African Geophysics Journal (Earth Science focus)

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

Femi Ogunlana[1,2], **Ikechukwu Uzomachi**[2,3], **Chinedu Obiageli**[1,4]

[1] Federal University of Technology, Akure

[2] Department of Interdisciplinary Studies, University of Jos

[3] University of Benin

[4] Department of Interdisciplinary Studies, University of Benin

Published: 27 November 2012 | **Received:** 15 August 2012 | **Accepted:** 31 October 2012

Correspondence: fogunlana@hotmail.com

DOI: 10.5281/zenodo.18949009

Author notes

Femi Ogunlana is affiliated with Federal University of Technology, Akure and focuses on Environmental Science research in Africa.

Ikechukwu Uzomachi is affiliated with Department of Interdisciplinary Studies, University of Jos and focuses on Environmental Science research in Africa.

Chinedu Obiageli is affiliated with Federal University of Technology, Akure and focuses on Environmental Science research in Africa.

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 ±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 $Y = \beta_{0+\beta}^{\rightarrow} p\, X + varepsilon$, 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*