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WORKING PAPER

ILLUMINATING PATHWAYS

Community-Led Street Lighting, Nocturnal Mobility, and Gendered Safety in Durban's Informal Settlements

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ABSTRACT

Informal settlements in Durban face severe infrastructural deficits, including inadequate public lighting. This exacerbates risks of gender-based violence and constrains nocturnal mobility, particularly for women and girls, undermining community development. This working paper analyses the impact of community-led street lighting initiatives on nighttime mobility and perceptions of gendered safety. It aims to evaluate the socio-technical processes of implementation and their gendered outcomes. A mixed-methods case study was conducted, incorporating spatial analysis of lighting infrastructure, participatory safety audits, and semi-structured interviews with residents and project organisers. The installation of solar-powered LED lights along key pathways correlated with a self-reported 40% increase in women's nighttime mobility. Interviews revealed a dominant theme of 'negotiated safety', where improved visibility altered but did not eliminate risk calculations. Community-led lighting is a significant intervention that enhances perceived safety and mobility, yet it operates within a complex landscape of persistent structural violence. It represents a socio-technical fix requiring complementary social interventions. Integrate participatory lighting projects with broader violence prevention programmes. Municipal planning should formalise community-led infrastructure models, ensuring sustainable maintenance and equitable spatial coverage. informal settlements, gender-based violence, urban infrastructure, participatory development, nocturnal geographies, South Africa This paper provides novel empirical evidence on the gendered mobility impacts of community-led infrastructure, introducing the concept of 'negotiated safety' to illuminate the partial and contingent nature of such interventions.

Keywords: *Informal settlements, Nocturnal mobility, Gender-based violence, Community-led development, eThekweni Municipality, Urban infrastructure*

Article Highlights

- Solar LED lights on key pathways increased women's reported nocturnal mobility by 40%.
- Interviews revealed a dominant theme of 'negotiated safety'

Core Insight

Community-led street lighting enhances perceived safety and mobility but operates as a socio-technical fix within persistent structural violence, requiring complementary

<p>persisting after intervention.</p> <ul style="list-style-type: none">• The study advocates integrating technical lighting projects with broader social programmes.• Findings call for municipal formalization of community-led infrastructure models.	<p>social interventions.</p> <p><i>This paper introduces the concept of 'negotiated safety' to analyse the contingent outcomes of community infrastructure.</i></p>
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ABSTRACT-ONLY PUBLICATION

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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