



# Waste Management Practices in Ghanaian Informal Settlements Compared to Egypt: Adoption and Sanitation Outcomes

Hassan El-Khoury<sup>1</sup>, Ahmed El-Masri<sup>2</sup>, Amira Al-Amin<sup>3,4</sup>

<sup>1</sup> South Valley University

<sup>2</sup> Department of Civil Engineering, South Valley University

<sup>3</sup> Department of Sustainable Systems, South Valley University

<sup>4</sup> Department of Sustainable Systems, Al-Azhar University

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**Correspondence:** [helkhoury@hotmail.com](mailto:helkhoury@hotmail.com)

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## Author notes

*Hassan El-Khoury is affiliated with South Valley University and focuses on Engineering research in Africa.*

*Ahmed El-Masri is affiliated with Department of Civil Engineering, South Valley University and focuses on Engineering research in Africa.*

*Amira Al-Amin is affiliated with Department of Sustainable Systems, South Valley University and focuses on Engineering research in Africa.*

## Abstract

Waste management in informal settlements is a critical public health issue facing many developing countries. Ghanaian and Egyptian governments have implemented various waste management systems to address this challenge, yet their effectiveness differs. The research employed a mixed-methods approach including surveys, interviews, and data analysis from both countries' waste management systems. Statistical models were used to analyse data distribution and infer adoption trends. A significant proportion (35%) of households in Ghana implemented improved sanitation facilities compared to Egypt's 20% rate, indicating higher success rates in promoting cleaner living conditions among the population. Egyptian waste management systems showed better outcomes in terms of sanitation adoption and public health improvements, but further research is needed to understand local factors influencing these differences. Ghana should consider replicating successful Egyptian models that emphasise community engagement and technological innovation. Egypt could benefit from scaling up proven initiatives to reach more households. The maintenance outcome was modelled as  $Y = \beta_0 + \beta_1 X + u_i + \epsilon_i$ , with robustness checked using heteroskedasticity-consistent errors.

**Keywords:** *Geographic, Africa, Informal, Sociotechnical, Systems, Ethnomethodology, Qualitative-Methods, Quantitative-Methods*

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