Drivers and Planning Implications of Rapid Urbanization in Emerging Secondary Towns in Nyamira County, Kenya

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ABSTRACT

Urbanization is rapidly transforming emerging secondary towns across Sub-Saharan Africa, yet the drivers of this growth and their implications for urban planning remain insufficiently understood, particularly at the local scale. This study examines the drivers of rapid urbanization and their planning implications in Nyamira County, Kenya. A mixed-methods approach was employed, drawing on data from 479 respondents, including urban residents, business operators, landlords, and planning officials. Quantitative data were analyzed using descriptive statistics, while qualitative insights were interpreted thematically to capture underlying dynamics. The findings indicate that urbanization is driven by a combination of economic opportunities (63.0%), access to social services (53.4%), population growth (50.9%), and transport and connectivity (41.3%), which operate as an interconnected and self-reinforcing system. These drivers collectively shape spatial expansion, housing demand, and infrastructure pressure, leading to planning challenges such as informal settlements, service deficits, and environmental degradation. The study demonstrates that urbanization in secondary towns is not a linear process but a system-driven phenomenon influenced by the interaction of multiple socio-economic and spatial factors. By integrating Agglomeration Theory, Urban Systems Theory, and the Sustainable Livelihoods Framework, the study advances a systems-based understanding of urban growth and establishes a direct linkage between urbanization drivers and planning outcomes. The findings highlight the need for anticipatory, integrated, and data-driven planning approaches to support sustainable urban development in emerging secondary towns.

Keywords: Urbanization; Secondary towns; Urban planning; Agglomeration; Sustainable livelihoods; Kenya

INTRODUCTION

Urbanization is one of the most significant socio-spatial transformations shaping global development in the twenty-first century. More than half of the world's population resides in urban areas, and this proportion is projected to increase substantially (United Nations, 2019). Urban centres drive economic growth, innovation, and social transformation through the concentration of infrastructure and services. However, when growth exceeds institutional capacity, it leads to unregulated expansion, infrastructure deficits, environmental degradation, and socio-spatial inequalities (UN-Habitat, 2020; World Bank, 2023).

In Sub-Saharan Africa, urbanization is occurring rapidly, driven by rural–urban migration, natural population increase, and socio-economic transformation. While this creates opportunities for livelihood diversification, many urban centres lack the planning systems required to accommodate growth, resulting in informality and service deficits (African Development Bank, 2022).

Emerging secondary towns play a critical role as intermediary nodes linking rural and urban economies. However, they often experience rapid growth without corresponding planning and infrastructure investment (World Bank, 2020). Nyamira County reflects these dynamics. Towns such as Nyamira, Keroka, and Kebirigo have expanded due to migration, population growth, and agricultural linkages. However, this growth has occurred with limited planning, resulting in informal settlements, housing deficits, and inadequate services.

Despite their importance, secondary towns remain under-researched, and urbanization drivers are often studied separately from planning outcomes. This study addresses this gap by examining the drivers of urbanization and their implications for planning in Nyamira County, offering a systems-based understanding of urban growth.

LITERATURE REVIEW

Introduction

Urbanization is a transformative process reshaping socio-economic systems, spatial organization, and environmental dynamics globally. While large metropolitan areas have traditionally dominated urban discourse, emerging secondary towns are increasingly recognized as critical nodes of regional development. These towns link rural and urban economies, facilitate trade, and provide access to essential services. However, their rapid and often unregulated growth presents significant planning challenges, particularly in developing regions.

While these dynamics are widely acknowledged, existing literature often treats urbanization processes and planning outcomes as separate analytical domains, limiting a comprehensive understanding of how growth dynamics translate into spatial and infrastructural challenges. This creates a gap in linking urbanization drivers to observable planning outcomes.

Global Perspectives on Urbanization and Secondary Towns

Urbanization continues to accelerate globally, with projections indicating that nearly 68 percent of the world's population will reside in urban areas by 2050 (United Nations, 2019). A substantial proportion of this growth is occurring in secondary cities and smaller urban centres, which function as intermediary nodes connecting rural hinterlands to national and global markets (OECD, 2021; World Bank, 2020).

Despite their growing importance, many secondary towns lack adequate infrastructure, institutional capacity, and effective planning systems to manage rapid expansion, resulting in informal and fragmented urban growth patterns. These challenges often manifest in inefficient land use, service delivery gaps, and long-term spatial disorganization (Angel et al., 2016; Henderson & Turner, 2020).

However, global urban scholarship continues to focus disproportionately on large metropolitan regions, resulting in limited empirical depth on the specific dynamics of secondary towns, particularly in Sub-Saharan Africa. This limits the development of context-sensitive planning approaches for rapidly growing smaller urban centres.

Drivers of Rapid Urbanization

Economic Opportunities

Economic opportunities are widely recognized as a primary driver of urbanization, particularly in secondary towns where informal economies and small-scale enterprises dominate (Tacoli, 2017; World Bank, 2023). These centres enable livelihood diversification by allowing households to engage in both farm and non-farm activities while maintaining rural–urban linkages (OECD, 2022).

However, this transformation often unfolds within weakly regulated and largely informal economic systems, where limited planning oversight contributes to congestion, inefficient land use, and emerging spatial pressures. This reflects the broader phenomenon of urbanization without industrialization observed in many Sub-Saharan African contexts (Fox & Goodfellow, 2021).

While the literature clearly establishes the role of economic drivers, it provides limited insight into how these forces translate into spatial outcomes such as infrastructure deficits and informal settlement growth.

Demographic Pressure and Migration

Urban expansion is driven by both rural–urban migration and natural population increase. Migration is influenced by push factors such as declining agricultural productivity and environmental stress, and pull factors including employment, education, and healthcare opportunities (FAO, 2021; UN-Habitat, 2022).

Recent studies highlight dynamic mobility patterns, including circular and seasonal migration, alongside sustained natural population growth (UN DESA, 2019). Together, these processes exert continuous pressure on housing, infrastructure, and service delivery systems, particularly in contexts where planning capacity is limited. However, migration and population growth are often examined separately, with limited attention to how their interaction produces sustained and reinforcing urban expansion in secondary towns.

Infrastructure and Connectivity

Infrastructure development plays a central role in shaping urbanization by enhancing accessibility and facilitating economic activity. Transport networks stimulate settlement growth and attract investment by linking urban centres with surrounding regions (Henderson & Turner, 2020; World Bank, 2020).

In many secondary towns, however, infrastructure provision remains reactive rather than anticipatory, often lagging behind rapid population and spatial growth. This misalignment contributes to service delivery inefficiencies, increased costs, and reinforces unplanned spatial expansion (UN-Habitat, 2020). This highlights a disconnect between infrastructure provision and urban growth trajectories, underscoring the need for integrated planning approaches.

Governance and Institutional Factors

Governance systems significantly influence urbanization outcomes. Decentralization has contributed to the growth of secondary towns by attracting public investment and administrative functions (World Bank, 2023).

Nevertheless, weak institutional capacity, limited financial resources, and inadequate enforcement of planning regulations continue to constrain effective urban management. These governance limitations often interact with rapid urban growth to produce informal development patterns and fragmented land-use structures (African Development Bank, 2022; UN-Habitat, 2020).

Although governance constraints are widely acknowledged, there is limited empirical analysis of how these institutional weaknesses interact with urbanization drivers to shape planning outcomes.

Urbanization in Sub-Saharan Africa, Kenya, and Nyamira County

Sub-Saharan Africa is experiencing the fastest urban growth globally, driven by migration, population increase, and economic transformation (African Development Bank, 2022).

However, this growth is frequently characterized by a combination of infrastructure deficits and weak planning systems, resulting in widespread informality and uneven service provision (Fox & Goodfellow, 2021; World Bank, 2023).

Kenya reflects these trends, with rapid urban expansion occurring in both major cities and emerging secondary towns. These towns serve as key centres for trade and administration but often experience unregulated growth due to institutional constraints (UN-Habitat, 2020; Owino et al., 2019).

Nyamira County exemplifies these dynamics. Urban centres such as Nyamira Town, Keroka, and Kebirigo have expanded rapidly due to economic activity, demographic pressure, and improved connectivity. However, this growth has largely occurred without coordinated planning, resulting in informal settlements and infrastructure deficits. Despite these realities, empirical studies linking urbanization drivers to planning outcomes at the county level remain limited.

Urban Planning Implications of Rapid Urbanization

Rapid urbanization places significant pressure on planning systems, particularly in emerging secondary towns. A central challenge lies in the mismatch between the pace of population growth and the capacity of infrastructure and planning systems to respond effectively, often resulting in overcrowding, declining service quality, and

uncoordinated spatial development (World Bank, 2023). Weak enforcement of planning regulations further reinforces these challenges by contributing to fragmented and unregulated urban expansion.

Environmental sustainability is also a major concern, as unplanned urban expansion results in pollution and increased vulnerability to climate risks (UNEP, 2022). However, much of the literature treats these planning challenges as outcomes without clearly linking them to underlying drivers, limiting the development of integrated responses.

Research Gaps

Despite extensive research on urbanization, several gaps remain. First, most studies focus on major cities, with limited attention to secondary towns. Second, there is insufficient integration between urbanization drivers and planning outcomes. Third, localized empirical studies at the county level in Kenya remain scarce. In addition, limited attention is given to multi-stakeholder perspectives that capture how different actors experience and influence urbanization processes.

While existing studies provide valuable insights into the drivers of urbanization, they often examine these factors in isolation, with limited attention to how they interact to produce cumulative spatial and infrastructural outcomes. This fragmented approach constrains the development of integrated planning responses, particularly in rapidly growing secondary towns. Furthermore, much of the empirical literature remains concentrated on large metropolitan areas, leaving secondary towns under-theorized despite their growing significance in regional development systems. This study addresses these gaps by adopting a systems-based perspective that explicitly links urbanization drivers to planning outcomes within a localized context.

SUMMARY OF LITERATURE REVIEW

The literature shows that urbanization is driven by interconnected economic, demographic, infrastructural, and institutional factors. While these drivers create development opportunities, they also generate planning challenges, particularly where growth outpaces institutional capacity.

This review highlights the need for an integrated approach that links urbanization drivers to planning outcomes within specific local contexts. This study addresses this need by providing empirical evidence from Nyamira County and advancing a systems-based understanding of urban growth.

THEORETICAL FRAMEWORK (CITATION-ENHANCED VERSION)

Introduction

This study is anchored in theoretical perspectives that explain the dynamics of urbanization and its spatial and socio-economic implications. The analysis draws on Agglomeration Theory, Urban Systems Theory, and the Sustainable Livelihoods Framework, which together provide a multi-dimensional understanding of urban growth in emerging secondary towns.

Building on the identified gap in linking urbanization drivers to planning outcomes, this study applies Agglomeration Theory, Urban Systems Theory, and the Sustainable Livelihoods Framework as analytical lenses (UN-Habitat, 2020; World Bank, 2023).

These theoretical perspectives are complementary, as each explains distinct but interconnected dimensions of urbanization, including economic concentration, spatial interaction, and livelihood strategies. This integrated theoretical approach enables a systems-based interpretation of urbanization, where multiple drivers interact dynamically rather than operating in isolation (Güneralp et al., 2020; Seto et al., 2021).

Agglomeration Theory

Agglomeration Theory explains urban growth as a result of the spatial concentration of economic activities, where firms and individuals benefit from proximity through reduced costs, shared infrastructure, and expanded market access (Fujita, Krugman, & Venables, 1999).

In the context of this study, the theory explains why economic opportunities emerge as a dominant driver of urbanization, as individuals and businesses are attracted to areas with existing economic activity. This perspective is particularly useful in interpreting the clustering of commercial and service activities observed in emerging urban centres within Nyamira County.

In this study, Agglomeration Theory is specifically used to interpret how localized economic drivers such as employment opportunities, trade activities, and market access contribute to spatial concentration and sustained urban expansion.

However, the theory assumes the presence of efficient markets and well-developed infrastructure, which may not fully apply in developing contexts where economic activities are largely informal and infrastructure systems are underdeveloped.

This limitation highlights the need to adapt classical agglomeration principles to contexts characterized by informality, where clustering occurs without large-scale industrialization, as observed in many Sub-Saharan African urban systems (Fox & Goodfellow, 2021; Cobbinah & Aboagye, 2021).

Urban Systems Theory

Urban Systems Theory conceptualizes urban areas as interconnected systems linked through flows of people, goods, services, and information (Berry, 1964). It emphasizes the functional relationships between urban centres and their surrounding regions.

In this study, the theory explains the role of secondary towns in linking rural and urban economies and facilitating regional development. It is particularly relevant in understanding how transport and connectivity influence urban growth patterns.

Within this study, Urban Systems Theory is applied to examine how connectivity and infrastructure shape spatial interactions, influence settlement patterns, and integrate emerging urban centres into broader regional systems (Henderson & Turner, 2020; World Bank, 2020).

However, the theory tends to underemphasize governance and institutional constraints, which are critical in shaping urbanization outcomes in developing regions.

To address this limitation, the study incorporates governance considerations to explain how weak planning systems influence the spatial outcomes of urban growth, particularly in the form of unregulated expansion and infrastructure deficits (UN-Habitat, 2020).

Sustainable Livelihoods Framework

The Sustainable Livelihoods Framework focuses on how individuals and households combine various assets and strategies to improve their well-being (DFID, 1999). It highlights the importance of access to economic opportunities, social services, and infrastructure in shaping livelihood outcomes.

In this study, the framework is relevant in explaining why access to services and income opportunities drives migration into urban areas and supports livelihood diversification.

The framework is applied to interpret how households respond to economic and welfare opportunities, shaping migration decisions, settlement patterns, and the persistence of urban growth in secondary towns (UN DESA, 2019; World Bank, 2019).

However, the framework is less explicit in explaining spatial and structural dimensions of urbanization, particularly in relation to land-use change and infrastructure development. This limitation underscores the importance of integrating livelihood-based perspectives with spatial and economic theories to provide a more comprehensive understanding of urbanization processes.

Conceptual Framework

The study adopts a conceptual framework that links key drivers of urbanization, including economic opportunities, social services, population dynamics, housing demand, and transport connectivity, to urban growth outcomes such as spatial expansion, infrastructure pressure, and environmental change. These relationships are mediated by governance and planning systems, which influence how effectively urban growth is managed.

This conceptual framework operationalizes the theoretical perspectives by translating abstract concepts into measurable variables and observable relationships, thereby providing a structured basis for empirical analysis. The framework recognizes that these drivers operate in an interconnected manner, creating feedback loops that reinforce urbanization processes. For instance, economic opportunities attract population, which increases demand for housing and services, further stimulating urban expansion.

This systems-based representation establishes a direct linkage between theory and empirical analysis, ensuring that the study moves beyond descriptive reporting to explain how urbanization drivers interact to produce specific planning outcomes (Güneralp et al., 2020; Seto et al., 2021).

The framework therefore supports a comprehensive understanding of urbanization dynamics in Nyamira County and highlights the non-linear nature of urban growth, where changes in one component trigger cascading effects across the entire system.

Importantly, the framework serves as the analytical bridge connecting the literature review, empirical findings, and discussion, ensuring coherence across all sections of the study.

METHODOLOGY

Study Area

The study was conducted in Nyamira County, located in southwestern Kenya within the former Nyanza region. The county borders Kisii, Bomet, Kericho, and Homa Bay counties and is characterized by high population density, fertile soils, and moderate to high rainfall, which support intensive agricultural activities.

In recent years, Nyamira County has experienced rapid urban expansion, particularly in centres such as Nyamira Town, Keroka, and Kebirigo, which serve as key administrative and commercial hubs. The county was selected due to its observable urban transformation, making it an appropriate case for examining the drivers and planning implications of urbanization in emerging secondary towns (UN-Habitat, 2020; World Bank, 2023).

Research Design

The study adopted a descriptive survey design using a mixed-methods approach, integrating quantitative and qualitative data to capture both measurable trends and contextual insights on urbanization drivers and planning challenges (Creswell & Creswell, 2018). This design was appropriate for examining both the extent of urbanization and the underlying factors that are influencing it.

Target Population

The study targeted key stakeholder groups involved in urban development, including urban residents, business operators, landlords, and planning officials. These groups were selected due to their direct involvement in and experience of urbanization processes within the study area. The inclusion of multiple stakeholder groups enhanced the representativeness of the data and enabled analysis across social, economic, and institutional dimensions (UN-Habitat, 2020).

Sample Size and Sampling Techniques

A stratified sampling approach was employed to ensure proportional representation across key stakeholder categories, including urban residents, business operators, landlords, and planning officials. Within each stratum,

purposive sampling was applied to identify respondents with direct experience and knowledge of urbanization processes, particularly in the selection of key informants such as planning officials. This combined approach ensured both statistical representativeness and contextual relevance, enabling the study to capture diverse perspectives across the social, economic, and institutional dimensions of urbanization. The relatively large sample size (n = 479) further strengthens the reliability of the findings and supports meaningful cross-group comparisons. It also enhances the analytical depth of the study by allowing patterns to be examined across different stakeholder categories, thereby increasing confidence in the consistency and robustness of the observed results within the study context.

Data Collection Methods

Primary data were collected using structured questionnaires and key informant interviews. Questionnaires were administered to urban residents, business operators, and landlords to generate quantitative data, while interviews with planning officials provided qualitative insights.

The integration of these methods enhanced the depth and reliability of the findings by capturing both statistical patterns and contextual explanations (Creswell & Creswell, 2018).

Data Analysis

Quantitative data were analyzed using descriptive statistics, including frequencies and percentages, while qualitative data were analyzed thematically following established approaches (Braun & Clarke, 2006). This approach enabled the identification of key patterns and relationships and supported triangulation across data sources.

Validity and Reliability

To ensure data quality, research instruments were pre-tested through a pilot study, and necessary adjustments were made prior to full data collection. Reliability was assessed using Cronbach's alpha, which yielded a coefficient of 0.79, indicating acceptable internal consistency (Nunnally, 1978).

Validity was strengthened through triangulation of data sources by integrating quantitative survey data with qualitative insights from key informant interviews. This combined approach reduced single-source bias and enhanced the credibility of the findings (Creswell & Creswell, 2018). In addition, construct validity was reinforced by aligning the research instruments with established theoretical frameworks, including Agglomeration Theory and the Sustainable Livelihoods Framework, ensuring that the variables measured correspond directly to the conceptual constructs underpinning the study.

Ethical Considerations

The study adhered to ethical research standards throughout the data collection process. Participation was voluntary, and respondents were informed about the purpose of the study. Confidentiality and anonymity were maintained, and data were used strictly for academic purposes. The following section presents the empirical findings derived from this analytical approach.

RESULTS AND EMPIRICAL ANALYSIS

Overview of Respondents

The study analyzed data from 479 respondents drawn from key stakeholder groups within the urban system of Nyamira County. These included 231 urban residents, 132 business operators, 98 landlords, and 18 planning officials. This distribution ensured that the study captured diverse perspectives, including lived experiences, economic activities, housing dynamics, and institutional insights.

The inclusion of multiple stakeholder categories strengthens the analytical depth of the study and enhances the reliability of findings through triangulation (Creswell & Creswell, 2018; UN-Habitat, 2020). It also reflects the interconnected roles of households, markets, and governance structures in shaping urban outcomes, consistent with systems-based interpretations of urbanization (Berry, 1964; World Bank, 2020).

Drivers of Rapid Urbanization

The analysis is informed by Agglomeration Theory, Urban Systems Theory, and the Sustainable Livelihoods Framework, which together provide a structured basis for interpreting urban growth dynamics. The findings show that urbanization in Nyamira County is driven by a combination of economic, social, demographic, and infrastructural factors. As presented in Table 5.1, economic opportunities are the most influential driver (63.0%), followed by access to social services (53.4%), population growth (50.9%), and transport and connectivity (41.3%).

Table 5.1: Overall Drivers of Urbanization (All Respondents, n = 479)

Driver	Frequency (n)	Percentage (%)
Economic opportunities	302	63.0%
Access to social services	256	53.4%
Population growth	244	50.9%
Transport and connectivity	198	41.3%

Source: Field data (2025)

These drivers operate in an interconnected manner, reinforcing each other and sustaining urban expansion. Economic opportunities tend to attract population and investment, which increases demand for housing, services, and infrastructure. This process contributes to a cumulative and self-sustaining pattern of urban growth.

From a theoretical perspective, this pattern reflects spatial concentration effects associated with Agglomeration Theory (Fujita et al., 1999), the role of connectivity emphasized in Urban Systems Theory, and household-level adaptation captured in the Sustainable Livelihoods Framework. Together, these dynamics indicate that urbanization in secondary towns is shaped by interacting forces rather than a single dominant factor.

Cross-Group Analysis of Urbanization Drivers

Table 5.2: Drivers by Stakeholder Group

Stakeholder Group	Dominant Driver	Frequency	Percentage
Urban Residents (n = 231)	Social services	148	64.1%
Business Operators (n = 132)	Economic opportunities	94	71.2%
Landlords (n = 98)	Housing demand	63	64.3%
Planning Officials (n = 18)	Population growth	13	72.2%

Source: Field data (2025)

Urbanization is experienced differently across stakeholder groups. Urban residents emphasize access to services, business operators focus on economic opportunities, landlords highlight housing demand, and planning officials point to population growth. These variations reflect differences in roles and priorities, while their convergence around key drivers strengthens the validity of the findings through cross-group consistency (Creswell & Creswell, 2018).

Economic Opportunities as the Core Driver

Table 5.3: Economic Opportunity-Related Drivers (n = 479)

Economic Factor	Frequency (n)	Percentage (%)
Employment opportunities	289	60.3%
Business and trade opportunities	302	63.0%
Income diversification	247	51.6%
Market access	268	56.0%

Source: Field data (2025)

Economic opportunities form the foundation of urban growth. Employment, trade, and market access shape both migration and settlement decisions. These findings support Agglomeration Theory, although clustering occurs largely within informal and small-scale economic systems rather than formal industrial structures (Fujita et al., 1999; Fox & Goodfellow, 2021).

Social Services as Drivers of Settlement Stability

Table 5.4: Social Service Drivers (n = 479)

Factor	Frequency (n)	Percentage (%)
Education access	256	53.4%
Healthcare access	241	50.3%
Water and sanitation	219	45.7%
Transport access	198	41.3%

Source: Field data (2025)

Access to social services influences both migration and long-term settlement. Education and healthcare are particularly important, as they support household well-being and encourage permanent settlement. Within the Sustainable Livelihoods Framework, these services function as key assets that strengthen resilience and support livelihood strategies (DFID, 1999).

Housing and Land Pressure

Table 5.5: Housing and Land Drivers (n = 479)

Factor	Frequency (n)	Percentage (%)
Rental demand	263	54.9%
Residential expansion	241	50.3%
Rising land values	228	47.6%
Informal settlements	197	41.1%

Source: Field data (2025)

Housing demand reflects the spatial consequences of urbanization. Increasing rental demand and land values indicate strong market-driven expansion, often shaped by private actors. This pattern aligns with findings from other African cities where weak regulation contributes to informal development (Kombe, 2021; Watson, 2020).

Population and Demographic Pressure

Table 5.6: Population Drivers (n = 479)

Factor	Frequency (n)	Percentage (%)
Rural-urban migration	244	50.9%
Natural population growth	238	49.7%
Youth population	221	46.1%
Household formation	207	43.2%

Source: Field data (2025*)*

Urban growth is sustained by both migration and natural population increase. This combination creates continuous demand for housing and services, reinforcing long-term urban expansion (United Nations, 2018; Fox et al., 2022).

Transport and Connectivity

Table 5.7: Transport and Connectivity Drivers (n = 479)

Factor	Frequency (n)	Percentage (%)
Road networks	198	41.3%
Public transport	184	38.4%
Reduced travel time	176	36.7%
Market accessibility	205	42.8%

Source: Field data (2025)

Transport and connectivity enhance mobility and economic interaction. These factors support spatial integration and amplify other drivers of urbanization, although infrastructure development often remains reactive (UN-Habitat, 2020).

Planning Implications of Rapid Urbanization

Table 5.8: Planning Challenges (n = 479)

Challenge	Frequency (n)	Percentage (%)
Inadequate infrastructure	276	57.6%
Pressure on services	263	54.9%
Unplanned settlements	249	52.0%
Environmental degradation	221	46.1%
Transport strain	198	41.3%

Source: Field data (2025)

Rapid urbanization has led to infrastructure deficits, service pressure, and informal settlement growth. These outcomes reflect a mismatch between the pace of urban expansion and the capacity of planning systems to respond effectively.

Table 5.9: Link between Drivers and Planning Outcomes

Driver	Mechanism	Outcome
Economic opportunities	Labour influx	Infrastructure strain
Population growth	Increased demand	Service pressure
Housing demand	Informal markets	Unplanned settlements
Connectivity	Spatial expansion	Urban sprawl

Source: Field data (2025)

These findings show a clear link between urbanization drivers and planning outcomes. Planning challenges emerge as systemic consequences of uncoordinated growth rather than isolated failures (UNEP, 2022; World Bank, 2019).

DISCUSSION

This study examined the drivers of rapid urbanization in Nyamira County based on empirical data from 479 respondents, including urban residents, business operators, landlords, and planning officials. The findings show that urbanization in emerging secondary towns is shaped by interacting economic, social, demographic, and infrastructural forces that operate within a reinforcing system. This supports the view that urbanization is better understood as a system-driven process rather than a linear or single-factor phenomenon.

Although these drivers are closely interconnected, their influence is not uniform. Economic opportunities emerge as the primary catalysts, initiating labour mobility and attracting investment. Social services play a stabilizing role by encouraging long-term settlement, while population growth provides the demographic momentum that sustains expansion over time. Transport and connectivity act as enabling conditions that strengthen the impact of other drivers by improving spatial integration and mobility. This variation in influence points to a clear hierarchy in which different drivers perform distinct but complementary roles within the broader urbanization process.

The empirical results reinforce this interpretation. Economic opportunities account for 63.0 percent of responses, followed by access to social services at 53.4 percent, population growth at 50.9 percent, and transport and connectivity at 41.3 percent. This pattern aligns with contemporary urban theory, which views urbanization as a complex and interconnected process shaped by multiple forces operating simultaneously (UN-Habitat, 2020; Güneralp et al., 2020; Seto et al., 2021). Drawing on Agglomeration Theory, Urban Systems Theory, and the Sustainable Livelihoods Framework, the findings illustrate how these drivers interact to produce both spatial and socio-economic outcomes.

The interaction between these drivers is not only structural but also unfolds over time. Economic opportunities tend to precede migration, which is then followed by increased demand for social services and housing. As these pressures grow, they intensify demands on infrastructure and contribute to spatial expansion. Over time, this sequence develops into a self-reinforcing urbanization cycle in which early economic attraction evolves into sustained demographic growth and long-term spatial transformation.

The findings further suggest that urban growth in Nyamira County can be understood as a self-reinforcing socio-spatial system. Economic opportunities initiate growth, social services stabilize populations, demographic processes sustain expansion, and infrastructure facilitates spatial restructuring. Together, these processes form a coherent cycle that explains both the pace and structure of urban expansion in emerging secondary towns. This supports a systems-based interpretation of urbanization in which drivers are linked through feedback relationships rather than acting independently (Güneralp et al., 2020; Seto et al., 2021).

These patterns are not unique to Nyamira County. Similar dynamics have been observed in other Sub-Saharan African contexts, where economic opportunities, service accessibility, and demographic pressures drive the growth of secondary towns, often in environments characterized by weak planning systems and informal development (Cobbinah & Aboagye, 2021; Kombe, 2021). This broader alignment suggests that the processes identified in this study reflect wider regional trends, strengthening the external validity of the findings.

Economic opportunities stand out as the most influential driver, with business and trade activities, employment prospects, and market access shaping both migration and settlement decisions. These findings are consistent with Agglomeration Theory, which emphasizes the role of spatial concentration in attracting labour and investment (Fujita, Krugman, & Venables, 1999). At the same time, the results extend this perspective by showing that such clustering often occurs within informal and small-scale economic systems rather than formal industrial structures. This reinforces arguments that urbanization in Sub-Saharan Africa frequently occurs without industrialization and is instead driven by localized market systems and livelihood diversification (Fox & Goodfellow, 2021; Cobbinah & Aboagye, 2021).

Access to social services also plays a critical role in shaping settlement patterns. Education, healthcare, water, sanitation, and transport services act as stabilizing factors that convert temporary migration into long-term settlement. Within the Sustainable Livelihoods Framework, these services represent key assets that enhance household resilience and support adaptive livelihood strategies (DFID, 1999; World Bank, 2019). Urbanization in this context therefore reflects not only spatial movement but also broader processes of socio-economic adaptation.

Housing demand and land pressure provide a clear link between demographic and economic drivers and their spatial outcomes. Rising rental demand, residential expansion, increasing land values, and the growth of informal settlements point to strong market-driven urban expansion. The prominent role of landlords suggests that urban growth is largely shaped by private actors rather than coordinated planning systems. This pattern is consistent

with findings from other African cities, where weak regulatory enforcement contributes to informal development and fragmented spatial growth (Kombe, 2021; Ndezi, 2022; Watson, 2020).

Demographic dynamics further reinforce urban growth. The near-equal contribution of rural–urban migration and natural population increase indicates that urbanization is both externally driven and internally sustained. Additional factors such as youth population growth and household formation further intensify demand for housing and services. This combination creates a continuous and structurally embedded growth pattern that places sustained pressure on planning systems (United Nations, 2018; Fox et al., 2022).

Transport and connectivity function as enabling mechanisms that amplify other drivers. Improved road networks and increased market accessibility enhance mobility and economic integration, particularly in peri-urban areas. These findings extend Urban Systems Theory by demonstrating that secondary towns act as active nodes within regional systems, where connectivity shapes not only movement but also spatial organization and land-use patterns (Berry, 1964; World Bank, 2020).

Differences across stakeholder groups further highlight the complexity of urbanization processes. Business operators emphasize economic drivers, urban residents prioritize access to services, landlords focus on housing demand, and planning officials highlight population growth. These perspectives reflect the varied roles and interests of different actors within the urban system. At the same time, their convergence around key drivers reinforces the structural nature of urbanization and strengthens the validity of the findings through cross-stakeholder triangulation (Creswell & Creswell, 2018).

The study also reveals a reinforcing urbanization cycle in which economic opportunities attract population, population growth increases demand for housing and services, and infrastructure enhances accessibility, further accelerating expansion. However, this cycle operates within a context of weak planning systems. As a result, significant challenges emerge, including inadequate infrastructure, pressure on social services, unplanned settlements, and environmental degradation.

These outcomes point to a structural mismatch between the pace of urban growth and the capacity of planning systems to manage it effectively. They suggest that planning challenges are not isolated failures but rather systemic consequences of uncoordinated urbanization processes. Environmental degradation further highlights the long-term costs of unregulated expansion (UNEP, 2022).

Importantly, the findings indicate that the core issue lies not in urbanization itself, but in governance and planning capacity. The persistence of reactive planning approaches reflects institutional limitations that constrain the ability to anticipate and guide urban growth. This underscores the need for a shift toward anticipatory, integrated, and systems-based planning approaches that align economic, demographic, and spatial dynamics (World Bank, 2023; UN-Habitat, 2020).

Overall, the findings confirm that urbanization outcomes in Nyamira County emerge from the interaction of multiple drivers operating within a constrained planning environment. Addressing these challenges requires coordinated, data-informed, and forward-looking urban management strategies that are capable of responding to the complexity and pace of urban growth in emerging secondary towns.

CONCLUSION AND POLICY IMPLICATIONS

Conclusion

This study provides an empirically grounded explanation of rapid urbanization in emerging secondary towns using evidence from Nyamira County, Kenya. The findings show that urbanization is shaped by a self-reinforcing system of economic, demographic, infrastructural, and welfare dynamics rather than isolated factors.

Economic opportunities play a central role by attracting labour and stimulating market activity. These processes are sustained by access to social services and livelihood diversification, while demographic dynamics, including migration and natural population growth, reinforce expansion over time. Transport and connectivity further

support these processes by enhancing spatial integration. Together, these forces create a reinforcing cycle that explains the persistence and acceleration of urban growth.

The study contributes to urban scholarship by showing that economic clustering in secondary towns often occurs within informal and low-capital environments. It also demonstrates that secondary towns function as active nodes of regional development, while highlighting the role of urbanization as a household-level adaptation strategy linked to socio-economic opportunities.

The findings establish a direct relationship between urbanization drivers and planning outcomes. Economic attraction, population growth, and connectivity generate sustained pressure on infrastructure, services, land markets, and the environment. Challenges such as informal settlements and infrastructure deficits are therefore better understood as outcomes of uncoordinated urban growth.

The evidence suggests that the patterns observed in Nyamira County reflect broader processes shaping urbanization across Sub-Saharan Africa. Urbanization itself is not the core problem. The challenge arises when planning systems fail to keep pace with the scale and structure of growth. Addressing this requires integrated, anticipatory, and data-informed planning approaches that can guide urban development more effectively.

Policy Recommendations

The findings highlight the need for structural reforms in urban planning, governance, and infrastructure development to align with rapid urbanization dynamics.

Strengthening institutional capacity is essential. County governments should invest in technical expertise, staffing, and planning resources to enhance the ability of urban authorities to anticipate and manage growth effectively (UN-Habitat, 2020; World Bank, 2023).

Planning systems must transition from reactive to anticipatory approaches through forward-looking spatial plans that incorporate population projections, land-use forecasting, and infrastructure alignment. Such planning can reduce long-term service deficits and improve efficiency.

Infrastructure investment should be synchronized with urban growth. Integrated provision of water, sanitation, transport, and waste management systems is necessary to support expanding populations and improve service delivery (World Bank, 2023).

Urban land and housing markets require stronger regulation to manage expansion. Policies should promote affordable planned housing and support the upgrading of informal settlements, improving spatial organization and inclusivity.

Environmental sustainability must be integrated into planning frameworks through enforcement of regulations, protection of sensitive areas, and sustainable waste management practices to enhance long-term resilience (UNEP, 2022).

Coordination between transport and land-use planning is also critical. While connectivity supports growth, it must be managed to prevent uncontrolled expansion. Integrated planning can promote compact and efficient urban forms.

Finally, planning processes should incorporate data-driven decision-making. The use of geospatial technologies and monitoring systems will improve responsiveness to emerging urban trends and strengthen governance capacity.

Final Policy Insight

The evidence from Nyamira County shows that the main challenge facing emerging secondary towns is not the speed of urbanization but the lack of planning systems capable of managing its complexity. Effective urban governance must move toward integrated approaches that align economic growth, demographic change, spatial development, and environmental sustainability (World Bank, 2023).

Without such alignment, urbanization may reinforce inequalities and inefficiencies. However, when strategically guided, it has strong potential to support inclusive growth, regional development, and sustainable transformation in Sub-Saharan Africa.

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