African Optometry Studies

Urban Heat Island Mitigation Strategies in Nairobi's Slums: An Energy Consumption and Comfort Survey Framework

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Published: 27 October 2001 | **Received:** 11 June 2001 | **Accepted:** 23 September 2001

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DOI: 10.5281/zenodo.18726791

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Abstract

Urban heat islands (UHIs) pose significant challenges to energy consumption and resident comfort in Nairobi's slums, necessitating effective mitigation strategies. A theoretical approach will be employed to outline potential UHI mitigation strategies, including solar shading, green roofs, and enhanced ventilation systems. Theoretical models will be developed based on existing literature and expert consultations. This theoretical framework provides a foundation for future empirical studies on UHI mitigation strategies in Nairobi’s slums, offering potential pathways for reducing energy consumption and enhancing comfort levels. Further research is recommended to validate the effectiveness of these strategies through controlled experimental settings and community engagement.

Keywords: *Kenyan, UHIs, GIS, STS, RECFM, ABN, LCA*

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