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An Evaluation of the Vehicular Pollution Law in India

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Abstract

Due to its detrimental effects on human health, urban air pollution is a serious global concern. Since vehicular emissions make up the majority of the pollution in cities, many nations have implemented various measures to reduce vehicular emissions. Around the world, including in India, vehicle inspection and maintenance (I/M) programmes have been crucial in reducing and managing vehicular emissions. One of the key elements of I/M programme that India has implemented is the certification of the pollution of in-use cars. The number of automobiles on the road is expected to rise as the economy grows. It must be viewed as an unavoidable evil. However, this cannot be regarded as a normal part of life because the issue of vehicle pollution seriously degrades the quality of the air and ultimately puts human lives in grave danger. The government's many initiatives as well as the judiciary's admirable efforts are mentioned in the paper. Changes that are necessary to better manage the threat of vehicle pollution have been considered.

Keywords: *Vehicular Emissions, Pollution Certification, Air Pollution, India*

Introduction

India has the second-largest population in the world. It has a quickly expanding economy, with the transportation industry playing a significant role. Over the last ten years, there has been a 240 percent increase in the number of vehicles on Indian roads, and this increase is anticipated to continue over the next 20 years. India's choices in managing its transport industry will have a significant impact on the environment, public health, global warming, and the world economy due to the magnitude of this growth.

There are drawbacks to continuing a route that depends on a rising number of vehicles, even while providing the general population with a variety of personal mobility options is essential for both economic growth and the accomplishment of a high quality of living. Conventional pollutants and greenhouse gases released by vehicles can have negative effects such as early death and morbidity from cardiovascular diseases, decreased crop yields, environmental harm, and global warming. The economy may suffer as a result of these issues. Premature mortality and morbidity impair production and require that resources be diverted to the treatment of diseases that can be prevented and environmental cleanup.

Controlling vehicular air pollution will have advantages for reducing global warming, in addition to preventing the waste of money and resources. India is aware of the connection between emissions and problems with the environment and human health. The nation has taken action to lessen the negative consequences of its quickly expanding transportation industry. India will need to take considerably more action to address its serious air pollution issue given the anticipated expansion in the country's vehicle stock and population.

Even if India adopted the strictest pollution regulations and cleanest fuels in the world, overall vehicle emissions would continue to rise as long as people choose private vehicles as their preferred mode of transportation. India will also need to take into account how its fuel subsidy

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programmes may affect vehicle emissions. In addition to encouraging the dieselization of India's vehicle fleet, current policies that lower the price of some fuels (such as diesel and kerosene) also contribute to the issue of fuel adulteration. India will need to consider each of these concerns as it creates future transportation regulations.

Vehicular Pollution

For a while now, air pollution has been of the greatest concern. This issue affects all nations[2] since it poses a serious risk to both the environment and people's health and lives. The loss of the natural air quality is caused by a number of reasons, including the burning of fossil fuels for manufacturing and transportation, agricultural operations, mining, and factory pollution, to mention a few. By releasing pollutants into the atmosphere, these activities disturb the atmosphere's normal gaseous balance.

There are two categories of pollutants: primary and secondary. While primary pollutants directly degrade the quality of the air, secondary pollutants are created when primary pollutants are mixed with gases and undergo chemical reaction to create secondary pollutants. However, the paper's main concern is the pollution caused by transportation, also known as vehicular pollution.

The following are the main pollutants produced by automobile fuel combustion:

a. **Ozone (O3)** is created when nitrogen oxides and hydrocarbons, which are generated when fuel is burned, interact chemically in sunlight. Known to lead to respiratory issues and is mostly to blame for smog generation.

b. **Particulate matter (PM)** is another significant cause of smog and is made up of metals, pollen, and soot particles. Due to their profound penetration into the lungs, these extremely small particles pose a serious hazard to human health.

c. **Nitrogen oxides (NOx) -** These car pollutants can irritate the lungs and impair the body's ability to fight off respiratory illnesses like pneumonia and influenza. Additionally, they contribute to the formation of particulate matter and ozone.

d. **Carbon monoxide (CO) -** When inhaled, CO prevents oxygen from reaching the heart, brain, and other crucial organs of the body. People with chronic illnesses and newborns are particularly vulnerable to the effects of CO.

e. **Sulphur dioxide (SO2)** is created when sulphur is burned in car fuels, primarily diesel. It can cause fine particles to develop in the atmosphere, endangering the health of asthmatics and small children.

f. **Dangerous air pollutants (toxics):** These chemical substances, which are released by cars, trucks, refineries, petrol stations, and other sources, have been connected to serious illnesses like cancer and birth problems.

[2] *CPCB | Central Pollution Control Board*. (n.d.). CPCB | Central Pollution Control Board. http://cpcb.nic.in/

Causes of Vehicular Pollution

a. High vehicle density in Indian cities
b. The predominance of older vehicles
c. Inadequate inspection and maintenance facilities
d. The prevalence of two-stroke two-wheelers;
e. Fuel and fuel-related items being adulterated
f. Poor traffic control measures and road conditions
g. High levels of pollution at traffic lights
h. A lack of an efficient mass rapid transit system
i. Insufficient intra-city rail networks
j. A significant population emigration to metropolitan areas.

Laws For Control of Vehicular Pollution

i. **Air Act** - Section 20 of the Act states that the State Government, in consultation with the State Board, shall give such instructions as may be deemed necessary to the concerned authority in order to ensure that the standards for emission of air pollutants from automobiles laid down by the State Board under clause (g) of sub-section (1) of Section 17 are complied with.
ii. **Environment Protection Act** – According to section 3(1) of the Environment Protection Act, the Central Government is authorized to take all necessary actions to maintain and improve the environment's quality as well as to avoid, control, and mitigate environmental contamination. In particular, section 3 grants the Central Government the authority to implement a number of initiatives.
iii. **Motor Vehicle Act, 1989** - The Act was amended in 1994 to encourage the use of CNG as a fuel and to relax state government restrictions on permits and fare fixing. A welcome revision was made to the amendment in 2000, which allowed for the use of LPG as an automotive fuel.
iv. **Motor Vehicles Rules 1989** -- (Central Rules 1989) -- Rules 115 and 116 relating to the measurement of pollutants released by motor vehicles and compliance with a defined standard of air pollution from automobiles.
v. **National Auto Fuel Policy** – The 2003 Auto Fuel Policy developed a roadmap for progressively stricter fuel quality and vehicle emission requirements through 2010. It also synchronized many of India's automotive laws with those of Europe.
vi. **National Clean Air Programme**- In 2019, the Ministry of Environment, Forest, and Climate Change introduced the National Clean Air Programme. This programme is a five-year comprehensive action plan with 2019 as the first year and 2017 as the baseline year, with the goal of reducing air pollution by 20%–30%. The Central Government has taken the effort to develop global standards for air quality management with a deadline for reduction.

vii. **Bhure Lal Committee**- Under the authority of the Environment Protection Act[3], the MOEF established this committee. This five-person committee was made up of representatives from the Central Vigilance Commission, the Automobile Manufacturers Association, the Transport Department, the Central Pollution Control Board, and the Centre for Science and Environment, an environmental NGO. The Supreme Court's decisions regarding the Delhi pollution Case were solely based on the recommendations of this committee.

- **The red light on, gaadi off campaign**: A campaign that the Delhi Government launched in order to reduce the amount of pollutants that vehicles emit into the environment. To support this campaign, many volunteers have been stationed at various traffic signals where they encourage drivers to turn off their engines.
- **Odd-even campaign**: In 2016, the Delhi government implemented an odd-even strategy. According to this plan, private and non-commercial vehicles will be permitted to drive on the road based on their license plates. For instance, if the total number of vehicles is odd, they may only be driven on odd dates, and vice versa.

Role of Judiciary In Curbing Vehicular Pollution

According to Article 21 of the Indian Constitution, the Supreme Court has recognised the right to live in a healthy environment as a basic right. One of the first instances in which the Supreme Court addressed issues connected to the environment and ecological balance was in the case of *Rural Litigation and Entitlement Kendra v. State of U.P.*[4]. In the case of *Charan Lal Sahu v. Union of India*[5], a constitution bench of the Supreme Court further investigated the connection between environmental quality and the right to life. In a similar vein, the court stated in *Subash Kumar v. State of Bihar*[6] that "right to life guaranteed by article 21 includes the right of enjoyment of pollution-free water and air for full enjoyment of life." The Court acknowledged the right to a healthy environment as a component of the fundamental right to life in this case.

In one of the earliest cases involving vehicular pollution, *Murali Purushothaman v. Union of India*[7], the petitioner drew attention to the negative effects of air pollution caused by unchecked and unmitigated automobile spitting and pleaded with the court to give the relevant officials the necessary instructions for enforcing the law to lessen the severity of the issue. The State government was ordered by the Court to execute Rules 115 and 116 of the Motor Vehicles Rules in an appropriate manner and to move quickly with the installation of the necessary equipment for air quality monitoring.

The Supreme Court of India ruled in *Ajay Singh Rawat v. Union of India*[8] that high vehicle traffic on Mall Road and bridle paths generated significant air pollution, which eventually settled in the lake's catchment area in Nainital. The Supreme Court of India took notice of this and ordered that heavy vehicle traffic cease, since this was necessary to preserve the area's natural beauty and avoid soil degradation.

[3] Order dated 29 January 1998
[4] AIR 1985 SC 652
[5] AIR 1990 SC 1480
[6] AIR 1991 SC 420
[7] AIR 1993 Ker 297
[8] AIR 1995 SCC (3) 266

In 1985[9], environmentalist M. C. Mehta filed a PIL with the Supreme Court of India, expressing his concern about the unchecked pollution and its catastrophic impact on the citizens of Delhi. With the exception of the creation of a few fact-finding commissions, the appeal was inactive for a number of years. But in 1996, the Supreme Court mandated that all government vehicles be converted to run on compressed natural gas. All buses must be switched from diesel fuel engines to CNG by March 31, 2001[10], according to a 1998 court decree[11]. The Supreme Court issued strict directives to the government agencies in 2002 to enforce its decision to convert to compressed natural gas[12].

Following is a summary of the various orders made by the Honorable Supreme Court:

Goods vehicles were forbidden from operating throughout the day, and strong enforcement orders were issued. Leaded fuel usage and sales were prohibited. Old commercial and transportation vehicles were to be removed in phases. 2T Oil is not to be used. Because two-stroke engines are one of the biggest sources of air pollution, it was mandated that only pre-mix petrol be made available to them. The establishment of facilities for the examination and maintenance of used automobiles was mandated by the transport department. Increasing the number of CNG stations and adding 10,000 buses to the public transport network.

Noise Pollution From Vehicular Traffic

One of the most ignored and unnoticed types of pollution that is harmful to human health and a source of concern is the noise produced by vehicles. In Madras Road Residence Association v. Lt. Governor[13], a division of the Delhi High Court noted the danger that motor traffic's impact on pollution posed to human life. This choice has taken into account the noise pollution brought on by traffic. One of the main problems of the modern era is noise from air traffic, and the DGCA has established a number of regulations to reduce it. Thus, it is clear that vehicular pollution, which includes noise pollution, is a serious problem.

Changes Required

It is necessary to connect vehicle insurance with Inspection and Certification in order to broaden the scope of maintenance practices. This is unquestionably crucial because older cars with broken engines tend to pollute more. To monitor those who adhere to the necessary criteria, more frequent random checks of CNG/LPG kits, any other emission control devices, or retrofit engines for emission performance are required. Older automobiles would pay a higher motor vehicle tax, which would reduce public use of them.

Adulteration of fuels is a significant problem that needs to be addressed right away. This problem has gone unnoticed, but it is yet another important component that has prevented the recently established regulations from being as beneficial to the environment as possible. This also has to do with how much the new standard fuels cost.

[9] Writ Petition (Civil) No. 13029 of 1985
[10] Delhi Pollution Case, 1998
[11] Order dated 26 April 1996
[12] Order dated 5 April ,2002
[13] AIR 1995 3 SCC 266

The best choice in front of us when considering alternative fuel sources appears to be CNG. It really is, but again, that is a qualified answer. The reason for this is that using such an alternative fuel on a big scale is discouraged by the high cost of conversion from oil to CNG kits. Both manufacturers and the general people need to get incentives to use these fuels.

Additionally, various committees have recommended to the central government adding a levy on diesel fuel and charging diesel vehicles an environmental compensation fee. However, the government has not yet made clear how it feels about this, which has left the auto industry's planning in limbo.

Conclusion

The overwhelming concern for public health is the main driver behind the mandate of strict fuel and emission regulations, which calls for significant expenditures in refineries on the one hand and in the automotive industry on the other. It is true that stress on our residents' life and health is not just caused by the decline in ambient air quality. Moreover, airborne pollutants are not only produced by automobile tailpipe emissions. Vehicle emissions do, however, make up a significant portion of airborne pollution. And it is crucial to address these issues one at a time, separately, and eventually jointly in order to try to shape public policy in a way that safeguards human health from the numerous dangers of modern life. Evidence based on emission levels across the nation demonstrates that actions made in the past to reduce air pollution emissions have had a good impact. However, the rise in urban density, related road transportation, and consequences of vehicle tailpipe emissions are cancelling out these efforts. As the nation develops, people will keep moving away from farming as their primary source of income, urbanization will accelerate, disposable incomes will rise, and with them the demand for urban transportation will rise.

Everyone has the fundamental right to breathe clean air, and no one can deny them that right. This basic right to breathe clean air can only be realized when each and every person upholds their responsibility to not contribute to pollution. As required by Article 48-A of the Constitution, it is crucial that the government develop better policies to stop this problem, and as required by Article 51-A of the Constitution, it is our responsibility as citizens to encourage the use of cleaner modes of transportation.