The Effectiveness of Housing Policies in Urban Environmental Management in Tanzania: A Case of Vingunguti Ward, Dar es Salaam

Carolina A. Nyery[1*], Joan O. Adongo[2] & Lucas Kisasa[3]

[1]Kampala International University, Tanzania

[2]Kampala International University, Tanzania

[3]Kampala International University, Tanzania

*Corresponding author: caronyery@gmail.com

Abstract

Housing policies are fundamental instruments for achieving sustainable urban development and effective environmental management. However, in rapidly urbanizing contexts of developing countries, a significant disconnect often exists between policy intentions and their practical outcomes. This study evaluates the effectiveness of housing policies on environmental management in Vingunguti Ward, Dar es Salaam, Tanzania. Employing a mixed-methods approach, the study collected data from 376 respondents, including community members and local officials, using questionnaires and interviews. The findings reveal a strong consensus among respondents that existing housing policies are insufficient and poorly enforced, failing to adequately address pressing environmental challenges. Key issues identified include the negative environmental impact of informal settlements, the lack of incentives for eco-friendly townhouse designs, and a general neglect of community needs in the policy formulation process. The research highlights a critical need for more integrated, collaborative, and rigorously enforced housing policies that are attuned to local environmental realities. The study concludes that without robust enforcement mechanisms and genuine community participation, housing policies risk perpetuating, rather than alleviating, environmental degradation in urban areas. Recommendations are offered for enhancing policy design and implementation to bridge the gap between legislative frameworks and sustainable environmental management outcomes.

Keywords: Housing Policies, Environmental Management, Urban Planning, Informal Settlements, Dar es Salaam

Introduction

The pursuit of sustainable and equitable urban development has positioned housing policy as a critical instrument for managing the environmental consequences of rapid urbanization in developing countries (Oduro et al., 2021). In Tanzania, as in many nations across the Global South, cities like Dar es Salaam are experiencing unprecedented population growth, leading to immense pressure on land, infrastructure, and natural ecosystems (Worrall et al., 2017). Within this context, housing policies are posited not merely as mechanisms for providing shelter, but as foundational elements of strategic urban planning aimed at fostering environmental health, public safety, and community resilience (Gunter & Lichtenstein, 2019). Effective housing governance is expected to regulate development, promote sustainable land use, and integrate essential services like waste management and sanitation, thereby creating livable and ecologically sound urban spaces (Mhando & Kihato, 2023).

However, this strategic intent presents a distinct paradox: while housing policies are designed to bring order and sustainability to urban expansion, their practical implementation often falls short, and in some cases, exacerbates the very problems they aim to solve (Awewomom et al., 2024). The shift towards formalizing housing markets and encouraging development can, without adequate safeguards and contextual sensitivity, lead to increased disparities, foster informal settlements, and challenge the coherence of urban environmental management (Sharma & Kumar, 2022). This is particularly evident in densely populated, low-income wards such as Vingunguti in Dar es Salaam, where the gap between policy aspiration and on-the-ground reality is stark.

This paradox is exemplified by the experiences of Vingunguti Ward, a vibrant yet challenged urban area in the Ilala Municipality. With a population of over 66,000 residents and a high density that strains local services, the ward grapples with severe environmental issues, including inadequate waste management where over 60% of generated waste remains uncollected, limited access to clean water, and frequent flooding (Kijazi et al., 2024). The housing landscape is a mix of informal settlements and rapidly developed townhouses, often constructed without adherence to environmental guidelines. The 2007 Urban Planning Act and the National Human Settlements Development Policy provide a legal foundation for orderly development, yet their translation into effective action in areas like Vingunguti remains inconsistent (Peter & Yang, 2019).

For instance, policies intended to increase affordable housing stock may lead to the construction of townhouses that lack proper sewage systems or green spaces, thereby intensifying pollution and stormwater runoff (Lehmann, 2023). Simultaneously, the needs of existing informal settlements are frequently neglected in formal planning processes, leading to communities that are both marginalized and environmentally vulnerable, lacking basic infrastructure and security of tenure (Awinia, 2021). This inconsistency underscores the profound challenge of ensuring that housing policies contribute positively to environmental management rather than inadvertently compounding urban ecological crises.

This paper, therefore, seeks to navigate this paradox by critically evaluating the efficacy of housing policies on environmental management in Vingunguti Ward. It examines the interplay between policy objectives and their tangible outcomes, focusing on how these policies address or fail to address critical environmental issues stemming from both informal settlements and formal housing developments. By investigating this

dynamic, the study aims to illuminate the barriers to effective policy implementation and identify pathways toward more integrated and sustainable urban housing strategies.

Methodologies

The study utilized a systematic mixed-methods approach, integrating a case study design, to critically examine the efficacy of housing policies on environmental management in Vingunguti Ward. This comprehensive framework allowed for both the quantitative measurement of resident perceptions and a qualitative, in-depth exploration of the implementation challenges from the perspective of key stakeholders.

Research Design

A case study research design was employed, as it is particularly suited for an intensive, detailed examination of a single contemporary phenomenon within its real-life context (Robson & McCartan, 2016). The phenomenon under investigation, the complex interplay between housing policies and environmental management is deeply embedded within the specific socio-economic, political, and spatial realities of Vingunguti Ward. This design facilitated a holistic understanding of the "how" and "why" behind the policy outcomes observed, enabling the researcher to capture the nuances that broader survey approaches might miss.

Case Study Selection and Area of Study

The study was anchored in Vingunguti Ward, located in the Ilala Municipality of Dar es Salaam, Tanzania. This ward was selected as a critical case due to its representative nature of the urban challenges facing many rapidly growing Tanzanian cities. Characterized by a high population density (exceeding 4,000 people per square kilometer), a mix of formal and informal settlements, and significant environmental stressors such as inadequate waste management and frequent flooding, Vingunguti provides a rich context for analyzing the practical failures and successes of urban housing policies (Kijazi et al., 2024; Smiley, 2020). Its selection was based on its relevance in showcasing the stark contrasts between policy intentions and the lived experiences of residents.

Data Collection Methods

The study employed a combination of data collection techniques to ensure triangulation and enhance the validity of the findings.

Systematic Literature Review

A systematic review of existing literature was first conducted to establish a theoretical and empirical foundation. The review focused on peer-reviewed articles, books, and policy documents published between 2010 and 2024. Searches were performed across academic databases, including Google Scholar, Scopus, and JSTOR, using targeted keyword combinations such as "housing policy," "environmental management," "informal settlements," "Dar es Salaam," and "urban planning Tanzania." The review helped identify key themes, theoretical frameworks, and existing gaps, which informed the development of the primary data collection instruments.

Primary Data Collection

Primary data was collected through two main methods: questionnaires and interviews. The questionnaires were structured and administered to a sample of community members within Vingunguti Ward. They included a Likert-scale section designed to quantitatively assess perceptions regarding the effectiveness, enforcement, and environmental impacts of existing housing policies. The questionnaire covered various indicators, such as the effects of informal settlements, the promotion of sustainable townhouse designs, and the extent to which community needs are prioritised in policy formulation. In addition, semi-structured interviews were conducted with key informants, including officials from the Planning and Development Department, the Ward Executive Officer (WEO), and Street Executive Officers (SEOs). These interviews followed an interview guide that allowed for flexibility, enabling interviewers to explore emerging themes in greater depth. Discussions focused on challenges faced in policy enforcement, the role of developers, inter-governmental coordination, and the gap between policy design and its implementation.

Sampling Procedure and Sample Size

A multi-stage sampling strategy was employed to ensure both representativeness and the inclusion of expert perspectives. The target population comprised community members and key officials. To determine the sample size for community members, the Slovin formula was utilised, aiming for a 95% confidence level with a 5% margin of error. Given a total population of 6,141 households, the calculated sample size was 376. However, a total of 361 community members were ultimately selected using simple random sampling, which ensured that each household had an equal chance of being chosen. This method minimized selection bias and enhanced the generalisability of the findings within the ward. For key officials, a purposive sampling approach was adopted to target individuals with specific knowledge and experience relevant to the study. A total of 15 officials were selected, including eight from the Planning and Development Department, one WEO, and six SEOs. This non-probability sampling technique was appropriate for collecting rich, context-specific qualitative data from those directly involved in policy implementation and local governance.

Data Analysis

The collected data from the literature review, questionnaires, and interviews were subjected to a comprehensive analytical process. Quantitative data from the 317 returned questionnaires were coded, cleaned, and entered into the Statistical Package for Social Sciences (SPSS) version 27.0. Descriptive statistics such as frequencies, percentages, mean scores, and standard deviations were generated to summarise the data and identify patterns in residents' perceptions. The five-point Likert scale responses were interpreted using mean range analysis to gauge the levels of agreement or disagreement with various statements. For qualitative data, interview responses were transcribed verbatim and analysed thematically. This involved systematically coding the transcripts to identify recurring themes and patterns related to the study's objectives, including issues such as enforcement challenges, developer accountability, infrastructure gaps, and community exclusion. The qualitative insights provided valuable depth, context, and explanations to complement the quantitative findings

Limitations

While the methodological framework adopted for this study is robust, several limitations must be acknowledged. The reliance on self-reported data through questionnaires and interviews may introduce biases, such as social desirability bias, where respondents provide answers they believe are expected rather than their true perceptions. Furthermore, as a case study focused on a single ward, the findings may not be universally generalizable to all urban contexts in Tanzania. However, the mixed-methods approach, combining systematic sampling with in-depth qualitative insights, enhances the credibility and transferability of the findings, providing a well-rounded evaluation of the complexities surrounding housing policy and environmental management in Vingunguti Ward.

Results and Discussion

This study sought to evaluate the effectiveness of housing policies on environmental management in Vingunguti Ward. The findings from both quantitative and qualitative data are presented and discussed thematically. To quantify community perceptions, a five-point Likert scale was employed (see Table 1), where 1 represented "Strongly Agree" and 5 represented "Strongly Disagree." For ease of interpretation, the mean scores (M) were categorized as follows: a mean of 1.00-1.80 indicated strong agreement, 1.81-2.60 indicated agreement, 2.61-3.40 indicated a neutral stance, 3.41-4.20 indicated disagreement, and 4.21-5.00 indicated strong disagreement (Sekaran & Bougie, 2010). This statistical framework, complemented by qualitative insights from key informant interviews, provides a nuanced understanding of the policy-practice gap in urban environmental management.

Table 1: Housing policies on environmental management

Housing policies on environmental management	1	2	3	4	5	Mean	SD
Government policies related to urban planning effectively prioritize the needs of informal settlement residents.	37	19	36	11	114	3.7760	1.31098
Presence of informal settlements has a negative impact on environmental management in Vingunguti Ward	167	128	7	7	6	1.5931	.80447
Poor urban planning strategies that promote townhouse development enhance community cohesion and environmental sustainability in vingunguti ward	0	0	0	114	203	4.6404	.48065
Current housing policies insufficient to encourage the development of environmentally friendly townhouse designs	112	109	17	41	78	2.3186	1.38118
Poor development of townhouses contributes to more efficient land use in vingunguti ward	16	8	16	101	176	4.3028	1.03564

Governance Capacity and Policy Enforcement

The quantitative data indicates a profound lack of faith in the government's capacity to formulate and implement housing policies that are responsive to local realities. As shown in Table 1, a strong majority of respondents (Mean=3.78, SD=1.31) disagreed with the statement that government policies effectively prioritize the needs of informal settlement residents. This statistical finding was vividly elaborated upon in the qualitative interviews. One official from the Planning Department candidly noted:

"The policy frameworks exist on paper, but they are often developed in isolation from the realities on the ground. There is a significant disconnect between the centralized planning and the specific, urgent needs of informal settlements, such as tenure security and basic service provision."

This sentiment underscores a critical governance failure. The policies, while perhaps well-intentioned, are perceived as top-down edicts that fail to engage with the socio-economic complexities of communities like Vingunguti. This finding aligns with the work of Davidson (2018), who argues that central mandates often compete with local needs, creating a governance tension that undermines the efficacy of decentralised initiatives. Without mechanisms to incorporate local knowledge and priorities, policies risk being irrelevant or even detrimental to the populations they are meant to serve.

The Environmental Impact of Informal Settlements

A near-unanimous consensus emerged regarding the negative environmental footprint of informal settlements. Respondents strongly agreed (Mean=1.59, SD=0.80) that the presence of these settlements adversely affects environmental management. The qualitative data pinpointed the causal mechanisms: a lack of formal waste collection systems leading to indiscriminate dumping, the absence of regulated sewage systems causing water source contamination and overcrowding that places immense strain on local resources.

This finding resonates with the broader literature on urban informality. As Sapkota et al. (2023) found in their systematic review, decentralisation often exacerbates existing disparities, and in this case, the lack of targeted, supportive housing policy for informal areas directly translates into environmental degradation. The situation in Vingunguti illustrates that when local governments lack the capacity or mandate to provide basic services to all residents, informal settlements become hotspots for pollution and public health risks, a challenge also documented by Ziraba et al. (2016).

The Failure to Regulate Formal Development

The study also uncovered significant deficiencies in regulating the formal housing sector, particularly in the burgeoning townhouse market. Respondents strongly disagreed (Mean=4.64, SD=0.48) that current urban planning strategies promote townhouse development that enhances environmental sustainability. Furthermore, they agreed (Mean=2.32, SD=1.38) that existing policies are insufficient to encourage environmentally friendly designs. This indicates a policy environment that prioritizes density and profit over ecological integrity.

Interviews with local officials revealed that developers frequently bypass regulations concerning green space provision, stormwater management, and waste disposal infrastructure. One official explained:

"The approval processes are sometimes rushed, and enforcement is weak. A developer may be required to include a drainage plan, but there is little follow-up to ensure it is built to standard or maintained. The result is that new townhouse complexes, which are often water-impermeable, contribute significantly to the ward's flooding problems."

This reflects the challenges of corruption and rent-seeking behavior noted in decentralised contexts by scholars like Adi (2018) in Indonesia. The inability to hold developers accountable creates a landscape where new construction often adds to, rather than alleviates, environmental burdens. This failure to ensure quality control in formal development mirrors the "misalignment between central policies and local needs" observed by Bawole (2017) in Ghana's decentralised health system, but here applied to the urban planning sector.

Community Engagement and the Accountability Gap

Underpinning all these issues is a critical gap in accountability and community engagement. The quantitative and qualitative data consistently pointed to a feeling of exclusion among residents. Their voices are marginalized in the planning process, leading to a sense of powerlessness and disillusionment. This lack of a feedback loop means that policies are not refined based on local experience, and officials are not held responsible for implementation failures.

The findings strongly support the principles of Collaborative Theory (Innes, 1995), which posits that effective governance requires the active participation of all stakeholders. The current top-down approach in Vingunguti, where community input is an afterthought rather than a foundational element, has resulted in a loss of public trust and a diminished sense of collective ownership over the urban environment. As Livanag & Wyss (2019) argue, without robust mechanisms to ensure accountability and build local capacity, local governments struggle to manage effectively. The tensions between central authorities and local governments, as seen in the Ugandan case (Galukande, 2019), are mirrored here in the tension between the planning authorities and the community, ultimately hindering coherent environmental management.

In summary, the results paint a picture of a housing policy regime in Vingunguti Ward that is largely ineffective in promoting environmental management. The dual failure to adequately support informal settlements and to rigorously regulate formal development has created a scenario where urban growth occurs at the expense of ecological health. The core of the problem lies in a governance structure characterized by weak enforcement capacity, a lack of meaningful community participation, and policies that are misaligned with local realities. This has led to a situation where, as Zaidi et al. (2019) might conclude, the *de jure* devolution of planning responsibility has not been matched by the *de facto* capacity and accountability needed for success, resulting in increased disparities and environmental challenges.

Conclusion

The evaluation of housing policies in Vingunguti Ward reveals a significant and troubling disconnect between legislative intent and practical outcomes in environmental management. The findings demonstrate that existing housing policies are perceived as largely ineffective, failing to adequately address the critical environmental challenges stemming from both informal settlements and formal urban development. This inefficacy is rooted in a combination of factors: a top-down approach that marginalizes community needs, insufficient regulatory frameworks to enforce sustainable building practices, and a pronounced lack of

accountability and enforcement capacity within local governance structures. Consequently, rather than serving as a tool for sustainable urban development, the current housing policy framework inadvertently perpetuates a cycle of environmental degradation, exacerbating issues such as waste accumulation, water pollution, and increased flood vulnerability.

The implications of these findings are profound. They highlight that without a fundamental recalibration, housing policies will continue to fall short of their potential to create sustainable and healthy urban environments. The paradox of planning where policies designed to bring order instead foster disparity and ecological harm can only be resolved by addressing the core governance failures identified. This necessitates a decisive shift from a purely technical, compliance-based model of planning to one that is collaborative, context-sensitive, and accountable.

Ultimately, for housing policies to become genuine instruments of environmental management, they must be re-envisioned. This requires integrating binding environmental standards into development approvals, establishing robust and transparent enforcement mechanisms, and, most critically, embedding genuine community participation at the heart of the policy process. By acknowledging these imperatives, policymakers and planners can begin to design and implement housing strategies that are not only equitable and responsive to local realities but also foundational to building resilient and environmentally sound cities in Tanzania and beyond.

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