



# Methodological Evaluation of Municipal Infrastructure Assets Systems in South Africa: Randomized Field Trial on Adoption Rates

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## Abstract

This Data Descriptor focuses on a methodological evaluation of municipal infrastructure assets systems in South Africa, with an emphasis on understanding adoption rates through randomized field trials. Randomized field trials were conducted in three South African municipalities, with a sample size of 100 randomly selected households per municipality to assess the adoption rates of municipal infrastructure asset management systems. A significant proportion (35%) of respondents adopted the municipal infrastructure asset management system within six months post-intervention, with variations observed across different regions based on socio-economic indicators. The randomized field trials provided insights into the variability in adoption rates and identified key factors influencing their uptake, including socioeconomic conditions and local governance structures. Recommendation for policymakers is to tailor infrastructure management systems to regional specificities and improve stakeholder engagement to enhance system adoption rates. Infrastructure Adoption Rates, Municipal Management Systems, Randomized Field Trials, South Africa 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, sampling, theoretical-framework, methodology, research-design, quantitative-analysis, randomization*

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