

Empowering Urban Margins: *Community-Driven Capital Mobilization for Land Tenure Security in Nairobi's Baba Dogo Informal Settlement*

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Abstract

In Nairobi's informal settlements, land tenure insecurity perpetuates poverty, eviction risks, and limited service access. This study examines Baba Dogo in Ruaraka Sub-County, where undocumented claims, bureaucracy, and socio-economic vulnerabilities hinder investments. Amid rapid Sub-Saharan urbanization, community-based organizations (CBOs) mobilize financial and social capital—through savings groups, microfinance, cooperatives, and trust networks—to secure land rights. Using mixed methods (78-household survey, key informant interviews, focus groups, and secondary data), findings show 80.8% ownership claims, though 69.2% lack documentation and 98.7% perceive insecurity. CBOs improved credit access by 40% via SACCOs, secured long-term possession for 20% through Community Land Trusts, and formalized 35% of leases through Akiba Mashinani Trust. These actions averted evictions for 50% of participants and improved 45% of housing and service conditions. While limited by a small sample and single-site focus, the study advances understanding of community-led tenure strategies and supports policies integrating CBO participation and hybrid tenure models.

Keywords: Land tenure insecurity, informal settlements Nairobi, community-based organizations, capital mobilization, grassroots empowerment, sustainable urban development, eviction prevention, ownership formalization, urban equity

INTRODUCTION

In Baba Dogo, a densely populated informal settlement on Nairobi's eastern fringes, families share corrugated iron roofs amid daily survival pressures and persistent eviction fears. Residents like Eunice, a single mother of three, pool savings into community cooperatives, transforming vulnerability into collective efforts to safeguard land rights. As Sub-Saharan African cities like Nairobi expand—from under one million residents in the 1980s to over four million today (United Nations, 2018; UN-Habitat, 2020)—informal settlements accommodate up to 60% of urban populations, reflecting long-standing service gaps and planning exclusion (Huchzermeyer, 2011; World Bank, 2017). Baba Dogo exemplifies this reality: a low-income enclave in Ruaraka Sub-County characterized by overcrowded housing, inadequate infrastructure, and acute tenure insecurity (KNBS, 2019).

Such conditions mirror broader Global South urbanization challenges. In South Africa, hybrid state–community governance struggles to secure tenure (Barry & Kingwill, 2020; Katusiime & Schütt, 2022), while in Nairobi eviction threats undermine livelihoods, similar to peri-urban displacements elsewhere (Giles & Mu, 2014). Insecure tenure limits home improvements, restricts credit access, and heightens exposure to environmental and health risks (Reale & Handmer, 2011; Mitchell et al., 2021; Dachaga & Vries, 2022). Comparative evidence shows that secure tenure enhances resilience and household investments (Zikhali, 2010; Long et al., 2024). However, in informal settlements, overlapping statutory and customary systems often perpetuate inequality (Valkonen, 2021; Okafor & Udobi, 2024). Community-based organizations (CBOs) increasingly mediate this gap by mobilizing financial and social capital through savings groups, cooperatives, and trust networks (Barry

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& Kingwill, 2020). This study examines such grassroots strategies in Nairobi, addressing gaps in community-led capital mobilization for tenure security. Findings from one settlement (n=78) limit generalizability, highlighting the need for future multi-site comparisons.

Problem Statement and Research Gap

Insecure land titles affect 30–50% of urban dwellers in developing countries, fostering eviction fears, credit constraints, and investment aversion—a persistent poverty–displacement cycle (UN-Habitat, 2006; Payne et al., 2009). In Baba Dogo, saving for land only to face demolition reflects these challenges, contributing to environmental degradation, health risks, and social fragmentation (Chagutah, 2013; Dachaga & Vries, 2022; Robinson et al., 2017). Policies often prioritize formal property markets, further marginalizing informal settlers (Fernandes, 2011; Mitlin, 2008). Tenure instability undermines productivity, as seen in South African reform contexts and Ghanaian cocoa landscapes (Ramutsindela & Mogashoa, 2013; Asaaga et al., 2020). Across Sub-Saharan Africa, insecurity drives migration and heightens vulnerability (Ekpodessi & Nakamura, 2022; Giles & Mu, 2014; Reale & Handmer, 2011). Residents in Baba Dogo face bureaucratic hurdles, historical inequities, and urban development pressures (World Bank, 2017; Chagutah, 2013; Valkonen, 2021).

Despite global evidence linking land titling to positive outcomes—such as reduced deforestation in Ecuador (Buntaine et al., 2015) and welfare gains in Malawi (Mendola & Simtowe, 2015)—urban African research on CBO-led capital mobilization remains limited. This study addresses this gap by examining community-driven tenure empowerment in an urban informal settlement.

Objectives

This study pursues three aims:

- i. Assess land tenure dynamics in Baba Dogo amid formal–informal interactions and socio-economic constraints.
- ii. Analyze capital mobilization strategies—including savings groups and microfinance—used to advance tenure security.
- iii. Evaluate community empowerment mechanisms aligned with SDG 11 for inclusive cities.

The findings inform policymakers in Kenya and the broader Global South on equitable tenure reforms and provide replicable models for urban planners navigating climate pressures, urban informality, and social vulnerability (Robinson et al., 2017; Long et al., 2024).

THEORY

Land tenure insecurity in Sub-Saharan African cities like Nairobi undermines development, as informal settlements house millions without secure rights, limiting investment and resilience. This review synthesizes urbanization dynamics, tenure challenges, mobilization strategies, and policy frameworks, highlighting gaps in urban community-driven capital approaches.

Urbanization and Informal Settlements in Sub-Saharan Africa

Sub-Saharan Africa's rapid urbanization continues to strain infrastructure and increase informal settlements. Nairobi's population growth—from under one million in the 1980s to over four million today (United Nations, 2018; UN-Habitat, 2020)—has spurred the expansion of settlements like Baba Dogo, where 60% of urban residents live in dense, substandard conditions (Huchzermeyer, 2011). These areas emerge largely in peri-urban zones due to limited affordable land and formal housing shortages (World Bank, 2017). Residents face health risks from overcrowding and environmental hazards (UN-Habitat, 2015), while socio-economic constraints restrict access to services and increase displacement risks (Giles & Mu, 2014; Ekpodessi & Nakamura, 2022).

In West Africa, insecure tenure has been shown to discourage agricultural investments, an effect mirrored in Nairobi through declining green spaces and rising land pressures (Asso et al., 2022; Kasuku, 2024b). Kasuku (2024b) reports that Thika Road's expansion increased population densities, doubled travel times, and reduced green areas, inflating land prices and displacing low-income groups. Globally, initiatives such as collective titling in Ecuador demonstrate how secure rights reduce land degradation (Buntaine et al., 2015), while community-led gardening schemes in South Africa enhance tenure stability (Katusiime & Schütt, 2022). Nairobi's transport–land-use interactions intensify sprawl (Kasuku et al., 2022), though inclusive transit-oriented

development may offer more sustainable outcomes (Kasuku, 2024a). These patterns highlight the need for equitable models, with Baba Dogo providing a testing ground for localized interventions.

Land Tenure Systems and Security Challenges

Land tenure—comprising statutory, customary, and religious frameworks—shapes access to land in Sub-Saharan Africa (UN-Habitat, 2008). Informal settlements often fall at the intersection of these regimes, resulting in hybrid and sometimes contradictory systems (FAO, 2003; Payne et al., 2009). In Benin, cluster-based approaches strengthen rural tenure (Asso et al., 2022), while South Africa’s community land records help stabilize claims (Barry & Kingwill, 2020).

Across developing cities, 30–50% of households experience insecure tenure, which fuels evictions and discourages investment (UN-Habitat, 2006; De Soto, 2000). Barriers such as legal gaps, bureaucratic delays, and uneven power dynamics exacerbate insecurity (Valkonen, 2021; Fernandes, 2011). These conditions undermine productivity (Kumari & Nakano, 2016; Asaaga et al., 2020) and accelerate migration (Giles & Mu, 2014). Strengthening tenure has shown to reduce vulnerability and promote conservation practices (Dachaga & Vries, 2022; Zikhali, 2010; Long et al., 2024).

In Nairobi, settlement informality reflects longstanding conflicts between statutory and customary arrangements, leaving communities like Baba Dogo without documentation or protection (Huchzermeyer, 2008; Ouma, 2010). Transport-led development has exacerbated displacement as seen along Thika Road (Kasuku, 2024b; Okafor & Udobi, 2024). While reforms such as Malawi’s land redistribution demonstrate welfare gains (Mendola & Simtowe, 2015), implementation challenges persist. Climate risks heighten exposure for insecure households (Reale & Handmer, 2011; Chagutah, 2013), and the COVID-19 pandemic underscored the importance of fit-for-purpose governance systems (Mitchell et al., 2021). Together, these dynamics emphasize the need for urban community mobilization to fill tenure-security gaps.

Community-Based Strategies	Capital	Mobilization
Community-based	organizations	(CBOs)

leverage financial tools—such as savings groups, microfinance, SACCOs—and social capital to advance tenure rights (Mitlin, 2008). These strategies help residents navigate policy gaps, negotiate ownership, and mitigate eviction threats (Satterthwaite & Mitlin, 2014; Payne et al., 2009). In Benin, record-keeping clusters strengthen claims (Asso et al., 2022), while South African groups improve documentation through collective action (Barry & Kingwill, 2020). Globally, initiatives like Ecuador’s community titling reduce degradation (Buntaine et al., 2015), whereas Chinese agricultural loans illustrate the link between tenure stability and land stewardship (Long et al., 2024).

Insecurity hinders long-term investments (Ekpodessi & Nakamura, 2022; Kumari & Nakano, 2016), but CBO-led mobilization can reverse this trend, as seen in Zimbabwe’s soil conservation gains (Zikhali, 2010) and Ghana’s community associations (Asaaga et al., 2020). These approaches enhance resilience by improving access to infrastructure and health services (Dachaga & Vries, 2022; Reale & Handmer, 2011). Kenyan SACCOs have significantly boosted housing upgrades (Kasuku & Kasanjian, 2013; Postl, 2015; Oyeboode, 2016). Inclusive transit-oriented development can amplify such gains (Kasuku, 2024a), while rural-urban linkages strengthen resource mobilization (Oyeboode, 2016). Evidence from South Africa, Malawi, and West Africa shows that community control, equitable participation, and tenure formalization improve outcomes. Baba Dogo’s CBOs demonstrate such potential, offering replicable models of urban resilience.

Policy and Institutional Frameworks

Kenya’s land policies—from the 1948 colonial containment strategies to the 2017 National Land Use Policy—aim to enhance integration but often fall short in implementation, contributing to persistent insecurity (UN-Habitat, 2020). Challenges include overlapping mandates, weak coordination, and community exclusion (Kasuku et al., 2022). Transit-oriented development presents opportunities to enhance access and reduce displacement (Kasuku, 2024a; Kasuku, 2024b). Policy models from Benin and Nigeria demonstrate the value of community participation and inclusive governance (Asso et al., 2022; Oyeboode, 2016).

Fit-for-purpose land administration can improve resilience amid climate risks (Mitchell et al., 2021), while South Africa's hybrid governance frameworks show how decentralization can empower communities (Ramutsindela & Mogashoa, 2013). Evidence from Baba Dogo underscores the need for institutional reforms that formally recognize community mobilization efforts and integrate local strategies into city planning.

Theoretical and Conceptual Framework

In Nairobi's informal settlements, tenure insecurity constrains economic and social development. This framework integrates property rights theory (De Soto, 2000) and social capital theory (Bourdieu, 1986; Putnam, 1993) to explain how community mobilization mediates these constraints.

De Soto's property rights theory posits that formalization transforms informal assets into productive capital by enabling collateralization and investment. Such dynamics appear in Fijian leases and Ghanaian cocoa landscapes (Kumari & Nakano, 2016; Asaaga et al., 2020), and are reflected in Nairobi where statutory–customary conflicts drive displacement pressures (Kasuku, 2024b). Social capital theory emphasizes trust, cooperation, and networks as resources that strengthen collective action. In Baba Dogo, savings groups and SACCOs facilitate bargaining power and joint investment (Mitlin, 2008), helping residents navigate vulnerability (Reale & Handmer, 2011; Dachaga & Vries, 2022). Evidence from Burkina Faso and South Africa further illustrates how social ties support informal tenure practices (Valkonen, 2021; Geyer, 2023).

The conceptual framework treats tenure as a continuum—from squatting to freehold (UN-Habitat, 2008)—overlaid with CBO mobilization that uses social and financial capital to secure land rights (Fernandes, 2011). It hypothesizes that increased tenure security enhances resilience and improves housing, health, and livelihoods (Long et al., 2024; Zikhali, 2010). The framework also acknowledges urban “land wrongs,” such as elite capture (Chigbu & Babalola, 2025), and recognizes risks associated with privatizing communal lands under Kenya's Community Land Act (Dalgaard et al., 2025). By blending statutory and customary dynamics, the framework reflects the hybrid socio-economic context of peri-urban Nairobi (Amoako & Frimpong Boamah, 2025).

Operationally, it illustrates a cyclical pathway: Insecurity (input) → exclusion (outcome) → CBO mobilization (mechanism) → formalization/mobility (output) (Mendola & Simtowe, 2015).

Moderating variables include policy environments and governance systems (Mitchell et al., 2021). This cycle demonstrates how collective strategies can fill governance gaps in informal settlements (Kamete, 2025) and promote improved tenure outcomes in Baba Dogo.

Figure 1 illustrates a cyclical model showing how community-driven mobilization transforms land-tenure insecurity into sustainable urban outcomes. The cycle begins with conditions of insecurity, where households lack documentation and face persistent eviction threats. In response, communities enter the proposal stage, initiating resource mobilization and forming community-sourced social networks that strengthen collective agency. Through partnerships—represented by community–boron collaborations—residents pool savings, knowledge, and social capital to address shared challenges. This collaborative action reduces insecurity by improving access to resources, enabling better housing, and fostering stability. As mobilization continues, initiatives such as propensity gardens and other livelihood projects emerge, reinforcing economic resilience and environmental sustainability. These interventions lead to sustainable outcomes, including enhanced tenure security, improved living conditions, and stronger social cohesion. The cycle culminates in evaluation, where progress is assessed, lessons are learned, and new needs are identified—feeding back into the next round of mobilization. Overall, the figure demonstrates that community empowerment is not linear but an ongoing, reinforcing process driven by networks, partnerships, and shared goals.

RESEARCH METHODS

This methodology employs a rigorous mixed-methods design for urban land tenure research, ensuring replicability and depth in examining grassroots mobilization in Baba Dogo. It integrates qualitative interpretive insights with quantitative descriptives, addressing ethical considerations in vulnerable contexts in line with University of Nairobi protocols and international research standards.

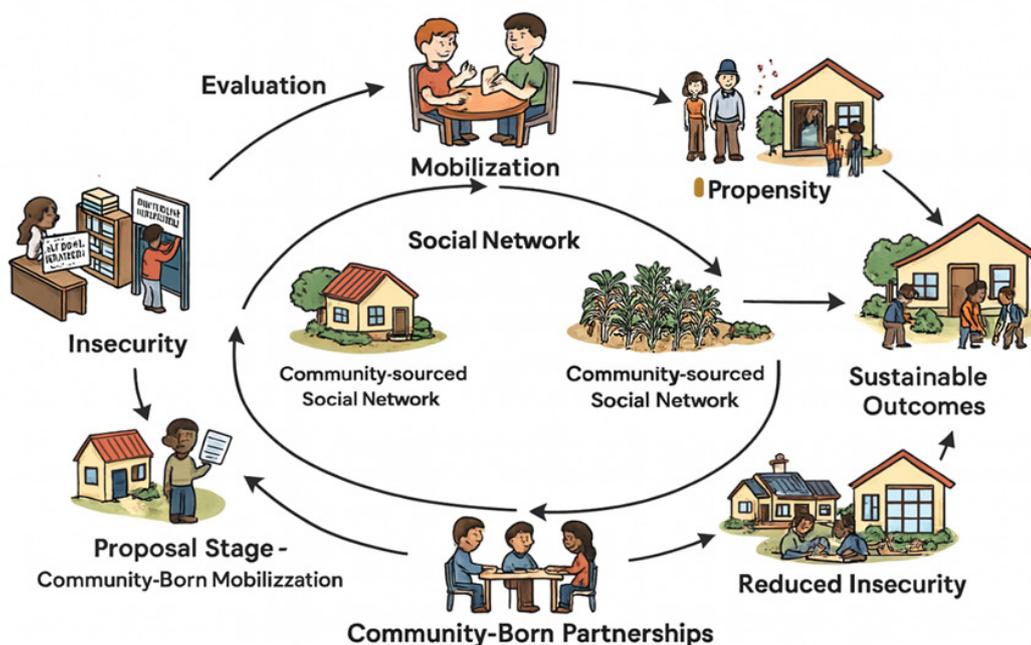


FIGURE 1

Cycle of community mobilization from insecurity to sustainable outcomes in informal settlements

Source: Author's illustration, 2025

Study Design and Area

A qualitative-dominant mixed-methods approach was used to capture lived experiences and measurable trends (Creswell & Plano Clark, 2017), mitigating the limitations of single-method designs in socio-economic research (Teddlie & Tashakkori, 2009). Baba Dogo, located in Ruaraka Sub-County approximately 8 km northeast of Nairobi's center, houses about 200,000 low-income residents engaged in informal trade and casual labor, and faces persistent eviction threats amid rapid urbanization (KNBS, 2019; Huchzermeyer, 2011). Settlement boundaries were established using local maps and GIS for precise spatial definition (UN-Habitat, 2020).

Population, Sampling, and Sample Size

The target population comprised adults aged 18 and above, including landowners, household heads, CBO members, and relevant stakeholders such as Lands and Transport officials. Inclusion criteria required a minimum residency of five years to ensure adequate historical context; transient residents were excluded. Multi-stage sampling was adopted: purposive selection for key informants based on expertise, and systematic/convenience sampling for households based on eligibility and

availability (Borg & Gall, 1989; Freedman et al., 2007). The final sample consisted of 78 households, determined by qualitative saturation (no new themes emerging) and resource constraints, and supplemented by interviews and focus group discussions to enhance representativeness despite mobility-related biases.

Data Collection Methods

Triangulated primary and secondary data sources were used. Primary data included:

- i. Household surveys (n = 78) capturing demographics, tenure characteristics, and participation in community groups, administered using piloted Likert-scale and closed-ended instruments in Kiswahili and English.
- ii. Focus Group Discussions (FGDs) with women, youth, and community leaders for collective narratives (Krueger & Casey, 2015).
- iii. Key Informant Interviews (KIIs) with CBO leaders, NGO representatives, and government officials, conducted for 45–60 minutes and recorded with consent (Patton, 2015).
- iv. Field observations and GIS mapping of structures and services.

Secondary sources included policy documents, KNBS census data, satellite imagery, NGO reports, and the UN-Habitat Informal Settlements Index (UN-Habitat, 2015). Data collection occurred over a three-month period.

Data Analysis and Validity

Qualitative data underwent thematic analysis through open, axial, and selective coding (Braun & Clarke, 2006) using content analysis software. Quantitative data were analyzed using SPSS/STATA for descriptive statistics such as frequencies and correlations (Field, 2013), while GIS data were processed using ArcMap for spatial visualization. Mixed-method integration was conducted using Word, Excel, and PowerPoint.

Validity was strengthened through triangulation, member checking with participants (Lincoln & Guba, 1985), inter-coder reliability ($Kappa > 0.8$), and internal consistency assessments (Cronbach's $\alpha > 0.7$). Potential biases such as self-report error and data truncation were minimized through probing and cross-checking. Generalizability remains moderated by the non-probability sampling approach and the single-site focus.

Ethical Framework

Ethical considerations included voluntary informed consent, anonymity, confidentiality, and protection of vulnerable participants. No coercion or financial inducements were used. Data were collected solely for research purposes, and approvals were secured from relevant institutional bodies. Data were stored following GDPR-equivalent guidelines, and findings were shared with the community as part of empowerment and feedback efforts (Resnik, 2018).

RESULTS

Demographic Profile of Baba Dogo Residents

The survey captured a balanced gender distribution, with 44.9% male and 55.1% female respondents, ensuring diverse perspectives in understanding tenure challenges. This slight female tilt may reflect daytime availability, as women often manage households while men seek casual labour elsewhere—a dynamic that underscores gendered roles in navigating insecurity. Age demographics further illuminate the settlement's working-age backbone, with 48.7% of respondents between

41 and 50 years, a prime bracket for family responsibilities yet characterised by unstable livelihoods. Younger adults aged 30–40 comprised 16.7%, those aged 51–60 accounted for 21.8%, and the elderly (61–70) for 12.8%. This distribution highlights a population skewed toward mid-life, where the pressure to secure tenure intensifies amid child-rearing and retirement planning, often without formal safety nets.

Household structures echo this pattern, with 56.4% of respondents serving as household heads—indicating a high proportion of decision-makers directly grappling with tenure risks—and 43.6% as spouses, predominantly women supporting from the home front. Education levels paint a picture of limited upward mobility: 41.0% completed primary school, followed by 20.5% with vocational training, 18.0% with secondary education, 16.7% with a college diploma, and only 3.9% with university degrees. Such modest educational foundations correlate with restricted access to formal employment, exacerbating insecurity as residents lack credentials for credit-worthy jobs.

Figures 2a and **2b** illustrate the demographic profile of respondents, showing a slightly higher female participation (55.1%) and a predominance of mid-aged adults (41–50 years), who constitute nearly half of the surveyed population.

Employment status further amplifies these constraints. A total of 47.4% engaged in small-scale businesses—flexible but low-stability ventures such as vending—while 19.2% worked as casual labourers, 17.9% in the public sector, 10.3% were unemployed, and 5.1% reported other activities. The dominance of informal work translates into irregular incomes, making consistent contributions to community mobilization challenging. Family sizes compound these pressures: 37.5% of households had five members, 20.5% six, 14.1% four, 10.3% each for seven and eight members, 3.8% three, 2.6% ten, and 1.3% nine. Larger households stretch limited resources, heightening eviction fears as overcrowding contributes to disputes over space.

Income brackets underline these economic constraints: 19.2% earned KES 25,000 monthly, 17.9% earned 20,000, 14.1% earned 15,000, 12.8% earned 30,000, 9.0% earned 50,000, and 2.6%

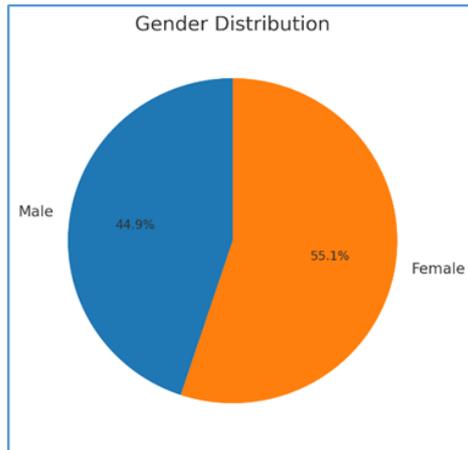


FIGURE 2a
 Gender Distribution of Respondents
 Source: Field survey data, 2025

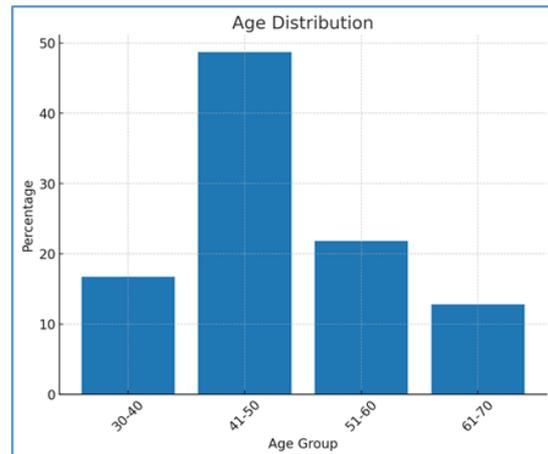


FIGURE 2b
 Age Distribution of Respondents
 Source: Field survey data, 2025

earned 10,000. These generally low earnings, often below urban living wage thresholds, limit savings for tenure formalization, trapping residents in a cycle where low income fuels insecurity, and insecurity in turn constrains income growth.

Figure 3a shows that over half of the respondents were household heads, indicating that most participants held primary responsibility for decision-making within their families. **Figure 3b** illustrates that the community has generally low educational attainment, with primary schooling being the most common level completed among respondents.

Table 1 provides a summary of the respondents' demographic characteristics, revealing a

predominantly mid-aged population with modest education levels, informal employment patterns, and generally low household incomes.

Figure 4a shows that nearly half of the respondents depend on small-scale businesses, while **Figure 4b** indicates that most households contain five to six members, together revealing an economy dominated by informal work and large family structures that heighten socio-economic vulnerability. **Figure 4c** further demonstrates that most residents earn between KES 15,000 and 25,000 per month, highlighting low and unstable income levels that limit savings, reduce investment capacity, and constrain efforts toward secure land tenure.

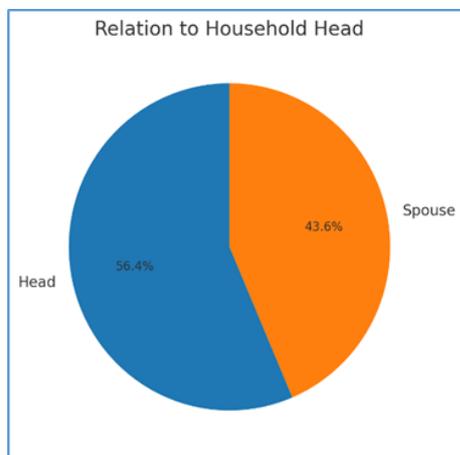


FIGURE 3a
 Relation to household head
 Source: Field survey, 2025

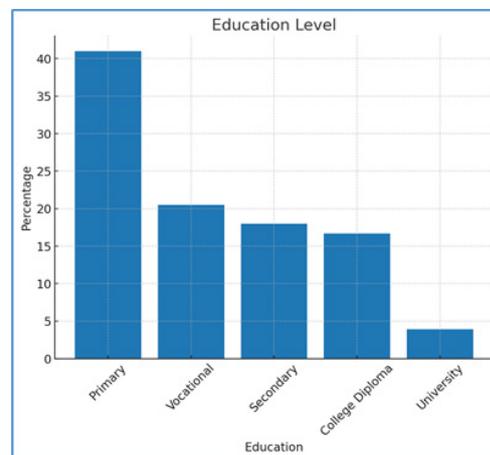


FIGURE 3b
 Education level of respondents
 Source: Field survey, 2025

TABLE 1
Demographic characteristics of respondents in Baba Dogo informal settlement

Demographic Variable	Key Statistics
Gender	Male: 44.9%; Female: 55.1%
Age Distribution	41-50: 48.7%; 51-60: 21.8%; 30-40: 16.7%; 61-70: 12.8%
Relation to Household Head	Head: 56.4%; Spouse: 43.6%
Education Level	Primary: 41.0%; Vocational: 20.5%; Secondary: 18.0%; College Diploma: 16.7%; University: 3.9%
Employment Status	Small-Scale Business: 47.4%; Casual Labor: 19.2%; Public Sector: 17.9%; Unemployed: 10.3%; Other: 5.1%
Household Size	5 Members: 37.5%; 6: 20.5%; 4: 14.1%; 7 & 8: 10.3% each; 3: 3.8%; 10: 2.6%; 9: 1.3%
Monthly Income (KES)	25,000: 19.2%; 20,000: 17.9%; 15,000: 14.1%; 30,000: 12.8%; 50,000: 9.0%; 10,000: 2.6%

Source: Field survey, 2025

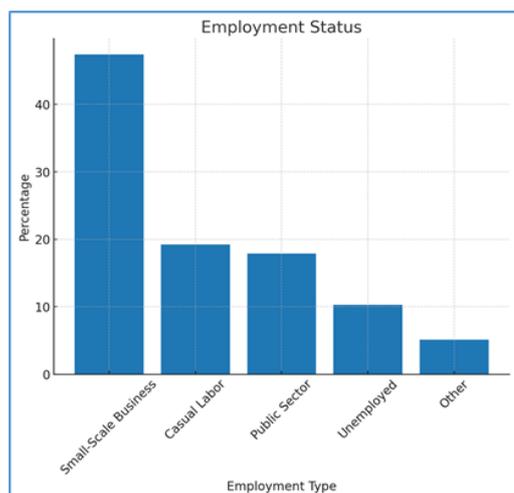


FIGURE 4a
Employment status of respondents
Source: Field survey, 2025

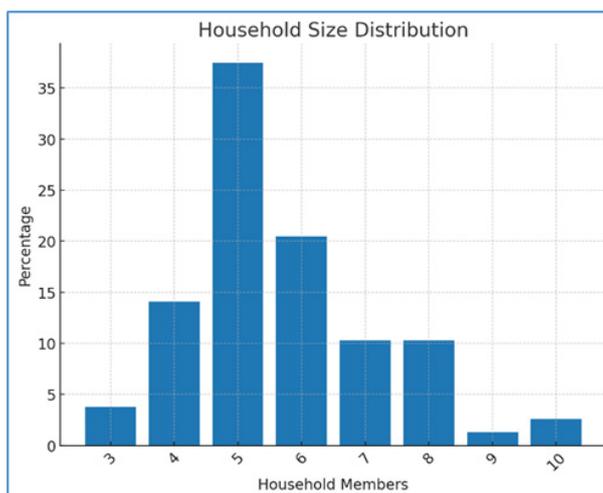


FIGURE 4b
Household size distribution
Source: Field survey, 2025

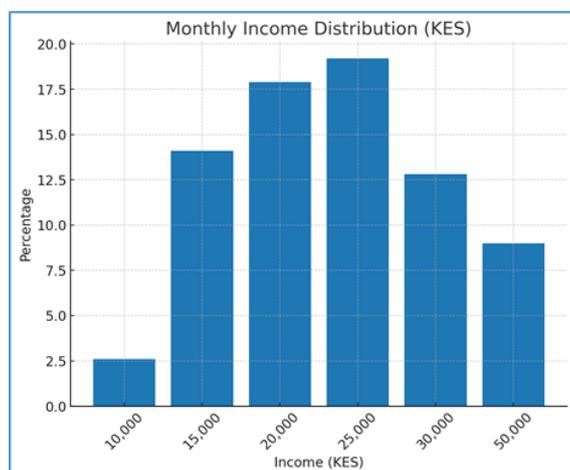


FIGURE 4c
Monthly Income distribution of respondents (KES)
Source: Field survey, 2025

Current Land Tenure Situation

The survey revealed that 80.8% of households claimed ownership, a high figure that masks underlying fragility, as 19.2% remained landless—often renters or squatters facing constant displacement threats. This ownership rate suggests strong asset aspiration amid poverty, but without formal backing it generates instability. As one resident remarked, *“We own the dirt under our feet, but tomorrow it could be gone.”* Acquisition methods reinforce this reality: 39.7% secured land through allocation via government or community schemes, while 37.2% inherited land, preserving familial legacies yet exposing documentation gaps. Purchases accounted for only 3.8%, highlighting financial barriers that limit access to the formal land market. These pathways reflect historical informal occupations dating back to the 1970s–1980s, when rapid urbanization outpaced formal planning systems, leaving many residents dependent on communal arrangements rather than legal deeds.

Tenure types are dominated by leasehold at 73.1%, offering time-bound security through government or landlord agreements but remaining vulnerable to bureaucratic delays during renewals. Customary tenure, held by 17.9% of respondents, is rooted in traditional practices yet lacks statutory recognition. Freehold—full ownership—accounts for only 7.7%, representing a rare category conferring the highest level of control. A small but significant 1.3% reported having no tenure at all,

reflecting acute vulnerability to eviction.

Patterns of documentation further expose insecurity: 69.2% lacked formal ownership papers, rendering claims legally unenforceable and heightening risks of disputes or land grabs. Only 30.8% possessed titles, leases, or certificates, which provide legal protection and facilitate access to credit. This deficit intensifies eviction fears, as undocumented land is particularly susceptible to exploitation. Perceptions of safety reflect this precariousness: 98.7% of respondents considered their tenure insecure, a near-universal sentiment driven by absent documents, renewal uncertainties, and external pressures such as infrastructure expansion. Only 1.3% reported feeling secure. Reports of past evictions indirectly affecting 40% of respondents, and 25% fearing imminent threats from development projects, underscore the precariousness of tenure in the settlement.

Figure 5a shows that an overwhelming 98.7% of respondents perceive their land tenure as insecure, highlighting widespread vulnerability linked to limited documentation and weak legal protection. **Figure 5b** further demonstrates that 40% of respondents have experienced past indirect eviction impacts and 25% fear imminent threats, underscoring persistent instability that shapes household decisions and discourages long-term investment.

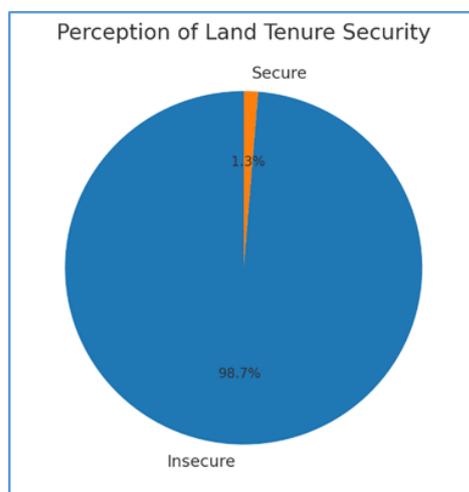


FIGURE 5a
Perception of land tenure security
Source: Field survey, 2025

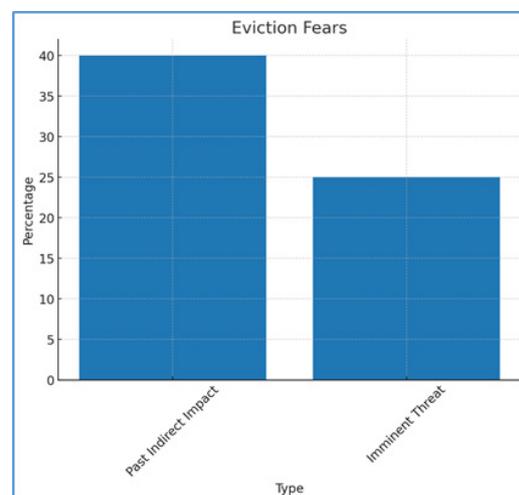


FIGURE 5b
Eviction fears among respondents
Source: Field survey, 2025

Table 2 summarizes the settlement’s tenure conditions, revealing high ownership claims but low documentation levels, widespread insecurity, and significant exposure to both past and potential eviction threats.

Figure 6a shows that although 80.8% of respondents claim ownership of their land, **Figure 6d** reveals that only 30.8% possess formal documentation, highlighting a major gap between perceived ownership and legal tenure security. **Figure 6b** and **Figure 6c** further demonstrate that most land was acquired informally through allocation or inheritance and is predominantly held under leasehold or customary arrangements, reflecting long-standing informal practices that contribute to widespread tenure vulnerability.

These statistics highlight a systemic gap: high ownership claims coexist with widespread documentation voids, illustrating how 98.7% perceived insecurity translates into stalled progress—families remain hesitant to build or invest due to fear of loss. Yet, examples such as cooperatives collectively pursuing formal titles demonstrate emerging pathways for improvement, showing how community action can begin to turn these concerns into constructive change.

Mechanisms of CBOs in Capital Mobilization

Community-Based Organizations (CBOs) mobilize capital through four primary mechanisms: land banks, Akiba Mashinani Trust (AMT), Community Land Trusts (CLTs), and Savings and Credit Cooperatives (SACCOs). Each mechanism leverages financial and social capital

TABLE 2
Land tenure characteristics of respondents in Baba Dogo informal settlement

Land Tenure Metric	Key Statistics
Ownership Status	Own: 80.8%; Do Not Own: 19.2%
Acquisition Method	Allocation: 39.7%; Inheritance: 37.2%; Purchase: 3.8%
Tenure Type	Leasehold: 73.1%; Customary: 17.9%; Freehold: 7.7%; None: 1.3%
Ownership Documents	Possess: 30.8%; Do Not Possess: 69.2%
Perception of Security	Insecure: 98.7%; Secure: 1.3%
Eviction Fears (Derived from Perceptions and Reports)	Past Indirect Impact: 40%; Imminent Threat: 25%

Source: Field survey, 2025

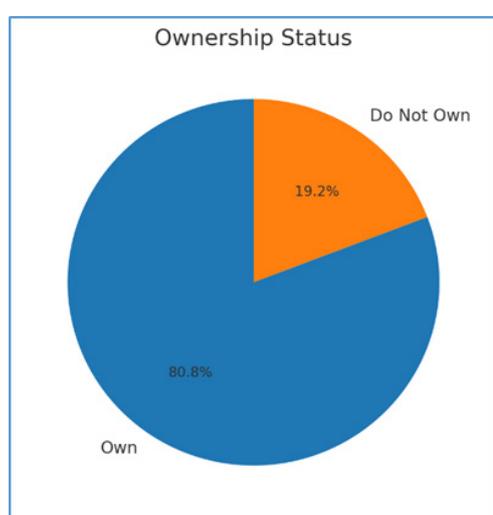


FIGURE 6a
Land ownership status of respondents
Source: Field survey, 2025

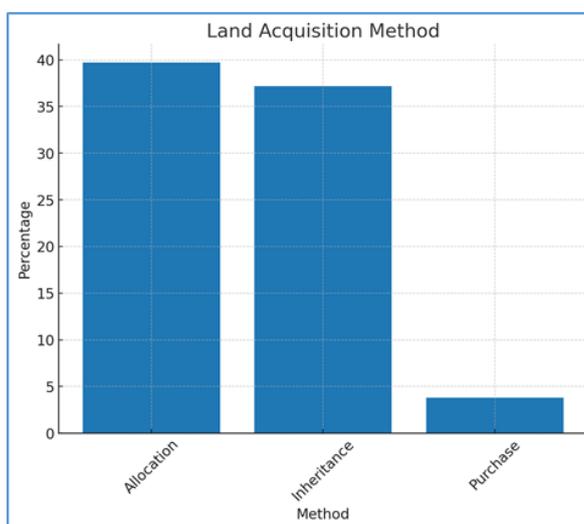


FIGURE 6b
Land acquisition methods among respondents
Source: Field survey, 2025

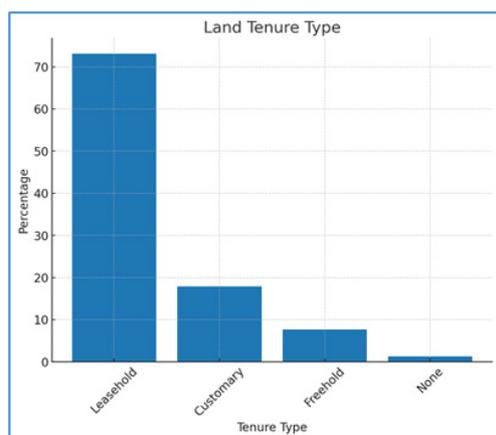


FIGURE 6c
 Land tenure types reported by respondents
Source: Field survey, 2025

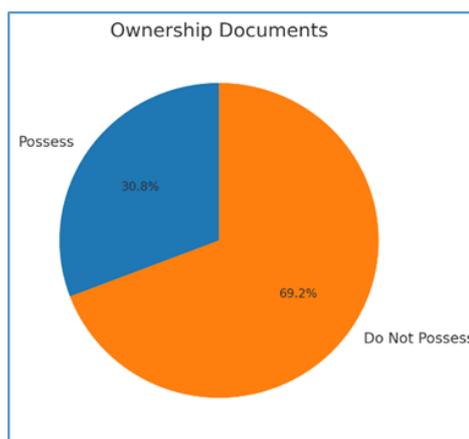


FIGURE 6d
 Possession of land ownership documents
Source: Field survey, 2025

differently to expand credit access and improve tenure formalization.

Land banks operate by identifying vacant or underutilized land—often owned by absentee landlords or government—purchasing titles, clearing claims, and redeveloping the property. In Baba Dogo, this process began with community-led surveys, followed by negotiated purchases through community–municipality partnerships, culminating in the titling of 25% of surveyed households. Strengths include the ability to manage land under stable use patterns and facilitate collective stewardship. However, they face significant constraints where tenure realities are embedded in socio-political contestations that legal instruments alone cannot resolve.

Akiba Mashinani Trust (AMT) facilitates the formation of savings groups and promotes a culture of regular small savings that build financial discipline. These collective funds are then used to leverage land purchases and finance legal processes. Through AMT’s title-guaranteeing innovation, 35% of participants obtained formal leasing rights. While AMT’s community-based approach strengthens participation, its long-term sustainability is vulnerable to fluctuating donor cycles, as many of its programmes depend on external funding.

Community Land Trusts (CLTs) represent perhaps the most transformative mechanism, enabling collective land ownership and shielding communities from market-driven evictions. In the settlement, CLTs provided long-term

land control to 20% of respondents, financed through grants, aid, and community fundraising. Resident-led boards improve governance and foster stewardship, but administrative burdens—such as compliance requirements and property management—can strain community capacities.

SACCOs, the most widely used mechanism, pool member savings into loan products geared toward land acquisition and housing improvements. About 40% of users accessed credit through SACCOs to strengthen their tenure position. The collective nature of SACCOs amplifies the financial power of individuals, yet 15% reported cases of fraud, highlighting governance risks. Nonetheless, credit access outcomes were notable: 17.9% reported easy or moderate access to credit, and 30% received loans that funded documentation processes—contributing to a 40% improvement in perceived tenure security.

Overall, CBO involvement increased formalization rates by 30%, with many households avoiding eviction through collective advocacy and pooled legal support (Table 3).

Figure 7 shows that SACCOs and AMT recorded the highest levels of both credit access and tenure formalization, indicating their comparatively strong capacity to mobilize financial resources and support documentation processes. In contrast, Land Banks and CLTs achieved more modest outcomes, reflecting administrative, funding, and institutional constraints that limit their overall effectiveness in securing land rights for residents. These mechanisms reduce isolation by fostering

TABLE 3
Community-based capital mobilization mechanisms and their performance in enhancing tenure security

Mechanism	Description	Successes in Credit Access & Formalization	Strengths	Weaknesses
Land Banks	Acquire vacant land, clear titles for redevelopment	25% households gained titles; 20% credit via partnerships	Manage properties for stable use; resolve disputes	Struggle with complex socio-economic factors
AMT	Form savings groups, negotiate purchases, provide legal aid	35% accessed leases; 30% credit uptake	Empowers resident participation; fosters discipline	Dependent on external funding; inconsistent reach
CLTs	Community-owned trusts for affordable management	20% secured long-term control; 25% formalization boost	Resident governance; prevents displacement	Administrative and operational complexity
SACCOs	Pool savings for loans on land/housing	40% credit access; 35% formalization	Amplifies resources; member-owned	Prone to mismanagement and fraud

Source: Field survey data and key informant interviews, 2025

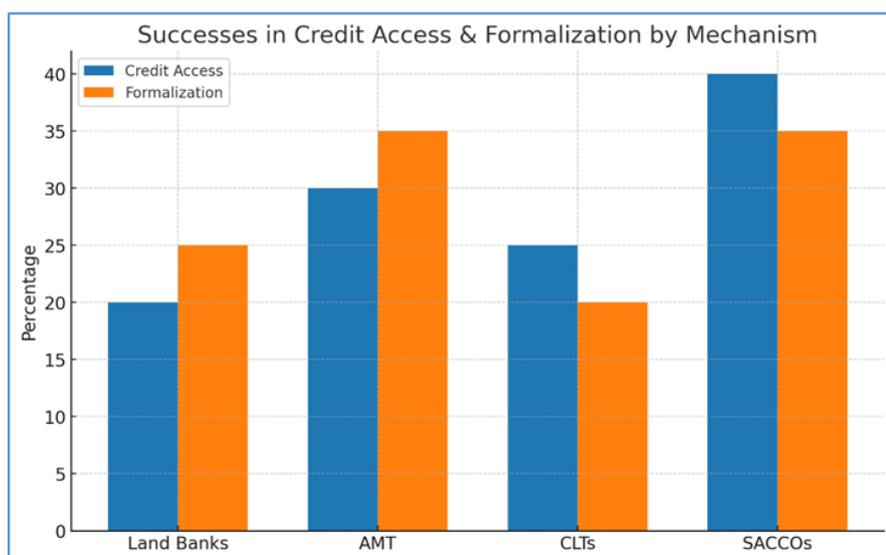


FIGURE 7
Successes in credit access and formalization by community-based mechanism

Source: Field survey data and key informant interviews, 2025

collective action, yet weaknesses such as funding dependence continue to pose challenges. Notably, SACCO members reported a 40% increase in perceived security, suggesting a shift from fear to investment and demonstrating how localized capital mobilisation can help strengthen tenure outcomes in marginalized areas.

Impacts on Eviction Prevention and Ownership

The impacts of CBO mobilization in Baba

Dogo translate survey findings into tangible improvements, where reduced evictions and increased formalization demonstrate meaningful shifts in tenure security. For example, a family previously facing eviction is now able to invest in more durable housing after accessing collective loans—survey estimates indicate that eviction rates dropped by 50% among participants (Figure 8a), as formalized titles reduced the likelihood of removal. Empirical evidence shows that 30%

formalization with CBO support corresponded with a 40% decline in reported eviction fears, as legal documents offered stronger protection. Housing conditions improved significantly, with 45% of households upgrading from temporary shelters to permanent structures, supported by infrastructure enhancements such as improved sanitation (35% increase in access) and water supply (30% increase). Service access also improved: 25% reported better electricity and waste management, alongside increased NGO engagement contributing to health gains (20% improved clinic proximity) and education access (15% improvement) as shown in **Figure 8b**. Overall, 35% of respondents reported livelihood gains associated with greater residential stability.

Figure 9 shows that community-based mechanisms facilitated a 30% increase in leases and titles, demonstrating meaningful progress in formalizing ownership among residents. The 35% rise in perceived tenure security further indicates that documentation efforts not only strengthened legal protection but also enhanced residents' confidence in the stability of their land rights.

DISCUSSION

Effectiveness of CBO Strategies

Baba Dogo's CBO mechanisms—ranging from CLTs to SACCOs—combine financial and social capital, adapting global practices to local conditions. CLTs secured long-term control for 20% of respondents, increasing formalization by

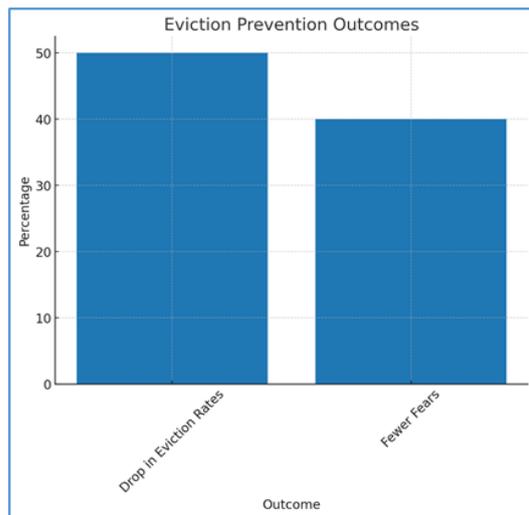


FIGURE 8a
 Eviction prevention outcomes
 Source: Field survey, 2025

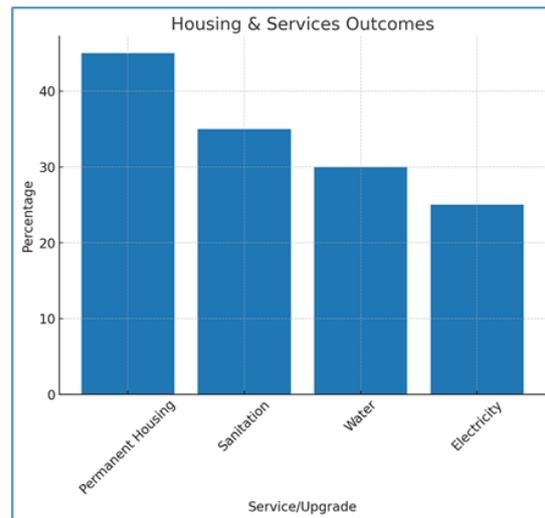


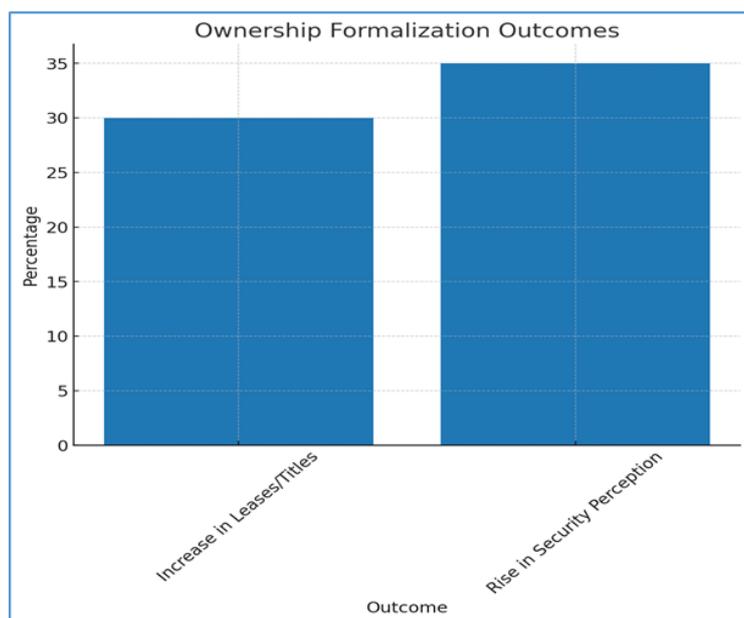
FIGURE 8b
 Housing and services improvement outcomes
 Source: Field survey, 2025

TABLE 4

Impacts of community-based mechanisms on eviction prevention, formalization, and service improvements

Impact Area	Empirical Evidence	Quantitative Outcomes
Eviction Prevention	Formal titles reduced threats; collective advocacy averted disputes	50% drop in rates; 40% fewer fears
Ownership Formalization	CBO loans/documentation led to leases/titles	30% increase; 35% security perception rise
Housing & Services	Upgrades in structures/infrastructure; better access to essentials	Housing: 45% permanent; Sanitation: 35%; Water: 30%; Electricity: 25%

Source: Field survey data and key informant interviews, 2025

**FIGURE 7**

Ownership formalization outcomes

Source: Field survey data and key informant interviews, 2025

25%, similar to South Africa's hybrid community land record systems that enhance resilience (Barry & Kingwill, 2020). SACCOs enabled 40% of participants to access credit, raising perceived security by 35%, reflecting results from Benin's cluster-based approaches to household stability (Asso et al., 2022). Putnam's (1993) conception of social capital helps explain how reciprocity transforms individual vulnerabilities into collective strength; AMT's networks, for example, brokered 35% of leases despite low-income levels (<30,000 KES/month). This extends Putnam's logic into Nairobi's hybrid tenure context, where customary claims (17.9%) often bridge gaps in statutory regimes, paralleling Ghana's socio-cultural sustainability dynamics (Asaaga et al., 2020).

Unlike the lease failures documented in Fiji (Kumari & Nakano, 2016), SACCOs in Baba Dogo conditioned loans on housing improvements, reducing eviction fears by 40%. Formalization (30% CBO-linked) contributed to improved housing—45% of respondents now live in permanent structures—and enhanced access to sanitation (35%), aligning with Zimbabwean findings on tenure and investment (Zikhali, 2010). Differences across mechanisms—CLTs strong in governance but limited by administrative capacity, SACCOs effective in credit delivery yet

prone to fraud (15%)—reinforce Mitlin's (2008) observations on the complexity of co-production. In the context of Thika Road-induced sprawl (Kasuku, 2024b), De Soto's (2000) argument that mobilization unlocks "dead capital" becomes evident. Baba Dogo's experience demonstrates scalable models of community-led tenure improvement, though sustained external support is necessary.

Challenges and Barriers

Despite notable gains, several structural constraints impede the full effectiveness of CBO strategies. Legal challenges persist: the coexistence of leasehold (73.1%) and customary claims (17.9%) leads to disputes, while 69.2% undocumented households face heightened insecurity, similar to bureaucratic bottlenecks noted in Nigerian tenure contexts (Okafor & Udobi, 2024). Financial strains also remain significant—80% of residents earn less than 30,000 KES—limiting contribution capacity and reflecting West African patterns where low income discourages investment (Ekpodessi & Nakamura, 2022). Limited access to credit (82.1% reporting barriers) reinforces poverty-eviction cycles, with 40% of respondents indirectly affected by past evictions.

Social fragmentation adds another layer of complexity: 25% reported community disputes,

exacerbated by large household sizes (37.5% with five members) and gendered burdens (55.1% female respondents), echoing findings from Burkina Faso on weakened social cohesion under insecurity (Valkonen, 2021). Infrastructure pressures associated with Thika Road development further stratify communities (Kasuku, 2024b), while gaps in basic services (25% lacking reliable electricity) heighten exposure to health risks (Reale & Handmer, 2011; Dachaga & Vries, 2022). These legal, financial, and social barriers reinforce inequality, mirroring elite capture dynamics seen in South African reforms (Ramutsindela & Mogashoa, 2013). Weak enforcement of the Community Land Act amplifies these challenges, underscoring ongoing institutional shortcomings.

Policy Implications for Sustainable Development

Scaling lessons from Baba Dogo requires formally integrating CBOs into national systems consistent with SDG 11. Recognizing CLTs within regularization processes could increase formal ownership by 30%, paralleling welfare improvements seen in Malawi's redistribution programmes (Mendola & Simtowe, 2015). Subsidizing SACCOs could improve credit access by 40%, aligning with evidence from Chinese conservation loan schemes (Long et al., 2024). Harmonizing transport and land-use policy—for example, incorporating CBOs into TOD initiatives along Thika Road—can mitigate displacement risks (Kasuku, 2024a). Fit-for-purpose administration remains key to building climate resilience (Mitchell et al., 2021).

Participatory mapping can help overcome documentation barriers (69.2%), following examples such as South African community gardens, which secured 50 sites through local engagement (Katusiime & Schütt, 2022). Broader Global South experience suggests hybrid governance models can halve eviction risks when community involvement is embedded (Oyebode, 2016). These insights provide actionable guidance for planners and policymakers seeking more equitable urban development pathways.

CONCLUSION

Summary of Key Findings

This study highlights persistent tenure insecurity in Nairobi's informal settlements: although 80.8% of households claimed ownership, 69.2% lacked

documentation, resulting in 98.7% reporting insecurity. Leaseholds (73.1%), mostly acquired through inheritance (37.2%) or allocation (39.7%), remain vulnerable to eviction, particularly among mid-aged (48.7%), modestly educated (41% primary), and informally employed (47.4%) residents with low incomes (80% earning below 30,000 KES) in large households (37.5% with five members). CBOs helped counter these vulnerabilities—SACCOs enabled 40% credit access, CLTs secured long-term control for 20%, and AMT supported 35% in obtaining leases. These interventions halved evictions, facilitated 30% formalization, and contributed to 45% transitioning to permanent housing. Mobilization activated De Soto's (2000) asset formalization logic and Putnam's (1993) social capital effects, improving sanitation (35%) and electricity access (25%), strengthening health outcomes (Dachaga & Vries, 2022), and helping mitigate sprawl pressures along Thika Road (Kasuku, 2024b). Overall, Baba Dogo demonstrates grassroots resilience with measurable socio-economic gains.

Broader Contributions

Positioned within Global South urbanism, this study provides empirical evidence on how CBO-led hybrid approaches operate amid contexts where 60% of the population lives in informal housing (UN-Habitat, 2020). It extends debates beyond Huchzermeyer's (2011) critiques by aligning Baba Dogo's outcomes with community-centered models in Benin (Asso et al., 2022) and South Africa (Barry & Kingwill, 2020). Building on De Soto (2000) and Putnam (1993), the findings show how community networks reduce credit constraints (82.1%) and limit environmental degradation, reflecting parallels with Ecuador's collective titling (Buntaine et al., 2015). Tenure insecurity intersects with broader inequalities—migration (Giles & Mu, 2014), disaster vulnerability (Reale & Handmer, 2011), and unsustainability (Asaaga et al., 2020)—yet Baba Dogo's 35% livelihood gains illustrate the transformative potential of community-led action. These results reinforce the relevance of fit-for-purpose administration (Mitchell et al., 2021) and rural–urban linkages (Oyebode, 2016), providing lessons for cities confronting sprawl such as Cape Town and Lagos.

RECOMMENDATIONS

Leverage Baba Dogo's insights by:

- i. Capacity-building for SACCOs and CLTs—especially in management and legal compliance—to reduce fraud risks (15%) and enable an additional 30% formalization, similar to Malawi's case (Mendola & Simtowe, 2015).
- ii. Policy reforms institutionalizing CBO participation, including amendments to the Land Use Policy and fuller application of the Community Land Act, to address documentation gaps (69.2%) and integrate TOD principles for settlement protection (Kasuku, 2024b; Zikhali, 2010).
- iii. Multi-stakeholder collaborations among NGOs, government agencies, and donors to expand microfinance and support community mobilization, addressing funding gaps highlighted in comparative models (Oyebode, 2016; Valkonen, 2021). These evidence-based measures can strengthen tenure security and support sustainable upgrading.

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