Urban Lagos Pollution Nexus: Sources, Impacts, and Control Measures

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Abstract

Urbanization in Lagos, Nigeria has led to significant environmental challenges, particularly concerning air pollution from various sources such as vehicular emissions and industrial activities. A combination of field surveys, satellite imagery analysis, and expert interviews was employed to gather data from multiple sectors including transportation and industry. Primary pollutants identified include nitrogen dioxide (NO2) and particulate matter (PM2.5), with NO2 concentrations exceeding WHO guidelines in 70% of sampled areas. Lagos' air pollution is predominantly sourced from vehicular emissions, industrial processes, and poorly maintained public transport systems. Implementing stricter emission standards for vehicles and enhancing maintenance practices in public transportation are recommended to mitigate NO2 exposure. Urban Lagos, Air Pollution, Control Measures, Nitrogen Dioxide (NO2), Particulate Matter (PM2.5) The empirical specification follows $Y = \beta_{0+\beta}^{\rightarrow} p\, X + varepsilon$, and inference is reported with uncertainty-aware statistical criteria.

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

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