



Revisiting Air Pollution Sources, Impacts, and Control Measures in Urban Lagos, Nigeria

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Abstract

Urban air pollution in Lagos, Nigeria, has been a persistent issue affecting public health and environmental sustainability. A systematic review of existing literature was conducted to identify key studies from focusing on air pollution sources, impacts, and mitigation strategies. Data were sourced from peer-reviewed articles, reports by regulatory bodies, and government publications. The analysis revealed a significant contribution (35%) of vehicular emissions to urban particulate matter levels, with an uncertainty range estimated at $\pm 5\%$ based on the variability in emission factors across different vehicle types. This study confirmed previous findings regarding major sources and impacts but highlighted the need for more targeted interventions focusing on reducing vehicular emissions through stricter regulations and public awareness campaigns. The government should implement stringent emission standards for vehicles, increase investment in renewable energy infrastructure, and enhance public transportation systems to reduce reliance on private motor vehicles. The empirical specification follows $Y = \beta_{0+\beta} p X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *African Geography, Emissions Inventory, Health Impact Assessment, Policy Analysis, Urban Planning, Sustainable Development, Air Quality Modelling*

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