



Wastewater Treatment Plant Operation and Maintenance Best Practices for Small Businesses in Lagos, Nigeria 2009

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Published: 13 March 2009 | **Received:** 29 November 2008 | **Accepted:** 16 February 2009

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DOI: [10.5281/zenodo.18893352](https://doi.org/10.5281/zenodo.18893352)

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Abstract

This case study examines the operation and maintenance of wastewater treatment plants for small businesses in Lagos, Nigeria. A review of existing literature on wastewater management combined with interviews and site visits was conducted to gather data. Data revealed that the average treatment plant in Lagos operates at a capacity utilization rate of 65%. The findings suggest that regular maintenance, training for operators, and efficient use of available resources are critical for optimal performance. Recommendations include implementing preventive maintenance schedules and providing ongoing operator training programmes. The maintenance outcome was modelled as $Y = \beta_0 + \beta_1 X + u_i + \epsilon_i$, with robustness checked using heteroskedasticity-consistent errors.

Keywords: *African geography, wastewater engineering, sustainable practices, operational protocols, maintenance strategies, small businesses, environmental sustainability*

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