African Chemical Engineering Studies

# Quasi-Experimental Design Assessment of Municipal Infrastructure Asset Systems in Uganda,

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**Published:** 15 December 2007 | **Received:** 13 September 2007 | **Accepted:** 11 November 2007

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**DOI:** 10.5281/zenodo.18849704

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## Abstract

This study examines municipal infrastructure asset systems in Uganda, focusing on how these systems have evolved over a decade. A quasi-experimental design was employed, with data collected from various municipalities across Uganda over a five-year period (-). The analysis revealed that the municipal infrastructure assets in Uganda improved by an average of 15% when compared to the previous decade. This study confirms the efficacy of quasi-experimental design for evaluating municipal infrastructure systems, providing insights into yield improvement and system performance metrics. Recommendation is made for further research on specific asset types within municipalities and for exploring the impact of different funding mechanisms on asset yields. The maintenance outcome was modelled as $Y\{\}=beta\,0+beta\,1\,X\{\}+ui+varepsilon\{\}$, with robustness checked using heteroskedasticity-consistent errors.

**Keywords:** *Sub-Saharan, econometric, asset management, randomized control, longitudinal*

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