Polluted Vehicle Survey: A Summary Report

♣ Introduction:

Air pollution, particularly from vehicular emissions, is a pressing environmental and public health issue in urban centres like Jalgaon. To address this concern, a Polluted Vehicle Survey was conducted in Jalgaon City on March 13th, 2025, as a collaborative initiative between the Environment Department of the **Jalgaon Municipal Corporation (JMC)** and **Government Polytechnic Jalgaon (GPJ),** under the framework of the Majhi Vasundhara Abhiyan 5.0. This survey aimed to assess the prevalence of potentially polluting vehicles and provide data for informed interventions.

♣ Survey Methodology:

The survey's objectives included:

- ✓ Assessing the prevalence of potentially polluting vehicles.
- ✓ Categorizing vehicles by type and pollution status.
- ✓ Understanding temporal variations in pollution.

Six locations in Jalgaon City were strategically selected for the survey due to their high traffic volume and representation of different urban surroundings:

- ➢ Near Collector's Office
- ➢ Kashibai Chowk
- ➢ Near Court Chowk
- ➢ Juna Bus Stand (Chitra Chowk)
- ➢ Pandey Chowk
- ➢ Near Swatantraya Chowk

The survey was conducted from **8:00 AM to 6:00 PM**, with 6 teams of students observing and categorizing vehicles as either "Polluted" or "Non-Polluted" based on visual indicators, and by vehicle type (two-wheeler, three-wheeler, and four-wheeler).

♣ Key Findings:

- ➢ Higher prevalence of polluting vehicles at Collector's Office, Juna Bus Stand, and Court Chowk.
- ➢ Two-wheelers were most frequent, but three-wheelers and buses showed a higher proportion classified as polluted.
- ➢ Higher pollution observed during 10:00 AM to 11:00 AM and 5:00 PM to 6:00 PM.
- ➢ It was observed that many vehicles need maintenance.
- ➢ Around 93310 vehicles were observed during the given time frame out of it 41930 vehicles were noticed polluted and 51380 were observed non-polluted.

✚ Factors Contributing to Pollution:

The survey identified several potential factors contributing to vehicular pollution in Jalgaon City:

→ High traffic volume and congestion in specific locations.

→ Systemic issues within the three-wheeler fleet like older vehicles, inadequate maintenance.

→ Maintenance of government buses.

→ Temporal factors influencing pollution in peak traffic hours

→ General lack of vehicle maintenance.

→ Age of vehicle fleet.

✚ Implications and Recommendations:

➢ Strengthen enforcement of emission standards through regular checks and penalties.

➢ Implement targeted measures for high-polluting vehicle categories, especially three-wheelers and buses.

➢ Improve traffic management strategies in pollution hotspots.

➢ Promote non-motorized transport with infrastructure development and awareness campaigns.

➢ Support and develop infrastructure for electric vehicles.

✚ Future Research and Monitoring:

Regular repeat **su**rveys, quantitative emission testing, air quality monitoring, studies on contributing factors, and health impact studies are crucial for long-term solutions

✚ Conclusion:

The Polluted Vehicle Survey provides a vital evidence base for understanding and addressing vehicular pollution in Jalgaon City. The data, analysis, and recommendations in this report can guide informed action towards a cleaner, healthier, and more sustainable future for Jalgaon.
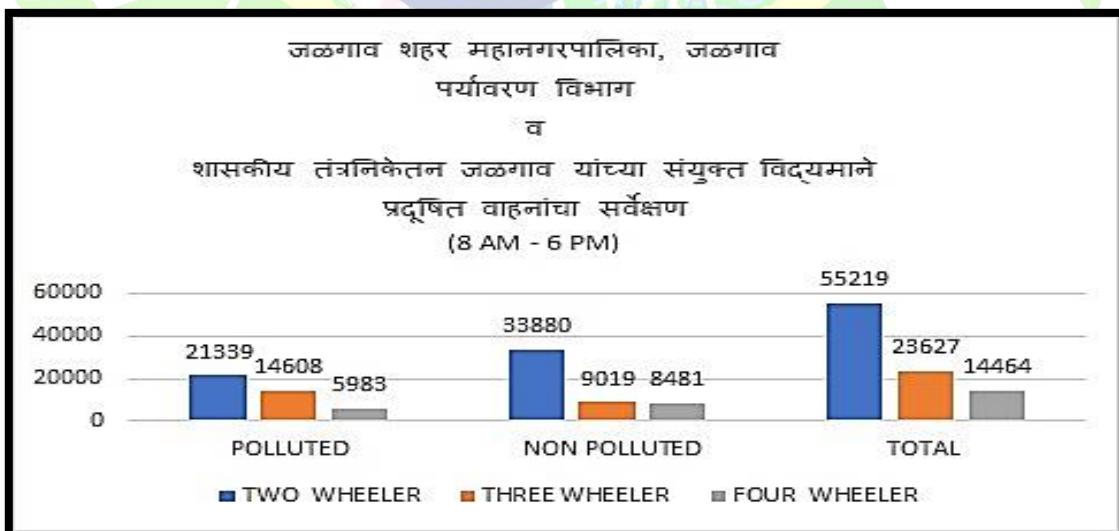
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(8 AM - 6 PM)

Figure 1:Graph of Survey