare Assn.* v. *State of Delhi*, (1999) 1 SCC 161, *relied on*

One of the principles underlying environmental law is that of sustainable development. This principle requires such development to take place which is ecologically sustainable. The two essential features of sustainable development are

(*a*) the precautionary principle, and

h (*b*) the polluter-pays principle. (Para 9)

Vellore Citizens' Welfare Forum v. *Union of India*, (1996) 5 SCC 647, *relied on*

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3

Norms for emission and norms for the fuel have existed for over the last two decades — and the state of the environment is dismal despite the existence of these norms. The emission norms stipulated by the Government have failed to check air pollution, which has grown to dangerous levels across the country. Therefore, to recommend that the role of the Government be limited to specifying norms is a clear abdication of the constitutional and statutory duty cast upon the Government to protect and preserve the environment, and is in the teeth of the "precautionary principle". (Para 11)

The recommendations made by the Bhure Lal Committee and the directions issued in 1993 have not been challenged by the Union of India. The directions issued by the Bhure Lal Committee are statutory and continue to be in force. It is not, therefore, open to the Union of India to seek variation of the same without any justifiable reason. Prior to the filing of its affidavit of 26-4-2001, the Union of India never opposed the changeover to CNG. (Para 12)

When in the order of the Supreme Court dated 17-9-2001 it was observed that there was no justification to grant prayer (*d*) "at this stage" it only meant that the question of considering such a request did not arise specially when similar plea for modification had been rejected earlier. The expression "at this stage" only meant at this late stage. The use of the expression "at this stage" cannot be interpreted as permitting the Union of India to once again ask for modification of the Court's order with regard to conversion of the city bus fleet to the CNG mode. (Para 13)

The plea of the Government that CNG is in short supply, and that it is unable to supply adequate quantity is incorrect, and this is clearly a deliberate attempt to frustrate the orders passed by the Supreme Court. Particulars filed in the Court show that as of today no CNG is being imported. The indigenous produce is far in excess of what is supplied to the transport sector. It is only a small fraction of CNG produced in India which is earmarked for non-industrial use. Overwhelming quantity is allocated to industries, including the power sector. (Para 14)

That there is no shortage of CNG is also evident from the fact that even during the pendency of these proceedings, while on the one hand it was being represented to the Supreme Court and the Mashelkar Committee that CNG was in short supply, there was an increase in the allocation of CNG to industries. Even when CNG was not being supplied to Pragati Power Station in Delhi, as the same has not been commissioned, CNG earmarked for the power unit instead of being allocated to the transport sector, was diverted to the industries in the neighbourhood of Delhi. (Para 15)

If there is a short supply of an essential commodity, then the priority must be of public health, as opposed to the health of the balance sheet of a private company. To enable industries to cut their losses, or make more profit at the cost of public health, is not a sign of good governance, and this is contrary to the constitutional mandate of Articles 39(*e*), 47 and 48-A. (Para 16)

While the industries get natural gas at the rate of about Rs 3.55 per kg, a commercial vehicle-owner in Delhi has to pay about Rs 13.11 per kg, which is four times more than what the industry pays. It is clear that there is a desire to benefit private industries at the cost of public health and the public exchequer. A major portion of CNG goes to industries, and the Government and its undertakings get less than what it would realise from supplying CNG to the

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transport sector. Such economics is baffling, to say the least. Not only is there no shortage of CNG as far as the transport sector is concerned, but even if there be such a shortage, if crude oil can be imported and supplied to the refineries for manufacture of petrol and diesel, there is no reason why CNG, if need be, cannot be imported, so that it ensures less pollution. (Paras 17, 19, 20, 38 and 41)

According to an estimate by the World Bank study using 1992 data, the annual health cost to India was up to about Rs 5550 crores due to ambient air pollution. Out of this, the health cost of air pollution in Delhi alone was found to be about Rs 1000 crores. The increase in respiratory diseases specially amongst the children should normally be a cause of concern for any responsible Government. The precautionary principle enshrined in the concept of sustainable development would have expected the Government and the health authorities to take appropriate action and arrest the air pollution. However, children do not agitate or hold rallies and, therefore, their sound is not heard and the only concern of the Government now appears to be is to protect the financial health of the polluters, including the oil companies who by present international desirable standards produce low quality petrol and diesel at the cost of public health. (Paras 24 and 25)

Journal of American Medical Association and *Indian Journal of Medical Research, relied on*

The statistics show that the continuing air pollution is having a more devastating effect on the people, than what was caused by the Bhopal gas tragedy. In that case, the nation, including the Union of India, was rightly agitated and sought action and compensation from the multinational company, who was held to be responsible for the same. Here, in the case of CNG, the shoe is on the other foot because the Government is not facilitating measures for clean air and water including the supply of CNG or any other clean unadulterated fuel. It is due to the lack of proper concern on the part of the governmental authorities that people are suffering from respiratory and other diseases. The Bhopal gas tragedy was a one-time event which, hopefully, will not be repeated, but here, with not enough concern or action being undertaken by the Union of India, far greater tragedies in the form of degradation of public health are taking place every day. (Para 26)

Under these circumstances, it becomes the duty of the Supreme Court to direct such steps being taken as are necessary for cleaning the air so that the future generations do not suffer from ill health. (Para 27)

The Supreme Court is conscious of the fact that vehicular pollution is only one of the causes of air pollution, but statistics show that, at least in the metropolitan towns, this is the major source of pollution. (Para 28)

Parivesh (publication of CBCB), *relied on*

With the emissions from the CNG vehicles being more than comparable with Euro IV standards, the contention of the Union of India that a mix of diesel buses and CNG buses would make a difference of only 2% in the pollution levels is patently untenable. In the case of particulates, current CNG vehicles are 15 times better than Euro II diesel vehicles (with 500 ppm sulphur) and only Euro IV diesel vehicles are comparable to CNG vehicles. In fact, the certificate issued by the Automotive Research Association of India (ARAI) to the bus manufacturers says that particulate emissions were negligible and could not be measured. The aforesaid analysis emphasizes the need for change to non-liquid fuel like CNG or

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LPG so as to improve the air quality in this country and not merely of Delhi. Such changeover may perhaps obviate the need to manufacture vehicles meeting Euro III or Euro IV standards. (Paras 31 and 33)

It was as a result of the various orders passed by the Supreme Court that the air pollution level in the city has been stabilised. In 2000, the levels of annual average levels of RSPM declined to 186 µg/cum from 222 µg/cum. This is no small achievement as the city continues to add over 2,00,000 vehicles each year and its total vehicular fleet is larger than that of Kolkata, Mumbai and Chennai put together. But even with these efforts, its RSPM pollution remains roughly 3 times above the national standard for annual average concentration of RSPM mandated under the Air (Prevention and Control of Pollution) Act, 1981. (Para 34)

Reports from around the world, including USA, China, and Malaysia make it clear that the alternative fuel of CNG, LPG and electricity is a preferred technology which critically polluted cities like Delhi need as a leapfrogging technological option. (Para 36)

The request of the Government for phasing out 200 buses a month appears to be based on some imaginary shortage in the availability of gas. There is no credible material placed before the Court to show that the distribution of gas is consistent with the principle of sustainable development. Conferring economic advantage upon industry by making available cheap gas in preference to the need for supplying gas for environmental reason is inconsistent with the settled constitutional position. (Para 44)

Even though the time for phasing out diesel buses had expired but in view of the situation created by the Government of not cooperating or complying with the Court's order, a different formula has to be worked out so as to cause as little inconvenience to the travelling public as possible, while at the same time punishing the wrongdoer. Directions are, therefore, to be issued regarding the lifting of 1500 buses plus phasing out of 800 buses per month. The permits to be given are to be time-bound and the continued operation of the diesel buses till they are replaced would require them to pay Rs 500 per bus per day for 30 days of operation and thereafter Rs 1000 per day and the same is to be deposited with the Director of Transport, Delhi. (Para 45)

Lack of adequate supply of CNG has been a cause of concern and has been referred to in the various orders passed by the Supreme Court from time to time. In the absence of proper response from the governmental authorities, there is no alternative but to issue the following directions:

1. The Union of India will give priority to the transport sector including private vehicles all over India with regard to the allocation of CNG. This means that first the transport sector in Delhi, and in the other air polluted cities of India, CNG will be allocated and made available and it is only thereafter, if any CNG is available, that the same can be allocated to the industries, preference being shown to public sector undertakings and power projects.

2. IA of the Union of India for extension of time to run diesel buses is dismissed with costs of Rs 20,000 (twenty thousand only). It is made clear, and it is obvious in our constitutional set-up, that orders and directions of this Court cannot be nullified or modified or in any way altered by any administrative decision of the Central or the State Governments. The

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administrative decision to continue to ply diesel buses is, therefore, clearly in violation of the Supreme Court's orders.

3. Those persons who have placed orders with the bus manufacturers, and have not taken delivery of the same shall do so within two weeks from today, failing which their permits shall stand automatically cancelled.

4. As owners of diesel buses have continued to ply diesel buses beyond 31-1-2002, contrary to this Court's orders, for the disobedience of the said orders, the Director of Transport, Delhi, will collect from them costs at the rate of Rs 500 per bus per day increasing to Rs 1000 per day after 30 days of operation of the diesel buses with effect from tomorrow and the same shall be deposited in the Supreme Court by the Director of Transport by the 10th day of every month.

5. NCT of Delhi shall phase out 800 diesel buses per month starting from 1-5-2002. Till all the diesel buses are replaced the bus-owners who continue to ply the diesel buses shall pay as per direction 4 hereinabove.

6. For implementing these directions, the Union of India and all governmental authorities, including IGL shall:

(*a*) allocate and make available 16.1 lakh kg per day (2 mmscmd) of CNG in NCT of Delhi by 30-6-2002 for use by the transport sector;

(*b*) increase the above supply of CNG whenever the need arises;

(*c*) prepare a scheme containing a time schedule for supply of CNG to the other polluted cities of India and furnish the same to the Supreme Court by 9-5-2002 for its consideration; and

(*d*) it will be open to the Union of India to supply LPG in addition to CNG as an alternate fuel or to supply any other clean non-adulterable fuel as the Bhure Lal Committee may recommend.

7. NCT of Delhi had announced a scheme for financing CNG vans, to be run as taxis, for SC/ST. We direct a similar financing scheme be framed by the Union of India jointly with NCT of Delhi, whereby those of the permits of owners of diesel buses which are cancelled due to non-conversion to CNG, the same should, in the first instance, be allotted to SC/ST and to the other weaker sections of the society. Such a scheme should be prepared and implemented and a compliance report be filed within four weeks. The costs deposited under direction 4 above can be utilised in implementing the proposed scheme. (Para 47)

A-M/TZ/25598/C

[**Ed.**: See other orders of Supreme Court on CNG reported at (1998) 8 SCC 648; (1999) 6 SCC 14; (2000) 9 SCC 519; (2001) 3 SCC 756 and (2001) 3 SCC 763.]

Suggested Case Finder Search Text (*inter alia*) :

cng or "air pollution"

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H.K. Puri, Siddharth Yadav, Ms Anupama Grover, Rakesh K. Sharma, Narendra Verma, Vishal Gupta, Sanjeev K. Kapoor, Sanjay Pathak, Anil Kumar Mittal, Prashant Bhushan, Joseph Pookkatt, Prasenjit Keswani, Prashant Kumar, Dhruv Mehta, Ms Anu Mehta, Ms A. Subhashini, Ms Sheil Sethi, Vijay Panjwani, Shri Narain, Sandeep Narain, Ms Anjali, Ms Rani Chhabra, V.B. Saharya, Rakesh K. Khanna, Reetesh Singh and Surya Kant, Advocates, with them] for the appearing parties.

Chronological list of cases cited ***on page(s)***

1. (1999) 1 SCC 161, *Sector 14 Residents' Welfare Assn.* v. *State of Delhi* 363*a-b*
2. (1996) 5 SCC 647, *Vellore Citizens' Welfare Forum* v. *Union of India* 364*f-g*

ORDER

1. Articles 39(*e*), 47 and 48-A by themselves and collectively cast a duty on the State to secure the health of the people, improve public health and protect and improve the environment. It was by reason of the lack of effort on the part of the enforcement agencies, notwithstanding adequate laws being in place, that this Court has been concerned with the state of air pollution in the capital of this country. Lack of concern or effort on the part of various governmental agencies had resulted in spiralling pollution levels. The quality of air was steadily decreasing and no effective steps were being taken by the administration in this behalf.

2. It was by reason of the failure to discharge its constitutional obligations, and with a view to protect the health of the present and future generations, that this Court, for the first time, on 23-9-1986, directed Delhi Administration to file an affidavit specifying steps taken by it for controlling pollution, emission of smoke, noise etc. from vehicles plying in Delhi.

3. The concern of this Court in passing various orders since 1986 has only been one, namely, to protect the health of the people of Delhi. It is only with this objective in mind that directions had been issued in an effort to persuade the governmental authorities to take such steps as would reduce the air pollution. It is as a result of intervention by this Court that the following measures were taken in controlling pollution to some extent:

(*a*) lowering of sulphur content in diesel, first to 0.50% and then to 0.05%;

(*b*) ensuring supply of only lead-free petrol;

(*c*) requiring the fitting of catalytic converters;

(*d*) directing the supply of pre-mix 2T oil for lubrication of engines of two-wheelers and three-wheelers;

(*e*) directing the phasing out of grossly polluting old vehicles;

(*f*) directing the lowering of the benzene content in petrol; and

(*g*) ensuring that new vehicles, petrol and diesel, meet Euro II standards by September 2000.

It was during the course of these proceedings that the Bhure Lal Committee was established under Section 3 of the Environment (Protection) Act, 1986.

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4. The Environment Pollution (Prevention and Control) Authority is a statutory authority constituted under Section 3 of the Environment (Protection) Act, 1986, and its directions are final and binding on all persons and organisations concerned. This position has been reiterated by this Court in *Sector 14 Residents' Welfare Assn.* v. *State of Delhi*[1]. It is this authority which had directed the phasing out of non-CNG buses. It is the Bhure Lal Committee which had also recommended the conversion to CNG mode and issued directions that non-CNG buses should be phased out.

5. It is the report of the Bhure Lal Committee which was accepted and orders were passed by this Court on 28-7-1998†, fixing the time-limit within which the switchover to CNG was to take place. It may be mentioned here that the need for finding an alternative fuel to diesel had been drawing the attention of this Court for quite some time. This is evident from the order dated 21-10-1994, in which it was observed as follows:

> "On an earlier occasion when these matters came up before this Court it was suggested that to begin with, government vehicles and public undertaking vehicles including public transport vehicles could be equipped with CNG cylinders with necessary modification in the vehicles to avoid pollution which is hazardous to the health of the people living in highly polluted cities like Delhi and the other metros in the country."

6. Again, in the order dated 28-3-1995 and 9-2-1996, long before the receipt of the Bhure Lal Committee Report, there is a reference to conversion of government vehicles to CNG, as well as to the installation of CNG stations and kits. It is unfortunate that the efforts of the governmental authorities have not kept pace with the orders passed by this Court. For more than one year, under one pretext or the other, first NCT of Delhi and then the Union of India have been seeking extension of time for conversion of commercial vehicles to CNG. While the anxiety of the Delhi Government, to give it the benefit of doubt, was to see that bus services in this city were not disrupted which was the reason that it had sought extensions of the time-limit, the response of the Union of India in this regard is baffling, to say the least.

7. With a view that the disruption in bus services does not take place and unnecessary hardship is not caused, this Court has been extending the time with regard to the conversion of commercial vehicles. Time was first extended to 30-9-2001, and then to 31-1-2002. It is during the period January 2001 to February 2002, that action has been taken by the Union of India, which leaves us with no doubt that its intention, clearly, is to frustrate the orders passed by this Court with regard to conversion of commercial vehicles to CNG. The manner in which it has sought to achieve this object is to try and discredit CNG as the proper fuel and, secondly, to represent to this Court that CNG is in short supply and, thirdly, delay the setting up of adequate dispensing stations.

1 (1999) 1 SCC 161

† *M.C. Mehta* v. *Union of India*, (1998) 6 SCC 63

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8. In 2001, the Union of India hurriedly set up a committee headed by Mr R.A. Mashelkar to give a report with regard to vehicular pollution. It was surprising that since 1986, the Union of India had not thought of setting up such a committee until after 31-1-2001††, when an order was passed in which the apathy on the part of the Government in carrying out the orders of this Court was taken note of, and the authorities were required to comply with the orders passed. The composition of the Mashelkar Committee was such that none of its members was either a doctor, or an expert in public health. The said Committee submitted its report, which does not show any serious concern in protecting the health of the people. The Committee recommended that emission norms should be laid down, and that the choice of the fuel should be left to the users. The Committee seemed to have overlooked the fact that such norms had been in place for a long time with hardly any compliance thereof. For instance, the emission norms with regard to the quality of air and water have been statutorily provided for but despite this, prior to 1996, Delhi was the third most polluted city in the world. It will not be out of place to mention that there are various emission and other norms and regulations which are in place, but are invariably breached. The existence of building regulations have not been able to control rampant unauthorised and illegal construction, just as the existence of norms relating to effluents have not prevented pollution. Yamuna is no more a holy river, it has been relegated to a sewage drain. Norms regarding quality of water and the various orders passed by this Court in another case have not been successful in adding any oxygen in the water, the BOD level being zero. Therefore, it is naive of the Mashelkar Committee to expect that merely laying down fresh emission norms will be effective or sufficient to check or control vehicular pollution.

9. One of the principles underlying environmental law is that of sustainable development. This principle requires such development to take place which is ecologically sustainable. The two essential features of sustainable development are

(*a*) the precautionary principle, and

(*b*) the polluter pays principle.

10. The "precautionary principle" was elucidated thus by this Court in *Vellore Citizens' Welfare Forum* v. *Union of India*[2] inter alia, as follows:

"(*1*) The State Government and the statutory authorities must *anticipate, prevent and attack* the causes of environmental degradation.

(*2*) Where there are threats of serious and irreversible damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

(*3*) The 'onus of proof' is on the actor or the developer to show that his action is environmentally benign.

†† *M.C. Mehta* v. *Union of India*, (2002) 4 SCC 376

2 (1996) 5 SCC 647

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(*4*) It cannot be gainsaid that permission to use automobiles has environmental implications, and thus any 'auto policy' framed by the Government must, therefore, of necessity conform to the constitutional principles as well as overriding statutory duties cast upon the Government under the EPA.

(*5*) The 'auto policy' must, therefore,

(*a*) Focus upon measures to '... anticipate, prevent and attack ...' the cause of environmental degradation in this field.

(*b*) In the absence of adequate information, lean in favour of environmental protection by refusing rather than permitting activities likely to be detrimental.

(*c*) Adopt the 'precautionary principle' and thereby ensure that unless an activity is proved to be environmentally benign in real and practical terms, it is to be presumed to be environmentally harmful.

(*d*) Make informed recommendations which balance the needs of transportation with the need to protect the environment and reverse the large-scale degradation that has resulted over the years, priority being given to the environment over economic issues."

11. Norms for emission and norms for the fuel have existed for over the last two decades — and the state of the environment is dismal despite the existence of these norms. The emission norms stipulated by the Government have failed to check air pollution, which has grown to dangerous levels across the country. Therefore, to recommend that the role of the Government be limited to specifying norms is a clear abdication of the constitutional and statutory duty cast upon the Government to protect and preserve the environment, and is in the teeth of the "precautionary principle".

12. The recommendations made by the Bhure Lal Committee and the directions issued in 1993 have not been challenged by the Union of India. The directions issued by the Bhure Lal Committee are statutory and continue to be in force. It is not, therefore, open to the Union of India to seek variation of the same without any justifiable reason. Prior to the filing of its affidavit of 26-4-2001, the Union of India never opposed the changeover to CNG. Its application being IA No. 116 for variation was dismissed on 27-4-2001. In the order dated 17-9-2001, this Court observed, while dealing with another application, being IA No. 142 in which prayer (*d*) was that the bus operators should have an option of using either CNG or diesel with 0.05 sulphur content, that "we do not see any justification to grant prayer (*d*) at this stage". Mr Rohatgi, Additional Solicitor-General submitted that the use of the expression "at this stage" meant that such a request could be met or made at a subsequent point of time and that is why the present application filed on 5-2-2002 for modification had been filed by the Union of India. The said plea of Mr Rohatgi cannot be accepted and is not in accordance with the orders passed by this Court. As already noticed, a prayer to this effect was first made by the Union of India in IA No. 116. In the order of 27-4-2001, it was observed that the Court did not think that any modification of its order dated

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26-3-2001* was required. The application was disposed of and the request for modification was not accepted. While disposing of the application IA No. 142 it was first observed in the order as follows:

> "Our order dated 28-7-1998† with regard to conversion of entire city bus fleet (DTC and private) to single-fuel mode of CNG (direction 'G') does not require any modification or change. That direction stands."

13. When in this order, it was observed that there was no justification to grant prayer (*d*) "at this stage" it only meant that the question of considering such a request did not arise specially when similar plea for modification had been rejected earlier. The expression "at this stage" only meant at this late stage. The use of the expression "at this stage" cannot be interpreted as permitting the Union of India to once again ask for modification of the Court's order with regard to conversion of the city bus fleet to the CNG mode.

14. The plea of the Government that CNG is in short supply, and that it is unable to supply adequate quantity is incorrect, and this is clearly a deliberate attempt to frustrate the orders passed by this Court. Particulars filed in the Court show that as of today no CNG is being imported. The indigenous produce is far in excess of what is supplied to the transport sector. It is only a small fraction of CNG produced in India which is earmarked for non-industrial use. Overwhelming quantity is allocated to industries, including the power sector.

15. That there is no shortage of CNG is also evident from the fact that even during the pendency of these proceedings, while on the one hand it was being represented to this Court and the Mashelkar Committee that CNG was in short supply, there was an increase in the allocation of CNG to industries. Even when CNG was not being supplied to Pragati Power Station in Delhi, as the same has not been commissioned, CNG earmarked for the power unit instead of being allocated to the transport sector, was diverted to the industries in the neighbourhood of Delhi.

16. If there is a short supply of an essential commodity, then the priority must be of public health, as opposed to the health of the balance sheet of a private company. To enable industries to cut their losses, or make more profit at the cost of public health, is not a sign of good governance, and this is contrary to the constitutional mandate of Articles 39(*e*), 47 and 48-A.

17. While the industries get natural gas at the rate of about Rs 3.55 per kg, a commercial vehicle-owner in Delhi has to pay about Rs 13.11 per kg, which is four times more than what the industry pays. It was contended by Mr Rohatgi that natural gas is supplied to IGL at the same price at which it is supplied to the industries. This argument conveniently overlooks the fact that IGL is a government company and, therefore, the sale price which the Government and its company gets on sale of CNG in the transport sector is at least four times more than what it gets from the industries.

* *M.C. Mehta* v. *Union of India*, (2001) 3 SCC 756

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18. It is indeed surprising that, ostensibly, with a view to provide more CNG to the transport sector in Delhi, the allotment of CNG to Maruti Udyog Limited (MUL) has been sought to be cancelled. Normally, it would have been surprising that if there is shortage of an essential commodity, then the supply or the sale to the public sector undertaking would be cut, but here, not only is the supply to the PSU being cut, but also at the same time, supply to at least two big business houses has been increased.

19. It would, under the circumstances, not be incorrect to presume that the proposal to cut supply of CNG to MUL was for some oblique purpose. Why should the Government, which is proposing to disinvest its share in MUL, take the action of cutting supply of CNG, which would result in increasing its expenses and decreasing its value? It is not as if there has been a *pro rata* cut of all the industrial units in and around Delhi, including MUL, with a view to increase supply to the transport sector. The proposed cut appears to be nothing more than an attempt to punish MUL because its Managing Director is a member of the Bhure Lal Committee, which had recommended CNG and, therefore, the Managing Director and this company must suffer. It is clear that there is a desire to benefit private industries at the cost of public health and the public exchequer. A major portion of CNG goes to industries, and the Government and its undertakings get less than what it would realise from supplying CNG to the transport sector. Such economics is baffling, to say the least.

20. Not only is there no shortage of CNG as far as the transport sector is concerned, but even if there be such a shortage, if crude oil can be imported and supplied to the refineries for manufacture of petrol and diesel, there is no reason why CNG, if need be, cannot be imported, so that it ensures less pollution.

21. During the course of arguments, literature was filed in the Court giving data from cities all over the world which correlates increased air pollution with increase in cardiovascular and respiratory diseases and also shows the carcinogenic nature of respirable particulate matter (RSPM) — PM 10 (i.e. matter less than 10 microns in size). The scientific studies indicate that air pollution leads to considerable levels of mortality and morbidity. Fine particulate matter, or respirable particulate matter (RSPM) — PM 10 (i.e. matter less than 10 microns in size) — is particularly dangerous. The *Journal of American Medical Association* (JAMA) has published in its recent issue the findings of a study involving over 5,00,000 people, conducted over 16 years, in different cities of the U.S. The researchers find that fine particle-related pollution leads to lung cancer and cardiopulmonary mortality. Their research indicates that with an increase of every 10 microgram per cum (µg/cum) of fine particles, the risk of lung cancer increases by 8 per cent.

22. USEPA has mandated that annual average levels of PM 2.5 particles in the air should not exceed 15 µg/cum. The Indian annual national average

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standard for PM 10 is 60 µg/cum, but most cities, including Delhi register PM 10 levels above 150-200 µg/cum on an annual basis.

23. A study conducted with regard to children in Bangalore shows that the incidents of asthma in percentage of children rose from 9% in 1979 to 29.5% in 1999, thereby corresponding increase in vehicles from 1.46 lakhs in 1979 to 12.23 lakhs in 1999. Similarly, a study by Chittaranjan Cancer Institute and Environmental Biology Laboratory of the Department of Zoology of Kolkata University done between November 1997 and May 1999, found that about 43% of the children in Kolkata are suffering from respiratory disorders compared to 14% among the rural children. Alarmingly 94-96% of the children were found producing sputum which would usually be reflective of habitual smokers though only 5.5% of the children were found to be smoking and that too occasional. As per the study reflected in the *Indian Journal of Medical Research*, July 2000, the culprit for the aforesaid was pollution in the ambient air.

24. According to an estimate by the World Bank study using 1992 data, the annual health cost to India was up to about Rs 5550 crores due to ambient air pollution. Out of this, the health cost of air pollution in Delhi alone was found to be about Rs 1000 crores.

25. The increase in respiratory diseases specially amongst the children should normally be a cause of concern for any responsible Government. The precautionary principle enshrined in the concept of sustainable development would have expected the Government and the health authorities to take appropriate action and arrest the air pollution. However, children do not agitate or hold rallies and, therefore, their sound is not heard and the only concern of the Government now appears to be is to protect the financial health of the polluters, including the oil companies who by present international desirable standards produce low quality petrol and diesel at the cost of public health.

26. The statistics show that the continuing air pollution is having a more devastating effect on the people, than what was caused by the Bhopal gas tragedy. In that case, the nation, including the Union of India, was rightly agitated and sought action and compensation from the multinational company, who was held to be responsible for the same. Here, in the case of CNG, the shoe is on the other foot because the Government is not facilitating measures for clean air and water including the supply of CNG or any other clean unadulterated fuel. It is due to the lack of proper concern on the part of the governmental authorities that people are suffering from respiratory and other diseases. The Bhopal gas tragedy was a one-time event which, hopefully, will not be repeated, but here, with not enough concern or action being undertaken by the Union of India, far greater tragedies in the form of degradation of public health are taking place every day.

27. Under these circumstances, it becomes the duty of this Court to direct such steps being taken as are necessary for cleaning the air so that the future generations do not suffer from ill health.

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28. As in the past, it is imperative, while reiterating the order of 28-7-1998, to issue further directions in an attempt to improve public health by decreasing air pollution. We are conscious of the fact that vehicular pollution is only one of the causes of air pollution, but statistics show that, at least in the metropolitan towns, this is the major source of pollution. In September 2001 issue of *Parivesh*, a magazine published by the Central Pollution Control Board relating to air pollution and human health, dealing with diesel exhaust particles and its health effects, it was stated at p. 34 of the said issue as follows:

> "The popularity of the diesel engine in heavy duty applications in trucking, railroad, marine transport, DG sets and construction industry is due to both its fuel efficiency and long service relative to the gasoline engine. Compared with gasoline engine, diesel emissions are lower in carbon monoxide (CO), hydrocarbon (HC) and carbon dioxide (CO_2), but higher in oxides of nitrogen (NO_x) and particulate matter (PM). Diesel exhaust is a complex mixture of both particulate and gaseous phase. Diesel exhaust has particulate with mass median diameter of 0.05 to 1.00 micrometre, a size rendering them easily respirable and capable of depositing in the airways and alveoli. The particles consist of a carbonaceous core with a large surface area to which various hydrocarbons are absorbed, including carcinogenic polycyclic aromatic hydrocarbons (PAHs) and nitro-PAHs that have elicited the most concern with respect to human health. The gaseous phase contains various products of combustion and hydrocarbons including some of PAHs present in the particle phase. Once emitted, components of diesel exhaust undergo atmospheric transformation in ways that may be relevant to human health. For example, nitro-PAHs, created by the reaction of directly emitted PAHs with hydroxyl radicals in the atmosphere can be more potent mutagens and carcinogens and more bioavailable than their precursors. A study undertaken by a Swedish Consultancy, Ecotraffic (Peter Ahlvik and Ake Branberg, 1999) shows that the cancer potency of diesel vehicles is more than two times than that of petrol vehicles in India. But if only the most harmful of the exhaust emissions, that is particulate emission is considered, the carcinogenic effect of one new diesel car is equivalent to 24 petrol cars and 84 new CNG cars on the road."

29. In the same issue, particulars are given with regard to major air pollution-related diseases in India, which are as follows:

> "(*1*) *Acute respiratory disease*:
>
> 12% of deaths; 13% of NBD. Largest fraction in the world. Indian ARI in children alone under 5 is responsible for more than 2% of entire GBD.
>
> (*2*) *Chronic obstructive pulmonary disease* (COPD):
>
> 1.5% of deaths; 0.9% of NBD.
>
> (*3*) *Lung cancer*

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0.4% of deaths; 0.1% NBD.

(*4*) *Asthma*:

0.2% of deaths; 0.5% of NBD.

(*5*) *Tuberculosis*:

8% of deaths; 5% of NBD; largest in the world.

(*6*) *Perinatal*:

6% of deaths; 7.5% of NBD; largest in the world.

(*7*) *Cardiovascular disease*:

17% of deaths; 5% of NBD.

(*8*) *Blindness*:

0% of deaths; 1% of NBD; largest in the world.

NBD/GBD: National/global burden of disease."

30. From the aforesaid extracts from the publication of the Central Pollution Control Board, it is evident that there was need to control air pollution, and one of the measures was to reduce the use of diesel. It was with this object in view that the Bhure Lal Committee recommended the use of CNG which was accepted by all the parties including the Union of India when orders were passed to that effect in July 1998.

31. It was submitted on behalf of the Union of India that diesel and CNG are not materially different in the matter of air pollution and instead of 100% switchover to CNG if there was a mix of CNG and diesel buses of equal proportion the difference would only be of 2% in the pollution levels.

32. We do not find any valid basis for the aforesaid submission. Data from the Automotive Research Association of India, Pune shows that the pollution potential of emissions from CNG is far less than even Euro IV standards. This is evident from the following table compiled on the basis of the said data:

Comparison of CNG-certified test data from Automotive Research Association of India (ARAI) with emission norms for buses

	Sulphur level in diesel	*Hydrocarbon*	*Carbon monoxide*	*Nitrogen oxide*	*Particulate matter*
1992 standards[1]		3.5	14.4	18	No standard
1996 standards[1]		2.4	11.2	14.4	No standard
Bharat Stage I, April 2000[1]		1.23	4.9	9	0.40
Bharat Stage II (Euro II standards), October 2001[2]	500 ppm (0.05 per cent)	1.1	4.0	7	0.15
Euro III standards[3]	350 ppm (0.035 per cent)	0.66	2.1	5	0.10

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Euro IV standards[3]	50-10 ppm (0.005-0.001 per cent)	0.46	1.5	3.5	0.02
Ashok Leyland CNG bus[4]	Nil	0.04*	2.92	2.91	0.01**
Telco CNG bus[5]	Nil	0.25*	1.68	3.42	0.03

Note: * Non-methane hydrocarbons are a small fraction of total hydrocarbons in CNG vehicles.

** Certificate from ARAI says particulates negligible.

References:

1. CPCB 2000, Environmental Standards for Ambient Air Automobile Fuels and Noise, July PCLS/4/2000-01, pp. 20, 29, 37, New Delhi.

2. Ministry of Road Transport and Highways, the Gazette of India Notification, 24-4-2001, GSR 286 (E), New Delhi, mimeo.

3. J.S. McArragher et al, 1999, fuel quality, vehicle technology and their interactions, CONCAWE, Brussels, p. 7.

4. Ashok Leyland, 2001, emissions certification data of ARAI, mimeo. (Annexure 1)

5. TELCO 2001, emissions certification data of ARAI, mimeo.

33. With the emissions from the CNG vehicles being more than comparable with Euro IV standards, the contention of the Union of India that a mix of diesel buses and CNG buses would make a difference of only 2% in the pollution levels is patently untenable. In the case of particulates, current CNG vehicles are 15 times better than Euro II diesel vehicles (with 500 ppm sulphur) and only Euro IV diesel vehicles are comparable to CNG vehicles. In fact, the certificate issued by the Automotive Research Association of India (ARAI) to the bus manufacturers says that particulate emissions were negligible and could not be measured. The aforesaid analysis emphasizes the need for change to non-liquid fuel like CNG or LPG so as to improve the air quality in this country and not merely of Delhi. Such changeover may perhaps obviate the need to manufacture vehicles meeting Euro III or Euro IV standards.

34. It was as a result of the various orders passed by this Court that the air pollution level in the city has been stabilised. In 2000, the levels of annual average levels of RSPM declined to 186 µg/cum from 222 µg/cum. This is no small achievement as the city continues to add over 2,00,000 vehicles each year and its total vehicular fleet is larger than that of Kolkata, Mumbai and Chennai put together. But even with these efforts, its RSPM pollution remains roughly 3 times above the national standard for annual average concentration of RSPM mandated under the Air Act, 1981.

35. It was repeatedly contended on behalf of the Union of India that no other city in the world had introduced CNG buses at the scale directed by this

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Court. Both the State Government and the Union of India had urged that the CNG technology was still evolving and experimental. It is no doubt true that most of the cities of the industrialised world do not have large numbers of CNG buses, but the share of natural gas buses, needed to meet the stringent norms in the future, is growing. The data filed indicates that in the United States CNG buses account for 18 per cent of the current bus orders and 28 per cent of the potential orders. Under pressure to clean up the air because of the approaching Olympic Games in 2004, Beijing has resorted to an alternative fuel strategy. Latest figures from Beijing indicate that there will be 18,000 buses fuelled by CNG, LPG and electricity in that city. By 1999, Beijing had 1300 CNG buses and the numbers are growing rapidly to meet the Olympic deadline. Similarly, the Ministry of Environment in South Korea — partly to meet the targets in time for 2002 World Cup Soccer, aims to induct 20,000 natural gas buses in its fleet and already 3000 such buses are plying. (Source: Moon-Soo Ahn, 2000, Korean CNG bus programme. The Environmental Benefits, Ministry of Environment, Korea, Automotive Pollution Control Division, mimeo.)

36. From the aforesaid, it is clear that the alternative fuel of CNG, LPG and electricity is a preferred technology which critically polluted cities like Delhi need as a leapfrogging technological option.

37. This Court has shown concern about the reports relating to adulteration of petroleum products in Delhi. A report was called for from the Bhure Lal Committee. The said report confirms that adulteration is taking place. The sample failure rate in the study which has been carried out was 26 per cent. The report also indicates that the existing fuel specification standards and the tests specified are inadequate for detecting adulteration. Two dummy samples — one with 10 per cent and the other with 20 per cent kerosene were sent to the Fuel Testing Laboratory, Noida. The result of the test report of the test laboratory showed that the product met the specification of HSD. However, a third sample with 15 per cent contamination was declared as not meeting the HSD specification. This shows that reliance cannot be placed on such laboratories which puts in great doubt the entire mechanism for detection of adulteration. Considering the quantity of kerosene which is supplied to Delhi it is not improbable that this is one of the ingredients used, along with naphtha etc. for adulterating the fuel supplied to the customer. Under the circumstances, merely lowering the sulphur and the benzene content in diesel and petrol respectively will have little effect unless and until the oil companies can guarantee that the fuel which was sold from the dispensing stations is pure and unadulterated. In fact, there is one public sector undertaking which advertises its petroleum products as "*pure for sure*". It guarantees that the fuel which can be obtained from its dispensing stations is unadulterated. This by itself clearly indicates acknowledgement by the petroleum industry that adulteration in not a small measure is taking place and, therefore, the need to advertise the purity of the products sold by Bharat Petroleum. It has been alleged, and there is strong basis for this, that as a result of adulteration, large amounts of illegal gains and profits are being

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made. There are various players in this racket. It is not surprising, therefore, that there is stiff resistance to the implementation of the orders of this Court for switchover to gas which cannot be adulterated and will undoubtedly cause financial loss to the members of the unholy alliance of adulterators.

38. As per the available information, there seems to be no apparent shortage of gas. The supply of gas from South Bassein gasfields has increased over the past some years, from 38 mmscmd to 41 mmscmd. Major investment has already been sanctioned for expansion of infrastructure to supply natural gas as well as regassified LNG to northern India.

39. The Union of India has argued that breakdown in the pipeline would lead to disruption in supply to the city and could paralyse the transport system, which would be solely dependent on CNG. However, available information suggests that the possibility of the pipeline breaking down is remote. Furthermore, the pipeline itself stores up to 3 months of gas supply needed for Delhi.

40. The Union Government has to allocate more gas to Delhi to implement the order of this Court. In January 2002, the Union Government has roughly doubled its earlier allocation to Delhi's vehicular fleet. But even this increased allocation — by diverting gas from a single user, Maruti Udyog Limited — will be inadequate for implementing the Court's order.

41. To meet the needs of current and projected vehicles in the city — the city requires a mere 4.8 per cent of the current supply of gas by the HBJ pipeline. The production of gas in South Bassein gasfields has also increased over the last 2-3 years. But the increased production has been allocated to industries, instead of meeting the needs of vehicles arising out of this Court's orders. According to available information:

— Reliance Industries got an additional 0.7 mmscmd;

— Essar got an additional 0.4 mmscmd;

— Gujarat State Fertilizer Corporation got an additional 0.4 mmscmd;

— GIPCL (power generating company in Baroda) got 0.5 mmscmd (this gas is reportedly being supplied without any allocation by the Government and as a "matter of favour");

— IPCL-Dahej got an additional 0.85 mmscmd.

42. As per the latest figures available, there are 3727 CNG buses on the road. The additional number of buses, which have to be phased out are 6338. Once this is done, the total number of CNG buses on the road will be 10,065.

43. In the IA filed on behalf of the bus manufacturers, it is stated that 1500 chassis which had been ordered are ready for delivery but the persons who placed orders have not taken the delivery. Therefore, at least 1500 buses can be replaced immediately. As per the affidavit filed by the manufacturers, between Ashok Leyland and TELCO, they have an installed capacity of 1100 buses per month. Assuming production of around 70 per cent of the installed

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capacity, it would be safe to proceed on the footing that between the two of them they can provide 800 buses a month. If all the bus operators chose to buy new buses then @ 800 buses per month, the entire fleet of remaining 4838 buses, in addition to the 1500 chassis ready for delivery, can be phased out in not more than 7 or 8 months.

44. The request of the Government for phasing out 200 buses a month appears to be based on some imaginary shortage in the availability of gas. There is no credible material placed before the Court to show that the distribution of gas is consistent with the principle of sustainable development. Conferring economic advantage upon industry by making available cheap gas in preference to the need for supplying gas for environmental reason is inconsistent with the settled constitutional position.

45. Even though the time for phasing out diesel buses had expired but in view of the situation created by the Government of not cooperating or complying with the Court's order, a different formula has to be worked out so as to cause as little inconvenience to the travelling public as possible, while at the same time punishing the wrongdoer. Directions are, therefore, to be issued regarding the lifting of 1500 buses plus phasing out of 800 buses per month. The permits to be given are to be time-bound and the continued operation of the diesel buses till they are replaced would require them to pay Rs 500 per bus per day for 30 days of operation and thereafter Rs 1000 per day and the same is to be deposited with the Director of Transport, Delhi.

46. Before concluding on this aspect, we may notice that on a query raised by the Court, the Union of India has informed that LPG has also been permitted to be used as fuel by the transport sector. This can and should be an alternate fuel to CNG available to the users as LPG is, at present, environmentally acceptable. It is for the Government to take steps so as to increase its supply. We may note here that there are, as per CPCB data, at least nine other polluted cities in India where the air quality is critical. These cities are Agra, Lucknow, Jharia, Kanpur, Varanasi, Faridabad, Patna, Jodhpur and Pune. But there appears to be no effective action plan to address the problem of these cities and the Mashelkar Report ensures their suffering for quite some time. If no immediate action is taken, then it may become necessary for some orders being passed so as to bring relief to the residents of those cities.

47. Lack of adequate supply of CNG has been a cause of concern and has been referred to in the various orders passed by this Court from time to time. In the absence of proper response from the governmental authorities, there is no alternative but to issue the following directions:

1. The Union of India will give priority to the transport sector including private vehicles all over India with regard to the allocation of CNG. This means that first the transport sector in Delhi, and in the other air polluted cities of India, CNG will be allocated and made available and it is only thereafter, if any CNG is available, that the same can be

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allocated to the industries, preference being shown to public sector undertakings and power projects.

2. IA of the Union of India for extension of time to run diesel buses is dismissed with costs of Rs 20,000 (twenty thousand only). It is made clear, and it is obvious in our constitutional set-up, that orders and directions of this Court cannot be nullified or modified or in any way altered by any administrative decision of the Central or the State Governments. The administrative decision to continue to ply diesel buses is, therefore, clearly in violation of this Court's orders.

3. Those persons who have placed orders with the bus manufacturers, and have not taken delivery of the same shall do so within two weeks from today, failing which their permits shall stand automatically cancelled.

4. As owners of diesel buses have continued to ply diesel buses beyond 31-1-2002, contrary to this Court's orders, for the disobedience of the said orders, the Director of Transport, Delhi, will collect from them costs at the rate of Rs 500 per bus per day increasing to Rs 1000 per day after 30 days of operation of the diesel buses with effect from tomorrow and the same shall be deposited in this Court by the Director of Transport by the 10th day of every month.

5. NCT of Delhi shall phase out 800 diesel buses per month starting from 1-5-2002. Till all the diesel buses are replaced the bus-owners who continue to ply the diesel buses shall pay as per direction 4 hereinabove.

6. For implementing these directions, the Union of India and all governmental authorities, including IGL shall:

(*a*) allocate and make available 16.1 lakh kg per day (2 mmscmd) of CNG in NCT of Delhi by 30-6-2002 for use by the transport sector;

(*b*) increase the above supply of CNG whenever the need arises;

(*c*) prepare a scheme containing a time schedule for supply of CNG to the other polluted cities of India and furnish the same to this Court by 9-5-2002 for its consideration; and

(*d*) it will be open to the Union of India to supply LPG in addition to CNG as an alternate fuel or to supply any other clean non-adulterable fuel as the Bhure Lal Committee may recommend.

7. NCT of Delhi had announced a scheme for financing CNG vans, to be run as taxis, for SC/ST. We direct a similar financing scheme be framed by the Union of India jointly with NCT of Delhi, whereby those of the permits of owners of diesel buses which are cancelled due to non-conversion to CNG, the same should, in the first instance, be allotted to SC/ST and to the other weaker sections of the society. Such a scheme should be prepared and implemented and a compliance report be filed within four weeks. The costs deposited under direction 4 above can be utilised in implementing the proposed scheme.

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48. To come up on 9-5-2002 for further orders by which date the Union of India and NCT of Delhi will file a further report.

(2002) 4 Supreme Court Cases 376

[CITED ORDER]

(BEFORE DR A.S. ANAND, C.J. AND B.N. KIRPAL AND V.N. KHARE, JJ.)

(Record of Proceedings)

M.C. MEHTA .. Petitioner;

Versus

UNION OF INDIA AND OTHERS .. Respondents.

IA No. 59 in WP (C) No. 13029 of 1985 with IAs Nos. 69, 70, 72, 74, 75, 76 and ... of 2000, decided on January 31, 2001

ORDER

IA No. ... of 2000 (filed on behalf of learned AC for directions)

1. Taken on board.

2. Concerned by the acute problem of air pollution which is not only a health hazard but is also an environmental enemy as well as an increasing risk on account of unruly traffic, this Court has made orders from time to time and has issued directions to the authorities to see that the directions issued by the Court are complied with. Some directions were given on 12-11-1997† and again on 20-11-1997††. Whether it is the absence of will to enforce the orders of this Court as well as their statutory obligations or an attitude of complete indifference to the prevailing problem of air pollution and traffic hazards in Delhi, it appears that the authorities, after having taken some initial steps soon after orders were made, have gone into a deep slumber with the result that not only have those directions remained unimplemented but an impression has gained currency that directions perhaps are no longer operative or relevant. It is indeed unfortunate and sad. This Court is monitoring the case only to ensure strict protection of Article 21 and to make the authorities realise their obligations under various statutes so that the intention of the legislature is not allowed to be frustrated. We need not express our anguish in more stern terms.

3. We direct that notice of this application shall issue to the respondents for their response and in the meanwhile we emphasise that all directions issued by this Court from time to time and particularly the following directions:

"(*a*) No heavy and medium transport vehicles etc. would be permitted to operate on the roads of NCR and NCT unless they are fitted with suitable speed control devices.

(*b*) Transport vehicles should not be permitted to overtake other four-wheel motorised vehicles.

(*c*) Steps to be taken to ensure bus lanes are segregated and road markings provided on all such roads.

† *M.C. Mehta* v. *Union of India*, (1997) 8 SCC 777 (annexure)

†† *M.C. Mehta* v. *Union of India*, (1998) 6 SCC 62 (connected order)

BEFORE THE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI

M.A. No. 284 of 2015, M.A. No. 755 of 2016, M.A. No. 756 of 2016, M.A. No.766 of 2016, M.A. No. 847 of 2016, M.A. No. 848 of 2016, M.A. No. 924 of 2016, M.A. No. 892 of 2016, M.A. No. 974 of 2016, M.A. No. 979 of 2016, M.A. No. 983 of 2016, M.A. No. 984 of 2016, M.A. No. 967 of 2016, M.A. No. 986 of 2016 & M.A. No. 1050 of 2016
In
Original Application No. 21/2014
And
M.A. No. 156 of 2016
In
Original Application No. 21/2014
And
Original Application No. 21/2014 (Only Notices)
And
Original Application No. 21/2014
(M.A. NO. 172/2016, M.A. NO. 567/2016, M.A. NO. 690/2016, M.A. NO. 783/2016, M.A. NO. 949/2016, M.A. NO. 950/2016, M.A. NO. 1037/2016, M.A. NO. 1038/2016, M.A. NO. 1078/2016, M.A. NO. 1079/2016, M.A. NO. 1080/2016, M.A. NO. 1091/2016, M.A. NO. 1092/2016, M.A. NO. 1082/2016, M.A. NO. 1083/2016, M.A. NO. 1142/2016, M.A. NO. 1134/2016, M.A. NO. 1135/2016, M.A. NO. 1136/2016, M.A. NO. 1137/2016, M.A. NO. 1138/2016, M.A. NO. 1155/2016 & M.A. NO. 1162/2016)
And
Original Application No. 95/2014
(M.A. No. 1156/2016)
And
Original Application No. 303/2015
And
Original Application No. 181 /2013
(M.A. No. 824/2015)
And
Original Application No. 609 /2016

IN THE MATTER OF :

Vardhaman Kaushik Vs. Union of India & Ors.
And
Vardhaman Kaushik Vs. Union of India & Ors.
And
Vardhaman Kaushik Vs. Union of India & Ors.
And
Vardhaman Kaushik Vs. Union of India & Ors.
And
Sanjay Kulshrestha Vs. Union of India & Ors.
And
Supreme Court Women Lawyers Association Vs. Union of India & Ors.
And
Omesh Saigal Vs. Govt. Of NCT of Delhi & Ors.
And
Diya Kapur & Ors. Vs. Union of India & Ors.

CORAM : HON'BLE MR. JUSTICE SWATANTER KUMAR, CHAIRPERSON
HON'BLE DR. JUSTICE JAWAD RAHIM, JUDICIAL MEMBER
HON'BLE MR. JUSTICE RAGHUVENDRA S. RATHORE, JUDICIAL MEMBER
HON'BLE MR. RANJAN CHATTERJEE, EXPERT MEMBER

Present: Applicant: Mr. Sanjay Upadhyay and Mr. Salik Shafiq, Advs. Ms. Diya Kapur, Adv. And Petitioner in Person and Mr. Nikhil Ratti Kapoor, Advs.
Respondent No. 1: Ms. Panchajanya Batra Singh, Advs. For MoEF & CC

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Mr. Rajiv Bansal, Mr. Kush Sharma, Mr. Anurag Tripathi and Mr. Anirudh, Advs. for DDA
Mr. Pritpal Singh Nijjar, Mr. Amit Kumar and Mr. Siju Thomas, Advs.
Mr. Himanshu Kaushik, Adv.
Mr. D. Rajeshwar Rao, Mr. Charajeet Singh, Advs., Delhi Police and Transport Deptt.
Mr. Rajul Shrivastava, with Ms Ayushi Sharma, Advs. MPPCB
Mr. Anurag Kumar, Adv. For Ms. Sakshi Popli, Adv. NDMC
Mr, Guntur Prabhakar and Mr. Guntur Pramod Kumar, Advs. for State of A.P.
Mr. Raman Yadav, Adv. for Ghaziabad Dev. Authority
Mr. Atul Jha Adv. for State of Chattisgarh
Mr. Devraj Ashok, Adv. for State of Karnataka
Mr. Ardhendumauli Kumar Prasad, Mr. Panshul Chandrachud and Mr. Jaydip Pati, Advs.
Mr. Balendu Shekhar and Mr. Vivek Jaiswal, Advs. for EDMC
Mr. Ram Sajivan Maurya, SMD and Minining Officer and Mr. Ajit Kumar Pandey District Gonda
Mr. Pinky Anand, ASG with Mr. Balendu Shekhar, Mr. Rajesh Ranjan, Ms. Somya Rathore and Ms. Smidha Mehra, Advs. for MoRTH and Ministry of Heavy Industries, MoEF
Mr. Edward Balho, Ms. Elix Gangmel and Mr. K. Luikang Michael, Advs. for State of Nagaland
Mr. Rudreshwar Singh and Mr. Gautam Singh, Advs.
Ms. Puja Kalra, Adv. for NDMC, SDMC
Ms. Bhavana Duhoon, Advs. for National Highways Authority of India
Mr. Sanjeev Ralli with Mr. Trinayan Sonowal, Advs. for Intervener (Chandni Chowk Vyapar Mandal)
Mr. Mahesh Dutt Tripathi, Adv. for Delhi cantonment Board
Mr. Anil Soni, AAG and Mr. Naginder Beniwal, Advs. for State of Punjab
Mr. Ashish Negi, Adv. for Ms. Richa Kapoor, Advs. for State of Punjab
Mr. Suryanarayan Singh, Addl. AAG
Mr. Tarunvir Singh Khehar and Ms. Guneet Khehar, Advs. for GNCTD,
Mr. Narender Pal Singh with Dr. M.P. George and Mr. Dinesh Jindal, LO, DPCC
Ms. Alpana Poddar, Adv. and Mr. Bhupinder Kr. LA., Central Pollution Control Board
Mr. Mukesh Verma, Adv.for MPCB
Mr. Vinay P. Singh, Adv. for Mercedese Benz.
Mr. Amit Agarwal and Ms. Asha Basu, Adv. for West Bengal Pollution Control Board
Ms. Puja Singh, Adv. for Hemantika Wahi, Adv. for State of Gujarat & GSPCB
Mr. Hemant Jain, Ms. Usha Jain and Mr. K. Sunil, and Mr. Aviral Mittal, Advs.
Mr. Sumit Kishore, Adv. for PNGRB
Mr. P. Venkat Reddy and Mr. Prashant Kr. Tyani, Advs. for State of Telengana
Mr. Ravindra Kr. Kashyap and Mr. Gudipti G. Kashyap, Advs. for NOIDA and Greater NOIDA
Mr. Jayesh Gaurav, Adv. for JSPCB
Mr. Gaurav Dubey, Adv. for K2 International
Ms. Priyanka Sinha Advs for State of Jharkhand
Mr. Anuj Sarma, Adv. For State of Goa
Mr. Pradeep Misra and Mr. Daleep Dhyani, Advs.
Mr. Sandeep Narain and Ms. Natasha Sarawat and Ms. Khushboo Bari and Mr. Bipin Das, Advs. for Tata Motors Ltd.M. A. No. 172 of 2016
Mr. Gopal Singh and Ms. Varsha Poddar, Advs.
Mr. Anil Grover AAG and Mr. Rahul Khurana, Adv. Mr. Sandeep Yadav, Adv. for State of Haryana, HSPCB, MCF, MCG, HUDA
Mr. Raj Kumar, Adv.

Mr. Narender Pal Singh, Adv. and Mr. Dinesh Jindel, LO, DPCC
Mr. Priyanaka Swami, Adv. for Nagar Nigam Ghaziabad
Mr. Sarurabh Rajpal, and Mr. Adhiraj Singh, Advs. for Rajasthan Pollution Control Board with Secretary Environment, Rajasthan Mr. R.K. Grover
Mr. Taruna A. Prasad, adv. for MoEF
Mr. R. Rakesh Sharma and Mr. M. Marutha Samy, Advs. for State of Tamil Nadu and TNPCB
Mr. V.K. Shukla, Adv. from State of M.P.
Mr. Hemant Jain with Ms. Usha Jain and Mr. K. Sunil and Mr. Amiral Mittal, Advs.
Mrs. Rani Chhabra and Ms. Priyanka Samy, Advs. In MA 358/2016 and 545/2016
Mr. Yatendra Sharma and Mr. Satyarat Sharma, adv. in M. A. No. 979/2016
Ms. Rasna Kaukat, adv. for Manushi Sangathan
Mr. Anoop Verma, Mr. Anil Soni, AAG with Mr. Naginder Benipal, Adv. in M. A. Nos. 983 & 984
Ms. Arushi Khandelwal, Adv. in M. A. No. 976/16
Mr. Ankit Verma, Adv. For State of Uttar Pradesh
Mr. Sunil K. Jain AOR and Mr. Punya Garg, adv. in M. A. No. 949/16
Mr. Darpan Wadhwa, and Mr. Arjun Syal, Advs. in M.A. 1078/1097/1080/1091/1092, 1134, 1135, 1136, 1137, 1138/2016, Mr.Yatender Sharma and Satyajeet 979/16
Ms. Aruna Mathur and Mr. Avneesh Arputham and Ms. Anuradha Arputham, Advs. for State of Sikkim
Mr. Soumyajit Pani, Adv. for State of Odisha
Mr. Vijay K. Sondhi and M,s. Cauveri Birbal Ms. Divya Sharma Ms. Avantika, Mr. Aranyak Pathak and Ms. Nayamat Sistani, Advs.
Mr. Sapam Biswajit Meiti and Mr. Naresh Kumar Gaur, Advs. for State of Manipur
Mr. Om Prakash, Adv. Ministry of Railways
Ms. Neha Makhija, Adv. for Mr. Gaurav Dubey, Adv. in MA Nos. 1082 & 1083
Mr. Pranav A. Kapur, Mr. Siju Thomas and Mr. Amit Kumar, Advs. in MA 783/2016
Mr. Vinod S. Bhardwaj, Adv.
Mr. A.R. Takkar, Mr. Ankur Sharma and Ms. Shriya Takkar, Advs.
Mr. Joydeep Mazumdar and Mr. Debojyoti Bhattacharya, Advs.
Mr. Nishe Rajen Shonker and Mr. Gajendra Khichi, Advs.
Mr. Manoj Mittal and Mr. Tahay Ayde, Advs.
Mr. Pragyan Sharma and Ms. Ananditi Kumar, Advs. For State of Mizoram
Mr. Sarthak Chaturvedi and Mr. Rohit Pandey, Advs. for Andaman & Nicobar Administration
Mr. Raman Yadav, Adv. for Ghaziabad Dev. Authority
Mr. Anand S. Pathak, Mr. Amit Kumar Mishra and Ms. Hima Lawrence, Adv.

	Date and Remarks	Orders of the Tribunal
	Item No. 01 to 08 **November 10, 2016** SS, AK & JG	Air quality in Delhi and its surrounding areas touched a new height in the last 10 days or so. It adversely affected the public health and persons of all generations without exception. The Ambient Air Quality was so hazardous that it affected the Eyes, ENT, upper Respiratory track and Lungs, particularly to school going

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	Item No. 01 to 08 **November 10, 2016** SS, AK & JG	children, infants, office going persons and obviously the poor strata of society suffered endlessly. It is appropriate at this stage to refer to the Ambient Air Quality parameters that were recorded by the Central Pollution Control Board, Delhi Pollution Control Committee and the State Boards of the neighbouring States particularly Haryana, Uttar Pradesh, Punjab and Rajasthan. The standard norms for PM_{10} is 100 $\mu g/m^3$ and for $PM_{2.5}$ 60 $\mu g/m^3$. These values were found to be utterly violated and it recorded the value of PM_{10} as 1690 $\mu g/m^3$ and $PM_{2.5}$ as 885 $\mu g/m^3$ at Anand Vihar, Delhi The average value recorded for Delhi for PM_{10} were 950 $\mu g/m^3$ and for $PM_{2.5}$ 590 $\mu g/m^3$ on 30th October, 2016. According to the NCT, Delhi on 31st October, 2016 recorded value of PM_{10} 1684 $\mu g/m^3$ and 1331 $\mu g/m^3$, respectively. In Faridabad, even on 07th November, 2016 the recorded values were 414 $\mu g/m^3$ and 985 $\mu g/m^3$ respectively. In Ghaziabad and NOIDA on different dates, the value recorded for PM_{10} was 720 $\mu g/m^3$, 820 $\mu g/m^3$ and 910 $\mu g/m3$ respectively. Even on Mandir Marg, New Delhi on 02nd November, 2016 the $PM_{2.5}$ value recorded was 985 $\mu g/m^3$. In district Alwar, Rajasthan the value recorded was 188 $\mu g/m^3$ for PM_{10}. However, the Learned Counsel appearing for the State of Rajasthan submits that they do not have instruments available for measuring $PM_{2.5}$. In Bhiwari on 28th October, 2016 the value of PM10 was recorded as 508 $\mu g/m^3$. This data provided by different States shows that Ambient Air Quality in all these areas is hazardous to human health. In the light of the above statistics, the Tribunal was compelled to direct personal appearance of the concerned

	Item No. 01 to 08 **November 10, 2016** SS, AK & JG	Secretaries from each State and NCT, Delhi. All these officers appeared before the Tribunal and the matter was heard for three days continuously. One major disclosure that came to the forefront was that all concerned officers conceded that there was hardly any proper enforcement and implementation of the laws in force and the Judgments of the Hon'ble Supreme Court of India and this Tribunal. However, hardly any suggestions came forward from any quarters as to how the implementation should be made more effective and result oriented. There are seven major contributors of air pollution in all these States more particularly NCT, Delhi. These are:- 1. Construction activity and carriage of construction material. 2. Burning of Municipal Solid Waste and other waste. 3. Burning of agriculture residue. 4. Vehicular Pollution. 5. Dust on the roads. 6. Industrial and power house emission including fly-ash. 7. Emissions from Hot-Mix Plants and Stone Crushers. All these contributory pollutants were deliberated upon at length before this Tribunal from time to time and detailed orders covering all the facets of air pollution were covered under different orders of the Tribunal. We may refer to the orders of the Tribunal dated 26th November, 2014, 04th December, 2014, 07th April, 2015, 10th April,

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	Item No. 01 to 08 **November 10, 2016** SS, AK & JG	2015, 28th April, 2015, 18th May, 2015 and 11th December, 2015. All these orders/judgments dealt with the various sources of pollution except agriculture residue burning. This aspect was dealt with in the comprehensive judgment of the Tribunal in the case of Vikrant Kumar Tongad Vs. Environment Pollution (Prevention and Control) Authority & Ors in Execution Application No. 12 of 2016 In Original Application No. 118 of 2013 decided on 10th December, 2015. The judgment in the case of Vikrant Kumar Tongad Vs. Environment Pollution (Prevention and Control) Authority & Ors provided for precautionary, preventive as well as incentive oriented steps that the State of Punjab was required to take to ensure that this menace would be stopped at the earliest. The judgement provided for punitive action, and incentive to farmers to stop burning of Crop/Agriculture residue. The State of Punjab was called upon to provide incentive including the requisite machines as stated in the Judgment for extraction of agriculture residue from the field and its transportation to power generation plants, Cement Plants, Companies manufacturing Board from agriculture residue and from Bio-mass plants including reducing ethanol. We must notice at this stage itself that all the States particularly the State of Punjab has not been able to implement the Judgment in its true spirit and substance. It is conceded before us that the residue of nearly 70% of the agricultural land under paddy cultivation was put on fire during the period immediately after the harvesting. Similarly in Haryana there was burning of agricultural residue but may be at a little lower scale. This committee shall work specifically under the orders of the Tribunal.

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	Item No. 01 to 08 **November 10, 2016** SS, AK & JG	The State of Uttar Pradesh and State of Rajasthan were no exception, though their contribution to the pollution was not greater than other States. This aspect needs to be examined and rigorous steps need to be taken by the respective States to ensure that there is no agriculture/crop burning any more in the future. We would be passing directions in that behalf separately. We may also notice here that the World Health Organisation (for short 'WHO') has published its report in September, 2016. They have published a list of 20 most polluted cities in the world. Out of these 10 cities are located in India. These are Delhi, heading the table, Gwalior, Patna, Kanpur, Allahabad, Alwar, Firozabad, Raipur, Ludhiana and Khanna. A study has also been conducted by I.I.T., Kanpur, on behalf of NCT, Delhi, and it is stated that out of the sources of pollution which we have already mentioned, above 22.70% has been contributed by the transport sector. It is estimated that 66 % of this pollution is resulting from diesel trucks, buses and diesel vehicles. The study also shows, along with other studies, that level of $PM_{2.5}$ and PM_{10} is almost 17 times of the prescribed limits and has serious adverse impact on the public health. The Ministry of Environment, Forest and Climate Change has also brought out the air quality index and it has termed 431 $\mu g/m^3$ PM_{10} as 'severe pollution' as stated by the Learned ASG. This shows that the 'severe category' carved out by Ministry of Environment, Forest and Climate Change has been left much behind as the value of PM_{10} has touched the value of 1990 $\mu g/m^3$ in Delhi. This is the extent and kind of pollution that the citizens of Delhi are exposed to.

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	Item No. 01 to 08 **November 10, 2016** SS, AK & JG	The basic and fundamental question that arises for consideration of this Tribunal is whether the State Government and more particularly NCT, Delhi can provide any justification acceptable scientifically in law as to why the people of Delhi should be exposed to such severe pollution and have endlessly suffered from one disease or the other. This equally applies to other States as well. The Hon'ble Supreme Court of India decades back had declared that Article 21 of Constitution of India has to be expanded so as to include right to decent and clean environment as a fundamental right. Fundamental right is the right provided by the Constitution to the citizens and it could claim its enforcement to which the State can hardly raise a defense particularly of its inability to enforce laws on an environmental front. We must say that since past three days not even a single point has been raised before the Tribunal which could even be remotely comprehended and be a reasonable ground on the part of these authorities for not protecting environment in relation to this zone of the country and particularly in NCT, Delhi. The main plank of the officers who were present in person along with their learned counsel of respective States had only expressed their inability to implement. This ought to be the last submission that could be made in response to an action for enforcement of fundamental rights. We find no merit in any of the submissions advanced to express inability to enforce the law. The judgment of the Hon'ble Supreme Court of India and the Tribunal particularly when they are specific, unambiguous and have provided complete mechanism for enforcement of judgments and orders. The State owes a

	Item No. 01 to 08 **November 10, 2016** SS, AK & JG	constitutional duty to protect public health and to provide at least clean air for its citizens to breathe. The principle of inter-generational equity does not support any development even if it is carried under the doctrine of sustainable development where the next generation would be exposed to the worst environmental and ecological environment. The children of today have a right to breathe clean air and play in the play ground rather than be ordered to be shut down in their respective homes. The present generation in any field including in the field of Governance owes a duty in law and on morality to provide cleaner and better earth to its next generation. Times have come where all concerned authorities irrespective of their stature must show concern to improve the environment and Ambient Air Quality in these States and more particularly in the NCT, Delhi. As we have already noticed, the Ambient Air Quality in these States and particularly in NCT, Delhi/NCR, Delhi have reached the limit which are unimaginable, unacceptable and are a clear indication of negligence on the part of the concerned authority to the disadvantage of the human health of the citizens. The prescribed limit of PM_{10} and $PM_{2.5}$ is 100 $\mu g/m^3$ and 60 $\mu g/m^3$ respectively have been grossly exceeded. The experts appearing before us submit that the daily average of these values is even lower that is 60 $\mu g/m^3$ and 40 $\mu g/m^3$ respectively. If the daily average is to be taken into consideration then the violation is nearly 20 times in excess. Viewed from any rational angle, this is disastrous. It may be appropriate that the concerned authoirities including the Central Pollution Control Board has located

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	Item No. 01 to 08 **November 10, 2016** SS, AK & JG	at the air pollution in somewhat different way. It appears that to attain the prescribed standards as of now would be a dream difficult to achieve as of today. The normal pollution in contra distinction to severe or Environmental Emergency has to be examined and controlled by taking different and distinct measures, depending upon the situation e.g. where the Particulate Matters values are in excess of 431 $\mu g/m^3$ in case of PM_{10} and 251 $\mu g/m^3$ in the case of $PM_{2.5}$. Therefore, the pollution has to be treated as severe. To put it in other words, emergent measures have to be taken to control the air pollution in any of these States particularly in NCT, Delhi, once it crosses the above limits. These limits have been suggested by the expert appearing before the Tribunal with reference to the Air Quality Index of NCT, Delhi. Normal steps to be taken to prevent and control air pollution and providing cleaner air quality to the people of these States and Delhi. Even if they are below the above standards, but once they cross the prescribed standards, then it must be the duty of the States and NCT, Delhi to take emergent measures which would even include the providing of such emergent preventive measures that may require enforceability of highest degree in the interest of public health and environment. In the light of the above discussion, now we proceed to record the directions that has to be passed in the interest of environment, public health and tranquility of Ambient Air Quality and to implement the fundamental right that is granted to the citizens of India. All the judgments and orders passed by the Tribunal dated 26th November, 2014, 04th December, 2014, 07th April, 2015,

	Item No. 01 to 08 **November 10, 2016** SS, AK & JG	10th April, 2015, 18th May, 2015, 28th April, 2015 and 11th December, 2015 in the of Vardhaman Kaushik Vs. Union of India & Ors. In Original Application No. 21/2014 and 10th December, 2015 in the case of Vikrant Kumar Tongad Vs. Environment Pollution (Prevention Control) Authority & Ors. shall be applicable, mutatis mutandis, to the orders passed in the case of respective States and NCT, Delhi. All the States of Punjab, Haryana, Uttar Pradesh, Rajasthan and NCT, Delhi as already noticed, these directions and orders provided for all preventive, precautionary, punitive and enforceable directions which would protect and ensure that the sources of pollution as afore-indicated do not cause air pollution and bring the Ambient Air Quality to the values as has been seen in the last 10 days in the States and particularly NCT, Delhi. All the concerned Officers, Authorities, Legal Authorities, Pollution Control Boards and other Corporations etc. would be responsible for proper implementation and enforcement of the directions contained in these orders in relation to different sources of pollution. We constitute the following centralized monitoring Committee and State Monitoring Committee for ensuring proper implementation of the judgments and the laws relating to prevention and control of air pollution :- 1. The Centralised Monitoring Committee shall consist of:- a. Secretary, Ministry of Environment, Forest and Climate Change (Chairman). b. Chief Secretaries of the States of Punjab,

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ILR 2004 KAR 4206

N.K. JAIN, CJ ., & V.G. SABHAHIT, J

Karnataka Lorry Malikara Okkuta (R) , by its General Secretary, Bangalore and Others vs The State of Karnataka, By its Chief Secretary, Bangalore and Others*

(A) ENVIRONMENT ACT, 1986 – SECTION 5 – AIR (PREVENTION AND CONTROL OF POLLUTION) ACT, 1981 – SECTIONS 17, 20 – State Government issuing directions/ orders/notifications stating that the Transport Department is directed to take steps to ban entry of commercial /transport vehicles of age more than 15 years or more into Bangalore city from the outer Ring Road and to phase out the commercial/ transport vehicles more than 15 years old – Power of State Government to issue such directions/orders/challenged. HELD – The power of the Central Government has been delegated to the Government of Karnataka and other states under order dated 10.2.1988 and therefore, the State Government is entitled to exercise power under Section 5 of the Environment Act, 1986.

(B) ENVIRONMENT ACT, 1986 – SECTION 5 – AIR (PREVENTION AND CONTROL OF POLLUTION) ACT, 1981 – SECTIONS 17, 20 – MOTOR VEHICLES ACT, 1988 – SECTIONS 52, 59 – Whether the provisions of Section 20 of the Air Act have an overriding effect in respect of the provisions of the Motor Vehicles Act – HELD- Directions issued under the Environment Act are for protecting and safeguarding the health of the people, a right provided and protected by Article 21 of the Constitution and would override the provisions of every statute including the Motor Vehicles Act, if they militate against the constitutional mandate of Article 21. The norms fixed under the Motor Vehicles Act are in addition to and not in derogation of the requirements of the Environment Act. (Para 15)

*W.P.Nos. 46850/2002 (GM-POL) Etc. dated 17th August 2004

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(C)CONSTITUTION OF INDIA – ARTICLE 21 – PROTECTING AND SAFEGUARDING HEALTH OF PEOPLE – AIR (PREVENTION AND CONTROL OF POLLUTION) ACT, 1981 – SECTIONS 17, 20, WATER (POLLUTION AND CONTROL OF POLLUTION ACT) 1974 – SECTION 4 – ENVIRONMENT ACT, 1986 – SECTION 5 – MOTOR VEHICLES ACT, 1988 – SECTION 59 – Directions issued by State Government to prevent entry of 15 years old vehicles into outer Ring Road of Bangalore City – Duty of authorities is to check Vehicular pollution – HELD – Respondents directed to evolve some scheme after considering all the details. Government should also give sufficient time to the vehicles owners for replacement of the old vehicles, in a phased manner, to make available the CNG fuel and to have the vehicles converted to it in a phased manner. The authority concerned should overall monitor and check the two wheelers, four wheelers and other types of vehicles including commercial/transport vehicles as well as passenger vehicles, at important junctions, and to see that they do not violate the prescribed norms of pollution and the traffic rules and to ensure the safety and welfare of the public. Authorities are also directed to take note of the direction in M.C.Mehta's cases.

(Para 18)

Writ Petitions disposed of.

CASES REFERRED:		AT PARAS
1. *W.P.No. 13029/1985; (2001 (3) SCC 756- M.C. Mehta vs. Union of India*	*(Ref)*	2
2. *W.P 12316/00 DD 15.10.2001 -*	*(do)*	5,6,13
3. *W.P. 34314/00 and 12316/2000 DD 15.10.2001 –*	*(do)*	6,13
4. *W.P. (Civil) No. 13029/96 – M.C. Mehta vs Union of India & Ors.*	*(do)*	8

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Sri D.L.N. Rao, Advocate for Petitioners
Sri C.V. Kumar, Advocate for Petitioner
Sri Anant Mandgi, Advocate for Petitioner
Sri M.N. Seshadri for R1- R3 & R5
Sri Amrutesh N.P. (Party – in-person)
Sri D. Nagaraj, Advocate for R4

ORDER

As per Chief Justice,

Karnataka Lorry Malikara Okkuta (R) and some registered owners of the lorries have filed these petitions on 20.12.2002 praying to quash the Government Order dated 13.11.2002 and to direct the State Government to constitute an expert Committee to go into the question of controlling pollution by alternate methods of using CNG fuel or any other clean fuel, by replacement of worn out parts of engine etc.

2. The grievance of the petitioners is that the impugned notification, completely banning the entry of vehicles which are aged more than 15 years from the outer ring Road even in a phased manner, would affect the fundamental right of the petitioners guaranteed under Article 19(1)(g) of the Constitution of India and also would not fall within the meaning of reasonable restrictions under Article 19(6) of the Constitution. It is stated that the Government has misinterpreted the order passed by the Supreme Court in M.C.MEHTA vs. UNION OF INDIA[1], while passing the impugned notification without considering the alternative method, and therefore, the impugned notification is liable to be set aside.

3. In response to the notice 27.12.2002, the respondents have filed statement of objections. It is stated that the impugned notification has been passed to preserve the quality of air and control air pollution and to give effect to the Air (Prevention and Control of Pollution) Act, 1981 (for short 'the Air Act'). It is stated that the Respondent-Board is a statutory Board constituted under Section 4 of the Water (Pollution and Control of Pollution) Act, 1974 and as per Section 4 of the Air Act, the said Board shall be deemed to be a State Board for the prevention and control of air pollution. Section 17 of the Air Act

1. W.P.No. 13029/1985; (2001 (3) SCC 756

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provides for functions of State Board to lay down the standards for emission of air pollutants into the atmosphere. It is also stated that Section 20 of the Air Act would override the provisions of the Motor Vehicles Act, 1988. It is further stated that the vehicular population of the State is 40 lakhs and about 40% of the total vehicular population is concentrated in and around Bangalore City and on account of the increase in vehicles, the Ambient Air Quality in Bangalore is deteriorating and becoming a health hazard to the Bangaloreans. The respondent-Board has taken note of results of the Air Quality for the years 1999-2000, 2000-2001 and 2001-2002, which indicated that there is a rapid deterioration of Air Quality in Bangalore city, and therefore, the impugned notification directing the Transport Commissioner to take all necessary steps to ban entry of commercial/ transport vehicles of age of 15 years or more into Bangalore City from the Outer Ring Road limits of Bangalore and to phase out the commercial/transport vehicles more than 15 years old, as indicated in the schedule, cannot be interfered with. It is also stated that the question of misinterpreting the decision in M.C.Mehta's case (supra), while issuing the impugned notification, does not arise.

4. This Court, on 27.12.2002, while considering the Writ Petitions, by a detailed order, did not grant the interim stay and rejected the interim prayer as sought for in the petitions. However, vide Notification No.HCBB 159/04 dated 22.7.2004 the matters pertaining to pollution have been referred to the Division Bench. These cases have come up before us on 5.8.2004.

5. Learned Counsel appearing for the Writ Petitioners, Sri D.L.N.Rao submitted that under the Environment Act, it is the Central Government, which has got jurisdiction to issue directions and the State Government has no authority to issue directions and the provisions of the Air Act, would not override the provisions of the Motor Vehicles Act. He also submits that this Court in Writ Petition (PIL) No.12316/ 2000 disposed of on 15.10.2001 has held that it is open to the State Government to request the Central Government to invoke the provisions of Section 59 of the Motor Vehicles Act, and therefore, it is unnecessary to go into the validity of the order. He further submits that as the Government notification has not been given effect to till date, respondents may be directed to take action in accordance with law

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with liberty to the petitioners, if aggrieved, to challenge the same in accordance with law.

6. Learned Government Advocate Sri Sheshadri submits that the direction has been issued in exercise of the power of the State Government under Section 5 of the Environment Act and Section 17 of the Air Act, which override the provisions of the Motor Vehicles Act. He also submits that in view of the directions issued by this Court in PIL petitions in W.P.Nos.34314/2000 and 12316/2000, dated 15.10.2001, after consultation with the State Environment Board, the directions has been issued by the Government to protect Bangaloreans from air pollution caused by vehicular traffic and to protect the right conferred upon the citizens under Article 21 of the Constitution of India and therefore, the impugned notification does not suffer from any illegality.

7. The Commissioner for Transport-respondent No.3 has filed an affidavit on 27.12.2002 giving the statistics as on 31.10.2002 that 1,73,103 transport vehicles are registered and among them the vehicles that are 20 years and above are 20,327, the vehicles that are 17 years and less than 20 years are 13,409 and vehicles that are 15 years and less than 17 years are 14, 923. It is stated that only 48,659 vehicles are to be phased out in a phased manner and about 9,000 vehicles coming under the purview of goods carriages and these vehicles are required to be pushed out from Bangalore city and they are allowed to operate from the outer ring road. It is stated that most of these vehicles carry bricks, sand, cement, jelly, etc. which cause environmental pollution.

8. The State Pollution Control Board-respondent No.4 has filed counter. It is stated that the powers conferred under Section 20 of the Air Act shall have an overriding effect notwithstanding anything contained under the provisions of the Motor Vehicles Act and it also referred to in Section 52 of the Air Act. It is stated that after considering the rapid deterioration of Air Quality in Bangalore city, respondent No.4, has in its Board meeting held on 28.05.2002 resolved to recommend the State Government on some points and the Committee has also taken note of the decision of the Supreme Court in M.C.MEHTA vs.

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UNION OF INDIA & OTHERS[2]. Therefore there is no illegality in the impugned Government notification and it needs no interference.

9. On 23.12.2002, Sri N.P.Amrutesh, party-in-person (Advocate) has filed an application for impleading himself as a party. It is stated that the Government is duty bound and shall make endeavour to protect and improve the environment. Restrictions are necessary for safety, health and peace of the community. It is also stated that there is no ground that their families will be deprived if such old vehicles are thrown out. In any case, such old vehicles cannot be permitted at the cost of public health, safety and environment. He may be made party in the public interest.

10. We have heard the learned Counsel appearing for the parties and perused the material on record.

11. It is clear from a perusal of Section 5 of the Environment Act, 1986, that the said Section contains the power to give directions to the Central Government for enforcing the provisions of the said Act and explanation makes it clear that for the purpose of avoidance of doubts, power to issue directions under the Section includes power to direct the closure, prohibition or regulation of any industry, operation or process. It is clear from the material on record that the said power of the Central Government has been delegated to the Government of Karnataka and other States under Order dated 10.02.1988 published in the Gazette and therefore, the State Government is entitled to exercise power under the said Section. Further, it is clear from the provisions of Section 20 of the Air Act that where a direction has been issued in compliance with the provisions of Section 17(1) of the Act after consulting the Board, the instructions would be binding on the concerned authority under the Motor Vehicles Act and such authority shall, notwithstanding anything contained in the Act or the Rules made thereunder, would be bound to comply with such instructions.

12. As per the facts culled out, the impugned order was issued directing to restrict only the commercial/transport vehicles aged more than 15 years from entering Bangalore City from the outer Ring Road limits of Bangalore and no prohibition has been enforced for plying of the vehicles from outer Ring Road. Prohibition is only in respect of

2. W.P. (Civil) No. 13029/1996

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plying of the vehicles within the City of Bangalore and therefore, having regard to the object with which the impugned order is sought to be enacted, it cannot be said that it violates any of the fundamental rights of the petitioners. However, it is unnecessary to go into the details of the necessity of phasing out the entry of vehicles aged more than 15 years in the manner as described in the order dated 13.11.2002 as the said order has spent itself out without being implemented.

13. It is seen that on an earlier occasion, this Court had issued directions in Writ Petition No.12316/2000, and Writ Petition No.34314/2000 disposed of on 15th October, 2001 observing that the power under Section 59 of the Motor Vehicles Act is vested in the Central Government, but the State Government can exercise power under Section 20 of the Air Act and the State is also empowered to give instructions, in consultation with the State Board, to the concerned authority with a view to ensure that the standards prescribed for emission of air pollutants from automobiles laid down by the State Board under Clause (g) of sub-section (1) of Section 17 of the Act are complied with. In those petitions, it was prayed to restrict the plying of commercial and transport goods and passenger vehicles in Bangalore and in the State of Karnataka which are 15 years of age from the date of manufacture, including private and public transport buses, lorries, vans, maxi cabs, mini buses, tempos, auto rickshaws, delivery vans, tankers, jeeps etc., as they are creating fumes of carbon monoxide, sulphur-di-oxide and other air pollutant compounds like benzene, etc. which have been causing several dangerous diseases like cancer, asthma, allergies, chronic fatigue syndrome, respiratory problems, etc. In those cases, it was observed that the State Government is always free to take necessary steps regarding plying and renewal of registration of vehicles of 15 years from the date of manufacture and to make rules in accordance with law and the Government is also free to take necessary steps by requesting the Central Government to invoke the power under Section 59 of the Motor Vehicles Act, if necessary.

14. In the notification dated 13.11.2002, which has been challenged by the petitioner-Association, the Transport Commissioner is directed to take steps to ban entry of commercial/transport vehicles of age of 15 years or more into Bangalore city from the Outer Ring Road, and

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to phase out the commercial/transport vehicles more than 15 years old in the manner indicated in the schedule given below:

SCHEDULE

Commercial /Transport Vehicles Age	Shall Not Ply in Bangalore City after
20 Years and above	01.01.2003
17 years to less than 20 years	01.05.2003
15 years to less than 17 years	01.05.2004

The impugned notification has not been given effect to and the same has lapsed by efflux of time. Be that as it may. It is strange that despite directions in the PIL petitions referred to above the Government has not taken any concrete steps for the safety and welfare of the public at large. In this way, the Government, though it is duty bound, is not performing its duties to control the vehicular pollution. Protection of environment is a primary function of the executive. The Government should devise suitable measures and provide machinery for rigid enforcement of such measures as are necessary to curb the menace of chaotic traffic conditions and vehicular pollution with a view to ensure the welfare of the general public. We are aware that this Court cannot legislate but at the same time, it cannot be a mute spectator. As stated, the Government is not performing its duties despite issuance of directions in the PIL petitions and for the reasons best known, the impugned notification has not been given effect to even stay application was rejected on 27.12.2002. Since the point of jurisdiction of the Government is agitated, we have considered the same regarding power and in the circumstances, it is necessary to issue certain directions to the Government to protect the environment and to ensure the safety and welfare of the public in particular of Bangalore city.

15. The Hon'ble Supreme Court in a number of cases has observed that the Government can take appropriate action to ensure safety and welfare of the public. More particularly, the Supreme Court in M.C.Mehta's case (supra) has held that directions that are issued under the Environment Act are for protecting and safeguarding the health of

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the people, a right provided and protected by Article 21 of the Constitution and would override the provisions of every statute including the Motor Vehicles Act, if they militate against the constitutional mandate of Article 21. It is also observed that the norms fixed under the Motor Vehicles Act are in addition to and not in derogation of the requirements of the Environment Act.

16. In view of the above said provisions of the Environment Act and the Air Act and the observations of the Hon'ble Supreme Court in M.C.Mehta's case, it is clear that there is no merit in the contentions of the learned Counsel appearing for the petitioners that the State Government has no power to issue directions under Section 5 of the Environment Act and Section 20 of the Air Act. The argument is rejected.

17. It is well settled that it is always open to the State Government, which has authority under Section 5 of the Environment Act and Section 20 of the Air Act and to issue necessary directions. By the said notification, only the entry of vehicles aged more than 15 years within the city of Bangalore from the outer Ring Road has been prohibited, fixing the schedule. In is seen that as per the counter, the State Government, after consulting the Board, has take necessary steps having regard to the ground realities and the position prevalent in Bangalore, which is within its competence as stated, and therefore, the argument that the said steps taken in other Cities would ipso facto enable the Government to issue directions to prohibit the entry of transport/ commercial vehicles aged more than 15 years, has no substance. Anyhow, the notification has not been given effect to. The facts placed as per the affidavit is as on 1.1.2003. Now 18 months have passed and more vehicles must be on the road. Certainly, there is increase in the pollution in the city due to emission of toxic fumes by plying such vehicles. However, these facts are to be ascertained by the respective authorities concerned.

18. Under the circumstances, it will be appropriate to direct the respondents to evolve some scheme after considering the details. Government should also give sufficient time to the vehicle owners for replacement of the old vehicles, in a phased manner, to make available the CNG fuel and to have the vehicles converted to it in a phased

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manner. The authority concerned should overall monitor and check the two wheelers, four wheelers and other types of vehicles including commercial/transport vehicles as well as passenger vehicles, at important functions, and to see that they do not violate the prescribed norms of pollution and the traffic rules and to ensure the safety and welfare of the public. The authorities concerned are also free to take note of the direction issued by the Apex Court in M.C.Mehta's case (supra).

19. In the instant case, as discussed, the impugned notification has lapsed for non-implementation within the time prescribed in the schedule and question of setting aside does not arise as stated at this stage. They are free to discharge their duties in accordance with law. Under the circumstances as discussed, it is expected that the State Government will take appropriate and effective steps, at the earliest, but not later than six months from date of receipt of this order, in accordance with law. In view of this, it is not necessary to pass any order on the impleading application. However, it is always open to the aggrieved persons/vehicle owners, if any, to approach the concerned authority, if necessary, in accordance with law.

20. A copy of this order may be sent to the Government to take appropriate steps as per the directions, in accordance with law.

With the above said observations, these Writ Petitions are disposed of.

ILR 2004 KAR 4215

S.R. NAYAK & RAM MOHAN REDDY, JJ

The Director, National Institute of Technology and Others vs N.S. Harsha and Others*

(A) ALL INDIA COUNCIL FOR TECHNICAL EDUCATION ACT, 1987 – SECTION 10 – CONSTITUTION OF INDIA – ARTICLE 14 –

* WA Nos. 7390-7391/2001 etc., dated 14th October 2003

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IN THE HIGH COURT OF KARNATAKA AT BENGALURU

DATED THIS THE 01ST DAY OF JULY 2015

PRESENT

HON'BLE MR.SUBHRO KAMAL MUKHERJEE, ACTING CHIEF JUSTICE

AND

HON'BLE MRS.JUSTICE B.V.NAGARATHNA

WRIT PETITION No.39432/2013 (GM-POL-PIL)

BETWEEN:

SUO-MOTU. ... PETITIONER

(BY MRS.B.V. VIDYALATHA – AMICUS CURIAE)

AND:

1. THE STATE OF KARNATAKA
   VIDHANA SOUDHA
   BANGALORE – 560 001
   BY ITS CHIEF SECRETARY.

2. THE STATE OF KARNATAKA
   DEPARTMENT OF TRANSPORT
   VIDHANA SOUDHA
   BANGALORE – 560 001
   BY ITS SECRETARY.

3. KARNATAKA STATE POLLUTION CONTROL BOARD
   "PARISARA BHAVANA"
   NO.49, 4TH AND 5TH FLOOR
   CHURCH STREET
   BANGALORE – 560 001
   REPRESENTED BY ITS CHAIRMAN.

4. THE COMMISSIONER OF POLICE
   INFANTRY ROAD
   BANGALORE – 560 001.

5. BRUHAT BANGALORE MAHANAGARA PALIKE
   BANGALORE CITY

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BANGALORE - 560 002.
BY TIS COMMISSIONER.

6. CENTRAL POLLUTION CONTROL BOARD
PARIVESH BHAVAN
EAST ARJUN NAGAR
SHAHADARA NAGAR
DELHI - 110 032
BY ITS MEMBER SECRETARY.

7. KARNATAKA STATE ROAD TRANSPORT CORPORATION
BY ITS MANAGING DIRECTOR
CENTRAL OFFICES
K.H. ROAD, SHANTHINAGAR
BANGALORE - 560 027.

8. BANGALORE METROPOLITAN
TRANSPORT CORPORATION
BY ITS MANAGING DIRECTOR
CENTRAL OFFICES
K.H. ROAD, SHANTHINAGAR
BANGALORE - 560 027. ... RESPONDENTS

(BY SRI D. NAGARAJ, AGA FOR R1, R2 & R4;
SRI GURURAJ JOSHI, ADVOCATE FOR R3;
SRI K.V. NARASIMHAN, ADVOCATE FOR R5;
SRI PUTTIGE R. RAMESH, ADVOCATE FOR R6;
SRI P.D. SURANA, ADVOCATE FOR R7 & R8)

THIS WRIT PETITION IS FILED UNDER ARTICLES 226 AND 227 OF THE CONSTITUTION OF INDIA PRAYING TO TAKE THE FACT WITH REGARD TO 'HORN NOT OK PLEASE' AS PUBLISHED IN THE NEWS PAPER 'THE HINDU' DATED 29.08.2013, AS SUO-MOTU FOR NECESSARY ORDERS.

THIS WRIT PETITION COMING ON FOR ORDERS THIS DAY, ***ACTING CHIEF JUSTICE*** MADE THE FOLLOWING:

ORDER

After hearing the learned advocates appearing for the parties concerning this *suo motu* public interest litigation concerning controlling of air and noise pollution in Bengaluru city, and upon perusal of written suggestions given by the Pollution Control Boards, both the State and the Central, we dispose of this writ petition directing the respondents-authorities to implement the written suggestions given by the Pollution Control Boards as far as practicable.

2. We acknowledge and place on record our appreciation of the service rendered by Mrs. B.V. Vidyulatha, who assisted the court as Amicus Curiae.

Sd/-
ACTING CHIEF JUSTICE

Sd/-
JUDGE

vr

Back

Status: Disposed

Case Number: WP 39432/2013 (KAHC010368052013)	Classification: GM POL	Date of Filing: 04/09/2013 12:50:12
Petitioner: SUO-MOTU	Petitioner Advocate: SUO-MOTU	
Respondent: THE STATE OF KARNATAKA	Respondent Advocate: R1, R2 & R4 BY AGA	
Filing No.: WP 39432/2013	Judge: SUBHRO KAMAL MUKHERJEE (AG.CJ) AND B.V.NAGARATHNA	
Last Posted For: ORDERS	Date of Decision: 01/07/2015	Last Action Taken: DISPOSED

Next Hearing Date: 30/06/2015

Daily Orders: WP 39432/2013

1	D.H.WAGHELA (CJ)& RMRJ	29/04/2015

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Learned Addl. Advocate General has submitted proceedings of the meeting to review Action Taken Report based on the directions issued by KSPCB to various departments to control noise and air pollution in Bengaluru City. The meeting appears to have taken place on 19.3.2015 and minutes of the meeting records the progress made by several agencies in the matter of action plans in terms of the directions issued by KSPCB. It was noted from the proceedings and the annexures that BBMP has taken up several repair works for constructing and repairing sewage lines and covering road by resurfacing them and to some extent, laying footpaths on both sides of the roads.

2. It was submitted by learned counsel for BBMP that, as far as may be and as early as practicable, open collars of the road on either side or any open area abutting the road may be required to be covered in order to bring down the alarming levels of respirable suspended particulate matter (RSPM), as recorded in the reports submitted by KSPCB. It was also suggested that, for reducing the traffic congestion on the roads, parking facilities were required to be restricted on the road and separate parking lots have to be provided and, for such actions, comprehensive action plans are being discussed and devised.

3. Learned counsel for the BMTC submitted that phased conversion of diesel powered public transport vehicles to CNG vehicles is taken up seriously, even as the natural gas pipelines are already laid from Dhabol in Maharashtra to Bengaluru. Learned counsel submitted that the Committee would consider all the aspects of the matter of replacement of the entire fleet of buses of BMTC in a phased manner and also discuss the financial aspect and make an action plan with the time-lines for the phased conversion and such proposal will be submitted before the court within two months. Learned A.A.G. submitted that a report is already submitted by the Transport Commissioner and Home Department regarding the directions and other restrictions on the excessive traffic causing heavier pollution in certain areas.

4. After extensive debate, learned counsel for KSPCB conceded that the data of pollution levels collected by KSPCB through its monitoring stations was required to be used for issuing appropriate directions under Section 31A of the Air (Prevention and Control of Pollution) Act, 1981 so as to immediately bring down the level of RSPM or any other noxious gases at particular traffic junctions or near the sites where constructions are undertaken.

5. Learned counsel Sri Gururaj Joshi conceded that the duties and functions of KSPCB did not end by issuing the directions dated 28.3.2014 to various other agencies to formulate action plans. Therefore, more proactive and direct intervention, in accordance with law, by the officers of the Pollution Control Board was called for. Therefore, he submitted on instruction of the Member Secretary, who was personally present in the court, that the powers of the Board under Section 31A may be exercised immediately and energetic action may be taken to control and prevent emission of polluting matter or circulation of dust in the air in particular areas of the City, where the continuing monitoring of the air quality is clearly indicating excessive pollution. It was submitted that, no sooner source of such noise pollution or the cause for higher RSPM is noticed, the KSPCB shall exercise its power to prohibit the offending activity or removal of dust by issuing appropriate direction to any person or authority as envisaged in Section 31A of the Air Act. He also submitted that appropriate direction shall be issued to the local authorities concerned to declare such areas and roads as □No Parking Zones□ and/or □Silent Zones□ so as to bring down the consistently high noise levels in better part of the City and prevent the pollution caused by traffic congestions.

6. Learned AAG submitted for the Transport Commissioner and Home Department that such directions as may be issued, in fact, which are proposed to be issued within a short time, shall be fully and properly enforced by deploying additional police force so as to ensure that the directions are fully implemented in letter and spirit and violations thereof are strictly brought to justice.

7. All these steps, recorded hereinabove, are required to be taken as early as practicable, without derogating from the directions which are already issued and the exercise which is already undertaken for short-term and long-term strategy aimed at addressing the issues of increasing number of vehicles in the City of Bengaluru and the deteriorating quality of air, which causes serious health hazards for all the citizens of the metropolis, which keeps on expanding at a rapid pace. It is obvious that many matters and policy decisions are pending at the State Government level and it may take some time for devising proper development plan in consultation with all the stake holders, which would ensure, at least in the near future, speedier movement of traffic, healthy and peaceful environment and better living conditions for the people.

Under the circumstances, hearing is adjourned to 1.7.2015.

2 D.H.WAGHELA (CJ)& BRBJ 07/11/2014

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MANU/GT/0156/2022

BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA

Original Application No. 93/2020/EZ

Decided On: 19.05.2022

Ankur Sharma **Vs.** Union of India and Ors.

Hon'ble Judges/Coram:
B. Amit Sthalekar, J. (Member (J)) and Saibal Dasgupta, Member (E)

Counsels:
For Appellant/Petitioner/Plaintiff: Party-in-Person

For Respondents/Defendant: Dipanjan Ghosh, Sudip Kr. Dutta and Sibojyoti Chakraborty, Advocates

ORDER

1. Mr. Ankur Sharma, the Applicant in person is present.

2. One affidavit dated 12.05.2022 has been filed by Respondent No. 9; the same is taken on record.

3. This original application has been filed by the Applicant alleging illegal plying of polluting vehicles owned by various Departments of the Union Government and the Government of West Bengal in Kolkata and Howrah cities despite the fact that some of those vehicles are more than 15 years old and some are less than 15 years old but still causing pollution. It is stated that these vehicles add to the already polluted air of the two cities. The applicant has also referred to various documents including the screenshots of the National Register E-Services, Ministry of Road, Transport & Highways, Government of India that provides a table giving a list of vehicles declared as unfit for plying on public roads.

4. Notices were issued to the Respondents in response to which affidavits have been filed.

5. A Status Report dated 07.04.2022 has been filed by Respondent No. 14, Deputy Commissioner of Police (Traffic), Howrah City Police, stating therein that so far as Vehicle No. WB-12A-5438 is concerned, the same is not being used for duty and it is kept in Shibpur Police Lines; Vehicle No. WB-12C-1444 has been withdrawn on 01.04.2022 from duty and is also kept in Shibpur Police Lines and Vehicle No. NL-03-5711 was hired by the West Bengal Police Directorate and has since been de-hired on 20.10.2020.

6. It is also stated that directions have been issued to all Inspectors-in-Charge and Traffic guards and Police Stations of Howrah City Police to impound the Vehicle No. NL-03-5711 which has been de-hired on 20.10.2020.

7. We may also refer to the directions issued by the Tribunal vide order dated 16.11.2021. Paragraph 4 of the said order reads as under:-

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"4. We further direct the State Respondents, Govt., of West Bengal, to submit its action taken report stating the current status of implementation of the Action Plan with regard to the directions given by this Tribunal in Original Application No. 33/2014/EZ decided on 18.09.2020, particularly with regard to the phasing out of old commercial vehicles and entry of non-Bharat Stage-IV Vehicles (now Bharat Stage-VI) within the city of Kolkata and Howrah. We may reproduce the relevant extract of the Action Plan as submitted by the Chief Secretary, Govt., of West Bengal specifically with regard to the phasing out of old commercial vehicles and entry of Non-Bharat Stage-IV (now Bharat Stage-VI) within the City of Kolkata and Howrah and the subsequent order of the Tribunal in this regard which reads as under:-

"(vii) Phasing Out Old Commercial Vehicles:

A Committee was constituted by the Transport Department vide order No. 4652-WT/3M-10/2018 (Pt-1) dated 4th December, 2019 regarding phasing out of old commercial vehicles following the Vardhaman Kaushik Judgment. The Committee consisted of officials from various Departments. From March 2020 onwards the Committee could not meet regularly doe to lock down. The Committee needs some more time to submit is findings and recommendations. The Committee has submitted a summary of the qualitative and quantitative approach adopted for the study and methodology used for data collection, analysis and interpretation to this Department on 30.07.2020. Final report of the Committee will be submitted before Hon'ble Tribunal by the Transport Secretary, Govt., of West Bengal by a supplementary affidavit, if kindly allowed. A copy of the report of the Transport Department along with the report of the Committee is annexed herewith and marked as Annexure R/4 (Colly).

(viii) Entry of Non-Bharat Stage IV vehicles within the City of Kolkata and Howrah:

Sub-Rule (15) of Rule 115 of Central Motor Vehicles Rules, 1989 was inserted vide MORTH Notification No. G.S.R. 84(E) : MANU/RDTH/0847/2009 DATED 09.02.2009. All four-wheel vehicles manufactured on or after 01.04.2010 came under BS-IV emission standards in the city of Kolkata, and in some other cities, vide this amendment whereas, the rest of the areas of the State of West Bengal still remained under BS-III emission regime.

Even then, the four-wheel transport/commercial vehicles plying on the inter-state permits or national permits or All India Tourist Permits were exempted from this amendment i.e. these category of motor vehicles of BS-III emission standard were still eligible to be registered in Kolkata.

In this backdrop, the Transport Department, GoWB vide Notification No. 2767-WT/3M-21/2012 dated 07.08.2012 allowed grant of inter-state permits or national permits or All

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India Tourist permits to four-wheel BS-III transport/commercial vehicles registered in West Bengal. Similarly, All Bengal Permit for Goods Carriage or Contract Carriage was also allowed to BS-III compliant four-wheeled motor vehicles which were registered outside Kolkata.

Thus, even the BS-III compliant goods carriages registered on or after 01.04.2010 and which are less than 15 years old are still eligible to enter Kolkata as per Central Motor Vehicle Rules, 1989. Similarly, the BS-III compliant vehicles plying under Inter-Regional Stage Carriage permits originating from outside Kolkata but terminating inside Kolkata were also allowed to ply by the above-mentioned notification.

However, in pursuance of the orders of Hon'ble NGT dated 11.08.2016 and 26.05.2017, non-BS-IV transport vehicles registered outside the jurisdiction of Kolkata and Howrah were not allowed to remain in the town cities beyond seven days vide notification No. 3244-WT/8S-96/2014 dated 14.07.2017. Exemption has been allowed to BS-III compliant inter-regional stage carriages which ply on specified routes and enter the city during specified time schedules. Similarly, exemption has been allowed to BS-III compliant All-Bengal Contract Carriage registered outside Kolkata which enter the city carrying passengers only on contract as per the provisions of Motor Vehicles Act, 1988.

Since 01.04.2019 all the Auto Emission Testing Centres (AETCs) in West Bengal have been web-linked with VAHAN 4 cloud server after having their respective machines upgraded and calibrated. PUC Certifies are now system-generated, leaving hardly any scope to manipulate the test results. BS-III emission standard has its own test parameters in accordance with CMVR, 1989. PUC certification of a transport vehicle has been automatically linked with other VAHAN 4 based transaction of that vehicle in order to ensure compliance. Hence, non-BS-IV transport vehicles also have to maintain engine and emission standards to remain fit and roadworthy."

"14. The next question that we find the State lagging in is with regard to phasing out of old commercial vehicles as evidently no serious effort is being made in this regard. The Committee constituted by the State Government to deal with this also appear to be dragging its seat and has now taken the convenient plea of the locked down due to Covid-19 pandemic. We, therefore, require the Transport Department, Govt., of West Bengal, to ensure that the final report of the Committee is submitted in not more than three months days from hence. We may also note that in O.A. No. 681/2018, remedial action for air pollution in 122 Non-Attainment Cities (NACs) in the country is being considered, which also includes the cities of Kolkata and Howrah. Various directions have been passed to deal with the menace of air pollution and many of the

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directions overlap the ones we have issued. Amongst them is the exercise for undertaking studies of source apportionment and carrying capacity. The State Government is expected to comply with the directions issued in that case, last of which was order dated 21.08.2020.

15. The next is the entry of non-Bharat Stage IV vehicles within the cities of Kolkata and Howrah. It is high time for the Sate to ensure that the public transport vehicles below BS-IV are phased out rapidly to arrive at a stage when only BS-VI would ply in the two cities to be extended gradually to the rest of the State. Exemption being permitted to BS-IV compliant vehicles, in our considered opinion, is an antithesis to the environmental law and a licence to pollute the air to the detriment of the health of the people and, therefore, violation of Article 21 of the Constitution. All considerations override environmental health and Sustainable Development Principle as well as the Precautionary Principle which are now accepted as part of Article 21 of the Constitution. We, therefore, direct the State to ensure phasing out of all vehicles, both private and public transport system which are BS-IV compliant in a time bound manner. Further delay in complying with this would amount to abdication of public trust which the State is held responsible to uphold.

18. Thus, it is incumbent upon the State to be diligent in taking prompt steps and measures for mitigation of the deteriorated environment for the well being of the people at large by according top priority. There can be no compromise on this as it would transcend all other considerations.

19. The study conducted by the NEERI on source apportionment of the pollution in the cities of Kolkata and Howrah, obviously is in consonance with the recommendations of the Committee forming part of the original judgment as will appear from recommendation No. (vi) thereof referred to in the original judgment. While we appreciate the efforts put in for collection of data and the narrative on the various aspects, the Action Plan ought to be executed urgently if any meaningful result is to be achieved. It is accordingly directed so.

20. In view of the above, we reiterate that the Action Plan placed by the State in the affidavit of the Chief Secretary, Govt., of West Bengal, shall be put into action and executed subject to the above directions and including the specific directions contained in paragraph 13 of this order."

The Respondents were therefore directed to file their Action Taken Report.

8. In the subsequent order of 30.03.2022, the Tribunal had further raised a query with regard to large number of old Ambassador cars plying on the roads in and around the vicinity of Kolkata and Howrah guzzling petrol/diesel fumes adding to and worsening the air quality around Kolkata and Howrah.

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9. An affidavit dated 12.05.2022 has been filed by the Principal Secretary, Transport Department, Government of West Bengal, bringing on record a road map to phase out old and polluting vehicles from the Kolkata Metropolitan Area in three phases. The said road map is extracted herein below:-

"The phasing out of old and polluting vehicles would be accomplished in three consecutive phases

1. PHASE-I: At first, initiative would be taken for cleansing up the data from VAHAN Portal in respect of the vehicles which might already have been taken off road and were registered prior to 31.12.1999 in the following manner:

a. Notice to the registered owners (R.O.s) of such vehicles for disposing off the old vehicle either by removing those to non-KMA area or by scrapping of such vehicles. It has been agreed upon to start this process from 15.04.2022 and complete the same by 14.05.2022.

b. Hearing of R.Os. would be started from 15.05.2022 and would be completed by 30.06.2022.

c. Removal/Scrapping of vehicles would be started from 01.07.2022 and completed by 31.08.2022.

2. PHASE-II: Subsequent to Phase I, vehicles which are registered in between 01.01.2000 to 31.12.2004 would be taken off-road from the KMA in the following manner:

a. Notice to the R.Os. for disposing off the old vehicle either by removing those to non-KMA area or by scrapping of such vehicles. It has been agreed upon to start this process from 01.06.2022 and complete the same by 31.07.2022.

b. Hearing of R.Os. would be started from 01.08.2022 and would be completed by 30.09.2022.

c. Removal/Scrapping of vehicles would be started from 01.11.2022 and completed by 31.12.2022.

3. PHASE-III: Subsequent to Phase II, vehicles which are registered in between 01.01.2005 to 31.12.2007, would be taken off-road from the KMA in the following manner:

a. Notice to the R.Os. for disposing off the old vehicle either by removing those to non-KMA area or by scrapping of such vehicles. It has been agreed upon to start this process from 01.01.2023 and complete the same by 28.02.2023.

b. Hearing of R.Os. would be started from 01.03.2023 and completed by 30.04.2023.

c. Removal/Scrapping of vehicle to be started from 01.05.2023 and completed by 30.06.2023.

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4. The process of rendering 15 (fifteen) years old vehicles off-road with effect from 01.07.2023 would be a continuous one, following the chronology as defined in the phase wise activities above.

5. All the proposed actions at Sl. Nos. 1, 2, 3 and 4 above shall be communicated to the concerned registered vehicle owners by means of issuance of letters, advertisement in widely circulated leading Bengali/Hindi/English newspapers and through WhatsApp message/SMS.

[Action on 1, 2, 3, 4 and 5: Director, Transport Directorate and Technical Director, NIC]

6. ANPR cameras have been decided to be installed at each and every entry point of KMA to prevent illegal/unauthorized entry of vehicles having pollution emission norms below BS-IV. Sharing of all such relevant data with concerned police authority shall be done by NIC.

[Action: Commissioner of Police Kolkata/Howrah/Bidhannagar/Barrackpore, Director, Transport Directorate and Technical Director, NIC]

7. Transport Department will prepare the Vehicle Scrapping Policy in consonance with GSR No. 192(E) dated 10.03.2022 read with 653(E) dated 23.09.2021 of MoRTH, GOI, and the resultant Notification should be published by 15.04.2022.

[Action: Additional Secretary (KC), Transport Department]

8. (a) The Transport Operators, whose vehicle(s) intend to enter the KMA, will be requested to get their vehicles replaced with similar/higher model of vehicle possessing BS-IV/BS-VI compliant emission norms and age of the vehicle should be less than 08 (eight) years.

(b) Non Transport vehicles which are more than 15 years of age or having pollution emission norms below BS IV, would be allowed to continue plying in the KMA, provided that they:

(i) convert their vehicle(s) to electric/battery power operated till their validity of registration;

(ii) convert to CNG/LPG etc. for availing the benefit for plying those converted vehicles for five more years with effect from their date of conversion;

subject to getting permission for the same from the Hon'ble NGT.

[Action: Director, Transport Directorate, STA, all RTAs and all RAs]"

10. In the road map, it is also mentioned that the same would be placed before the Hon'ble NGT, Eastern Bench for its approval. The State Respondents probably fail to appreciate that the Tribunal is a court of adjudication and is not meant to grant approval to draft policies intended to be framed by the Government which is purely an administrative task.

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11. Having regard to the road map which has been filed for phasing out vehicles in three phases, nothing further remains for adjudication in the present original application except to give a direction to the Respondent No. 9, West Bengal Transport Department, Respondent No. 13. The Commissioner, Kolkata Police and Respondent No. 14. The Commissioner, Howrah City Police and the Commissioner of Police, Bidhannagar Police Commissionerate to ensure strict compliance of the road map within the timeline given therein. Even though the Commissioner of Police, Bidhannagar Police Commissionerate is not a party in the present original application, the responsibility for implementation of the road map would fall upon him also and therefore, directions are being issued to him also. We may also clarify that the aforesaid Road Map for phasing out old or polluting vehicles shall be applicable in the Howrah Municipal Area also. The Applicant also submits that nothing now remains in this original application except to ensure compliance of the Road Map.

12. So far as Phase-I is concerned, the respondent concerned, whether in Kolkata Municipal Area or Howrah Municipal Area shall file affidavit of compliance by 30.09.2022. Similarly, so far as Phase-II is concerned, the concerned respondents shall file affidavit of compliance by 31.01.2023 and so far as Phase-III is concerned, the concerned respondent shall file affidavit of compliance by 31.07.2023.

13. We, therefore, dispose of this original application with the directions already given herein above.

14. There shall be no order as to costs.

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Item No.2:-

BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI

(Through Video Conference)

Original Application No. 183 of 2016 (SZ)

IN THE MATTER OF:

Shri Vinay Shivanand Naik
Aged about 32 years
S/o. Shivanand P Naik
#101, 2nd Floor, 9th Main Road,
Gokula 2nd Phase, Mathikere,
Bengaluru - 560 054. Karnataka.

... Applicant(s)

Versus

State of Karnataka
Through the Department of Transport,
Vidhana Soudha,
Ambedkar Veedhi
Bengaluru - 560 001
Rep. by its Chief Secretary and Ors.

...Respondent(s)

For Applicant(s): Mr. Jayakumar S Patil, Sr. Adv. along with
Mr. Anu Ganesan.

For Respondent(s): Mr. Darpan K.M. along with
Mr. Rajat Jonathan Shaw for R1.
M/s. P.D. Surana along with
M/s. Kavitha for R2, R3, R5, R6.
Mr. R. Thirunavukarasu for R4.
M/s. Giridhar and Sai for R7.
Mrs. Me. Saraswathy through
Mr. Meyyappan for R9.
Mr. Bharadwaja Rama Subramaniam
along with Mr. Nalina Gouda for R11.

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Judgment Pronounced on: 13th April 2022.

CORAM:

HON'BLE Mr. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER

HON'BLE Dr. SATYAGOPAL KORLAPATI, EXPERT MEMBER

ORDER

Judgment pronounced through Video Conference. The original application is disposed of with directions vide separate Judgment.

Pending interlocutory application, if any, shall stand disposed of.

Sd/-
Justice K. Ramakrishnan, JM

Sd/-
Dr. Satyagopal Korlapati, EM

O.A. No.183/2016 (SZ),
13th April 2022. Mn.

Item No.2:-

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... Applicant(s)

Versus

1) State of Karnataka
Through the Department of Transport,
Vidhana Soudha,
Ambedkar Veedhi
Bengaluru - 560 001
Rep. by its Chief Secretary

2) The Karnataka State Road Transport Corporation (KSRTC)
K.H. Road, Bengaluru - 560 027
Rep. by its Chairman

3) Bengaluru Metropolitan Transport Corporation (BMTC)
K.H. Road, Bengaluru - 560 027
Rep. by its Chairman

4) Karnataka State Pollution Control Board,
P U Building, M.G. Road,
Sivanchetti Gardens
Bengaluru - 560 001.
Rep. by its Chairman

5) North West Karnataka Road Transport Corporation
Gokul Road, Hubli,
Karnataka.
Rep. by its Chairman.

6) North - East Karnataka Road Transport Corporation
Central Office, Transport House Main Road,
Kalburagi
Rep. by its Chairman.

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7) GAIL (India) Limited
Rep. by its Managing Director
GAIL Bhawan, 16 Bhikaji Cama Place,
R.K. Puram, New Delhi - 110 022.

8) Ministry of Petroleum & Natural Gas,
Rep. by its Secretary,
Shastri Bhawan, New Delhi - 110 001.

9) Ministry of Environment, Forests & Climate Change,
Rep. by its Secretary,
Indira Paryavaran Bhawan,
Jorbagh Road, New Delhi - 110 003.

10) Ministry of Road Transport and Highways
Rep. by its Secretary, Parivahan Bhawan,
No.1 Parliament Street,
New Delhi - 100 001.

(Respondents No.7 to 10 were impleaded as per Order dt.12.01.2017)

11) M/s. GAIL Gas Limited
3rd Floor, MS Complex
S-44 New BEL Road,
RMV II Stage, Bengaluru - 560 054.

(R11 impleaded as per order dt.27.02.2017)

...Respondent(s)

For Applicant(s): Mr. Jayakumar S Patil, Sr. Adv. along with
Mr. Anu Ganesan.

For Respondent(s): Mr. Darpan K.M. along with
Mr. Rajat Jonathan Shaw for R1.
M/s. P.D. Surana along with
M/s. Kavitha for R2, R3, R5, R6.
Mr. R. Thirunavukarasu for R4.
M/s. Giridhar and Sai for R7.
Mrs. Me. Saraswathy through
Mr. Meyyappan for R9.
Mr. Bharadwaja Rama Subramaniam
along with Mr. Nalina Gouda for R11.

Earlier Judgment Reserved on: 29th November 2021.

Reopened on: 20th December 2021

Judgment Reserved on: 20th December 2021.

Judgment Pronounced on: 13th April 2022.

CORAM:

HON'BLE Mr. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER

HON'BLE Dr. SATYAGOPAL KORLAPATI, EXPERT MEMBER

Whether the Judgment is allowed to be published on the Internet - Yes/No

Whether the Judgment is to be published in the All India NGT Reporter - Yes/No

JUDGMENT

Delivered by Justice K. Ramakrishnan, Judicial Member

1. The above application has been filed by the Original Applicant alleging vehicular pollution being caused in Bangalore City for taking steps to phase out the old public diesel vehicles by the State of Karnataka and the remedial measures to be taken for that purpose. The applicant filed this application stating that the Right to Life is precious fundamental right enshrined under Article 21 of the Constitution of India which includes, right to get clean air.

2. It is also alleged in the application that is a primary responsibility of the State to provide such environment so as to protect its citizens, especially the health of the children. The level of air pollution in Bangalore has been in increasing trend at an alarming rate for over 1 ½ decades. The scientists at Tel Aviv University on pollution trends for 189 megacities, by

analyzing eight years worth of data from three of NASA's high tech aerosol monitoring satellites, shows Bangalore experienced 34% increase in aerosol concentration (air pollution) between 2002 to 2010. Aerosols are particulate matter i.e., very fine particles suspended in the atmosphere and aerosol pollutants are one of the most harmful constituents of polluted air/environment.

3. The applicant had produced the article published in the American Journal of Climate Change, together with a summary thereof as Annexure – 1. It was alleged in the application that the 4th Respondent sets the current rate of increase in air pollution in Bangalore at 5% per day. The city is being polluted to such a level that the health impact on infants, the youth, the poor and the old are becoming predominant and rampant. On 13th February 2015, the Deccan Herald quoted that the 4th Respondent's Chairman Shri. Vaman Acharya saying *"the City is becoming like Beijing when it comes to pollution"*. The news which was published in DNA newspaper on 04th May 2015, at 05:31 IST states *"Bengaluru ranks second in the list of cities which have highest air pollution level"*. The children are most affected by increase in the level of air pollution. The said newspaper report was produced as Annexure – 2 Series.

4. Further, it was also alleged in the application that the vehicular air pollution and especially pollution caused by diesel vehicles is one of the largest contributors to air pollution especially in the cities such as Bangalore. The applicant had relied on the decisions of the Hon'ble Apex Court in **M.C. Mehta Vs. Union of India**[1] wherein, it was emphasized that one of the causes of mortality is air pollution and air pollution caused

[1] (2002) 4 SCC 356

a risk of lung cancer and respiratory organs are affected by the pollutants and another lung disease on account of vehicular pollution.

5. The applicant also reiterated the statistics relied by the Hon'ble Apex Court in *M.C. Mehta's* case for the purpose of insisting the necessity for giving directions to take steps for getting clean air, so that the future generation did not suffer from the ill health. The applicant further contended that the 1st Respondent is not implementing sufficient precautionary methods to prevent/reduce the air pollution in terms of guidelines issued by the Hon'ble Apex Court in the year 2002.

6. The applicant also relied on the decision of the Hon'ble High Court of Karnataka in the year 2004 in **Karnataka Lorry Malikara Okkuta Vs. State of Karnataka** [2] wherein, a direction was issued to the State authorities to evolve some scheme, after considering the details. The Government should also give sufficient time to the vehicle owners for replacement of the old vehicles, in a phased manner, to make available the CNG fuel and to have the vehicles converted to it in a phased manner. The authority concerned should overall monitor and check the two wheelers, four wheelers and other types of vehicles including commercial/transport vehicles as well as passenger vehicles, at important functions, and to see that they do not violate the prescribed norms of pollution and the traffic rules and to ensure the safety and welfare of the public. The authorities concerned are also free to take note of the direction issued by the Hon'ble Apex Court in *M.C. Mehta's* case.

[2] **(2004) 6 Kar LJ 1**

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7. It was further alleged in the application that on 17.08.2014, to the best of knowledge of the applicant, not even one CNG bus is plying in Bangalore in compliance with the direction. The report prepared by the Department of Forest, Ecology and Environment, Government of Karnataka also well aware of the adoption of CNG where an emphasize has been made in the report as *"There is a need to emphasize well-known truisms that vehicles should be maintained in good conditions, that adulterated fuel should not be used and that the use of LPG and CNG as fuel can reduce air pollution"* and the relevant portion of the report was produced by the applicant as Annexure - 3. That also emphasizes the necessity to prevent ill effects of air pollution on account of vehicular pollution on children, adults and senior citizens. The 2nd Respondent in their website, title *'Natural Gas - A Greener Alternative'* also gives the details regarding the possibility of less pollution from the CNG when compared to other fuels and that was extracted by the applicant in the application as follows:-

Fuel Emissions	Co_2	UHC	CO	No_x	So_x	PM
Petrol	22,000	85	634	78	8.3	1.1
Diesel	21,000	21	106	108	21	12.5
CNG	16,275	5.6	22.2	25.8	0.15	0.29

8. They produced the report issued by the 2nd Respondent as Annexure - 4. The Hon'ble High Court of Karnataka also in Suo Motu matter relating to air pollution, directed the State of Karnataka to comply with the suggestions given by the State Pollution Control Board by order dated 29.04.2015, evidenced by Annexure - 5 and copy of the final order dated 01.07.2015 was produced as Annexure - 6. He has given the details of the quotes made by the Ministry of Transport in one of the newspaper

regarding the necessity for conversion of diesel vehicles to green fuel vehicles, evidenced by Annexure - 7 Series. They have also reiterated the necessity of regulating the diesel gases in Euro/BS diesel standards and the Hartridge Smoke units fixed in 1986 revised so far. They also produced certain reports of various countries as Annexure - 9, 10, 11 and 12 in support of their case and he has given the details of BS- IV vehicles issued by the Transport Corporation.

9. According to the applicant, at the rate at which they want to phase out the old diesel vehicles, will take more than 23 years to complete the process. He also relied on the Annexure - 13, Report reiterating the necessity of going for new environment friendly Clean and Green Fuel vehicles. The applicant herein filed a Writ Petition before the Hon'ble High Court of Karnataka as **W.P. No.51663 of 2015 (Vinay Shivanand Naik Vs. State of Karnataka & Ors.)** and the Hon'ble High Court of Karnataka by order dated 05.05.2016, considered the submissions made by the State counsel and then passed the following order:-

> *"In so far as the Bangalore Metropolitan Transport Corporation (BMTC) is concerned, it transpires that it is negotiating the purchase of numerous Diesel engine buses.*
>
> *Before finalizing any such purchase, the BMTC shall take this Court into confidence."*

10. The said order was produced as Annexure - 14 and thereafter, the above mentioned writ petition was disposed of by the Hon'ble High Court on 22.07.2016 with the following directions, evidence by Annexure - 15.

> *"5. On hearing learned counsel and considering the interim orders passed by this Court, we are of the view that it would be appropriate for the National Green Tribunal to consider this matter. However, having entertained*

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this petition and having passed interim orders. It would be just and necessary that the interim orders continue for some time.

6. The petition is disposed off by reserving liberty to the petitioner to approach the National Green Tribunal for necessary orders. The interim order granted by this Court shall continue for a period of two weeks, from the date of receipt of a copy of this order."

11. That prompted the applicant to file this application seeking the following interim as well as final reliefs:-

"Interim Prayer

(i) Direct that all non BS IV diesel buses that are owned or operated by the Government of Karnataka/State RTCs i.e. Respondents No.2, 3, 5 and 6, or its lessees in public transport, that operate in or pass through any portion of greater Bengaluru at any time, shall convert to CNG or use non engine modifying retrofit devices or catalytic treatments or any other similar devices which reflect 30% or more reduction in smoke emissions, within a time frame fixed by this Hon'ble Tribunal

(ii) Direct the respondents that buses not complying with the directions that may be issued pursuant to prayer clause (i) be removed from service and /or scrapped within a time frame fixed by this Hon'ble Tribunal

(iii) Restrain Respondent No.3 – Bengaluru Metropolitan Transport Corporation from procuring any new diesel powered buses and consequently direct Respondent No.3 to procure CNG Buses, as and when the need to procure new buses arises

(iv) Restrain Respondent No.2 – KSRTC from procuring any new diesel powered buses that will ply or pass through greater Bengaluru and consequently direct Respondent No.2 to procure only CNG Buses for that purpose, as and when the need to procure new buses arises.

Main Relief:

a. Direct the Respondents to ensure that all buses plying in and/or passing through the city of Bengaluru, Karnataka (including buses of State RTCs, i.e. Respondents No.2, 3, 5 and 6 and routes leased by them), be converted to CNG within a time frame fixed by this Hon'ble Tribunal.

b. Direct the Respondents to revise the HSU limit at 40 Hartridge Scale Units for all commercial diesel vehicles plying in the State of Karnataka.

c. Direct the Respondents to take additional further action to reduce air pollution being caused on account of diesel vehicular emissions by implementing new policies above and beyond the provisions and regulations in the Central Motor Vehicle Act state wide

d. Pass any other/further orders in the interest of justice."

12. Subsequently, additional Respondents No.7 to 10 and the 11th Respondent were impleaded as per order dated 12.01.2017 and 27.02.2017 respectively.

13. The 4th Respondent filed a reply affidavit contending that the application is not maintainable and there were no specific averments or allegations made against them and no specific relief sought against them. Pursuant to the directions laid down in **Karnataka Lorry Malikara Okkuta Vs. State of Karnataka** by the Hon'ble High Court of Karnataka, the answering respondent has taken several preventive measures which has considerably and effectively reduced the air pollution. They were monitoring the Ambient Air Quality of Bangalore City at 13 locations including two Continuous Ambient Air Quality Monitoring Stations using manual equipments under National Ambient Air Quality

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Monitoring Programme (NAMP) covering industrial area, mixed urban area and sensitive area. They have set up two Continuous Ambient Air Quality Monitoring Stations (CAAQMs) one at city railway station and other at Regional Office Complex at S.G. Hali. Monitoring is being carried out on 24 hours basis for RSPM, So_2, No_2, and Co and the data is sent to the CPCB, New Delhi electronically and also the data is entered in the Board's website. They had also set up Ambient Air Quality Monitoring Stations in mixed zone (Residential, Rural and Other areas) at Bangalore City viz., (i) AMCO Batteries Mysore Road, (ii) Yeshwanthpur Police Station, (iii) Central Silk Board, (iv) DTDC Office, Victoria Road and (v) Kazi Summanahalli, White Field. They have set up Ambient Air Quality Monitoring Stations in sensitive zone at Bangalore City viz., (i) Ambient Air Quality at Victoria Hospital Bangalore and (ii) Indira Gandhi Child Care Centres, NIMHANS. They also setup four Ambient Air Quality Monitoring Stations in the industrial zone of Bangalore city viz., (i) Export Promotional Park, ITPL, (ii) KHB Industrial Area, (iii) Peenya Industrial area (Gymkhana) and (iv) Peenya Industrial area. They issued several directions under Section 31 A of the Air (Prevention and Control of Pollution) Act, 1981 read with 20 (a) of the Karnataka Air (Prevention and Control of Pollution) Rules, 1983 to the BBMP directing to (a) Declare an area not less than 100 meters around all Government hospital in Bangalore and High Court as silence Zone and any other area as deemed necessary for maintaining as silence zone, (b) To declare the traffic junction zone as no honking zone and display signage in consultation with Home Dept., (c) To regulate the developmental activities, installation of air conditioners and blower in commercial establishments, generators etc causing noise pollution and affecting

quality of life and to avoid noise menace and to achieve the objectives of maintaining the ambient air quality standard, (d) To prohibit all sound emitting construction equipments/activities except on going Metro rail works during night time (10 PM to 6 AM). A co-ordination committee was constituted comprising of the Department of Transport, BBMP, BMTC, BDA and Police. Seven Coordination Committee meetings were held between 09.04.2014 to 16.08.2014. Even though, the BBMP has taken certain measures, the same is not adequate in controlling the noise and air pollution which is evident from the noise levels recorded at five different locations by this Respondent. The present noise levels were communicated to the BBMP vide letter dated 07.02.2014 from this Respondent as the noise levels were exceeding the stipulated limits. Increase in RSPM levels is predominately caused by vehicular traffic due to re-suspension of dust accumulated on the road sides, medians, bad maintenance of roads, construction activities without covering the construction area and construction material, un-cleared garbage and setting garbage on fire, frequent road cuttings and non-removal of the excess earth after the repair works, encroachment of footpath by hawkers, conversion of parking area in multi storied buildings and commercial buildings for non- parking commercial use, etc. The Hon'ble Supreme Court of India and the Hon'ble High Court of Karnataka has taken view of the said matter seriously. In fact the Hon'ble High Court of Karnataka during the hearing on 18.08.2014 in the said writ Petition has viewed seriously about the increase in ambient noise and air quality levels. In pursuance to the directions of the High court of Karnataka, this Respondent invoked Section 31(A) of the Air (Prevention and Control of Pollution) Act 1981 and gave a series of directions to

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formulate an action plan to implement the following directions so as to improve the air quality in Bangalore city

(a) To plan comprehensive parking management programme for Bangalore city,

(b) To initiate action for removal of dust/silt accumulated on road side/medium using mechanical means or regular basis,

(c) To initiate action for filing potholes and road cutting to facilitate for smooth flow traffic,

(d) To take action to evacuate non parking activities in area earmarked for parking as per approved building plan,

(e) To coordinate with Police and Transport department to facilitate proper parking of vehicles,

(f) To remove encroachment of footpaths by hawkers in market place,

(g) To avoid open burning of garbage and initiate action to remove the garbage dumped,

(h) To construct more number of multi level vehicle parking,

(i) To take action to transport the silt removed from the storm water drains,

(j) To take action to notify boundaries of residential area, commercial area and silence zone in coordination with the Bangalore Development Authority and Police Department,

(k) To ensure that the construction and demolition of building are carried out by providing an enclosure,

(l) To regulate the stocking of construction material to minimal levels at site and debris to be cleared frequently without accumulation,

(m) To ensure that the BBMP vehicles and the vehicles engaged by the contractors comply with the Noise regulation and Automobile emission regulations, and

(n) to ensure that the solid waste and debris transportation vehicles are covered.

14. Failing to comply with the above direction, will attract penal action as per Section 37of the Air (Prevention and Control of Pollution) Act, 1981. They have issued several directions under Section 31 A of the Air

(Prevention and Control of Pollution) Act, 1981 read with 20(a) of Karnataka Air (Prevention And Control of Pollution) Rules, 1983 to the Dept of Transport and Road Safety directing to formulate an action plan to implement the following directions so as to improve the air quality in Bangalore city viz.,

(a) To restrict registration of new vehicles in Bangalore City till the noise level and air quality standards are met,

(b) To ban the entry of heavy motor vehicles (HMVs) within the outer ring road of Bangalore City. The HMVs shall be terminated at the outer ring road by creating proper facilities for its parking,

(c) To ban the use of two stroke vehicles within BBMP area,

(d) To ban auto rickshaws in central business district of Bangalore city in a phased manner,

(e) To ban use of more than 15 years old HMVs within Bangalore city,

(f) To intensively check the emission levels of the vehicles to ensure conformity with the stipulated automobile emission limits,

(g) To audit the emission checking centers at regular intervals,

(h) To conduct a comprehensive study and plan for regulating the traffic,

(i) To direct BMTC & KSRTC to convert the existing vehicles to green fuel like CNG and draw a road map for implementation,

(j) To direct KSRTC & BMTC to strictly adhere to the traffic rules viz., lane discipline, parking/stopping of vehicles at designated bus bays/stop,

(k) To impose heavy fine of Rs.1000/- (Rupees-one Thousand only) for vehicles exceeding the automobile emission limits and if the offence is compounded initiate action, to suspend the registration certificate/seize the vehicles,

(l) To conduct awareness programme in Bangalore city to educate the public on following traffic regulations and educate them on the prevailing penal actions using print and visual media service and

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(m) To issue necessary notification restricting the sale of fuel in BBMP area for vehicles not having pollution under control certificate."

15. They have issued several directions under Section 31(A) of Air (Prevention and Control of Pollution) Act, 1981 read with 20(a) of Karnataka Air (Prevention and Control of Pollution) Rules, 1983 to the Additional Commissioner of Police, Traffic Division directing to them to formulate an action plan to implement the following direction so as to improve the air quality in Bangalore city:-

(a) To ban the entry of heavy motor vehicles (HMVs) within the outer ring road of Bangalore City,

(b) Not to issue of permissions to conduct/organize functions in the road blocking the traffic, movement of pedestrians, use of loudspeakers and public address system in contravention with the Noise (Regulation and Control) Rules, 2000 and Government of Karnataka Notification No. FEE 46 ENV 2000, dated 13.08.2002,

(c) To conduct a comprehensive study and plan for regulating the traffic,

(d) To direct KSRTC & BMTC to strictly adhere to the traffic rules viz., lane discipline, parking/stopping of vehicles at designated bus bays/stop,

(e) To impose heavy fine of Rs. 1000/- (Rupees one thousand only) for vehicles exceeding the noise limits and vehicles fitter with shrill horns and defective/altered silencers not in conformity with regulations,

(f) To coordinate with BBMP and Transport department to regulate the parking of vehicles in Bangalore,

(g) The encroachment of footpaths by hawkers in market place and also during festival season shall be regulated so as to ensure that the hawkers do not obstruct the moment of pedestrian and traffic,

(h) To deploy adequate traffic police/traffic volunteers at strategic locations where there are frequent traffic jams to regulate the smooth flow of vehicles,

(i) To introduce dedicated bus lanes in major road in Central business District of Bangalore city,

(j) To adopt intelligent transportation system by use of automated traffic control system, and

(k) To conduct awareness programme in Bangalore city to educate the public on following traffic regulations and educate them on the prevailing penal actions using print and visual media services.

16. It is further contended that failing to comply with the above directions will attract penal action as per Section 37 of Air (Prevention and Control of Pollution) Act, 1981. After issuing the above said directions to the concerned departments, the Dept. of Forest, Environment and Ecology submitted a short term and long term action plan before the Hon'ble High Court of Karnataka in W.P No. 39432 of 2013, evidenced by Annexure – A produced along with the counter and on the basis of the short term and long term action plan, the Hon'ble High Court disposed of the Writ Petition, directing the State Government and concerned departments including Transport Department, KSRTC and BMTC to implement the written suggestions given by the Pollution Control Board as far as practicable. The co-ordination committee consisting of KSPCB, Dept. of Transport and Road Safety, BWSSE, CPCB, BMTC, BDA and KSRTC were conducting meeting on regular basis wherein representatives of various Departments were submitting their plan of actions to reduce the air pollution and report on effective implementation of the same, and one of the meetings of the Co-ordination Committee was produced as Annexure – B. Further, the Board has procured 12 mobile vans having facility to

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check and to conduct joint monitoring Programme to create public awareness. The Additional Chief Secretary of Forest, Environment and Ecology had conducted regular review meetings to ensure the implementation of measures taken to reduce the air and noise pollution and to create public awareness among people. Further, the Board had issued directions to convert the existing vehicles to green fuel like CNG and draw a road map for implementation. The directions issued by the Board in conformity with the directions issued by the Hon'ble Court of Karnataka. So, they prayed for accepting their contentions and passing appropriate directions.

17. Respondents No.2 & 3 have filed a common counter statement denying the allegations made by the applicant in the application, regarding the inaction on the part of these respondents in implementing the direction issued by the Hon'ble High Court of Karnataka in respect of reducing the vehicular pollution caused which has some impact on air pollution in the city. They further contended that most of the directions relied by the applicant issued by the Hon'ble Supreme Court in *M.C. Mehta's* case was relating to situation in Delhi and certain directions were issued depending upon the circumstances and situations brought to the notice of the Hon'ble Apex Court. Several steps have been taken by the State of Karnataka in compliance with the direction issued by the Central Pollution Control Board and also direction issued by the Hon'ble High Court of Karnataka and the pollution has been brought down considerably on account of such implementations. The Motor Vehicles Act was amended in the year 2016 and on the basis of the provisions of the Motor Vehicles Act, certain stringent conditions have been imposed

and there was a direction to phase out the BS- I, II and III diesel vehicles and change over to BS-IV and BS-VI vehicles and certain timelines were given for implementation of the same. The Hon'ble Supreme Court also observed in one of the cases that emission standard of CNG vehicle will be on par with Euro -IV stage make vehicles. The CNG alone is not a solution and there are other type of vehicles available which are more environment friendly. The Hon'ble High Court on the basis of the short-term and long-term measures provided by the State of Karnataka, disposed of the matter, directing them to implement the same and also directed to implement the directions issued by the Pollution Control Board as far as practicable. In view of the final disposal of the writ petition by the Hon'ble High Court of Karnataka relied on by the applicant, lot of further directions were issued than the directions issued by the Hon'ble High Court in the same case which was produced by the applicant and in view of the further directions issued and implementation of the same by Respondents No.2 & 3, most of the grievances raised by the applicant have been redressed. Lot of public vehicles like Auto rickshaws have been converted to CNG and they are trying to BS-VI stage norms which have to be implemented from 01.04.2020 which are better than the CNG vehicles. The possibility of creating pollution on account of use of CNG vehicles and the consequential health hazards cannot be ruled out. They have taken sincere steps to convert BS - I, II and III vehicles to BS-IV and slowly, the old vehicles will be converted to BS-VI, as mandated under the present Motor Vehicles Act. Suddenly changing the old vehicles of BS - I to III will involve in large scale conversion of the engines resulting in huge expenditure which will not be economical and feasible as well. Air pollution is not only due to vehicular pollution but

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there are other sources and the cumulative steps will have to be taken for the purpose of meeting the situation and mitigate the danger caused on account of air pollution. They are also anticipating construction of large number of bridges and also signal free roads so as to avoid air pollution which have played a major role in reducing air pollution. Large scale awareness programmes have been conducted to the drivers of the vehicles and also public awareness programmes so as to remind the public of their responsibility to make their contribution to reduce pollution. They have provided smoke testing machines so as to ensure the standard of smoke emission to be regulated and lot of improvements have been made in the workshops so as to maintain the standard of the vehicle to reduce smoke emission which is one of the reasons for pollution. On the basis of the directions issued by the Hon'ble High Court of Karnataka in W.P. No.39432/2013, steps have been taken to provide arterial roads and remove encroachments and regulated parking so as to avoid dust and air pollution. They also made arrangement with the Gas Authority of India Limited (GAIL) and discussed about the possibility of promoting CNG vehicles and also difficulty in procuring the CNG vehicles in an Indian market. Draw backs indicated by Bombay Electrical Supply and Transport Company on account of user CNG vehicles were extracted as follows:-

> "a. Many of the spares required for maintenance of fuel system and ignition system are not indigenously manufactured and are not easily available in local market. We have to depend on OEMs for their supply that too at exorbitant cost.
>
> b. Many of the electronic gadgets units are not repairable and at times, there are required to be replaced with new ones at very high cost.

c. Since the CNG vehicles particularly, CNG bus population in country is much less, the vendors are reluctant to come forward for development and supply of the spares required for CNG vehicles.

d. The frequency of clutch, gear and engine failures are more as the operating temperature of CNG engine is higher. The breakdowns in engine, transmissions and electrical system is case of CNG buses are higher.

e. Now the CNG bus fleet is 2862 and the maintenance of difficulties are encountered during the recent past. Considering the frequency of repairs and high cost of labour, the CNG bus maintenance may not be cost effective for larger fleet in the longer run.

f. The filling time required for CNG bus is three to four times more than the diesel bus for which manpower requirement is more.

g. The limited onboard CNG storage capacity restricts the vehicle utilization and needs mid day fueling resulted into dead kms.

h. The drivers comfort is reduced due to higher operating temperature of CNG engine as compared to diesel.

In general, handling CNG as a fuel is difficult.

i. M/s. MGL is the sole agency to supply the CNG having its monopoly. In exigencies of disruption of CNG supply for any reason, the undertakings services will be badly paralysed."

18. The number of accidents caused on account of use of CNG as fuel is also increasing and they have produced Annexure – D, letter to substantiate these aspects. The Council of Scientific and Industrial Research had conducted a study and formulated their finding in the report dated 06.08.2015 evidenced by Annexure – E and the research was conducted by it on the CNG operated buses which revealed that the CNG is not as clean as green or clean fuel as claimed by the applicant. It was also observed in the report that the CNG fuel is dangerous to human life. According to the study, they came to the conclusion that nano carbon particles coming out from natural gas combustion which mix with the atmosphere causing

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severe air pollution resulting in lung related diseases and also causing cancer. They also given the details regarding the emission norms of BS- I to VI vehicles as follows:-

Norms	No_x	Co	HC	PM
Bharat Stage I	8.0	4.5	1.1	0.36
Bharat Stage II	7.0	4.0	1.1	0.15
Bharat Stage III	5.0	2.1	0.66	0.10
Bharat Stage IV	3.5	1.5	0.46	0.02
Bharat Stage V	2.0	1.5	0.46	0.02
Bharat Stage VI	0.40	1.5	0.13	0.01

19. They have also given the details of the vehicles owned by the BMTC and according to them, they are having 6,197 vehicles as follows:-

a) BS – I Stage – No. of buses – 11

b) BS – II Stage – No. of buses – 781

c) BS – III Stage – No. of buses – 3757

d) BS – IV Stage – No. of buses - 1648

20. They are slowly replacing the old BS-I to III vehicles with BS-IV vehicles and as per the present Motor Vehicles Act, they will switch over to the BS-VI vehicles. They also relied on the report prepared on the basis of the study conducted in Deli after the introduction of CNG buses which came to the conclusion that there was no significant change happened even thereafter. Under the AMRUT Scheme of the Central Government, they have agreed to provide an aid of 213.5 Crores for purchase of 150 standard size premium segment AC buses of 400 mm floor – height buses and 350 midi non-AC buses having a floor height of 650 mm and having

unit cost of 28.00 Lakhs per bus and on the basis of the same, they have floated tenders and that process is in the progress. They also given the details of the buses purchased utilizing those funds. The KSRTC is using the blend of diesel and bio diesel as a fuel to run the buses and the bio diesel is manufactured out of vegetable oil, animal fat and naturals like Soya bean oil, Jatropa seed oil etc. The Bio diesel is being used in heavy duty vehicles in cities like United States which significantly reduce the emission level compared to the regular buses. The Karnataka State Road Corporation has also entrusted the work of technical evaluation of emissions which results from the buses using bio diesel and such agencies are Centre for Infrastructure, Sustainable Transportation and Urban Planning (CISTUP) of India Institute of Science, Bangalore, JSS Academy of Technical Education, Bangalore and R.V. College of Engineering, Bangalore. There are 65,85,455 vehicles running as per the statistics available and the number of vehicles operated by the BMTC is only 6,197 and the percentage will be less than 0.16% of the total vehicles. So, it cannot be said that they are responsible for pollution on account of use of their vehicles. Lot of development activities have been made by improving the road infrastructure in several areas to avoid air pollution. They are also strictly complying with the directions issued by the Pollution Control Board in maintaining the standards. Sufficient amount of CNG is not available and BS-VI norms and operation of BS-VI vehicles will be better environmental complaint compared to CNG buses. So, they prayed for accepting their contentions and passing appropriate orders.

21. Respondents No.2 & 3 also filed a memo adopting the statement of objections filed by the Respondents No.5 & 6.

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22. The 7th Respondent filed a counter contending that the application is not maintainable and the applicant was relying on the directions given by the Hon'ble Apex Court in M.C. Mehta case and also implementation of the directions by the Delhi Government by introducing CNG vehicles. They further contended that they are the Central Government Undertaking and a Maharatna company under the administrative control of Ministry of Petroleum and Natural Gas, Government of India engaged in procurement, distribution and supply of natural gas including Re-gasified Liquefied Natural Gas (RLNG) and various other petroleum products such as Liquefied Petroleum Gas (LPG) etc. for the usage of the Industrial and domestic consumers. They laid and constructed the Dabhol-Bangalore Gas pipeline project (DBPL) for supplying natural gas to the transport sector, industrial sector and house hold sector consumers in the states of Maharashtra, Karnataka and Goa in the form of natural gas, compressed Natural gas and piped natural gas respectively. The project involved laying of about 1000 Km of gas pipeline, construction of sectionalized valve stations and Gas management centres. Considering the need for development of eco-friendly fuels in the state of Karnataka and also for augmenting the supply of natural gas for achieving increased power production and development of city gas distribution system for ensuring abundant supply of cooking gas for the household consumers and green fuel for the transport sector, the Industrial Development Department of Government of Karnataka, has entered into MOU dated 29.4.2009 with the respondent herein for rendering necessary assistance for the speedy completion of the DBPL project. By Government order dated 19.2.2010, the Government of Karnataka had accorded in principle approval for this gas pipeline project

which covers a total distance of 993 kms with an investment of Rs.4544 crores and gave permission for extending the necessary infrastructure facilities, incentives and concessions to this project. The Government of India had enacted the Petroleum and Natural Gas Regulatory Board Act 2006 (PNGRB Act) under which the Petroleum & Natural Gas Regulatory Board has been established which inter alia grants authorization for City and Local Area Natural Gas Distribution Networks in accordance with the provisions of the said Act and the PNGRB (authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Network) Regulation 2008. They have granted to the GAIL Gas Ltd (GGL), which is wholly owned subsidiary of the 7th Respondent for laying building, operating or expanding CGD network in Bangalore Rural and urban Districts. On the basis of the said authorization, they will be implementing CGD project in Bengaluru Rural and Urban districts including distribution of CNG, evidenced by Annexure - 1 produced along with the counter. So, they wanted to issue direction to the GAIL for implementation of the directions.

23. It is further contended that in compliance with the order of High Court of Gujarat in WPs No.47/2011 and 54/2011, the Ministry of Petroleum & Natural Gas (MoP&NG) had issued guidelines dated 14.11.2013 for allocation of domestic gas to City Gas Distribution (CGD) entities for Compressed Natural Gas (CNG) for transport sector and Piped Natural Gas (PNG) for household/domestic sector. In order to comply with the directions of Hon'ble Supreme Court of India, in M.C. Mehta Vs. Union of India and others in WP No.13029/1985 in 2002, according highest priority to transport sector in allocation of natural gas, MoP&NG had reviewed

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the guidelines dated 14.11.2013 and came up with revised guidelines dated 20.08.2014. As per the revised guidelines, the MoP&NG has authorized the 7th respondent to divert domestic gas from non-priority sector to meet the requirement of CNG (transport) and PNG (domestic) segments as per their actual consumption during the previous half year and on that basis, they have diverted the supply. So, they prayed for passing appropriate orders and also undertaken that they will comply with the directions of this Tribunal.

24. The 11th Respondent filed a counter affidavit more or less raising the same contentions raised by the 7th Respondent and also their commitment to supply clean and green fuel in the form CNG and also detailed their experience in Delhi, Gujarat and Mumbai. They also mentioned about various steps taken by them for implementing the scheme in State of Karnataka especially in Bangalore and also given the comparative table regarding the cost effectiveness of operation on the basis of the report submitted by the CISTUP as follows:-

"Table 5.7 : Operating Cost Comparison between CNG Buses and Clean Diesel Buses

Cost Element	*CNG Buses*	*Clean Diesel Buses*
	Fuel cost for single bus per year	*Fuel cost for single per year*
CNG Fuel cost for 250 Km/day for 350 Operational Days	*Rs.11,25,000*	
Diesel Cost for 250 Km/day for 350 Operational Days		*Rs.12,50,560*
Total	*Rs.11,25,000*	*Rs.12,50,560*

The maintenance cost of CNG buses is lower when compared to diesel buses because the CNG extends engine life primarily because it is a gaseous fuel.

Table 5.8: Cost per Km of Diesel and CNG Buses.

Sl. No.	*Description*	*Regular Diesel Bus*	*CNG Bus*
1.	*Initial Cost of the Bus*	*33 Lakhs*	*38 Lakhs*
2.	*Life of the Bus*	*12 years/10,00,000 Kms*	*12 years + 30% more/13,00,000* Kms*
3.	*Initial Cost per Km*	*Rs.3.3 Per Km*	*Rs.2.92 Per Km*
4.	*Operating Cost per km*	*Rs.14.29 per km*	*Rs.12.85 per km ***
5.	*Maintenance Cost*	*Rs.3 per km*	*Rs.3.60 per km****
	Total Cost per Km	*Rs.20.59 per km*	*Rs.19.37 per km*

** As per a study by SRTD, California, the CNG engines can run for over 250,000 miles while diesel buses can run for over 170,000 miles which is 30 percent more than the diesel bus,*

*** The price of CNG is taken as R$ 45.00 kg (Bangalore Price) and the mileage of CNG bus is taken as 3.5 km/kg. Whereas the price of diesel is taken as Rs. 54.31 per litre (Bangalore Price) and the mileage of diesel is taken as 3.8 km/litre (BMTC buses average mileage).*

**** The maintenance cost of BMTC buses per km come to around Rs 2.20 but I have taken it as Rs. 3,00 per km. But since the maintenance cost of CNG bus is twenty percent more (average) as per PMP ML and BEST, I have taken it as Rs. 3.60 per km."*

25. They have also given a detailed road map for implementation of CNG conversion in Bangalore to Karnataka State Pollution Control Board evidenced by the Annexure - 4 Series. In the meeting held on 04.06.2016 with the Chief Secretary, State of Karnataka, the Finance Department agreed to consider funding for procuring 200 CNG buses for a period of five years in addition to considering waiving off entry tax. The Chief Secretary emphasized that BMTC should expedite the induction of CNG buses as per the NGT's order for switchover to green fuel, while citing Government of Karnataka's commitment to curb rising pollution levels evidenced by Annexure - 6 produced along with the counter. They also furnished details of various interim arrangements made with the KSRTC for this purpose. They also further given the future plan for installation of CNG Stations across Bangalore by end of 2017 as follows:-

Sl. No.	**Area**	**Remarks**
a.	Magadi Road	Online Station
b.	Sanjeevini Nagar	DBS (Daughter Booster

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		System)
c.	Yeshwanthpur	DBS
d.	Bommasandra	Online Station
e.	Peenya	Online Station
f.	Bethalsoor Cross	DBS
g.	Agara Sarjapura Road	Online Station
h.	Mahadevapura	Online Station
i.	Jigani	Mother Station
j.	Dobaspet	Online Station

26. They also expressed their readiness to provide all necessary assistance and also provide necessary vehicles on the Government Sector as well as Private Sector for fulfilling the commitment to fight against pollution. They prayed for passing appropriate orders, considering their contentions.

27. The 10th Respondent also filed a counter contending that the Mass Emission standards for Compressed Natural Gas (CNG) driven vehicles are provided under Rule 115B of Central Motor Vehicles Rules, 1989. The Ministry of Road Transport and Highways has taken proactive steps to curb the problem of vehicular pollution and issued following notifications:

> *"(i) Ministry has issued notification number G.S.R. 643(E) date 19.08.2015 vide which the Mass Emission Standards for Bharat Stage IV shall come into force all over the country in respect of four wheeled vehicle manufacturers on or after the 1st April, 2017 (Copy Attached at Annexure-I), (ii) This Ministry, vide notification number G.S.R. 889 € dated 16.09.2016 has mandated mass emission standard for BS-VI throughout the country with effect from 1st April 2020 (Copy Attached at Annexure-II) and (iii) Enforcement of notifications is done by the State Transport Authorities."*

28. The Ministry also issued the following notifications to introduce bio fuels in vehicles:-

(i) This Ministry has issued G.S.R. 682(E), dated 12.07.2016 regarding mass emissions standards for flex-fuel (E 85) or (E 100) and ethanol (ED 95) vehicles (Copy Attached at Annexure-III)

(ii) This Ministry has issued G.S.R. 412(E), dated 11/04/2016 introducing Biodiesel (Copy Attached at Annexure-IV).

(iii) This Ministry has issued G.S.R. 498(E), dated 16/06/2015 regarding Smoke test and Bio CNG (Copy Attached at Annexure-V).

(iv) To promote use of electric hybrid vehicles in Delhi, Department of Heavy Industry has notified S.O. 830 E dated 25th March, 2015 notifying the scheme for Faster Adoption and Manufacturing of (Hybrid and) Electric Vehicles in India - FAME. Subsequently, Ministry" of Road Transport & Highways has notified two notifications i.e. G.S.R. 364 (E) dated 28th May, 2014 for retro fitment of hybrid electric system kit to in-use vehicles and S.O. 1013 (E) dated 15th April, 2015 which specifies the type approval procedure of electric hybrid vehicles. G.S.R, no. 629(E) dated 24.06.2016 have been notified for Retro fitment of hybrid electric vehicles (Copy Attached at Annexure-VI).

29. It is further contended that the implementation of provisions of Motor Vehicle Act, 1988 and Central Motor Vehicles Rules, 1989 comes under the purview of State Transport Authorities and the concerned Union Territory administration. The applicant had not challenged any of the action of the Ministry of Road Transport and Highways and no relief has been sought against them. So, they prayed for passing appropriate orders, considering their contentions.

30. The 9th Respondent filed a counter affidavit contending that in the administrative structure of the Central Government, the primary concern of the Ministry of Environment, Forest and Climate Change is for the

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planning, promotion, co-ordination and overseeing the implementation of our country's environmental and forestry policies and programs. The objectives of the Ministry are well supported by a set of legislative and regulatory measures, aimed at the preservation, conservation and protection of the environment. The policy decisions of the Ministry are being implemented at the State level by the State Environment Departments, State Pollution Control Boards, Pollution Control Committees in respect of Union Territories, State Urban Development Departments, Urban Local Bodies, etc. They have also taken into consideration the alarming health hazards being caused on account of increasing pollution level. They have initiated the National Carbonaceous Aerosols Programme (NCAP), which aims to enhance the understanding of the role of carbonaceous aerosols on climate change, to prepare an inventory of black carbon emissions in the country and to assess its impacts on glacier melting. The science plan for the "Black Carbon Research Initiative-National Carbonaceous Aerosols Programme (NCAP)" was launched in March 2011 under the Indian Network for Climate Change Assessment (INCCA) which was launched on October 14, 2009 by this Ministry. In order to prevent and control air pollution, the major steps taken by Government inter alia includes notification of National Ambient Air Quality Standards, formulation of environmental regulations / statutes; setting up of monitoring network for assessment of ambient air quality; introduction of cleaner / alternate fuels like gaseous fuel (CNG, LPG etc.), ethanol blending; promotion of cleaner production processes; launching of National Air Quality index; universalization of BS-IV by 2017; leapfrogging from BS-IV to BŞ-VI fuel standards by 1st April, 2020; comprehensive amendments to various Waste Management

Rules and notification of Construction and Demolition Waste Management Rules; banning of burning of leaves, biomass, municipal solid waste; promotion of public transport and network of metro, e-rickshaws, promotion of carpooling; Pollution Under Control Certificate, lane discipline, vehicle maintenance, etc. They have also given the statistics of implementation of their policies in Delhi, Kolkata, Mumbai and Chennai and other states and it was extended to entire country from April 2017 for 2, 3 & 4 wheelers. The Ministry of Road Transport & Highways has issued Notification for leapfrogging directly to BS-VI emission standards for all categories of new vehicles (2, 3 & 4-Wheelers) from 01.04.2020. The 2 and 3 wheelers were required to conform to Bharat Stage II norms from 1.4.2005 all over the country and Bharat Stage III norms preferably from 1.4.2008 but not later than 2010. As part of the implementation of BS norms, corrective steps are required to be taken with respect to augmentation of technology of internal combustion engine during manufacturing of vehicles and improvement in fuel quality standards. They also given the number of steps taken by them for establishing Ambient Air Quality Stations under the National Air Quality Monitoring Programme (NAMP) and a standards provided by the CPCB for pollution related parameters. The Ministry had proposed to launch a National Clean Air Programme (NCAP) which inter-alia includes components as augmentation of air quality monitoring network across the country including in rural areas, air quality management plan for 100 non-attainment cities, extensive plantation drive, and national emission inventory. They have identified the source of pollution and giving necessary directions for curbing the pollution. They also given the way forward for to mitigating the situation and scrupulously monitoring the

same, as their main motto is to make India, pollution free. They prayed for passing appropriate orders issuing necessary directions.

31. The applicant filed common rejoinder to the counters filed Respondents No.1 to 3, 5, 6 & 9, more or less reiterating the contentions raised by them in the application and also various policies of Government and the directions issued by the Hon'ble Supreme Court in *M.C. Mehta's* case and also relied on Dr. Buharilal's Committee report on these aspects. They also mentioned about the ill effects of Euro - VI on maintaining the standard. They also reiterated the non-implementation of the directions given by the Hon'ble High Court of Karnataka in this regard. They have projected the inaction on the part of the State of Karnataka and its Transport authorities in not taking steps to implement the directions of the Hon'ble High Court as well as Hon'ble Supreme Court.

32. After admitting the matter, this Tribunal had passed several orders giving directions to the authorities to submit the report in respect of steps taken by them to implement the Clean and Green Fuel policy.

33. As per order dated 24.09.2020, after considering the pleadings and also the stage of implementation of Clean and Green Fuel policy, this Tribunal had directed the BMTC as well as the State of Karnataka to come with a proper action for changing the old vehicles in a phased manner as directed by the Principal Bench of National Green Tribunal in *Vardhaman Kaushik's* case with Clean and Green Fuel technology.

34. Again the matter was taken up on 16.07.2021, and on that date, this Tribunal had considered the order passed on 24.09.2020, extracted in Para

(1) of the order and also considered the reply affidavit dated 14.07.2021, e-filed and received on 15.07.2021 submitted by the 3rd Respondent to the written submissions filed by the applicant dated 27.05.2021 which was extracted in Para (4) of the order which reads as follows:-

"The Third Respondent in the above case begs to file the following reply to the written submissions of the Applicant which were filed on 27-05-2021 :-

1. *The above petition is filed during the year 2016. During the year 2016 BS-III emission norms were prevailing. It is submitted that having regard to emission norms which were prevailing then, the above petition is filed.*
2. *That BS-IV emission norms are implemented by Central Government as per the provisions of Motor Vehicle Act from 01-04-2017. That thereafter from 1st April 2020, BS-VI norms are implemented. The emission standards which are prescribed for diesel buses from BS-I standard to BS-VI standard are as follows :*

Norms	*NOx*	*CO*	*HC*	*PM*
Bharat Stage I	*8.0*	*4.5*	*1.1*	*0.36*
Bharat Stage II	*7.0*	*4.0*	*1.1*	*0.15*
Bharat Stage III	*5.0*	*2.1*	*0.66*	*0.10*
Bharat Stage IV	*3.5*	*1.5*	*0.46*	*0.02*
Bharat Stage V	*2.0*	*1.5*	*0.46*	*0.02*
Bharat Stage VI	*0.40*	*1.5*	*0.13*	*0.01*

3. *That the emission norms for BS-VI CNG and diesel buses are as follows :*

Emission	*UOM*	*BS4*		*BS6*		*% reduction in BS6 diesel emissions from BS4*
		Diesel	*CNG*	*Diesel*	*CNG*	
CO	*(gkWh)*	*1.5*	*1.5*	*1.5*	*1.5*	*No change*
HC	*(gkWh)*	*0.46*		*0.13*		*72% reduction from BS4*
NMHC	*(gkWh)*	*0.55*		*0.16*		
NOX	*(gkWh)*	*3.50*	*3.50*	*0.40*	*0.46*	*89% reduction from BS4*

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CH4	gkWh	1.1	0.50	
PM Mass	gkWh	0.02 0.03	0.01 0.01	5-% reduction from BS4

4. This respondent herewith producing the e-mail communication dated 21-06-2021 sent by the Sales Manager of M/s.Ashok Leyland, who are the manufacturers of bus chasis. A detailed emission norms are furnished by them in comparison to BS-IV and BS-VI vehicles with reference to diesel and CNG. The emission norms prescribed for the diesel vehicles and CNG vehicles for BS-VI make, makes it clear that the diesel vehicles are more environmental friendly than the CNG BS-VI norms vehicles. It is submitted that in view of the emission norms prescribed for BS-VI make diesel buses are better in all respects when compared to BS-VI CNG buses.

5. It is submitted that this Hon'ble Court was pleased to pass an order dated 12-01-2017 permitting this respondent to purchase diesel vehicles of BS-IV make. This Hon'ble Court was pleased to observe referring to judgment of Supreme Court referring to MC Mehta's case as follows :
"Learned Counsel also submitted that even the Hon'ble Supreme Court in M.C.Mehta Vs. Union of India ((2002) 4 SCC 356) though found that the analysis emphasizes the need for change to non liquid fuel like CNG or LPG so as to improve the air quality in this country, it was also fund that the CNG vehicles are 15 times better them Euro II diesel vehicles and only Euro IV diesel vehicles are comparable to CNG vehicles and in such circumstances, permission be granted to purchase the BS IV norm buses. It was also submitted that the diesel buses to be purchased are for plying in the State outside the Bengaluru city and those buses would enter the city of Bengaluru only to drop and take the passengers from the Bus Stand".

6. The submissions made by the learned Counsel appearing for the applicant is also noted in the said order dated 12-01-2017, which is as follows :
"Learned Counsel also argued that the quality of CNG fuel now available in the market has improved compared with the CNG available at the time when the Hon'ble Supreme Court considered the issue in M.C.Mehta Vs Union of India ((2002) 4 SC 356) case and at present the efficiency of CNG fuel and the CNG vehicles cannot be compared to the Euro IV vehicles and they could only be compared to only Ero VI norm buses and in such circumstances, permission may be granted and even if permission is to be granted, necessary restriction be imposed."

7. Under the above circumstances the applicant himself has maintained that the emission of BS-VI vehicles are comparable to CNG buses. The diesel

BS-VI are more environmental friendly in the matter of emission than the CNG buses. The applicant having made a statement which is noted by this Hon'ble Court in order dated 12-01-2017 cannot contend now that only CNG buses should be operated in Bangalore City.

8. *This respondent has submitted replacement plan to replace all the 10 years old vehicles which are of BS-I to BS-III make by BS-VI make vehicles. In the event permission is granted all the 10 years old vehicles will be replaced by BS-VI vehicles which will reduce the pollution to a larger extent.*

9. *With reference to para 2 to 2.2, it is submitted that the observations made by this Hon'ble Court that the grant of permission to purchase diesel buses will not enable this respondent to contend that they need not switch over to CNG buses was the observation made by this Hon'ble Court having regard to the fact that the old buses of BS-I, BS-II and BS-III was sought to be replaced by purchasing BS-IV make buses. After the orders of this Hon'ble Court, from 01-02-2020, BS-VI pollution norms are introduced. The emission standards of BS-VI norm diesel buses is comparable with emission standards for BS-VI CNG buses. Infect the diesel BS-VI buses are better environment friendly than the CNG buses. Therefore the said observation will not entitle the applicant to contend that CNG buses alone should be operated.*

10. *With reference to para 3, it is submitted that the application was filed by the respondents to purchase in all 3,672 BS-IV norm compliance buses by the State Corporation. The statement of the applicant that the respondents have purchased 1,158 more BS-IV buses on the plea that only 1000 buses were allowed for being purchased by this Hon' le Tribunal on 12-01-2017 is not a correct statement. This respondent in compliance with the order of this Hon'ble Tribunal permission was sought for to purchase 2,672 BS-IV norm compliance buses by the State Corporation. Out of which this respondent corporation (BMTC) has purchased 2,158 buses as stated in para 4 of the affidavit. The plea that this respondent has committed contempt of this Hon'ble Court and violated the interim order is not a correct statement made by the applicant.*

11. *With reference to para 4, it is submitted that this respondent has given correct figures that as on date of filing of affidavit 2,813 BS-III make buses were available in BMTC fleet and the scrapping plan adopted by BMTC is to scrap the buses after they run 8.5 lakhs kilometers. The applicant cannot make any grievance about said scrapping plan. BS-IV norm buses are prescribed for registration from 01-04-2017 and BS-IV fuel was introduced from 01-04-2017. The respondents have not purchased any vehicles after 01-04-2010 which are of make of BS-I, BS-II and BS-III.*

12. *With reference to para 4.1, it is submitted that no fresh registration of BS-III buses are made by the transport department of Karnataka after 01-04-*

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2017 and after 01-04-2020 only buses which are of BS-VI make are registered by the transport department which were purchased as permitted by this Hon'ble Tribunal. The question of registration of BS-III buses after the said dates do not arise at all and this respondent is also not purchasing any BS-III buses and therefore the question of registration of buses will not arise at all.

13. *With reference to para 4.2, it is submitted that the buses used for public transportation have been mentioned correctly. The BMTC is not operating any buses by taking on lease. Efforts were made to procure electrical buses on hire basis under FAME-I scheme promogulated by Central Government. But the efforts have not been fruitful for various reasons. The Central Government has promogulated FAME-II scheme, which enables the State Road Transport Corporation to avail incentives to hire electrical buses. The proposal to hire 300 electrical buses is in the process of finalization. 90 electrical buses are sought to be introduced under Smart City Program of the Central Government. Letter of Award dated 05-02-2021 is issued to NTPC Vidyut Vyapar Nigam Limited, New Delhi to procure 90 electrical buses on hire basis. The said NTPC Vidyut Vyapar Nigam Limited, New Delhi has to execute the agreement for providing vehicles. The requirement of executing agreement is pending due to lock-downs imposed in State of Karnataka due to covid-19 (second wave). BMTC is not owning any trucks. That in M.C.Mehta case the directions were issued to reduce the operation of diesel buses having regard to emission norms which were prevailing at the given point of time. Now from 01-04-2020 BS-VI norms are introduced. These norms are fuel neutral and so far as emissions are concerned the BS-VI diesel vehicles are more environmental friendly than CNG buses. Infact the burning of CNG produces heat and it also emits many micro particles which are more dangerous to health.*

14. *With reference to para 4.3, it is submitted that the applicant appears to be more interested to help the producers of Retrofits. Fixing of retrofits in the diesel buses to use CNG is not safe either for vehicle and also for the public. It is submitted that the retrofits which were operated in other parts of the Country have resulted in fire hazards. It also leads to leakage of CNG. The diesel engine cannot be operated by using CNG by fixing the Retrofits. The design of the diesel engine do not permit the safe use of CNG as a fuel in the place of the diesel. Fixing of retrofits to operate diesel buses. More than 94% of the diesel buses are operated by all the State Road Transport Corporations in India.*

15. *With reference to para 4.4, it is submitted that no action appears to have been taken on the report of the committee appointed to suggest the auto fuel policy. The recommendations furnished by the committee were required to be implemented till 2025 on the view that the BS-VI norms*

will be brought into force in the year 2025. The oil companies of Central Government have started supply BS-IV fuel for being used by vehicles 01-04-2017. It is submitted that from 01-04-2020 BS-VI emission norms are introduced and these norms are based on the neutrality of all the fuels i.e. the emission which will be produced by any one of the fuel will be on par with on other fuel. It is submitted that the committee suggested the fixing of devices for catalistic treatment of the gases which are emitted at the exhaust mouth of the vehicle. The committee did not suggest that the retrofits must be fixed to use CNG as fuel in place of diesel. It is submitted that in BS-IV make buses which are operated by the respondent are provided with mechanism of spraying urea at the mouth of the exhaust to convert the gases and to make emission environmental friendly. It is submitted there is nothing like renewal of registration certificate. The registration certificate issued to vehicle continues till the vehicle is scrapped. The respondent are having diesel vehicles which have completed the run of 8.5 lakhs kilo meters. The statement that respondents have continued to renew the registration of vehicles is not correct. The further say of the applicant that these respondents have committed contempt is not correct.

16. *With regard to para 4.5, it is submitted that KSRTC is a establishment which caters to the need of travelling public in various cities of Karnataka and it is not operating for catering need of the passengers travelling within the city. The transportation facilities are provided by BMTC for the passengers travelling within Bangalore City and its neighbouring suburbs. The KSRTC only carries the passengers from its main bus stand of Bengaluru to the areas outside Bengaluru who commence journey from Bengaluru or terminate their journey at Bengaluru. All the highways which are leading to other cities from Bengaluru are located at a distance of nearly 4 to 5 kilo meters from Majestic Bus stand. The pick-up points are enroute for going out of city. The KSRTC has also established satellite bus stand in Bangalore City which are on peripheral areas of the City and buses are also operated from Satellite bus stands. The say of the applicant that KSRTC operates buses through Bengaluru and have dozen bus stands for pick-up points and such pick-up points are scattered throughout Bangalore City is not a correct statement made by applicant. The expert committee report of Dr.Bhbure Lal of 01-02-2017 was during the period when BS-III norms of emissions were in force. The operation of KSRTC buses from bus stands to go out of city is highly negligible length of the journey under taken by the bus. The statement that the KSRTC has one dozen bus stands in Bengaluru City is not correct. It has only 3 satellite bus stands in peripheral area of Bengaluru City. The KSRTC buses are not using any of the bus stops of BMTC for pick-up or dropping passengers.*

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17. *With regard to para 5.1, it is submitted that efforts were made to introduce electrical buses. But for various reasons the efforts have failed. There is no infrastructure available in Bengaluru to introduce CNG buses. CNG buses are not environmental friendly they produce more heat and during the pendency of the above proceedings the emission norms have undergone change. At the time when the petition was filed BS-III emission norms were in force. Thereafter BS-IV norms fuel was made available for being used from 01-04-2017. Normally from BS-IV norms the emission standard could have been improved to BS-V norms. But the emission norms were improved from BS-IV norms to BS-VI norms. Under the circumstances the operation of BS-VI norms diesel buses is permissible in law and they also result in drastically reducing the pollution. That apart, the emissions of diesel and CNG BS-VI norms is fuel neutral. There is no difference whatsoever in the emission norms between the said two fuels. Further in diesel buses are more easy to maintain than CNG buses.*

18. *With regard to para 5.2, it is submitted that directions issued by Karnataka Pollution Control Board (respondent No.4) was the subject matter of consideration by the Hon'ble High Court of Karnataka in W.P.No.39432/2013. The said writ petition is disposed off by Division Bench of Hon'ble High Court of Karnataka by order dated 01-07-2015. Under the circumstances the applicant cannot think of projecting the orders of the Pollution Control Board in the present application.,*

19. *With regard to para 5.3, 5.4, 5.5 and 5.6, it is submitted that during the pendency of above application, the respondents have replaced BS-I, BS-II and BS-III norms buses by BS-IV norm buses in view of the permission which was granted by this Hon'ble Court by order dated 12-01-2017. The remaining old buses will be replaced by BS-VI norm buses as already submitted by this respondent. Tenders were floated for introducing electrical buses but for various reasons and beyond the control of respondents, the respondents were not able to carry forward the tender process. Now as submitted above work order have been issued for providing of 90 electrical buses and a tender is floated for introducing 300 electrical buses on hire basis as stated above. The collection of taxes by way of sale of fuel is the state subject and this respondents have no say in the matter. The taxes so collected are utilized for public benefit. Various works have been undertaken and implemented in the matter of improvement of traffic flow in Bangalore City and other areas. Various number of over bridges and under bridges are constructed in Bangalore City to reduce pollution at the junctions. The pollution is also reduced when the stoppage of vehicles at the junctions of the road are avoided. Infect long flyovers of few kilometers in length are constructed to facilitate the free flow of vehicles to go out of Bangalore City and by virtue of these*

flyovers the emission into the city is also reduced. Under the circumstances the statement of the applicant that steps are not taken to reduce the pollution is incorrect statement. The State Government has also formulated electrical vehicle policy to provide subsidies to purchase electrical vehicles. The assertion that polluted pays principle must be applied to respondent No.1 is only a illusory one.

20. *With regard to para 6, it is submitted that the contentions of the applicant based on Dr.Bhure Lal expert committee and auto fuel policy are not the relevant on which the applicant can maintain the above application as submitted above in view of the enforcement of BS-VI emission norms. It is submitted that an expert committee can be appointed to study the emission of CNG buses and BS-VI norm buses. Such an exercise will result in demonstration that both the fuels are displaying same emissions. The emissions which are tested by the manufacturer of both the fuels is already produced before this Hon'ble Court along with statement of objections. The assertions that BS-VI buses have serious problems in meeting emission norms is not correct. It is submitted the vehicles are now manufactured of BS-VI compliance and the fuels supplied by oil companies is also BS-VI compliance. Under the circumstances the question of having any problem do not arise at all. So far as the directions of Karnataka State Pollution Board are no longer implementable in view of the order of the Hon'ble High Court of Karnataka in W.P.No.39432/2013. The assertion that the Hon'ble Supreme Court has ordered to use CNG and to have retrofits from 2002 is not a correct statement. Those orders related to Delhi only they do not relate to Bangalore City. The applicant cannot make any grievance about the interim application made by respondent to purchase BS-IV norm buses during the year 2017. The defense raised by the respondent is valid in law. The defense raised by respondent is in consonance with the standards of emission prescribed by Motor Vehicles Act and Air (Pollution) Control Act. The entire contention of the applicant with regard to the use of CNG is no longer feasible in view of various difficulties in using CNG and availability of CNG. It is submitted that there are about 80 lakhs vehicles which are in operation in Bangalore City. There are more than 1 lakh commercial vehicles and private buses which operates in Bangalore City. In comparison to the same only 6,512 buses are operated by BMTC. That BMTC is not a polluter of the air. Out of total quantity of emission which emanated by running of 80 lakhs vehicles the share of emission of BMTC is not even 0.09%.*

21. *With reference to para 7, the applicant has stated the proceedings of this Hon'ble Court which are matter of records. The case is pending for the reasons that the case was transferred to Delhi in views of filing of interim application for the reasons that there was no sitting of this Hon' ble*

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Tribunal and the case is retransferred from Delhi to this Hon'ble Court. From March, 2020 in view of covid-19 epidemic these respondents has suffered huge loses. The State Government have made grants to pay salaries to its employees. Apart from that the respondents have also raised loans on their properties to meet the recurring day to day expenses. The statement that the buses should be retrofitted to use CNG is not viable contention. That the BS-IV vehicles which are operated are provided with mechanism of spraying urea at the exhaust point of engine which greatly reduces the gases pollution. The KSRTC is not operating 14336 non BS-IV buses in Bangalore City. The further statement that 9,715 buses are operated in Bangalore City by KSRTC is misleading statement. No trucks are operated by respondents and there are no buses which are operated on lease basis. The respondents will replace all BS-I to BS-III vehicles with BS-VI norms vehicles which is a clean fuel and comparable with CNG the replacement of the BS-I to BS-III norm buses by BS-IV buses have reduced the pollution and this respondent is acting within frame work of law to replace the old vehicles by BS-VI norm vehicles. Infact the applicant himself has stated before this Hon'ble Court that BS-VI norms buses are comparable to CNG buses which is also recorded by this Hon'ble Court in the order dated 12-01-2017. Under the circumstances the various contentions which are advanced by the applicant are all liable to be rejected.

22. *With reference to para 8, it appears that the applicant is set-up only to plead and canvas the pleas of fixing retrofits to operate the diesel engine buses with CNG. Such adaptation is dangerous to the public safety. The burning of CNG will increase the heat of atmosphere apart from emitting may micro pollutants which are hazardous to the health. The applicant is responsible in delay in the replacement of old buses with new buses which are of clean fuel. The submissions that large number of children in Bangalore City are suffering from astma is far from truth. There is no such health condition existing in Bangalore as on today. The applicant is relying upon some reports which are not scientifically correct. The statement that nearly 9 out of 10 children in Bangalore are affected in their lungs is totally a misleading statement. The State Government is collecting taxes on fuel, it is spending larger amount in providing infrastructure like roads and other required infrastructure to reduce the pollution.*
23. *Under the circumstances the above application may please be dismissed."*

35. After considering the submissions made by the parties, this Tribunal had directed the State of Karnataka as well as the BMTC to furnish a concrete action plan which envisaged for the purpose of replacing the old diesel vehicles to new Clean and Green Fuel vehicles with shorter timeline, but they have not come with any concrete policy. Thereafter, this Tribunal had reiterated the responsibility of the State Government to provide clean environment as contemplated under Article 48 A of the Constitution of India and the Right to Life included right to get clean air, as contemplated under Article 21 of the Constitution of India and the State Government cannot shirk their responsibility in implementing these policies. This Tribunal had also directed the State of Karnataka, Transport Department, BMTC, CPCB and SPCB to come with the further report regarding action taken by them to implement the Central Government Policy of Clean and Green Fuel policy in the State of Karnataka, especially in Bangalore city in view of the directions given by the Principal Bench of National Green Tribunal, New Delhi dealing with critically polluted cities in Original Application No.681 of 2018 (PB).

36. Thereafter, the matter was taken up on 03.09.2021, and on that date, after considering the order passed on 16.07.2021 which was extracted in Para (1) of the order, this Tribunal had considered the Joint report on action taken to implement the Central Government Policy of Clean and Green Fuel, Bangalore dated 24.08.2021, submitted by the CPCB, extracted in Para (3) of the order which reads as follows:-

> *"Joint Report on Action Taken to Implement the Central Government Policy of Clean and Green Fuel in Bengaluru, Karnataka*
>
> ***1.0 Background***
>
> *In Original Application No. 183 of 2016 (SZ) in the matter of Sh Vinay Shivanand Naik Vs State of Karnataka & Ors. Hon'ble NGT, Southern*

Zone, Chennai issued directions to Bengaluru Metropolitan Transport Corporation (BMTC), State of Karnataka to come up with an action plan to implement the clean and green fuel policy. The Hon'ble Tribunal also referred to the earlier order of Vardhaman Kaushik Case before Hon'ble NGT, Principal Bench, Delhi regarding directions to the Delhi Government to change all the old public transport vehicles to curb the pollution on account of use of old motor vehicle in the area.

2.0 NGT Directions

Hon'ble NGT vide order dated 16.07.2021 mentioned that "11. If the Government of Karnataka as well as the Bengaluru Metropolitan Transport Corporation (BMTC) can furnish a concrete action plan, which they envisaged for the purpose of replacing the old diesel vehicles to new green and clean fuel vehicles with shorter time line, then this Tribunal can accept their action plan and pass appropriate orders giving direction to implement the same within the timeline undertaking by them or to be fixed by this Tribunal. ….

15. The State of Karnataka, Transport Department and also the Bengaluru Metropolitan Transport Corporation (BMTC) are directed to come with an action plan for replacing the old vehicles with new environment friendly vehicles with shorter timeline in the Transport Corporation as well as in the Bangalore City.

16. The Central Pollution Control Board as well as the Karnataka State Pollution Control Board are also directed to come with further reports regarding the action taken by them for implementing the Central Government Policy of clean and green fuel in the State of Karnataka, especially in Bangalore City and also the direction given by the National Green Tribunal, Principal Bench, New Delhi in this regard."

Copy of Hon'ble NGT Order appended as ***Annexure I****.*

3.0 Action Taken

In compliance to the aforesaid order of Hon'ble NGT dated 16.07.2021, CPCB, RD, Bengaluru conducted a meeting through video conference on 10.08.2021 to discuss the status of implementation of the Hon'ble NGT directions with Bengaluru Metropolitan Transport Corporation (BMTC) and Karnataka State Pollution Control Board (KSPCB). BMTC explained the status of compliance of the Hon'ble NGT directions in the aforesaid order dated 16.07.2021. In the meeting, Karnataka SPCB was requested to arrange for the action plan with timelines for implementation of Central Government Policy of Clean and Green Fuel in Bengaluru, Karnataka.

CPCB, RD, Bengaluru had a meeting to discuss the Action Plan with timelines submitted by BMTC on 17.08.2021 at Parisara Bhawan, Karnataka State Pollution Control Board, Head Quarter, Bengaluru.

4.0 Status of Compliance

Bengaluru Metropolitan Transport Corporation (BMTC) vide letter no. BMTC/CO/ME/404/2020-21 dated 16.08.2021. It has been mentioned in

the report that out of total 6512 buses, 3797 buses are of BSIV make. Whereas, remaining 2715 BS III buses will be replaced with Electrical and BSVI buses by 2024. The timelines for replacing 2715 BSIII buses as given by BMTC are provided below;

S.No	Number of Old Vehicles to be replaced with Electric and BS VI buses	Time line	Remarks
1.	1033 BSIII buses	31.03.2022	All the BS III buses will be replaced by Electric and BS VI make buses only if funds are provided by Government of Karnataka for purchase of new buses and vehicles ply & assured kilometers are achieved.
2.	550 BSIII buses	31.03.2023	
3.	650 BSIII buses	31.03.2024	
4.	482 BSIII buses	31.03.2024	

It was also mentioned that, out of 3797 BS IV buses, 2158 BS IV buses were newly purchased from 2017 onwards. Further, remaining 1639 old BS IV vehicles will be scrapped in phased manner as per the scrapping policy of Government of Karnataka until the draft of the Motor Vehicles (Registration and Functions of Vehicle Scrapping Facility) Rules, 2021 are notified.

BMTC has also mentioned about the emission checking procedures for the vehicles followed to keep a check on the emission levels below the permissible limit. Copy of the report provided by BMTC is appended as ***Annexure II****.*

5.0 Concluding Remarks

The timelines for replacing the BS III vehicles to BS VI vehicles and scrappage of old vehicles provided by BMTC may be considered by the Hon'ble Tribunal. The emission standards for Bharat Stage VI (BS VI) for the vehicles manufactured on or after 1st April 2020 notified by the Ministry of Road Transport and Highways vide G.S.R. 889(E) dated 16th September, 2016 will be in place in Bengaluru, Karnataka with the induction of BS VI vehicles as agreed by BMTC."

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37. This Tribunal had also considered the rejoinder to the reply submitted by the applicant dated 19.08.2021, extracted in Para (4) of the order which reads as follows:-

> ***"Rejoinder to the Reply Dated 15.07.2021 filed by the Respondent No.3, adopted by respondents No.2, 5 & 6 to the written submission of the applicant dated 27.05.2021.***
>
> *The applicant most respectfully states as follows:*
>
> *1) At the outset, it is submitted that the contents of the reply dated 15.07.2021 (Respondent No.3's reply) to the written submissions dated 27.05.2021 filed by the applicant ("Written submissions") are much the same as the Statement of Objections dated 05.01.2021 filed by the respondent no.3. Respondent Nos. 2, 5 and 6 have adopted respondent No.3's reply.*
>
> *2) It is submitted that the respondents at Paragraph No.2, 3, 4, 6, 7, 8, 9, 13, 17 and 20 of the Respondent No.3's reply have baselessly contended that the arrival of BS-VI negates all previous orders and directions, inter alia, issued by this Hon'ble Tribunal and the KSPCB.*
>
> *3.) It is pertinent to note that the orders passed by KSPCB remains in effect and the Respondents are in contempt for not complying with the statutory orders/ directions.*
>
> *4.) It is submitted that neither Dr. Bhure Lal's EPCA report nor the Auto Fuel Policy Expert Committee Report is lessened or negated by the introduction of BS-VI.*
>
> *5.) At Paragraph 4 of Respondent No.3's reply, it is stated that the emission norms prescribed for BS-VI make diesel buses better in all respects when compared to BS-VI CNG buses, however, the Government impaneled expert committees along with notable domestic and international NGOs have disagreed to this inter alia on the ground that the norms prescribed for BS-VI are not maintained once in service.*
>
> *6.) Additionally, a long-recognized Indian NGO in the air pollution field issued a report this year named "Policy Brief 2020-21 BS-VI leapfrog what more to do" explaining the serious issues with BS VI diesels maintaining certified emissions levels. Relevant portions of the report are as follows:*
>
> *"Following the Volkswagen emissions fraud that shocked the world in 2015 and also sent ripples in India that led to the National Green Tribunal seeking penal action on the company. More assessment globally has shown how well known brands of diesel vehicles of reputed companies were found to be emitting several times higher NOx in the real world compared to the emissions measured and reported during certification. An assessment of emissions test results by the International Council on Clean Transportation*

(ICCT) in Europe found that real-world emissions from as much as 90 per cent of Euro VI vehicles exceeded standards by up to 12 times.

India's leapfrog to BS-VI emissions standards and its nationwide introduction on schedule despite the pandemic disruption is commendable. But global experience has also shown that only introduction of these new standards will not be adequate. They will have to be implemented with stronger regulatory testing of real-world driving emissions to maximize emissions and health gains. If not addressed, this can create serious risks of uncontrolled emissions. India therefore needs to adopt the entire regulatory framework, including advanced testing procedures for monitoring real world emissions, WLTC and WLTP for type-approval of vehicles, in-service conformity and compliance strategies, emission disclosure and independent market surveillance among others. This will encourage industry to optimize the integration of overall engine technology approaches and emissions control systems for best results and improved on-road performance.

This trend is likely to continue to fan new wave of dieselization in India. This has implications for public health. The ICCT study has shown that exhaust from only on-road diesel vehicles is responsible for nearly half of the premature deaths worldwide. And two thirds of this is in India, France, Germany and Italy. Among the 100 major urban centers assessed for deaths related to the transport sector, Delhi ranks sixth. India needs to tame dieselization and ensure very stringent monitoring of real-world emissions and in service compliance."

A copy of this report is produced herewith as "Document No.1".

3.) The Respondents reiterate the same arguments that have been discredited for the last five years. Incorrect claims of better BS VI diesel emissions than CNG, alleged expert references to justify same by ignoring prescribed versus actual emissions levels, incorrect dissertations of BS-III norms in effect for Respondent 2 (KSRTC) and 3 (BMTC) in 2016. Per the Auto Fuel policy, BS-IV took effect in April 2010 for all vehicles registered in Bengaluru which are all the buses of Respondent No. 2 KSRTC and Respondent 3 BMTC, the claim that CNG being dangerous, unavailable and absent of infrastructure is false and contrary to the material on record.

4.) The Auto Fuel Policy Report of the Expert Committee, Government of India, dated May 2014 (petroleum.nic.in/docs/autopol.pdf) considered representation and input from all relevant departments, manufacturers, academia and NGO's. The AFP Report and the reports of Dr. Bhure Lal's EPCA were relied on by the Petitioner on technical issues. The Application Prayer specifically asks for non-engine-modifying retrofits to eliminate two potential retrofit problems; a) No confusion that diesel buses should NOT be retrofitted to CNG. It is submitted that the Diesel engines are compression ignited with no spark plugs, while CNG is a spark ignited engine requiring spark plugs. It is

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impossible to retrofit buses from diesel to CNG without engine modifications - thus, non-engine-modifying retrofits to eliminate any CNG retrofit confusion were incorporated into the Prayer; b) No new Type Approval is required on a non engine-modifying retrofit eliminating inordinate delay in implementation. Further, the Respondents have excluded trucks and leased route buses by stating "we have no trucks" and there are "no leased buses". Leased routes are private buses operating on public RTC routes per the terms of a fee based lease license from the State. There are thousands of buses in this category and many government owned diesel trucks within the State's many agencies that all fall under Respondent 1's responsibility.

5.) In Paragraph 14 of the Respondent No.3's reply, it is stated that that the applicant appears to be more interested to help the producers of CNG Retrofits. This is specifically denied by the Applicant. It is submitted that the Applicant does not have any interest whatsoever with regard to the producers of Retrofits and the Application Prayer does not advocate CNG retrofits in any way.

6.) In Paragraph 15 the Respondents state "the committee did not suggest that the retrofits must be fixed to use CNG as fuel in place of diesel". The Applicant agrees and must point out that the preferred action would be orders for the Respondents to scrap their roughly 14,500 non-BS-IV buses (Reference: RTI numbers) and immediately replace then all with CNG, LPG and | or electric buses in a few months and not use retrofits at all. Since that "scrapping action" is not feasible on several levels, and would cause political and economic disruption, the Applicant adopted for its Prayer the recommended and proven "Retrofit, Refuel and Replace" formula used worldwide for reducing air pollution from diesel vehicles during a bridge or transition to new standards and emissions norms. By using non-engine-modifying retrofits as a bridge from diesel vehicles to new non-liquid, clean fuel vehicles, the public is not punished with disruption of service from scrapping orders and air pollution is meaningfully reduced during the long replacement cycle. A relevant portion of the Auto Fuel Policy Report of the Expert Committee on page xvii states as follows:

"Once an area is switched over entirely to BS IV fuel, the existing stock of commercial vehicles, especially heavy duty diesel units, should be directed to compulsorily get after-treatment devices... retro-fitted within two years, failing which their licence should not be renewed. The point has repeatedly been made in the course of the deliberations of the Committee that the vexed issue of pollutant stress on air quality and health cannot be addressed solely through improving fuel quality and emission norms."

7.) It is submitted that the most urban bus fleets worldwide use CNG, LPG and electric buses due to concern over diesel emissions, including Euro 6 diesels. CNG has a long history of safety and maintaining their in-use emissions levels over time The Environmental Pollution Control Authority

(EPCA) is a Central Government constituted expert committee, chaired by Dr. Bhure Lal, formed in compliance with the Hon'ble Supreme Court's order dated January 07, 1998 in WP 13029/1985. The Ministry of Environment, Forests and Climate Change in 2016 re-constituted the EPCA, once again chaired by Dr. Bhure Lal, in compliance with the Hon'ble Supreme Court's order dated April 30, 2016. The reformation of this committee in 2016 and its findings in 2017 are current and not subject to the false and unfounded accusations of the Respondent that the Petition's data are outdated and irrelevant. The relevant portions of the Dr. Bhure Lal Committee Report dated February 01, 2017 are extracted hereinbelow. Copy of the report dated February 01, 2017 available at http://www.epca.org.in/EPCA Reports 1999 1917/Reportno.65.pdf):

"4. Health impact of air pollution: Delhi is paying a very high price for its polluted air. Several global and national studies have already proven severe health risks from air pollution; a number of studies are also available in Delhi to provide local evidence.

"... This is not just Delhi's problem. As per the Global Burden of Disease (GBD) report released in 2013, air pollution is the fifth largest killer in India. The World Health Organization (WHO) has classified air pollution, including diesel emissions, as a Class 1 carcinogen, which is based on detailed and comprehensive evidence from global studies. Automobile companies contest this data, saying that this study, which confirms diesel particulates as carcinogen is based on older vehicle and emission technology. However, this is not the case as the study establishes the carcinogenicity of diesel based on detailed global technologies and evidence. Also, as global evidence shows, modern diesel vehicles, Euro 6 have serious problems in meeting emission norms on roads"."

"c. Adopting a regional approach for common air-shed: Over time, science has made it clear that local pollution cannot be solved without addressing the larger regional pollution."

A study by the Health Effects Institute, published recently in Environmental Health Perspectives, has found that particles from coal and diesel are more harmful than windblown dust, as they can lead to an increase in ischemic heart disease-related deaths. This suggests that we must prioritise the more harmful particulates for action". "The study has observed that vehicles are the most consistent and dominant source of pollution... To get the average levels down, therefore, the focus must remain on consistent sources such as vehicles".

"Transition to CNG... Dis-incentivize diesel because of toxicity and higher emissions... Make PUC stringent for in-use vehicles".

"Augmenting public transport, last-mile connectivity and car restraint... improvement in bus numbers and service".

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8.) From the foregoing submissions, it is apparent that the claims and objections of the Respondents are baseless. The Respondents refuse to use CNG buses, yet the Karnataka Transport Ministry and KSPCB urges the public to convert their vehicles to CNG to reduce air pollution. That is precisely why the Hon'ble Supreme Court has held that "to begin with Government vehicles and public undertaking vehicles including public transport vehicles". It is submitted that it is the duty of the State to lead by example. The Auto Fuel Policy and The Motor Vehicle Act establish the place of registration as the basis for emissions norms enforcement, i.e. both KSRTC and BMTC registers their buses in Bengaluru, therefore they both fall under the major metro standards that took effect in April 2010.

9.) Although all the buses of Respondent No.2 are registered in Bengaluru, Respondent 2 (KSRTC) claims exemption from BS IV requirement. Respondent No.2' largest terminal is in central Bengaluru and there are a dozen more terminals / stands / pick up points within the Bengaluru. It is humbly submitted that since KSRTC buses are registered in Bengaluru, and therefore fall under major metro standards per the Motor Vehicle Act, they cannot be exempted from the major metro standards.

10.) In Paragraph 18 of the Respondents reply, the Respondents claim res judicata regarding this Application based upon orders of the Hon'ble High Court of Karnataka in the Suo Moto WP No. 39432 / 2013. They state, "It is submitted that directions issued by Karnataka Pollution Control Board (respondent No.4) was the subject matter of consideration by the Hon'ble High Court of Karnataka in W.P.No.39432/2013. The said writ petition is disposed off by Division Bench of Hon'ble High Court of Karnataka by order dated 01-07- 2015. Under the circumstances the applicant cannot think of projecting the orders of the Pollution Control Board in the present application." In Paragraph 10 of their Objections of January 2017, the Respondents refer to that High Court Order; "and after hearing the parties, the said writ petition was disposed of by issuing directions to comply with the directions of the Pollution Control Board..." In Paragraph 44 of the same Objections; "The directions issued by the Hon'ble High Court of Karnataka are to be carried out by the State Government and its agencies". The Respondents, be it the road transport corporations or the State Government or any of its agencies or instrumentalities, must comply with Respondent No. 4's (KSPCB) statutory directives. In KSPCB's Reply to this Application, the above referenced directions were provided. They contain: Page 5 and 18; "To direct BMTC & KSRTC to convert to green fuel like CNG and draw a road map for implementation." Page 11; "The Managing Directors of BMTC and KSRTC were requested vide this office Letter No. CT/ENF 3/PR-582/13-14 dt.2-9-2014 to use CNG fuel after the regular supply of the same to the Bangalore City." (Emphasis Supplied). It is humbly submitted that the availability of CNG has been a non-issue since a

dedicated gas pipeline has been built from Dabhol to Bengaluru and this is confirmed in great detail in the Counter Affidavit dated April 11, 2017 of Respondent No. 11, GAIL Gas Limited. In fact, pursuant to the same suo moto public interest litigation initiated by the High Court of Karnataka, BMTC submitted to the Hon'ble High Court that "phased conversion of diesel-powered public transport vehicles to CNG vehicles is taken up seriously" ... "and it shall consider all the aspects of the matter of replacement of the entire fleet of buses in a phased manner and shall make an action plan with the timelines for the phased conversion". KSPCB has not withdrawn or rescinded its statutory directives; the Hon'ble High Court of Karnataka has not rescinded its order to follow the directions of KSPCB; Six years later, none of the Respondent's promises have been realized nor has there been any compliance with the KSPCB statutory Order.

11.) In Paragraphs 10 & 11 of the Respondents reply, the Respondent No.3 indicate numbers that do not add up. The RTI dated 27.05.2019 response received from BMTC stated that BMTC had 2,535 BS-III buses. However, in paragraph 11, BMTC lists 2,813 BS-III diesel buses. Additionally, in the same paragraph, the Respondents state no BS-I, BS-II or BS-III buses have been purchased since April 2010. The BS-III count grew by 278 buses in 2 years and that does not count any BS-III buses being scraped as they claim.

12.) In Paragraph 5 of Respondents reply, (BMTC) states that this Hon'ble Tribunal vide order dated 12.01.2017 permitted BMTC to purchase diesel vehicles of BS-IV make. This submission materially misrepresents the Order dated 12.01.2017 passed by this Hon'ble Tribunal while making an attempt to justify buying over twice the BS-IV buses contrary to this Hon'ble Tribunal's Order. The Order dated 12.01.2017 only permitted purchase of BS-IV buses to Karnataka State Road Transport Corporation subsidiaries for use outside of Bengaluru. BMTC was allowed to purchase 1,000 buses because of their undocumented claims that grant funds were expiring and would be permanently lost and it was an emergency. It is pertinent to note that no tenders for like equipped CNG buses or any CNG buses whatsoever were presented to show why BS-IV buses should be allowed instead of CNG. The Order specifically stated "It is made clear that the permission granted shall not be taken a ground to contend later that they need not switch over to CNG buses" which is the question to be decided in the main application. Similarly, before purchasing any additional buses, in addition to the BS IV norm buses now permitted, "BMTC shall take the Tribunal into confidence and satisfy why the CNG vehicles are not being chosen." The Respondents fails to offer any reasonable explanation as to why CNG vehicles are not being chosen. BMTC rejected the Gail Gas offer to make up the difference, if any, in pricing between CNG and diesel. Yet, without permission or consultation, BMTC has purchased BS-IV buses and BS-VI buses. The applicant humbly submits that Respondent 3, BMTC, is in

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contempt regarding this Hon'ble Tribunal's Orders and both Respondent 2 and Respondent 3 are in contempt of the KSPCB statutory orders. Thus, this Hon'ble Tribunal may be pleased proceed to pass appropriate directions against the said respondents."

38. This Tribunal had also considered the affidavit submitted by the Additional Commissioner for Transport (E&EG), State of Karnataka dated 25.08.2021, e-filed on 01.09.2021, extracted in Para (5) of the order which reads as follows:-

"AFFIDAVIT

I, J. Purushotham S/o K.N.Junjappa aged 49 years presently working as Additional commissioner for Transport (E & EG), do hereby solemnly affirm and swear on oath as follows:

1). I have been authorized by the State Government to file this affidavit on behalf of the State. I know the facts of this case being the Addl. Commissioner for Transport (Environment & e-governance) for the Transport Department. Hence, I am filing this affidavit on behalf of the State.

2). I submit that the State Government has introduced various policies to promote and for implementation of Green Fuel to reduce the air pollution in Bangalore city and in the entire State by encouraging usage of Electric Vehicles by providing concession phase-wise.

3). Government of Karnataka issued notification dated 31.03.2016 in exercise of powers conferred by Sub-Section (1) of Section 16 of the Karnataka Motor Vehicle Taxation Act, 1957 (Karnataka Act 35 of 1957). In the said notification the Government exempts from payment of taxes on all electric vehicles i.e., Transport and non-Transport Vehicles including e-rickshaws and e-carts etc.., with effect from 01.04.2016 in the entire state of Karnataka. The copy of the said Notification dated 31.03.2016 is produced herewith and marked as Annexure-R1.

4). Government of Karnataka announced Karnataka Electric Vehicle and Energy Storage Policy 2017, by providing special tariff and commercially viable rates for installation of Electric Vehicles Charging Stations by excluding duty/tax on electricity tariff for initial period of 5 years from the date of installation and also by providing incentives and concessions to encourage the usage of electric vehicles in the State. The copy of the said Policy is produced herewith and marked as Annexure R2.

5). Further, in the year 2018-19, the State Transport Department entered into an agreement with Bangalore Electricity Supply Company

Limited (for short 'BESCOM') by executing Memorandum of Understanding ('MOU' for short and released Rs. 4.00 crores for installation of 100 AC charging Units and 26 DC Charging Units within Bangalore Metropolitan City. The copies of the G.Os dated 31.08.2018 and 22.02.2019 issued by the Government in connection with the aforesaid matter are produced herewith and marked as Annexures- R3 & R4 respectively.

6). I submit that the State Government issued Circular dated 14.02.2019, by imposing conditions for the purpose of issuance of permits/renewal of permits only if the transport motor vehicles are within 15 years from the date of registration and further such of those permit holders whose transport motor vehicle is 15 years were permitted to replace such old vehicles with the later model vehicles. But, the said circular has been set aside by the Hon'ble High Court of Karnataka by order dated 20.08.2019 passed in W. P. No. 21991/2019(MV) and connected matters on the ground that the State Government is not empowered to issue such circular by imposing condition and also permitted the State Government to frame appropriate rules by invoking sub-section (2) of Section 72 of the Motor Vehicles Act 1988. The copy of the order dated 20.08.2019 is produced herewith and marked as Annexure-R5.

7). I submit that the State Government has made budget provision of Rupees 100 crores to the Bangalore Metropolitan Transport Corporation ('BMTC' for short) for the year 2021-22, as a subsidy combined with the demand incentive to be provided by Government of India, Department of Heavy Industries, for operation of electric buses, under FAME-II Scheme, with an object to reduce the air pollution in Bangalore Metropolitan City,

8). I submit that the State Government introduced Electric Bike Taxi Scheme-2021 to implement clean and green fuel policy in the Bangalore Metropolitan City with an object of reducing the air pollution in the city and promoting environmental friendly solutions. The copy of the Electric Bike Taxi Scheme-2021 is produced herewith and marked as Annexure-R6.

9). I submit that the Central Government has issued Draft Notification dated 12.03.2021 for amending the Central Motor Vehicle Rules, 1989 ('CMV' Rules for short) by inserting Rule 52-A non-renewal of certificates of registration of Government Vehicles owned by the authorities hereunder mentioned after the lapse of 15 years from the date of registration:

a) Central Government and its Departments

b) State/Union Territory Government and their Departments.

c) Local Government Institutions namely, Municipal Corporations or Municipalities or Panchayaths.

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d) State Transport Undertakings established under RTC Act, 1950 and Companies Act 1913.

e) Public Sector Undertakings.

f) Autonomous Bodies with Central and State Government.

After finalization of the aforesaid Notification, necessary action will be taken to replace the old vehicles by new vehicles to reduce the emission level. The copy of the draft notification is produced herewith and marked as Annexure-R7.

10). I submit that the Central Government has issued the Draft Notification dated 15.03.2021 for introducing the Motor Vehicles (Registration and Functions of Vehicle Scraping Facility) Rules, 2021. After finalization of the Notification necessary action will be taken to implement the same. The said notification is produced herewith and marked as Annexure-R8. In pursuance of the same, the Government has allocated the budget for the year 2021-22 that the "State government will take action to establish and manage Authorized Vehicle Scrapping Facility" in tune with the draft guidelines issued by the Central Government

11). Further it is submitted that in addition to the above schemes implemented by the State Government to reduce the air pollution in Bangalore city and entire Karnataka State. The Bangalore Metropolitan Transport Corporation Respondent No.3 is also filing Affidavit in compliance with the order of the Hon'ble Tribunal dated 16.07.2021 by submitting the action plan for replacing the old vehicles with new environmental friendly vehicles at Bangalore city may kindly be taken into consideration and dispose the application. The copy of the affidavit filed by the BMTC is also produced herewith and marked as Annexure-R9.

I, the deponent do hereby verify and declare that the contents of Paras 1 to 11 are true and correct, Annexures R1 to R9 are true copies of the originals to the best of my knowledge, information and belief."

39. The applicant also filed their written submissions more or less reiterating the allegations made in the application and also the documents produced by him in this regard.

40. Heard the learned Senior Counsel appearing for the applicant and learned counsels appearing for respondents.

41. The learned Senior Counsel appearing for the applicant vehemently argued that in spite of the directions issued by this Tribunal and also by the Hon'ble High Court of Karnataka in the Writ Petition mentioned above and also the direction of the Hon'ble Apex Court in *M.C. Mehta's* case, the State of Karnataka has not implemented the Clean and Green Fuel Policy in the State in its letter and spirit and the pollution level is going up and the vehicular pollution is one of the major sources for pollution in Bangalore city. The learned Senior Counsel had reiterated the suggestions given by them and also the various reports relied on by them and produced by them in support of their case and he wanted this Tribunal to issue appropriate proper directions to make the Bangalore City free from air pollution.

42. On the other hand, the learned counsel appearing for the State of Karnataka and the learned counsel appearing for the BMTC argued that the State of Karnataka and the Transport Corporation are committed to implement the policies of the Central Government and they have taken lot of action to phase out the old diesel vehicles to new generation vehicles i.e. Clean and Green Fuel Vehicles and they also submitted that CNG is not the only method by which the pollution can be curtailed and some of the studies conducted by various scientific organizations shows that BS-VI vehicles are more environment friendly than CNG vehicles and they are taking steps to phase out the old vehicles with new BS-VI vehicles and also electrical vehicles.

43. The learned counsel appearing for the MoEF&CC and CPCB submitted respectively that they are issuing necessary notifications for curtailing the air pollution that is being faced at national level and that is being

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monitored by the CPCB and SPCBs. In tune with the directions issued by the Principal Bench of National Green Tribunal, New Delhi in O.A. No.681 of 2018 (PB) and also by the Hon'ble Apex Court, several policy decisions have been taken by the Central Government and it is being implemented by the respective Machineries under the Central Government including the MoEF&CC and CPCB by issuing necessary notifications and directions as required under the Air (Prevention and Control of Pollution) Act, 1981.

44. The learned counsel appearing for the SPCB submitted that they are closely monitoring the serious issue of pollution and necessary directions have already been issued to the respective departments including the Transport Department to phase out the old vehicles with new Clean and Green Fuel vehicles and also by implementing the various Waste Management Rules, which are also the sources contributing air pollution and in case of violations, necessary actions are also being taken by them by issuing directions under Section 31 A of the Air (Prevention and Control of Pollution) Act, 1981. They will strictly implement the rules and directions issued by the MoEF&CC and CPCB and the directions of the National Green Tribunal as well as the Hon'ble Apex Court and Hon'ble High Court of Karnataka in this regard. They are closely monitoring the implementation of these schemes and necessary action will be taken, if it is not properly implemented.

45. The learned counsel appearing for Respondents No.7 & 11 submitted that they are committed to provide necessary infrastructure for supplying CNG for this purpose, as it is the policy of the Ministry of Petroleum and

Natural Gas and they are prepared to provide all necessary support for this purpose. They have provided necessary infrastructure for supplying CNG in the State of Karnataka and also they are providing necessary CNG Fuel filling stations at appropriate places to make available the fuel without any difficulty and they will be abide by any conditions imposed by this Tribunal.

46. We have considered the submissions made by the counsel for parties, pleadings and also perused the documents available on record.

47. The point that arises for consideration is "on the basis of the substantial question of environment raised in respect of increase in pollution due to vehicular emission, what is the nature of direction that can be given by this Tribunal to the State of Karnataka to implement the same".

POINT:-

48. The grievance of the applicant in this application was that on account of user of old diesel vehicles by the BMTC and other Government Transport vehicles, large scale pollution is being caused and in respect of the same, a Writ Petition was filed before the Hon'ble High Court of Karnataka and directions were issued to the State of Karnataka to introduce CNG vehicles to curb pollution and in spite of that, no action was taken. So, the applicant filed this application seeking certain reliefs for giving directions to implement Clean and Green Fuel Policy.

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49. It was not disputed by the official respondents regarding their responsibility of implementing the Clean and Green Fuel Policy, but the only difference of opinion is regarding the nature of fuel that will have to be used and whether it should be CNG or any other fuel.

50. It is also not in dispute that the Hon'ble Apex Court in **M.C. Mehta Vs. Union of India & Ors.** several decisions in the same case, dealing with air pollution, issued several directions and most of the directions were taken into consideration the serious air pollution issue faced in Union Territory of Delhi and its neighbouring States and several directions were issued by the Hon'ble Apex Court in this regard.

51. It is also not in dispute that taking into consideration the serious nature of the impact of air pollution on human health, the Central Government also launched a Clean and Green Fuel Policy and amended the Central Motor Vehicles Act and Rules by giving direction to phase out the old BS-I to BS-IV vehicles and change over to BS-VI and specifically mentioned that from 01.04.2020, only BS-IV vehicles can be registered and permitted to ply.

52. Further, it is also not in dispute that the MoEF&CC also issued certain notifications and launched certain programmes to implement the policy under the National Clean Air Programme and on that basis, several directions have been issued by the MoEF&CC as well as the CPCB in respect of establishing Continuous Ambient Air Quality Monitoring Stations throughout the country and also directed to evolve an action plan for meeting the situation and on that basis, several steps have been taken and that is being monitored by the CPCB as well.

53. In all the decisions relied on by the applicant, including the decision of the Hon'ble Apex Court in *M.C. Mehta's* case, it was noted that the air pollution was not caused on account of vehicular emission alone, but it is one of the sources of air pollution which will have to be dealt with by the respective State Governments including the State of Karnataka by implementing the Clean and Green Fuel Policy to reduce pollution caused on account of vehicular emission.

54. It is also brought out in several newspaper reports and the study conducted at global level that air pollution is increasing alarmingly and the recent report of the studies so conducted shows that out of the 100 cities identified by the organization which conducted the study has critically polluted areas, 59 such areas are falling in India. So, it cannot be said that India is free from the disaster that is likely to be faced on account of air pollution and it was also mentioned in those reports that large scale mortality is also happening on account of air pollution which goes unattended. It is also noted in those reports that large scale diseases connected to lungs are also increasing, even among children of tender age and also results in carcinogenic diseases as well, as some of the pollutants in the air are carcinogenic in nature.

55. The Principal Bench of National Green Tribunal, New Delhi had taken cognizance of air pollution in a Suo Motu case viz., **O.A. No.681 of 2018 (PB) (In Re news item published in The Times of India, Authored by Sri Vishwa Mohan titled "NCAP with multiple timelines to clean air in 102 cities to be released around August - 15")** and in that case, the Principal Bench of National Green Tribunal had directed a constitution of eight member Task Force Committee to be headed and co-ordinated by

the Secretary of MoEF&CC with nominees not below the rank of Joint Secretaries of Ministries from Housing and Urban Development, Road Transport and Petroleum, Power, Agriculture and Health and Chairman, CPCB with a view to monitor remedial steps to improve the status of air quality in NAC consistent with the action plans already prepared and approved by the Expert Committee and directions of this Tribunal referred to above including the last order dated 28.08.2020 and also to monitor complaints of noise level norms, NTF may also be monitored, enforcement of laid down air quality standards beyond NAC in other identified air pollution areas where the air quality is poor and above.

56. The Principal Bench has given various directions in the case mentioned above which includes the pollution level in Bangalore, as it was one of the identified critically polluted cities and on the basis of the directions issued by the Principal Bench, the CPCB had directed the State Governments, including the State of Karnataka to evolve action plans to curb air pollution and make the respective States pollution free, especially the critically polluted areas in compliance of the directions of the National Green Tribunal, Principal Bench, New Delhi and each State had submitted their action plans regarding the source of pollution and nature of action plan which they evolved for the purpose of curtailing pollution in the respective States which includes air pollution caused on account of vehicular emission as well and on the basis of the directions issued by the CPCB, the State of Karnataka also submitted an action plan which was reviewed by the CPCB and certain modifications have been made and directed to implement the action plan with certain time lines and that is being monitored by them.

57. It is also seen from the various reports submitted by the State of Karnataka and also the BMTC that various steps have been taken by them for implementing the Green and Clean Fuel Policy and they are taking steps to convert the old vehicles to electrical vehicles and steps are being taken for phasing out the old vehicles with electrical vehicles. They have also mentioned that the CNG is not the only method by which pollution can be curtailed and various reports relied on by them showed that the CNG was also causing some ill effects, but we are not going into those aspects, as the policy of the Government and various directions issued by the Hon'ble Apex Court includes replacement of diesel vehicles with Clean and Green Fuel vehicles, which includes CNG and Biogas and Electrical vehicles. It is for the Government to evolve a policy as to how they are going to implement the same and what is the alternate clean fuel policy that they are going to adopt, as it involves financial implications and higher level policy decisions. Further, the Tribunal cannot go into the question as to what is the nature of policy to be evolved and how that will have to be implemented, but the Tribunal can only direct the Government to evolve an effective policy in respect of change over of old vehicles with Clean and Green Fuel policy and the same will have to be implemented at the earliest possible time, as postponement of such implementation will result in great hardship to the people by way of causing health problem due to accelerated possibility of air pollution being increased.

58. The Special Bench while disposing the similar issue which was in respect of State of Tamil Nadu also in **O.A. No.422 of 2013 (L.G. Sahadevan Vs. Union of India & Ors.)** after relying on the various directions issued by

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the Principal Bench of National Green Tribunal in O.A. No.681 of 2018 referred to above, directed the State Government to evolve and update the policy and other associated activities to remedy the air quality degradation may also include policy with regard to use of Clean Fuel, regulatory measures in the light of source apportionment and carrying capacity and controlling the dust. There is also a need for effective monitoring at the District Level and State Level by the Steering Committee as well as the Air Quality Monitoring Committee on regular basis subject to overall progress being monitored at National Level under the National Clear Air Programme.

59. The Principal Bench in that case had reproduced certain aspects in Para (4) of the order which reads as follows:-

> *"4. We find no justification for such neglect of an important issue of air pollution in Chennai which required emergency measures in the interest of public health of the citizens. New Government has been in office for more than six months. Different steps on the subject taken by Central and many State Governments and orders of the Hon'ble Supreme Court are in public domain.*
>
> *5. This Tribunal has dealt with the issue of air pollution in the context of adequacy of clean air programme of the Central Government for 124 cities[3] 'non-attainment cities', where air quality exceeds standards, based on the data compiled by the CPCB. The Tribunal directed constitution of Air Quality Monitoring Committees (AQMCs) in all the States, including the State of Tamil Nadu, to prepare action plans to remedy the situation. The AQMC for Tamilnadu can be consulted for action plan for Chennai city and its agglomeration area. For ready reference, final directions in the said order are reproduced below:*
>
> *"60. xxx .....xxx.....xxx*
>
> *i.* ***We direct constitution of an eight-member National Task Force (NTF) to be headed and coordinated by the Secretary MoEF&CC with nominees (not below the rank of Joint Secretaries) of Ministries from Housing and Urban Development, Road Transport, Petroleum, Power, Agriculture, Health and Chairman, CPCB with a view to monitor remedial steps to improve the status of air quality in NACs consistent with the action plans already prepared and approved by the Expert Committee and directions of this Tribunal, referred to above, including the last order dated 21.08.2020 and also to monitor compliance of noise control norms. NTF may also monitor enforcement of laid down air quality standards beyond NACs in***

[3] *Order dated 08.04.2021 in OA No. 681/2018, In re: News item published in "The Times of India" Authored by ShriVishwa Mohan Titled "NCAP with multiple timelines to clean air in102 cities to be released around August 15*

other identified air polluted areas *where air quality is poor and above.*

ii. ***The NTF may hold its first meeting within one month and thereafter evolve mechanism for monitoring by quarterly meetings with Chief Secretaries of concerned States/UTs. The NTF may coordinate and work in tandem with the Committees already constituted under NCAP at National and State levels.***

iii. *Monitoring by NTF may be with reference to the action plans of 124 NACs. The components include installation of monitoring stations, completion of CC and SA studies, shifting, prohibiting and regulating activities beyond carrying capacity (such as shifting to cleaner fuel and declaring regulated/no vehicle zones so as to ensure that the air quality does not go beyond „poor" for protection of health of the citizens), effectiveness of PGRPs, timelines for execution of the action plans and recovery of compensation for delay, addressing gap in control of noise pollution, afforestation drives utilizing CAMPA funds, effective implementation of ERS, revamping of PCBs/PCCs and other monitoring mechanism, remediation of legacy waste sites and effectives steps for management of other waste, including biomedical, plastic and e-waste, dust control, public awareness and community involvement programmes and setting up of data grids on all levels. NTF may also evolve and oversee parameters for interse ranking of success of remedial action for 124 NACs and other air polluted areas where air quality is poor and above. Further, accountability for failures and incentives for success also needs to be monitored. NTF is free to take up any other incidental issues.*

iv. *Consistent with Digital India initiatives, MoEF&CC/ CPCB may consider setting up and periodically updating National Environment Data Grid (NEDG) linked to the State Environment Data Grids (SEDGs) and District Environment Data Grids (DEDGs) and further linked to available portals like online air quality, Sameer and other monitoring stations to facilitate analysis, research and planning on the subject. It may be further interlinked to National Air Quality Monitoring Programme (NAMP). Based on above data, the MoEF&CC may lay down guidelines for classifying cities/districts in terms of air quality in different categories such as „red", „orange" and „green". On that basis, a National Air Quality Atlas may be compiled and published on the websites of MoEF&CC, CPCB and State PCBs/PCCs annually.*

v. ***The Chief Secretaries of all States/UTs may continue to monitor progress in execution of action plans at State level with the assistance of monitoring cells in their offices and the AQMCs. The State level monitoring must include action at the ground as per directions to be implemented by the District Magistrates or other concerned departments. The monitoring may include all associated issues, including road dust control by appropriate sprinkling of water (utilizing treated water, instead of potable water), planting herbs and shrubs, and all sources of pollution, including fire crackers. The issue of noise pollution also needs to be addressed, as earlier directed."***

6. We may also refer to order of the Hon'ble Supreme Court dated 29.10.2018 in W.P.(C) No. 13029/1985, M.C. Mehta v. Union of India & Ors. which is as follows:

"Report No.92

Learned amicus curiae has placed before us some submissions on urgent actions to control air pollution in NCR.

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We have gone through the suggestions that have been given and are of the opinion that the three suggestions are eminently reasonable and must be implemented with immediate effect.

These suggestions, which are now the directions of this Court, are as follows:

1. *The Transport Departments of NCR will immediately announce that all the diesel vehicles more than 10 years" old and petrol vehicles more than 15 years" old shall not ply in NCR in terms of the order of the National Green Tribunal dated 07.04.2015. The order of the National Green Tribunal was challenged in this Court and the Civil Appeal was dismissed. Vehicles violating the order will be impounded. The list of such vehicles should be published on the websites of the Central Pollution Control Board (CPCB) and the Transport Departments of NCR. Similarly, a meaningful advertisement should be published in a local newspaper for the convenience of the owners of the vehicles.*

2. *CPCB will immediately create a social media account on which the citizens may lodge their complaint directly to be acted upon by the Task Force responsible for implementation of Graded Response Action Plan.*

3. *EPCA is permitted to take pre-emptive steps under the Graded Response Action Plan without strict adherence to pollution stages delineated in the plan*

The last direction is being issued in view of the more or less critical situation in NCR, particularly in Delhi with regard to air pollution.

We have been shown a Note prepared by the Chairman of EPCA on 28th October, 2018.

The photographs attached to the Note indicate a fairly terrible state of affairs with regard to pollution in various parts of Delhi. It is for this reason, we are compelled to pass the above orders in the first instance

With regard to the Note submitted by the Chairman, EPCA on visits to hot spots of NCR to ascertain ground level enforcement of directions issued and actions taken, the Delhi Government as well as the Delhi State Industrial and Infrastructure Development Corporation Ltd. should file an affidavit within two days."

7. Data of air quality and laid down air quality norms are well known. There is no dearth of expertise for handling the subject in the State administration. What is required is taking an informed responsible decision in the larger interest of public health and enforcing the laid down air quality standards.

8. Accordingly, we direct the Principal Secretary, Transport, Government of Tamil Nadu, in coordination with other concerned authorities, to positively prepare the necessary action plan at the earliest, if not already done and file the same before the Tribunal before the next date."

60. The statement submitted by the CPCB also reveals that already they have launched certain programmes which the State Governments are expected to implement which is being monitored by them.

61. So under such circumstances, we feel that the matter can be disposed of by giving the following directions:-

a. The State of Karnataka is directed to strictly implement the directions issued by the Principal Bench of National Green Tribunal, New Delhi in O.A. No.681 of 2018 (PB)[4].

b. The State of Karnataka is also directed to implement the directions issued by the Central Pollution Control Board (CPCB) under the National Clean Air Programme and implement the action plan approved by the CPCB in the light of the directions issued by the Principal Bench in O.A. No.681 of 2018 (PB) as referred to above, strictly in compliance with the timelines provided in that action plan and the timeline provided by the CPCB.

c. The State of Karnataka is also directed to form a monitoring committee under the leadership of **(i)** the Additional Chief Secretary to Government, Forests, Environment and Ecology Department, **(ii)** the Principal Secretary to Government, Department of Transport, **(iii)** the Additional Chief Secretary to Government, Department of Finance, **(iv)** a Senior Officer from the Integrated Regional Office, Central Pollution Control Board (CPCB) at Bangalore and **(v)** the Chairman - State Pollution Control Board (SPCB), Karnataka to review the action plan prepared for the implementation of the National Clean Air Programme and implementation of Clean and Green Fuel Policy in the State of Karnataka and implementation of the action plan (if any) already prepared by them pursuant to the

[4] (A news item published in The Times of India, Authored by Sri Vishwa Mohan titled "NCAP with multiple timelines to clean air in 102 cities to be released around August - 15")

directions given by the CPCB in compliance with the directions of the Principal Bench of National Green Tribunal, New Delhi in O.A. No.681 of 2018 (PB) and if there is any gap found, they are directed to evolve modified action plans to fill up the gap and fulfill the obligation of providing clean air in the State of Karnataka, including the critically polluted cities in the State of Karnataka which includes Bangalore as well.

d. Meeting of the Committee mentioned above has to be reviewed by the Chief Secretary to Government, State of Karnataka periodically atleast once in three months and give necessary directions and support (both financial and technical) to implement the action plan so evolved to achieve the goal, that too with shorter timelines.

e. The Chief Secretary to Government, State of Karnataka is also directed to form District Level Committees to implement these programs in the respective districts as well to accomplish the goal of making the State of Karnataka, a pollution free State in compliance with the constitutional mandate of protecting environment under Article 48 A of the Constitution of India and providing a clean environment, including clean air as part of Right to Life as enshrined under Article 21 of the Constitution of India.

f. The Central Pollution Control Board (CPCB) is directed to monitor the implementation of the directions issued under the National Clean Air Programme and the directions issued by the Principal Bench of National Green Tribunal, New Delhi in O.A. No.681 of 2018 (PB) and the directions issued by this Bench, consequential to the orders passed by the Principal Bench in respect of this case and submit periodical reports to this Tribunal regarding the progress

and improvement in the air quality and further recommendations (if any) to be made for achieving the goal of National Clean Air Programme and implementation of National Clean and Green Fuel Policy to this Tribunal **once in 4 (Four) Months** till the goal is achieved in its entirety.

62. In the result, the Original Application is allowed in part and disposed of with the following directions:-

(i) The State of Karnataka is directed to strictly implement the directions issued by the Principal Bench of National Green Tribunal, New Delhi in **Original Application No.681 of 2018 (PB)**[5].

(ii) The State of Karnataka is also directed to implement the directions issued by the Central Pollution Control Board (CPCB) under the National Clean Air Programme and implement the action plan approved by the CPCB in the light of the directions issued by the Principal Bench in O.A. No.681 of 2018 (PB) as referred to above, strictly in compliance with the timelines provided in that action plan and the timeline provided by the CPCB.

(iii) The State of Karnataka is also directed to form a monitoring committee under the leadership of **(i)** the Additional Chief Secretary to Government, Forests,

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[5] *(A news item published in The Times of India, Authored by Sri Vishwa Mohan titled "NCAP with multiple timelines to clean air in 102 cities to be released around August – 15")*

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Environment and Ecology Department, **(ii)** the Principal Secretary to Government, Department of Transport, **(iii)** the Additional Chief Secretary to Government, Department of Finance, **(iv)** a Senior Officer from the Integrated Regional Office, Central Pollution Control Board (CPCB) at Bangalore and **(v)** the Chairman - State Pollution Control Board (SPCB), Karnataka to review the action plan prepared for the implementation of the National Clean Air Programme and implementation of Clean and Green Fuel Policy in the State of Karnataka and implementation of the action plan (if any) already prepared by them pursuant to the directions given by the CPCB in compliance with the directions of the Principal Bench of National Green Tribunal, New Delhi in O.A. No.681 of 2018 (PB) and if there is any gap found, they are directed to evolve modified action plans to fill up the gap and fulfill the obligation of providing clean air in the State of Karnataka, including the critically polluted cities in the State of Karnataka which includes Bangalore as well.

(iv) Meeting of the Committee mentioned above has to be reviewed by the Chief Secretary to Government, State of Karnataka periodically atleast once in three months and give necessary directions and support (both financial and technical) to implement the action plan so evolved to achieve the goal, that too with shorter timelines.

(v) The Chief Secretary to Government, State of Karnataka is also directed to form District Level Committees to implement these programs in the respective districts as well to accomplish the goal of making the State of Karnataka, a pollution free State in compliance with the constitutional mandate of protecting environment under Article 48 A of the Constitution of India and providing a clean environment, including clean air as part of Right to Life as enshrined under Article 21 of the Constitution of India.

(vi) The Central Pollution Control Board (CPCB) is directed to monitor the implementation of the directions issued under the National Clean Air Programme and the directions issued by the Principal Bench of National Green Tribunal, New Delhi in O.A. No.681 of 2018 (PB) and the directions issued by this Bench, consequential to the orders passed by the Principal Bench in respect of this case and submit periodical reports to this Tribunal regarding the progress and improvement in the air quality and further recommendations (if any) to be made for achieving the goal of National Clean Air Programme and implementation of National Clean and Green Fuel Policy to this Tribunal **once in 4 (Four) Months** till the goal is achieved in its entirety.

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(vii) Considering the circumstances, parties are directed to bear their respective cost in the application.

(viii) The Registry is directed to communicate this order to the Chairman - Karnataka State Pollution Control Board, Integrated Regional Office, Central Pollution Control Board (CPCB) at Bangalore, the Principal Secretary to Government, Department of Transport, the Additional Chief Secretary to Government, Forests, Environment and Ecology Department, the Additional Chief Secretary to Government, Department of Finance, and the Chief Secretary to Government, State of Karnataka for their information and compliance of directions.

(ix) As and when such reports are filed, the Registry is directed to place the same before the Bench for consideration and issuing necessary directions (if any) required in this regard.

63. With the above observations and directions, this Original Application is disposed of.

Sd/-
Justice K. Ramakrishnan, JM

Sd/-
Dr. Satyagopal Korlapati, EM

O.A. No.183/2016 (SZ),
13th April 2022. Mn.

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Item No. 02

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
(Through Video Conferencing)

Original Application No. 176/2018
(M.A. No. 508/2018)
(Earlier O. A. No. 183/2016 (SZ)

Shri Vinay Shivanand Nayak — Applicant(s)

Versus

State of Karnataka & Ors. — Respondent(s)

Date of hearing: 27.02.2019

CORAM: HON'BLE MR. JUSTICE S. P. WANGDI, JUDICIAL MEMBER
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

For Applicant(s): Mr. Manu Kulkarni, Mr. Saran Jain and Mr. Meka Venkata Ramakrishna, Advocates

For Respondent (s): Mr. Sarashwathy for MoEF (R-9)
Mr. Devraj Ashok, Advocate for State of Karnataka
Mr. P.D. Surana, Mr. R.S. Hegde, Mrs. Farhat Jahan Rehmani and Mr. T. Venkatesh, Advocates for R-3, BMTC
Mr. Azmat H. Amanullah, Advocate for R-7, Gail India Ltd.
Mr. Kartik Seth and Mr. Anubhav Anand Pandey, Advocates for R-11

ORDER

1. Referring to order dated 26.09.2018, the question for determination in the present case is with regard to the use of BS-II and BS-III compliant public transport vehicles and the incidental question of granting permission for purchase of 1000 number of BS-IV complaint transport vehicles as prayed for on behalf of the State Transport Corporation. Without dealing further on the facts, we make it clear that BS-II and BS-III vehicle shall not be granted renewal of registration and registration of new BS-IV complaint vehicle shall be subject to the decision of the Tribunal in *"Original Application no. 21 of 2014, Vardhaman Kaushik Vs. Union of India & Ors."*

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2. Ld. Counsel appearing today for the BMTC (State of Transport Corporation) prays for an opportunity to file an affidavit to place on record decision taken or that may be taken in respect of the matter.

3. List the matter for hearing on this aspect on 24.04.2019.

S. P. Wangdi, JM

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

February 27, 2019
O.A. No. 176/2018
pa

NATIONAL GREEN TRIBUNAL, NEW DELHI

IN THE SUPREME COURT OF INDIA
CIVIL APPELLATE JURISDICTION

Civil Appeal No of 2022
(D No 19562 of 2022)

Krishnan CS **.... Appellant(s)**

Versus

State of Karnataka & Ors **....Respondent(s)**

O R D E R

1 Permission to file appeal granted.

2 Delay condoned.

3 The National Green Tribunal[1], by its impugned order dated 13 April 2022, issued certain directions to the State of Karnataka for taking measures for the abatement of vehicular pollution in Bangalore City.

4 The NGT has appointed a Monitoring Committee in paragraph 62(iii) of its order and has issued consequential directions.

5 The appellant has certain concrete suggestions which have been made before this Court.

6 In our view, the ends of justice would be met by permitting the appellant to place his suggestions before the Monitoring Committee appointed by the NGT. The Committee shall factor in the suggestions which are made by the appellant when it submits its report before the NGT in pursuance of the impugned judgment and order.

Signature Not Verified
Digitally signed by Sanjay Kumar
Date: 2022.12.12 17:14:07 IST
Reason:

1 "NGT"

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7 The appeal shall stand disposed of in the above terms.

8 Pending application, if any, stands disposed of.

.....CJI.
[Dr Dhananjaya Y Chandrachud]

.....J.
[Pamidighantam Sri Narasimha]

New Delhi;
December 09, 2022
-S-

ITEM NO.24 COURT NO.1 SECTION XVII

S U P R E M E C O U R T O F I N D I A
RECORD OF PROCEEDINGS

CIVIL APPEAL Diary No(s).19562/2022

(Arising out of impugned final judgment and order dated 13-04-2022 in OA No. 183/2016 passed by the National Green Tribunal, Southern Zone at Chennai)

KRISHNAN CS Appellant(s)

VERSUS

THE STATE OF KARNATAKA & ORS. Respondent(s)

(WITH IA No.181362/2022-EXEMPTION FROM FILING C/C OF THE IMPUGNED JUDGMENT and IA No.181360/2022-PERMISSION TO FILE APPEAL and IA No.181359/2022-CONDONATION OF DELAY IN REFILING / CURING THE DEFECTS and IA No.181363/2022-APPROPRIATE ORDERS/DIRECTIONS)

Date : 09-12-2022 This appeal was called on for hearing today.

CORAM :
HON'BLE THE CHIEF JUSTICE
HON'BLE MR. JUSTICE PAMIDIGHANTAM SRI NARASIMHA

For Petitioner(s) Mr. Vikram Hegde, AOR

For Respondent(s)

UPON hearing the counsel the Court made the following
O R D E R

1 Permission to file granted.

2 Delay condoned.

3 The appeal is disposed of in terms of the signed order.

4 Pending application, if any, stands disposed of.

(SANJAY KUMAR-I)
DEPUTY REGISTRAR

(SAROJ KUMARI GAUR)
ASSISTANT REGISTRAR

(Signed order is placed on the file)

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MANU/SC/1205/2018

Equivalent/Neutral Citation: 2019(1)ABR373, IV(2018)ACC716(SC), AIR2018SC5194, 2019(1)ALD79, 2019(9)FLT1, 2018 (Suppl) Him. LR. 2585, 2018 INSC 982, 2018(14)SCALE263, (2019)17SCC490, 2019 (5) SCJ 10, [2018]12SCR565

IN THE SUPREME COURT OF INDIA

Writ Petition (Civil) No. 13029 of 1985 (Under Article 32 of the Constitution of India)

Decided On: 24.10.2018

M.C. Mehta **Vs.** Union of India (UOI) and Ors.

Hon'ble Judges/Coram:
Madan B. Lokur, S. Abdul Nazeer and Deepak Gupta, JJ.

Counsels:
For Appearing Parties: Harish Salve, Sr. Adv., Aparajita Singh, A.D.N. Rao, Siddhartha Chowdhury, Advs., (A.Cs.), Atmaram N.S. Nadkarni, ASG, Anil Grover, S.S. Shamshery, AAGs, Abhishek Manu Singhvi, Ranjit Kumar, Gopal Subramanium, Ashwini Kumar Mata, Sr. Advs., S. Wasim A. Qadri, D.L. Chidananda, Devashish Bharuka, Suhasini Sen, Ritesh Kumar, Amit Sharma, Rajesh Kumar Singh, Raj Bahadur, Snidha Mehra, Gurmeet Singh Makker, B.V. Balaram Das, Anil Katiyar, Shivam Kumar, Sanjay Kumar Visen, Monika Gusain, Baij Nath Patel, Rachna Gupta, Jitendra Kumar Tripathi, Sandeep Singh, Ankit Raj, Nidhi Jaswal, Indira Bhakar, Ruchi Kohli, Sandeep Narain, Avishkar Singhvi, Anjali Agarwal, Advs. for S. Narain and Co., Akshat Hansaria, Pawan Bhushan, Akash Chatterjee, Vijay K. Sondhi, Nakul Sachdeva, Nayamat S., Aakarshan Sahay, Advs. and Petitioner-in-person

JUDGMENT

Deepak Gupta, J.

1. The seminal issue to be decided is whether Bharat Stage IV (for short BS-IV) compliant vehicles should be permitted to be sold in India after 31.03.2020.

2. In an earlier judgment dated 13.04.2017, we have given detailed reasons for the order dated 29.03.2017 whereby this Court had directed that on and from 01.04.2017, vehicles which are not BS-IV compliant, shall not be sold by any manufacturer or dealer or motor vehicle company whether such vehicle is a two wheeler, three wheeler, four wheeler or commercial vehicle etc.. We had also by the said order prohibited registration of non-BS-IV vehicles from 01.04.2017 except if such vehicles were sold on or before 31.03.2017. Since in the judgment dated 13.04.2017, we have set out in detail the history leading to implementation of the Bharat Stage compliant fuels, it is not necessary to repeat the same here. However, a short recap of the same would be apposite to understand the issues in hand.

3. In 2003, the Government of India announced the National Auto Policy based on the recommendations of the Mashelkar Committee constituted in 2001. BS-IV compliant vehicles were made compulsory for four wheelers in different parts of the country on different dates starting from 01.04.2005, from which date registration of only BS-IV compliant vehicles were permitted in the metropolises of Delhi, Ahmedabad, Bengaluru, Mumbai, Pune and Kolkata. Thereafter, it was made compulsory to have BS-IV compliant vehicles in some other cities from 01.04.2010. More cities were added on 21.05.2010 and on 14.07.2015. Finally, by amendment dated 19.08.2015 it was

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mandated that BS-IV norms would come into force throughout the country w.e.f. 01.04.2017.

4. As far as two and three wheelers are concerned, they were made subject to BS-III norms on and with effect from 01.04.2010 by insertion of Sub-rule 16 in Rule 115 of the Central Motor Vehicle Rules, 1989 hereinafter referred to as 'the Rules'. With effect from 04.07.2014, it was mandated that on and from 01.04.2016 all two wheeler vehicles will comply with BS-IV emission norms and all existing models will shift to BS-IV emission norms from 01.04.2017. Similarly, Rule 17 was inserted in Rule 115 of the Rules on 12.06.2015 in respect of three wheelers wherein BS-IV standard would be applicable to new models on or after 01.04.2016. Resultantly, only those vehicles which were BS-IV compliant would be sold after 01.04.2017.

5. An issue was raised by the manufacturers of motor vehicles that they should be given reasonable and sufficient time for sale of stocks of those vehicles which are not BS-IV compliant vehicles but manufactured up to 31.03.2017. This Court did not accept the submission of the manufacturers and issued the direction referred to hereinabove. It would be interesting to note that though some of the manufacturers of two wheelers and three wheelers took a stand before this Court that great technological changes are required to make the vehicles BS-IV compliant, one of the largest manufacturers of two wheelers and three wheelers in India i.e. Bajaj Auto, filed an application in this Court praying that it was already manufacturing BS-IV compliant vehicles and that the vehicles not complying to BS-IV norms should not be registered after 2017.

6. The issue before us is somewhat similar. Mr. Ranjit Kumar, learned senior Counsel and Mr. Sandeep Narain, learned Counsel appearing for the Society of Indian Automobile Manufacturers (for short 'SIAM'), have submitted that though they are not averse to manufacturing BS-VI compliant vehicles, they should be given some time to sell the stocks of non-BS-VI compliant vehicles manufactured upto 31.03.2020. In this regard, they have made reference to the notification dated 20.02.2018 whereby Sub-rule 21 has been inserted in Rule 115 of the Rules, which reads as follows:

> In the Central Motor Vehicle Rules, 1989, in Rule 115, after Sub-rule (20), the following Sub-rule shall be inserted namely:
>
> > (21) New motor vehicles conforming to Emission Standard Bharat Stage-IV, manufactured before the 1st April, 2020 shall not be registered after the 30th June, 2020:
> >
> > > Provided that the new motor vehicles of categories M and N conforming to Emission Standard Bharat Stage-IV, manufactured before the 1st April, 2020 and sold in the form of drive away chassis, shall not be registered after the 30th September, 2020.

7. It is submitted that the Government of India while balancing the need for a cleaner environment with the practical difficulties faced by the manufacturers has given a three months' window to the automobile manufacturers to dispose of the vehicles conforming to BS-IV norms. In respect of certain categories of commercial vehicles in which only a chassis is sold and a body has to be built thereupon, the period of registration has been extended up to 30.09.2020.

8. It has been contended on behalf of SIAM that in Europe the normal practice is that

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about one year's time is given to the manufacturers of vehicles when a higher quality of fuel is introduced and the fuel is introduced much earlier and thereafter an outer limit is fixed for sale of compliant vehicles. According to SIAM, BS-VI fuel will be available in the entire country only with effect from 01.04.2020 and manufacturers are, therefore, forced to stop production after 31.03.2020. Therefore, it is not feasible for the manufacturers to switch over to BS-VI compliant vehicles overnight. They have to be given some reasonable time for sale of the accumulated stocks of non-BS-VI (i.e. BS-IV) compliant vehicles. It is further submitted that six to nine months' time is required to shift the assembly line to make BS-VI compliant vehicles and if the request of the manufacturers is not accepted, they will have to start manufacturing BS-VI compliant vehicles well before 31.03.2020 and at least three to six months' prior to the said date. It has also been contended that earlier BS-VI fuel was to be introduced with effect from 01.04.2024, which was preponed to 01.04.2023 and it was then preponed to 01.04.2021 and finally the date was advanced to 01.04.2020. It was decided to leapfrog from BS-IV fuel to BS-VI fuel without shifting to BS-V fuel. According to SIAM, this is creating a lot of difficulties for the manufacturers.

9 . Mr. Gopal Subaramaniam, learned senior Counsel appearing for one of the manufacturers, submits that his clients are already manufacturing vehicles which are both BS-IV and BS-VI fuel compliant and they are on the road already. Mr. A.N.S. Nadkarni, learned Additional Solicitor General submits that keeping in view the difficulties faced by the manufacturers and balancing the need to have a cleaner environment, three months' period given to the manufacturers is reasonable. He also urges that the Rules have not been challenged by any party and, therefore, this Court should not go into the validity of the Rules.

10. On the other hand, Ms. Aparajita Singh, learned amicus curiae, has made a passionate plea that no non-BS-VI compliant vehicle should be permitted to be sold in the entire country after 01.04.2020. She has drawn our attention to the Report of the Parliamentary Standing Committee (for short 'the Committee') dated 07.08.2018. This Report mainly deals with National Capital Region (NCR) of Delhi but there are some references to the entire country. Some of the observations made by the Committee need to be considered and taken note of. The Committee in Para 5.15 notes that the problem of air pollution is affecting all human beings and any leniency on the part of the Government in tackling it will have a cascading effect on the health of the citizens. These observations have been made with specific reference to vehicular pollution and the need to ensure compliance of BS-VI norms with effect from 01.04.2020. There can be no two views that air pollution is hazardous to health. We may, also take note of certain observations of the Report of the Committee which show that one out of three children in Delhi suffers from respiratory problems. This is almost twice as high as compared to the city of Kolkata or rural areas. We may note that the World Health Organisation's (WHO) database of more than 4,300 cities showed Indian cities of Gwalior, Allahabad, Raipur, Delhi, Ludhiana, Khanna, Varanasi and Patna as being among the most polluted in the world[1]. Our attention has been drawn to various other documents which clearly show the deleterious effects of pollution on health. The hazards of pollution and its ill effect on the health of the citizens especially children are not limited to the city of Delhi or the NCR of Delhi but affect all the citizens of the country.

11. The Union Government has spent about Rs. 30,000 crores to manufacture BS-IV compliant fuel. We have been informed that another Rs. 30,000/- crores of the taxpayers' money have been expended by the Union to ensure that the fuel available in the country is BS-VI compliant. It is heartening to note that the Union, being concerned

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with the health of the citizens and also taking note of the urgent need for a clean environment, has taken steps to manufacture cleaner fuel. This fuel has already been made available in the National Capital Territory (NCT) of Delhi from 01.04.2018 and we have been informed that barring a few places, it shall be available in the entire NCR from 01.04.2019. It will probably be available in many parts of the country prior to 01.04.2020 and the entire country will shift to BS-VI fuel from 01.04.2020. Obviously, the manufacture of clean fuel is being done in a phased manner because all the refineries cannot simultaneously start manufacturing clean fuel. It is not as if on 01.04.2020 just by waving a magic wand the entire country will change to BS-VI compliant norms. If all the refineries and manufacturers by taking note of the requirement to bring in BS-VI fuel, have introduced such fuel from 2018 and are introducing it in a phased manner in the entire country by 31.03.2020, we see no reason why manufacturers of automobiles, two wheelers, three wheelers etc. cannot also do so.

12. We may note that whereas in this Court SIAM has been canvassing that the shift to BS-VI compliant vehicles is a long drawn out process requiring huge changes in technology, the very same manufacturers are selling and exporting BS-VI compliant vehicles to Europe and other countries. With regard to two wheelers it has been specifically urged that the technological changes are immense. To counter this argument the learned amicus curiae has drawn our attention to a Press Release issued by M/s. Hero Moto Corporation, which is one of the largest motor manufacturers of two wheelers in the country. In this Press Release issued in July 2017 it has been stated that M/s. Hero Moto Corporation has begun developing BS-VI compliant models and it aims to introduce such products much before the timeline of 2020. The company has also stated that it will manufacture only BS-VI fuel compliant vehicles well before the date stipulated by the authorities. If one manufacturer can do this, we see no reason why other manufacturers of two wheelers cannot do so.

13. With regard to trucks and buses, from a news item published in the Financial Express dated 06.07.2018, it is apparent that Eicher is already manufacturing trucks and buses which are not only BS-VI compliant but BS-VI CNG compliant. Another manufacturer of heavy vehicles i.e. Ashok Leyland had, in August, 2018 through its subsidiary Optare obtained an order to manufacture the world's first electric double decker buses. The technology needed to manufacture such electric buses is much more advanced and difficult as compared to the technological changes required to manufacture petrol and diesel vehicles which are BS-VI compliant. Similarly, TVS Motors on 07.08.2018 has issued a press note that it will be manufacturing BS-VI compliant vehicles much ahead of the deadline of 2020. Many members of SIAM in the Auto Expo held in February, 2018 have exhibited vehicles which are technologically much more advanced than BS-VI compliant vehicles. These manufacturers have not only asserted that they can manufacture electric vehicles but also asserted that they are developing hydrogen cell fuel vehicles along with hybrid, electric and CNG vehicles.

14. We have mentioned these facts only to highlight that some of the manufacturers are not willing to comply with the 31.03.2020 deadline not because they do not have the technology but because the use of technology will lead to increase in the cost of the vehicles which may lead to reduction in sales of the vehicles and ultimately their profit. There can be no compromise with the health of the citizens and if one has to choose between health and wealth, keeping in view the expanded scope of Article 21 of the Constitution, health of the teeming millions of this country will have to take precedence over the greed of a few automobile manufacturers. The automobile manufacturers must behave responsibly. We expected that keeping in view our earlier order, they would

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have themselves volunteered to be BS-VI compliant by 31.03.2020. Unfortunately, this has not been the case with some of the manufacturers and they want to stretch on the timeline by a few days or months for no other reason but to make a little more money.

15. When we compare BS-VI fuel with BS-IV fuel, there is a massive improvement in environmental terms. Once BS-VI emission norms are enforced, there will be a 68% improvement in $PM_{2.5}$. This is not a small change. It is a vast improvement and the faster it is brought, the better it is. The amicus curiae has strenuously urged that, at least, in the NCR of Delhi, the BS-VI norms be applied for sale of vehicles from 01.04.2020. We feel that it may not be practical to introduce BS-VI compliant vehicles region-wise or city-wise. In our view, the BS-IV experiment in this regard was not very successful. BS-VI compliant vehicles are going to be more expensive than BS-IV compliant vehicles. People have a tendency to buy cheaper vehicle(s) even from a neighbouring city. We also strongly feel that the problem of pollution is not limited to the NCR of Delhi but it is a problem which has engulfed the entire country especially the major cities. India has the dubious distinction of having 15 out of the 20 most polluted cities in the world. The pollution in Gwalior, Raipur & Allahabad is worse than Delhi. The situation is alarming and critical. It brooks no delay.

16. It is an established principle of law that the right to life, as envisaged Under Article 21 of the Constitution of India includes the right to a decent environment[2]. It includes within its ambit the right of a citizen to live in a clean environment[3]. With regard to vehicular traffic, this Court has issued a number of directions to ensure a clean environment and reduce pollution[4]. It has been held that the right to clean environment is a fundamental right[5]. The right to live in an environment free from smoke and pollution follows from the "quality" of life which is an inherent part of Article 21 of the Constitution. The right to live with human dignity becomes illusory in the absence of a healthy environment[6]. The right to life not only means leading a life with dignity but includes within its ambit the right to lead a healthy, robust life in a clean atmosphere free from pollution. Obviously, such rights are not absolute and have to co-exist with sustainable development. Therefore, if there is a conflict between health and wealth, obviously, health will have to be given precedence. When we are concerned with the health of not one citizen but the entire citizenry including the future citizens of the country, the larger public interest has to outweigh the much smaller pecuniary interest of the industry, in this case the automobile industry, especially when the entire wherewithal to introduce the cleaner technology exists.

17. It is therefore necessary to ensure that BS-VI compliance is uniform throughout the country so that even those areas of the country which fortunately have not suffered the ills of extreme pollution are safe in the future. The sale of automobiles and other vehicles is rising exponentially and the number of vehicles on the road is increasing day by day. Therefore, even a day's delay in enforcing BS-VI norms is going to harm the health of the people. We are dealing here with a situation where children and unborn children suffer from pollution and issues of inter-generational equity are involved. Do we as a society or as manufacturers of automobiles have a right to manufacture more polluting vehicles when we have the technology to manufacture less polluting vehicles? The answer is obviously a big No. If we were to factor only economics even then it makes no economic sense to have more polluting vehicles on the roads. The effect of pollution on the environment and health is so huge that it cannot be compensated in the marginal extra profits that the manufacturers might make. The amount spent on countering the ills of pollution such as polluted air, damaged lungs and the cost of

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healthcare far outweigh the profits earned.

18. It was urged on behalf of the manufacturers that there are multiple sources of pollution and vehicles only contribute to 2% of the pollution. We are not in agreement with this submission because the Report of the Committee to which we have adverted hereinabove states that contribution of vehicles to ambient $PM_{2.5}$ concentration during winter season is 25% and in the summer season it contributes 9%. Even if we were to accept the figures submitted by SIAM, we are of the view that no step is too small when it comes to fighting pollution. Small steps to reduce pollution when taken together will lead to large scale reduction in pollution which will result in much cleaner air, which eventually will result in a cleaner and better environment, healthier citizens and most importantly a healthier generation to come.

19. In view of the fact that these proceedings have been pending in court for a long time and also in view of the fact that it is because of orders of this Court that BS-IV and now BS-VI norms have been introduced from the dates which were not even thought of by the Government, we feel that we have to take suo moto notice of the Rules. At the outset, we may notice that Sub-rule 21 of Rule 115 is very vague. It does not talk of sale of vehicles. It only mentions registration of vehicles and permits registration of vehicles conforming to BS-IV norms up to 30.06.2020 and in case of categories M & N, up to 30.09.2020. This rule, in our view, is violative of Article 21 of the Constitution in as much as it extends time for registration of vehicles beyond 31.03.2020 and must be accordingly read down. Any extension of time in introducing the new norms which is not absolutely necessary adversely impacts the health of the citizens and is, therefore, violative of Article 21 of the Constitution of India. This Rule goes against the spirit of all the orders passed earlier by this Court. In the month of March, 2017 we were dealing with a situation when BS-VI norms were to be made effective throughout the country with effect from 01.04.2020 and this Court had directed that non-BS-IV compliant vehicles shall not be registered on or after 01.04.2017. The situation in the present case is totally different. 31.03.2020 is almost 1 Ã¯Â¿Â½ years away. There is sufficient time for the manufacturers to change over to the new system and, therefore, we see no reason why they should be given a window of three or six months for sale of accumulated vehicles. Every vehicle sold after the cut-off date of 01.04.2020 is bound to cause more pollution and, therefore, the manufacturers, in our considered view, cannot be permitted to sell any non-BS-VI compliant vehicle on or after 01.04.2020. On the one hand, the Government has been pro-active in spending huge amounts of money to move to the BS-VI technology, but on the other hand, the automobile industry is coming up with a variety of untenable excuses just to delay the introduction of BS-VI compliant vehicles by a few months. We, in our judgment dated 13.04.2017, had clearly held "when the health of millions of our countrymen is involved, notification relating to commercial activities ought not to be interpreted in a literal manner." We have to give a purposive interpretation to notifications specially those dealing with public health issues and even more so, when health not only of the citizens at present but also the citizens in the future is involved. There is more than sufficient time for the manufacturers to manufacture BS-VI compliant vehicles. They already have the technology to do so. The automobile industry must show the will, responsibility and urgency in this regard.

20. The Government has developed a policy of phasing out polluting vehicles and discouraging the manufacturers of polluting vehicles. This has been done in a gradual manner. Europe introduced Euro-IV fuel in the year 2009 and Euro-VI standards in 2015. We are already many years behind them. We cannot afford to fall back further even by a single day. The need of the hour is to move to a cleaner fuel as early as possible.

ITEM NO.62 COURT NO.2 SECTION PIL-W

S U P R E M E C O U R T O F I N D I A
RECORD OF PROCEEDINGS

Writ Petition(s)(Civil) No(s).13029/1985

M.C. MEHTA Petitioner(s)

VERSUS

UNION OF INDIA & ORS. Respondent(s)

((1)IN RE: REPORT NO. 91 SUBMITTED BY EPCA(REGARDING PET COKE FOR ALUMINIUM, CALCINER AND STEEL INDUSTRY ETC.)

Date : 29-10-2018 This petition was called on for hearing today.

CORAM :
HON'BLE MR. JUSTICE MADAN B. LOKUR
HON'BLE MR. JUSTICE S. ABDUL NAZEER
HON'BLE MR. JUSTICE DEEPAK GUPTA

Mr. Harish N. Salve, Sr. Adv.(A.C.)(NP)

Ms. Aparajita Singh, Adv. (A.C.)

Mr. A.D.N. Rao, Adv. (A.C.)

Mr. Siddhartha Chowdhury, Adv. (A.C.)

For Petitioner(s) Petitioner-in-person

For Respondent(s) Mr. A.N.S. Nadkarni, ASG
Mr. Amit Sharma, Adv.
Ms. Suhasini Sen, Adv.
Mr. D.L. Chidanand, Adv.
Mr. Raj Bahadur, Adv.
Mr. G.S. Makker, Advocate
Mr. B.K. Prasad, Advocate
Mr. S. Wasim A. Qadri, Adv.
Mr. Ritesh Kumar, Adv.
Mr. Devasis Bharuka, Adv.
Ms. Snidha Mehra, Adv.
Mr. B.V. Balaram Das, Adv.

Validity unknown
Digitally signed by SANJAY KUMAR
Date: 2018.10.29 18:31:25 IST
Reason:

licant Mr. Shyam Divan, Sr. Adv.
Mr. Nawneet Vibhaw, Adv.
Mr. Sanjeev K. kapoor, Adv.
for M/S Khaitan And Co.

Mr. Anil Grover, AAG
Ms. Noopur Singhal, Adv.
Dr. Monika Gusain, Adv.
Mr. Sanjay Kr. Visen, Advocate
Ms. Manpreet Kaur Bhalla, Adv.

Ms. Rachana Gupta, AOR
Mr. Jitendra Kumar Tripathi, Adv.
Mr. Awadhesh Kumar, Adv.
Mr. Abhishek, AOR

Mr. S.S. Shamshery, AAG
Mr. Amit Sharma, Adv.
Mr. Ankit Raj, Adv.
Ms. Nidhi Jaswal, Adv.
Ms. Indira Bhakar, Adv.
Ms. Ruchi Kohli, AOR

Ms. Anitha Shenoy, AOR

Mr. V.N. Raghupathy, AOR

UPON hearing the counsel the Court made the following

O R D E R

Report No.91 (Reg. Graphite India)

Learned counsel for Graphite India has taken instructions and on the basis of the instructions, he says that he will deposit an amount of Rs.50 lakhs with the Karnataka State Pollution Control Board.

The amount be deposited within two weeks from today.

We expect the Karnataka State Pollution Control Board to utilize the amount that is deposited to take care of the pollution in Whitefield.

This is without prejudice to the proceedings which are said to be pending in the National Green Tribunal.

Notice issued to Graphite India stands discharged.

Report No.91 (With respect to import of Pet-coke)

It is submitted by learned *amicus curiae* as well as

learned Additional Solicitor General that they would like to sit down and agree upon some recommendations that would need to be framed for the purpose of import of pet-coke and the quantity of pet-coke that can be imported.

They say that this will be done within three weeks.

List the issue of import of Pet-coke on 27th November, 2018.

(SANJAY KUMAR-I)
AR-CUM-PS

(KAILASH CHANDER)
ASSISTANT REGISTRAR

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ITEM NO.62 COURT NO.2 SECTION PIL-W

S U P R E M E C O U R T O F I N D I A
RECORD OF PROCEEDINGS

Writ Petition(s)(Civil) No(s).13029/1985

M.C. MEHTA Petitioner(s)

VERSUS

UNION OF INDIA & ORS. Respondent(s)

(2)IN RE: REPORT NO. 92 SUBMITTED BY EPCA(SPECIAL REPORT ON NCR AIR POLLUTION)

Date : 29-10-2018 This petition was called on for hearing today.

CORAM :
HON'BLE MR. JUSTICE MADAN B. LOKUR
HON'BLE MR. JUSTICE S. ABDUL NAZEER
HON'BLE MR. JUSTICE DEEPAK GUPTA

Mr. Harish N. Salve, Sr. Adv.(A.C.)(NP)

Ms. Aparajita Singh, Adv. (A.C.)

Mr. A.D.N. Rao, Adv. (A.C.)

Mr. Siddhartha Chowdhury, Adv. (A.C.)

For Petitioner(s) Petitioner-in-person

For Respondent(s) Mr. A.N.S. Nadkarni, ASG
Mr. Amit Sharma, Adv.
Ms. Suhasini Sen, Adv.
Mr. D.L. Chidanand, Adv.
Mr. Raj Bahadur, Adv.
Mr. G.S. Makker, Advocate
Mr. B.K. Prasad, Advocate
Mr. S. Wasim A. Qadri, Adv.
Mr. Ritesh Kumar, Adv.
Mr. Devasis Bharuka, Adv.
Ms. Snidha Mehra, Adv.
Mr. B.V. Balaram Das, Adv.

Applicant Mr. Shyam Divan, Sr. Adv.
Mr. Nawneet Vibhaw, Adv.
Mr. Sanjeev K. kapoor, Adv.
for M/S Khaitan And Co.

Mr. Anil Grover, AAG
Ms. Noopur Singhal, Adv.
Dr. Monika Gusain, Adv.
Mr. Sanjay Kr. Visen, Advocate
Ms. Manpreet Kaur Bhalla, Adv.

Ms. Rachana Gupta, AOR
Mr. Jitendra Kumar Tripathi, Adv.
Mr. Awadhesh Kumar, Adv.
Mr. Abhishek, AOR

Mr. S.S. Shamshery, AAG
Mr. Amit Sharma, Adv.
Mr. Ankit Raj, Adv.
Ms. Nidhi Jaswal, Adv.
Ms. Indira Bhakar, Adv.
Ms. Ruchi Kohli, AOR

Ms. Anitha Shenoy, AOR

Mr. V.N. Raghupathy, AOR

UPON hearing the counsel the Court made the following

O R D E R

Report No.92

Learned *amicus curiae* has placed before us some submissions on urgent actions to control air pollution in NCR.

We have gone through the suggestions that have been given and are of the opinion that the three suggestions are eminently reasonable and must be implemented with immediate effect.

These suggestions, which are now the directions of this Court, are as follows:

1. The Transport Departments of NCR will immediately announce that all the diesel vehicles more than 10 years' old and petrol vehicles more than 15 years' old shall not ply in NCR in terms of the order of the National Green

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Tribunal dated 07.04.2015. The order of the National Green Tribunal was challenged in this Court and the Civil Appeal was dismissed. Vehicles violating the order will be impounded. The list of such vehicles should be published on the websites of the Central Pollution Control Board (CPCB) and the Transport Departments of NCR. Similarly, a meaningful advertisement should be published in a local newspaper for the convenience of the owners of the vehicles.

2. CPCB will immediately create a social media account on which the citizens may lodge their complaint directly to be acted upon by the Task Force responsible for implementation of Graded Response Action Plan.

3. EPCA is permitted to take pre-emptive steps under the Graded Response Action Plan without strict adherence to pollution stages delineated in the plan.

The last direction is being issued in view of the more or less critical situation in NCR, particularly in Delhi with regard to air pollution.

We have been shown a Note prepared by the Chairman of EPCA on 28th October, 2018.

The photographs attached to the Note indicate a fairly terrible state of affairs with regard to pollution in various parts of Delhi. It is for this reason, we are compelled to pass the above orders in the first instance.

With regard to the Note submitted by the Chairman, EPCA on visits to hot spots of NCR to ascertain ground

level enforcement of directions issued and actions taken, the Delhi Government as well as the Delhi State Industrial and Infrastructure Development Corporation Ltd. should file an affidavit within two days.

For implementation and compliance, list the matter on 1st November, 2018.

Recommendation Nos.2.4 on page Nos.5 and 6 as also 3.3 on page 7 of Report No.92 will also be taken up on 1st November, 2018.

(SANJAY KUMAR-I)
AR-CUM-PS

(KAILASH CHANDER)
ASSISTANT REGISTRAR

Kalyan Karnataka Road Transport Corporation, Central Office, Kalaburagi 153
(Mechanical Department)

NO/NEKT/CO/ME/ M-5/13355 /2024-25 Date: 21 .12.2024

To,
Sri, Anu Ganesan,
Capital Law Chembers,
No-158, New No.325, 3Rd Floor,
Linghi Chetty Street, Chennai-600001
Tamil Nadu State,
Sir,

Sub: About providing the information requeseted under RIT Act-2005
Ref: No: YOUR RTI ONLINE APPLICATION DATE: 08.08.2022

<<<<0>>>>

With reference to the above subject cited reference, the information requested under RTI Act-2005 is as mentioned below.

Sl no	Requested information	Information provided
01	**Question No. 1** a) Please provide the information on current total number of buses operating in your fleet.	As on 16.12.2024, Total fleet size of KKRTC buses is 5060.
	b) Please provide a detailed breakdown of the total number of pre-BS IV buses (BS-I, BS-II, and BS-III) in your fleet, specifying the counts for leased buses, leased route buses operated by private firms or individuals, and Volvo buses.	As on 16.12.2024, the breakdown of pre BS-IV buses owned by KKRTC is as below. 1. BS-I,-Nill 2. BS-II,-123 3. BS-III,-2327 KKRTC does not have any leased buses in its Fleet.
02	**Question No. 2** a) Please provide the total number of pre-BS IV buses in your fleet, including BS-I, BS-II, and BS-III categories.	As on 16.12.2024 the total number of pre BS-VI fleet is 2450
	b) Please provide a breakdown of the total number of buses in your fleet, including the counts for leased buses, leased route buses operated by private firms or individuals, and Volvo buses.	As on 16.12.2024, the breakdown of total number of Buses in KKRTC fleet is as below. 1. BS-I,-Nill 2. BS-II,-123 3. BS-III,-2327 4. BS-IV,-1596 5. BS-VI,-1014
03	**Question No. 3** a) Please provide the total number of CNG, LPG, and Electric buses currently operating in your fleet. b) Please provide a detailed breakdown of the total number of CNG, LPG, and Electric buses in your fleet, specifying the counts for leased buses, leased route buses operated by private firms or individuals, and Volvo buses.	KKRTC does not have CNG, LPG, Electric buses and leased buses in fleet.

Thanking You,

Yours Faithfully,

21/12/24

Public Information Officer/
Deputy Chief Mechanical Engineer.
ಕೇಂದ್ರ ಕಛೇರಿ, ಕಲಬುರಗಿ

Copy FWCS to:
✓ Public Information Officer/ Dy Chief Law officer, Central Offices, Kalaburagi for Information.

Scanned with OKEN Scanner

154

Kalyan Karnataka Road Transport Corporation, Central Office, Kalaburagi

(Mechanical Department)

NO/NEKT/CO/ME/ M-5/1377 /2024-25 Date: 31 .12.2024

To,
Sri, Anu Ganesan,
Capital Law Chembers,
No-158, New No.325, 3Rd Floor,
Linghi Chetty Street, Chennai-600001.
Tamil Nadu State,

Sir,

Sub: About providing the information requeseted under RIT Act-2005

Ref: No: YOUR RTI ONLINE APPLICATION DATE: 16.12.2024

<<<<0>>>>

With reference to the above subject cited reference, the information requested under RTI Act-2005 is as mentioned below.

Sl no	Requested information	Information provided
01	Please provide the total number of buses over 10 years of age in your fleet.	Currently KKRTC has 1602 buses which have covered over 10 Years in its fleet
02	Please separate counts for leased buses, leased route buses operated by Private firms or individuals, and Volvo buses.	KKRTC does not have any leased buses in its fleet.

Thanking You,

Yours Faithfully,

31/12/24

Public Information Officer /
Deputy Chief Mechanical Engineer.
ಯಾಂತ್ರಿಕ ಇಲಾಖೆ. ಕಕರಸಾ ನಿಗಮ
ಕೇಂದ್ರ ಕಛೇರಿ. ಕಲಬುರಗಿ

155

Online RTI Status Form

Note : Field marked with * are Mandatory

Registration Number	BMTCC/R/2024/60260
Name	ANU GANESAN
Date of Filing	03/12/2024
Public Authority	Bangalore Metropolitan Transport Corporation (BMTC)
Status	REQUEST DISPOSED OF as on 13/12/2024
Reply :-	1. a) Total no. of buses operating in BMTC Diesel buses-5447 & Electric buses on GCC-1260 2. a) Details of BS-1, BS-2, BS-3 buses are as follows. BS1-0, BS2-0 & BS3-454 3.a) Total no. electric buses which are in operating on GCC Model. The details are as follows CNG-0, LPG-0 & EV buses-1260 1(b),2(b) & 3(b) - The details sought pertains to Stat Department. Under RTI Act-2005 Colomn-5(4) transferred to Stat Department
Your RTI application has been forwarded to multiple CPIOs	Click here to view details
Concerned PIO	Ushadevi R AME CO Assistant Mechanical Engineer Email Id:-cme@mybmtc.com Telephone Number:- 08022537519
Nodal Officer Details	
Name	Sri Veerabhadrappa M(Deputy Chief Law Officer)
Telephone Number	08022537402
Email-ID	rticellno@mybmtc.com

Print RTI Application Print Status Go-Back

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ಮಾಹಿತಿ ಹಕ್ಕು ಅಧಿನಿಯಮ-2005 ರಡಿಯಲ್ಲಿ
ನೀಡಲಾಗಿರುವ ಪ್ರತಿ

Bengaluru Metropolitan Transport Corporation

Average Age of Vehicles in Years

As on 31-10-2024

Age	Oridinary Vehicles (NON AC)		Volvo Vehicles (AC)		Total	
	No. of Vehs.	% Age	No. of Vehs.	% Age	No. of Vehs.	% Age
0- 1 year	455	9.4	0	0.0	455	8.5
1- 2 year	258	5.3	0	0.0	258	4.8
2-3 year	564	11.6	0	0.0	564	10.6
3-4 year	0	0.0	0	0.0	0	0.0
4-5 year	348	7.2	10	2.1	358	6.7
5-6 year	15	0.3	0	0.0	15	0.3
6-7 year	989	20.4	4	0.8	993	18.6
7-8 year	643	13.2	147	30.4	790	14.8
8-9 year	0	0.0	0	0.0	0	0.0
9-10 year	9	0.2	0	0.0	9	0.2
10-11 year	418	8.6	3	0.6	421	7.9
11-12 year	510	10.5	107	22.1	617	11.5
12-13 year	509	10.5	125	25.8	634	11.9
13-14 year	28	1	0	0	28	0.5
14-15 year	100	2	88	18	188	3.5
> 15 years	13	0.3	0	0.0	13	0.2
Total	4859	100	484	100	5343	100
%ge of Overaged Veh.s	113	2.3	0	0.0	113	2.1
Avg. Age of Vehicles in Years	6.9		10.9		7.3	

AC Vehs. 15 years and above & Non AC Vehs. 14 years and above are considered as overaged Buses

Age of Hired Vehicles are not considered

Assistant Statistical Officer
Bangalore Metropolitan Transport Corporation
Central Offices, K.H. Road,
Bangalore - 560 027

157

KARNATAKA STATE ROAD TRANSPORT CORPORATION

Mechanical Engineering Department

No.KST/CO/ME/ 1500 /2024-25 Dated:- 02 .01.2025

Shri Anu ganesan,
Capital law chambers, No.158,
New no 325, 3rd floor, linghi
chetty street, Chennai - 600001
Mobile no:- 994 154 2415

Sir,

Sub:- Furnishing of information under RTI-2005-reg
Ref:- PIO No 784 Dated:- 16.12.2024

******

With reference to the letter cited above, you have requested this office to furnish the details under RTI-2005. Accordingly the details pertaining to Mechanical Engineering Department are furnished below.

Questions	Answers
Kindly provide the complete information on the following query as soon as possible: Please provide the total number of buses over 10 years of age in your fleet. Please separate counts for leased buses, leased route buses operated by private firms or individuals, and Volvo buses.	With respect to information requested, In KSRTC, as on November 2024, a total of 3,706 buses including Volvo have covered the age of 10 years and are in operation. Additionally, KSRTC currently operates 50 hired electric buses, all of which are less than 10 years old.

Thanking You,

Yours Faithfully

(Sumalatha. H)
PUBLIC INFORMATION OFFICER
Asst Mechanical Engineer, KSRTC

Copy to: Public information Officer, KSRTC, Central Office, Bangalore, for information and necessary action.

158

KARNATAKA STATE ROAD TRANSPORT CORPORATION

Mechanical Engineering Department

No.KST/CO/ME/ 1501 /2024-25 Dated:- 02 .01.2025

Shri Anu ganesan,
Capital law chambers, No.158,
New no 325, 3rd floor, linghi
chetty street, Chennai - 600001
Mobile no:- 994 154 2415

Sir,

Sub:- Furnishing of information under RTI-2005-reg
Ref:- PIO No 755 Dated:- 03.12.2024

******

With reference to the letter cited above, you have requested this office to furnish the details under RTI-2005. Accordingly the details pertaining to Mechanical Engineering Department are furnished below.

Questions	Answers
Kindly provide the complete information on the following queries as soon as possible: **Question no .1** a) Please provide the information on current total number of buses operating in your fleet. b) Please provide a breakdown of the total number of buses in your fleet, including the counts for leased buses, leased route buses operated by private firms or individuals, and volvo buses. **Question no. 2** a) Please provide the total number of pre-BS IV buses in your fleet, including BS-I, BS-II and BS-III categories b) Please provide a detailed breakdown of the total number of pre- BSIV buses (BS-1, BS-II and BS-III) in your fleet, specifying the counts for leased buses, leased route buses operated by private firms or individuals, and volvo buses. **Question no. 3** a) Please provide the total number of CNG, LPG and electric buses currently operating in your fleet b) Please provide a detailed breakdown of the total number of CNG, LPG and Electric buses in your fleet, specifying the counts for leased buses, leased route buses operated by private firms or individuals and Volvo buses.	With respect to information requested below are the details **Answer no.1** a) As of 21.12.2024, the Karnataka State Road Transport Corporation (KSRTC) operates a total of 8,893 buses, in addition 50 hired buses. b) During November 2024, a total of 94 breakdowns occurred, including Volvo & hired electric buses. **Answer no.2** a) Eurowise total buses operating in KSRTC as on 21.12.2024 are as follows below. **EURO** / **Total no of vehicles** BS-I: - BS-II: 177 BS-III: 4778 BS-IV: 2800 BS-VI: 1138 **TOTAL: 8,893** b) Euro-wise breakdown details are not available. However, in KSRTC, a total of 94 breakdowns, including Volvo and hired electric buses, occurred during November 2024. **Answer no.3** a) In KSRTC, 50 hired electric buses are currently in operation. There are no CNG or LPG buses operating in the KSRTC fleet. c) Out of the 50 hired electric buses, a total of 40 breakdowns occurred during November 2024.

Thanking You,

Yours Faithfully

(Sumalatha. H)
PUBLIC INFORMATION OFFICER
Asst Mechanical Engineer, KSRTC

Copy to: Public information Officer, KSRTC, Central Office, Bangalore, for information and necessary action.

159

KARNATAKA STATE ROAD TRANSPORT CORPORATION

Mechanical Engineering Department

No.KST/CO/ME/ 1501A /2024-25 Dated:- 02.01.2025

Shri Anu ganesan,
Capital law chambers, No.158,
New no 325, 3rd floor, linghi
chetty street, Chennai - 600001
Mobile no:- 994 154 2415

Sir,

Sub:- Furnishing of information under RTI-2005-reg
Ref:- PIO No 758 Dated:- 04.12.2024

******

With reference to the letter cited above, you have requested this office to furnish the details under RTI-2005. Accordingly the details pertaining to Mechanical Engineering Department are furnished below.

Questions	Answers
Kindly provide the complete information on the following queries as soon as possible: **Question no .1** a) Please provide the information on current total number of buses operating in your fleet. b) Please provide a breakdown of the total number of buses in your fleet, including the counts for leased buses, leased route buses operated by private firms or individuals, and volvo buses. **Question no. 2** a) Please provide the total number of pre-BS IV buses in your fleet, including BS-I, BS-II and BS-III categories b) Please provide a detailed breakdown of the total number of pre- BSIV buses (BS-1, BS-II and BS-III) in your fleet, specifying the counts for leased buses, leased route buses operated by private firms or individuals, and volvo buses. **Question no. 3** a) Please provide the total number of CNG, LPG and electric buses currently operating in your fleet b) Please provide a detailed breakdown of the total number of CNG, LPG and Electric buses in your fleet, specifying the counts for leased buses, leased route buses operated by private firms or individuals and Volvo buses.	With respect to information requested below are the details **Answer no.1** a) As of 21.12.2024, the Karnataka State Road Transport Corporation (KSRTC) operates a total of 8,893 buses, in addition 50 hired buses. b) During November 2024, a total of 94 breakdowns occurred, including Volvo & hired electric buses. **Answer no.2** a) Eurowise total buses operating in KSRTC as on 21.12.2024 are as follows below. **EURO** / **Total no of vehicles** BS-I: - BS-II: 177 BS-III: 4778 BS-IV: 2800 BS-VI: 1138 **TOTAL: 8,893** b) Euro-wise breakdown details are not available. However, in KSRTC, a total of 94 breakdowns, including Volvo and hired electric buses, occurred during November 2024. **Answer no.3** a) In KSRTC, 50 hired electric buses are currently in operation. There are no CNG or LPG buses operating in the KSRTC fleet. b) Out of the 50 hired electric buses, a total of 40 breakdowns occurred during November 2024.

Thanking You,

Yours Faithfully

(Sumalatha. H)
PUBLIC INFORMATION OFFICER
Asst Mechanical Engineer, KSRTC

Copy to: Public information Officer, KSRTC, Central Office, Bangalore, for information and necessary action.

160 IR

RTI REQUEST DETAILS

Registration No. :	NWKUT/R/2024/60004	**Date of Receipt :**	03/12/2024
Type of Receipt :	Online Receipt	**Language of Request :**	English
Name :	ANU GANESAN	**Gender :**	Female
Address :	CAPITAL LAW CHAMBERS, NO. 158, NEW NO. 325, 3RD FLOOR, LINGHI CHETTY STREET, CHENNAI, Pin:600001		
State :	Tamilnadu	**Country :**	India
Phone No. :	+91-	**Mobile No. :**	+91-9941542415
Email :	advocateanuganesan@gmail.com		
Status(Rural/Urban) :	Urban	**Education Status :**	Graduate
Is Requester Below Poverty Line ? :	No	**Amount Paid :**	Rs. 10 (NWKUTR20240000000008)

Text of RTI Application :

Kindly provide the complete information on the following queries as soon as possible: Question No. 1 a) Please provide the information on current total number of buses operating in your fleet. b) Please provide a breakdown of the total number of buses in your fleet, including the counts for leased buses, leased route buses operated by private firms or individuals, and Volvo buses. Question No. 2 a) Please provide the total number of pre-BS IV buses in your fleet, including BS-I, BS-II, and BS-III categories. b) Please provide a detailed breakdown of the total number of pre-BS IV buses (BS-I, BS-II, and BS-III) in your fleet, specifying the counts for leased buses, leased route buses operated by private firms or individuals, and Volvo buses. Question No. 3 a) Please provide the total number of CNG, LPG, and Electric buses currently operating in your fleet. b) Please provide a detailed breakdown of the total number of CNG, LPG, and Electric buses in your fleet, specifying the counts for leased buses, leased route buses operated by private firms or individuals, and Volvo buses.

DTC Section

8/12/24

161

NWKRTC HUBLI-DHARWAD CITY DIVN HUBBALLI
ME SECTION

No: NWKT: HDCTD: ME: 444 Date:- 13/01/2025
17

To,

Mr.Anu Ganesan
Capital Law Chambers,No158
New no:325 3rd Floor,Linghi chetty street
Chennai,
Pin:9941542415

Dear Sir.

Sub: Regarding RTI information
Reference:NO/NWKST/HDCTD/ONLINE/RTI/69/24-25 DTD:08/01/2025

*****

With reference to the above subject the information has been given below.

Sl no	Question	Answer
1(a)	Please provide the information on current total number of busses operating in your fleet.	440 Vehicles
1(b)	Please provide a breakdown of total number of busses in your fleet, including the counts for leased busses, leased route busses operated by private firms or individuals, and Volvo busses,	Attached with this letter no= 01
2(a)	Please provide the total number of Pre-BS IV busses, in your fleet, including BS-I, BS-II, & BS-III categories	Attached with this letter no= 01
2(b)	Please provide a detailed breakdown of the total number of pre-BS-IV busses (BS-I,BS-II & BS-III) in your fleet, specifying the counts for leased busses, leased route busses operated by private firms individual and volvo busses.	Detailed Break down data has been attached with this letter no=01 & There is no leased vehicles in NWKRTC HD City Division.
3(a)	Please provide the total numbers of CNG, LPG and electric busses currently operating in your fleet.	No CNG,LPG & Electric vehicle in NWKRTC HD City Division
3(b)	Please provide a detailed breakdown of the total number of CNG, LPG, and Electric busses in your fleet, specifying the counts for leased busses leased routes busses operated by private firms or individuals and volvo busses.	No CNG,LPG & Electric vehicle in NWKRTC HD City Division

Thanking you

Yours faithfully,

Divisional Mechanical Engineer
RTI Nodal Officer
NWKRTC HD-CITY DIVISON

ATTACHMENT:01 PAGE

NWKRTC HD-CITY DIVISION-HUBLI

1(b)	
NWKRTC HDCITY DIVISION	
No of Breakdowns	
Month	No of BreakDowns
Apr-24	16
May-24	14
Jun-24	16
Jul-24	22
Aug-24	32
Sep-24	32
Oct-24	29
Nov-24	22
Dec-24	20

2(a)		
BS TYPE VEHICLE FLEET FOR MONTH DEC-2024		
MAKE	BS TYPE	NO OF VEHS
TATA	BS-II	20
	BS-III	38
	BS-IV	0
	BS-VI	54
LEYLAND	BS-II	0
	BS-III	108
	BS-IV	120
	BS-VI	0
VOLVO	BS-IV	100
	TOTAL	440

2(b)				
MAKE WISE BREAK DOWN FROM APRIL-2024 TO DEC-2024				
MAKE	BS-2	BS-3	BS-4	VOLVO UD BS-4
NO OF BREAK DOWN	18	81	31	73

DIVISIONAL MECHANICAL ENGINEER
NWKRTC HD-CITY DIVISION

163

Tamilnadu

Chennai

Search

Back

Air Quality Index

Air Quality Index(AQI) is a tool designed for communicating air quality status to people based on ambient pollutant concentration and their likely health impacts.

Air Quality Index

Madurai

60

Satisfactory

Meteorological Data

Last Updated on : 2025-03-31

- °C

- m/s

-

Status of City Action Plan

Public Grievance Redressal Portal

164

Developed WEB portal/Helpline and app Under Development

Public Grievance Redressal System (PGRS) Link

Graded Response Action Plan

Developed

Download GRAP

Source Apportionment / Emission Inventory Studies

Status not Available

Download Source Apportionment Study

City Air Action Plan

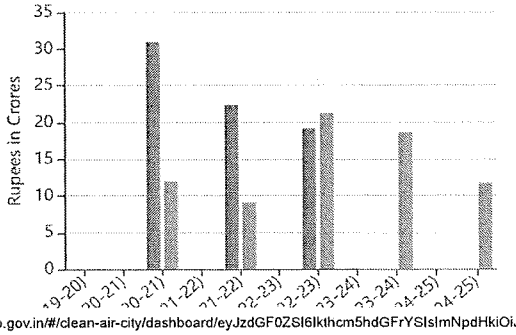
Conditional approved

Download Action Plan

Funds Released and Utilized

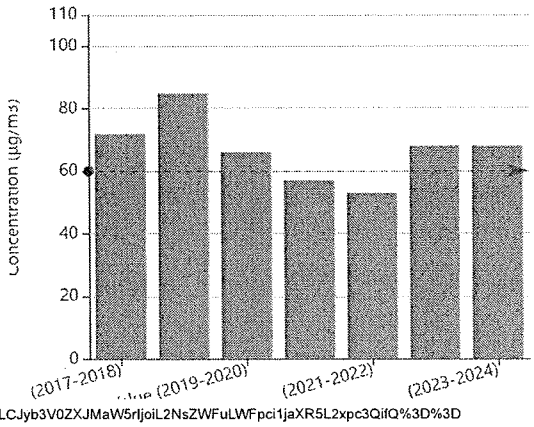
Fund Released - ₹72.44 Crores

Fund Utilized - ₹72.65 Crores

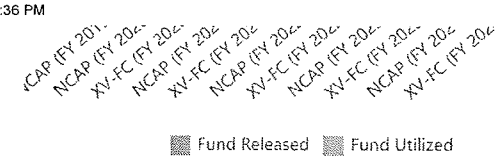


Annual data of PM_{10} since 2018

Result



165



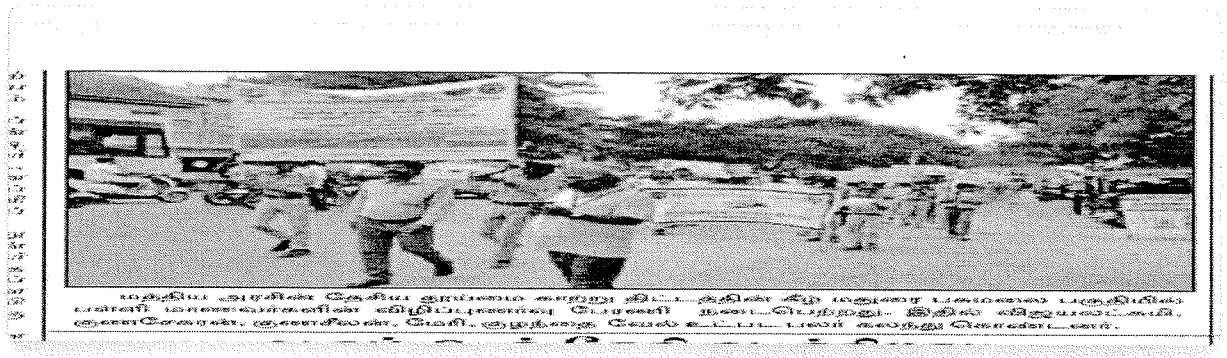
Standard for PM_{10}

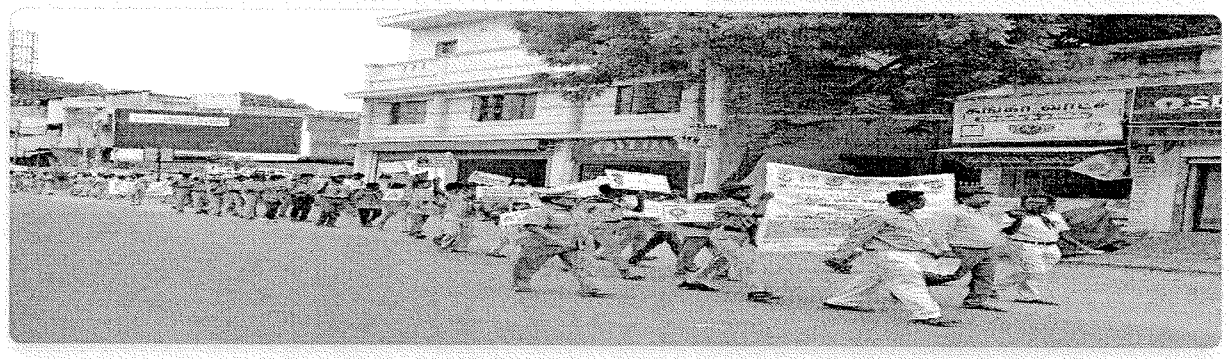
Nodal Officer Details

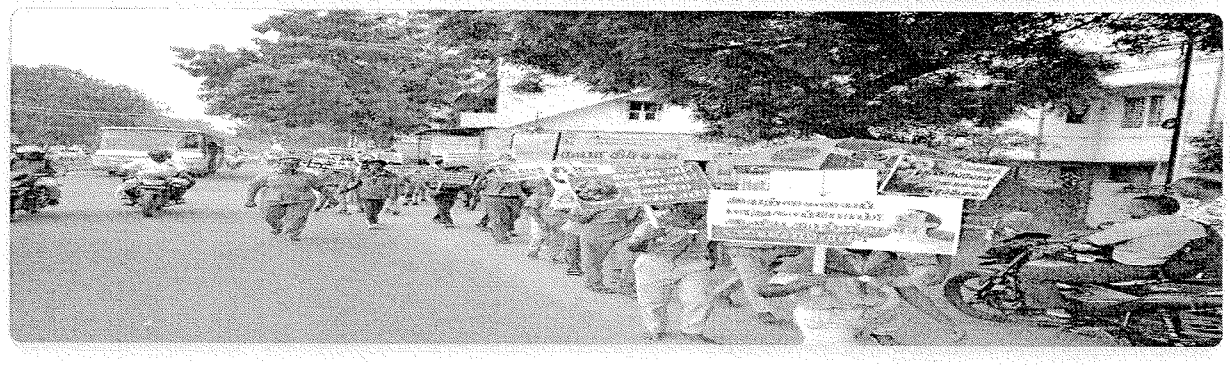
Name: Mr. U S Karunakaran
Email: tnpcbaelmdu@gmail.com
Phone: 9443558200

Name: Mr. S. Arasu
Email: mducorpce@gmail.com
Phone: 9443739519

Event Pictures







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Swachh Pawan, Neel Gagan

PRANA

"PRANA" – Portal for Regulation of Air-pollution in Non-Attainment cities, is a portal for supporting the monitoring of the implementation of India's National Clean Air Programme (NCAP).

Contact Us

ncap[dot]cpcb[at]gov[dot]in

ncap[dot]moefcc[at]gov[dot]in

Useful Links

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Support

011 - 43102465

(Mon-Fri, 10:00 AM - 6:00 PM)

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Karnataka

Bangalore

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Back

Air Quality Index

Air Quality Index(AQI) is a tool designed for communicating air quality status to people based on ambient pollutant concentration and their likely health impacts.

Air Quality Index

Bangalore

115

Moderate

Meteorological Data

Last Updated on : 2025-03-31

30 °C

0 m/s

SSE

Status of City Action Plan

Public Grievance Redressal Portal

168

Developed WEB portal/Helpline

Public Grievance Redressal System (PGRS) Link

Graded Response Action Plan

Developed

Download GRAP

Source Apportionment / Emission Inventory Studies

Completed

Download Source Apportionment Study

Summary of SA/EI

City Air Action Plan

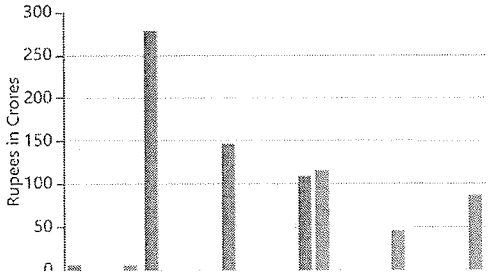
Approved

Download Action Plan

Funds Released and Utilized

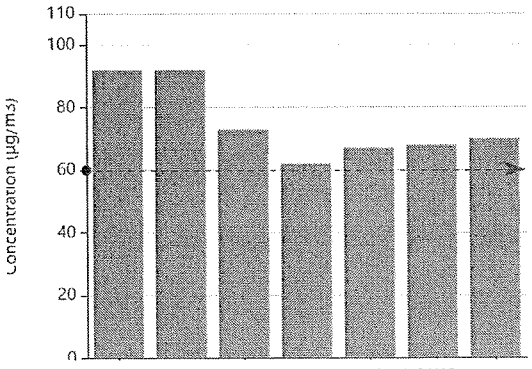
Fund Released - ₹541.1 Crores

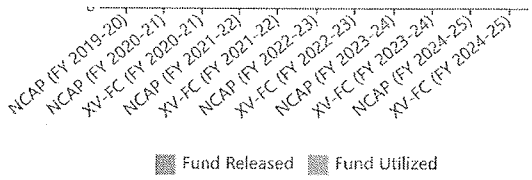
Fund Utilized - ₹254.33 Crores

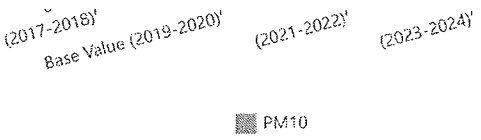


Annual data of PM_{10} since 2018

Result







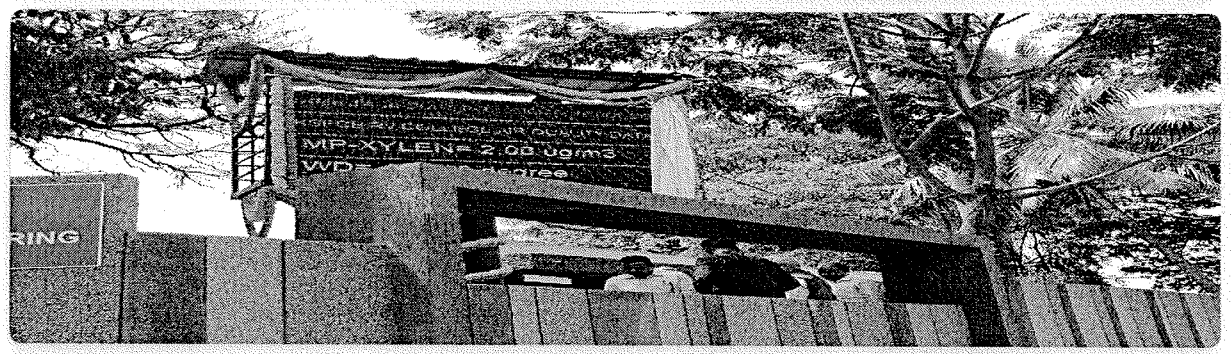
Standard for PM_{10}

Nodal Officer Details

Name: Dr. Sreedhara Naik B. M,
Email: aqmc@kspcb.gov.in, sreedhara.bm@kspcb.gov.in
Phone: 9448314241

Name: Mr.Sarfaraz Khan
Email: jcswmbbmp2@gmail.com
Phone: 9448111066

Event Pictures



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Swachh Pawan, Neel Gagan

PRANA

"PRANA" – Portal for Regulation of Air-pollution in Non-Attainment cities, is a portal for supporting the monitoring of the implementation of India's National Clean Air Programme (NCAP).

Contact Us

ncap[dot]cpcb[at]gov[dot]in

ncap[dot]moefcc[at]gov[dot]in

Useful Links

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Support

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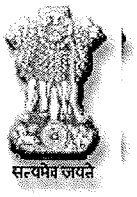
Total Visitors web counter

AUTO FUEL VISION AND POLICY 2025

REPORT OF THE EXPERT COMMITTEE



GOVERNMENT OF INDIA

May 2014

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PREFACE

The Committee to prepare the Auto Fuel Vision & Policy 2025 was constituted in continuation to the previous Expert Committee chaired by Dr. R.A. Mashelkar in 2003 that had ushered in BS III and BS IV automotive fuels.

I have seen the task of this Expert Committee to first lay down a feasible roadmap for complete and rapid transition across the country to BS IV automotive fuels which with 50 ppm sulphur are able to support a level of after treatment devices that can ensure BS IV emission norms, which have much lower limits than BS III emission standards. Second, to lay down a feasible and early road map for a countrywide shift to BS V automotive fuels (10 ppm sulphur) and therefore to BS V emission norms, which will constitute a qualitative improvement on the present situation.

The primary reason for mandating stringent fuel and emission standards that imply huge investments in refineries on the one hand and in the automobile sector on the other, is the overwhelming concern for public health. It is true that deterioration in ambient air quality is not the sole source of stress on the lives and health of our citizens. Nor is vehicular tailpipe emissions the only source of air borne pollutants. However, vehicular emissions are indeed a large contributor to air borne pollution. And in seeking to shape public policy in a manner that protects human health from the multifarious hazards of modern life, it is vital to resolve these issues one by one, separately and eventually jointly.

The evidence on emission levels in the country shows that there has been a positive impact consequent to the various steps that have been taken in the past to limit emission of air pollutants. But these efforts are being offset by the increase in urban density, in associated road transportation and in consequence of vehicular tailpipe emissions. As the country grows, people will continue to move away from farming as the mainstay of livelihood, urbanisation will intensify, disposable incomes rise and with it will increase the needs of urban transportation.

Across the world over the last many decades, atmospheric air quality has been adversely impacted by emission from automobile tailpipe exhaust, industrial smoke stacks, thermal power plants, construction dust & debris and the other by-products of a crowded and modernised urban existence. Simultaneously the rising incidence of a range of health effects has been recorded and there is compelling evidence of a causative link from the former to the latter, some very direct, some somewhat direct and some in an associated sense along with other factors. That cleaning up the air will be good for citizens' well-being is thus not just a gut feeling, but clearly established in the research literature.

The World Health Organisation (WHO) has consistently red-lined the danger to human health from air pollutants. Findings from the latest systematic study have been published in the Global Burden of Disease (2010). This is the largest ever systematic effort to describe the global distribution and causes of a wide array of major diseases, injuries and health risk factors.

This new analysis identifies especially high risk levels in the developing countries of Asia where air pollution levels are the highest in the world. Overall GBD 2010 estimates that over 2 million premature deaths and 52 million years of healthy life were lost in 2010, due to ambient fine particle air pollution. Among other risk factors studied in the GBD, outdoor air pollution ranked fourth in mortality and health burden in East Asia where it contributed to 1.2 million deaths in 2010, and sixth in South Asia where it is said to have contributed to over 7 lakh deaths in 2010. The analysis found that reducing the burden of disease due to air pollution in Asia will require substantial decreases in the high levels of air pollution in those regions.

There have been attempts to place a monetary value on the health cost of outdoor air pollution. To my mind the evidence of a causative association between high levels of air pollution – both in the form of potentially toxic chemicals and fine particulate matter – and the large magnitude of the health impact is sufficiently compelling for public policy to seek quick reduction in the incidence of air pollution from specific activities, and especially where such reduction is clearly within the domain of technological possibility. Measuring the cost of human life and suffering most often translates into estimates of income foregone. One is acutely

uncomfortable with this view of the value of human life and especially so in the public policy context.

Moreover, that there is harm caused to human health by outdoor air pollution and that automobile tailpipe exhaust is a major contributor is self-evident. Further, we know that the scale of urbanisation will increase and so will the number of automobiles on the road – and that too by a large factor. Reducing the unit emissions – that is per vehicle kilometre travelled – is obviously the only appropriate way to respond to this. Doubtless rolling out of urban mass transit like suburban rail/metro and/or electric buses will help further, but these initiatives will need to be implemented over and above reducing the emissions on per vehicle kilometre travelled.

Therefore, the Expert Committee took the view that the principal objective should be to ensure the nationwide rollout of BS IV emission norms as fast as possible and then the earliest possible rollout of BS V emission norms. That implied that BS IV grade automotive fuels should become available across the country as quickly as possible, followed by the earliest possible rollout of BS V grade fuels.

Accepting this as the paradigm within which the recommendations were to be framed, the next question was to ask how to ensure the most efficient manner of rollout given the technical constraints limiting the output of BS IV and BS V fuels.

It was noted that even at present, the penetration of BS IV motor spirit or gasoline in the domestic market was 24% and that for BS IV grade high speed diesel (HSD) was 16% – even four years after introduction of the BS IV regime in metropolitan cities. Indeed not much headway has been made since 2010-11. The reason for the lower penetration, especially in the case of diesel, was felt to be the fact that in the periphery of the designated BS IV cities, BS III vehicles could be registered; BS IV vehicles (especially heavy duty vehicles) were more expensive and BS III fuel was cheaper than the BS IV equivalent. Thus, the economics tended to subvert the desired course of the statutory mandate.

To address this problem it is recommended that the retail price of BS III fuel should be made equal to BS IV fuel. It has been separately recommended that the quality differential in price as between the two grades of fuel should be 75 paise per

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litre; therefore the excess collected by re-pricing of BS III fuel would also be 75 paise per litre. However, this amount should not go to the oil companies but accrue as a cess to the OIDB. The cess may be called "**high sulphur cess**", since that is what it is in fact; and in order to distinguish it from the "fuel upgradation cess" that is discussed subsequently. The amounts collected as "**high sulphur cess**" will rapidly decline as the three-phase rollout to complete BS IV standards is completed and will become in early 2017. Assuming it is made effective from July 2014, the total collections before full rollout of BS IV will be of the order of **Rs 10,000 crore**.

If BS IV fuel could be rolled out at one shot across the country within a year that would undoubtedly be the best solution. However, refineries even working to a very tight schedule would take much longer to switch over to complete BS IV output, therefore requiring the changeover to be a graduated process. There is also a problem where if BS IV vehicles are tanked up with BS III fuels, significant damage is possible to the engine and systems.

It was seen that if things move at the "**Business as Usual**" speed the changeover to BS IV will take many years and that to BS V would have taken even more and go up to 2025 or even beyond.

This was not felt to be acceptable. As stated earlier, the mission was seen to be the earliest possible roll out to first BS IV and then to BS V. Could we have leapfrogged nationwide to BS V straightaway without passing through the BS IV stage? Yes, but that would not be technically possible before 2020 and we would then have had to continue for 6 more years hoping that BS IV penetration increases beyond present levels. The course that this Committee has recommended will ensure major increases in BS IV penetration from 2015 onwards and 100% coverage by April 2017. The net benefit to be had would be enormous, even as the changeover to BS V remains on course to be rolled out countrywide between April 2019 and April 2020.

In view of the experience of the last few years, it was felt that the best course of action will be to lock up entire geographies, in stages to the BS IV standard. In this manner the phased transition identified several States at one go, often including neighbouring districts of other States to ensure the greatest integrity to the targeted transition. It would have been convenient had there been more BS IV fuel available in

2015 and 2016, but the plan in order to be feasible had to work within the constraints of the technically feasible space available.

In this way, the transition in the first phase scheduled for 1 April 2015 will cover the whole of North India – Jammu & Kashmir, Punjab, Himachal, Haryana, Uttarakhand, western Uttar Pradesh and several bordering districts of Rajasthan. In the next phase scheduled for 1 April 2016, Kerala, Karnataka, Telangana, Odisha, Goa, several Union Territories and parts of Maharashtra will be converted entirely to BS IV. Finally on 1 April 2017, the entire country will move to BS IV. Then on April 2019, the whole of North India and on April 2020 the rest of the country will switch to BS V automotive fuel and emission regime.

This was the best that could be done given the technical constraints. However, the roadmap that has been made out on the basis of what has been described in the report as the Accelerated Transition Path assumes that the financial constraints which operate in the **Business as Usual** scenario can be substantially relaxed. The oil companies and their refineries have been operating with stretched finances and therefore the financial constraints are operative. It is estimated that the capital costs in terms of new plant & equipment and some refurbishment of existing equipment which the refineries will have to incur in order to be able to switch to 100% BS V automotive fuel by 2019-2020 is of the order of **Rs 80,000 crore**.

It is proposed to levy a "special fuel upgradation cess" of 75 paise per litre on all gasoline and diesel sold in the country for seven years up to 2021. Assuming that this cess can be made effective from 1 July 2014, then over the course of the next seven years a total of **Rs 64,000 crore** would be collected assuming a modest rate of annual growth in domestic consumption. This cess will accrue to the OIDB which will make the funds available to the oil companies for investments which are necessary to achieve the upgrading of quality of fuel produced. After seven years, this cess will be discontinued.

The collections to the OIDB on account of both the "special fuel upgradation cess" and the "**high sulphur cess**" will thus be of the order of **Rs 74,000 crore**, which comes close to the estimate of Rs 80,000 crore referred to above required to meaningfully relax the financial constraints that can enable the refineries to proceed

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on the accelerated transition path. These funds will be extended for use to the refineries in terms of the OIDB's mandate and rules. The Committee has recommended that it is desirable, considering the financially stretched conditions of the oil companies and the statutory nature of the investment obligation, that the Ministry of Petroleum & Natural Gas make the funds available from OIDB on relatively easy terms, both in respect of interest cost and repayment period.

The retrofitting of catalytic after-treatment devices on the stock of older commercial vehicles has to be energetically pursued. Commercial vehicles come up for renewal of licences. Once an area is switched over entirely to BS IV, the existing stock of commercial vehicles, especially heavy duty diesel units, should be directed to compulsorily get after-treatment devices – that dramatically reduce particulate and NOx emissions – retro-fitted within two years, failing which their licence should not be renewed.

The point has repeatedly been made in the course of the deliberations of the Committee that the vexed issue of pollutant stress on air quality and health cannot be addressed solely through improving fuel quality and emission norms. This is entirely true. Long traffic jams and slow moving traffic are regular phenomena in our cities. In these conditions emissions will be higher than with smoothly flowing traffic. Urban mass transit reduces the passenger load on roads and is also a great convenience to the citizens of the country.

It is imperative that Government at all levels address itself ever more energetically to building by passes, over passes and expressways that can ease traffic flow.

There are several other constructive avenues that should be pursued with vigour. One is to put electric trolley buses on the roads – as in the case of many cities in the developed world. Another is to encourage hybrid personal cars. However, these tend to be expensive but there are cheaper hybrid options that have the further virtue of being able to be retrofitted to existing vehicles. At the overall level, policy must encourage the rapid development of mid-sized cities and large towns to ease the pressure on the metropolises as part of a broader strategy of urbanisation.

It is my sincere hope and I am sure all of my colleagues on the Committee, who have given so generously of their time and effort over the past two years, that the recommendations of this Expert Committee will lead the country on a rapid path of transition to lower emissions from road traffic and in consequence will help all of our fellow citizens to breathe easier.

I must thank the Ministry of Petroleum & Natural gas on the behalf of members of the Committee and on my own behalf for entrusting this very important task to us.

My thanks are due to all the members of the Committee, particularly to the Chairpersons of the various Working Groups that were constituted, who have given so generously of their time and effort to the deliberations and progress of this Committee. Special mention is due to S/Shri L N Gupta and R K Singh, who were sequentially the two member secretaries to this Committee; to Shri B.D. Ghosh, CHT and his team S/Shri R. Krishnamurthy and A. K. Agarwal in CHT for their massive effort in the finalisation of the work of this Committee; to Shri Rajkumar Ghosh, IOC; to Dr. S.C. Sharma in the Planning Commission for his unremitting patience and diligence; to Dr. B. Sengupta and Dr. Leena Srivastava who articulated the health and environmental concerns so well and helped lend depth to the quality of deliberations; to Prof Shantanu Roy who lent clarity to technical issues; to Shri Ashok Dhar, RIL who gave freely of his vast experience of the field; to S/Shri K.K. Gandhi and Atanu Ganguli of SIAM, Shri I.V. Rao, Maruti Suzuki who put in so much effort; Shri P. Harsha Sivaji, IOC and his colleagues for the huge job of working out the logistics detail which has made the rapid rollout of BS IV and BS V a possibility; to Shri Susobhan Sarkar, IOC and technical officers of the other oil companies who gave so generously to the workings of this Committee; to senior management of the two and three wheeler industry who gave freely of their time and effort in giving final shape to this report; to S/Shri B.K. Namdeo, K. Anand Rao and V. Ratanraj in HPCL and S/Shri Prasad Panicker, C.K. Soman, Thomas George and others in BPCL, Kochi and Shri P. P. Upadhya, MRPL who helped me better understand the contours of the challenges involved in accelerating the transition; to Shri C.F. Dias and his colleagues at Emitec Emission Control Technologies who helped me better understand how after treatment devices work. I am also indebted to S/Shri Alan Lloyd, Michael Walsh and A. Bandivadekar of

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the International Council of Clean Transportation (ICCT) who spent time and effort to interact with the Committee and some of the Working Groups. My thanks are also due to the two and three wheeler manufacturers who spent time with the Committee to explain their situation and took a constructive approach to problem resolution.

My personal staff needs a special word of appreciation, especially Shri Sanjay Vasnik who has bravely worked through completing this report on time, even if it has meant very late nights and foregone weekends.

Finally, I would like to place on record my deep sense of gratitude to Shri B.K. Chaturvedi, Member, Planning Commission, who is the best sounding board any person can ever hope for.

SAUMITRA CHAUDHURI
Member, Planning Commission and
Chairman, Auto Fuel Vision & Policy 2025

Dated: 2nd May 2014, New Delhi

8.12.4 Emission Norms for Heavy Duty Vehicles > 3.5 T GVW

Europe moved to Euro IV standards in 2005, to Euro V standards in 2008/2009 and to Euro VI in 2013 (**Chart 8.5**). In India, where 50 pm sulphur fuel is available, the applicable emission regime is BS IV, which was notified in February 2009 under the Central Motor Vehicle Rules.

Table 8.14

Emission Norms for Diesel Engines > 3.5 Tonnes GVW

Emission, g/KWH	Driving Cycle	CO	HC	NO_x	NH_3 ppm	PM	Smoke (m-1)	PM No. / KWH
		gms per KWH						
BS IV	ESC/ELR	1.5	0.46	3.5	---	0.02	0.50	
BS V (Euro V)	ESC	1.5	0.46	2.0	---	0.02	0.50	---
BS VI (Euro VI)	WHSC	1.5	0.13	0.4	10	0.01	---	$8X10^{\wedge 11}$

Table 8.15

Emission Norms for CNG or LPG Engines > 3.5 tonnes GVW

Emission	Driving Cycle	CO	NMHC†	CH_4	NO_x	NH_3 ppm	PM g/KWH	PM No. /KWH
		gms per KWH						
BS IV	ETC	4.0	0.55	1.1	3.5	---	0.03	...
BS V (Euro V)	ETC	4.0	0.55	1.1	2.0	---	0.03	---
BS VI (Euro VI)	WHTC	4.0	0.16	0.5	0.46	10	0.01	$6X10^{\wedge 11}$
				CNG only			For diesel only	

Note: † The manufacturer may choose to measure the mass of total hydrocarbons (THC) instead of measuring the mass of non-methane hydrocarbon (NMHC). In this case, the limit for mass of THC should be same as for NMHC

Table 8.16

Fixed Deterioration Factors for Heavy Duty Vehicles (alternative to DF based on service accumulation)

Emissions	Driving Cycle	CO	THC‡	NMHC†	CH_4†	NO_x	PM	P No.
BS V (Euro V)	ESC/ETC	1.1	1.05	1.05	1.2	1.05	1.10	---
BS VI (Euro VI)	WHTC/WHSC	1.3	1.3	1.4	1.4	1.15	1.05	1

Note: ‡ Applicable for only Compression Ignition Engines

CHAPTER 12

CONCLUSIONS AND RECOMMENDATIONS

12.1 APPROACH

The report has discussed in detail, the present and prospective availability of BS IV and BS V gasoline and diesel from refineries. There is not enough BS IV fuel to meet the entire needs of the country, but this objective can be achieved by timely completion of ongoing projects and initiating and completing some others. However, in order to be capable of meeting the country-wide needs for BS V automotive fuel, significant additional investment are needed to be initiated and completed to a tight time line. The total investment that has been made and will have to be made in the future in order to achieve the requisite BS V production capability is in the region of **Rs 80,000 crore.**

The vehicle technology – present and prospective – is expected to be able to meet the stated emission norms in the context of availability of BS IV/BS V fuels in the time frame that is being recommended. The geography wise and block wise transition is also expected to ease the transition for the automobile industry. The emission norms for passenger cars, light & heavy commercial and goods vehicles have been adapted from European emission norms for these categories.

In the case of emission norms for 2 and 3 wheelers, there is a sizeable difference between the extant Euro IV and BS IV proposed norms in this report. However, the latter is tighter than what has been proposed by the industry and notified for public comment, vide Gazette notification, 14 March 2014. The hiatus between the notified Euro IV emission norms and that being proposed in this report is still large. However, given the status of technology and economic dynamics of the industry which so far has been conforming to

BS III emission norms, it is felt that the industry perhaps needs some time to be able to come into line with Euro IV norms with convergence to Euro IV being possible only at the time of roll out of BS V emission norms in April 2020.

A roadmap for the transition to BS IV in the entire country has been laid out in detail beginning April 2015 and completion with effect from April 2017. The transition to BS V is slated to take place and completed by 1 April 2020 in the entire country. The BS VI emission norms are expected to come into effect from April 2024.

This is an undoubtedly ambitious transition trajectory. If all of the constraints were to be preserved as presently perceived, this trajectory would not have been possible.

The "**Business as Usual**" path would have meant a roll out beginning 2019 for BS IV and to BS V five years after that, that is, by 2024.

The Committee has sought to relax many of the constraints, particularly the financial compulsions, evaluated the entire logistics chain for severe tightening in defining what has been called "Accelerated Transition Path".

While the "**Business As Usual**" trajectory may have been a more comfortable path for both refinery and automobile stakeholders, it would have failed the test of public interest. The objective of the Committee (as it sees it) is primarily to deliver to the citizens of this country the best possible solution in terms of emission norms in the shortest possible time frame. After all, the primary objective that is sought to be protected is public health.

The report has also proposed encouraging the use of alternative fuels, including CNG, Auto LPG, Bio-diesel, and electric/hybrid vehicles. It is felt that provisions of fiscal support is critical to the success of urban mass transit systems which in the longer run is one of the most powerful instruments for protecting the quality of ambient air. Mass transit systems also have the greatest ability to use electricity as the source of energy – both in rail cars and in electric bus trolleys/trams.

12.10 PHASING OUT OF IN-USE VEHICLES

There should be a policy for the phasing out of older commercial vehicles (15 years subject to MoRT&H judgement). Vehicles that are used as personal transport cover progressively less and less distance with age. This is not the case with commercial vehicles. It is therefore necessary to have a clear process through which older commercial vehicles, especially those which are clearly unable to meet extant emission norms be phased out of service.

12.10.1 Retrofitting NO_x Control Devices – Selective Catalytic Reduction

Selective Catalytic Reduction after treatment device for NO_x emission reduction in diesel trucks and buses poses new enforcement challenges. To keep the SCR function working as designed, vehicle operators need to regularly replenish urea – a reductant to convert NO_x into nitrogen and oxygen. For this, the urea availability is to be ensured.

In India there are certain areas of regulatory concern on the use of Urea for purposes other than agriculture.

- There is a Fertiliser Control Order by Government of India in place.
- As per the order, Urea cannot be sold to industries other than specified. Therefore, marketing, trading and retailing of Urea is restricted.
- Urea manufacturers in India cannot sell the same in open market.
- Proper license for import and/or handling of urea would be required.

The main concern of the Department of Fertilisers is that subsidised urea should not find its way into non-agricultural use. There is no reason why Government will not permit the sale of urea for the purpose of use in after treatment devices at full cost and without one paise of subsidy. This matter needs to be taken up with the Ministry concerned and a satisfactory solution to the problem can be found. Given that at the margin India is a net importer

of Urea, the import restrictions ought to be used for this end use or domestic sales transactions should be permitted.

12.10.2 Retrofitting of Particulate Emission Control Devices

There are four primary PM exhaust after treatment technologies, namely, crankcase filters, diesel oxidation catalysts, partial flow filters and diesel particulate filters (DPFs). All four may be used in both new and retrofit applications. However, DPFs is considered to be the best available control technology for heavy duty diesel PM control.

12.10.3 Time-bound Retro Fitting Requirement for Commercial Vehicles

Retro-fitting is a particular area of concern for the existing stock of BS III medium and heavy duty commercial vehicles which run on diesel. BS III vehicles do not have adequate after treatment devices and particulate filters. It is recommended, that once a geography is fully converted to BS IV grade fuel, commercial vehicles are required by law to get the retro-fitting of catalytic converters and particulate filters done within a period of two years for the extension of their operating licence under the Motor Vehicles rules.

12.11 Vapour Recovery System

OMCs will be encouraged to implement vapour recovery system for gasoline to minimise benzene emission in larger cities where sales are high and the cost can be recovered. This can be gradually expanded.

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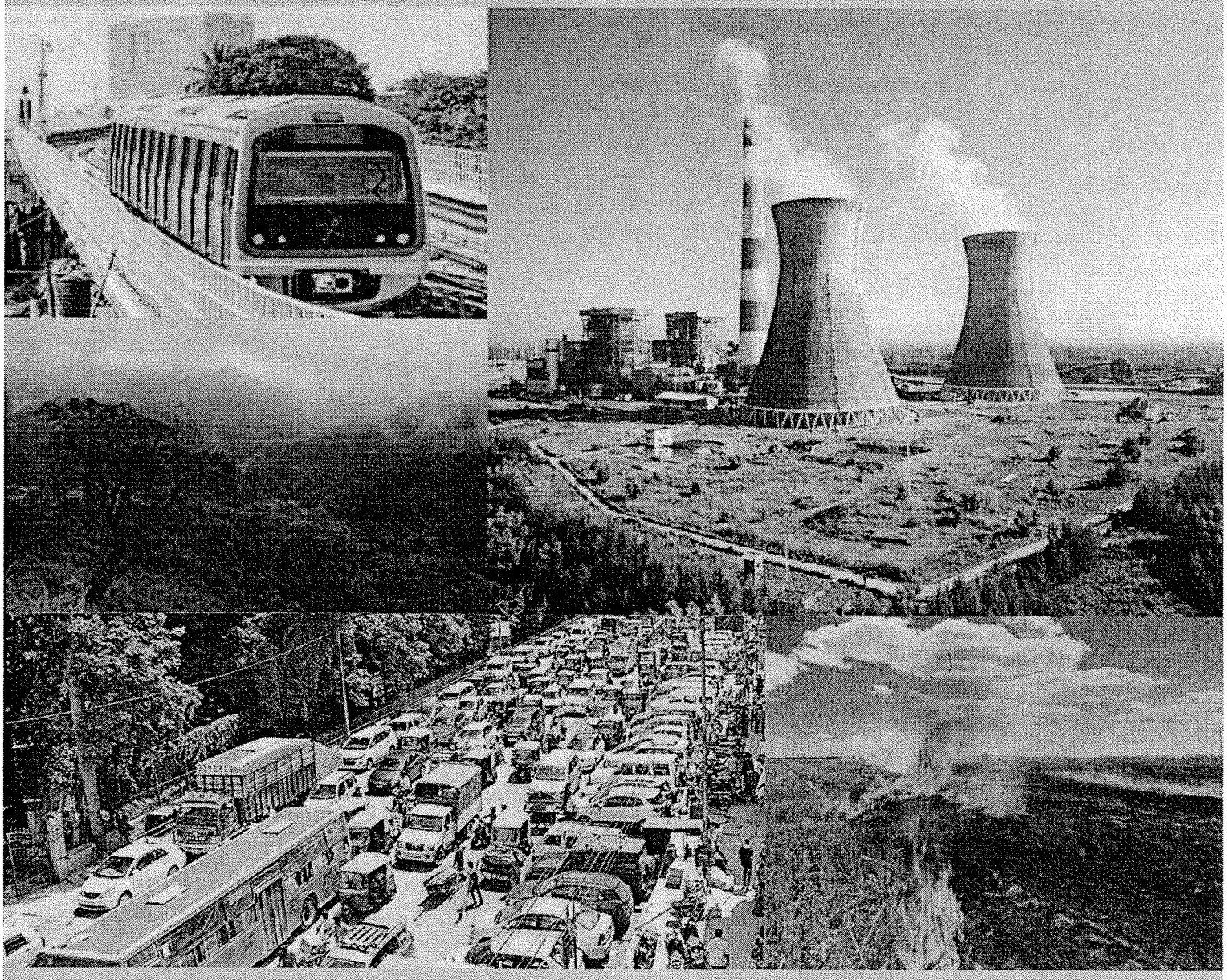
STATE ACTION PLAN ON AIR POLLUTION FOR KARNATAKA (SAPAP-K)



Environmental Management and Policy Research Institute, Bengaluru

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State Action Plan on Air Pollution for Karnataka (SAPAP-K)

Environmental Management and Policy Research Institute
Department of Forest, Ecology & Environment,
Government of Karnataka

November 2022

Vehicular Emissions

Notification for phasing out old vehicles (Commercial: 10 years; Private: 15 years)

As per the Government notification TD 187 TDO 2020, dated 03-02-2022, the Renewal of Fitness certificate for 2-stroke auto rickshaw plying in Bengaluru has been restricted. The notification can be found in **Annexure V**.

Table 16: The details of more than 15 years old vehicles in Karnataka State as on 31.03.2022

Sl. No	Category of Vehicle	Karnataka State
	NON TRANSPORT VEHICLE	
1	Two-wheelers	51,94,956
2	Cars	12,53,062
3	Omni Buses	18,903
4	Tractors	1,99,299
5	Trailers	1,25,948
6	Construction Moving Equipment	165
7	Private Service Vehicle	470
8	Other Vehicles	22,325
	TOTAL NON TRANSPORT VEHICELES(A)	**68,15,128**
9	**TRANSPORT VEHICLE**	
a	Multi-Axled/Articulated Vehicle	8,724
b	Trucks and Lorries	2,74,621
	TOTAL	**2,83,345**
10	**LIGHT GOODS VEHICLES**	
a	Four Wheeler	2,61,861
b	Three Wheeler	77,816
	TOTAL	**3,39,677**
11	**Buses**	61,045
	TOTAL	**61,045**
12	**TAXIES**	
a	Motor Cabs	67,147
b	Maxi Cabs	47,540
c	Others	01
	TOTAL	**1,14,688**
13	**LMV PASSENGER**	

a	**Three Seater (A/R)**	31,00,02
14	Other Vehicles	84,357
	TOTAL	**3,94,359**
	TOTAL TRANSPORT(B)	**11,93,114**
	TOTAL (A)+(B)	**8,00,8242**

(Source: 2021-22 Annual Report of Transport Department)

Policy of scrapping the old vehicles

Ministry of Road Transport and Highways (MoRTH), New Delhi has issued a notification vide GSR 653 (E), dated: 23-09-2021. For the State, the policy is under finalization for the establishment of RVSF (Registered Vehicle Scrapping Facility).

Karnataka State Road Transport Corporation (KSRTC) as a public sector has adopted the scrapping Policy as below:

For ordinary vehicles: 09 lakh km

For Corona seater: 10 lakh km

For Corona sleeper: 11 lakh km

For Volvo vehicles: 13 lakh km

Bengaluru Metropolitan Transport Corporation (BMTC) as a public sector has adopted the scrapping policy of 8.5 lakh kilometres or 11 years whichever is earlier.

Policy/Scheme for Eco-Friendly Mass Rapid Transport Systems[5]

Metro rail is a vital component of the transformation of the urban transport scenario in India. With the urban population continuously growing, there is a need for green solutions. Mass Rapid Transit Systems are fast, safe, and comfortable to travel. This alone will encourage people to switch from personalized vehicles to public transport.

Bangalore Metro Rail Project Phase-1

Metro services have been in operation 56 Km on the East-West corridor - 25.6 km long, starting from Baiyappanahalli in the East and terminating at Kengeri Terminal in the West and on 30.4 km North-South corridor commencing at Nagasandra in the North and terminating at Silk Institute in the South.

Bangalore Metro Rail Project Phase-2

Phase 2 of the Bangalore Metro Rail Project was sanctioned by GoI in February 2014. The Project consists of Four Extensions to the existing lines and two New Lines. The total length

[5] BMRCL Annual Report, 2021-22

ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ನಡವಳಿಗಳು

ವಿಷಯ: ರಾಜ್ಯದಲ್ಲಿ ನೋಂದಾಯಿತ ವಾಹನಗಳ ಸ್ಕ್ರಾಪಿಂಗ್ ಪಾಲಿಸಿ-2022 ಯೋಜನೆಯನ್ನು ಜಾರಿಗೊಳಿಸುವ ಕುರಿತು.

ಓದಲಾಗಿದೆ: 1. ಕೇಂದ್ರ ರಸ್ತೆ ಸಾರಿಗೆ ಮತ್ತು ಹೆದ್ದಾರಿಗಳ ಸಚಿವಾಲಯ ಅಧಿಸೂಚನೆ ಸಂಖ್ಯೆ: GSR 653(E), ದಿನಾಂಕ:23-09-2021, GSR 695(E), ದಿನಾಂಕ:13-09-2022.

2. ಸಾರಿಗೆ ಆಯುಕ್ತರ ಪತ್ರ ಸಂಖ್ಯೆ:ಸಾಆ/ಪ್ರವರ್ತನ-4/ಪಿಆರ್-01/2022-23, ದಿನಾಂಕ:28-10-2022, 01-12-2022, 09-09-2022 ಮತ್ತು 17-12-2022.

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ಪ್ರಸ್ತಾವನೆ:

ಮೇಲೆ ಓದಲಾದ(1) ರ ಕೇಂದ್ರ ರಸ್ತೆ ಸಾರಿಗೆ ಮತ್ತು ಹೆದ್ದಾರಿಗಳ ಸಚಿವಾಲಯ ಅಧಿಸೂಚನೆಗಳನ್ವಯ ಸ್ಕ್ರಾಪಿಂಗ್ ನೀತಿಯನ್ನು ಅನುಷ್ಠಾನಗೊಳಿಸಲಾಗಿರುತ್ತದೆ.

ಮೇಲೆ ಓದಲಾದ (2) ರ ಆಯುಕ್ತರು, ಸಾರಿಗೆ ಮತ್ತು ರಸ್ತೆ ಸುರಕ್ಷತೆ ಇವರ ಪತ್ರದಲ್ಲಿ, ಕೇಂದ್ರ ಸರ್ಕಾರವು ನಿಗಧಿಪಡಿಸಿರುವ ಮಾನದಂಡಗಳನ್ವಯ ಮೋಟಾರು ವಾಹನಗಳ ಕಾಯ್ದೆ 1988ರ ಕಲಂ 65(ಪಿ) ರಡಿ ಪ್ರದತ್ತವಾದ ಅಧಿಕಾರದಡಿ ಕರ್ನಾಟಕ ರಾಜ್ಯದಲ್ಲಿ ಹಳೆಯ ವಾಹನಗಳನ್ನು ನಾಶಪಡಿಸುವ ಸಂಬಂಧ Registered Vehicle Scrapping Facility ಕೇಂದ್ರಗಳನ್ನು ಪ್ರಾರಂಭಿಸುವ ಸಂಬಂಧ Registered Vehicle Scrapping Policy in Karnataka 2022 ರ ಕರಡು ಯೋಜನೆಯೊಂದಿಗೆ ಸರ್ಕಾರದ ಅನುಮೋದನೆ ಕೋರಿ ಪ್ರಸ್ತಾವನೆ ಸಲ್ಲಿಸಿರುತ್ತಾರೆ.

ಆಯುಕ್ತರು, ಸಾರಿಗೆ ಮತ್ತು ರಸ್ತೆ ಸುರಕ್ಷತೆ ಇವರ ಪ್ರಸ್ತಾವನೆಯಂತೆ ಕೇಂದ್ರ ಸರ್ಕಾರದ ಅಧಿಸೂಚನೆಯನ್ವಯ Registered Vehicle Scrapping Policy in Karnataka 2022 ರ ಯೋಜನೆಯನ್ನು ಜಾರಿಗೊಳಿಸುವ ಕುರಿತು ಕೂಲಂಕಷವಾಗಿ ಪರಿಶೀಲಿಸಿ, ಸರ್ಕಾರವು ಈ ಕೆಳಕಂಡಂತೆ ಆದೇಶಿಸಿದೆ.

ಸರ್ಕಾರದ ಆದೇಶ ಸಂಖ್ಯೆ:ಟಿಡಿ 191 ಟಿಡಿಓ 2022,
ಬೆಂಗಳೂರು, ದಿನಾಂಕ:30-12-2022.

ಪ್ರಸ್ತಾವನೆಯಲ್ಲಿ ವಿವರಿಸಿರುವ ಅಂಶಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ, ಕೇಂದ್ರ ಸರ್ಕಾರವು ನಿಗಧಿಪಡಿಸಿರುವ ಮಾನದಂಡಗಳನ್ವಯ ಮೋಟಾರು ವಾಹನಗಳ ಕಾಯ್ದೆ 1988ರ ಕಲಂ 65(ಪಿ) ರಡಿ ಪ್ರದತ್ತವಾದ ಅಧಿಕಾರದಡಿ **ಅನುಬಂಧದಲ್ಲಿ** ಲಗತ್ತಿಸಿರುವಂತೆ, Registered Vehicle Scrapping Policy in Karnataka 2022 ರ ಯೋಜನೆಯನ್ನು ಜಾರಿಗೊಳಿಸಿ ಆದೇಶಿಸಿದೆ.

ಈ ಆದೇಶವನ್ನು ಟಿಪ್ಪಣಿ ಸಂಖ್ಯೆ: ಆಇ 418 ವೆಚ್ಚ-11/2022(ಇ), ದಿನಾಂಕ:10-11-2022 ಮತ್ತು 12-12-2022 ರಲ್ಲಿ ಆರ್ಥಿಕ ಇಲಾಖೆಯು ನೀಡಿರುವ ಸಹಮನತಿಯನ್ವಯ ಹಾಗೂ ಸಚಿವ ಸಂಪುಟದ ಪ್ರಕರಣ ಸಂಖ್ಯೆ: ಸಿ:729/2022, ದಿನಾಂಕ: 22-12-2022ರಲ್ಲಿ ಅನುಮೋದಿಸಿರುವಂತೆ ಹೊರಡಿಸಿದೆ.

ಕರ್ನಾಟಕ ರಾಜ್ಯಪಾಲರ ಆದೇಶಾನುಸಾರ
ಮತ್ತು ಅವರ ಹೆಸರಿನಲ್ಲಿ

(ಪುಷ್ಪ ಬಿ.ಎಸ್)
ಸರ್ಕಾರದ ಅಧೀನ ಕಾರ್ಯದರ್ಶಿ,
ಸಾರಿಗೆ ಇಲಾಖೆ.

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GOVERNMENT OF KARNATAKA

REGISTERED VEHICLE SCRAPPING POLICY OF KARNATAKA, 2022

TRANSPORT DEPARTMENT

ಸಾರಿಗೆ ಇಲಾಖೆ
TRANSPORT DEPARTMENT

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1. INTRODUCTION

Automobile Scrappage policy is mutual win-win policy for all the stakeholders. The policy aims at creating an ecosystem for phasing out unfit and polluting vehicles from the State roads and to meet this objective state-of-the-art scrapping and recycling units are needed.

The Ministry of Road Transport and Highways has recently launched the visionary Voluntary Vehicle-Fleet Modernization Program (V-VMP). This Policy is aimed at creating an ecosystem for phasing out old unsafe, polluting vehicles and replacing them with newer safe and fuel-efficient vehicles. The Ministry has also notified the Registered Vehicle Scrapping Facility (RVSF) Rules vide Notification No.GSR 653(E) dated 23-09-2021 to enable setting up of modern vehicle scrapping facilities in India which can recycle the vehicles in an environment friendly manner.

The RVSF policy will help in increasing Automobile sales, provide employment, reduce import cost, generate incremental GST revenue and help to solve the global shortage of semi conductor chip. The said policy provides an important link in creating circular economy (waste to wealth) for the country. Initially, there should be atleast one RVSF centre to be set up at Division level.

The Govt. of Karnataka considers that guidelines for disposal of the vehicles should be formulated to offer an authorized place to the registered owners of End-of-Life Vehicles (ELV), to get their vehicles scrapped. Such scrapping guidelines and scrapping procedure will help in ensuring that the vehicles, so scrapped, do not cause damage to environment and there should be a proper disposal of hazardous components of the scraped vehicles.

In current global scenario, environmental pollution is considered to be the most alarming issue causing climate change, threatening lives of important species. The rising population of vehicles, especially the old vehicles plying on the roads are raising the pollution level. Unlike developed countries, current setup for vehicle recycling in India is extremely unorganized and majority of the vehicles are being routed through the informal sector which does not follow any Legal/ Environmental or Ethical norms. The non-scientific manner of recycling causes low material recovery, environmental damage by way of

water/air/soil pollution and unsafe working conditions for workers. Current unorganized system also lacks the visibility and transparency in the process for owners and the government.

In this backdrop, the Ministry of Road Transport and Highways (MoRTH) notified the Motor Vehicles (Registration and Functions of Vehicle Scrapping Facility) Rules, 2021 vide G.S.R. 653(E), Dtd. 23rd September, 2021 that lays down the procedure for establishment of "Registered Vehicle Scrapping Facility" (RVSF) for carrying out dismantling and scrapping operations of "End of Life" vehicles, which is applicable to all vehicles and their last registered owners, Automobile collection centres, Automotive Dismantling, Scrapping and Recycling Facilities and recyclers of all types of automotive waste products.

In view of above, Transport Department, Government of Karnataka has framed the "Registered Vehicle Scrapping Policy of Karnataka, 2022" in exercise of the powers conferred by sub section2(f) of section 65 Motor Vehicle Act,1988(59 of 1988).

2. OBJECTIVES AND VISION

As per Ministry of Road Transport and Highways data, in India,1.2crore End-of Life vehicles are estimated to be without valid Registration Certificates and Fitness Certificates. Out of 1.2 crore vehicles to be scrapped across India, approximately 14.3 lakhs vehicles (14 % of total) in the State of Karnataka are estimated as fit for scrapping.

Over the course of next 5 years, additional 66 lakhs vehicles registered in Karnataka will cross the age of 15and a substantial number of these End-of Life Vehicles (ELV) will be from the commercial category. In the above background Karnataka has formulated the Registered Vehicle Scrapping Policy-2022 with the following objectives;

i. Reduce pollution by scrapping old and unfit vehicles.
ii. Improve road, passenger and vehicular safety.
iii. Boost auto sector and generate employment.
iv. Improve fuel efficiency and reduce maintenance cost for vehicle owners.
v. Formalize the current informal vehicle scrappage industry in Karnataka.

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vi. Boost availability of low-cost raw materials for automotive, steel and electronic industry.

vii. Promoting recycling of vehicle scrap in a scientific manner,

viii. Promoting of circular economy in an eco-friendly manner.

vii. Encourage setting up of RVSF.

3. SHORT TITLE AND APPLICATION

i. These guidelines shall be applicable in the State of Karnataka.

ii. They shall come into force with effect from date of issue.

IN THE GUIDELINES, UNL
ESS THE CONTEXT TO THERWISE REQUIRES

i. "**Act**" means the Motor Vehicles Act, 1988 (59 of 1988)

ii. **"Scrapping"** means the entire process from receipt and record of the _End-of-Life Vehicles' including depolluting, dismantling, segregation of material, safe disposal of non-reusable parts, and issuance of Certificate of Vehicle Scrapping to the registered owner of a motor vehicle;

iii. "**Registered Vehicles Scrapping Facility (RVSF)**" means any establishment which holds a Registration for Vehicle Scrapping issued by the Transport Department, Government of Karnataka under these guidelines for carrying out dismantling and scrapping operations.

iv. "**Registration Authority**" means the Commissioner for Transport & Road Safety in Karnataka, Bangalore.

v. "**Appellate Authority**" means, the Principal Secretary / Secretary to Transport Department, Government of Karnataka.

vi. "**Enforcement Agency**" means Traffic Police, Municipal Corporations, Municipal Council, CEO, Cantonment Board and Transport Department, Govt. of Karnataka and any other applicable Government agencies authorized by the Government.

vii. "**ELV**" means —End-of-Life Vehicles which are no longer validly registered or declared unfit through Automated Fitness Centres or their registrations have been cancelled under Chapter IV of the Act or due to an order of a Court of Law or self-

declared by the legitimate registered owner as a waste vehicle due to any circumstances as specified in MoRTH notification No.GSR 653(E) dated: 23-09-2021.

viii. "**Certificate of Deposit**" means the certificate issued by the Registered Vehicle Scrapping Facility to recognize the transfer of ownership of the vehicle from the registered owner to the Registered Scrapper for further treatment.

ix. "**Certificate of Vehicle Scrapping**" means the certificate issued by a Registered Vehicle Scrapping Facility to recognize the final disposal of a vehicle.

x. "**Collection Centre**" means a facility or an area that may be used for the sole purpose of collecting and storing the End of Life Vehicles and sending it for further processing at the Scrapping Yard.

xi. The vehicles registered in Karnataka shall be scrapped only by an authorized RVSF after expiry of 90 days of issuance of these guidelines.

xii. Any vehicle originally registered in Karnataka or registered on transfer from any other State shall be scrapped by an RVSF as mentioned in **Karnataka RVSF policy-2022**.

4. GENERAL CONDITIONS & APPLICABILITY:

(i) This policy shall be applicable in the State of Karnataka.

(ii) It shall come into force with effect from the date of notification.

(iii) An RVSF may be owned and operated by any legal entity, be it a person, Firm, Society, Company or Trust established in accordance with law. An application in Form-I shall be addressed to the Commissioner of Transport, Karnataka, for "Registration Authority" of Registered Vehicle Scrapping Facility (RVSF).

(iv) An application for RVSF shall be made online at www.nsws.gov.in accompanied by required documents mentioned in RVSF Rules 2021 along with non-refundable processing fee of Rs.1,00,000/- (Rupees One Lakh only) & an earnest money deposit by way of a bank guarantee of

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Rs. 10,00,000/-(Rupees Ten Lakhs), which shall disposed within a period of 60 (sixty days) from the date of application.

(v) The Registration for RVSF shall be valid for an initial period of 10 (ten) years, which shall be renewable for another 10 (ten) years at a time.

(vi) The Registered Vehicle Scrapping Facility established in Karnataka may accept and scrap the vehicles registered in any of the State or Union Territory under the jurisdiction of any Registration Authority.

(vii) After handing over of the vehicles from owner or authorised person to RVSF, the RVSF shall issue the "Certificate of Deposit" as evidence of transfer of ownership of the vehicle. The Certificate of Deposit, which shall be tradeable, shall be a necessary and sufficient document of the owner to avail incentives and benefits for purchase of a new vehicle as may be declared from time to time.

(viii) All the rules of the Motor Vehicles (Registration and Functions of Vehicle Scrapping Facility) Rules, 2021 & other applicable Rules & Regulations have to be complied with by the RVSF.

(ix) Unless specified otherwise, the definitions in this policy shall be same as given in the Motor Vehicles (Registration and Functions of Vehicle Scrapping Facility) Rules, 2021.

(x) Any pending dues on the vehicle to be scrapped shall be cleared before issuing Certificate of Document by the RVSF.

(xi) An undertaking from the owner or representative, indicating that vehicle has no pending criminal record or litigation and there are no pending dues on the vehicle shall be taken.

(xii) Maintain safe custody of cut pieces of chassis number for a period of six months from the date of issue of Certificate Vehicle Scraping (CVS) and a physical copy of all documents for two years and scan copies for Ten years for record and examination during inspection.

5. ELIGIBILITY CRITERIA FOR SETTING UP OF RVSF

a) They should have office in Karnataka.

b) The RVSF may be owned and operated by any legal entity, be it a person, Firm, Society, Company or Trust established in accordance with law having the following documents,-

(i) Certificate of Incorporation or Shop Act Registration or Udyam Aadhar;

(ii) Valid Goods and Services Tax Registration;

(iii) If MSME and / or Startup, applicable MSME / Startup documents as per the respective Acts / Scheme will be applicable.

c) The applicant shall have applied for or having an approval for consent to establish from the Registering Authority of the State in which the Registered Vehicle Scrapping Facility is intended to be located.

d) The applicant shall have a minimum turnover of INR 10 crores if a single applicant or combined in case of consortium/ joint venture partner. If the applicant is an MSME and or / Startup, then the MSME Act and Start up scheme terms will be extended / exempted to the applicant on case to case basis.

e) Upon issuance of the valid permit to operate RVSF, the applicant shall undertake to meet the minimum technical requirement for collection and dismantling centers as per Central Pollution Control Board guidelines before beginning operations.

f) The applicant shall have competent manpower and appropriate equipment to carry out the depollution and dismantling activities in a safe and environmentally responsible manner.

g) The applicant shall undertake to obtain the required quality certifications of ISO 9001(quality management system) or ISO 14001(environmental certification) or ISO 45001 (occupational health and safety) within twelve months of commencement of operations as a Registered Vehicle Scrapping Facility and RVSF shall ensure that ISO certifications are revalidated atleast 3 months before their expiry.

h) The applicant shall possess or provide an undertaking to obtain a consent to operate from State Pollution Control Board within a period of six months from commencement of operations.

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i) The applicant shall undertake to abide by the provisions of all applicable Labour codes and all other Acts or Rules as applicable.

j) The applicant shall provide evidence of availability of an adequate useable area of land in the orange zone of the State by way of ownership or agreement to sell or agreement for lease of a minimum period of three years.

The applicant shall provide approved plant layout and the building plan.

6. CRITERIA FOR SCRAPPING OF VEHICLES

The following vehicles shall be scrapped at an RVSF-

a) Vehicles which have not renewed their Certificate of Registration (RC).

b) Vehicles which have not been granted a certificate of fitness.

c) Vehicles which are 15 years old and above, owned by the Govt./PSUs/Govt agencies/ Autonomous Councils etc.

d) Vehicles which have been damaged due to fire, riot, natural disaster, accident or any calamity, following which the registered owner self certifies the same as scrap.

e) Vehicles which have been declared obsolete or surplus or beyond economic repair by the Central or State Organisations of the Government and have been offered for scrapping.

f) Vehicles bought by any agency including Registered Vehicle Scrapping Facility in an auction for scrapping the vehicles.

g) Vehicles which have outlived their utility or application particularly for projects in mining, highways, power, farms etc. as maybe self-certified by the owner.

h) Manufacturing rejects, test vehicles, prototype, vehicles damaged during transportation from vehicle original equipment manufacturer to dealers or Unsold or unregistered vehicles as may be certified by the vehicle original equipment manufacturer.

i) Auctioned, impounded or abandoned vehicles by any enforcement agency.

j) Any other vehicle voluntarily offered to a Registered Vehicle Scrapping Facility for scrapping by the owner.

7. STRATEGY FOR EFFECTIVE IMPLEMENTATION OF VEHICLE SCRAPPING POLICY IN KARNATAKA

For implementing this scrappage policy in an effective way in the State of KARNATAKA to reduce vehicular pollution & to phase out unfit and polluting vehicles, there by promoting recycling of vehicle scrap in an eco-friendly manner, the followings steps shall be adopted in the State of KARNATAKA;

a. Considering the increasing level of vehicular pollution by old vehicles, the State has already imposing a "Green Tax" as per Section 3(B) of Karnataka Motor Vehicles Taxation Act 1957 for renewal of Registration of non-transport vehicles above 15 years and transport vehicles above 7 years.

b. The Government of Karnataka to promote the use of Battery operated vehicles in the State has exempted the Registration Fees, Motor Vehicle Tax and Permit.

c. To encourage & incentivize people to voluntarily hand over their vehicles to RVSF and in pursuance of MoRTH Notification vide GSR 720(E), dated 5th October 2021, in case a new vehicle is registered against submission of "Certificate of Deposit", the concession in the motor vehicle tax shall be equivalent to 25% of the tax paid on scrapping vehicles in case of non-transport vehicles and 15% in case of transport vehicles in the State of Karnataka. This concession shall be available upto 8 years in case of transport vehicles and upto 15 years in case of non-transport vehicles.

d. The vehicles seized and impounded by any enforcement agencies, if found unfit to ply on road, may be disposed through RVSF by following the prescribed procedures.

e. After Fitness testing is made mandatory for transport vehicles in Automated Testing Station (ATS), this shall be made compulsory for all categories of vehicles including Non-Transport vehicles & its fitness testing after 15 years during the time of Renewal of Certificate shall be done only at ATS. Those non-transport vehicles not passing the Fitness test or not

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granted a certificate of fitness by the ATS shall be handed over to the RVSF for scrapping.

8. INTERPRETATION:

The decision of the State Government in regards to interpretation of any clause of the policy shall be final and binding.

9. TAX CONCESSION FOR END OF LIFE VEHICLE (ELV) OWNERS :

Sl. No	Rule 51A of CMVR 1989 Concession in Motor Vehicle Tax against submission of "Certificate of Deposit"	Concession in MV Tax
1	Non-Transport Vehicle	The tax concession to be given for newly registered vehicles against submission of COD shall be equivalent to 25% of tax paid on the scrapping vehicles. **NOTE:** 1. The least of tax collected/ to be levied on new vehicle, will be considered for the rate of concession in MV tax as above. 2. Concession in MV Tax for Two wheeler registered before 1986 is Rs.500/- 3. Concession in MV Tax for Light Motor Vehicle registered before 1995 is Rs.3000/- 4. If the tax paid details are not found, Transport Commissioner may issue circulars to determine the tax concessions whenever required. 5. The concession in MV Tax as above will be applicable for Five years from 01-04-2023 / date of commencement of the RVSF policy.
2	Transport Vehicle	The tax concession to be given for newly registered vehicles against submission of COD shall be equivalent to 15% of tax paid for a period of 8 years (32 quarters) from the date of registration of the scrapping vehicles.

		NOTE: 1. The concession in MV Tax as above will be applicable for Five years from 01-04-2023 / date of commencement of the RVSF policy. 2. To encourage the scrapping of End-of Life vehicles, the tax concessions shall be given for all age of vehicles being scrapped.

10. RIGHTS OF THE STATE GOVERNMENT:

a. The State Government reserves the right to amend any provision(s)including amendment or withdraw any of the incentives/ subsidies as and when necessary for promotion of scrapping of unfit and end of life vehicles and in the interest of the general people of the State from time to time under the provision of the Policy.

b. The State Government reserves the right to review the matter regarding sanction/disbursement of subsidies/ incentives and in this connection, the State Government's decision shall be final and binding.

c. State Government may engage an independent agency to study and recommend the number of RVSF viable for the state and locations thereof

d. The State Government reserves the right to make/ amend the necessary rules for implementation of this policy as and when required.

11. RIGHTS TO INSPECTION :

In order to ensure compliance of these guidelines the authorized RVSF should keep office and scrapping yard, records, register maintained by him and all the machineries, equipments, operators in the premises at all the regional time, open for the inspection by the Registration Authority or authorized representative of Transport Department.

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12. PAYMENT FOR SCRAPPING VEHICLES.

The payments for the scrapped vehicles to be made for the owners of ELVs as per the MoRTH notification No.GSR 653(E) dated 23-09-2021.

13. APPLICABLE ACTS & RULES.

Provisions of the following Acts / Rules and amendments thereof are applicable.

1. The Motor Vehicles Act, 1988.
2. The Central Motor Vehicles Rules, 1989.
3. Karnataka Vehicles Rules, 1993.
4. Indian Penal Code, 1860
5. The Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.
6. The Municipal Solid Waste (Management and Handling) Rules, 2000 amended in 2016 as Solid Waste Rules.
7. The Ozone Depleting Substances (Regulation and Control) Rules, 2000.
8. The Batteries (Management and Handling) Rules, 2001.
9. The waste (Management and Handling) Rules, 2011, amended in 2016.
10. The Plastic Waste (Management and Handling) Rules, 2011 amended in 2016.
11. Directions issued by the Hon'ble Courts/National Green Tribunal.
12. All other applicable Laws.

14. PENALTY

In case *of* any violation of these Guidelines, the Registration Authority may forfeit the security amount in part or full or / and may also cancel the registration of any RVSF. However, an opportunity of hearing will be given before forfeiture of security and before issuance of cancellation orders.

15. AUDITS AND CERTIFICATIONS

(i) The Registered Vehicle Scrapping Facility (RVSF) shall be audited by the Registration Authority for compliance with Motor Vehicles (Registration and Functions of Vehicle Scrapping Facility) Rules, 2021.

(ii) The Registration Authority may delegate the powers of auditing.

(iii) RVSF may be audited by the competent authority or any such agency on behalf of competent authority for regulatory and compliance audit, audit of mass flow statement as maintained in Form-3 by the RVSF and all conditions stipulated by the Ministry of Road Transport and Highways vide Notification No.GSR 653 (E) dated 23-09-2021 and GSR 192 (E) dated 10-03-2022 and any conditions that may be imposed from time to time.

(iv) Audit report shall be uploaded on the portal by the RVSF annually by the 31st May of that Financial Year.

(v) An yearly report of ELVs scrapped shall be furnished in the format prescribed by the Transport Department.

16. APPEAL

(i) Any person aggrieved by any order of the Registration Authority for forfeiture of security or issuance of cancellation orders, may within thirty days of the date of receipt of such order prefer an appeal before the Appellate Authority within 30 (thirty) days of issuance of penalty order.

(ii) The appeal shall be preferred in duplicate in the form of an application, setting forth the grounds of objections to the order of the Registration Authority and shall be accompanied by a certified copy of the order appealed against and fee of Rs.1,000/- (Rupees One thousand only).

-Sd-
Under Secretary to Government,
Transport Department.

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NOTE :-

- Scrapping of vehicle may reduce air and noise pollution to a considerable extent. People will look forward for buying environment friendly, safe and technology advanced vehicles.
- Improve passenger and vehicular safety.
- Generate employment in the automobile industry.
- Formulize the current informal vehicle industry
- Improve fuel efficiency and reduce maintenance cost for vehicle owners.
- Increase availability of low cost raw materials for automotive steel and electronic industry.
- With old vehicles being scrapped, the demand for new vehicle will raise and State will get revenues through GSTs and road tax.
- The automobile sector will benefit from new scrapping policy leading to more job opportunities.
- Vehicle owners might receive tax concession benefits as an incentive.
- Segregate of deposits issued by RVSF is tradeable.
- The RVSF model assumes a slow adoption of VVMP (Voluntary Vehicle Fleet Modernization Program) starting 10% of increase in FY23 to maximum of 65% in FY29.
- No requirement for physical visit to RTOs.
- Ease of doing business measures have been taken for seamless scrapping of vehicles.
- Industries will have very attractive business advantage by purchase of equipments to RVSF like Baler, Depolluting Machine, Tilting Machine, Radiation Detector, Weighbridge, Forklifts, Cranes, Shredder / Hammer mill, Cyclone Separators, Magnetic Separators, Eddy Current Separators and Drum Magnets.

PR-09

ಮುದ್ರಕರು ಹಾಗೂ ಪ್ರಕಾಶಕರು:– ಸಂಕಲನಾಧಿಕಾರಿಗಳು, ಕರ್ನಾಟಕ ರಾಜ್ಯಪತ್ರ, ಸರ್ಕಾರಿ ಕೇಂದ್ರ ಮುದ್ರಣಾಲಯ, ಬೆಂಗಳೂರು–59.

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CENTRAL MOTOR VEHICLES RULES, 1989

Rule 52A - Renewal of Certificate of Registration of Government Vehicles

← BACK NEXT →

[1][52A. Renewal of Certificate of Registration of Government Vehicles

(1) Notwithstanding anything contained in rule 52, the certificate of registration in respect of a motor vehicle owned by-

(i) the Central Government; or

(ii) the State Government or Union Territory administrations; or

(iii) any Municipal Corporation or Municipality or Panchayat; or

(iv) a State transport undertaking established under the Road Transport Corporation Act, 1950 (64 of 1950) and the Companies Act, 2013 (18 of 2013); or

(v) a Public sector undertaking; or

(vi) an autonomous body owned or controlled by the Central Government or the State Government,

shall expire after the lapse of fifteen years, as provided in sub-section (7) of section 41, from the date of initial registration of the vehicle:

Provided that the certificate of registration of government vehicle if already renewed before lapse of fifteen years from the date of initial registration, such certificate shall be treated as cancelled on completion of fifteen years from the date of initial registration of the vehicle:

Provided further that, this rule shall not apply to the special purpose vehicles (armoured and other specialised vehicles) used for operational purposes for defense of the country and for the maintenance of law and order and internal security.

(2) Disposal of such vehicles shall, after the expiry of the fifteen years from the date of initial registration of the vehicle, be ensured through the Registered Vehicle Scrapping Facility set up in accordance with the Motor Vehicles (Registration and Functions of Vehicle Scrapping Facility) Rules, 2021, as amended from time to time.]

1. Inserted by Central Motor Vehicles (First Amendment) Rules, 2023 vide Notification No. GSR29(E) dated 16.01.2023, w.e.f. 01.04.2023.

← BACK NEXT →

Disclaimer ⚠

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☎ 25581383, 25589112
25588151, 25588270
25588142, 25586520

ಕರ್ನಾಟಕ ರಾಜ್ಯ ಮಾಲಿನ್ಯ ನಿಯಂತ್ರಣ ಮಂಡಳಿ
Karnataka State Pollution Control Board
"ಪರಿಸರಭವನ", 1 ರಿಂದ 5ನೇ ಮಹಡಿಗಳು, ನಂ.49, ಚರ್ಚ್‌ಸ್ಟ್ರೀಟ್, ಬೆಂಗಳೂರು - 560 001, ಕರ್ನಾಟಕ, ಭಾರತ
"Parisara Bhavana", 1st to 5th Floor, # 49, Church Street, Bengaluru - 560 001, Karnataka, INDIA

No. PCB/CMO/2014 3485

Dated: 10.10.2014

16 OCT 2014
ರವಾನಿಸಲಾಗಿದೆ.

To.

The Commissioner,
Transport & Road Safety,
1st Floor, 'A' Block,
BMTC Complex,
Shanthinagar,
Bangalore – 560 027.

Sir,

Sub: Diesel Retrofit policy for emissions compliance – reg.

Ref: A letter of Clean Air Technology India Pvt. Ltd., address to Hon'ble Chief Minister of Karnataka and copies given to the KSPCB on 25.9.2014.

-/-/-/-

Please find herewith enclosed the copy of the letter cited under reference above, it is claimed that, there are technologies to reduce emissions from old diesel vehicles by retrofitting devises to reduce the fuel consumption and also to reduce emissions upto 40%.

The above technology can be examined by Transport Department and State can adopt a suitable policy for reducing the emissions from old vehicles not complying with Bharath - III & IV norms which will enable to improve ambient air quality.

Yours faithfully

(DR.VAMAN ACHARYA)
CHAIRMAN

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KSRTC Field Test Summary Report

Diesel Emissions Control System (DECS)

Emissions Field Test Data Summary

Emissions were reduced by **40.76%** - consistent with certified tests.
Results indicate a profit over cost from fuel savings of Rs 7 crores.

Assumed Fuel Price per liter over 18 months								
59.35								
Days year	Ltrs Day	Annual	8.00%	RS / ltr	Annual savings	7,500	Less Cost	Net savings
350	85	29,750	2,380	59.35	1,41,253	105,93,97,500	98,88,00,000	7,05,97,500

Field Test Purpose:

To determine if the product can achieve similar results to that of many certified tests presented reflecting reductions in fuel consumption in the 8% to 10% range and reductions in regulated emissions of 25% to 50%. The Technical Director of KSRTC determined a single unit test was sufficient for these purposes given the wide range of certified tests conducted on the product over the last 15 years.

Conclusion:

Product type, installation location and field test data reflects no meaningful risk to the product's use on buses and since there is no engine modification there is no risk to the engine warranty with the product's use. Post installation overall data, different drivers / routes, yielded 5.76% km/ltr improvement with a revenue increase over baseline of 4.4% km/ltr during the test period. Emissions were reduced by 40.76%. Comparing same driver / route, there was a 6.92% km/ltr improvement from the baseline carrying the 4.4% additional Rs/km revenue load. The average fuel consumption on the 435 km route after DECS removal was 91.67 liters per day compared to 83.07 liters per day during DECS use. That reflects a 9.4% fuel savings from current consumption levels. Factoring in the additional load of 4.4% Rs/km revenue increase during the test over baseline figures a similar fuel savings to 9+% with DECS use was indicated.

Product Summary:

The DECS technology is a non engine-modifying retrofit recommended to be installed post air filter and pre turbo. Documentation provided with the product reflects TUV certification to Euro standards and test reports reflect 8% to 12% fuel savings and emissions reductions of 30% to 50% with the product's use from baseline data in certified engine dynamometer tests using Euro (ECE) engine dynamometer test protocols.

Testing period:

Six months; two months baseline, two months installed, two months post-removal data tracking.

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Test Process Summary:

The first installation (KA-40 F-500) on 7 October was post turbo charger which is not recommended but not prohibited by the manufacturer. The bus ran fine for 4 days with no change in fuel consumption or smoke then driver reported acceleration issues and increased fuel after other issues on the route were experienced. In order to determine the true issue at hand, power to the DECS was disconnected on 11 October but the entire installation left in place to determine if the DECS unit itself was the issue. The problems and increased fuel consumption continued for 6 more days without the DECS unit operational. The entire DECS installation was removed on 24 October and everything was replaced to the same state as it was prior to the installation. The acceleration problem and fuel consumption continued to increase. By changing only one item at a time and gathering stable data after each change it is safe to assume DECS and / or its install did not cause the issues experienced.

The fuel consumption on KA-40 F-500 continued to rise from the baseline of 97.6 ltrs/day, averaged 101.82 ltrs/day after installation of DECS, increased to 103.73 ltrs/day 10 days after complete DECS removal and as of early March 2013 is averaging 112.92 ltrs/day. All data from a carefully managed process indicates there is a mechanical issue with KA-40 F-500 not related to DECS use.

A new test bus (KA 40 F 377) was assigned 6 November with stable baseline figures for fuel consumption, revenue per kilometer and emissions with the regular driver on the regular route documented. Installation of the same DECS unit as on KA-40 F-500 was performed on KA 40 F 377. The installation was post air filter but pre turbo per manufacturer recommendation. Monitoring post installation did confirm the certified engine dynamometer test data supplied. Post installation overall data through 4 January 2013, comprising different drivers and different routes, yielded 5.76% fuel savings with a revenue per kilometer increase of 4.4% from baseline data. Emissions were reduced by 40.76%. On the normal route with the regular driver km/ltr improved by 6.92% from the baseline figures with the additional load. The 2 month average fuel consumption on the 435 km route after complete DECS removal was 91.67 liters per day compared to 83.07 liters per day during DECS use. That is a 9.4% fuel savings from current consumption levels. Factoring in the additional load during DECS use over baseline figures, a similar fuel savings to 9.4% with DECS use compared to baseline data is indicated.

KMS / Fuel BUS: KA 40 F 377			
Date	KMs run	Fuel LTRS	KM / LTR
01.09.2012	435	86	5.06
02.09.2012	435	85	5.12
03.09.2012	435	89	4.89
04.09.2012	435	88	4.94
05.09.2012	435	84	5.18
06.09.2012	435	83	5.24
07.09.2012	435	89	4.89
08.09.2012	435	85	5.12
09.09.2012	435	89	4.89
10.09.2012	435	86	5.06
11.09.2012	435	87	5.00
12.09.2012	435	83	5.24
13.09.2012	435	NA	
14.09.2012	435	NA	
15.09.2012	435	85	5.12
16.09.2012	435	91	4.78
17.09.2012	435	84	5.18
18.09.2012	435	86	5.06
19.09.2012	435	85	5.12
20.09.2012	435	NA	
21.09.2012	435	81	5.37
22.09.2012	435	86	5.06
23.09.2012	435	88	4.94
24.09.2012	435	86	5.06
25.09.2012	435	84	5.18
26.09.2012	435	86	5.06
27.09.2012	435	83	5.24
28.09.2012	435	86	5.06
29.09.2012	435	84	5.18
30.09.2012	435	88	4.94
01.10.2012	435	87	5.00
02.10.2012	435	88	4.94
03.10.2012	435	88	4.94
04.10.2012	435	84	5.18
05.10.2012	435	91	4.78
06.10.2012	NA	NA	
07.10.2012	435	89	4.89
08.10.2012	435	90	4.83
09.10.2012	435	87	5.00
10.10.2012	435	86	5.06
11.10.2012	435	88	4.94
12.10.2012	435	85	5.12
13.10.2012			
14.10.2012			

2-11

15.10.2012	Bus sent for FC					
16.10.2012						
17.10.2012						
18.10.2012						
19.10.2012	435	85		5.12		
20.10.2012	435	86		5.06		
21.10.2012	435	90		4.83		
22.10.2012	435	87		5.00		
23.10.2012	435	86		5.06		
24.10.2012	435	94		4.63		
25.10.2012	435	86		5.06		
26.10.2012	435	91		4.78		
27.10.2012	435	88		4.94		
27.10.2012	627	125	Extra trip	5.02		
28.10.2012	435	81		5.37		
29.10.2012	435	82		5.30		
30.10.2012	435	93		4.68		
31.10.2012	537	115		4.67		
01.11.2012						
02.11.2012	701	146	Data of 1st and 2nd together	4.80		
03.11.2012	594	107		5.55		
04.11.2012	777	173	Extra trip	4.49		
05.11.2012	435	86		5.06		
06.11.2012	435	87		5.00		60 day
07.11.2012	435	83		5.24		KM/LTR
08.11.2012	435	86	install	5.06	**Average until install**	**5.02**
09.11.2012	435	81	original dvr/rte	5.37	km/ltr day	
10.11.2012	435	80		5.44	km/ltr day	
11.11.2012	435	83		5.24	km/ltr day	
12.11.2012	435	84		5.18	km/ltr day	9th-13th
13.11.2012	435	82		5.30	km/ltr day	5.31
14.11.2012					km/ltr day	
15.11.2012	870	172	14th, 15th together	5.06	km/ltr day	
16.11.2012	435	85		5.12	km/ltr day	
17.11.2012	435	88		4.94		
18.11.2012	435	86		5.06	km/ltr day	
19.11.2012	435	90		4.83	km/ltr day	
20.11.2012	NA	NA			km/ltr day	pink shade
21.11.2012	350	83		4.22	km/ltr day	
22.11.2012	NA	NA			km/ltr day	
23.11.2012	551	119		4.63	km/ltr day	
23.11.2012	600	90		6.67	km/ltr day	
24.11.2012	594	118		5.03	km/ltr day	
25.11.2012	NA	NA			km/ltr day	
26.11.2012	499	114		4.38	km/ltr day	
26.11.2012	594	98		6.06	km/ltr day	
27.11.2012	NA	NA			km/ltr day	

28.11.2012	787	160		4.92 km/ltr day	
29.11.2012	NA	NA		km/ltr day	
30.11.2012	NA	NA		km/ltr day	
01.12.2012	NA	NA		km/ltr day	
02.12.2012	900	124		7.26 km/ltr day	
03.12.2012	435	85		5.12 km/lt	5.25 overall
04.12.2012	435	80	original dvr/rte	5.44 km/lt	5.26 overall
05.12.2012	435	82	main driver off	5.30 km/ltr day	overall
06.12.2012	435	82	main driver off	5.30 km/lt	5.27 overall
07.12.2012	435	77	original dvr/rte	5.65 km/lt	5.28 overall
08.12.2012	435	79	original dvr/rte	5.51 km/lt	5.29 overall
09.12.2012	435	84	original dvr/rte	5.18 km/lt	5.29 overall
10.12.2012	435	84	replaccement	5.18 km/lt	5.28 overall
11.12.2012	435	86	original dvr/rte	5.06 km/lt	5.28 overall
12.12.2012	435	80	replacement	5.44 km/lt	5.28 overall
13.12.2012	435	82	regular	5.30 km/lt	5.28 overall
14.12.2012	435	89	regular	4.89 km/lt	5.27 overall
15.12.2012	435	86	regular	5.06 km/lt	5.26 overall
16.12.2012	435	85		5.12 km/lt	5.26 overall
17.12.2012	435	84	replacement	5.18 km/lt	5.26 overall
18.12.2012	435	84	replacement	5.18 km/lt	5.25 overall
19.12.2012	435	84	replacement	5.18 km/lt	5.25 overall
20.12.2012	435	82	regular	5.30 km/lt	5.25 overall
21.12.2012	435	91		4.78 km/lt	5.24 overall
22.12.2012	435	80		5.44 km/lt	5.24 overall
23.12.2012	435	83		5.24 km/lt	5.24 overall
24.12.2012	435	82		5.30 km/lt	5.25 overall
25.12.2012	435	81		5.37 km/lt	5.25 overall
26.12.2012	435	82		5.30 km/lt	5.25 overall
27.12.2012	435	82		5.30 km/lt	5.25 overall
28.12.2012	435	79		5.51 km/lt	5.26 overall
29.12.2012	435	83		5.24 km/lt	5.26 overall
30.12.2012	435	86		5.06 km/lt	5.25 overall
31.12.2012	435	85		5.12 km/lt	5.25 overall
			83.06896552		

BUS NO: F377				
Date	Total KMs r	Fuel consumption in LTRS		
15.02.13	NA	NA		
16.02.13	455	90		
17.02.13	435	90	90	4.83
18.02.13	517	107		
19.02.13	445	90	90	4.94
19.02.13	445	90	90	4.94
21.02.13	480	113		
22.02.13	614	131		

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23.02.13	445	90					
24.02.13	465	90					
25.02.13	445	90					
26.02.13	445	90					
27.02.13	445	90					
28.02.13	504	124					
01.03.13	604	103					
02.03.13	475	103					
03.03.13	435	94	94		4.63		
04.03.13	455	95					
05.03.13	445	96					
07.03.13	435	85	85		5.12		
07.03.13	435	103					
08.03.13	435	92	90		4.73		
09.03.13	435	93	93		4.68		
10.03.13	NA	NA					
11.03.13	890	204					
12.03.13	455	95					
13.03.13	435	95	95		5.12		
14.03.13	435	95	95		4.58		
15.03.13	NA	NA		92	4.84	test km/ltr	5.25
			Test	83			
			Improvement	10%			

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Fuel Consumption details for BUS no: KS 40 F 500				
01.10.2012	485	100		
02.10.2012	485	97		
03.10.2012	485	97		
04.10.2012	485	97		
05.10.2012	485	97	97.6	
06.10.2012	NA	NA		
07.10.2012	485	97	Installed date	
08.10.2012	485	97		
09.10.2012	485	99		
10.10.2012	485	97		
11.10.2012	485	100	Fuse to DECS removed - unit off.	
12.10.2012	485	105	Driver report incident / pulling problem	
13.10.2012	NA	NA		
14.10.2012	485	107		
14.10.2012	485	103		
15.10.2012	NA	NA		
16.10.2012	485	108		
16.10.2012	485	97		
17.10.2012	NA	NA		
18.10.2012	485	110	uninstalled date	101.8182
19.10.2012	485	105		
20.10.2012	NA	NA		
21.10.2012	485	107		
22.10.2012	485	105		
23.10.2012	485	103		
24.10.2012	485	100		
25.10.2012	NA	NA		
26.10.2012	485	109		
27.10.2012	485	105		
27.10.2012	485	104		
28.10.2012	NA	NA		
29.10.2012	485	106		
29.10.2012	485	94		
30.10.2012	485	103	103.7272727	

BUS NO: F500				
15.02.13	528	113		
16.02.13	639	115		
17.02.13	594	113		
19.02.13	485	113	113	
19.02.13	510	110		
20.02.13	505	108		
21.02.13	594	112		
22.02.13	NA	NA		
23.02.13	594	114		
24.02.13	485	118	118	
25.02.13	1035	232		
26.02.13	NA	NA		
27.02.13	505	110		
28.02.13	485	111	111	
01.03.13	485	117	117	
02.03.13	505	111		
03.03.13	485	110	110	
04.03.13	485	121	121	
05.03.13	485	113	113	
06.03.13	485	113	113	
07.03.13	485	110	110	
08.03.13	485	115	115	
09.03.13	485	110	110	
10.03.13	485	112	112	
11.03.13	505	112		
12.03.13	485	110	110	
13.03.13	505	111		
14.03.13	510	115		
15.03.13	NA	NA	Feb/Mar av	113.3077

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GOVERNMENT OF KARNATAKA

EVALUATION OF KARNATAKA STATE ROAD TRANSPORT CORPORATIONS (KSRTC, NWKRTC AND KKRTC) FROM 2014-15 TO 2019-20

ಕರ್ನಾಟಕ ಮೌಲ್ಯಮಾಪನ ಪ್ರಾಧಿಕಾರ
Karnataka Evaluation Authority

KARNATAKA EVALUATION AUTHORITY

DEPARTMENT OF PLANNING, PROGRAMME MONITORING AND STATISTICS

GOVERNMENT OF KARNATAKA

FEBRUARY 2022

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EVALUATION OF KARNATAKA STATE ROAD TRANSPORT CORPORATIONS (KSRTC, NWKRTC AND KKRTC) FROM 2014-15 TO 2019-20

NAME OF ECO:
ATHENA INFONOMICS INDIA PRIVATE LIMTED

DEPARTMENT NAME:
DEPARTMENT OF PUBLIC ENTERPRISES

ಕರ್ನಾಟಕ ಮೌಲ್ಯಮಾಪನ ಪ್ರಾಧಿಕಾರ
Karnataka Evaluation Authority

KARNATAKA EVALUATION AUTHORITY

DEPARTMENT OF PLANNING, PROGRAMME MONITORING AND STATISTICS
GOVERNMENT OF KARNATAKA
FEBRUARY 2022

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9. DEMAND AND SUPPLY ANALYSIS OF BUSES

a. **Introduction**

In this section we cover the replenishing demand of corporation buses based on an analysis of the average kilometres covered by buses in different age brackets. This will help us understand the position of the fleet in terms of the age and what the requirement is for newer buses to be acquired. All the data shared in this section has been taken from the following sources:

- Admin Reports of the Respective Corporations for the years 2014-15 to 2019-20.
- Offline data shared by each of the corporations for the period of 2014-15 to 2019-20.

Under each figure, we have indicated the generic source without specifying which specific reports and years, to avoid excessive repetition of the same information.

a. **Analysis Description**

To look at how corporations are managing their fleets, we will consider 9 lakh kilometres as the benchmark for vehicle scrapping, after discussions with relevant RTC officials. The analysis duration will be 2016-17 to 2019-20, based on available data accessed from their respective administrative reports.

b. **Age of the Fleet – Corporation Level Trends**

First, we go back to the average age of the fleet. As we saw previously, at the corporation level, KKRTC has the youngest fleet on average (5.83 lakh kms), followed by KSRTC (6.65 lakh kms) and NWKRTC (6.81 lakh kms). All the corporations have shown an increasing trend over the evaluation period, with KSRTC and NWKRTC growing consistently at similar rates, with AAGR values of 5.81% and 5.58% respectively. In the case of KKRTC, the average age was constant half of the time, with the changes only observed in 2015-16 (11.07%) and 2019-20 (14.46%), with a drop in 2016-17 (-9.38%). For this reason, the jump for KKRTC is not that high, with the AAGR coming to only 3.32%.

It is evident here that in terms of average age, corporation fleets have become increasingly older from 2014-15 to 2019-20. We will further explore these trends, looking at the buses for each corporation in terms of their frequencies in different age brackets, in the next section.

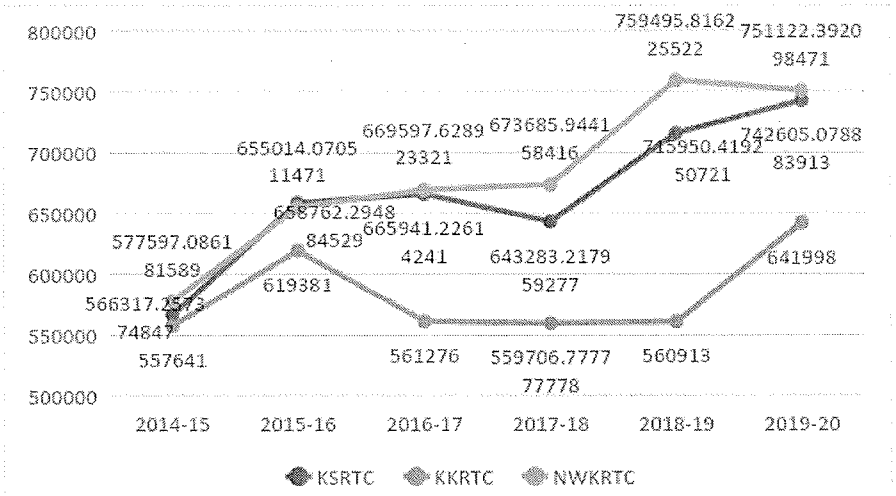

Figure 41: Average Age of Vehicles (in km) Trend at Corporation Level (Source: Admin Report)

c. Age of the Fleet – Bus Frequency Analysis

In this section we examine the fleet positions of the corporations over time, to understand how the composition changes in terms of age of the vehicles. First, we look at the age frequency distribution of the KSRTC buses in terms of lakh kilometres, in the graph below.

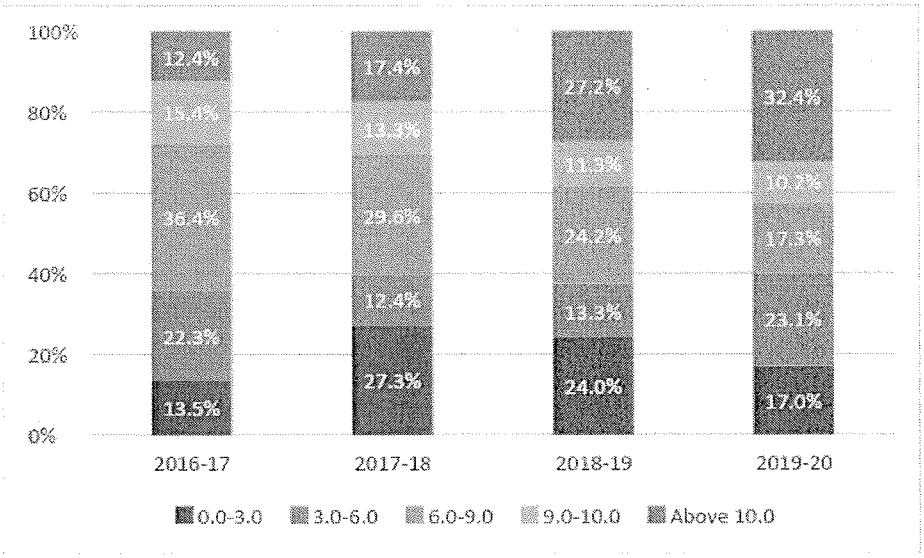

Figure 42: Frequency Distribution of Age (in Lakh Kms) of KSRTC Fleet (Source: Offline Data)

In the figure, it is quite evident that since 2016-17, the fleet age has been on the rise, despite some actions taken by the corporations. Initially, we see that the buses in the lowest 0-3 lakh kilometres do show an overall increase over this duration, due to new additions probably made in 2017-18, which effectively doubles the buses in that bracket. However, simultaneously, we see that buses above 9 lakh kilometres, our scrapping threshold, increase consistently, rising just under 15 pp from 27.8% in 2016-17 to 42.6%. While we see that

there is a small decrease of 5 pp for buses between 9-10 lakh kms over the evaluation period, the buses over 10 lakh kms increase 20 pp over the same duration. This means that effectively, as of 2019-20, 42.6% or close to half the buses in the KSRTC fleet are beyond their scrapping age.

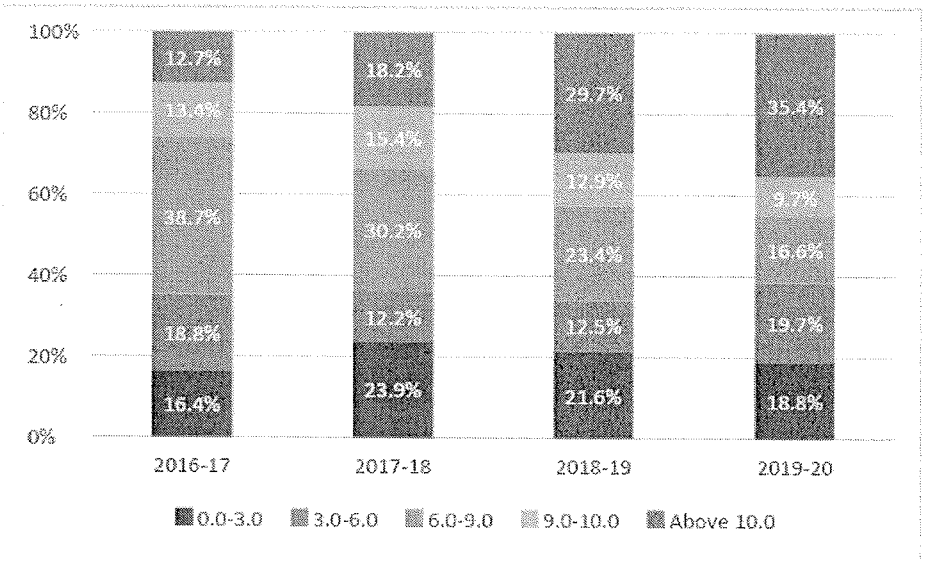

Figure 43: Frequency Distribution of Age (in Lakh Kms) of NWKRTC Fleet (Source: Offline Data)

In the case of NWKRTC, the picture is quite similar to KSRTC, with both fleets having quite a similar composition in 2016-17. At the lower end, we do see a similar increase by 7.5 pp to 23.9 per cent in the 0-3 lakh kilometre share of buses in 2017-18, but this declines to 18.8 per cent by 2019-20. At the same time, buses in the 6-9 lakh km age bracket shrink by 22 pp, while the buses with more than 9 lakh kms covered increase by 19 pp. Similar to KSRTC, in NWKRTC as well, 45.1% of the bus fleet is beyond scrapping age as of 2019-20.

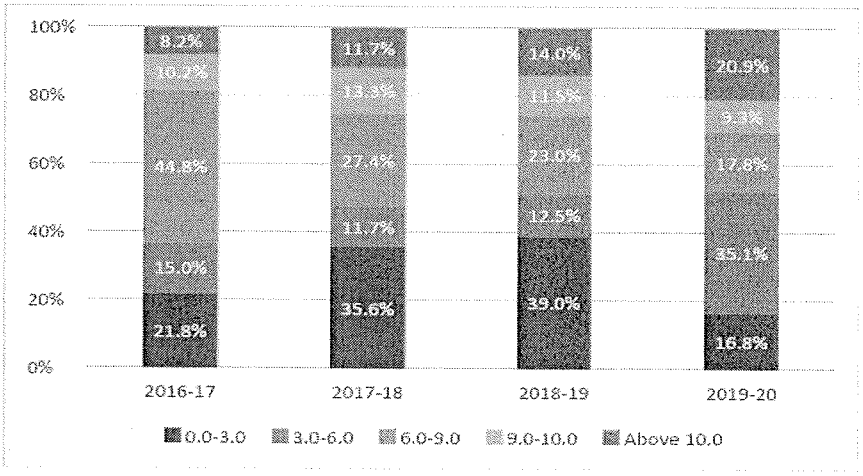

Figure 44: Frequency Distribution of Age (in Lakh Kms) of KKRTC Fleet (Source: Offline Data)

For KKRTC, the trends are similar, but the magnitudes vary as compared to the other corporations. In 2016-17, more of the KKRTC buses are within the scrapping threshold as compared to KSRTC and NWKRTC (81.6%). While this share gradually decreases to around 70 per cent in 2019-20, this is much higher than the mid 50 per cent shares held by KSRTC and KKRTC. This is primarily due to the fact that in 2017-18, buses aged 0-3 lakh kilometres increase around 14 pp to 35.6%, and instead of declining increase another 4 pp to 39% in 2019-20. This means that as compared to its counterparts, KKRTC focussed a little more on acquiring new members of its fleet given the increasing overall age. This is also the reason for the relatively low overall average age for the corporation in 2019-20 (6.42 lakh kms).

d. New Buses Added Each Year

To analyse the acquisition of new buses for each of the corporations more closely, we first look at only those buses that fall in the 0-1 lakh kilometre bracket for each year, starting from 2016-17 (figure below). When we look at the percentage share of the buses in the 0-2 lakh km bracket, all corporations have commensurate shares of 10 per cent (KSRTC), 12 per cent (KKRTC) and 13 per cent (NWKRTC) in 2016-17. For KSRTC and KKRTC, the values increase to 15 per cent and 16 per cent respectively, but for NWKRTC they fall to slightly under 12 per cent. This is interesting to note, since the buses in the 0-3 lakh km bracket increase by over 7 percentage points for the same year, indicating that some of the buses acquired may have already run a few lakh kilometres before they were bought. For all corporations in 2018-19, the buses in this bracket fall to almost a third of the strength in the previous year. In 2019-20 the buses for KSRTC and NWKRTC double to 7% and 8% respectively, but the values for KKRTC fall all the way down to 1%.

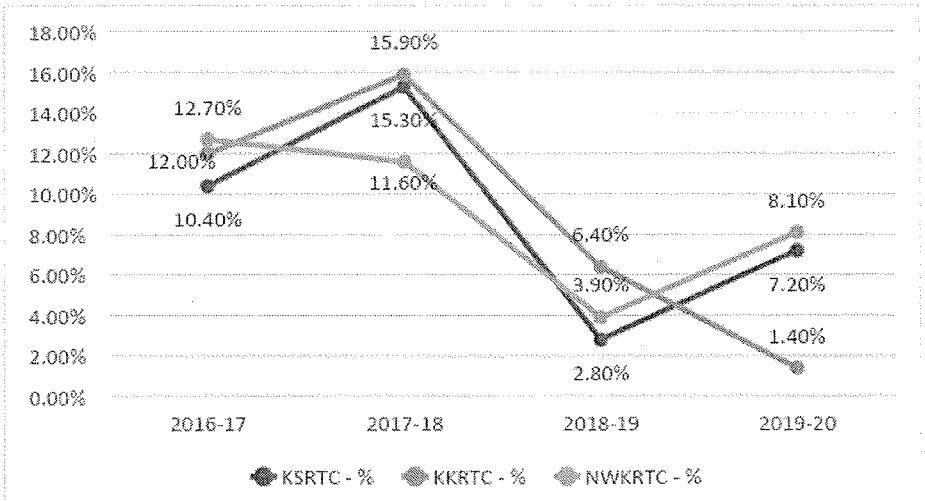

Figure 45: Percentage of Buses Aged 0-1 Lakh kms - Corporation Trends (Source: Offline Data)

We also look at new buses added each year, in comparison with the Buses aged between 0-1 lakh kilometres for each corporation. For KSRTC, the trends are almost identical, but the new buses added each year are slightly more than the buses in that age bracket for all 4 years

covered, reinforcing the fact that some new additions to the fleet may have been used previously.

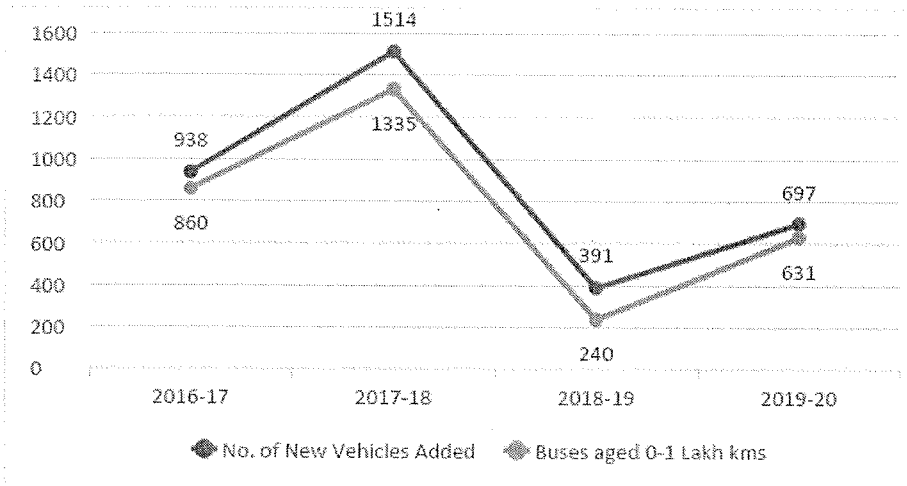

Figure 46: Trend of New Vehicles Added vs Buses Aged 0-1 Lakh kms– KSRTC (Source: Admin Report & Offline Data)

For KKRTC, we do not see the trends matching exactly, and we see that the Buses aged 0-1 lakh kms are lower than the new vehicles added in 2017-18 and 2018-19. For the outer years where the buses aged 0-1 lakh kms are more, the only explanation is that the surplus comes from buses carried forward from previous years that did not end up crossing the 1 lakh mark before the current year. For NWKRTC as well, the trends do not match exactly, but the performance is similar to KSRTC, wherein the buses aged 0-1 lakh kms are more in 2017-18 and 2018-19, with the new vehicles added being higher for the years on either side.

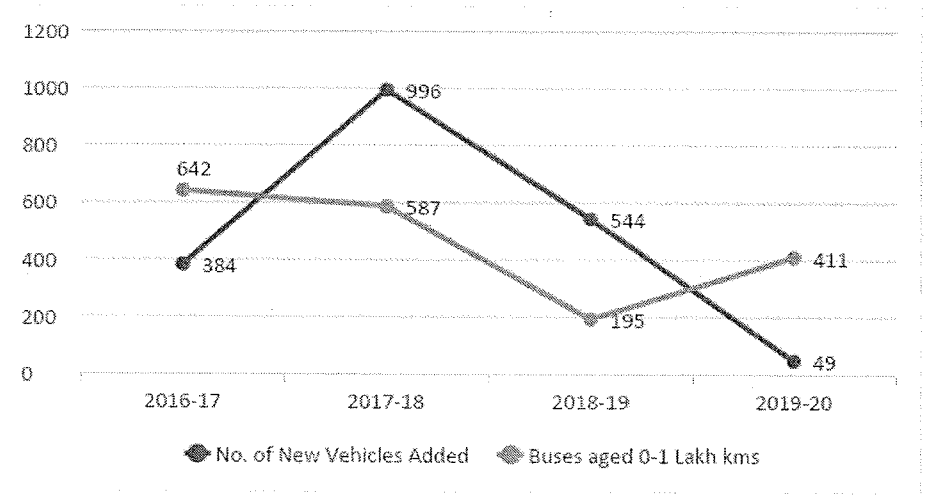

Figure 47: Trend of New Vehicles Added vs Buses Aged 0-1 Lakh km– KKRTC (Source: Admin Report & Offline Data)

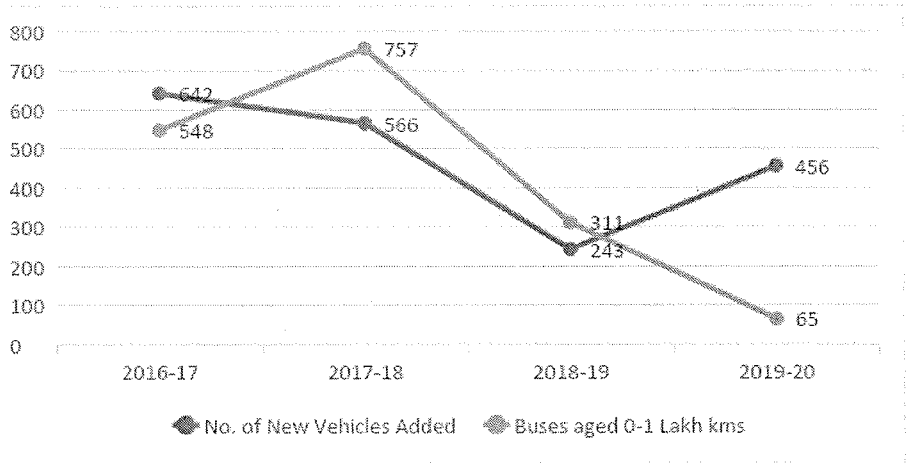

Figure 48: Trend of New Vehicles Added vs Buses Aged 0-1 Lakh kms– NWKRTC (Source: Admin Report & Offline Data)

After having looked at the purchase of new vehicles, we look at the other end of the spectrum in the next section.

e. **Expected vs Actual Scrapping of Buses**

In this section, we compare the Buses scrapped by the corporations, against the numbers that actually should have been scrapped, as per the 9-lakh km threshold. For KSRTC, there is a decreasing trend observed after the rise in 2017-18 for the vehicles scrapped, while the buses aged 9 lakh kilometres or above continue to rise (after a small drop in 2018-19). In the four years covered, the maximum % of the buses scrapped vs the buses aged > 9 lakh kms was 38.6% in 2017-18, where 1,041 buses were scrapped out of 2699 possible buses. This figure dropped to a low of 17.9% in 2019-20, where only 664 buses were scrapped of a possible 3710. Contrast this with 2016-17, where 688 buses were scrapped out of 2309 possible entities (29.8%).

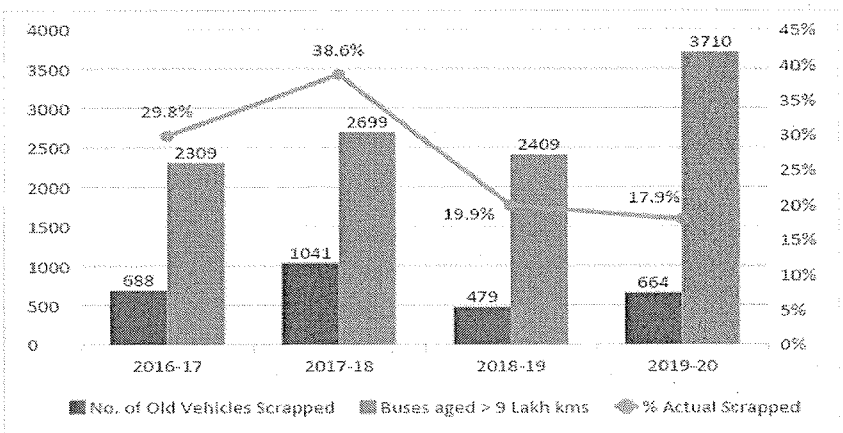

Figure 49: Vehicles Scrapped vs Vehicles that should be Scrapped – KSRTC (Source: Admin Report & Offline Data)

In the case of KKRTC, there is a decreasing trend observed after the rise in 2017-18 for the vehicles scrapped, but the Buses older than 9 lakh km increase throughout. We see a relatively better performance on the positive end, with 65.2 per cent of the eligible buses being scrapped in 2017-18. However, this figure drops to 17.4 per cent in 2019-20, an indication that the vehicles being scrapped are not directly proportional to those that should be scrapped.

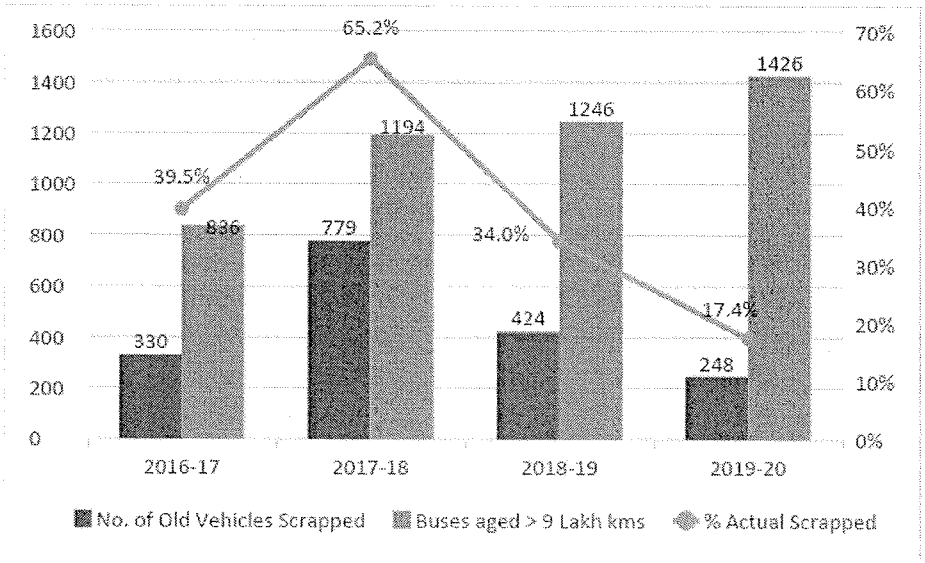

Figure 50: Vehicles Scrapped vs Vehicles that should be Scrapped – KKRTC (Source: Admin Report & Offline Data)

For NWKRTC, there is a gradual increasing trend of the scrapping % throughout the interval, unlike its counterparts. We see this value rise from 25.3 per cent to over double its original value at 57.5 per cent. While the No of vehicles scrapped sees some increase and decrease through the period, the rise in percentage is due to the drop in the Buses aged greater than 9 lakhs in 2018-19 and 2019-20.

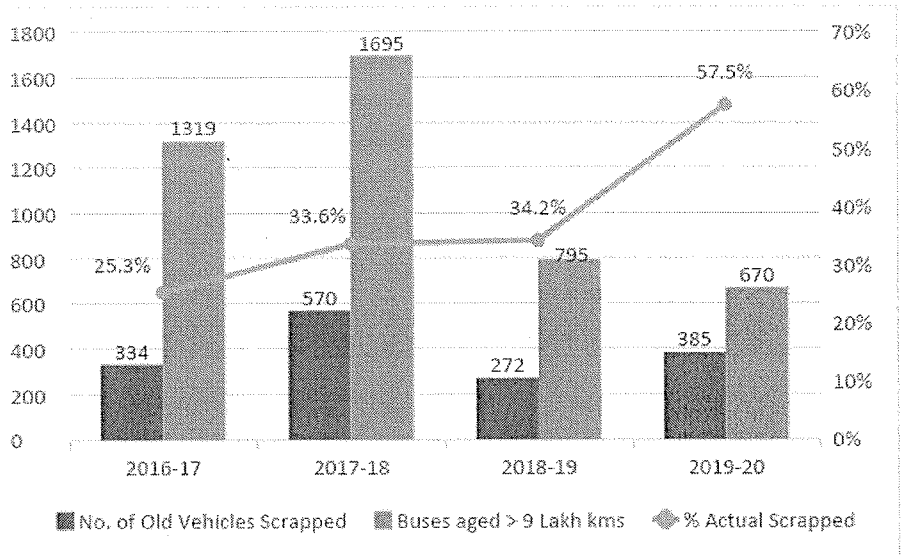

Figure 51: Vehicles Scrapped vs Vehicles that should be Scrapped – NWKRTC (Source: Admin Report & Offline Data)

On average, KKRTC has a higher scrapping rate of 39 per cent as opposed to 37.7 per cent for NWKRTC and 26.5 per cent for KSRTC, but all of these rates need to be improved upon, to keep in line with the regulations. It is quite clear that in most years scrapping is only done on a fraction of the buses that are past their decided life. This problem is further compounded by the fact that when we compare vehicles added to vehicles scrapped for the three corporations, more often than not the values are quite close to each other, big gap seen once for every corporation. For KSRTC and KKRTC it was 2017-18, when nearly 500 and 217 new vehicles were added to the fleet for each of these divisions. For NWKRTC this was 2016-17, where just over 300 new buses were added after taking into account scrapping. This points to the fact that in terms of adding new vehicles, the rate is equivalent or only a little higher/lower than the current rate at which vehicles are being scrapped, bringing into question the ability of the corporations to bring suitable and adequate replacements if actual scrapping protocol was followed.

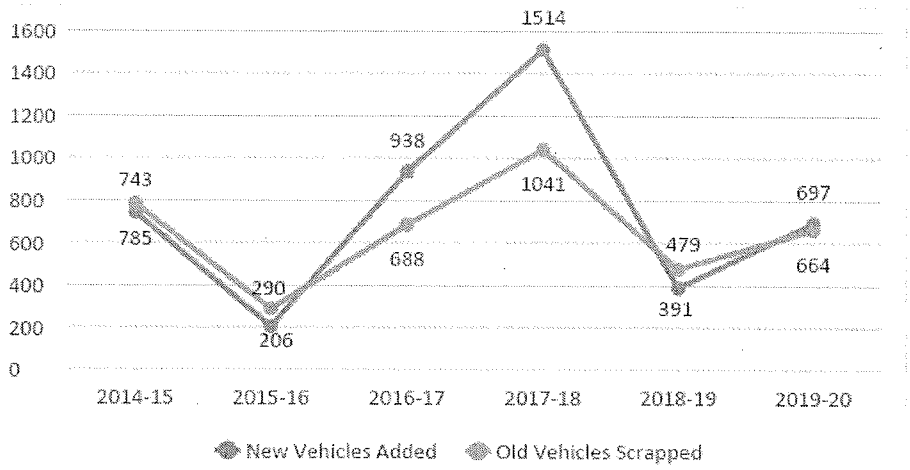

Figure 52: Trend of New Vehicles Added vs Scrapped – KSRTC (Source: Admin Report)

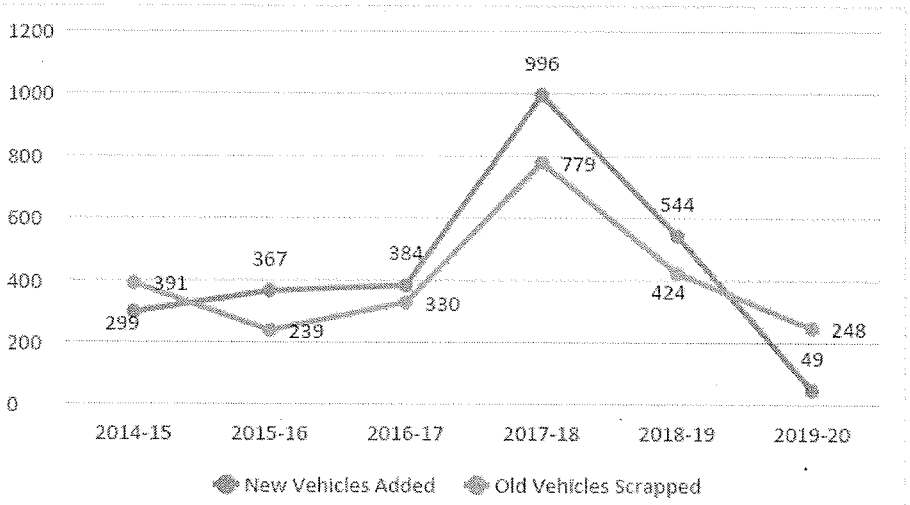

Figure 53: Trend of New Vehicles Added vs Scrapped – KKRTC (Source: Admin Report)

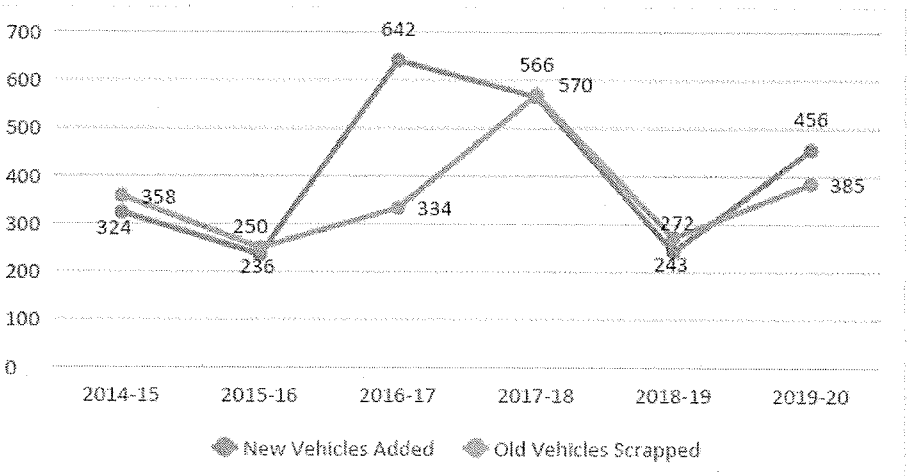

Figure 54: Trend of New Vehicles Added vs Scrapped – NWKRTC (Source: Admin Report)

It is essential that corporations understand their capability to add new vehicles to the fleet and also fix a rate of scrapping, either tied down to these new vehicles added, or the existing fleet strength, or the eligible scrapping population.

f. Breaking Down the Fleet by Bus Types in 2019-20

Just to add another layer to this, we look at the different bus types for 2019-20 for each of the corporations and see what the average age looks like when disaggregated amongst these. For each corporation, first we look at the original composition, before focusing on the buses beyond the 9-lakh km threshold. It is to be noted that, as per policy, for AC Sleeper buses, the threshold to scrap is 11 lakh km, while for luxury buses like Mercedes, Volvo, Scania, it is 13 lakh kms.

i. KSRTC

KSRTC has the largest fleet amongst all of the corporations, and a majority of its buses held are Leyland (45 per cent), Tata (33 per cent) and Eicher (15 per cent). This will be the trend observed across all other corporations as well. As was specified, Corona (Sleeper) buses constitute about 1 per cent of the total fleet, and luxury buses (Mercedes Benz, Volvo, Scania) together constitute the remaining 6 per cent of the fleet.

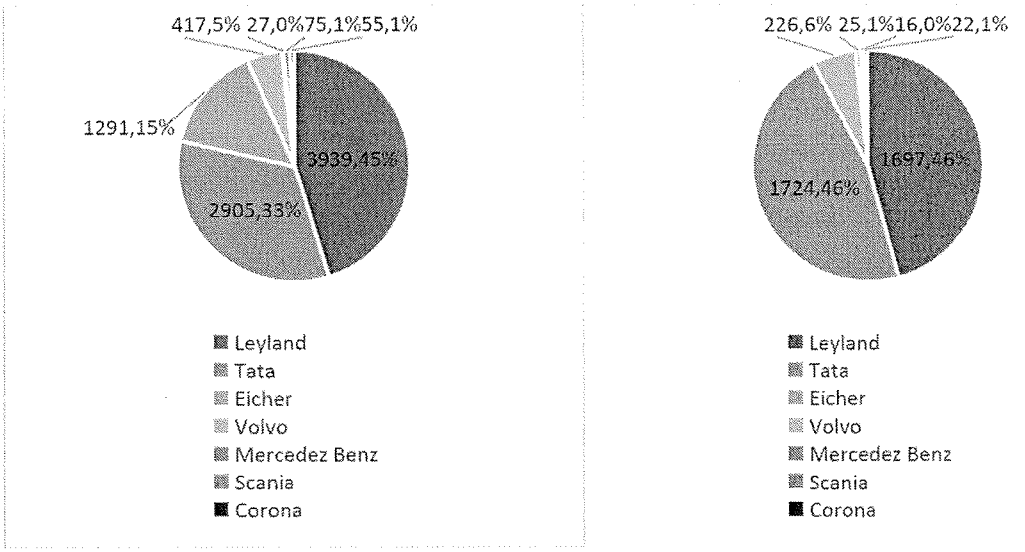

Figure 55: Distribution of KSRTC 2019-20 Fleet a. Overall by Bus Type b. > 9 lakh km by Bus Type

(Source: Offline Data)

When we look at the KSRTC fleet older than 9 lakh kms, we see that a majority of these buses are still Leyland (46 percent) and Tata (46 per cent), with the remaining 8 per cent covered by Luxury and sleeper buses. These buses represent 43 per cent and 59 per cent of the overall Leyland and Tata bus fleets, which is a considerable share.

When we look at the 11-lakh km mark, we see that only 1 of the 55 sleeper corona buses has crossed this mark, with the remaining buses staying in that threshold. The majority here still

are Leyland (49 per cent) and Tata (39 per cent), with a larger share of 12 per cent for the luxury buses.

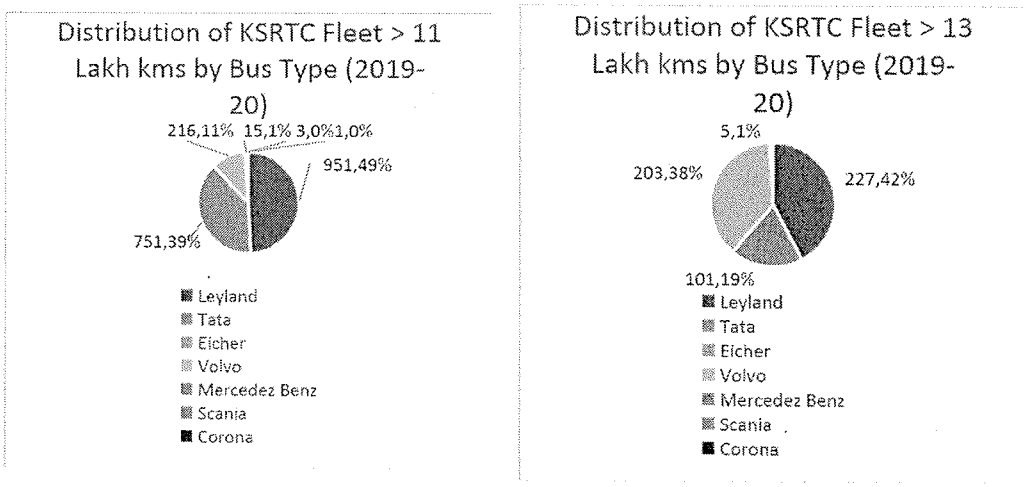

Figure 56: Distribution of KSRTC 2019-20 Fleet a. > 11 lakh km by Bus Type b. > 13 lakh km by Bus Type

(Source: Offline Data)

At 13 km, we see that a total of 208 luxury buses are still functioning, making up 39 per cent of the total buses in this age bracket. It is surprising to note that Leyland Buses still hold the largest share by a small margin (42 per cent), followed by Tata buses (19 per cent). This indicates that while there are a few luxury buses that are being used beyond their threshold of 13 lakh kms, a majority of the buses being utilized beyond the prescribed levels are Leyland and Tata, with the second having an increasingly smaller share in the older brackets.

ii. KKRTC

Under KKRTC, 57 per cent of the fleet is Leyland, followed by 22 per cent Tata and 15 per cent Eicher. Of the remaining around 6 per cent of the fleet consists of smaller buses (Mini/Midi), with under 1 per cent of the buses (26) being Corona Sleepers.

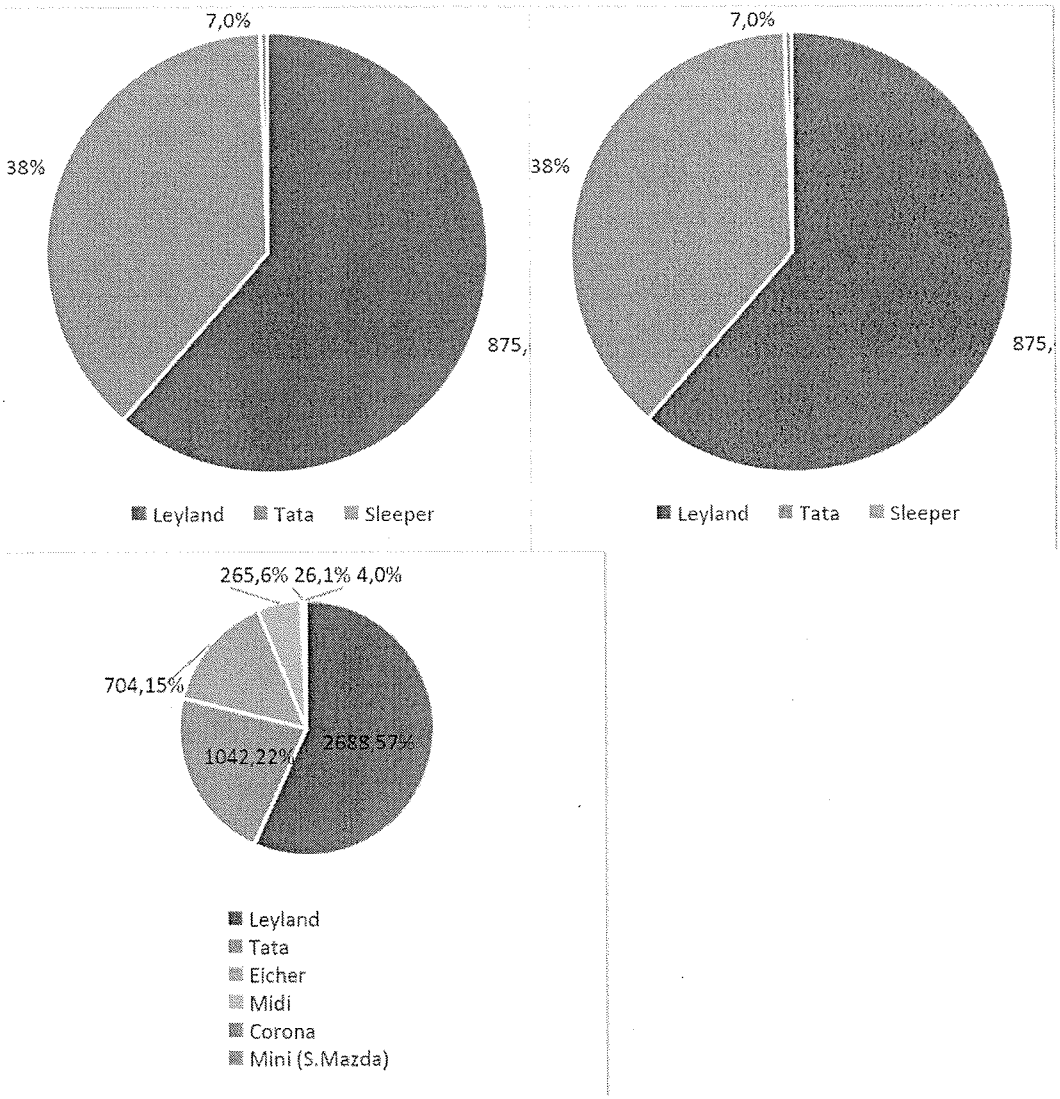

Figure 57: Distribution of KKRTC 2019-20 Fleet a. Overall by Bus Type b. > 9 lakh km by Bus Type

(Source: Offline Data)

Beyond the 9-lakh km threshold, Tata (38 per cent) and Leyland (61 per cent) make up almost the entire share, with the remaining 1 per cent buses being sleepers. In absolute terms, these Tata and Leyland buses constituted 52.2 per cent and 32.5 per cent of the overall fleet sizes of these buses for the corporation.

For the Corona buses, as per the table, 6 of the 7 buses had an average age > 10 lakh kms, with the value around 10.45 lakh, indicating that at least half of them would be within the requisite threshold.

iii. **NWKRTC**

Similar to the other corporations, the NWKRTC fleet is 48 per cent Leyland, followed by 26 per cent Tata and 16 per cent Eicher. Of the remaining around 5 per cent of the fleet consists

of smaller buses (Midi), with 3 per cent of the buses being Volvos, and 2 per cent being Corona Sleepers.

Beyond the 9 lakh km threshold, Tata (30 per cent) and Leyland (68 per cent) make up almost the entire share, with the remaining 2 per cent buses being Volvos and sleepers. In absolute terms, these Tata and Leyland buses constituted 51.8 per cent and 64.2 per cent of the overall fleet sizes of these buses for the corporation.

For the Corona buses, as per the table, 7 of the 13 buses had an average age > 10 lakh kms, with the value around 10.41 lakh, indicating that at least half of them would be within the requisite threshold. On the other hand, for the Volvo buses, 21 of the 28 buses had an average age > 10 lakh kms, and the value was around 16.45 lakh, indicating the possibility of most of them being beyond the 13 lakh km threshold that was set for those buses.

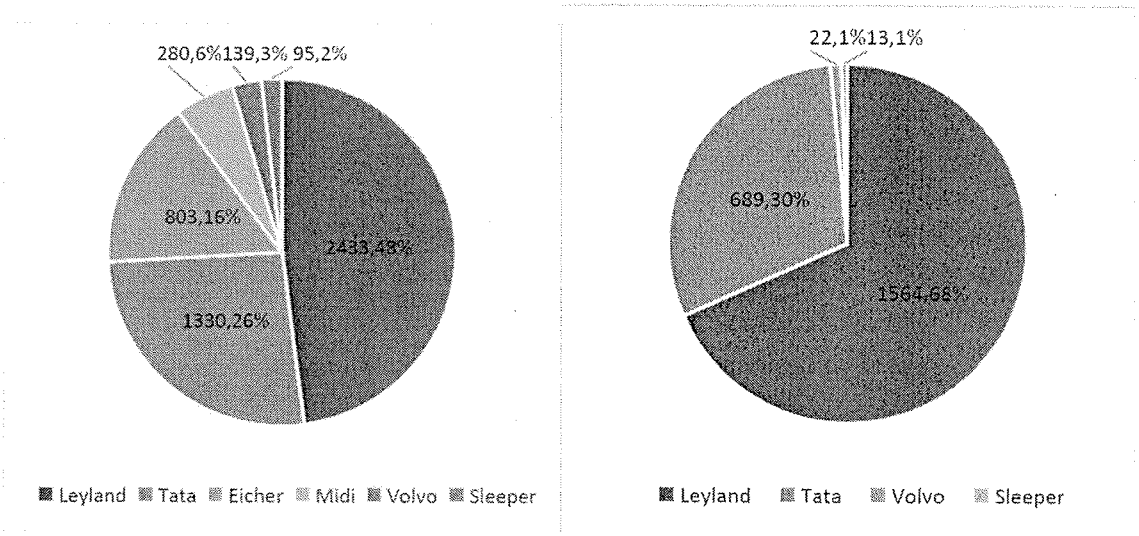

Figure 58: Distribution of NWKRTC 2019-20 Fleet a. Overall by Bus Type b. > 9 lakh km by Bus Type

(Source: Offline Data)

g. Summary

The average age of the buses has increased over the evaluation period, for all of the Karnataka corporations. This has primarily happened due to scrapping fewer buses as per the set thresholds, as well as buses added in most cases being close to or not much higher than the scrapped buses. Of the different bus types, Leyland is the bus with the highest numbers being utilized beyond the prescribed period, followed by Tata. The other bus types are Corona, Volvo and Mercedes, but they constitute negligible shares as compared to the former two bus types.

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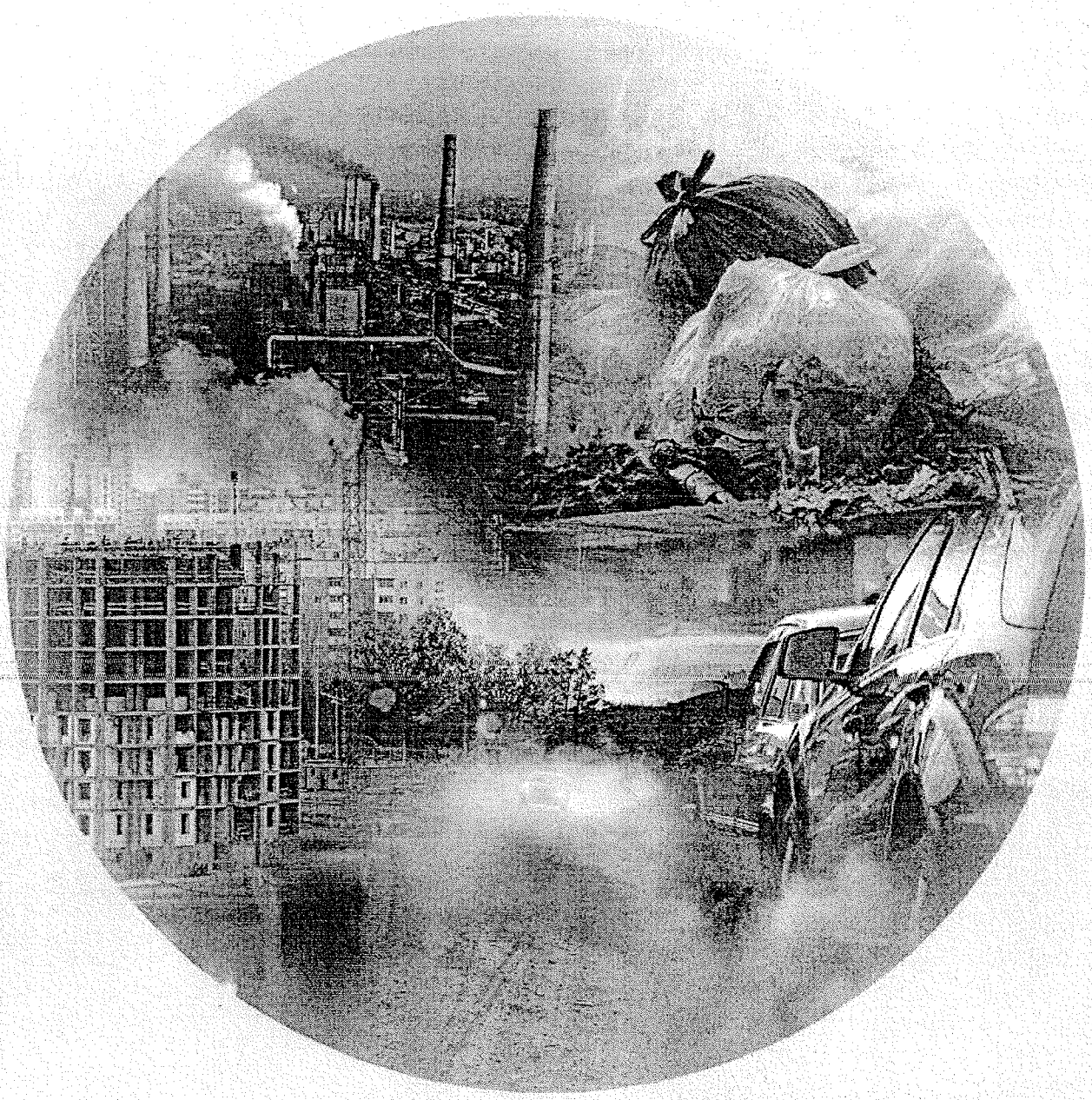


IDENTIFICATION OF POLLUTING SOURCES FOR BENGALURU – SOURCE APPORTIONMENT STUDY

Executive Summary

The Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India, launched the National Clean Air Programme (NCAP) in 2019, to improve air quality levels in non-attainment cities. NCAP has identified 122 non-attainment cities (cities that violate the national ambient air quality standards). Bengaluru, the capital of Karnataka state, is one of the non-attainment cities. In this context, the Karnataka State Pollution Control Board (KSPCB) has put forth action points for reducing the air-pollution levels in the city. These action points are dynamic and would evolve with scientific evidence.

This Source Apportionment (SA) study provides scientific evidence along with sectoral action plans for implementation, to move towards a cleaner Bengaluru. The source apportionment of particulate matter (PM) will help in understanding the emission sources and estimating the share of contributing sectors at different locations within Bengaluru city. Further, the information on $PM_{2.5}$ and PM_{10} sources will help identify implementable policies and targeted measures to reduce their concentration in the atmosphere.

Hence, to bridge the existing knowledge gap in air-pollution concerns in Bengaluru, the Center for Study of Science, Technology and Policy (CSTEP) – under the aegis of KSPCB –carried out a source apportionment of particulate matter concentrations for Bengaluru.

The study had three major components:

(i) Sampling of $PM_{2.5}$ and PM_{10} through fine particulate sampler and respirable dust sampler, respectively. The study quantified the sources of $PM_{2.5}$ and PM_{10} at the 13 sites monitored by KSPCB in Bengaluru, which were representative of residential, kerbside, industrial, sensitive, and background locations.

(ii) Quantification of the chemical species through various analytical instruments (such as inductively-coupled plasma, ion chromatography, gas chromatography, and thermal optical transmittance).

(iii) Source apportionment of $PM_{2.5}$ and PM_{10} through receptor modelling, using the chemical mass balance model. The quantified chemical data was then used as an input for running the receptor model to derive the sector-wise contribution to pollution.

The following are the main findings of the study:

- The annual mean ± standard deviation (SD) of $PM_{2.5}$ mass concentration was observed to be 30.9 ± 12.3 $\mu g\ m^{-3}$, which is less than the annual permissible limit (40 $\mu g\ m^{-3}$) specified by the Central Pollution Control Board (CPCB). On the other hand, the annual mean ± SD of PM_{10} mass concentration observed was 78.9 ± 23.6 $\mu g\ m^{-3}$, which is around 1.3 times higher than the annual permissible limit (60 $\mu g\ m^{-3}$) set by CPCB.

- The annual mean concentration of $PM_{2.5}$ consists of metals, organic carbon (OC), elemental carbon (EC), and ions, each of which was quantified to be 7.9 $\mu g\ m^{-3}$, 7.8 $\mu g\ m^{-3}$, 2.9 $\mu g\ m^{-3}$, and 9.1 $\mu g\ m^{-3}$, respectively. This suggests that ions occupy the maximum share (33%), followed by metals (28.4%), OC (28.1%), and EC (10%). The annual mean concentration of PM_{10} also consisted of metals, OC, EC, and ions, each of which was quantified as 17.2 $\mu g\ m^{-3}$, 11 $\mu g\ m^{-3}$, 3.4 $\mu g\ m^{-3}$, and 21.3 $\mu g\ m^{-3}$, respectively. Further, the trend seen here was similar to that seen in $PM_{2.5}$

concentrations, in terms of chemical composition (ions [40%], metals [32%], OC [21%] and EC [6%]). It is evident that the share of metals, ions, OC, and EC in PM_{10} is higher than that in $PM_{2.5}$.

- For $PM_{2.5}$ pollution, emissions from the transportation sector emerged as the primary contributor (with a 40% share), followed by soil dust (25% share) that includes re-suspended dust and long-range transported soil dust. The next highest contributor was secondary particulate matter consisting of SO_4^{2-} and NO_3^-, with a 16% share. However, the share of secondary SO_4^{2-} was observed to be around five times higher than that of secondary NO_3^-. This indicates that coal burning is relatively high in the city. Other reasons include low temperature and other meteorological conditions that support/encourage the formation of SO_4^{2-}. Fuel oil was also observed to be one of the sources of pollution, with a 6% share. This fuel oil contribution is majorly from two industrial sites, SWAN and UEP. Other sources of pollution observed are wood combustion, construction dust, diesel generator (DG) sets, and coal combustion, with a collective contribution of only around 5%.

- In the case of PM_{10} pollution, soil dust emerged as the top contributor with a 51% share. Interestingly, the concentration of soil dust in PM_{10} was observed to be five times higher than that in $PM_{2.5}$. The transportation sector was observed to be the next highest contributor, with a share of around 19%. The secondary particulate matter contribution was 8%, followed by construction dust at 6%, while the wood combustion contribution was 6%. The collective pollution share from DG sets, coal combustion, and fuel oil contribution was observed to be less than 1%.

- Based on the findings, the study recommends the following action points for improving the air quality levels of Bengaluru city: 1) Road-side plantation for reducing dust re-suspension; 2) Use of geo-synthetic materials to cover the open areas on road dividers and footpaths; 3) Widening of junction roads to reduce congestion; 4) Increase in LPG connectivity; 5) Green buffer along roadsides; 6) Improvement in last-mile connectivity access for public transportation (bus and train); 7) Retrofitting of heavy vehicles with diesel particulate filters (DPFs).

5. Findings and Recommendations

This study reports the source apportionment of $PM_{2.5}$ and PM_{10} concentrations over multiple receptor locations in Bengaluru. Besides conducting measurements of air-filter samples, the study performed a chemical analysis to quantify the composition of pollutants, and estimated their respective shares using a receptor model, in order to enable a thorough understanding of the polluting sources in the city.

The following key findings emerge from the study:

- The highest annual mean $PM_{2.5}$ concentration was observed over the industrial site UEP, and the lowest over the sensitive site IGCHC. Overall, the highest $PM_{2.5}$ level was observed over industrial land-use sites, followed by kerbside, residential, and sensitive locations.
- The highest annual mean PM_{10} concentration was observed over the kerbside site CSB, and the lowest over the sensitive sites VICH and IGCHC. Overall, the highest PM_{10} concentration was observed over residential land-use category, followed by industrial, kerbside, and sensitive locations.
- Within the annual average metals concentration in $PM_{2.5}$, the contribution of Magnesium (Mg) was the highest (77%), followed by Iron (Fe) (10%), indicating the presence of crustal material sources. In ions concentration, the contribution of Sulphate (SO_4^{2-}) was the highest (43%), followed by Ammonium (NH_4^+) (26%), indicating the presence of secondary aerosol sources. The annual mean organic carbon (OC) and elemental carbon (EC) concentrations in $PM_{2.5}$ revealed that besides secondary organic aerosols, other primary sources such as transport, and industrial, and leaf- and waste-burning activities also contribute to raising OC and EC levels. The analysis of molecular markers revealed a high 1-Nitropyrene (1-NP) concentration over the industrial site UEP, which can be attributed to the high usage of DG sets and movement of heavy diesel vehicles. Similarly, high levoglucosan concentrations was observed over the industrial site SWAN, where roadside leaf and waste burning was observed. Interestingly, over the kerbside site CSB, the concentration of levoglucosan was observed to be low.
- In the annual average concentration of metals in PM_{10}, the contribution of Mg was highest (43%), followed by Fe (26%), indicating the presence of crustal material sources. In ions concentration, the contribution of Sodium (Na^+) was highest (27%), followed by SO_4^{2-} (21%), indicating the presence of road dust and secondary aerosol sources. Further, on comparing the mass concentration of criteria pollutants (Nickel (Ni), Arsenic (As) and Lead (Pb)) with the permissible limits framed under NAAQS, it was found that the As and Ni concentrations were around 20 and 2 times higher than their respective annual permissible limit of 0.006 $\mu g\ m^{-3}$ and 0.02 $\mu g\ m^{-3}$. Interestingly, As and Ni were found to be higher over sites that experience heavy vehicular movement, as was observed over kerbside site CSB (which has heavy vehicular movement). Notably, Pb concentration was not found to exceed the NAAQS limits for any of the sites, indicating the impact of phasing out of lead addition in fuel.
- The receptor model output shows the transportation sector as the main contributor to $PM_{2.5}$ levels, with a 40% share, followed by soil dust (25% share), which consists of re-

suspended dust and long-range transported soil dust. Secondary particulate matter, consisting of SO_4^{2-} and Nitrate (NO_3^-), was found to be the next highest contributor, with a 16% share. However, the share of secondary SO_4^{2-} was observed to be around five times more than secondary NO_3^-. This implies that coal burning is relatively high in the city. It is also because of low temperature and other meteorological conditions that favour the formation of SO_4^{2-}. Fuel oil was also observed to be one of the sources of pollution, with a 6% share across the city. This fuel-oil contribution is mainly from two industrial sites, SWAN and UEP. Other sources of pollution observed are wood combustion, construction dust, diesel generator (DG) sets, and coal combustion, with a collective share of around 5% only.

- For PM_{10}, the receptor model output shows soil dust as the major contributor, with a 51% share. It is interesting to see that the concentration of soil dust in PM_{10} is five times more than that in $PM_{2.5}$. Transportation sector was found to be the next highest contributor, with a share of around 19%. The contribution of secondary particulate matter contribution was found to be 8%, followed by construction dust (6%) and wood combustion (6%). The combined pollution share from DG sets, coal combustion, and fuel-oil contribution was found to be less than 1%.

Prioritisation of control options and policy interventions

The study—on the basis of its findings—recommends the following control options (for several sources) and policy interventions:

Road and soil dust

Roadside-dust and soil-dust particles have the largest share in PM_{10} concentrations and the second-largest share in $PM_{2.5}$ concentrations. Control of dust re-suspension requires a multipronged approach. It is imperative that an effective technique to control road dust be identified. Some of the available control options that can be considered include:

- Vacuum sweeping of dust from paved roads.
- Laying end-to-end pavements with the provision of a green cover for the barren areas along the road (geoengineering) to help reduce the re-suspension of dust.
- Since the deployment of mechanical sweepers without a sound scientific study can lead to wastage of resources, it is recommended that the effectiveness of mechanical sweepers be investigated to assess their suitability and operating conditions, before deployment.

Vehicular exhaust

Vehicular pollution has the largest share in $PM_{2.5}$ concentrations and the second-largest share in PM_{10} concentrations. The control options that can be considered for vehicular pollution include:

- Introduction of electric vehicles (EV), with an adequate and efficient EV-charging infrastructure.
- Proper implementation of vehicle scrappage policy, along with improvements in the scrapping infrastructure and automated fitness-check centres.
- Retrofitting of diesel particulate filters (DPFs) for heavy vehicles.

- Regular servicing of public transport vehicles, such as shared autos and buses, as well as heavy government vehicles such as dumper trucks, trolleys, etc.

Construction dust

Construction dust can arise not only from construction sites, but also from the vehicles that transport construction material. Therefore, it is important to keep all construction material fully covered while in transit. Further, all under-construction buildings should be covered vertically with a fine screen, and the material stored on construction sites should also be covered properly.

Besides controlling dust from construction sites, improvements (such as those given below) should be made in the Construction and Demolition (C&D) processing plants for reducing ambient PM levels:

- Including the provision of last-mile connectivity for transporting the C&D debris to the processing plant.
- Creating public awareness on the process of purchasing the re-processed bricks from the C&D processing plant.

Diesel generator (DG) sets

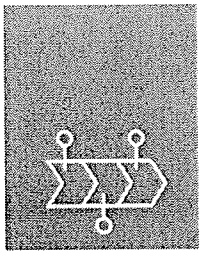
DG sets should be properly maintained, with regular inspection. Concrete efforts—including those towards ensuring a regular power supply—should be made to reduce the usage of DG sets. Also, the use of solar power generators should be encouraged.

Industrial exhaust

The industrial units are mainly located in the Peenya Industrial Area. The contribution of fuel oil combustion was observed over the sites located in this area. This source contribution can be reduced by promoting alternate forms of energy and also by enabling a stringent pollution auditing system.

Wood and coal burning

To reduce pollution from combustion, LPG access should be improved for eligible households at a subsidised rate. Also, the coal used in restaurants, hotels, eateries, etc. for preparing food should be replaced by a cleaner source of energy.



6. Way Forward

As a non-attainment city, Bengaluru ought to reduce its PM levels by 20–30% by 2024, taking 2017 as its base year. However, in order to improve the air quality, adequate knowledge of PM sources is essential. The findings of this research-based SA study can help in understanding the sources of PM, thereby aiding the formulation of effective and targeted air-pollution control measures.

Our study revealed that Bengaluru's annual PM_{10} level was around 1.2 times higher than the CPCB's limit of 60 $\mu g\ m^{-3}$. The primary contributing source of PM_{10} was soil and road dust, which, if controlled effectively, can reduce the PM_{10} levels by almost half. Measures like deployment of vacuum-based sweeping systems can be quite effective. However, the availability of financial resources needs to be explored before switching from manual to vacuum-based sweeping systems.

For $PM_{2.5}$ pollution, transportation was the biggest contributor. This needs immediate attention as vehicular exhaust emissions release carcinogenic elements (Cadmium, Nickel, and Lead). Steps like switching to cleaner fuels and improving the public transportation network are recommended.

Observations made on the other sources (such as DG sets, construction, and wood and coal burning) at most of the sampling sites denote the need for implementing more effective control measures. Fuel-oil combustion, which is an indicator of industrial exhaust emissions, was observed only over the Peenya Industrial Area. Promoting alternative forms of energy, while also enabling stringent pollution-auditing systems, can reduce industrial emissions.

KSPCB has already laid down 44 action points for improving the air quality in Bengaluru city. This report, by apportioning the sources of PM_{10} and $PM_{2.5}$ concentrations, and examining their composition, will help further in framing targeted air-pollution control measures for the city. But while government efforts are indispensable for lowering the PM concentrations, achieving the desired goal also requires initiative and participation of the citizens. For instance, to effectively mitigate pollution from waste burning, transportation, and industrial operations, active public involvement in adopting and implementing the control measures is crucial. Thus, there is a need to elicit collaborative community response that enables effective implementation of air pollution control policies and action.

FORM I
[See rule 8(1)]

BEFORE THE NATIONAL GREEN TRIBUNAL, SOUTHERN ZONE AT CHENNAI

MEMORANDUM OF APPLICATION
(Under Section 18(1) read with sections 14, 15, 16 and 17 of National Green Tribunals Act, 2010)

Original Application No. _____ / 2023

BETWEEN

Krishnan CS
Son of Sreenivasan
Aged about 50 years
R/o F-205, Nandi Woods Apartments,
Yelanahalli, Bangalore – 560076 **...APPLICANT**

AND

1. State of Karnataka,
through the Department of Transport,
Vidhana Soudha, Ambedkar Veedhi,
Bengaluru-560001
Represented by its Chief Secretary

2. Karnataka State Pollution Control Board
"Parisara Bhavana", No #49,
Church Street, Bengaluru – 560001
Represented by its Chairman **...RESPONDENTS**

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PETITION UNDER SECTIONS 14 AND 15 OF NATIONAL GREEN TRIBUNAL ACT, 2010

The Petitioner above named respectfully submits as follows:

1. The address of the Petitioner for service of the court process and notices by this Hon'ble Tribunal is as shown in the cause title hereinabove and they may also be served through their Advocate, Ms. Anu Ganesan, Mr. Archishman Chaudhury at No.158, New No. 325, 3rd Floor, Linghi Chetty Streety, Parrys, Chennai - 600 001 (Phone no. 9941542415).

2. The address of the Respondent for service of the court process and notices by this Hon'ble Tribunal is as shown in the cause title hereinabove.

3. The Applicant abovenamed begs to submit the Memorandum of Application being aggrieved by the the level of air pollution increasing at an alarming rate in the State of Karnataka and the Respondent, i.e., State of Karnataka's refusal to follow well established directives to

address air pollution from diesel vehicles. The Petitioner is seeking necessary enforcement directions against the Respondent to require immediate action and proactive steps to protect the environment and the health of the citizens of Karnataka. The grievance of the Petitioner before this Hon'ble Tribunal is, *inter alia*, the level of air pollution caused by commercial diesel vehicles and the Respondent's refusal to implement well established directives to address same.

Facts in brief

4. It is undisputed position of law that Article 39, 47 and 48 (a) of the Constitution Act, in unequivocal terms collectively caste a duty on the Respondent State to secure the health of the people, improve public health and protect the environment (as observed by the Hon'ble Supreme Court in W.P No. 13029 of 1985, M.C. Mehta Vs. Union of India). It is now well settled that threat to environment is threat to life and the right to life is guaranteed by Constitution of India.

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5. The Hon'ble Supreme Court expressing its anguish on the failure of the state to fulfil its constitutional obligation to protect the health of the people and to improve environment, intervened and issued directions to the Government which clearly expounded the position of law when the Government machinery fails to discharge its constitutional obligation, the courts would intervene and issue directions to achieve the objective to safeguard the life and health of the people. Emphasis being that the right to life guaranteed by Article 21 of the Constitution of India is uninfringeable and needs to be protected and the State has no excuse except to fulfil its Constitutional obligation. In several subsequent orders the Hon'ble Supreme Court, noticing the adverse effect and serious impact on environment, directed the State's fleet of vehicles at the first instance to be addressed and then the other vehicles. All such orders are dehors the provision of the Motor Vehicle Act and any other law in force.

6. As early as 1991, the Hon'ble Supreme Court, in the case of *M.C. Mehta vs Union of India and others* reported at (1991) 2 SCC 137, has taken cognizance of the pollution caused by the commercial diesel vehicles and has held as follows:

"3. *We are of the view that the heavy vehicles operating in the city being the buses, trucks and defense vehicles constitute the main contributing factor to pollution. It is necessary, therefore, that more of attention is directed against these vehicles*".

A copy of the judgement in *M.C. Mehta vs Union of India and others* reported at (1991) 2 SCC 137 is produced herewith as **Annexure A1**.

7. The Hon'ble Supreme Court *vide* its order dated April 05, 2002, in Writ Petition (c) No. 13029 of 1985 in the matter of *M.C. Mehta v. Union of India*, (2002) 4 SCC 356 has held as follows:

"Articles 39 (e), 47 and 48A by themselves and collectively cast a duty on the State to secure the health of the people, improve public health and protect and improve the environment. It was by reason of the lack of effort on the part of the enforcement agencies, notwithstanding adequate laws being in place, that this Court has been concerned with the state of air pollution...

Lack of concern or effort on the part of various governmental agencies had resulted in spiraling pollution levels...

The "precautionary principle" was elucidated thus by this Court... as follows: the State Government and the statutory authorities must anticipate, prevent and attack the causes of environmental degradation.

Where there are threats of serious and irreversible damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation...

(5) The "auto policy must, therefore, focus upon measures to Anticipate, prevent and attack the cause of environmental degradation in this field... in the absence of

adequate Information, lean in favour of environmental protection by refusing rather than permitting activities likely to be detrimental.

Adopt the "precautionary principle" and thereby ensure that unless an activity Is proved to be environmentally benign in real and practical terms, It Is to be presumed to be environmentally harmful.

Make informed recommendations which balance the needs of transportation with the need to protect the environment and reserve the large scale degradation that has resulted over the years, priority being given to the environment over economic issues...

Norms for emission and norms for the fuel have existed for over the last two decades - and the state of the environment is dismal despite the existence of these norms. The emission norms stipulated by the Government have failed to check air pollution, which has grown to dangerous levels across the country. Therefore, to recommend that the role of the Government be limited to specifying norms is a clear abdication of the constitutional and statutory duty cast upon the Government to protect

and preserve the environment, and is in the teeth of the "precautionary principle".

The increase in respiratory diseases specially amongst the children should normally be a cause of concern for any responsible Government. The precautionary principle enshrined in the concept of sustainable development would have expected the Government and the health authorities to take appropriate action and arrest the air pollution. However, children do not agitate or hold rallies and, therefore, their sound is not heard and the only concern of the Government now appears to be is to protect the financial health of the polluters (themselves)... at the cost of public health.

The statistics show that the continuing air pollution is having a more devastating effect on the people, than what was caused by the Bhopal gas tragedy. In that case, the nation, including the Union of India, was rightly agitated and sought action and compensation from the multinational company, who was held to be responsible for the same. Here... the shoe is on the other foot because the government is not facilitating measures for clean air... It is

due to the lack of proper concern on the part of the governmental authorities that people are suffering from respiratory and other diseases. The Bhopal gas tragedy was a one time event which, hopefully, will not be repeated, but here, with not enough concern or action being undertaken... far greater tragedies in the form of degradation of public health are taking place every day...

The aforesaid analysis emphasize the need for change to non-liquid fuel like CNG or LPG so as to improve the air quality in this country and not merely of Delhi.

A copy of the judgement in *M.C. Mehta vs Union of India and others* reported at (2002) 4 SCC 356 is produced herewith as **Annexure A2**.

8. The Auto Fuel Policy Report of the Expert Committee, Government of India, dated May 2014 (petroleum.nic.in/docs/autopol.pdf) had 52 active participants from all relevant Ministries, industries, manufacturers, academia, and NGO's was adopted by the Government of India, presented to Lok Sabha on

07.05.2015 and laid in Rajya Sabha on 07.05.2015. Relevant portions of the report are as follows:

Page xvii "*Once an area is switched over entirely to BS-IV fuel, the existing stock of commercial vehicles, especially heavy duty diesel units, should be directed to compulsorily get after-treatment devices... retro-fitted within two years, failing which their license should not be renewed. The point has repeatedly been made in the course of the deliberations of the Committee that the vexed issue of pollutant stress on air quality and health cannot be addressed solely through improving fuel quality and emission norms.*"

Section 12.10.3 of the report, Time-bound Retro Fitting Requirement for Commercial Vehicles:

"*once a geography is fully converted to BS-IV grade fuel, commercial vehicles are required by law to get retro-fitting done within a period of two years for the extension of their operating license under the Motor Vehicles rules.*" (pdf page 266 of the report).

9. The Respondent has taken no action on the above directives. In the Auto Fuel Policy Expert Committee, the Government of India intended to form the best, most credible expert committee comprising 52 active participants from all relevant ministries, industries, manufacturers, oil companies, trade associations, NGOs and academia that thoroughly studied and debated the issues in order to reach the conclusions set forth. The Government of India adopted the Auto Fuel Policy Expert Committee Report and, therefore, there is no valid reason to "study" or delay implementation on this specific action requirement that has been ignored by the Respondent for nearly 10 years. The Petitioner humbly submits that the Respondent's actions do not reflect a good faith effort to reduce air pollution from its own vehicles nor those vehicles in the private sector in keeping with its constitutional duty to protect and improve the environment and that of public health.

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10. As directed in the Auto Fuel Policy Expert Report of 2014, retrofitting large numbers of older commercial diesel vehicles, at a minimal cost compared to new vehicles, will immediately bring down pollution that is going into the air on a daily basis while the seemingly endless debate over the type and quantity of non-liquid fuel replacement vehicles rages on. The subject of retrofitting non-BS-IV and BS-IV over 10 years of age commercial diesel vehicles has been studied by several Union Government appointed expert committees as in the Auto Fuel Policy Expert Committee Report referenced above and the Supreme Court appointed expert committees such as the two Bhure Lal committees. It is humbly submitted that the Respondent's refusal to comply with established environmental law and policies is causing devastating harm to the environment and public health.

11. There is an entire class of diesel retrofit technology designed and proven to be effective in "bridging" the transition from diesel to non-liquid fuel platforms. Non-engine-modifying retrofits (intermediate or bridge

technologies), also known as catalytic retrofits are readily available to the Respondent and do not require a new "type approval" that is needed in India when installing anything on or in the engine or its exhaust system. Thus, the suggested non-engine modifying retrofit criteria to facilitate implementation without delay.

12. Retrofit devices were recognized by the Hon'ble Supreme Court of India, as early as 1991, in the case of *M.C. Mehta vs Union of India and others* (1991) 2 SCC 137.

13. The Petitioner humbly submits that the Respondent should be required to employ this aforesaid type of technology on a large scale. Further, it is evident from the website of Karnataka State Road Transport Corporation ("KSRTC"), at least one such retrofit product was field tested by KSRTC and the test report states emissions were reduced by 40% and the fuel savings indicated its use could be revenue neutral in the first year.

14. It is submitted that the Respondent could retrofit 10,000 buses in less than a year for the cost of less than 223 new

electric buses, assuming Rs 90 lakh per buss as stated in published reports. The positive impact on air quality by retrofitting 10,000 buses in under a year with at least a 30% reduction in emissions is far more significant and meaningful than purchasing 223 new electric buses. This is not to say that requiring an aggressive non-liquid fuel vehicle replacement program is not a priority, it merely shows the importance of initial retrofitting while implementing the years longer refuel / replace portions of the proven formula. The Respondent has refused to comply with retrofit requirements.

15. The division bench of the Hon'ble High Court of Karnataka *vide* its order dated August 17, 2004 in Writ Petition Nos. 46850/2002 in the matter between *Karnataka Lorry Malikara Okkuta v. State of Karnataka* reported at ILR 2004 Kar 4206 has held as follows:

"*18. Under the circumstances, it will be appropriate to direct the respondents to evolve some scheme after considering the details. Government should also give sufficient time to the vehicle owners for replacement of the*

old vehicles, in a phased manner, to make available the CNG fuel and to have the vehicles converted to it in a phased manner. The authority concerned should overall monitor and check the two wheelers, four wheelers and other types of vehicles including commercial/transport vehicles as well as passenger vehicles, at important functions, and to see that they do not violate the prescribed norms of pollution and the traffic rules and to ensure the safety and welfare of the public. The authorities concerned are also free to take note of the direction issued by the Apex Court in M.C. Mehta's case (supra)." Nearly 20 years later the Respondent has yet to adopt or implement any of the specific actions directed by this Hon'ble High Court and not a single Respondent owned truck or bus operates on CNG.

A copy of the judgement in *Karnataka Lorry Malikara Okkuta v. State of Karnataka* reported at ILR 2004 Kar 4206 is produced herewith as **Annexure A3**.

16. Furthermore, the Karnataka State Pollution Control Board (KSPCB) on 25-08-2014 issued a statutory directive to the Karnataka State Road Transport Corporations (RTCs) to convert the fleets of diesel buses to non-liquid fuel, CNG, under Section 31A of the Air Act, 1981. In fact, pursuant to a *suo moto* public interest litigation initiated by the Hon'ble High Court of Karnataka, the Respondent submitted that *"phased conversion of diesel powered public transport vehicles to CNG vehicles is taken up seriously"* [...] *and it shall consider all of the aspects of the matter of replacement of the entire fleet of buses in a phased manner and shall make an action plan with the timelines for the phased conversion.* The Respondent refused to comply with its own action plan. In fact, nearly 10 years later, there is not a single CNG bus nor a single retrofitted bus in Karnataka's RTC fleets. The Petitioner humbly submits that the Respondent's actions do not reflect a good faith effort to comply with orders, directives and policies intended to meaningfully reduce air pollution nor meet its stated commitments to reduce air pollution from its own vehicles and those vehicles in the private sector in keeping

with its constitutional duty to protect and improve the environment and that of public health.

17. Shockingly, nearly 10 years later, there is not a single CNG fueled truck or bus owned or operated by the Respondent State. There is hardly any replacement to green fuel in the Respondent's heavy duty diesel vehicle fleets that number 35,000 vehicles per their Transport Minister's representations to the Karnataka Assembly. It was reported by LiveMint on 14 September 2022 that the Karnataka government plans to convert all 35,000 buses to electric by 2030.

18. However, despite the passage of over 20 years from the Supreme Court directions, the numbers of new non-liquid fuel trucks and buses owned / operated by the Respondent and its subsidiaries remain a very minute fraction of the Respondent's fleet numbering 35,000 vehicles and ZERO have been retrofitted. The lack of any meaningful implementation by the State on its own vehicles prevents any hope of implementation whatsoever in the private

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sector. The State must lead by example and the Petitioner humbly submits that the Respondent will not act in the absence of strict Orders to comply under urgent timelines.

19. The Hon'ble Supreme Court, in similar fact circumstances, applied the Principle of Constructive Res Judicata:

"There can be no dispute with respect to the settled legal proposition that a judgment of this Court is binding.....It is also correct to state that, even if a particular issue has not been agitated earlier, or a particular argument was advanced, but was not considered, the said judgment does not lose its binding effect, provided that the point with reference to which an argument is subsequently advanced, has actually been decided. The decision therefore, would not lose its authority, "merely because it was badly argued, inadequately considered or fallaciously reasoned". (Vide: Smt. Somavanti & Ors. v. The State of Punjab & Ors., AIR 1963 SC 151; Ballabhdas Mathuradas Lakhani & Ors. v. Municipal Committee, Malkapur, AIR 1970 SC 1002; Ambika Prasad Mishra v. State of U.P. & Ors., AIR

1980 SC 1762; and Director of Settlements, A.P. & Ors. v. M.R. Apparao & Anr., AIR 2002 SC 1598)."

20. It is humbly submitted that the above decision aptly applies to the facts and settled law submitted in this Petition. The citations herein from the Hon'ble Supreme Court are binding. The rulings of the Hon'ble Principal Bench of the Green Tribunal prohibiting the use of diesel vehicles over 10 years of age are binding. The Principal Bench stated: *Consequently, we hold that the directions issued by this Tribunal on 18th July, 2016 and 20th July, 2016 are legal and suffer from no legal infirmity or lack of jurisdiction. The Tribunal has assigned sufficient reasons in order dated 7th April, 2015 from which the orders dated 18th July, 2016 and 20th July, 2016 have resulted and have stood the test of judicial review by the Hon'ble Supreme Court in exercise of its statutory power of Appeal. Thus in no circumstances the orders in question are assailable.*

The grievance of the Petitioner is not the use of non-BS-IV diesel vehicles, (and BS-IV commercial diesels over 10 years of age) but the level of pollution caused by such vehicles. It is pertinent to state that the same diesel vehicles retrofitted with non-engine modifying emission control devices can ensure immediate and meaningful reduction in pollution levels during the long transition to new non-liquid fuel vehicles, thus providing a comprehensive approach to the burgeoning and deadly problem of air pollution.

It cannot be denied that air pollution is deadly and harmful to the citizens, especially children. A news report dated November 9, 2023 reporting on the effects of air pollution on the human heart is produced herewith as **Annexure A4**. The levels of air pollution in Bengaluru is at dangerous levels and substantially higher than globally accepted levels. A printout from the website aqi.in showing the Bangalore Air Quality Index ("**AQI**") as on 10.02.2024 is produced herewith as **Annexure A5.** It reveals that the current PM2.5 concentration in Bangalore is 2.8 times the

recommended limit given by WHO 24 hrs air quality guidelines value. A newspaper Report from the Hindu reporting on the burgeoning air pollution in Bengaluru, dated July 11, 2023 is produced herewith as **Annexure A6.** A printout of the Greenpeace article "*Spare the Air*" reporting the abnormally high levels of air pollution in Bengaluru and 10 other cities is produced herewith as **Annexure A7.** A Deccan Herald report dated February 19, 2021 reporting that Bengaluru saw 3rd highest pollution linked deaths in India in 2020 is produced herewith as **Annexure A8.** In these above circumstances the Petitioner is preferring the instant petition, *inter alia*, the following grounds.

GROUNDS

21. Despite the lapse of two decades since the direction from the Hon'ble Supreme Court, the Respondent, the State of Karnataka, has been negligent in not addressing the specific starting point for air pollution reduction as stated by the Hon'ble Supreme Court: "*...begin with Government vehicles and public undertaking vehicles including public*

transport vehicles..." This negligence and contempt for settled law have violated the constitutional rights of citizens along with damaging the health and welfare of Karnataka citizens.

22. The grievance of the Petitioner is not the use of non-BS-IV diesel vehicles and BS-IV commercial diesels over 10 years of age, but the level of pollution caused by such vehicles. It is pertinent to state that existing diesel vehicles fitted with non-engine modifying emission control devices can ensure immediate and meaningful reduction in pollution levels during the transition to new non-liquid fuel vehicles, thus providing a comprehensive approach to the burgeoning and deadly problem of air pollution.

23. That the Hon'ble Principal Bench of the Green Tribunal stated in its Order dated 27.02.2019 to the Respondent, the State of Karnataka:

"*Without dealing further on the facts, we make it clear that BS-II and BS-III vehicle shall not be granted renewal of registration and registration of new BS-IV complaint*

vehicle shall be subject to the decision of the Tribunal in "Original Application no. 21 of 2014, Vardhaman Kaushik Vs. Union of India & Ors." Despite this very clear directive, and the detailed provisions in *"Vardhaman Kaushik Vs. Union of India & Ors. 2014",* the Respondent continues to grant renewal of operating license to its own non-compliant diesel vehicles and, the non-compliant private sector diesel vehicles as well.

24. That the Auto Fuel Vision and Policy Report of the Expert Committee, Government of India dated May 2014 (petroleum.nic.in/docs/autopol.pdf) that was comprised of 52 active participants from all relevant Ministries, industries, manufacturers, academia, and NGO's was adopted by the Government of India, presented to Lok Sabha on 07.05.2015, laid in Rajya Sabha on 07.05.2015. **Section 12.10.3, Time-bound Retro Fitting Requirement for Commercial Vehicles** states that "*once a geography is fully converted to BS-IV grade fuel, commercial vehicles are required by law to get retro-fitting*

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done within a period of two years for the extension of their operating license under the Motor Vehicles rules."

Despite the aforesaid, commercial diesel BS-II and BS-III trucks and buses as well as BS-IV commercial diesel vehicles over 10 years of age are granted extension of their operating license annually by the Respondent, the State of Karnataka, reflecting contempt of multiple orders passed by the Hon'ble Principal Bench of the Green Tribunal and very specific requirements contained in the Auto Fuel Policy Expert Committee Report 2014 adopted by the Government of India. The Respondent is responsible for enforcing the laws, rules, policies, regulations, and the several court orders on vehicle registration yet refuses to do so. Therefore, the Petitioner humbly requests this Hon'ble Tribunal to Order the Respondent to immediately implement the clear, settled and unassailable environmental directives contained within this Petition. The Respondent cannot enforce in the private sector when it does not comply with its own vehicles. This conflict of

interest has violated the constitutional rights of citizens along with damaging the health and welfare of its citizens.

25. That the Respondent failed to address the air pollution generated by its own vehicles and have not complied with the Auto Fuel Policy 2014, the Hon'ble Principal Bench of the Green Tribunal, and statutory directives from the Karnataka State Pollution Control Board (KSPCB). KSPCB directed the State RTCs to convert to CNG use as far back as in 2014. There was no exemption granted nor was the directive rescinded but the Respondent has refused to comply and did the same with the February 2019 Order from the Hon'ble Principal Bench of the Green Tribunal to refuse renewal of operating permits for BS-II, BS-III commercial diesel vehicles and BS-IV commercial diesel vehicles over 10 years in age. The Respondent, the State of Karnataka, must lead by example before progress can be made in the private sector. The Auto Fuel Policy Expert Committee Report 2014, adopted by the Government of India, states ALL commercial diesel vehicles fall under retrofit requirements. "*once a geography is fully converted*

to BS-IV grade fuel, commercial vehicles are required by law to get retro-fitting done within a period of two years for the extension of their operating license under the Motor Vehicles rules." The Petitioner humbly submits that the Respondent's actions do not reflect a good faith effort to reduce air pollution from its own vehicles nor those vehicles in the private sector in keeping with its constitutional duty to protect and improve the environment and that of public health.

26. That the Hon'ble Principal Bench of the Green Tribunal had passed orders prohibiting further registration of non-BS-IV commercial diesel vehicles with a few exceptions in *Vardhaman Kaushik* case then again in 2019 stating to the Respondent; *"Without dealing further on the facts, we make it clear that BS-II and BS-III vehicle shall not be granted renewal of registration and registration of new BS-IV complaint vehicle shall be subject to the decision of the Tribunal in "Original Application no. 21 of 2014, Vardhaman Kaushik Vs. Union of India & Ors."* The Respondent has failed to comply with the same.

27. That expert reports from Government of India and/or Hon'ble Supreme Court appointed expert committees and this Hon'ble Tribunal's directions support the specific retrofit or replace requirement during the transition to new non-liquid fuel platforms that the Respondent refuses to implement despite the Hon'ble Supreme Court's clear directives, the Hon'ble Green Tribunal's Principal Bench clear directives, the Auto Fuel Policy 2014 clear directives, and KSPCB statutory directives.

28. That the Respondent State owns the largest single source of diesel air pollution in the state, its RTCs, where thousands and thousands of buses do not comply with the necessary requirements to obtain annual renewal of their operating permits. The refusal to do its duty and enforce pollution reduction measures, first in the public sector then immediately in the private sector, has violated the constitutional rights of citizens along with damaging the health and welfare of its citizens.

29. That the process of acquiring all new trucks and buses which operate on non-liquid fuel will take many years, in the interregnum, the Petitioner humbly requests that existing commercial diesel BS-II and BS-III trucks and buses as well as BS-IV commercial diesel vehicles over 10 years of age be replaced or ordered to retrofit with a non-engine-modifying emission control device. A mandatory retrofit or replace program coupled with an aggressive purchase program of new non-liquid fuel vehicles, can ensure immediate and meaningful reduction in harmful pollution levels during the long transition to fully non-liquid fuel fleets, thus providing a comprehensive approach to reducing Karnataka's deadly air pollution.

30. That non-engine-modifying retrofits (intermediate or bridge technologies), also known as catalytic retrofits are readily available to the State. The Petitioner submits that the State should be required to employ this type of technology immediately on a large scale. The Petitioner has learnt from a report published on the Karnataka State Road

Transport Corporation (KSRTC) website that KSRTC evaluated at least one such retrofit product and the published field test report states emissions were reduced by 40% and the fuel savings indicated its use could be revenue neutral in year one. With products of this nature that are already tested and readily available to the Respondent, there is no excuse for delay in implementation.

31. That per the 2003 Auto Fuel Policy, in April 2016 BS-IV diesel fuel was available statewide in Karnataka. As such, ALL commercial diesel trucks and buses operating in the State were required to use retrofit devices on non-BS-IV trucks and buses no later than April 2018 before they can be granted annual extension of their operating license. The Respondent has failed to implement or enforce this retrofit or replace directive.

32. The Respondent has the constitutional duty to protect and improve the environment as well as that of public health.

33. The Respondent is responsible for motor vehicle / safety /pollution control compliance via vehicle inspections before issuing annual extension of operating permits. The Respondent owns the RTCs, funds and/or guarantees their buss purchases, controls what its RTCs can charge for fares, provides funds to cover operational deficits and sets the service routes of its RTCs. In short, the Respondent controls the RTCs and, therefore, must take responsibility.

34. Pertinently, the Respondent could retrofit 10,000 buses in less than a year for the cost of less than 223 new electric buses. The positive impact on air quality by retrofitting 10,000 buses in under a year with at least a 30% reduction in emissions is far more significant and meaningful than purchasing 223 new buses. That is not to say that requiring an aggressive non-liquid fuel vehicle replacement program is not a priority, rather, it shows the importance of initial retrofitting while implementing the years longer refuel / replace portions of the proven formula. The Petitioner humbly submits that the Respondent's actions do not reflect a good faith effort to reduce air pollution from

its own vehicles nor those vehicles in the private sector in keeping with its constitutional duty to protect and improve the environment and that of public health.

35. That the process of acquiring all new buses which operate on non-liquid fuel will take many years, in the interregnum, non-BS-IV commercial diesel vehicles and BS-IV commercial diesel over 10 years of age should be immediately retrofitted with a non-engine-modifying emission control device that does not require a new type approval for the vehicle. This eliminates years of inaction during the type approval process and allows immediate retrofit implementation on a large scale, thus, improving the air quality on a meaningful level and taking steps to protect the health of the citizens of Karnataka in less than a year.

36. That the Respondent taxes the source of the air pollution, i.e., fuel, and generates thousands of crores in income per month from taxing the fuel that pollutes the air when it is burned. Therefore, it ought to be made incumbent on the

Respondent to fulfill its constitutional duty to protect the environment and the health of its citizens by spending some of those very substantial monthly funds on reducing the air pollution they themselves generate from burning the very fuel that they tax. Respondent owned RTCs are one of if not the largest single purchaser of diesel fuel in Karnataka and, thus, one of if not the largest single polluter of the air in Karnataka. The Petitioner humbly submits that **the Polluter Pays Principle must apply to the Respondent.**

37. That the Respondent through its transport department owns and administers the RTCs in Karnataka, controls all funding for the RTCs in Karnataka and has the constitutional duty to protect and improve the environment and the health of the citizens of Karnataka. All evidence and history indicates that the Respondent allows their corporations to ignore statutory directives, Hon'ble Supreme Court directives, the Hon'ble Green Tribunal's Principal Bench directives, the Auto Fuel Policy 2014, and KSPCB statutory directives. It is incumbent on the

Respondent to ensure that its agencies and instrumentalities comply with settled principles of environmental law and consequently, bring down vehicular pollution by mandating immediate use of non-engine modifying retrofits on pre-BS-IV commercial diesel vehicles and BS-IV commercial diesel vehicles over 10 years of age. This action will produce immediate and meaningful reductions in air pollution during the long transition to non-liquid fuel commercial vehicles be it electricity, CNG or LPG.

38. The Petitioner has a good case on merits and the delay in consideration of the petition will cause prejudice to the Petitioner and the public at large.

39. The requisite Court fee has been paid. This Application / Petition is within limitation.

40. This Hon'ble Tribunal has the jurisdiction to entertain this Application / Petition.

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LIMITATION

41. The present application is within the period of limitation prescribed under Section 14 of the National Green Tribunal Act, 2010. The cause of action occurred in May 2014, when the retrofitting of vehicles was directed by the Auto Fuel Policy. The retro fitting of vehicles in the State of Karnataka has still not commenced and therefore, the said cause of action is still continuing/ongoing and hence, is well within the limitation.

PRAYER

It is most humbly prayed that this Hon'ble Green Tribunal be pleased to allow the following Prayers and order any other relief that may be deemed fit and/or necessary, in the interest of justice:

(i) Direct that all pre BS-IV diesel trucks and buses and BS-IV diesel trucks and buses over 10 years of age that are owned or operated or governed by the Respondent, the State of Karnataka, and its lease route operators in public transport,

immediately use non-engine-modifying retrofit devices which reflect 30% or more reduction in emissions, within a short time frame fixed and implementation progress monitored by this Hon'ble Tribunal.

(ii) Direct the Respondent to provide the number of heavy-duty diesel vehicles over the age of 10 years in addition to the number of non-BS-IV heavy duty diesel vehicles that it or any of its subsidiaries owns, operates, or leases as well as the same numbers from all leased route operators for public transport in the state. This will determine the universe of non-compliant vehicles under Respondent's direct or indirect control. The purchase date of vehicles is easy to access on existing data bases available to the Respondent so there is no valid reason for delay in providing this data.

(iii) Under the "Polluter Pays Principle," direct that the Respondent, the State of Karnataka, pay for the retrofits requested in prayer (i) hereinabove and place said retrofit devices into Central Stores for its various entities to access.

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(iv) Direct the Respondent, State of Karnataka, to formalize and implement a Policy for the private sector that will require retrofit or replace measures on non-BS-IV commercial diesel vehicles and BS-IV commercial diesel vehicles over 10 years of age prior to granting the extension of their operating license to reduce air pollution statewide from commercial diesel vehicles within a period set by and monitored by this Hon'ble Tribunal.

Bangalore
DATED: 17/02/24

APPLICANT

ADVOCATE FOR THE APPLICANT

VERIFICATION

I, CS Krishnan, son of Mr. Srinivasan, aged 50 years, F-205, Nandi Woods Apartments, Yelanahalli, Bangalore – 560076, do hereby verify that the paragraphs 1 to 21 are true to my knowledge and the paragraphs 22 to 42 are believed to be true based on legal advice and that I have not suppressed any material fact.

Bangalore
DATED: 17/02/24

APPLICANT

BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE AT CHENNAI

O.A. No. 87 OF 2024

Krishnan CS
Son of Mr. Sreenivasan
Residing at F-205, Nandi Woods Apartments,
Yelanahalli, Bangalore – 560 076. ...Applicant

-Vs-

1. The State of Karnataka,
   Through the Department of Transport,
   Vidhana Soudha, Ambedkar Veedhi,
   Bengaluru – 560 001
   Represented by its Chief Secretary

2. Karnataka State Pollution Control Board
   "Parisara Bhavana", No. 49,
   Church Street, Bengaluru – 560 001
   Represented by its Chairman

...Respondents

ADDITIONAL AFFIDAVIT FILED BY THE APPLICANT

I, CS Krishnan, Son of Mr. Srinivasan, aged about 50 years and residing at F-205, Nandi Woods Apartments, Yelanahalli, Bengaluru – 560 076, do hereby solemnly affirm and sincerely state as follows:

1. I am the Applicant in the Original Application and as such, I am well acquainted with the facts and circumstances of the case and therefore, competent to swear this additional affidavit.

2. I submit that the above original application was filed *inter alia* seeking to

   a. Direct that all pre-BS - IV diesel trucks and buses and BS – IV diesel trucks and buses over 10 years of age that are owned or operated or governed by the Respondent, the State of Karnataka, and its lease route operators in public transport immediately use non-engine modifying retrofit devices which reflect 30% or more reduction in emissions.

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b. Direct the Respondent to provide the number of heavy-duty diesel vehicles over the age of 10 years & number of pre-BS-IV heavy duty diesel vehicles that it or any of its subsidiaries owns, operates or leases as well as the same numbers from all leased route operators for public transport in the state.

c. Under the "Polluter Pays Principle" direct that the Respondent, the State of Karnataka, pay for the retrofits requested in prayer (a.) hereinabove and place said retrofit devices into Central Stores for its various entities to access.

d. Direct the Respondent, State of Karnataka, to formalize and implement a policy for the private sector that will require retrofit or replace measures on non-BS-IV commercial diesel vehicles and BS – IV commercial diesel vehicles over 10 years of age prior to granting the extension of their operating license to reduce air pollution statewide from commercial diesel vehicles.

3. I further submit that an interim application was filed in the above original application *inter alia* seeking interim direction under Section 19(4)(i) and 20 of the National Green Tribunal Act, 2010 to immediately halt annual renewal of registration and remove from service all state owned diesel vehicles of pre-BS-IV manufacture and all state-owned diesel vehicles over 10 years of age or exceeding 10 lakhs kms, including all diesel vehicles of private sector ownership granted permits for public transport from plying the State of Karnataka unless they are refurbished for road safety and retrofitted for emissions, solely at the cost of the 1st Respondent for State owned diesel vehicles.

4. I submit that in addition to the averments / pleadings contained in the above Original Application, this additional affidavit is being filed to clarify certain factual / legal position and to bring on record certain other material facts more particularly in light of the oral submissions / allegations made by the Respondents during the hearing held on 20.09.2024, as the above Application stands scheduled for final hearing on 29.11.2024. Furthermore, despite repeated warnings from this Hon'ble Tribunal and even after imposition of costs, the Respondents have not filed a reply.

Consequently, the Applicant seeks to address the oral allegations made by the Respondents in several requests for additional time to file this reply, and this timely submission now also ensures that the Respondents have sufficient time to provide a written response before the final arguments on 29.11.2024.

5. I submit that at the outset, the Applicant hereby denies in its entirety the oral accusations of fraud, res judicata, and single product promotion made by the 1st Respondent on 20.09.2024. It is submitted that Prayer as sought in the above original application is based on settled proposition of laws / precedents as laid down by the Hon'ble Courts / Tribunals which remain in effect and have not been altered, overruled or superseded. Therefore, the decision herein is binary i.e., either the citations apply to the Respondent State, or they do not. If found applicable, the Respondent State has three options i.e., decommission and scrap non-compliant vehicles, buy new compliant ones, or retrofit existing ones; and the affected vehicles shall not operate on the roads in an "as it is" condition.

6. It is submitted that since 2014, the Respondent State has been obligated by the cited precedents to decommission or upgrade older diesel vehicles but has chosen not to do so. Without expanding clean public transportation to accommodate the displaced passengers, from the internationally proven measures outlined by CPCB and KSPCB, such as limiting the number of private vehicles in metros, odd/even driving days, and restricted driving areas cannot be implemented. Therefore, the Respondent State in fact requires more clean buses, not fewer, to reduce air pollution. However, the Respondent State has shown complete disregard to the policy, directives and decisions by intentionally neglecting diesel emissions in both public and private sectors at the cost of public health and the environment.

7. It is further submitted that the Respondent State's non-compliance has led the private sector to disregard diesel mandates, worsening air pollution while harming public health and the environment. The Respondent State should lead by example in compliance rather than showing the private sector how to bypass mandated measures intended to reduce hazardous air pollution. At the risk of repetition, it is submitted that the Respondent State has shown complete disregard to multiple directives that

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mandate retrofitting or decommissioning of older diesel vehicles **within a six-month timeframe** and the State while observing non-compliance with the several 'mandates from the CPCB, KSPCB, NGT, or the 2014 Auto Fuel Policy, has not even provided a response in the above application within the stipulated six months' period.

8. I submit that an immediate compliance with the precedents cited in the above original application and interim application filed therein is crucial in improving air quality. However, the consistent attempts of the Respondents causing delay undermine regulatory enforcement while also severely harming the health of the general public. Despite proven effectiveness, the Respondent State, without any rhyme or reason, refuses to retrofit, replace, or scrap affected vehicles. Under these circumstances, the Applicant prays that this Hon'ble Tribunal finds and concludes that immediate action is necessary and grant directions as prayed for.

9. I submit that the Respondent has the technical capability and financial means to follow the cited judicial orders and statutory directives but has failed to do so for over a decade. It is under these circumstances, urgent action / direction is sought from this Hon'ble Tribunal. Furthermore, retrofitting diesel vehicles to reduce emissions has proven effective worldwide to meet air quality standards, and the Respondent's own field tests show that non-engine-modifying retrofits work well and can be deployed immediately without needing new type approvals with their associated lengthy approval process. Having not done so and being continuously non – compliant, the State is

   a. acting in violation of the of the Auto Fuel Policy. More particularly, Section 12.10.3, of the Auto Fuel Policy 2014 which mandates timebound retro fitment of commercial diesel vehicles, both public and private sectors;
   b. disregarding the end-of-life criteria established for older vehicles.
   c. acting in non-compliance with the Principal Bench's order in Vardhaman Kaushik v. Union of India which state that diesel vehicles over 10 years of age must not ply.

In addition to the above, the Applicant submits that vide notification bearing reference number KSPCB/SEO-Infra/DG-Retrofitting/2021-22/955 dated 25.05.2023, the entire State of Karnataka is designated as an "Air Pollution Control Area," mandating retrofitting of all DG sets of 125 KVA and above (including the same engines in trucks and buses) with emission control devices within six months. Therefore, the Respondent State should be directed to retrofit its own diesel trucks and buses according to the Auto Fuel Policy and KSPCB statutory directives, **with a maximum six-month period** to provide proof of purchase on retrofits and/or new buses and/or scrapping arrangements accounting for all affected public sector vehicles.

10. I further submit that the present original application does not seek a single product retrofit mandate. In this regard, it is submitted that compliance for mobile sources, unlike stationary DG sets, requires any retrofit that modifies the engine or its exhaust to obtain a new type approval for the entire vehicle. That process can only be initiated by the original equipment manufacturer (OEM). These approvals are specific to each make, model, and year of vehicle. Even assuming that the manufacturer co-operates, a step that will impact sales of new buses, the process can take years to complete for a sizable portion of affected vehicles. Allowing this option lends itself to the "we have a different way" last minute alternative from the Respondent State that has delayed any compliance for ten years. If not restricted to retrofits that do not require a new type approval, the Respondent State's proficiency at this well practiced delay game will lead to years more inaction in addressing diesel air pollution and cause grave harm to public health, especially for the young and old citizens of Karnataka.

11. Furthermore, the misplaced allegations of fraud and res judicata are nothing but meek attempts of the Respondent to escape compliance with the settled laws / directives as stated above. As can be seen from the contents of the above Original Application and the Interim Application filed therein, the disposed off original application in OA No. 183 of 2016 is disclosed and a copy thereof forms part of the records. While the Respondent had once again undertaken to convert the older fleet

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to BS – IV as recorded in Para 17 of the judgment therein, the subject matter therein was phasing out of older vehicles and implementation of green and clean fuel policy which indeed to this day is due to be complied with. It is under these circumstances, the Applicant requests that no more extensions be granted / indulgence is shown for the Respondent State which is now grasping at every straw, and that the matter be proceeded with for final arguments on 29.11.2024 as directed by the Hon'ble Bench on 20.09.2024.

It is therefore prayed that this Hon'ble Tribunal may be pleased to take on record this additional affidavit in Original Application No. 87 of 2024 and pass such other order/orders as this Hon'ble Tribunal may deem fit and proper in the circumstances of the case and thus render justice.

Solemnly affirmed at Bengaluru on this the 11th day of November, 2024 and signed his name in my presence.

BEFORE ME

ADVOCATE, BENGALURU
Sathies Kumar
D/3495/2014

MULTI STATE COLLABORATIVE LEGAL
204, Second Floor, 134, M.B. Centre,
Infantry Road, BANGALORE - 560 001.
Ph : 74111 53334, 88600 63400, 80732 11311

BEFORE THE NATIONAL GREEN TRIBUNAL, SOUTHERN ZONE AT CHENNAI

IA No. 70 /2024
in
Original Application No. 87/2024

BETWEEN

Krishnan CS ...**APPLICANT**

AND

State of Karnataka & Ors ...**RESPONDENT**

AFFIDAVIT FOR INTERIM DIRECTIONS UNDER SECTION 19(4)(i) **AND 20 OF THE NATIONAL GREEN TRIBUNAL ACT, 2010**

1. I, CS Krishnan, son of Mr. Srinivasan, aged 50 years, F-205, Nandi Woods Apartments, Yelanahalli, Bangalore – 560076, do hereby swear under oath as follows:

2. I respectfully submit that Respondent No. 1, the State of Karnataka, is yet to respond to this instant case, despite passage of three months since this Hon'ble Tribunal's notice and delivery of private notice requesting them to respond.

3. I state that the history of commitments made to courts and regulatory authorities by Respondent No.1, compared to its subsequent actions, reveal a decades long pattern of delay,

obfuscation, and circumvention regarding air quality management and enforcement of the law regarding vehicular air pollution. In doing so, the Respondent State violates one of its primary responsibilities of protecting and preserving the environment, as well as the health of its citizens. It well settled that threat to environment is threat to life and the right to life is guaranteed by the Constitution of India.

4. Pertinently, I state that the Respondent No.1 State of Karnataka ignores the fact that the Respondent No.2, the Karnataka State Pollution Control Board (KSPCB)'s Notification bearing No.KSPCB/SEO-Infra/DG-Retrofitting/2021-22/955 dated 25.05.2023 declared the entire State of Karnataka as *"Air Pollution control area"*. Furthermore, the Respondent No.2 had mandated *"all Industries, Establishments, Projects, Buildings, Utilities, Airports, Railway Stations or any other places operating DG Sets of capacity 125 KVA and above within the jurisdiction, are directed to Retrofit all operational DG sets of capacity with an Emission Control Device / Equipment."* I state that the Respondent No.1 State should implement the DG Retrofit requirement for diesel trucks and buses, as well. A copy of the KSPCB's Notification bearing No.KSPCB/SEO-Infra/DG-Retrofitting/2021-22/955 dated 25.05.2023 is produced herewith as **Annexure A1**.

5. I state that, as per the Karnataka Transport Ministry Annual Report 2022 – 2023, the total number of buses registered in Karnataka was 2,70,762 as of 31-03-2023. I state that the total trucks and lorries registered in Karnataka as of 31-03-2023 was 5,45,856. I crave leave to put relevant documents evincing the same in due course. I state that although the affected State-owned trucks and buses are less than 10% of the total buses registered in the State, lack of action by the State on retrofitting and refurbishing or retiring older diesel vehicles they own prevents any of the mandated action in roughly 5,00,000 affected commercial diesel vehicles in the private sector. As per the directive of the Hon'ble Supreme Court one must *"Begin with Government vehicles and public undertaking vehicles including public transport vehicles"*. I state that the Respondent No.1 State must not only lead by example but rather it is its legal mandate as per the rulings of the Hon'ble Supreme Court. I state that the primary action goal in reducing mobile source air pollution is to get as many people as possible out of private transportation into clean public transportation. I state that the Respondent State needs more buses, not fewer, to reduce the deadly air pollution. Therefore, refurbishing for mechanical safety and retrofitting for emissions reduction on qualifying non-BS-IV diesel

vehicles and diesels over 10 years of age would be a better solution than scrapping a potential 21,000 diesel buses.

6. I state that Karnataka State Road Transport Corporation (KSRTC) has undertaken a cost-saving initiative by refurbishing old buses, which were originally destined for the scrap yard. In a bid to optimize resources, KSRTC has refurbished 528 buses in the first phase and put them back on the roads. The cost-saving benefits of this initiative are substantial. I state that the KSRTC has not purchased any new buses in the last five years, and the organization would have spent Rs 42 lakh on each new bus.

7. I state that Respondent No.1, the State of Karnataka, has demonstrated that it will not take the necessary safety and emissions actions on the public owned diesel vehicles unless and until it has no other choice but to act. Requests for or appointment of a committee for study or implementation has resulted in naught. Nothing of substance has come therefrom till date. In fact, the Respondent No.1 State has chosen to merely ignore such directives by this Hon'ble Tribunal and continue at will to flout the legal mandates cast upon it under law. However, should this Hon'ble Tribunal be pleased to direct the Respondent No.1 State to immediately comply with existing orders and judicial dicta, the

Respondent State would be forced to remove those vehicles from service or employ readily available retrofit for emissions and refurbish for safety methods.

8. I state the Respondent No.1 State has already successfully field-tested emissions retrofits and successfully performed road worthy refurbishments. I state that the Respondent State has the technical know-how and test data to comply with the judicial orders, legislative policies and directives mentioned herein. Despite the Auto Fuel Policy (2014) and the three highest governing judicial authorities directing the Respondent State to comply, it has failed to do so till date. I state that the Respondent No.1 State continues to ignore the judicial authorities and the statutory authority of KSPCB at the cost of the lives and well beings of its citizen. I state that Respondent No. 1, the State of Karnataka, is in contempt of the orders passed by this Hon'ble Tribunal and even the Hon'ble Supreme Court.

9. I state that the Respondent No.1 has proven that it has the means, skills, and methods to refurbish buses of 10 years of age and/or 10 lakh km to make them road safe and can add emissions retrofits that they have already field tested and found effective. I state that the Respondent No.1 State generates thousands of

crores income per month from taxing the fuel that pollutes the air when burned. Therefore, it is incumbent on the Respondent No.1 State to bear the cost for the refurbishment for safety and retrofitting for emissions qualifying vehicles that would be scrapped.

10. Therefore, the Applicant is constrained to most respectfully seeks the following Interim Directions from this Hon'ble Tribunal, in the interest of justice and equity.

In view of the foregoing, it is most humbly prayed that this Hon'ble Green Tribunal be pleased to direct the Respondent No.1, i.e., the State of Karnataka, to immediately halt annual renewal of registration and remove from service all State-owned diesel vehicles of pre-BS-IV manufacture and all State-owned diesel vehicles over 10 years of age or exceeding 10 lakh kms, including all diesel vehicles of private sector ownership granted permits for public transport from plying in the State of Karnataka, unless they are refurbished for road safety and retrofitted for emissions, solely at the cost of the Respondent No.1 for State-owned diesel vehicles, as per the "Polluter Pays Principle", in the interest of justice and equity.

Bangalore
DATED: 29/05/24

APPLICANT

ADVOCATE FOR THE APPLICANT

BEFORE ME.

ADVOCATE

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BEFORE THE NATIONAL GREEN TRIBUNAL SOUTH ZONE AT CHENNAI

I.A. No. 70 OF 2024
in
O.A. No. 87 OF 2024

Krishnan CS
Son of Mr. Sreenivasan
Residing at F-205, Nandi Woods Apartments,
Yelanahalli, Bangalore – 560 076. ... Applicant

-Vs-

1. The State of Karnataka,
   Through the Department of Transport,
   Vidhana Soudha, Ambedkar Veedhi,
   Bengaluru – 560 001
   Represented by its Chief Secretary

2. Karnataka State Pollution Control Board
   "Parisara Bhavana", No. 49,
   Church Street, Bengaluru – 560 001
   Represented by its Chairman

...Respondents

ADDITIONAL AFFIDAVIT

I, CS Krishnan, Son of Mr. Srinivasan, aged about 50 years and residing at F-205, Nandi Woods Apartments, Yelanahalli, Bengaluru – 560 076, do hereby solemnly affirm and sincerely state as follows:

1. I am the Applicant in the Original Application and as such, I am well acquainted with the facts and circumstances of the case and therefore, competent to swear this affidavit.

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2. I submit that the above interim application was filed seeking interim direction to the 1st respondent i.e., the State of Karnataka (through the Department of Transport), to immediately halt annual renewal of registration and remove from service all state owned diesel vehicles of pre-BS-IV manufacture and all state-owned diesel vehicles over 10 years of age or exceeding 10 lakh Kms, including all diesel vehicles of private sector ownership granted permits for public transport from plying in the State of Karnataka, unless they are refurbished for road safety and retrofitted for emissions. I submit that in addition to the averments contained in the Affidavit filed in the above Interim Application No. 70 of 2024, this additional affidavit is being filed to clarify the factual position and to bring on record certain other material facts.

3. I submit that studies have consistently shown that 60% of the air pollution in Karnataka is caused by vehicular emission and as on date, with the alarming and ever-increasing levels of pollution, the entire state of Karnataka has been declared as the non-attainment area. Cognizant of the fact that the automobile sector has been a cause of concern for public health, and although vehicle emissions is not the only source of air borne pollutants but certainly a large contributor, and in an attempt to shape up the public policy viz. Auto Fuel Vision & Policy 2025, and to lay down a roadmap for transition to ensure BS IV emissions norms and thereafter to BS – V norms, an expert committee comprisingof 52 active participants from all relevant Ministries, industries, manufacturers, academicians, and NGOs was constituted.

4. I submit that thereafter the Report of the said Expert Committee on Auto Fuel Vision & Policy 2025 dated 02.05.2014 was presented / laid in the Parliament and adopted by the Government of India on 07.05.2015. The said report clearly states that "*Once an area is switched over entirely to BS IV, the existing stock of commercial vehicles, especially heavy-duty diesel units, should be directed to compulsorily get after-*

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treatment devices – that dramatically reduce particulate and NOx emissions – retro-fitted within two years, failing which their licence should not be renewed."

5. I submit that even prior to the abovementioned policy, as early as in 1991, the Hon'ble Supreme Court in the case of *M.C. Mehta vs. Union of India* took note of the fact that heavy vehicles operating in the city i.e., buses, trucks, defence vehicles is the main contributing factor to pollution and recommended attention against these vehicles. Thereafter, in the year 2002 i.e., a decade later, taking note of the fact that lack of concern or effort on the part of various governmental agencies has resulted in spiraling levels of pollution, and further that no effective steps were being taken by the administration in this regard, slew of directions were issued by the Apex Court including for phasing out of diesel buses and imposition of fine per day in the event of non-compliance thereof.

6. I submit that thereafter, in 2004, the division bench of the Hon'ble High Court of Karnataka in the case of *Karnataka Lorry Malikara Okkuta v. State of Karnataka*, in the context of notification banning entry of vehicles which are aged more than 15 years from the outer ring road, which was however not given effect to and had lapsed by efflux of time, held in para 14 and 18 of its judgment dated 17.08.2004 as follows:

> *"14... the Government, though it is duty bound, is not performing its duties to control the vehicular pollution. Protection of the environment is a primary function of the executive. The Government should devise suitable measures and provide machinery for rigid enforcement of such measures as are necessary to curb the menace of chaotic traffic conditions and vehicular pollution with a view to ensure the welfare of the general public.*
>
> .....
>
> *18. Under the circumstances, it will be appropriate to direct the respondents to evolve some scheme after considering the details. Government should also give sufficient time to the vehicle owners for replacement of the old vehicles, in a phased manner, to make available the CNG fuel and to have the vehicles*

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converted to it in a phased manner. The authority concerned should overall monitor and check the two wheelers, four wheelers and other types of vehicles including commercial/transport vehicles as well as passenger vehicles, at important functions, and to see that they do not violate the prescribed norms of pollution and the traffic rules and to ensure the safety and welfare of the public. The authorities concerned are also free to take note of the direction issued by the Apex Court in M.C. Mehta's case (supra)." Twenty years later the Respondent has yet to adopt or implement any of the specific actions directed by the Hon'ble High Court of Karnataka and not a single Respondent owned truck or bus operates on CNG."

7. I submit that thereafter the Hon'ble High Court of Karnataka, once again in a *Suo Moto* public interest litigation viz. WP No. 39432 of 2013, vide order dated 01.07.2015, upon taking note of the various suggestions and plans put forth by the Pollution Control Board to reduce both air and noise pollution in Bengaluru, and submissions made thereof, directed the state and central government to implement the same. At this juncture, it was in fact submitted by Bengaluru Metropolitan Transport Corporation ("BMTC") that phased conversion of diesel powered public transport vehicles to CNG vehicles is taken up seriously and natural gas pipelines are already laid from Dhabol in Maharashtra to Bengaluru and that the Committee would consider all aspects of the matter of replacement of the entire fleet of buses of BMTC in a phased manner and also discuss the financial aspect and make an action plan with the time-lines for the phased conversion and such proposal will be submitted before the court within two months. It was further submitted that a report is already placed by the Transport Commissioner and Home Department regarding the directions and other restrictions. However, even after a decade, transition plans and reports / strategies only remain on paper and there is not a single CNG bus operating in the State's fleet.

8. I submit that thereafter in 2016, the Hon'ble Principal Bench of the National Green Tribunal in *Vardhaman Kaushik Vs. Union of India & Ors.* directed the order of the Tribunal in relation to all diesel vehicles more than 10 years of age and petrol vehicles which are more than 15 years of age shall not ply on the roads of NCT of Delhi, to be

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enforced rigorously, and other States were also directed to take decision in this regard, particularly in relation to diesel vehicles which are of more than 10 years of age.

9. I further submit that thereafter this Hon'ble Tribunal vide order dated 13.04.2022 in O.A. No. 183 of 2016 (SZ) allowed the Application in part and disposed off the same with the following directions:

> (i) *The State of Karnataka is directed to strictly implement the directions issued by the Principal Bench of National Green Tribunal, New Delhi in Original Application No.681 of 2018 (PB).*
> (ii) *The State of Karnataka is also directed to implement the directions issued by the Central Pollution Control Board (CPCB) under the National Clean Air Programme and implement the action plan approved by the CPCB in the light of the directions issued by the Principal Bench in O.A. No.681 of 2018 (PB) as referred to above, strictly in compliance with the timelines provided in that action plan and the timeline provided by the CPCB.*
> (iii) *The State of Karnataka is also directed to form a monitoring committee under the leadership of (i) the Additional Chief Secretary to Government, Forests, Environment and Ecology Department, (ii) the Principal Secretary to Government, Department of Transport, (iii) the Additional Chief Secretary to Government, Department of Finance, (iv) a Senior Officer from the Integrated Regional Office, Central Pollution Control Board (CPCB) at Bangalore and (v) the Chairman – State Pollution Control Board (SPCB), Karnataka to review the action plan prepared for the implementation of the National Clean Air Programme and implementation of Clean and Green Fuel Policy in the State of Karnataka and implementation of the action plan (if any) already prepared by them pursuant to the directions given by the CPCB in compliance with the directions of the Principal Bench of National Green Tribunal, New Delhi in O.A. No.681 of 2018 (PB) and if there is any gap found, they are directed to evolve modified action plans to fill up the gap and fulfill the obligation of providing clean air in the State of Karnataka, including the critically polluted cities in the State of Karnataka which includes Bangalore as well.*
> (iv) *Meeting of the Committee mentioned above has to be reviewed by the Chief Secretary to Government, State of Karnataka periodically atleast once in three months and give necessary directions and support (both financial and technical) to implement the action plan so evolved*

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to achieve the goal, that too with shorter timelines. The Chief Secretary to Government, State of Karnataka is also directed to form District Level Committees to implement these programs in the respective districts as well to accomplish the goal of making the State of Karnataka, a pollution free State in compliance with the constitutional mandate of protecting environment under Article 48 A of the Constitution of India and providing a clean environment, including clean air as part of Right to Life as enshrined under Article 21 of the Constitution of India.

(v) *The Central Pollution Control Board (CPCB) is directed to monitor the implementation of the directions issued under the National Clean Air Programme and the directions issued by the Principal Bench of National Green Tribunal, New Delhi in O.A. No.681 of 2018 (PB) and the directions issued by this Bench, consequential to the orders passed by the Principal Bench in respect of this case and submit periodical reports to this Tribunal regarding the progress and improvement in the air quality and further recommendations (if any) to be made for achieving the goal of National Clean Air Programme and implementation of National Clean and Green Fuel Policy to this Tribunal once in 4 (Four) Months till the goal is achieved in its entirety.*

(vii) *Considering the circumstances, parties are directed to bear their respective cost in the application.*

(viii) *The Registry is directed to communicate this order to the Chairman – Karnataka State Pollution Control Board, Integrated Regional Office, Central Pollution Control Board (CPCB) at Bangalore, the Principal Secretary to Government, Department of Transport, the Additional Chief Secretary to Government, Forests, Environment and Ecology Department, the Additional Chief Secretary to Government, Department of Finance, and the Chief Secretary to Government, State of Karnataka for their information and compliance of directions.*

(ix) *As and when such reports are filed, the Registry is directed to place the same before the Bench for consideration and issuing necessary directions (if any) required in this regard.*

10. I submit that despite the directions of various Courts of Law as stated above and even after expiry of over two years from the aforesaid order dated 13.04.2022, no report or action is forthcoming from the Respondent. The Respondent State has consistently shown complete disregard to orders / directions and to it's own action plan(s). At this

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juncture, when it is clear that old heavy vehicles are a major contributor of air pollution, and an evaluation of Karnataka State Road Transport Corporation ("KSRTC") shows as of 2019-20 that 42.6% or close to half the buses in the KSRTC fleet beyond their scrapping age, interim direction as prayed for in the present application is unavoidable. In fact, 10 years later from the date of the order of the Hon'ble High Court of Karnataka stated supra, there is not a single CNG bus nor a single retrofitted bus in Karnataka State fleet and till date, the Respondent State is continuing to renew registration of non-BS-IV commercial diesel vehicles and commercial diesel vehicles over 10 years of age despite its own "Registered Vehicle Scrapping Policy of Karnataka, 2022" framed in exercise of powers conferred under section 65 Motor Vehicle Act,1988. This is in addition to the administrative polices of each transport corporation which also suggests scrapping of diesel vehicles over 10 years of age or exceeding 10 Lakh Kms.

11.I submit that under these circumstances, immediate implementation of the scrapping policy is inevitable and the obfuscation and delay tactics from the Respondent State will continue in the absence of specific, time-bound order / direction from this Hon'ble Tribunal. From the facts narrated above, it is also clear that there exists prima facie case in favor of the grant of interim direction as sought for. Further, report from the 2nd Respondent herein i.e., Karnataka State Pollution Control Board ("KSPCB") shows that PM10 and PM2.5 levels in Bengaluru have been on the rise since 2020. The Ambient Air Quality is extremely hazardous that it affects eyes, ENT, upper Respiratory track and lungs, and as a consequence, school going children, infants, office going persons, poor strata of society have been suffering endlessly. Therefore, unless direction as sought for is granted by this Hon'ble Tribunal and non-compliant State-owned diesel vehicles are removed form service, the same will lead to gross prejudice and irreparable loss.

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12. I further submit that in so far as the alternatives are concerned, various reports show that the State has proven and immediately available field-tested options of new buses and / or emissions retrofits. Further, the Respondent has had over a decade to address the issue, offered plans to various courts and tribunals but for reasons best known to them, has neglected to implement the same. The State's long, consistent pattern of ignoring orders, directives, policies and responsibilities at the expense of public health and right to life and its indifference is also clear from the non-utilization of available funds in terms of green tax, levied with effect from 01-04-2002 and its refusal to utilize funds from National Clean Air Programme. As per the Central Government's Portal for Regulation of Air Pollution in Non-Attainment Cities (PRANA), between 2019 and 2023, the Union government has disbursed Rs 541.1 Crores to Bengaluru, but shockingly, only 1.01% of this amount i.e., Rs. 5.47 Crores has been utilized by the Respondent State.

Under these circumstances, it is prayed that this Hon'ble Tribunal may be pleased to take on record this additional affidavit in O.A. No. 87 of 2024 and pass such other order/orders as this Hon'ble Tribunal may deem fit and proper in the circumstances of the case and thus render justice.

Solemnly affirmed at Bengaluru on this the 28th day of August, 2024 and signed his name in my presence.

BEFORE ME

S. Sathies Kumar.
ADVOCATE, BENGALURU
Sathies Kumar
D/3495/2014
#204, M.B.Center, 134,
Infantry Road,
Bangalore - 560001
M: 8600634400

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BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE BENCH, CHENNAI
ORIGINAL APPLICATION NO. 87/2024 (SZ)

IN THE MATTER OF:

Krishnan CS ...Applicant

Versus

State of Karnataka and Others ...Respondents

REPLY ON BEHALF OF RESPONDENT NO. 1

MOST RESPECTFULLY SHOWETH:

1. That the instant Reply is being filed seeking dismissal of the instant Original Application, *inter alia* on the following grounds:

   i. The instant Application is hit by *res judicata* as the issues herein are squarely covered by this Hon'ble Court's judgment in OA No. 183/2016 titled *Vinay Shivanand Naik* Versus *State of Karnataka*;

   ii. This Hon'ble Tribunal's judgment in the above OA No. 183/2016 was challenged by the Applicant himself before the Hon'ble Supreme Court of India in Civil Appeal (Diary) No. 19562/2022. The same was disposed of with liberty to the Applicant herein to approach the monitoring committee constituted by this Hon'ble Tribunal in OA no. 183/2016;

   iii. The above facts have not been brought to the notice of this Hon'ble Tribunal by the Applicant, hence he is guilty of suppression;

   iv. The prayers sought herein are matters of policy and hence cannot be sought in the instant Application; and

   v. The State has already taken multiple steps to curb vehicular pollution.

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PRELIMINARY OBJECTIONS REGARDING MAINTAINABILITY

2. It is submitted that the instant petition is not maintainable and liable to be dismissed for the following reasons:

Order passed by this Hon'ble Tribunal in OA No. 183/2016

3. It is pertinent to reiterate that the instant Application has been filed seeking *inter alia* all government owned/operated pre BS-IV diesel trucks and buses over 10 years of age to use non-engine-modifying retrofit devices.

4. It is stated at the outset that a similar application with similar prayers was filed by one Mr. Vinay Shivanand Nayak, bearing Original Application No. 183/2016. In the said matter, GAIL (India) Limited, Ministry of Petroleum and Natural Gas, Ministry of Environment, Forest & Climate Change and Ministry of Road Transport & Highways were impleaded as parties. The prayers sought in the said OA were as follows:

> *a. Direct the Respondents to ensure that all buses plying in and/or passing through the city of Bengaluru, Karnataka (including buses of State RTCs, i.e. Respondents No.2, 3, 5 and 6 and routes leased by them), be converted to CNG within a time frame fixed by this Hon'ble Tribunal.*
>
> *b. Direct the Respondents to revise the HSU limit at 40 Hartridge Scale Units for all commercial diesel vehicles plying in the State of Karnataka.*
>
> *c. Direct the Respondents to take additional further action to reduce air pollution being caused on account of diesel*

vehicular emissions by implementing new policies above and beyond the provisions and regulations in the Central Motor Vehicle Act state wide.

d. Pass any other/further orders in the interest of justice.

5. It can hence be seen that the issue raised herein was squarely covered by the above Original Application filed before this Hon'ble Tribunal.

6. This Hon'ble Tribunal in order dated 13.04.2022 passed therein noted the directions passed in a previous order in a similar matter bearing OA No. 681/2018, where it directed *inter alia* as follows:

> *"59. The Principal Bench in that case had reproduced certain aspects in Para (4) of the order which reads as follows:*
>
> *60. ...*
>
> *i. We direct constitution of an eight-member National Task Force (NTF) to be headed and coordinated by the Secretary MoEF&CC with nominees (not below the rank of Joint Secretaries) of Ministries from Housing and Urban Development, Road Transport, Petroleum, Power, Agriculture, Health and Chairman, CPCB with a view to monitor remedial steps to improve the status of air quality in NACs consistent with the action plans already prepared and approved by the Expert Committee and directions of this Tribunal, referred to above, including the last order dated 21.08.2020 and also to monitor compliance of noise control norms. NTF may also monitor enforcement of laid down air quality standards beyond NACs in other identified air polluted areas where air quality is poor and above."*

7. Further, this Hon'ble Tribunal also directed that the State Committees formed under the Chairmanship of the Chief Secretaries of all States/UTs may continue to monitor progress in execution of action plans at State level with the assistance of monitoring cells in their offices and AQMCs. True copy of the order dated 13.04.2022 passed by this Hon'ble Tribunal in OA No. 183/2016 is annexed herewith as **Annexure R-1**.

8. It is submitted that in compliance with the above order dated 13.04.2022, CPCB nominated Ms. Selvi P.K., Scientist as Member of the Monitoring Committee.

9. It is hence submitted that the issued raised by the Applicant herein are squarely covered by the Original Application mentioned above and hence, the present Application is hit by *res judicata*.

Suppression by the Applicant

10. It is submitted that the above order dated 13.04.2022 was challenged by the very Applicant herein before the Hon'ble Supreme Court of India by way of C.A. (Diary) No. 19562/2022. The Hon'ble Supreme Court of India passed an order granting liberty to the Applicant to approach the monitoring committee. True copy of order dated

09.12.2022 passed by the Hon'ble Supreme Court of India is annexed herewith as **Annexure R-2**.

11. It is pertinent to note that the Applicant has suppressed the said fact in the instant Application. Moreover, the Applicant has not mentioned either whether or not he approached the said Committee, and what was the outcome of his representation, if any. Hence, the Applicant is guilty of suppression and the Application is liable to be dismissed on the said ground.

Prayers Sought Are Matters of Policy

12. It is submitted that the prayers sought by the Applicant for use of retrofit devices are matters of policy. It is submitted that State can undertake various exercises and implement various methods to curtail vehicular pollution. However, it is submitted respectfully that it is not for the Applicant to dictate what policy the State ought to adapt in order to curb vehicular pollution.

13. In fact, the same was also noted by this Hon'ble Tribunal while passing the judgment in the above mentioned OA No. 183/2016, *Vinay Shivanand Naik* v. *State of Karnataka*. The Hon'ble Tribunal noted the following in this regard:

> *57. It is also seen from the various reports submitted by the State of Karnataka and also the BMTC that various steps have*

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been taken by them for implementing the Green and Clean Fuel Policy and they are taking steps to convert the old vehicles to electrical vehicles and steps are being taken for phasing out the old vehicles with electrical vehicles. They have also mentioned that the CNG is not the only method by which pollution can be curtailed and various reports relied on by them showed that the CNG was also causing some ill effects, but we are not going into those aspects, as the policy of the Government and various directions issued by the Hon"ble Apex Court includes replacement of diesel vehicles with Clean and Green Fuel vehicles, which includes CNG and Biogas and Electrical vehicles. It is for the Government to evolve a policy as to how they are going to implement the same and what is the alternate clean fuel policy that they are going to adopt, as it involves financial implications and higher level policy decisions. ***Further, the Tribunal cannot go into the question as to what is the nature of policy to be evolved and how that will have to be implemented, but the Tribunal can only direct the Government to evolve an effective policy in respect of change over of old vehicles with Clean and Green Fuel policy and the same will have to be implemented at the earliest possible time, as postponement of such implementation will result in great hardship to the people by way of causing health problem due to accelerated possibility of air pollution being increased.***

(Emphasis Supplied)

14. In light of the above, it is reiterated that the prayer sought by the Applicant squarely falls within the domain of policy decision. For the said reason as well, the Application is liable to be dismissed.

(Without Prejudice to the averment regarding non-maintainability of the instant Application)

Steps Taken in Compliance of Order dated 13.04.2022

15. It is submitted further that the State Transport Corporations are replacing the aged buses with new buses fitted with the newest Euro

norms stipulated by the MORT&H, New Delhi and new technology introduced by the OEMs to reduce the air pollution. The Corporations are adhering to the notifications issued by the Ministry of Road Transport and Highways regarding induction of Bharat Stage Norm buses from time to time. The BS-III buses are being scrapped in phased manner and they are being replaced by BS-VI and Electric buses which reduce the pollution level considerably.

16. It is submitted that there are four road transport corporations in Karnataka, being:

    i. Karnataka State Road Transport Corporation ('***KSRTC'***);

    ii. North-Western Karnataka Road Transport Corporation ('***NWKRTC***');

    iii. Kalyan Karnataka Road Transport Corporation ('***KKRTC'***);

    iv. Bengaluru Metropolitan Transport Corporation ('***BMTC'***).

17. The Corporations except BMTC are operating their buses in rural and long routes outside the city of Bangalore. The buses which are operated by these Corporations only pass through Bangalore city to pick up passengers and dropping them. Besides, the Corporations are procuring BS-VI fuel since July 2022. Moreover, KSRTC is conferred with several awards for following best industry practices in house for maintenance of buses and other operating aspects,

Routine checks are conducted with computerised emission testing machines to control emissions. Importantly, the Corporations' vehicles comply with emission standards as prescribed by Rule 115(2) of the Central Motor Vehicles Rules which sets the limit at 65 Hartridge unit (%). KSRTC has installed 16 online smoke emission testing machines that are authorised by RTO besides having a mobile van under the brand name "Prakruti" to check the vehicles while in operation for its emission level. The KSRTC and other two Corporations excluding BMTC are operating very less number of city buses in District headquarters and most of the buses are operated from District headquarters to interior Moffusil areas.

18. It is pertinent to mention here that KKRTC (Kalaburgi) has made attempts to convert its buses into CNG fuelled for trial basis as the CNG distribution rights holder company offered conventional CNG kits (retrofitting on engine) which were found having some technical disadvantages, such as loss of engine life due to low pick up. As such KKRTC requested for sequential CNG kits which offered better power and fuel efficiency performance. The cost of said kit is Rs.2,50,000/- more than the cost of conventional kit. The trial could not be commenced as the supply of CNG to the depots was not possible as the vehicles needed to move 8 to 10 km for top up of CNG due to

supply infrastructure constraints. The fitment of non- engine modifying retrofit devices requires extensive modifications in the exhaust system, chassis mounting and several other changes which would change the basic nature of the bus which is not permitted under the Motor Vehicle Act and Rules. This may also have the impact on safety and other functional aspects. It is also not sure as to whether OEMs concur for fitment of retro devices which should be done after studying the design of the proposed retro-fitment so that there is no undesirable effect on the existing system of the vehicle. KKRTC also tried to ascertain the availability of standards published for the design, manufacture and testing of the retro-fitment devices with the premier agencies and organisations such as ARAI, CIRT and ASRTU.

19. The petitioner has not produced any test reports regarding the effective conversion of diesel engines with retro-fitment devises for CNG so as to claim with authority for retro-fitment. Unless he comes with reports regarding function of retro-fitment devises on diesel engines the application filed by the petitioner with bare pleadings is not maintainable.

20. It is nevertheless submitted that the answering State a scrapping policy already in place, *i.e.* Registered Vehicle Scrapping Policy of

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Karnataka, 2022. True copy of Registered Vehicle Scrapping Policy of Karnataka, 2022 is annexed herewith as **Annexure R-3**.

21. It is hence submitted that the State has taken and continues to take action for replacement of old diesel vehicles in order to reduce vehicular emissions. The above information may hence be taken on record and the instant Application may be dismissed with costs as not-maintainable and also account of suppression by the Applicant herein.

Respondent No. 1

Additional Commissioner for Transport
(Environment and e-Governance),
TC office, Bengaluru-27.

Through

Darpan KM
Standing Counsel
State of Karnataka

Date: 27.11.2024

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BEFORE THE NATIONAL GREEN TRIBUNAL, SOUTH ZONE

ORIGINAL APPLICATION NUMBER 87/2024

IN THE MATTER OF

Krishnan C.S, Bangalore .... **Applicant**

Vs.

State of Karnataka & Anr ..... **Respondents**

AFFIDAVIT ON BEHALF OF THE KARNATAKA STATE POLLUTION CONTROL BOARD

I, Shri. Niranjana P. aged about 59 years, son of Shri. Puttamadiah H. M presently working as the Chief Environment Officer, Karnataka State Pollution Control Board, do hereby solemnly affirm and state that I am familiar with the facts and circumstances pertaining to the present matter, in my official capacity and based on the official documents/records maintained by the Karnataka State Pollution Control Board. As such, I am competent and duly authorized to depose the present affidavit set forth below:

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C.

1. It is respectfully submitted that the Applicant has sought for incorporation of catalytic retrofits in existing pre-BS IV commercial diesel vehicles and also BS IV commercial diesel vehicles over 10 years old, operated by the State Government. It is respectfully submitted that the above application is not maintainable on facts and under law because this very issue raised by the Applicant had already been specifically raised in OA No. 183 of 2016 (SZ) (hereafter also referred to as the "**earlier petition**") and this Hon'ble Tribunal, having duly considered this issue, passed specific and comprehensive directions by its judgment and order dated 13/04/2022 (hereafter also referred to as the "**earlier order**"). The directions of this Hon'ble Tribunal in the earlier order are being currently carried out and implemented by the concerned stake-holders. A copy of the order dated 13/04/2022, passed in OA No. 183 of 2016 (SZ) is annexed herewith as **ANNEXURE R1** which also records the specific prayers that were made therein, including the issue raised again in the present application.

2. The relevant portion of the order dated 13/04/2022 in OA No. 183 of 2016 (SZ), reflecting the fact that the very same issue was raised therein, is reproduced herein below for ready reference:

> "*11. That prompted the applicant to file this application seeking the following interim as well as final reliefs:-*
>
> "*Interim Prayer*

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(i) Direct that all non BS IV diesel buses that are owned or operated by the Government of Karnataka/State RTCs i.e. Respondents No. 2, 3, 5 and 6, or its lessees in public transport, that operate in or pass through any portion of greater Bengaluru at any time, shall convert to CNG or use non engine modifying retrofit devices or catalytic treatments or any other similar devices which reflect 30% or more reduction in smoke emissions, within a time frame fixed by this Hon'ble Tribunal ..." "

It may also be relevant to note that the Applicant in the earlier petition, as final prayer, had sought for directions to the government to adopt CNG as the preferred fuel for government owned commercial vehicles.

3. The relevant portion of the judgment and order dated 13/04/2022 in OA No. 183 of 2016 (SZ), deciding on the subject-matter issue, is set forth below for ready reference:

" 57. It is also seen from the various reports submitted by the State of Karnataka and also the BMTC that various steps have been taken by them for implementing the Green and Clean Fuel Policy and they are taking steps to discontinue the old vehicles by new electrical vehicles and steps are being taken for phasing out old vehicles with electrical vehicles. They have also mentioned that the CNG is not the only method by which pollution can be curtailed and various reports relied on by them showed that CNG was also causing some ill effects, <u>but we are not going into those</u>

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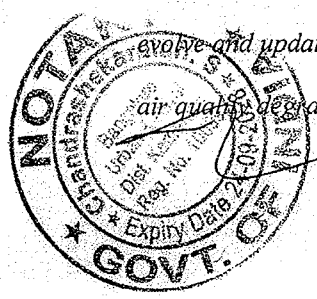
aspects, as the policy of the Government and various directions issued by the Hon'ble Apex Court includes replacement of diesel vehicles with Clean and Green Fuel vehicles, which includes CNG and Biogas and Electrical vehicles. It is for the Government to evolve a policy as to how they are going to implement the same and what is the alternate clean fuel policy that they are going to adopt, as it involves financial implications and higher level policy decisions. Further, the Tribunal cannot go into the question as to what is the nature of policy to be evolved [emphasis supplied] *and how that will have to be implemented, but the Tribunal can only direct the Government to evolve an effective policy in respect of change over of old vehicles with Clean and Green Fuel policy* [emphasis supplied] *and the same will have to be implemented at the earliest possible time, as postponement of such implementation will result in great hardship to the people by way of causing health problem due to accelerated possibility of air pollution being caused.*

58. The Special Bench while disposing the similar issue which was in respect of State of Tamil Nadu als in OA No. 422 of 2013 (L.G. Shadevan Vs. Union of India & Ors) after relying on the various directions issued by the Principal Bench of the National Green Tribunal in O.A. NO 681 of 2018 referred to above, directed the State Government to evolve and update the policy and other associated activities to remedy the air quality degradation may also include policy with regard to use of Clean



Fuel, regulatory measures in light of source apportionment and carrying capacity and controlling the dust. There is also a need for effective monitoring at the District Level and State Level by teh Steering Committee as well as the Air Quality Monitoring Committee on regular basis subject to overall progress being monitored at the National Level under the National Clean Air Programme."

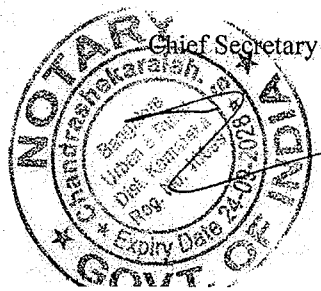
Following from the above reasoning, this Hon'ble Tribunal, in its order dated 13/04/2022, passed comprehensive final directions, which are substantively stated herein below.

(i) The State of Karnataka should implement the directions issued by the Principal Bench of the National Green Tribunal, New Delhi in Original Application No. 681 of 2018 (PB);

(ii) The State of Karnataka should implement the directions issued by the Central Pollution Control Board under the National Clean Air Programme;

(iii) The State of Karnataka should form a monitoring committee under the leadership of the Additional Chief Secretary to Government, Department of Forests, Environment and Ecology and also others as specified;

(iv) Meeting of the above stated committee is to be monitored by the Chief Secretary to Government, State of Karnataka periodically;



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(v) The Chief Secretary to Government, State of Karnataka, should also form District Level Committees to implement the above stated programmes;

(vi) The Central Pollution Control Board should monitor the implementation of the directions issued under the National Clean Air Programme and the directions issued by the NGT Principal Bench in OA No. 681 of 2018 (PB) and submit periodic reports to this Hon'ble Tribunal i.e., once in four months.

4. It is respectfully submitted that this Hon'ble Tribunal, has therefore, considered the prayer in the earlier petition on the issue of retrofits for government commercial diesel vehicles, as an interim step as prayed for therein, together with the final prayer for migration to CNG fuel and has specifically refrained from passing piecemeal directions as sought for. The Hon'ble NGT has specifically reasoned that the NGT cannot get involved with matters of financial and technical policy that are to be considered by the State Government. As a result, this Hon'ble Tribunal has passed comprehensive directions to ensure prevention of air pollution, which are also specifically aligned with the directions of the Principal Bench of the NGT in OA No. 681 of 2018 (PB).

5. It is respectfully submitted that the Applicant in the present matter is clearly aware of the entire directions of this Hon'ble Tribunal in the earlier order (having made references to the same in his Application) but has only

NOTARY Chandrashekaraiah Bengaluru Urban Dist. Karnataka Reg. No. 10099 Expiry Date 24-09-2018 GOVT. OF INDIA

made superficial references in his Application and has not provided any justification for raising the same issue once again and thus the maintainability of the present petition also. Further, it is important to note that the contents of the present application, verbatim make the same statements and raise the same grounds as were raised in the earlier petition. Therefore, it may not be out of place surmise that the present petition is being filed merely to suit the vested needs of the Applicant and to mislead this Hon'ble Tribunal into passing contradictory orders. Without any prejudice to the facts of the matter and the intentional/malicious conduct of the Applicant, it may also be necessary to submit that the present application is clearly barred under law, by the principles of *res judicata* and/or *constructive res judicata*.

6. Without any prejudice to the above, it may also be noted that the role of the Karnataka State Pollution Control Board is modulated now by the extensive coverage of the subject-matter issues by various court directions i.e., the Hon'ble Supreme Court of India, the Principal Bench of the NGT and the Southern Bench of the NGT (including ongoing proceedings in pending matters referred to herein below in paragraph 7) and the comprehensive nature of the measures that are being undertaken in terms of the court directions by the various stake-holders. The implementation of the various measures is now being undertaken by various agencies and departments under the leadership of the office of the Chief Secretary, Government of Karnataka and the same is being finally reported directly to this Hon'ble Tribunal also.

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7. Without any prejudice to the above, the status of the implementation of various measures available with the Karnataka State Pollution Control Board is based on the proceedings of the committees formed to implement the National Clean Air Policy and the State Action Plan on Air Pollution for Karnataka. A copy of one of the latest proceedings of the NCAP committee meeting headed by the Deputy Commissioner, Bengaluru Urban District dated 12/02/2024, is annexed herewith as **ANNEXURE R2** as a sample for ready reference. Additionally, a copy of the State Action Plan on Air Pollution for Karnataka 2022, is also annexed herewith as **ANNEXURE R3.** It may also be necessary to submit that this Hon'ble Tribunal is considering the State Action Plan on Air Pollution and related issues, in a matter currently pending adjudication i.e., in OA 159/2021 (SZ) and as on the date of this affidavit, this Hon'ble Tribunal has passed directions to the various State Pollution Control Boards to submit revised reports based on the modified templates prepared by the Central Pollution Control Board.

8. It is respectfully submitted that this Hon'ble Tribunal may be pleased to take the above submissions into consideration and dismiss the above titled application with the imposition of exemplary costs. KSPCB will be obliged to provide any additional information that may be required by this Hon'ble Tribunal.

NOTARY Chandrashekaraiah. S Expiry Date 24-09-2028 GOVT. OF INDIA

DEPONENT

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VERIFICATION

Verified on this 17th day of September, 2024, at Bengaluru that the contents of the above affidavit are true and correct to the best of my knowledge, information and belief and nothing material is concealed therefrom.

DEPONENT

SWORN TO BEFORE ME
17/9/2024

CHANDRASHEKARAIAH. S
Advocate & Notary
9/1, Kempegowda Nilaya,
3rd Cross, Muthurayaswamy Extention
Sunkadakatte, Bangalore - 560 091.

NOTARY
Chandrashekaraiah.
Bangalore Rural
Expiry Date 24-05-2028
GOVT. OF INDIA

BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE AT CHENNAI

O.A. No. 87 OF 2024

Krishnan CS
Son of Mr. Sreenivasan
Residing at F-205, Nandi Woods Apartments,
Yelanahalli, Bangalore – 560 076. ...Applicant

-Vs-

1. The State of Karnataka,
   Through the Department of Transport,
   Vidhana Soudha, Ambedkar Veedhi,
   Bengaluru – 560 001
   Represented by its Chief Secretary

2. Karnataka State Pollution Control Board
   "Parisara Bhavana", No. 49,
   Church Street, Bengaluru – 560 001
   Represented by its Chairman

...Respondents

COMMON REJOINDER FILED ON BEHALF OF THE APPLICANT

THE APPLICANT MOST RESPECTFULLY SHOWETH

1. At the outset, it is submitted that as per Rule 16 of the NGT Rules, 2011, the Respondents ought to have filed their reply on or before 12.04.2024. However, despite repeated directions and numerous orders passed by this Hon'ble Tribunal on various occasions, the Respondents have filed their reply after an inordinate and unjustified period of nine months which clearly shows their deliberate attempt to obfuscate legal proceedings. Upon perusal of such a belated reply filed by the Respondents, the Applicant is filing this common rejoinder in response to the averments made therein. The Applicant denies all averments, allegations and contents of the reply Affidavits of the Respondents, except to the extent expressly admitted or dealt with hereunder.

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2. It is submitted that the first and foremost defense of the respondents pertains to the question of maintainability of the instant application on the ground that the same is hit by the principle of *res judicata*. In response to the same, it is submitted that the present original application is filed *inter alia* seeking to

    a. Direct that all pre-BS - IV diesel trucks and buses and BS – IV diesel trucks and buses over 10 years of age that are owned or operated or governed by the Respondent, the State of Karnataka, and its lease route operators in public transport be decommissioned and scrapped or, in the alternative, immediately use non-engine modifying retrofit devices which reflect 30% or more reduction in emissions.

    b. Direct the Respondent to provide the number of heavy-duty diesel vehicles over the age of 10 years & number of pre-BS-IV heavy duty diesel vehicles that it or any of its subsidiaries owns, operates or leases as well as the same numbers from all leased route operators for public transport in the state.

    c. Under the "Polluter Pays Principle" direct that the Respondent, the State of Karnataka, pay for the scrapping or retrofits requested in prayer (a.) hereinabove and, in the case of retrofits, place said devices into Central Stores for its various entities to access.

    d. Direct the Respondent, State of Karnataka, to formalize and implement a policy for the private sector that will require the mandated retrofit or replace measures on non-BS-IV commercial diesel vehicles and BS – IV commercial diesel vehicles over 10 years of age prior to granting the extension of their operating license to reduce air pollution statewide from commercial diesel vehicles.

3. It is the specific claim of the Respondents that the subject issues involved in the present original application have already been dealt with and are squarely covered under the decision of this Hon'ble Tribunal passed in O.A. No. 183 of 2016 *Vinay Shivanand Naik Vs. State of Karnataka & Ors.* However, it is pertinent to note that

the subject matter therein was with regard to phasing out of older vehicles and implementation of green and clean fuel policy which in fact, to this day, is due to be complied with by the Respondent State. On the other hand, it is submitted that the reliefs stated supra, as sought by the Applicant in the present original application is based on settled proposition of laws / precedents as laid down by the Hon'ble Courts / Tribunals which remain in effect and have not been altered, overruled or superseded and the present application seeks full and actual physical implementation of the same by the Respondent State. When these decisions are yet to be complied with and the directives remain unimplemented to this day, plea of *res judicata* taken by the Respondents is nothing but a reflection of the lack of concern on the part of the State among others.

4. In so far as the suppression of facts as alleged by the Respondents are concerned, it is submitted that *Vinay Shivanand Naik's* case stated supra, was a six year long litigation seeking use of green fuel like CNG in buses operated by the Respondent state pertaining to vehicles operating in Bangalore city only, wherein various proposed CNG and / or electric bus purchase schedules came to be included in the order for adhering to the statutory stipulations of KSPCB after reaching a consensus with the Respondent transport corporations. Furthermore, this Hon'ble Tribunal was pleased to direct the Respondent State to form a monitoring committee to review the action plan prepared for the implementation of the National Clean Air Programme (NCAP) and implementation of Clean and Green Fuel Policy in the State and to evolve modified action plans to fill up the gap and fulfill the obligation of providing clean air which is to be periodically reviewed by the Chief Secretary of the Respondent State.

5. It is submitted that the Applicant's appeal thereof was disposed of by the Hon'ble Apex Court with a specific direction to the monitoring committee to submit its report before this Hon'ble Tribunal, after duly factoring the suggestions put forth by the applicant. Pursuant thereto, a letter dated 30.03.2023 was sent to the monitoring committee, to which no response has been forthcoming. Furthermore, a letter dated 27.03.2023 seeking a copy of reports submitted by the Respondent State in

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compliance with the order dated 13.04.2022 was sent to the Chairperson of this Hon'ble Bench. However, the website of this Hon'ble Tribunal continues to reflect the status of the matter as "Report Awaited". This sequence of events on the other hand casts serious doubts as to whether the Respondent State has even adhered to the mandated requirement of forming the said committee in as much as when the required quarterly reports has never been filed since the date of order. The state of affairs as narrated above also makes it amply clear that appointment of another "committee" instead of an order directing compliance / a positive direction will not change or correct the problem. Under these circumstances, the Respondent State's persistent inaction and non-compliance by ignoring the judicial orders necessitates immediate intervention by this Hon'ble Tribunal to ensure actual implementation of the long-established obligations, policies and directives as prayed for. More so, when it is clear that raising questions of maintainability without dealing with the matter on its merits as well as the allegations of suppression of facts are all meek attempts of the Respondents to escape compliance with the settled laws.

6. With respect to the Respondents' contention that the prayers sought in the present application are matters of policy is concerned, it is submitted that the Applicant is not seeking framing of a new policy. On the other hand, is seeking for an urgent intervention of this Hon'ble Tribunal to pass orders for ensuring the implementation of existing orders and guidelines issued in a catena of decisions and for compliance of the same by the Respondents within a maximum period of six months effective immediately. It is pertinent to submit that Applicant has approached this Hon'ble Tribunal on the basis of principle laid down in the case of *M.C. Mehta Vs. Union of India & Ors.* reported in *2002 (4) SCC 356* wherein the Hon'ble Apex Court emphasized that the spiraling pollution levels in the state has resulted due to the lack of effort and concern on the part of the State and Governmental agencies and thereby had issued directions on account of steadily decreasing air quality and further by taking into consideration of the fact that no effective steps were being taken by the administration in this behalf.

7. It is further submitted that the conduct of the Respondent State in the present circumstances of the case is also reflecting the same attitude and neglect to comply with the orders and directions given by the Courts from time to time despite the critical need for an effective action, and as held by the Hon'ble Supreme Court, Article 39(e), 47 and 48A of the Constitution of India collectively imposes a duty on the State to secure the health of its people, improve public health and protect and improve the environment. In light of this constitutional mandate, it has become inevitable to pass orders for the immediate implementation of the directives as the Respondent State's practice of indefinitely extending timelines under the guise of policy matters cannot be permitted, as courts are well empowered to intervene in cases where administrative inaction undermines fundamental rights and environmental safeguards.

8. At the risk of repetition, it is submitted that the question in the present original application as well as interim application is binary i.e., whether the settled laws apply collectively or individually statewide to the Respondent State's vehicles or not. If they do, in the facts and circumstances of the case when the compliance is long overdue, it is sought the Respondent State must comply with the same within 6 months by either decommissioning and scrapping non-compliant vehicles or retrofitting them. Therefore, it is left open to the Respondent State to scrap all non-compliant diesel vehicles within 6 months. However, in the event scrapping isn't opted for by the State, non-engine-modifying retrofits that does not require new type approval is suggested as an alternative to scrapping and the same will also allow renewal of registration in terms of the Auto Fuel Policy.

9. It is further submitted that the retrofits, at a small fraction of the price for a new vehicle, cut pollution from vehicles allowing time to spread out replacement schedules of non-compliant vehicles over time with little policy / political or economic disruption. If retrofits are refused by the Respondent State, well settled law requires scrapping all affected diesel vehicles statewide within 6 months. However, from the sequence of events narrated herein, it is clear that the Respondent State often promises emission compliances but lacks any meaningful action beyond

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paper policies or proposals. The KSPCB report asserts that courts should leave the state government to evolve policy with financial implementations, implying the courts should not force financially impactful orders. In this regard, Section 20 of the National Green Tribunal Act, 2010 states that the Tribunal shall, while passing any order or decision or award, apply the principles of sustainable development, the precautionary principle and the polluter pays principle. Therefore, the Respondent State must implement ordered measures, regardless of cost.

10. In any event, the State of Karnataka collects significant revenue from taxing fuel, the major source of air pollution when burned, generating over Rs 20,000 crores income annually. A copy of the State wise Collection of Sales Tax / VAT on POL Products as published in the website of Ministry of Petroleum & Natural Gas is enclosed as **Annexure-A1**. It is also crucial to note, as per the Central Government's Portal for Regulation of Air Pollution in Non-Attainment Cities (PRANA), between 2019 and 2023, the Union Government has disbursed Rs 541.1 Crores to Bengaluru, but shockingly, only 1.01% of this amount i.e., Rs. 5.47 Crores has been utilized by the Respondent State in discharge of the objectives of National Clean Air Programme. A copy of the newspaper article titled "It is unfair treatment" published on the subject in BangaloreMirror is produced herewith as **Annexure – A2**.

11. Under these circumstances, it is incumbent upon the State to fulfill its constitutional duty to protect the environment and the health of its citizens by allocating necessary funds towards mitigating the air pollution caused by burning the fuel first in its own vehicles, then in the private sector. The State-owned RTCs are the largest single purchaser of diesel fuel in Karnataka, making them the largest single mobile source polluter of the air. It is respectfully submitted that the Polluter Pays Principle should be applied to the Respondent State and the State must lead by example, not circumvent meaningful action.

12. It is further submitted that in a *Suo Moto* public interest litigation viz., WP No. 39432/2013, the Bengaluru Metropolitan Transport Corporation (BMTC) submitted that the phased conversion of diesel powered public transport vehicles to CNG

vehicles is taken up seriously and natural gas pipelines are already laid from Dhabol in Maharashtra to Bengaluru and that the Committee would consider all aspects of the matter of replacement of the entire fleet of buses of BMTC in a phased manner and also discuss the financial aspect and make an action plan with the time-lines for the phased conversion and such proposal will be submitted before the court within two months, whereby the Hon'ble High Court of Karnataka vide order dated 01.07.2015 directed the State to implement the directions issued by the Pollution Control Board.

13. Subsequent to the aforesaid decisions, several mandates and directives issued by the Central and State Pollution Control Boards, and other orders passed by various Courts and this Hon'ble Tribunal including *Vardhaman Kaushik Vs. Union of India & Ors.* directing the State that diesel vehicles over 10 years of age must not ply, and in *Vinay Shivanand Naik Vs. State of Karnataka & Ors.,* directing the Respondent State to strictly follow the directions passed by the Principal Bench in O.A. No. 681 of 2018 for the implementation of National Clean and Green Fuel Policy. However, the directions are once again not complied with.

14. It is pertinent to submit that the as per the information obtained through RTI **(Annexures – A3, A4 & A5)**, the details of present number of buses being operated by the four transport commissions of the Respondent State are as follows:

Type of Buses	Kalyana Karnataka Road Transport Corporation (KKRTC) (as on 16.12.2024)	North West Karnataka Road Transport Corporation (NWKRTC)	Bangalore Metropolitan Transport Corporation (BMTC) (as on 13.12.2024)	Karnataka State Road Transport Corporation (KSRTC) (as on 21.12.2024)
BS-I	0	Information Awaited.	0	0
BS-II	123		0	177
BS-III	2,327		454	4,778
BS-IV	1,596		Awaited	2,800
BS-VI	1,014			1,138
CNG / LPG	0		0	0
Electric Buses	0		1,260	50
Over 10 years of age	1,602		1,901	3,706

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15. Although the prescribed 30 day period has expired since the submission of RTI request, from the above limited / incomplete information supplied (**Annexure – A6**), it is clear that even after two decades, transition plans and reports / strategies only remain on paper and there is not a single CNG nor a single retrofitted bus operating in the Respondent State's fleet which in turn establishes that the Respondent State is yet to adopt / implement the specific actions / directions as repeatedly laid by the Hon'ble Courts. In addition to the same, the Respondent State is continuing to renew registration of BS-IV and non-BS-IV commercial diesel vehicles over 10 years of age despite the Registered Vehicle Scrapping Policy, 2022 which formulates the scrapping of diesel vehicles beyond 10 years of age or 10 Lakh Kms, framed in terms of Section 65 of the Motor Vehicles Act, 1988.

16. In light of the abovesaid facts and circumstances, it is submitted that the Respondents' persistent inaction in implementing court orders, policies, and guidelines has significantly delayed the removal of non-compliant public transport vehicles, which were scheduled to be replaced with new buses featuring lower emissions years ago. This failure to enforce diesel mandates and the consequential regulations has not only undermined efforts to improve air quality but has also set a precedent of indifference, leading to similar non-compliance in the private sector. Resultantly, the Respondents' inaction has been continuing to worsen the already critical air pollution levels, posing severe health risks to the citizens of Karnataka by undermining the constitutional duty to ensure a clean and safe environment. A copy of the news article titled "Toxic air is claiming more lives each year" published in BangaloreMirror is enclosed herewith as **Annexure – 7**.

Under these facts and circumstances, it is prayed that this Hon'ble Tribunal may be pleased to take on record this Common Rejoinder and allow the Original Application No. 87 of 2024 as prayed for and/or pass such other order/orders as this Hon'ble Tribunal may deem fit and proper in the circumstances of the case and thus render justice.

COUNSEL FOR THE APPLICANT **APPLICANT**

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VERIFICATION

I, CS Krishnan, Son of Mr. Srinivasan, aged about 50 years and residing at F-205, Nandi Woods Apartments, Yelanahalli, Bengaluru – 560 076, the Applicant in the above original application, do hereby verify and confirm that the contents of the above Rejoinder are true and correct to the best of my knowledge and belief and no part of it is false and nothing material has been concealed therefrom.

Solemnly affirmed at Bengaluru on this the 13th day of January, 2025 and signed his name in my presence.

BEFORE ME

ADVOCATE, BENGALURU
Sathies Kumar
D/3495/2014

MULTI STATE COLLABORATIVE LEGAL
204, Second Floor, 134, M.B. Centre,
Infantry Road, BANGALORE - 560 001.
Ph : 74111 53334, 88600 63400, 80732 11311

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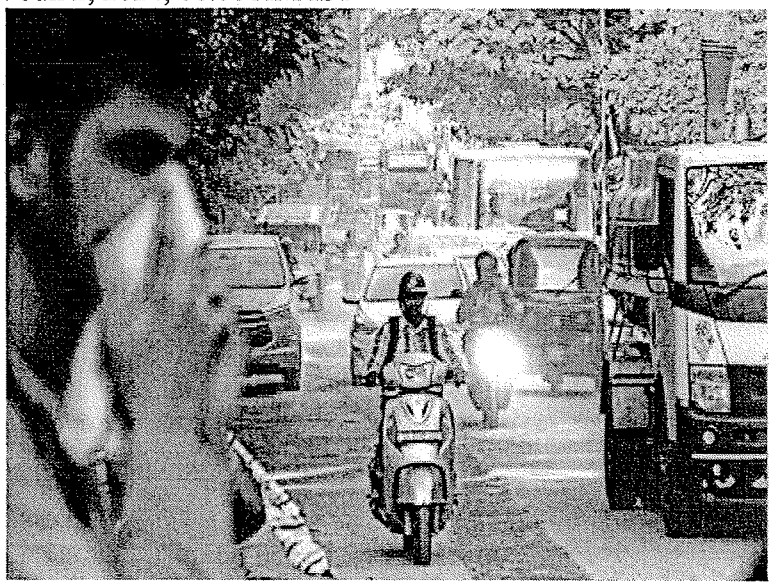
It is unfair treatment

/ Jun 2, 2024, 06.00 AM IST



Highlights

Bengaluru has used only tiny fraction of National Clean Air Program funds and the result is: Particulate matter in city's air on the rise since 2020
Traffic snarls and high emission levels play havoc with city's air

In January 2019, the Ministry of Environment, Forest and Climate Change (MoEF&CC) launched the National Clean Air Program (NCAP). The idea was to improve air quality by reducing particulate matter (PM10 and PM2.5) concentration in cities by 20 to 30%, taking 2017 as the base year.

In 2022, this target was revised to a 40% reduction in PM concentration.

However, the air quality data from the Karnataka State Pollution Control Board (KSPCB) shows that PM10 and PM2.5 levels in Bengaluru have been on the rise since 2020.

For instance, the Continuous Ambient Air Quality Monitoring Stations (CAAQMs) at Nisarga Bhavan in Saneguruvanahalli recorded the monthly average concentration of PM10 at 51.7 in April 2020; it has gone up to 57.4 in April this year. The concentrations of PM10 and PM2.5 at Hebbal have also gone up by 31 and 7 points respectively.

The rest of the stations have also recorded a surge in the concentration with the highest increase in Jayanagar. PM10 level in Jayanagar in April 2020 was recorded at 42, which has now reached 100.1. Similarly, PM2.5 concentration was 24 in 2019 and it has now touched 40. "Particulate matter concentrations in the city are about to touch pre-pandemic levels. This goes to show that the National Clean Air Program has been a failure in Bengaluru," said an air quality expert.

Funds unused

Experts say this was inevitable especially when Bengaluru has used only a tiny fraction of the NCAP funds

disbursed by the Centre. As per the Central government's PRANA website, between 2019 and 2023, the Union government disbursed Rs 541.1 crore to Bengaluru, but only 1.01% of this amount - Rs 5.47 crore - has been utilised so far. In 2023-24, Bengaluru received zero amounts under the program.

What is most polluting?

Air quality experts say traffic snarls and emission levels are very high in Bengaluru; leading to high levels of particulate matter. Moreover, a sizable portion of PM10 emission is from the construction industry and re-suspended road dust particles. "As per the outcomes of our study, the transportation sector in Bengaluru is still responsible for 63% of PM2.5 emissions and 50% of PM10 emissions. Until we take measures such as phasing out diesel-based vehicles and addressing emissions from heavy freight transport, levels of particulate matter in the environment will remain high. Strengthening public transport system is one way to bring down PM emissions," said Dr R Subramanian, sector head, of Air Quality, Centre for Study of Science, Technology, and Policy (CSTEP).

The April 2024 AQI report by KSPCB also shows that the daily average values of PM2.5 and PM10 exceeded NAAQS standards on multiple days across the majority of the stations.

Dr Subramanian cautions that the daily average concentration of particulate matter should not exceed the permissible levels too often. "US EPA states that the daily average levels of particulate matter should not exceed the permissible levels more than two to three times in a year. If it happens multiple times in a month, it is concerning," he added.

Experts say traffic management and improvement in existing road infrastructure should be taken up on a priority basis. Unpaved roads, poorly managed traffic, unscientific speed humps, and unregulated construction industry are some of the reasons behind the high PM concentration in the city's air.

Until we reform the transportation sector by taking measures such as phasing out diesel-based vehicles and addressing emissions from heavy freight transport, levels of particulatematter in the environment will remain high

— R Subramanian, CSTEP

Some experts opine it is probably time for Bengaluru to emulate Delhi and crackdown on emissions from construction industry. A couple of months ago, a new rule was announced for the national capital under which, all construction and demolition sites of over 5,000 sq m would soon have a real-time air quality monitoring device installed at their premises. This was after Delhi's environment department came up with a colour-coded four-stage warning system for C&D sites to bring down dust pollution levels in the city.

The system monitors PM 10 levels at these sites before relaying the data to the Delhi Pollution Control Committee. "If the value is found to be above permissible limits, SMS-based alerts are sent to the construction site for necessary action to be taken," said Dr Subramanian.

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Annexure – A7

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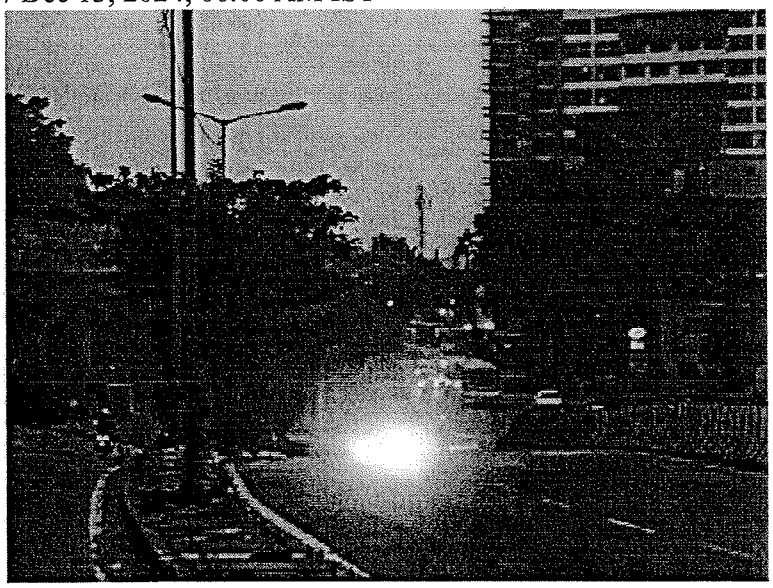
Toxic air is claiming more lives each year

/ Dec 13, 2024, 06.00 AM IST



'Based on WHO guidelines, a total of 16.6 million deaths were attributable to PM2.5, amounting to 24.9% of total mortality'

Study reveals rise in mortality rates in Karnataka due to PM2.5 exposure, with millions of deaths in India since 2009, inadequate air quality standards

A new study shows a surge in the annual mortality rate in the majority of the districts in Karnataka due to PM2.5 (fine particulate matter in air) exposure. Researchers at Karolinska Institutet in Sweden noted that the annual mortality rate in most of the districts in Karnataka in 2019 has gone up compared with the yearly mortality rate in 2009 due to PM2.5 exposure. They highlight that a 10 μg/m³ increase in annual PM2.5 concentration is associated with an 8.6% higher annual mortality.

The study included 655 Indian districts and found out that millions have died in India since 2009 due to long-term exposure to PM2.5. Based on the Indian National Ambient Air Quality Standards (NAAQS), a total of 3.8 million deaths between 2009 and 2019 were attributable to PM2.5, amounting to 5%. Based on the World Health Organisation (WHO) guidelines, a total of 16.6 million deaths were attributable to PM2.5, amounting to 24.9% of total mortality.

Views on current air pollution guidelines

The study also underscores that the current air pollution guidelines in India are insufficient to protect health. WHO revised the air quality guidelines for PM2·5 concentrations in 2021 based on mounting evidence of major health effects even at low exposure concentrations, resulting in stricter recommendations, going from not exceeding 10 μg/m³ to not exceeding 5 μg/m³ annual mean PM2·5 concentration. However, current Indian National Ambient Air Quality Standards (NAAQS) are less than or equal to 40 μg/m³ for annual mean PM2.5 concentration, which is eight times higher than the WHO guidelines.

Need to conduct health analysis

City-based researchers say the current priority is to conduct a health analysis at emission hotspots. "We need to first focus on analysing the health conditions of people living or working around these hotspots. Bengaluru currently has 80 hotspots of PM2.5. However, there is no study to understand the impact of this exposure. For

the time being, an annual average of 40μg/m³ appears to be adequate," said Professor Gufran Beig, chair at the National Institute of Advanced Studies (NIAS).

Experts say the priority should be to bring down ambient levels to the NAAQS, which can be followed by an interim target - 35μg/m³ or 25μg/m³. "We cannot come down to 5μg/m³ from 40μg/m³ suddenly, as it will not make a practical difference. We need to focus on reducing sources of emissions such as diesel exhaust, waste burning, and household emissions. Despite the considerable progress made under Pradhan Mantri Ujjwala Yojana (PMUY), poor families are still burning wood and other biomass as fuel. Moreover, National Clean Air Programme should also be implemented in villages and towns," said Dr R Subramanian, sector head for Air Quality, Centre for Study of Science, Technology, and Policy (CSTEP).

The study titled 'Estimating the effect of annual PM2.5 exposure on mortality in India: a difference-in-differences approach' also states that while the full population of the country lived in areas with PM2.5 concentrations exceeding 5 μg/m³ annual mean recommended in WHO guidelines, 1.1 billion of 1.4 billion (81.9% of the total population) lived in areas above the Indian NAAQS for annual mean PM2.5 not exceeding 40 μg/m³.

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SIGN IN

BangaloreMirror
Sat ,Feb 10, 2024 MUMBAI MIRROR | PUNE MIRROR

Annexure - A4

Breathing in danger: 'Air pollution affects heart'

BySridhar Vivan / Updated: Nov 9, 2023, 06:00 IST

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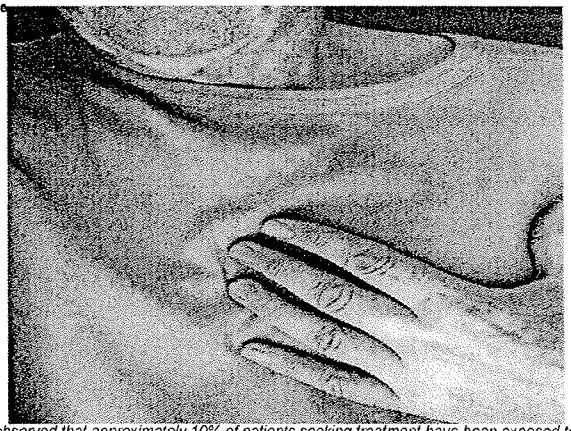

Experts have observed that approximately 10% of patients seeking treatment have been exposed to severe air pollution

City docs warn that air pollution can cause cardiac problems; they say that ultrafine particles can directly enter bloodstream, causing increased tendency for clotting

As Deepavali approaches, concerns about deteriorating air quality grow. This issue has already been observed in Delhi, where air quality has significantly worsened. Health experts warn that air pollution can contribute to cardiac problems. Jayadeva Institute of Cardiology Director Dr CN Manjunath said, "While many people associate air pollution with lung-related issues, what's less known is its connection to cardiac problems. Through various studies, we have observed that approximately 10% of patients seeking treatment have been exposed to severe air pollution. This includes individuals like auto, bus, and car drivers, as well as traffic police officers."

Adding to this, Dr Pradeep Kumar D (Senior Consultant - Cardiology, Manipal Hospital, Old Airport Road, and Yeshwantpur) said, "Air pollution has a strong association with cardiopulmonary disease and lung cancer. There are a lot of observational trials that have shown an increase in particulate matter of 10 micrograms per metre cube increases the risk of cardiopulmonary disease by almost 2 to 4 per cent, both in the acute setting and in the chronic setting. In acute phases, air pollution causes an increased tendency to clot, increased arrhythmias, vasoconstriction, and increased atherosclerosis. So, all these can lead to heart attacks."

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It can cause plaque formation, and if somebody has already had a plaque, there can be plaque rupture, plaque disruption, and the formation of clots within the coronary arteries and heart attacks, he informed.

Air pollution consists of particulate matter. Experts say that very small, ultrafine particles can directly enter the bloodstream and cause an increased tendency for clotting or coagulation. It can cause inflammation and heart attacks.

"All these particles can happen due to increased vehicular pollution as well as due to construction activities, fires, or agricultural products that are being burned, like what happened in Delhi. During specific seasons, particularly in winter when smog levels are higher, there is a definite rise in the number of heart attacks, especially in the northern regions. It not only causes heart attacks but also worsens heart failure, arrhythmias, and pulmonary conditions like COPD and bronchial asthma," he explained.

While many people associate air pollution with lung-related issues, what's less known is its connection to cardiac problems
–Dr CN Manjunath

Furthermore, Dr Sreekanth B Shetty (Senior Consultant and Head - Interventional Cardiology, Sakra World Hospital) said, "An increase in the density of particulate matter (PM2.5) in the atmosphere has been consistently linked to both short-term and long-term rises in cardiovascular issues, including heart attacks and strokes. This risk is notably amplified for individuals residing near bustling roads, highways, and construction sites. Those with pre-existing conditions such as diabetes, high cholesterol, or advanced age face increased vulnerability when exposed to areas with elevated PM2.5 concentrations."

The World Health Organisation (WHO) has established a safe threshold of 10 µg/m³ for cardiovascular health. However, PM2.5 levels in India can soar as high as 250 µg/m³, he added.
He said that one could look at measures like using face masks to reduce inhalation of PM2.5 and installing air purifiers at home to improve indoor air quality.
GALLERIES View more photos

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Annexure - A5

Search Location City or Area

Ranking Monitors Resources In Login

Real-time PM2.5, PM10 air pollution level Karnataka

Last Update: 10 Feb 2024, 01:50pm

75

Bangalore

View Map

Most Polluted Cities in India

Real-time worst city rankings

RANK	CITY	AQI-US
1	Bellary, India	254
2	Noida, India	228
3	New-Delhi, India	211
4	Faridabad, India	201
5	Saharanpur, India	196
6	Ghaziabad, India	196
7	Adoni, India	196
8	Sonipat, India	195
9	Hapur, India	190
10	Rohtak, India	189

View Full Ranking

Least Polluted Cities in India

Real-time best city rankings

RANK	CITY	AQI-US
1	Rajaori, India	33
2	Kilkunda, India	33
3	Manali, India	38
4	Baramula, India	38
5	Ootacamund, India	40
6	Kulu, India	42
7	Sopur, India	42
8	Handwara, India	42
9	Srinagar, India	42
10	Kulgam, India	42

View Full Ranking

Major Air Pollutants in Bangalore

42 (PM2.5) 74 (PM10) 2 (SO2)

243 (CO) 29 (Ozone) 15 (NO2)

The current PM2.5 concentration in Bangalore is [illegible] the

Get in Touch

Bangalore - Locations Air Pollution Level

LOCATIONS	Status	AQI-US	PM2.5	PM10	Temp
Indian Institute of Mgmt	MODERATE	66	19	30	29
ISRO Colony	MODERATE	74	23	49	30
Jayanagar 5Th Block	POOR	151	56	133	30
Kalyan Nagar	MODERATE	84	28	47	32
Koramangala	MODERATE	93	32	72	28

Weather Conditions in Bangalore

What are the weather and climatic conditions in Bangalore?

29 °C | °F

Sunny

Local Time 14:27 | 2024-02-10

Sunrise 06:44 AM

Sunset 06:24 PM

Wind speed 19.1 km/h

UV Index 8

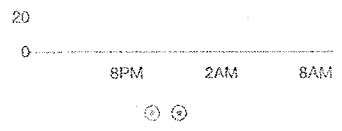
Pressure 1019 mb

Health Advice For Bangalore

How to protect yourself from air pollution around Bangalore, India?

AQI

Ranking Monitors Resources In Login



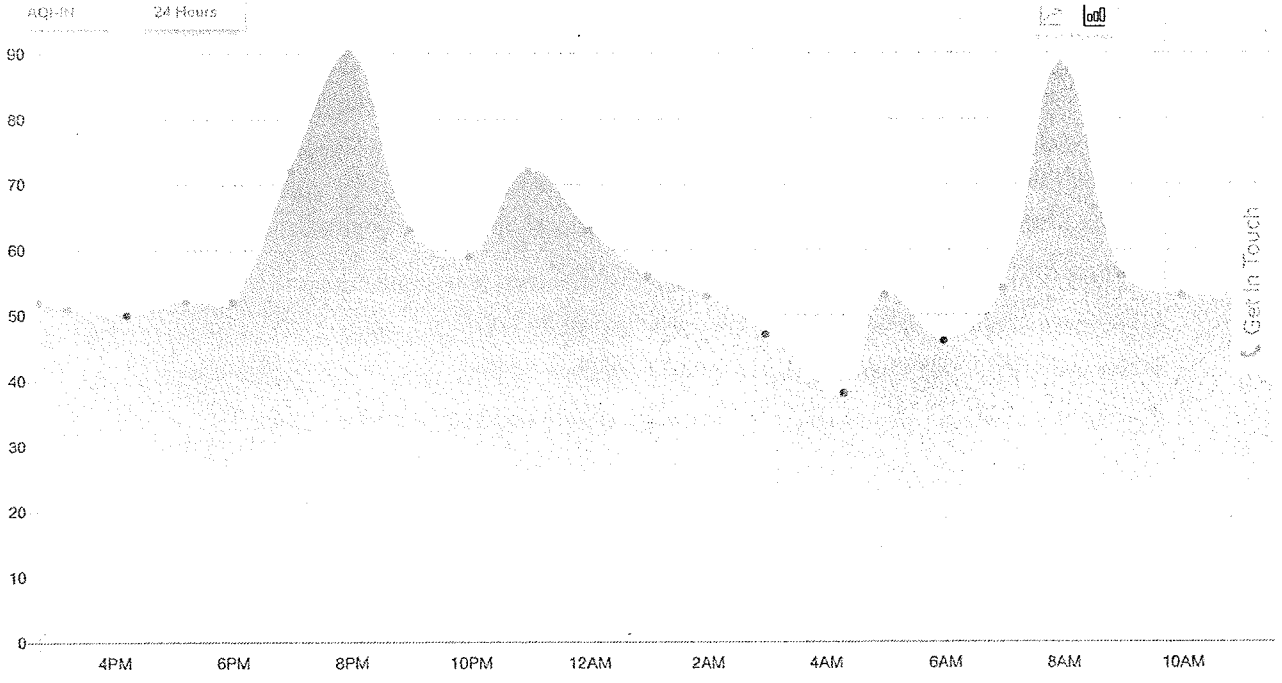
Day	Sun	Mon	Tue	Wed	Thu	Fri	Sat
AQI	62 AQI	68 AQI	69 AQI	73 AQI	70 AQI	80 AQI	85 AQI
Weather	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny	Sunny
Temp.	22.8°C	23°C	23.2°C	24.2°C	25.1°C	25.3°C	25.6°C

24 hrs avg AQI

Bangalore	77
Karnataka	81
India	134

Historic Air Quality Graph of Bangalore

Best 38 Worst 90



Get in Touch

Pocket
CO_2 Monitor

Checkout

Winter Pollution 2024

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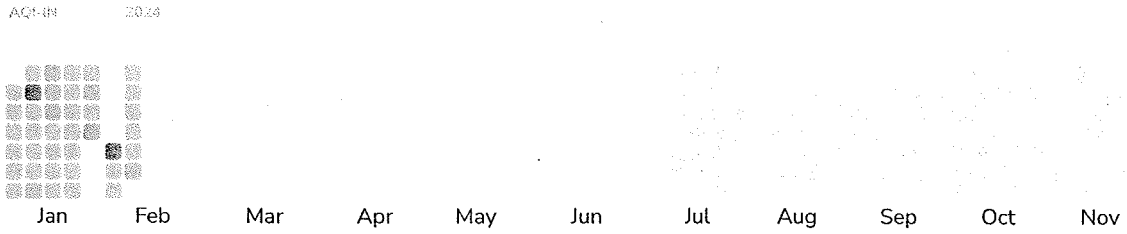
Ranking Monitors Resources In Login

AQI Calendar

Good Moderate Poor Unhealthy Severe Hazardous



FAQs of Bangalore Air Quality Index (Frequently Asked Questions)

Quick answers to some commonly asked questions about the air pollution of Bangalore.

1. What is the current Air Quality Index (AQI) in Bangalore ?
2. What is the current concentration of PM2.5 in Bangalore? Should I be worried?
3. What season is the worst air quality in Bangalore?
4. When was the best air quality at Bangalore in the last 24 hrs
5. When was the worst air quality at Bangalore in the last 24 hrs
6. What should I take care of before going outdoor when Bangalore AQI is very high
7. How can office going people or anyone avoid air pollution in Bangalore?
8. What are the primary causes of outdoor and indoor air pollution in Bangalore?
9. How harmful is indoor air pollution in Bangalore and why?
10. What is the solution for indoor air pollution in Bangalore?

Get in Touch

World's Most Polluted Cities & Countries AQI Ranking

Real-time top most polluted cities, and monthly & annual historic AQI ranking of cities & countries

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Annexure - A6

Bengaluru air five times worse than WHO guidelines, finds Greenpeace India study

The report titled, *Spare the Air*, is based on a year-long study, which analysed data from September 2021 to September 2022

June 11, 2023 08:13 pm | Updated June 12, 2023 01:20 am IST - Bengaluru

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Greenpeace India said that the study revealed that pollution levels in Bengaluru were dangerously and persistently higher than the latest WHO guidelines. | Photo Credit: file photo

Greenpeace India in its latest report on air pollution has stated that Bengalurueans breathe air five times worse than the World Health Organisation (WHO) guidelines.

The report titled, *Spare the Air*, is based on a year-long study, which analysed data from September 2021 to September 2022.

Greenpeace India said that the study revealed that pollution levels were dangerously and persistently higher than the latest WHO guidelines.

Bengaluru was found to have an annual average PM2.5 concentration of 29.01 µg/m3, which is 5.8 times higher than the safe levels (5 µ

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"Similarly, the city's annual average PM10 concentration was found to be 55.14 µg/m3, 3.7 times higher than the safe levels (15 µg/m3). The city's annual NO_2 concentration was also found to be 17.86 µg/m3, which is 1.8 times higher than the safe levels (10 µg/m3). The city recorded such alarming levels of NO_2 concentration on 342 days or 93.7% of all days on record," stated the environment group.

"The report serves as a wake-up call, once again highlighting the harsh reality that the people of Bengaluru are breathing dangerously polluted air. Vehicular emissions are one of the major contributors to urban PM2.5 and NO_2 concentration. The newly formed government must address this crisis with utmost urgency," said Avinash Chanchal, campaign manager, Greenpeace India.

The organisation also included a list of recommendations in the report to tackle the city's growing air pollution, emphasising that the solution is inclusive, accessible, and dependable public transportation.

Apart from Bengaluru, the study was also conducted in Bhopal, Chennai, Kochi, Hyderabad, Jaipur, Kolkata, Lucknow, Mumbai, Patna, and Pune. The focus was on the three key contaminants, PM2.5, PM10, and NO_2.

In 2021, with increasing evidence of air pollution conducted a systematic review adjusting all the a downwards, warning that exceeding the new guic significant risks to health.

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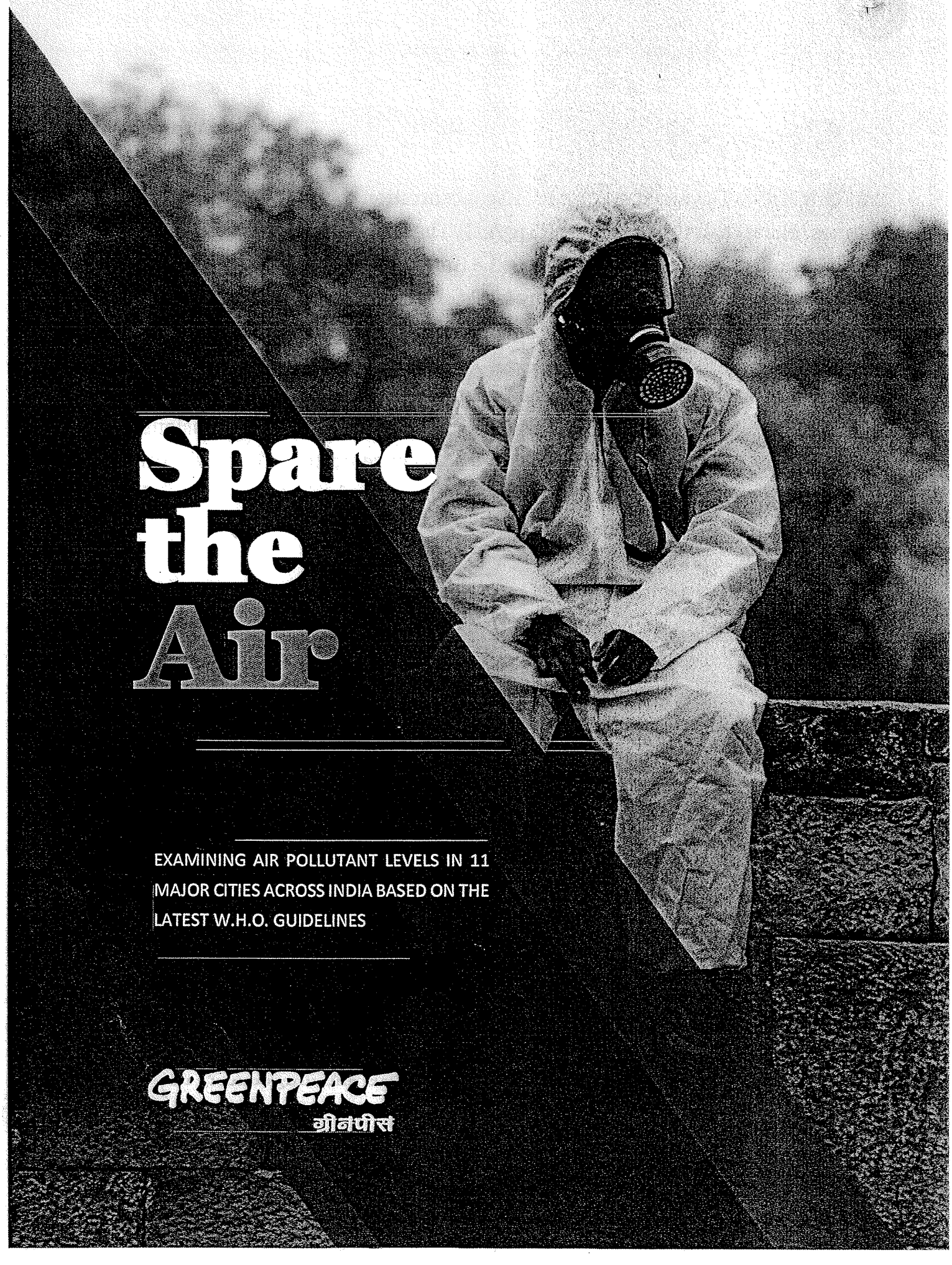
"Studies have revealed that exposure to severe air premature death, and many medical conditions, i birth weight, depression, schizophrenia, diabetes, stroke, and lung cancer," the environment group added.

Annexure - A7 334



Spare the Air

EXAMINING AIR POLLUTANT LEVELS IN 11 MAJOR CITIES ACROSS INDIA BASED ON THE LATEST W.H.O. GUIDELINES

GREENPEACE
ग्रीनपीस

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Spare the Air

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INTRODUCTION

Air pollution in recent years has become one of the most critical environmental issues. According to the 2021 World Air Quality Report[1], almost every Indian city exceeded the recommended WHO air quality levels. In India, the national ambient air quality standards (NAAQS) for some pollutants are already higher than the outgoing WHO air quality guidelines.

On September 22, 2021, the WHO updated their air quality guidelines based on the latest insight to protect public health[2]. The organization has set the new guidelines in light of new scientific evidence over the past decade which portrays a significantly grimmer picture of the effects of both, long term and short-term exposure to air pollutants. There is enough evidence to establish that even low levels of exposure to air pollution is harmful for human health, and the impacts can worsen with chronic exposure. It is increasingly evident that there is no safe level of air pollution[3]. In India, cities across the country are breathing polluted air and, contrary to the popular opinion, air pollution is not just limited to northern Indian cities.

In order to highlight the gravity of the crisis, Greenpeace India has analyzed air quality data from eleven major Indian cities between 2021 and 2022. **Our analysis of the data collected from IQAir reveals that the average pollution levels in these cities are much higher than the updated WHO air quality guidelines**. The results indicate that air pollution is a public health crisis across northern and southern Indian cities. The latest stringent guidelines push many more cities into the category of dangerously polluted cities.

We need comprehensive, systemic, and time-bound action to reduce air pollution levels across the country. If we do not act now, many major cities in India could face the grim repercussions of pollution, as faced by cities such as New Delhi—where the perils of air pollution are stark and, dishearteningly, unequivocally accepted across socio-political lines as a reality.

DATA AND METHODOLOGY

For this study, we analyze data collected by IQAir over the period between 22 September 2021 and 22 September 2022 to look at particulate matter levels in eleven major cities spread across India. These cities that are studied include Bengaluru, Bhopal, Chennai, Cochin, Hyderabad, Jaipur, Kolkata, Lucknow, Mumbai, Patna, and Pune. We focus on the three key contaminants, namely, $PM_{2.5}$, PM_{10}, and NO_2.

The WHO focuses on two different averaging methodologies for determining risks due to contaminants in the air**. First, they examine the annual average to study the impact of chronic exposure to these contaminants. And second, they examine the 99th percentile of distribution of the 24-hour averages across the year. This second metric highlights the peak levels of contaminants.** The 99th percentile is considered to ignore some of the extreme outlier data points. These peak levels can lead to severe short term health impacts owing to acute exposure, even if the exposure only lasts for a few days. Therefore, we have two separate guidelines, one for chronic exposure, and the other for acute exposure.

Based on the available data, we compare the observed air quality data in these eleven cities to the updated WHO standards. The revised guidelines are shown in the table below.

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[1] https://www.iqair.com/in-en/newsroom/WAQR_2021_PR

[2] https://www.who.int/news/item/22-09-2021-new-who-global-air-quality-guidelines-aim-to-save-millions-of-lives-from-air-pollution

[3] https://www.sciencedirect.com/journal/environment-international/special-issue/10MTC4W8FXJ

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Table 1: 2005 WHO air quality guidelines, 2019 standards set by the central pollution control board, and the updated 2021 WHO air quality guidelines.

Pollutant	Averaging time	2005 AQG* (µg/m³)	2021 AQG* (µg/m³)	2009 NAAQS** (µg/m³)
$PM_{2.5}$ Particulate matter ≤ 2.5µm	Annual	10	**5**	40
	24-hour†	25	**15**	60
PM_{10} Particulate matter ≤ 10µm	Annual	20	**15**	60
	24-hour†	50	**45**	100
NO_2 Nitrogen dioxide	Annual	40	**10**	40 Residential / Industrial / Rural area 30 Ecologically Sensitive Area
	24-hour†	-	**25**	80 Residential / Industrial / Rural area 80 Ecologically Sensitive Area

* Air Quality Guidelines
** National Ambient Air Quality Standards
† 99th percentile (i.e., 3-4 exceedance days per year)

RESULTS

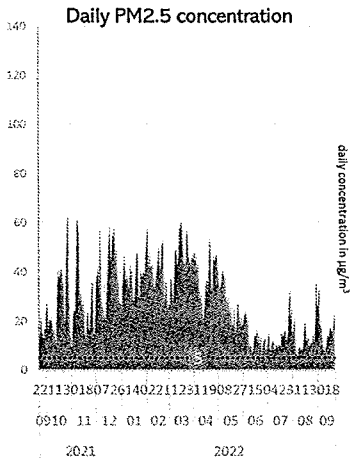
The results are nothing short of alarming for each of the cities under investigation. The updated WHO $PM_{2.5}$ standards push the air quality in all these cities to disturbing levels throughout the year. With the exception of NO_2 levels in Bhopal, all the cities have alarming to dangerously hazardous levels of all three pollutants for a majority of the year, with the annual average and 24-hour peaks frequently exceeding the latest WHO guidelines.

In the next section, we break down the details of the pollutant levels across each of the cities.

Bengaluru, Karnataka

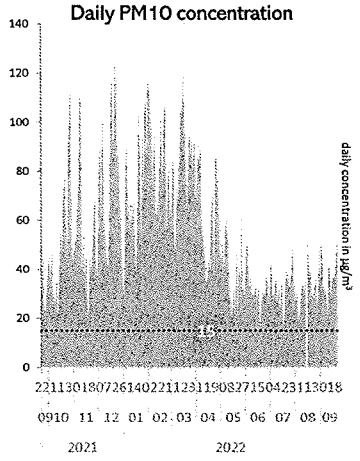
PM2.5

We retrieve the records of PM2.5 levels in the city of Bengaluru on 366 days. The city averages an annual PM2.5 concentration of 29.01 µg/m³. This amounts to being 5.8 times the safe levels (5 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM2.5 concentration which can have a negative long term health impact on 366 days or 100 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 61.46 µg/m³. This was 4.1 times the levels (15 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM2.5 concentration on 283 days or 77.32 % of all the days on record.



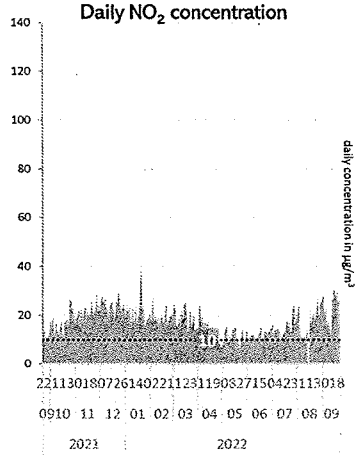
PM10

We retrieve the records of PM10 levels in the city of Bengaluru on 365 days. The city averages an annual PM10 concentration of 55.14 µg/m³. This amounts to being 3.7 times the safe levels (15 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM10 concentration which can have a negative long term health impact on 363 days or 99.45 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 122.22 µg/m³. This was 2.7 times the levels (45 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM10 concentration on 195 days or 53.42 % of all the days on record.



NO_2

We retrieve the records of NO_2 levels in the city of Bengaluru on 365 days. The city averages an annual NO_2 concentration of 17.86 µg/m³. This amounts to being 1.8 times the safe levels (10 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of NO_2 concentration which can have a negative long term health impact on 342 days or 93.7 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 31.05 µg/m³. This was 1.2 times the levels (25 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of NO_2 concentration on 44 days or 12.05 % of all the days on record.



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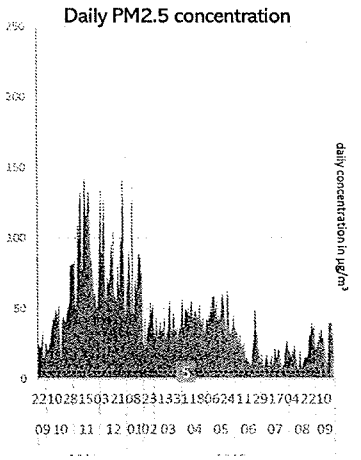
Bhopal, Madhya Pradesh

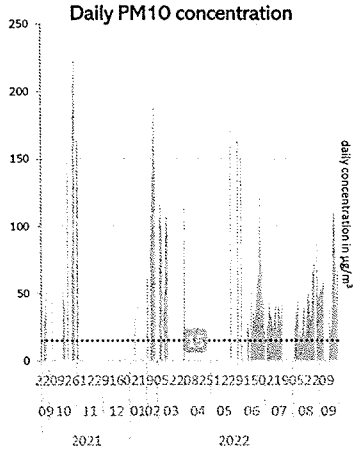
PM2.5

We retrieve the records of PM2.5 levels in the city of Bhopal on 337 days. The city averages an annual PM2.5 concentration of 45.45 µg/m³. This amounts to being 9.1 times the safe levels (5 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM2.5 concentration which can have a negative long term health impact on 337 days or 100 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 142.76 µg/m³. This was 9.5 times the levels (15 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM2.5 concentration on 300 days or 89.02 % of all the days on record.



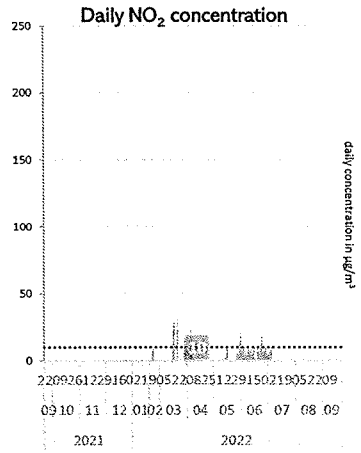
PM10

We retrieve the records of PM10 levels in the city of Bhopal on 134 days. The city averages an annual PM10 concentration of 68.51 µg/m³. This amounts to being 4.6 times the safe levels (15 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM10 concentration which can have a negative long term health impact on 133 days or 99.25 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 203.71 µg/m³. This was 4.5 times the levels (45 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM10 concentration on 76 days or 56.72 % of all the days on record.



NO_2

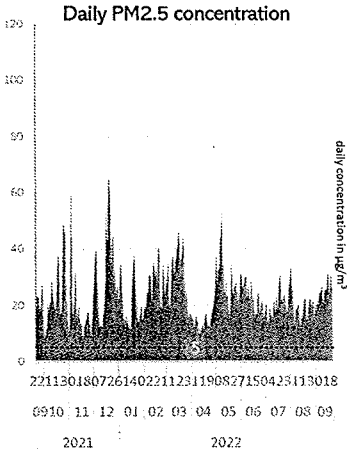
We retrieve the records of NO_2 levels in the city of Bhopal on 65 days. The city averages an annual NO_2 concentration of 10.18 µg/m³. This is marginally greater than the safe levels (10 µg/m³) as stated by the updated WHO guidelines. In this period, the city crosses this level of NO_2 concentration which can have a negative long term health impact on 26 days or 40 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 25.22 µg/m³. This was again marginally greater than the levels (25 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of NO_2 concentration on 4 days or 6.15 % of all the days on record.



Chennai, Tamil Nadu

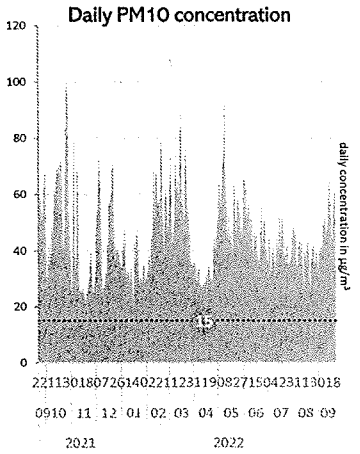
PM2.5

We retrieve the records of PM2.5 levels in the city of Chennai on 366 days. The city averages an annual PM2.5 concentration of 23.81 μg/m³. This amounts to being 4.8 times the safe levels (5 μg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM2.5 concentration which can have a negative long term health impact on 366 days or 100 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 56.33 μg/m³. This was 3.8 times the levels (15 μg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM2.5 concentration on 306 days or 83.61 % of all the days on record.



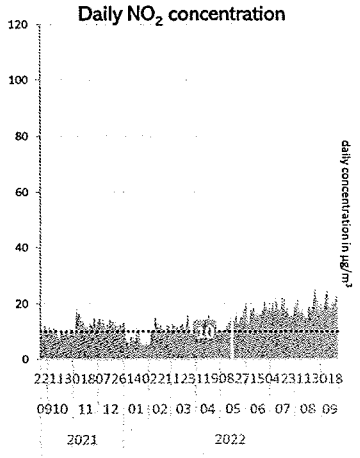
PM10

We retrieve the records of PM10 levels in the city of Chennai on 366 days. The city averages an annual PM10 concentration of 45.9 μg/m³. This amounts to being 3.1 times the safe levels (15 μg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM10 concentration which can have a negative long term health impact on 366 days or 100 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 90.7 μg/m³. This was 2 times the levels (45 μg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM10 concentration on 170 days or 46.45 % of all the days on record.



NO_2

We retrieve the records of NO_2 levels in the city of Chennai on 364 days. The city averages an annual NO_2 concentration of 13.51 μg/m³. This amounts to being 1.4 times the safe levels (10 μg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of NO_2 concentration which can have a negative long term health impact on 291 days or 79.95 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 23.68 μg/m³. This was lower than the levels (25 μg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records hazardous levels of NO_2 concentration on 2 days or 0.55 % of all the days on record. But they are ignored as statistical outliers.



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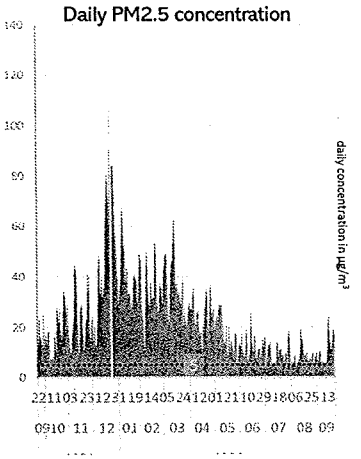
Cochin, Kerala

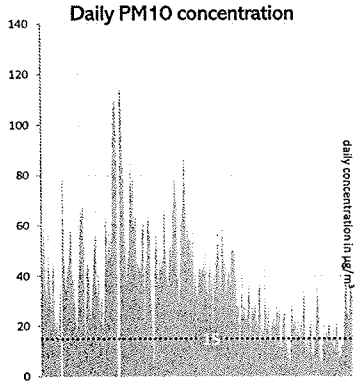
PM2.5

We retrieve the records of PM2.5 levels in the city of Cochin on 351 days. The city averages an annual PM2.5 concentration of 24.11 µg/m³. This amounts to being 4.8 times the safe levels (5 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM2.5 concentration which can have a negative long term health impact on 348 days or 99.15 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 82.25 µg/m³. This was 5.5 times the levels (15 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM2.5 concentration on 218 days or 62.11 % of all the days on record.



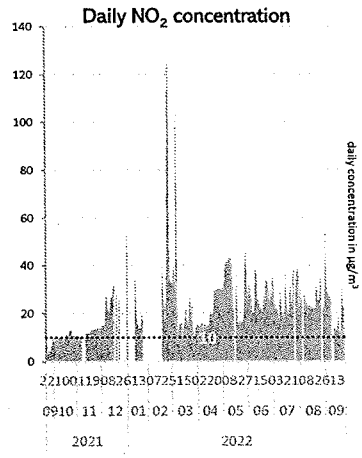
PM10

We retrieve the records of PM10 levels in the city of Cochin on 349 days. The city averages an annual PM10 concentration of 37.99 µg/m³. This amounts to being 2.5 times the safe levels (15 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM10 concentration which can have a negative long term health impact on 305 days or 87.39 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 109.72 µg/m³. This was 2.4 times the levels (45 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM10 concentration on 110 days or 31.52 % of all the days on record.



NO_2

We retrieve the records of NO_2 levels in the city of Cochin on 307 days. The city averages an annual NO_2 concentration of 23.02 µg/m³. This amounts to being 2.3 times the safe levels (10 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of NO_2 concentration which can have a negative long term health impact on 284 days or 92.51 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 70.32 µg/m³. This was 2.8 times the levels (25 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of NO_2 concentration on 116 days or 37.79 % of all the days on record.



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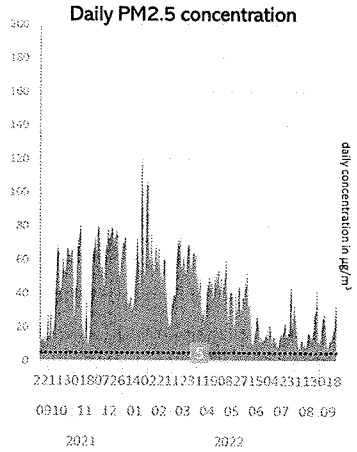
Hyderabad, Telengana

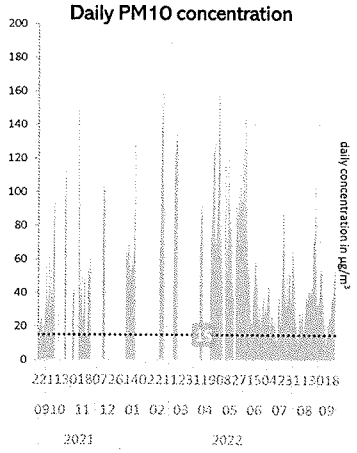
PM2.5

We retrieve the records of PM2.5 levels in the city of Hyderabad on 366 days. The city averages an annual PM2.5 concentration of 40.91 μg/m³. This amounts to being 8.2 times the safe levels (5 μg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM2.5 concentration which can have a negative long term health impact on 366 days or 100 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 102.64 μg/m³. This was 6.8 times the levels (15 μg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM2.5 concentration on 300 days or 81.97 % of all the days on record.



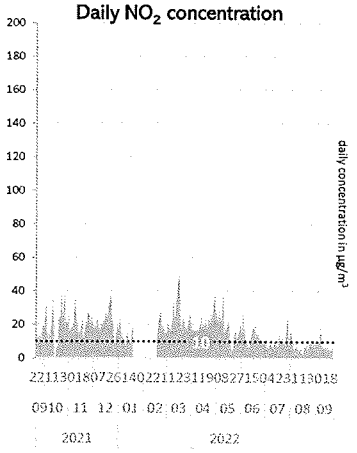
PM10

We retrieve the records of PM10 levels in the city of Hyderabad on 237 days. The city averages an annual PM10 concentration of 57.84 μg/m³. This amounts to being 3.9 times the safe levels (15 μg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM10 concentration which can have a negative long term health impact on 232 days or 97.89 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 163.38 μg/m³. This was 3.6 times the levels (45 μg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM10 concentration on 121 days or 51.05 % of all the days on record.



NO_2

We retrieve the records of NO_2 levels in the city of Hyderabad on 337 days. The city averages an annual NO_2 concentration of 17.06 μg/m³. This amounts to being 1.7 times the safe levels (10 μg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of NO_2 concentration which can have a negative long term health impact on 258 days or 76.56 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 41.18 μg/m³. This was 1.6 times the levels (25 μg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of NO_2 concentration on 53 days or 15.73 % of all the days on record.



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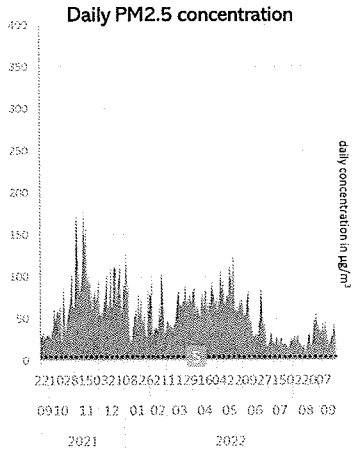
Jaipur, Rajasthan

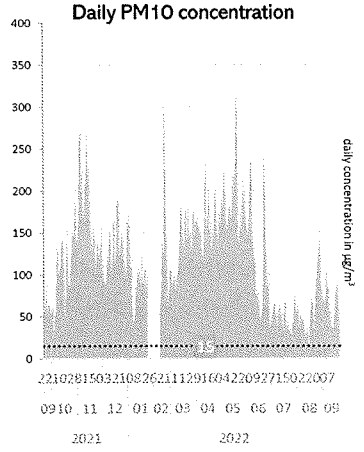
PM2.5

We retrieve the records of PM2.5 levels in the city of Jaipur on 358 days. The city averages an annual PM2.5 concentration of 59.06 μg/m³. This amounts to being 11.8 times the safe levels (5 μg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM2.5 concentration which can have a negative long term health impact on 358 days or 100 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 152.01 μg/m³. This was 10.1 times the levels (15 μg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM2.5 concentration on 354 days or 98.88 % of all the days on record.



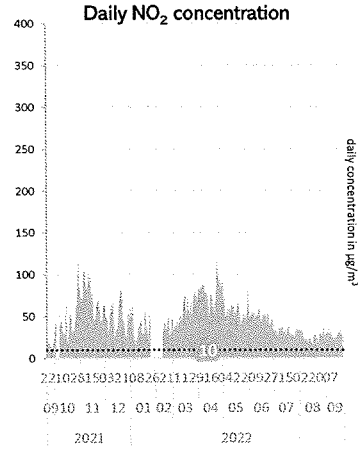
PM10

We retrieve the records of PM10 levels in the city of Jaipur on 344 days. The city averages an annual PM10 concentration of 122.86 μg/m³. This amounts to being 8.2 times the safe levels (15 μg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM10 concentration which can have a negative long term health impact on 344 days or 100 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 290.12 μg/m³. This was 6.4 times the levels (45 μg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM10 concentration on 313 days or 90.99 % of all the days on record.



NO_2

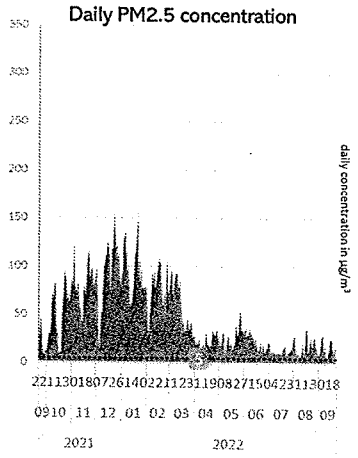
We retrieve the records of NO_2 levels in the city of Jaipur on 341 days. The city averages an annual NO_2 concentration of 48.27 μg/m³. This amounts to being 4.8 times the safe levels (10 μg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of NO_2 concentration which can have a negative long term health impact on 341 days or 100 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 104.75 μg/m³. This was 4.2 times the levels (25 μg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of NO_2 concentration on 302 days or 88.56 % of all the days on record.



Kolkata, West Bengal

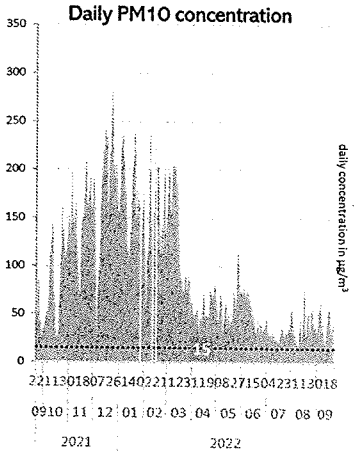
PM2.5

We retrieve the records of PM2.5 levels in the city of Kolkata on 366 days. The city averages an annual PM2.5 concentration of 49.1 µg/m³. This amounts to being 9.8 times the safe levels (5 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM2.5 concentration which can have a negative long term health impact on 366 days or 100 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 134.38 µg/m³. This was 9 times the levels (15 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM2.5 concentration on 298 days or 81.42 % of all the days on record.



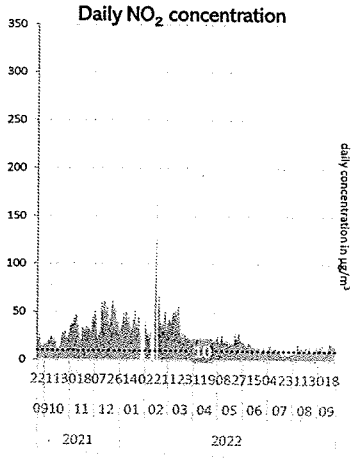
PM10

We retrieve the records of PM10 levels in the city of Kolkata on 363 days. The city averages an annual PM10 concentration of 95.82 µg/m³. This amounts to being 6.4 times the safe levels (15 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM10 concentration which can have a negative long term health impact on 363 days or 100 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 248.24 µg/m³. This was 5.5 times the levels (45 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM10 concentration on 259 days or 71.35 % of all the days on record.



NO_2

We retrieve the records of NO_2 levels in the city of Kolkata on 358 days. The city averages an annual NO_2 concentration of 25.49 µg/m³. This amounts to being 2.5 times the safe levels (10 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of NO_2 concentration which can have a negative long term health impact on 322 days or 89.94 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 63.67 µg/m³. This was 2.5 times the levels (25 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of NO_2 concentration on 140 days or 39.11 % of all the days on record.

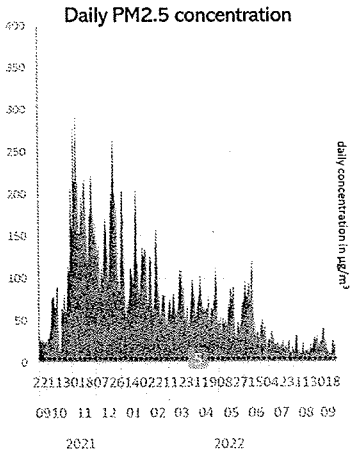


345

Lucknow, Uttar Pradesh

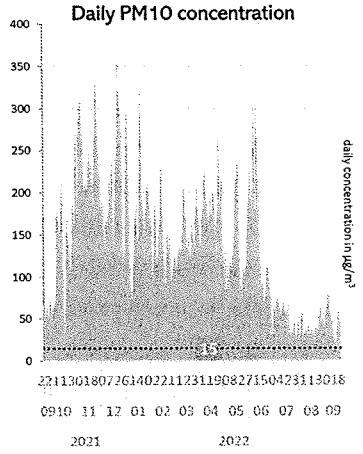
PM2.5

We retrieve the records of PM2.5 levels in the city of Lucknow on 366 days. The city averages an annual PM2.5 concentration of 79.24 µg/m³. This amounts to being 15.8 times the safe levels (5 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM2.5 concentration which can have a negative long term health impact on 366 days or 100 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 246.52 µg/m³. This was 16.4 times the levels (15 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM2.5 concentration on 349 days or 95.36 % of all the days on record.



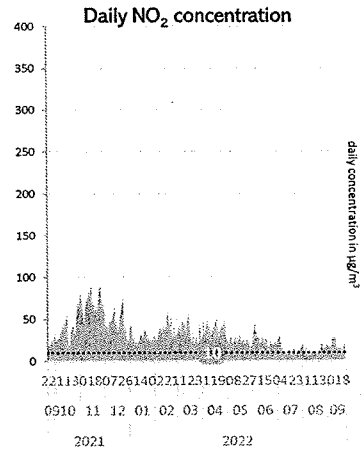
PM10

We retrieve the records of PM10 levels in the city of Lucknow on 366 days. The city averages an annual PM10 concentration of 140.09 µg/m³. This amounts to being 9.3 times the safe levels (15 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM10 concentration which can have a negative long term health impact on 366 days or 100 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 331.29 µg/m³. This was 7.4 times the levels (45 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM10 concentration on 323 days or 88.25 % of all the days on record.



NO_2

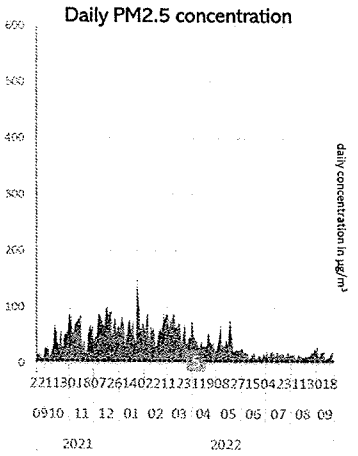
We retrieve the records of NO_2 levels in the city of Lucknow on 366 days. The city averages an annual NO_2 concentration of 32.95 µg/m³. This amounts to being 3.3 times the safe levels (10 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of NO_2 concentration which can have a negative long term health impact on 341 days or 93.17 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 86.32 µg/m³. This was 3.5 times the levels (25 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of NO_2 concentration on 222 days or 60.66 % of all the days on record.



Mumbai, Maharashtra

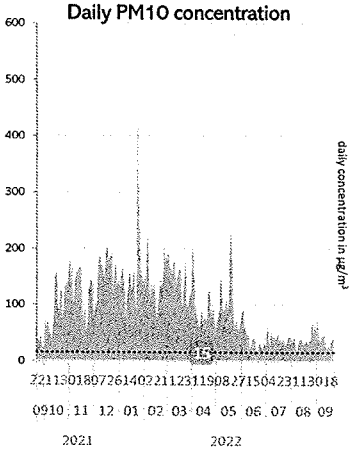
PM2.5

We retrieve the records of PM2.5 levels in the city of Mumbai on 366 days. The city averages an annual PM2.5 concentration of 43.26 μg/m³. This amounts to being 8.7 times the safe levels (5 μg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM2.5 concentration which can have a negative long term health impact on 366 days or 100 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 102.15 μg/m³. This was 6.8 times the levels (15 μg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM2.5 concentration on 314 days or 85.79 % of all the days on record.



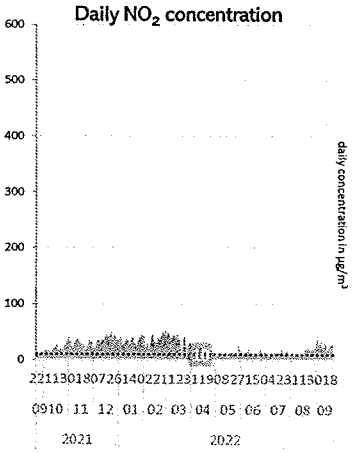
PM10

We retrieve the records of PM10 levels in the city of Mumbai on 366 days. The city averages an annual PM10 concentration of 99.1 μg/m³. This amounts to being 6.6 times the safe levels (15 μg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM10 concentration which can have a negative long term health impact on 366 days or 100 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 233.49 μg/m³. This was 5.2 times the levels (45 μg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM10 concentration on 271 days or 74.04 % of all the days on record.



NO_2

We retrieve the records of NO_2 levels in the city of Mumbai on 366 days. The city averages an annual NO_2 concentration of 24.32 μg/m³. This amounts to being 2.4 times the safe levels (10 μg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of NO_2 concentration which can have a negative long term health impact on 337 days or 92.08 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 51.1 μg/m³. This was 2 times the levels (25 μg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of NO_2 concentration on 155 days or 42.35 % of all the days on record.

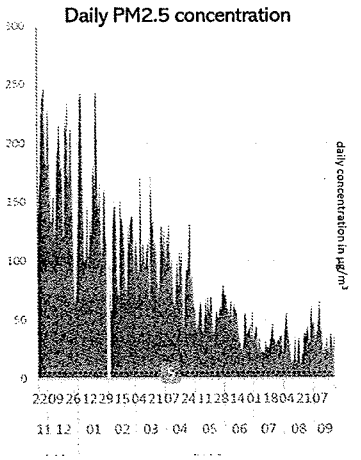


347

Patna, Bihar

PM2.5

We retrieve the records of PM2.5 levels in the city of Patna on 303 days. The city averages an annual PM2.5 concentration of 89.76 µg/m³. This amounts to being 18 times the safe levels (5 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM2.5 concentration which can have a negative long term health impact on 303 days or 100 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 246.3 µg/m³. This was 16.4 times the levels (15 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM2.5 concentration on 299 days or 98.68 % of all the days on record.

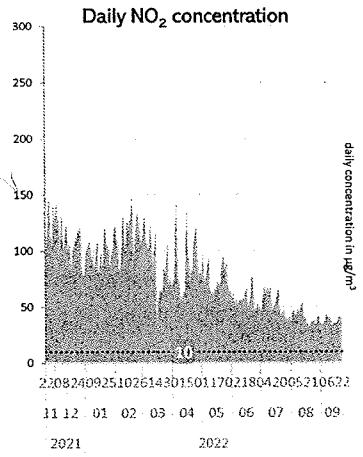


PM10

We observe no PM10 records in the city of Patna in this period.

NO_2

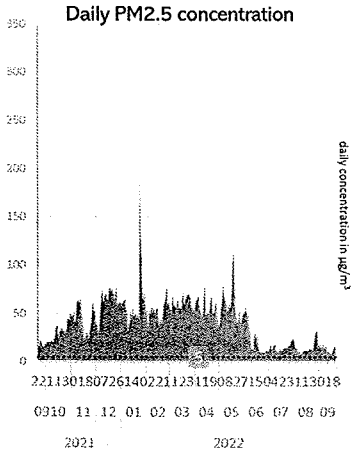
We retrieve the records of NO_2 levels in the city of Patna on 305 days. The city averages an annual NO_2 concentration of 79.74 µg/m³. This amounts to being 8 times the safe levels (10 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of NO_2 concentration which can have a negative long term health impact on 305 days or 100 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 145.11 µg/m³. This was 5.8 times the levels (25 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of NO_2 concentration on 305 days or 100 % of all the days on record.



Pune, Maharashtra

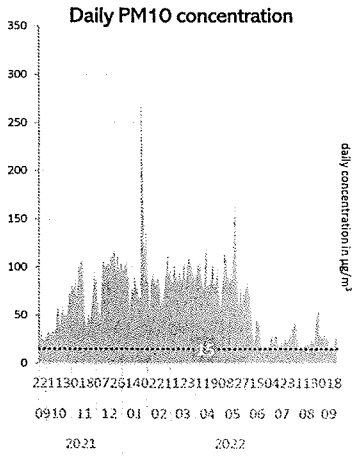
PM2.5

We retrieve the records of PM2.5 levels in the city of Pune on 366 days. The city averages an annual PM2.5 concentration of 42.25 µg/m³. This amounts to being 8.5 times the safe levels (5 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM2.5 concentration which can have a negative long term health impact on 366 days or 100 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 105.48 µg/m³. This was 7 times the levels (15 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM2.5 concentration on 304 days or 83.06 % of all the days on record.



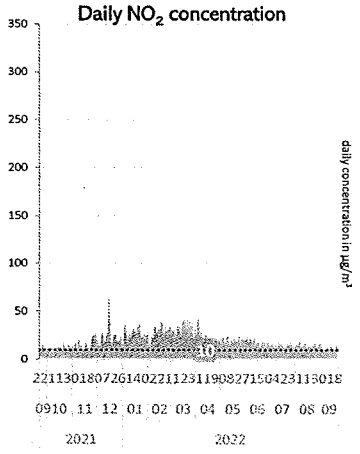
PM10

We retrieve the records of PM10 levels in the city of Pune on 366 days. The city averages an annual PM10 concentration of 67.05 µg/m³. This amounts to being 4.5 times the safe levels (15 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of PM10 concentration which can have a negative long term health impact on 364 days or 99.45 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 166.67 µg/m³. This was 3.7 times the levels (45 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of PM10 concentration on 241 days or 65.85 % of all the days on record.



NO_2

We retrieve the records of NO_2 levels in the city of Pune on 366 days. The city averages an annual NO_2 concentration of 20.43 µg/m³. This amounts to being 2 times the safe levels (10 µg/m³) as stated by the updated WHO guidelines. In this period, the city records such alarming levels of NO_2 concentration which can have a negative long term health impact on 352 days or 96.17 % of all the days on record. The 99th percentile of 24-hour concentrations recorded in the city over this period was 43.72 µg/m³. This was 1.7 times the levels (25 µg/m³) that can cause severe short term health crisis according to the revised guidelines. The city records such hazardous levels of NO_2 concentration on 100 days or 27.32 % of all the days on record.



CONCLUSIONS

Exposure to severe air pollution increases the likelihood of premature death and many medical conditions including asthma, preterm birth, low birth weight, depression, schizophrenia, diabetes, stroke and lung cancer. This has even been found to be the case in places where air pollution levels meet the 2005 WHO Air Quality Guidelines. The health impacts also take a financial toll. Work absences due to sickness and lost life years due to premature death are accompanied by a substantial economic cost to society. Therefore, we must act on the air pollution crisis to safeguard public health and the nation's economy. The good thing is that we know the solution to air pollution. With the help of a coordinated and consistent action plan to tackle major sources of pollution, we can ensure cleaner air for our citizens.

The following are our recommendations on actions that must be undertaken to address the air pollution crisis:

1. State pollution control boards need to set up more real-time air quality monitoring stations in affected cities in an equitable manner—based on population density, wind direction and source profile across the city.
2. State and city governments need to urgently seek alternatives to burning fossil fuels for power, transport and industry because burning fossil fuels is one of the major sources of air pollution. The local government must promote decentralized renewable energy solutions such as rooftop solar and address other contributors including vehicular emissions, waste burning, the construction sector, industrial emissions and biomass burning.
3. State and city governments must prioritize transportation plans for the masses rather than private vehicles by providing sustainable mobility solutions which are accessible and link all citizens to jobs, education, social services and recreation at an affordable cost and within reasonable journey time. The state should ensure the provision of transport infrastructure that revolves around walking and cycling—or for longer distances and people with additional needs, electric buses, and trains—and stop using fossil-fuel based modes of private transport.
4. Urban local bodies (ULBs) can introduce travel demand management in cities. Such practice influences travel behaviour through various policy measures, financial instruments, infrastructural changes and the encouragement of alternative modes of travel. The plan should include implementation of congestion charge and low emission zones in city centres.
5. The state should bring policies to convert all brick kilns to Zig-Zag technology to reduce emissions and close the kilns which do not comply.
6. The state must implement Continuous Emission Monitoring Systems for all industries and make the collected data available to the general public through the pollution control board's website. This is in order to enhance public pressure on polluting industries and, therefore, ensure compliance alongside using the same for enforcement purposes.
7. The local government must start communicating with local residents: Describe the health and financial problems of air pollution in their region and present the solutions. Governments must lead with policy and system-wide changes while supporting residents to take personal steps that benefit air quality.
8. The state must recognize that people occupy centre-stage in our cities and all plans should be for their common benefit and well-being. Thus, bringing a more equitable allocation of road space with people, rather than vehicles, as its main focus.

9. India's Central Pollution Control Board (CPCB) must introduce new national ambient air quality standards (NAAQS) based on the updated WHO air quality guidelines which are based on the latest scientific understanding.
10. Cities under the National Clean Air Programme (NCAP) should express the ambition to move to NAAQS in a time-bound manner before setting up a timeline to move towards the WHO guidelines.

Emergency measures during pollution episodes:

- Early prediction of air pollution episodes
- Issuing health advisory to public, hospitals, and schools
- Access to distribute N 95 (PM2.5) masks for sensitive groups and people who will be impacted by the occupation. i.e., traffic police, bus conductors and drivers, waste workers, etc.
- Public announcements on how to protect the health with preventive measures.
- Enhance parking fee for vehicles by 3-4 times to encourage public transportation.
- Reduce fares of public transportation to enhance public transportation during pollution episodes.

GREENPEACE INDIA SOCIETY,

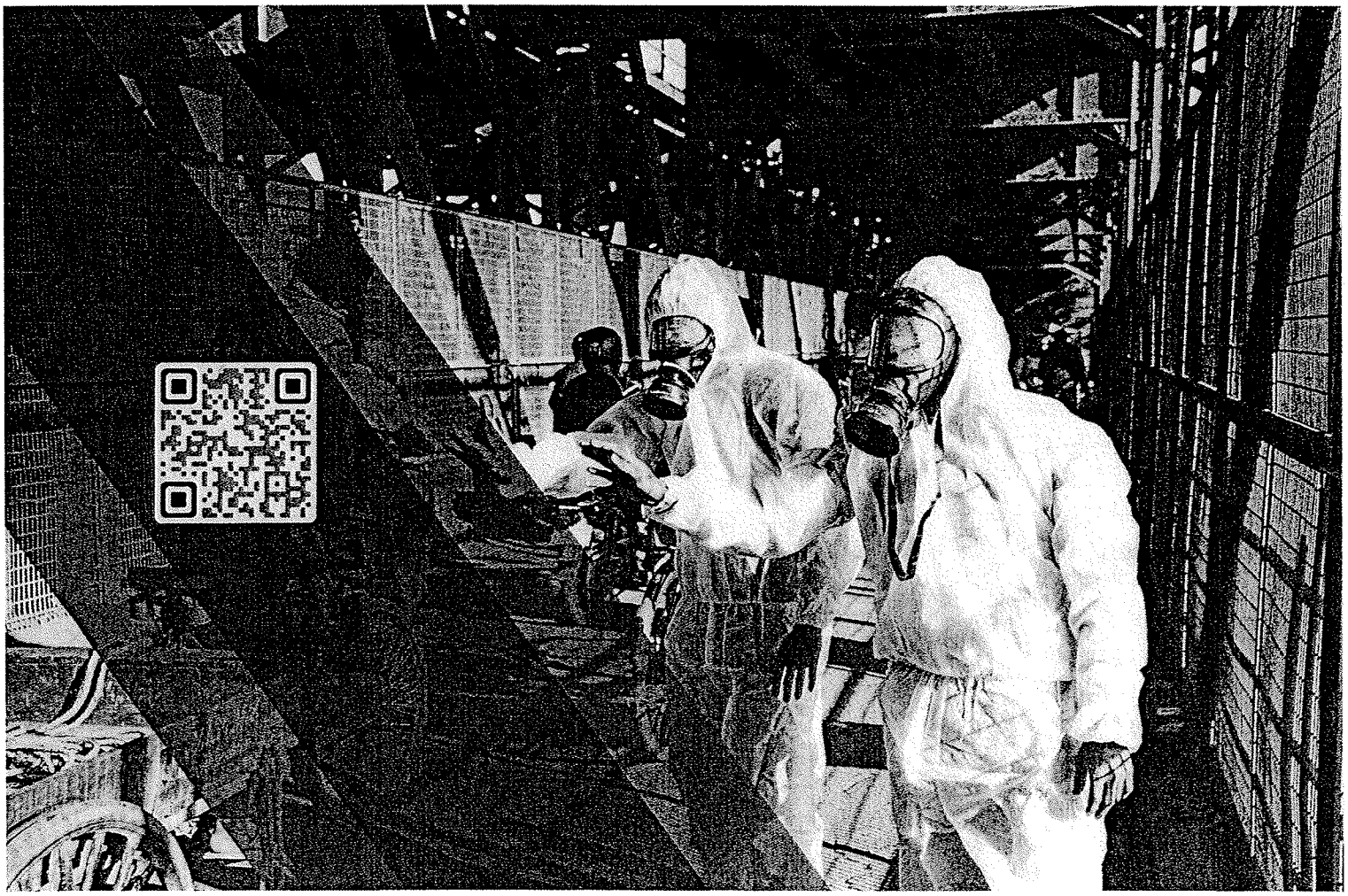
#1327, Ground Floor, 13th Cross,
2nd Stage, Indiranagar,
Bengaluru- 560038.

Contact:

1800 425 6370
Monday to Friday 10am to 6pm

sservice@greenpeace.org

Greenpeace India is an independent campaigning organization that acts to change attitudes and behaviour, to protect and conserve the environment and to promote peace.



Annexure - A8

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Bengaluru saw 3rd highest pollution-linked deaths in India in 2020: Study

Mumbai stood second in the country, following Delhi with 25,000 deaths. While Bengaluru stood third, the cities in neighbouring states did not fare better either

Chiranjeevi Kulkarni | DHNS DHNS

Last Updated 19 February 2021, 03:25 IST

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The temporary improvement in air quality seen during the lockdown was lost soon as unlock measures led to pollution levels bouncing back. Credit: DH Photo

An estimated 12,000 people in Bengaluru died in 2020 due to air pollution, which claimed a total of 1.6 lakh people across the world, according to a study by Greenpeace, which showed that Delhi, with 54,000 deaths, fared the worst in the world.

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Mumbai stood second in the country, following Delhi with 25,000 deaths. While Bengaluru stood third, the cities in neighbouring states did not fare better either. Polluted air is estimated to have

assess scientific risk models in combination with population and public health data to estimate the health and economic costs of air pollution exposure.

The report said that the temporary improvement in air quality seen during the lockdown was lost soon as the unlock measures led to the pollution levels bouncing back.

The study also calculated the estimated economic losses directly related to air pollution in terms of both direct healthcare costs and reduced economic productivity. In addition, a welfare cost was measured by converting it into the amount people were willing to pay to avoid health risks.

According to data shared by Greenpeace, the estimated economic cost of pollution in Delhi was Rs 58,000 crore, followed by Mumbai (Rs 26,912 crore) and Bengaluru (Rs 12,000 crore).

The study noted that besides PM 2.5, there were other pollutants like nitrogen oxide (NO2) which has spatial variability, ozone (O3) and sulphur dioxide (SO2) for which data availability was poor.

Avinash Chanchal, Climate Campaigner at Greenpeace India, said the number of deaths as well as the cost will go up much higher if one includes the effects of other pollutants. Factoring in NO2 in cities like Bengaluru and Delhi, which have high traffic density and congestion, will lead to higher numbers, he said.

He said it is crucial for governments to invest in green and sustainable solutions to reduce the drastic impact of pollution on the economy. "We need to ensure our growth demand is fuelled by sustainable and cleaner sources of energy and cities should promote low cost, active and carbon-neutral transport options," he added.

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(Published 18 February 2021, 23:50 IST)

Bengaluru Mumbai Delhi Air Pollution Greenpeace

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BEFORE THE NATIONAL GREEN TRIBUNAL, SOUTHERN ZONE AT CHENNAI

O.A. No. 87 OF 2024

In the matter of:

Krishnan CS

...Applicant

-Vs-

The State of Karnataka,
Through the Department of Transport & Anr.

...Respondents

CONVENIENCE TYPED SET FILED BY THE APPLICANT

ANU GANESAN **(MS 1881/2015)**
VIGNESH VENKATACHALAM **(MS 3587/2012)**
A.K.ABILASH **(MS 3409/2023)**
RAKSHITA.M **(MS 5392/2021)**

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anuganesan@capitallawchambers.in