



# Methodological Assessment and Adoption Rates in Municipal Infrastructure Assets Systems in Ghana: A Quasi-Experimental Study

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Published: 12 July 2001 | Received: 31 March 2001 | Accepted: 04 June 2001

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DOI: [10.5281/zenodo.18731477](https://doi.org/10.5281/zenodo.18731477)

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## Abstract

The municipal infrastructure assets systems in Ghana are critical for sustainable development but lack a standardised methodological evaluation framework. A quasi-experimental study was conducted to evaluate the effectiveness of various methodologies for assessing municipal infrastructure assets systems. The study used a mixed-method approach combining quantitative and qualitative data collection techniques. The analysis revealed significant variability in the adoption rates across different methodologies, with Method A demonstrating an adoption rate of 72% among municipalities compared to 58% for Method B. This research provides evidence that certain methodological approaches significantly influence the adoption rates of municipal infrastructure assets systems. Future studies should focus on standardising methodologies and evaluating their impact in diverse contexts, with a particular emphasis on Method A's effectiveness. Municipal Infrastructure Assets Systems, Quasi-Experimental Design, Adoption Rates The maintenance outcome was modelled as  $Y_i = \beta_0 + \beta_1 X_i + u_i + \epsilon_i$ , with robustness checked using heteroskedasticity-consistent errors.

**Keywords:** Sub-Saharan, African, Social-Ecological, Systems, Qualitative-Methods, Indexing, Indicators, Scenario-Analysis

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