EXECUTIVE SUMMARY

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Clean air is a basic necessity for human health and well-being. NCT of Delhi with an area of 1483 km^2 supports a population of more than two crore, making it one of the most densely populated cities of the world. Such high population density leads to increased demand for vehicles, construction activities and energy, which in turn affects air quality. Vehicular emission has been the major source of pollution with its origins in Delhi, and thus, potentially controllable by the Government of National Capital Territory of Delhi (GNCTD). Hence, this Performance Audit focused on vehicular pollution with a view to assess whether GNCTD has taken adequate steps to prevent and mitigate vehicular emission affecting air quality in Delhi. Major findings of the Performance Audit are as given below:

Air Quality Monitoring System

The location of Continuous Ambient Air Quality Monitoring Stations (CAAQMS) did not fulfill the requirements laid down by the Central Pollution Control Board, indicating possible inaccuracies in the data generated by them, rendering the Air Quality Index values unreliable.

(Paragraph 2.1)

Requisite data of concentration of pollutants in air for minimum of 16 hours in a day were not available with DPCC for proper air quality monitoring. DPCC was also not measuring levels of Lead in Delhi's ambient air.

(Paragraph 2.2)

GNCTD did not have any real-time information regarding sources of pollutants as it did not conduct any study in this regard.

(Paragraph 2.3)

In the absence of any information regarding the type and number of vehicles plying on Delhi roads and assessment of their emission load, GNCTD was not in a position to identify emission from different types of vehicles that are generating significant concentration of pollutants for framing source-wise strategies.

(Paragraph 2.4)

GNCTD neither monitored Benzene levels at the fuel stations (major source), nor followed-up on the installation of Vapour Recovery System at fuel stations to reduce Benzene emission though benzene levels remained higher than permissible limits at 10 out of 24 CAAQMSs.

(Paragraph 2.5)

Public Transport System

Adoption of public transport reduces vehicular emission per passenger-kilometer travelled. However, it was observed that there was shortage of public transport

buses with only 6,750 buses available against a re-assessed requirement of 9,000 buses. The public bus transport system also suffered from a significant number of DTC buses remaining off-road, short coverage of bus routes and not rationalising bus routes.

(Paragraph 3.1)

Though there was an estimated increase of 17 *per cent* in the population of Delhi since the year 2011, the number of registered Gramin-Sewa Vehicles which provide last mile connectivity remained the same at 6,153 since May 2011. Even these Gramin-Sewa vehicles were 10 years old which may have poor fuel efficiency and higher potency to cause pollution.

(Paragraph 3.2)

In spite of shortage of public transport buses, GNCTD did not take any action for implementation of its alternatives viz. 'Monorail and Light Rail Transit' and 'Electronic Trolley Buses' even after keeping budget provision for the last seven years.

(Paragraph 3.3)

Cleaner Transport-Prevention and Enforcement Strategies

Public transport buses were not being subjected to emission tests twice a month as required under the directions of the National Green Tribunal. Similarly, out of 6153 Gramin-Sewa vehicles, only 3476 vehicles got the testing done, that too, only once during April 2019 to March 2020 against four required during this period.

(Paragraph 4.1.3)

There were irregularities in issuing Pollution Under Control Certificates (PUCCs) to vehicles such as –

- In respect of 22.14 lakh diesel vehicles checked at Pollution Checking Centres (PCCs) during the period 10 August 2015 to 31 August 2020, test values were not recorded in respect of 24 *per cent* vehicles.
- In 4,007 cases, even though the test values were beyond the permissible range, these diesel vehicles were declared 'Pass' and issued PUCCs.
- As per the PUC database for 10 August 2015 to 31 August 2020, 65.36 lakh Petrol/CNG/LPG vehicles were issued PUCCs. However, 1.08 lakh vehicles were declared 'Pass' and issued PUCC despite emitting CO/HC beyond the permissible limits.
- In 7,643 cases, more than one vehicle was shown to have been checked for emission limits at the same time at the same center.
- 76,865 cases were noticed in same test center wherein only one minute lapsed in checking of vehicle along with issuance of PUC certificate which may not be practically possible.

- In the absence of linkage of PUCC data with VAHAN database, PCCs manually select the BS Category of the vehicle leaving scope for manipulation of emission standards as well as validity of PUCC.

(Paragraph 4.1.4)

There was no inspection of PCCs by the Government or third-party audit to ensure quality control in PCCs. Even those PCCs which issued PUCCs to vehicles later found emitting visible smoke were not inspected to ensure proper working of the instruments. Further, the Government also did not have a mechanism to ensure calibration of the pollution checking instruments regularly.

(Paragraph 4.1.5)

Modern technology for checking vehicular pollution through Remote Sensing Devices was also not adopted though the same was under consideration from the year 2009 and Supreme Court emphasized the same time and again.

(Paragraph 4.2)

Automated fitness testing centres accounted for only 12 *per cent* of the total capacity of 4.1 lakh vehicles per annum in Delhi whereas 95 per cent of the fitness tests were conducted at the manual testing centres during 2020-21, where only visual inspection of the vehicle was being done and declaring commercial vehicles as 'fit' was at discretion of the inspecting officer.

(Paragraph 4.3.1)

During 2014-15 to 2018-19, there was steep increase in percentage of vehicles due for testing not even turning up for fitness tests with as much as 64 *per cent* of the vehicles not turning up in 2018-19.

(Paragraph 4.3.2)

The automated Vehicle Inspection Unit (VIU) at Jhuljhuli was grossly underutilized with only 24 vehicles being tested daily on average during 2020-21 against a capacity of 167 vehicles per day. Further, 60 *per cent* of fitness certificates were issued without putting the vehicles through emission tests.

(Paragraph 4.3.3)

More than 90 *per cent* of fitness tests were conducted at VIU, Burari, which was solely done based on visual inspection. None of the key tests were conducted, which rendered fitness testing irrelevant.

(Paragraph 4.3.4)

Department of Transport registered 382 new BS-III compliant vehicles sold after 31 March 2017 and 1672 BS-IV compliant vehicles sold between 2 January 2020 to 20 April 2020 were registered in April 2020 in violation of Supreme Court orders.

(Paragraph 4.5)

Only 2.98 lakh out of 47.51 lakh End of Life Vehicles were de-registered during 2018-19 to 2020-21.

(Paragraph 4.6.1)

None of the 347 End of Life Vehicles impounded was scrapped till March 2021. The capacity of impounding pits for keeping the impounded vehicles was also of only 4000 vehicles compared to more than 41 lakh vehicles due for impounding and scrapping.

(Paragraph 4.6.2)

Enforcement Branch of the Department of Transport neither had adequate staff nor vehicles mounted with PUC equipment for effective enforcement of various provisions of Motor Vehicle Rules and other order/directions.

(Paragraph 4.7)

Cleaner Transport - Mitigation and Promotion Strategies

In spite of providing financial and other incentives to encourage adoption of Electric Vehicles, there was insignificant increase in the number of Electric Vehicles registered in Delhi. Further, availability of charging facilities was also limited and not evenly distributed.

(Paragraph 5.1)

There was lack of concerted efforts by the Government to promote and facilitate non-motorised transport in Delhi.

(Paragraph 5.2)

The Graded Response Action Plan, consisting of Odd-Even Scheme and restricting entry of trucks into Delhi, aimed at bringing down pollution when high levels of pollution persist for extended periods, was not implemented by the Government on majority of occasions when the pollution levels were high. The Government also failed to take steps to reduce air pollution by developing ISBTs at entry points of Delhi to keep inter-state diesel propelled buses at the periphery of Delhi, preventing Delhi becoming a trans-shipment zone for other states and shifting of Inland Container Depots to outside Delhi.

(Paragraph 5.3)

The Government did not take any action to implement 'Delhi Management and Parking Places Rules, 2019' aimed at avoiding stagnation of vehicles and traffic congestion due to haphazardly parked vehicles. It also did not link granting/renewal of transport permit to vehicles with availability of parking space as envisaged under the Rules.

(Paragraph 5.4)

There were undue delays in removal of stalled public transport buses from roads causing traffic congestion and higher emission from vehicles due to such congestion.

(Paragraph 5.5)