African Urban Geography (Geography/Social/Planning)

Eco-Friendly Building Materials in Nairobi Slums: Socio-Economic Impact Assessment

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Abstract

Nairobi's slums face significant environmental challenges due to rapid urbanization and inadequate infrastructure. Eco-friendly building materials offer potential solutions but their adoption is uneven. A mixed-methods approach combining surveys (n=200), focus groups (n=15), and case studies (n=5) to assess material costs, labour requirements, and social acceptance. Eco-friendly materials are significantly more expensive than conventional options (2−¿3 per square meter vs. 1−¿2), although cost savings are expected over time due to reduced maintenance needs. Community engagement is crucial for successful implementation. While eco-friendly building materials present challenges in terms of initial costs and community acceptance, they offer long-term benefits that could transform slum living conditions. Public-private partnerships should be encouraged to subsidize material procurement, while capacity-building programmes are needed to enhance local skills for construction and maintenance.

Keywords: *Socio-economic, Geographical, Sustainability, Case Study, Community Engagement, Quantitative Analysis, Qualitative Research*

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