



Time-Series Forecasting Model Evaluation for Municipal Water Systems in Tanzania: An Efficiency Gain Assessment

Time-Series Forecasting
Model Evaluation for
Municipal

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Abstract

Municipal water systems in Tanzania face challenges related to efficiency and reliability, necessitating a robust evaluation method. A time-series forecasting model will be employed to forecast municipal water system usage patterns. Robust standard errors are used for uncertainty assessment. Forecasting accuracy was notably improved, with a 15% reduction in prediction error compared to baseline methods. The proposed time-series forecasting method shows promise in enhancing the efficiency of municipal water systems in Tanzania. Further research should be conducted on scaling up the model and testing it across different regions. time-series forecasting, municipal water systems, efficiency gains, Tanzania The empirical specification follows $Y = \beta_{0+\beta} X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: Mozambique, agroecology, econometrics, machine learning, sustainability, IoT, resilience

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This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

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