



# **BETWEEN THE TRANSITORY AND THE PERMANENT: THE DADAAB REFUGEE CAMP AND THE KIBERA SLUM, KENYA**

**ENTRE O TRANSITÓRIO E O PERMANENTE: O CAMPO DE  
REFUGIADOS DE DADAAB E A FAVELA DE KIBERA, QUÊNIA**

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## ABSTRACT

This article examines the transitory and the permanent attributes that help differentiate and approximate refugee camps and informal urban areas. It takes as a case study the Dadaab refugee camp and the informal area of Kibera, both in Kenya and with unique demographic volumes in the global scenario. The analysis begins by describing these two urban compartments and proceeds to compare their spatial structures and relationships with their surroundings, aiming to determine which exhibits a higher degree of formality and, consequently, a greater level of external control. The comparative analysis was conducted through three main procedures: (1) the construction of mosaics with 50 m<sup>2</sup> cells, in which three patterns of land subdivision, use and occupation, and mobility were qualitatively assessed; (2) the classification of the degree of formality observed in each pattern across the two study areas; and (3) the identification of shared and distinctive features within each compartment, enabling the confirmation of their respective levels of formality and their relative tendencies toward resilience. The results suggest that the formality observed in refugee camps gives rise to an urban structure that is as enduring as the informality characterizing slums, yet marked by a more regulated and institutionalized permanence. These findings underscore the need for new forms of urbanism, planning, and emergency management that pragmatically integrate the notion of the transitory as a constitutive and lasting element of urban life.

**Keywords:** Urbanism in the Global South. Informal areas. Refugee camps. Daddab camp. Kibera slum

## RESUMO

Este artigo examina o transitório e o permanente como atributos analíticos capazes de diferenciar ou aproximar campos de refugiados e assentamentos urbanos informais. Adota como estudo de caso o campo de refugiados de Dadaab e a área informal de Kibera, ambos localizados no Quênia e caracterizados por expressivos volumes demográficos no contexto global. A análise parte da descrição desses dois espaços e avança para a comparação de suas estruturas urbanas e de suas relações com o entorno, com o objetivo de identificar qual delas revela maior grau de formalidade e, portanto, potencial para uma permanência mais qualificada. A análise comparativa foi estruturada em três procedimentos principais: 1) construção de mosaicos com células de 50 m<sup>2</sup>, nos quais foram avaliados qualitativamente três padrões de parcelamento do solo, uso e ocupação e mobilidade; 2) classificação do grau de formalidade desses três padrões nos dois recortes analisados; e 3) identificação dos aspectos comuns e singulares de cada compartimento, capazes de confirmar o grau de formalidade e, conseqüentemente, indicar qual área apresenta maior tendência à permanência qualificada. Os resultados indicam que a formalidade observada nos campos de refugiados se organiza sobre uma estrutura urbana tão permanente quanto a informalidade das favelas, porém com uma permanência significativamente mais qualificada. Esses achados apontam para a necessidade de um novo urbanismo, de uma gestão urbana e de ações emergenciais que incorporem em suas práticas o pragmatismo de reconhecer o transitório como permanente.

**Palavras-chave:** Urbanismo do Sul Global. Áreas informais. Campos de refugiados. Campo de Daddab. Favela de Kibera.

## INTRODUCTION

In studies of urban development in the Global South, informal settlements and refugee or migrant camps hold considerable importance. According to the World Cities Report 2024 (WCR, 2024), approximately 1.1 billion currently live in informal settlements. The report further notes that the growth of these populations has outpaced the capacity of cities to effectively manage urban informality.. According to the UNHCR Global Report (2024), the number of refugees increased from 117.3 million in 2023 to 123.2 million in 2024, while funding for humanitarian action became even more insufficient, with the budget deficit widening from 48% to 52%. Beyond the worsening of conditions in both camps and informal settlements, these spaces can be understood as geographic environments that provide precarious shelter for displaced populations across and within national borders (Huq & MirafTAB, 2020), characterized by spatial forms that have evolved historically and continuously from specific socio-political contexts.. Both cases address the conditions of contemporary urban permanence. In this context, the notion of urban permanence refers not only to the temporal dimension but also to the varying degrees of insecurity in managing these spaces, stemming from the potential for forced relocations and the presence or absence



of land tenure recognition.

In both contexts, rising populations, persistent stigmatization, and limited acceptance by formal urban systems are evident. While informal settlements are often targeted for transformation into formalized spaces through relocation or integration with surrounding areas, operational refugee camps face political and economic pressures to be dismantled, likewise through relocation or the incorporation of refugees into other urban environments. Despite these idealized interventions, both spaces resist such pressures and exhibit a tendency toward self-consolidation as distinct forms of permanence. Nevertheless, it remains essential to ensure that what is intended to be permanent attains true stability, while temporary conditions are reframed as positive and dynamic processes of adaptation in the use and appropriation of urban services and infrastructure. Although both contexts share a disregard for the initial premise of transitory occupation, they differ markedly in their processes of formation, dissolution, and consolidation.

The United Nations itself underscores the inherently temporary nature of refugee camps, noting that durable solutions for refugees are achieved through three possible pathways—each predicated on the eventual dissolution of the camp structure: 1) voluntary repatriation to the country of origin; 2) local integration within the host country; 3) resettlement in a third country (UNHCR, 2016). This indicates that even though many refugee camps have acquired substantial urban dimensions (such as the Dadaab camp studied here) and existing for more than five decades, as in the case of the Katumba camp in Tanzania, their urban dynamics remain rooted in the temporary logic under which they were conceived and continue to be administered. In effect, these spaces can be interpreted as both a solution and a symptom of the broader refugee crisis (Turner, 2015).

The comparative analysis between informal settlements and refugee camps broadens our understanding of the conditions of permanence characterizing these spaces, drawing in both cases on an extensive repertoire of accumulated experiences, achievements, and shortcomings. This comparison, aimed at informing public policy design, is justified by the fact that both spaces, in their origins, were not conceived as permanent. In both cases, permanence does not exclusively mean the assurance of rights, but rather the continuation of urban relationships and spatial appropriations at a qualitatively lower level than those of their surrounding contexts. This condition calls for a clear distinction between the various types and degrees of permanence and transitoriness. In terms of principal similarity, the initial assumption



or intended temporariness of these two typologies of urban compartment is undeniable; however, the processes through which they shape their morphologies differ markedly: if on the one hand, informal settlements typically emerge without prior urban planning or regulatory guidance, on the other hand, refugee camps are established under clearly defined frameworks—either to meet logistical demands or to facilitate territorial control measures that remain spatially isolated from their surrounding environments.

The notion of regional development is central to this study as it provides a framework for interpreting the relationship between permanence and transitoriness in the Kibera informal settlement and the Dadaab refugee camp. Through the lens of regional development, it becomes possible to examine in a multidimensional manner the processes of transformation (development) occurring within a specific territorial context (regional) (Mattedi, 2015). In this sense, expanding the understanding of transitoriness and qualified permanence in Kibera and Dadaab requires a regionalized analytical approach to the dynamics of territorial transformation. More specifically, it entails examining the relationship between the Kibera informal settlement and the city of Nairobi, as well as the connection between the Dadaab camp and the forced displacement of populations from Somalia.

This study compares these two urban typologies through case studies in Kenya: the Dadaab refugee camp complex—comprising the Ifo, Hagadera, and Dagahaley camps— and the Kibera informal settlement, regarded as one of the largest in Africa and originally composed of 19 villages). The comparative analysis seeks to determine which spatial structure exhibits a higher degree of formality and, consequently, a greater potential for qualified permanence. The concept of qualified permanence is directly associated with the level of formality, based on the premise that the higher the degree of formality, the more structured and stable the resulting permanence tends to be. Thus, the research is based on the hypothesis that refugee camps exhibit an urban structure characterized by a generally higher level of qualified permanence than informal settlements, owing to two main factors: 1) the international attention they receive, which translates into investments and the establishment of structured planning and management systems; 2) the more structured territorial organization of the camps, allowing for potential long-term consolidation.

The literature has examined the relationship between informal settlements and refugee camps through a variety of analytical perspectives. Matrouk and Szécsi (2023) examine the marginalization of Palestinian refugee camps that initially emerged informally and, after seven decades, have acquired a

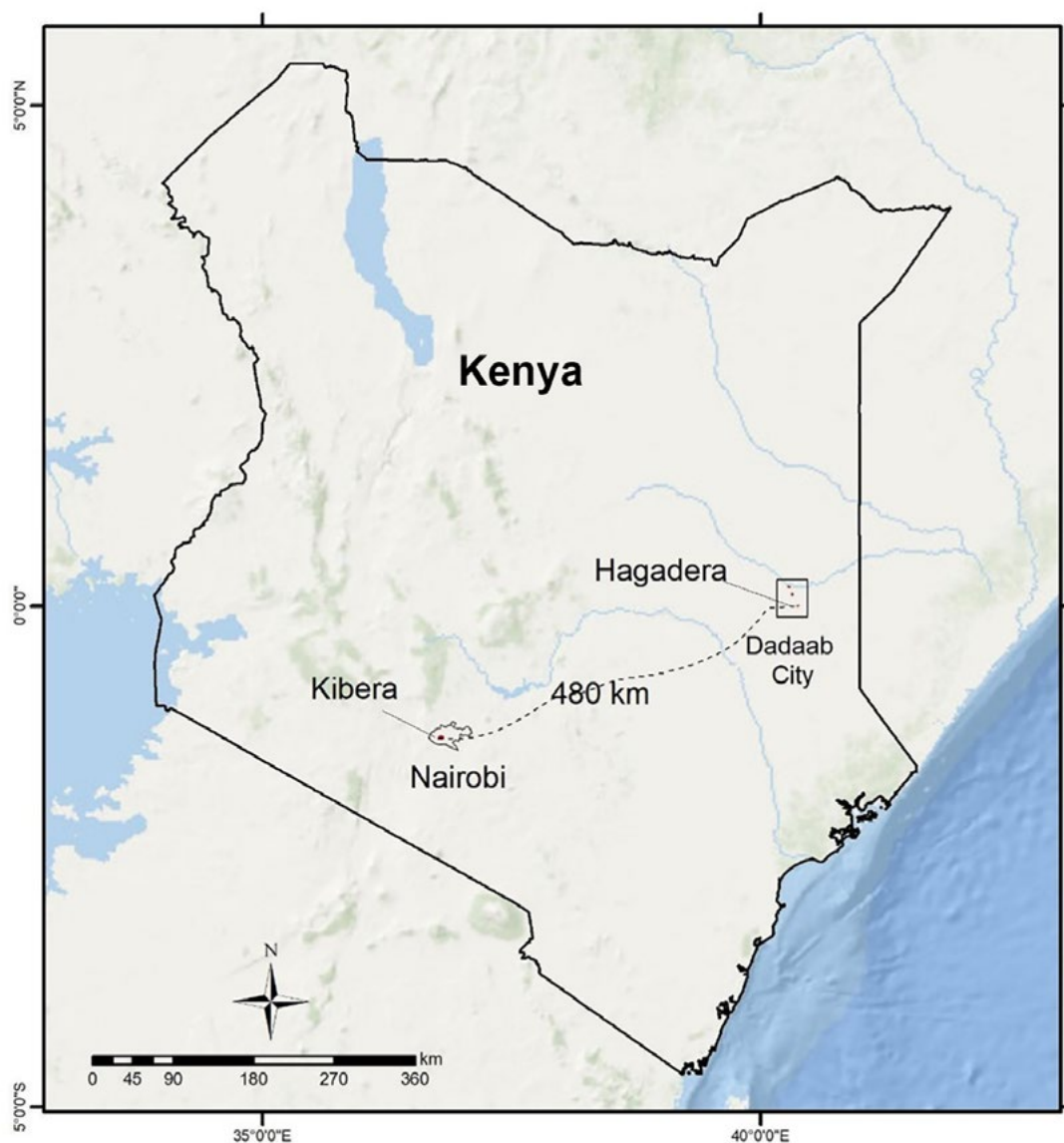
permanent yet still informal character within the urban context. Crea, Calvo, and Loughry (2015) compare the quality of life of refugees residing in camps with those living in urban settings, emphasizing that refugees integrated into cities tend to exhibit a higher quality of life. Still discussing the permanence of camps, Keswani (2021) highlights the importance of the refugees' right to the city, arguing that camps should be regarded as parts of sustainable urban planning. Finally, the work of Al-Homoud and Samarah (2025) demonstrates how refugee camps can undergo morphological transformations, evolving from planned grid layouts to more organic and informal spatial configurations. Despite these diverse approaches, the gap remains that this research seeks to address —namely, the analysis of the degree of formality and the potential for qualified permanence.

To verify this hypothesis, five main methodological procedures were applied: 1) construction of three mosaics with 50 m<sup>2</sup> cells for Kibera and three mosaics for Dadaab; in each mosaic, the following were qualitatively assessed: land subdivision, land use and occupation, and road network (it should be noted that, considering that the Dadaab camp complex presents a relatively uniform urban structure across the so-called sectors of Ifo, Dagahaly, and Hagadera, only the Hagadera settlement was used in the comparative analysis, to ensure consistency in area proportion with Kibera); 2) each cell of these mosaics was assigned a score, which represented the degree of formality of the area. For this qualitative classification of the cells, OpenStreetMap data, Google Maps aerial images from 2023, and Google Street View data for Kibera were used. For Hagadera, OpenStreetMap, Google Maps aerial images from 2023, and —specifically for the land use mosaic—UN land use data (UNHCR, 2020) were used. Thus, although the procedure was identical for both study areas, the qualitative analysis of Hagadera incorporated UN mapping data as a complement in the assessment of land use; 3) Each 50 m<sup>2</sup> cell of the three mosaics created for each area was assigned a score reflecting its relative degree of formality (low degree of formality = 1, medium = 2, and high = 3); 4) for each cell, an arithmetic mean of the scores obtained from the three analyzed dimensions was calculated, resulting in single mosaic was obtained for Kibera and a single mosaic for Hagadera, each representing the overall degree of formality in terms of land use, land subdivision, and road network; 5) finally, a comparative analysis was conducted between the mosaics representing the degree of formality in Kibera and Dadaab, aiming to identify the spatial patterns that confirm the respective levels of formality and, consequently, reveal which areas demonstrate a stronger tendency toward qualified permanence.

## THE COMPARTMENTS WE STUDIED

To answer the question/objective of our research—which spatial structure exhibits a higher degree of qualified permanence—we selected the cases: the Kibera informal settlement in Nairobi and the Hagadera sector of the Dadaab refugee camp (both located in Kenya). Analyzing two settlements within the same national context allows for a closer alignment of the socioeconomic and environmental conditions of their respective surroundings (Figure 1).

**Figure 1** | Location and proximity of Kibera and Dadaab.



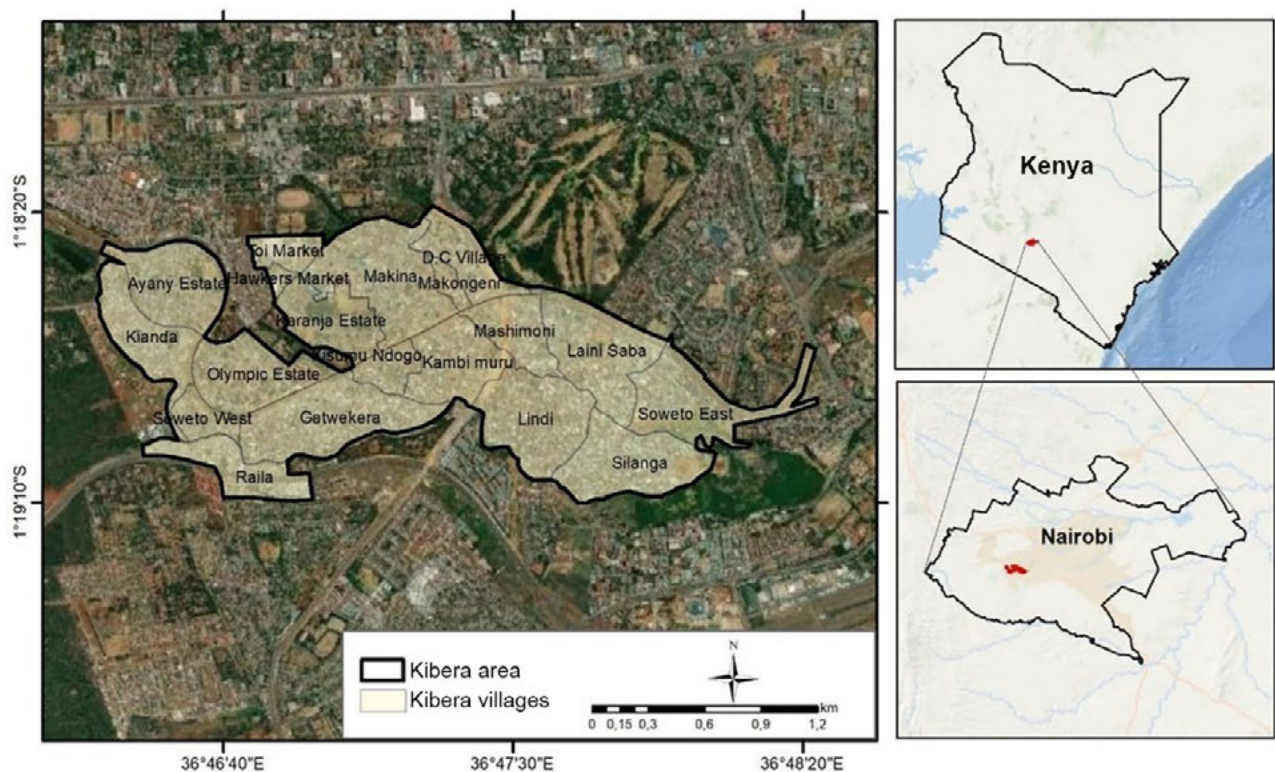
Source: prepared by the authors, 2025.





The Kibera informal settlement is located 5 km southwest of Nairobi's city center. Established in 1912, initially covering 550 hectares (in 1971), it was later reduced to roughly 225 hectares to allow for the creation of neighborhoods planned under the city's formal administration (Mukeni, 2018). Kibera's development is closely linked to its proximity to Nairobi, which provides residents with access to a broader range of economic opportunities, particularly employment. Although some estimates suggest a population exceeding 700,000 inhabitants (Desgrippes & Taupin, 2011), it is important to consider the data from the most recent available census, which, according to these authors, indicates a population of approximately 200,000 people. This demographic volume is encompassed within that of Nairobi, which currently has approximately 5 million inhabitants (Nairobi City, 2023), about 2 million of whom live in informal settlements (Nestico et al., 2025). Although often presented as a single, homogeneous slum, Kibera is perceived by its residents as a cluster of settlements comprising 19 distinct yet contiguous villages (Figure 2) (Panek, 2017).

**Figure 2** | Location and surroundings of Kibera.

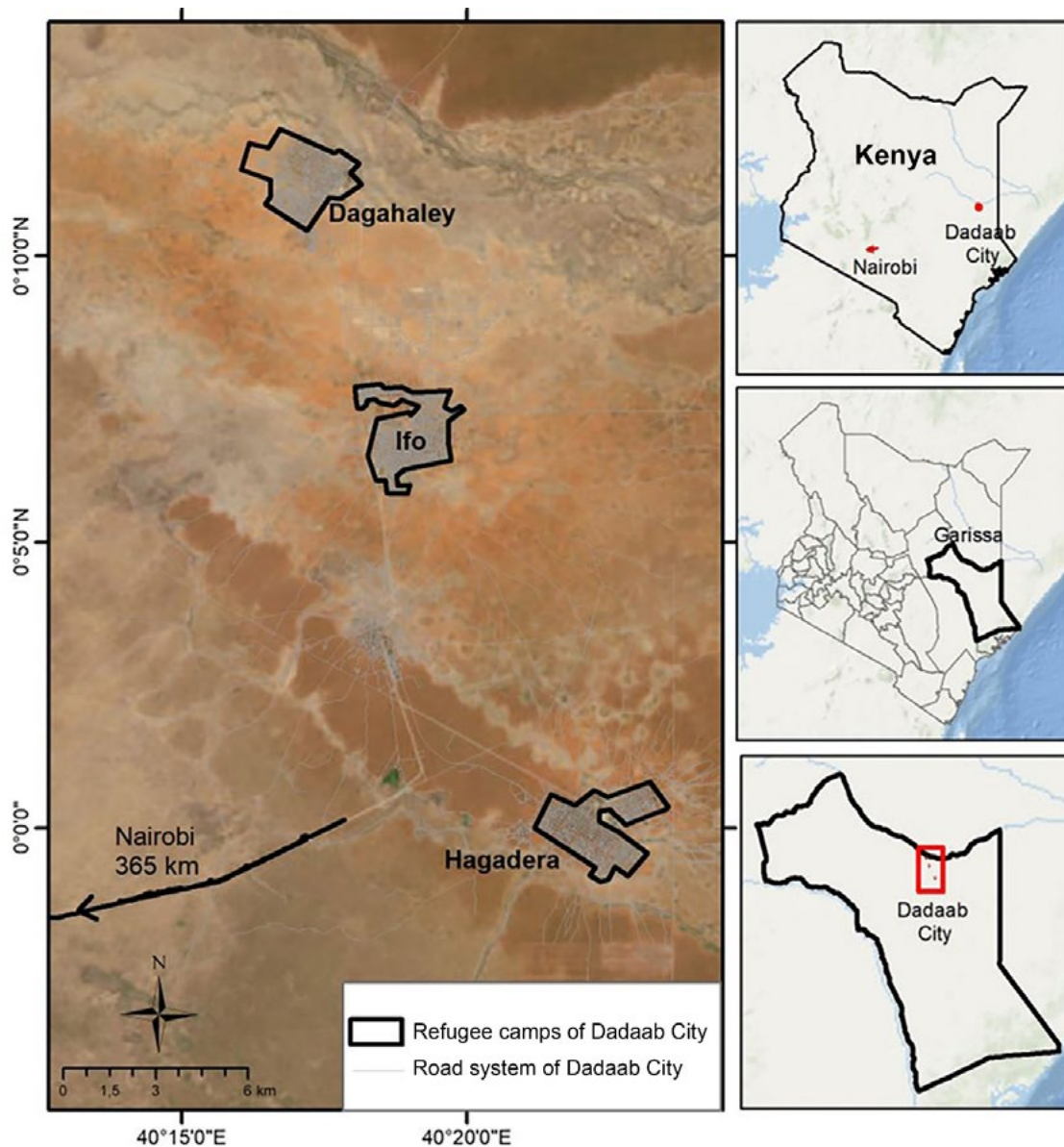


Fonte: elaborated by the authors, 2025.



Regarding the Dadaab refugee camp, it can be identified as the largest active refugee complex in terms of population. Established in 1990, the complex comprises three distinct sectors—Ifo, Hagadera, and Dagahaley (Figure 3)—which together host approximately 230,000 people, the majority of whom are refugees from Somalia (UNHCR, 2023). In the UN agency’s own description of the camp, the resemblance between a facility originally established for emergency and temporary purposes and the structure of traditional cities in impoverished regions is unmistakable. Its landscape mirrors that of organically developed towns that evolve into commercial hubs, linking northeastern Kenya to Somalia (UNHCR, 2023).

**Figure 3** | Location and surroundings of Dadaab.



Source: elaborated by the authors, 2025.



As in Kibera, the scale and urban structure of Dadaab suggest a condition of irreversibility. Whereas Kibera has developed and consolidated through its proximity to Nairobi and the economic potential of its surroundings, the Dadaab camp functions as a catalyst for transformation in its adjacent areas:

The arrival of refugees attracted humanitarian organizations to the region, and with them came roads, a functioning urban center, and the extensive infrastructure of the camps, which over time evolved into an effectively operating urban system. Funding for education, health, infrastructure, and water services was introduced, and the predominantly pastoral host community gradually began, in some cases, to establish small businesses near the camps (UN-HABITAT, 2021, p.43, our translation).

Once the *de facto* permanence of both urban compartments has been established—contradicting the initial objectives underlying their creation—it becomes necessary to discuss the degree to which these forms of permanence are qualified.. While Kibera benefits from its position as an urban compartment embedded within the formal structure of the capital, allowing greater physical and social integration, Dadaab remains subject to international governance and is situated in a sparsely populated area with predominantly rural characteristics and limited metropolitan dynamics. Nevertheless, there is evidence that the camp’s operations indirectly generate benefits for the broader urban dynamics of the formal town of Dadaab.

Regarding Kibera’s occupation process, its consolidation can be characterized as intrinsically irreversible (Mukeyu, 2018). As population density increased, local authorities began to recognize the settlement as a special zone requiring focused planning and management. However, this pragmatic shift did not prevent subsequent planning efforts and urban projects from applying design and management standards significantly lower than those adopted in the surrounding formal areas. According to Mukeyu (2018), one of the factors contributing to Kibera’s recognized permanence has been the implementation of small-scale infrastructure projects initiated either by residents themselves or by aid organizations. However, the pursuit of formal land ownership continues to face significant challenges: it is estimated that over 90% of plots are occupied by unregulated tenants (Mukeyu, 2018), introducing an additional layer of complexity that at times conveys a sense of permanence and, at others, one of transitoriness within the settlement. This situation immediately calls for a clear distinction between transitoriness and insecurity of permanence, as they represent distinct conditions and perceptions. The issue of tenancy is further compounded by the fact that a significant proportion of Kibera’s property owners are politicians and government officials—the very actors responsible for formulating and implementing public policies in

Nairobi. In this context, what emerges is a pattern of deliberate maintenance of Kibera's existing conditions of permanence (Mukeku, 2018), reaffirming its continued existence while remaining far from achieving a state of qualified permanence..

Most housing units in Kibera consist of single-room dwellings averaging approximately 9 m<sup>2</sup> in area and constructed with temporary materials such as wattle and daub walls and corrugated metal sheet roofing (Nestico et al., 2025). The lack of setbacks and the narrow frontage of the plots restrict openings to a single door and window, producing poorly ventilated and inadequately lit environments with unsanitary living conditions.. The compact layout and limited number of rooms result in mixed-use spaces that serve multiple household functions within a single environment. This spatial configuration further exacerbates living conditions, as polluting fuels are frequently used for cooking and lighting (Mukeku, 2018). Regarding public space, the absence of prior urban planning is evident in the organically developed and unstructured road network (Figure 4). The main roads, which concentrate commerce and services, function as the settlement's structural axes and central activity corridors. From these main roads, access to the interior of the blocks is provided through narrow alleys that do not permit vehicle entry—including emergency vehicles such as fire trucks and ambulances.

**Figure 4** | Inadequate road system and settlement patterns in Kibera



Source: authors' archive, 2024.



These characteristics allow Kibera's urban structure to be summarized in three main road typologies: 1) Primary roads: routes with a relatively high degree of formality that traverse the settlement, linking Kibera to the broader urban network of Nairobi, complementing the city's formal road system, and ensuring motorized accessibility for residents; 2) Secondary roads: internal routes with sufficient width and alignment to accommodate vehicle traffic and to support adjacent commercial and service activities of local relevance; 3) Tertiary roads: narrow alleys that cannot accommodate vehicles but allow pedestrian, bicycle, and motorcycle access to the interior of the blocks and the majority of housing units.

In the case of the Dadaab refugee camp, two key aspects stand out concerning the provision of services, infrastructure, and permanence: 1) the national-level political uncertainties that affect the camp's integration with its surroundings, the duration of stay within its boundaries, and the potential for repatriation to countries of origin; and 2) the relationship between refugees and host communities: Although the Dadaab camp functions as an attracting force for the surrounding area, as previously noted, it faces evident challenges in integrating with nearby residents and activities beyond its boundaries. Ikanda (2008), for instance, observes that the local population often stigmatizes refugees for being relatively better off economically, receiving greater external assistance, and engaging in commercial activities that disrupt long-standing social and economic dynamics. Thus, competition for scarce resources in the impoverished semi-arid region intensifies the rivalry between the population of the Dadaab camp and that of its surrounding communities, reinforcing the tangible nature of the camp's physical boundaries. Ikanda's (2008) observation underscores the need for emergency-oriented projects to broaden their scope of intervention—specifically by incorporating humanitarian initiatives and programs that also address the needs of local populations and adopt a more comprehensive territorial perspective on the phenomenon. Once again, the pragmatic acceptance of permanence in the face of these ongoing conditions becomes evident and, to some extent, justified..

In general, refugee camps are characterized by several defining features: segregation from the host population, the need to share facilities, lack of privacy, overcrowding, and a confined area that restricts residents' daily activities. These conditions reinforce the state of dependency among camp inhabitants, perpetuating their exceptional, limited, and controlled status (Schmidt, 2006). This description accurately reflects the conditions observed in Dadaab.



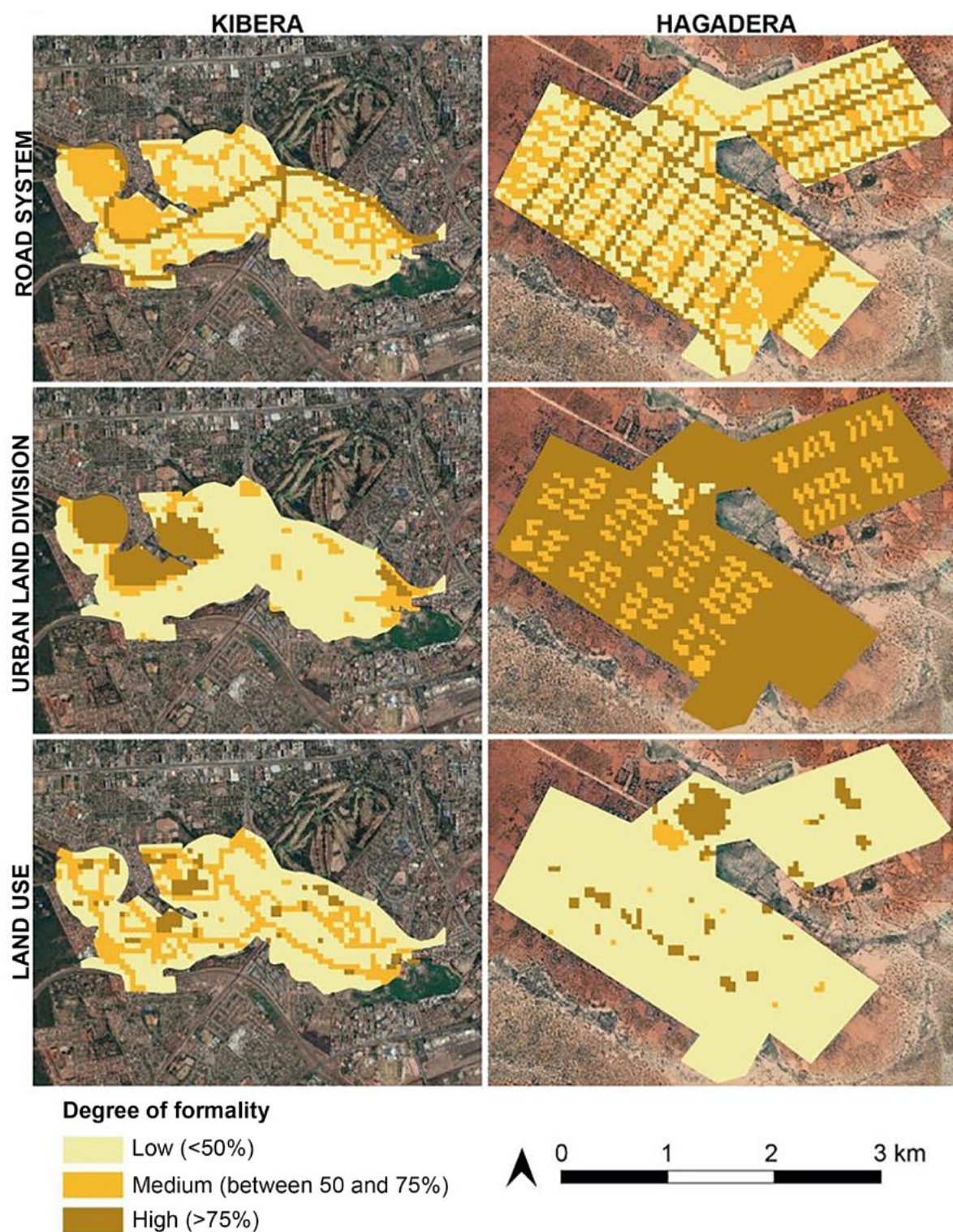
Undeniably, refugee camps replicate many of the urban challenges found in informal or low-income settlements: food insecurity, lack of means for subsistence, weak or absent public administration, and, in this context, social relations shaped by limited historical continuity, demographic instability, and a pervasive sense of transitoriness. If addressing such issues within permanent, legally recognized, and planned cities already presents a considerable challenge, doing so in a space conceived as temporary—constrained by scarce resources and complex global diplomatic dynamics—approaches the impossible.. This amplifying nature of urban problems becomes evident through the similarities that refugee camps share with informal settlements. According to Dalal (2022), the resemblance between camps and slums lies primarily in their parallel modes of development—both evolve in relative isolation from the State and are characterized by their roles as spaces of refuge and shelter, conditions that inherently define them as marginalized..

## COMPARATIVE ANALYSIS: PERMANENCE AND TRANSITORINESS

The degree of formality observed in the two study areas suggests distinct capacities for future qualitative improvement, depending on their initial conception, original mode of occupation, and relationship with the surrounding environment. The analysis presented in this article aims to examine and compare the degree of formality in these two types of settlements. To conduct the comparative assessment, three main methodological procedures—previously outlined in the introduction—were followed: 1) Construction of three mosaics with 50 m<sup>2</sup> cells for Kibera and three for Hagadera (it is important to note that the Dadaab camp complex exhibits a relatively uniform urban structure across its sectors—IFO, Dagahaley, and Hagadera. Therefore, to ensure proportional comparability in terms of area, only the Hagadera settlement was analyzed). In each mosaic, the following aspects were qualitatively assessed: land subdivision, land use and occupation, and the road network.; 2) Each cell within these mosaics was assigned a score representing the degree of formality of the area. For this qualitative classification, OpenStreetMap data, Google Maps aerial imagery from 2023, and Google Street View data were used for Kibera. For Hagadera, OpenStreetMap data, Google Maps aerial imagery from 2023, and, complementarily, UN land use data (UNHCR, 2020) were employed. Thus, although the procedure remained consistent for both study areas, the qualitative analysis of Hagadera incorporated UN mapping data as a complementary source. Each 50 m<sup>2</sup> cell across the three mosaics for each area was then assigned a score reflecting its relative degree of formality (low = 1, medium = 2, and high = 3) (Figure 5)..



**Figure 5** | Mosaics of the degree of formality of the road network, land subdivision, and land use.



Source: the authors, 2025.





To identify the degree of formality in the structure and organization of the road network, each complex was evaluated according to the following criteria: (1) the presence of paved roads; (2) the presence of sidewalks; (3) the existence of structural routes that support motorized traffic within the settlement and connect it to surrounding areas; and (4) evidence of planned road organization, observed through elements such as the maintenance of unobstructed cross-sections and the absence of sharp or irregular curves. Based on these criteria, each cell within the road network mosaic was qualitatively classified. For both Kibera and Hagadera, information corresponding to each criterion was derived from the georeferenced database of existing road axes available on the OpenStreetMap platform. Subsequently, aerial imagery and the Google Street View tool were employed to analyze each road segment and to classify the degree of formality within the road network mosaic. In this classification, cells with a low degree of formality correspond to those where less than 50% of the roads display the observed characteristics; a medium degree of formality corresponds to 50–75% compliance; and a high degree of formality corresponds to more than 75%. This mapping (Figure 5) enables the identification of areas where the road network exhibits higher or lower levels of formality..

When comparing the formality-degree mosaics of Kibera and Hagadera, it becomes evident that formality is more evenly distributed across the refugee camp and more spatially concentrated in Kibera. This indicates that the planned block layout of Hagadera produces a more organized and structurally coherent urban environment, where only a few areas—typically the block interiors—remain vulnerable to informal occupation. In contrast, Kibera’s high building density and limited number of planned roads hinder territorial organization, resulting in extensive informal zones accessible only by foot. Another significant aspect is the relationship between formality and urban vitality: the higher the degree of formality, the greater the diversity of land use. While in Kibera, vitality disperses along the road network, in Hagadera commercial and service activities are concentrated around the camp’s institutional support structures, reproducing the spatial configuration of a small, mono-nuclear urban center..

To determine the degree of formality in land subdivision, the analysis considered the following criteria: (1) the presence of a planned organizational structure (i.e., when lots and blocks are clearly identifiable); (2) the existence of setbacks between buildings; and (3) the integration of lots with the road network (i.e., when lots face a road). Accordingly, areas with a low degree of formality correspond to

cells in which fewer than 50% of the lots display these characteristics; a medium degree corresponds to 50–75%; and a high degree corresponds to more than 75%. To assign the degree of formality to each cell, aerial imagery from Google Earth was examined..

The land subdivision in the Hagadera camp follows an orthogonal grid layout established through planned implementation, resulting in a high degree of formality across most of the settlement. This initial planned occupation, characterized by ample space for construction, enabled more widely spaced buildings with lateral and rear setbacks. However, a more organic and uncontrolled occupation pattern with higher building density can be observed within the larger blocks, where the interior areas exhibit a medium degree of formality. Additionally, there are concentrated zones where building density produces continuous built mass without setbacks between structures, which were classified as having a low degree of formality..

The land subdivision in the Kibera complex, by contrast, follows an unplanned and organic spatial pattern characterized by higher building density. As a result, the settlement consists of a continuous built mass with minimal or no setbacks between structures. In addition to the high density, many buildings are accessible only through narrow pedestrian alleys. Consequently, most of the Kibera settlement exhibits a low degree of formality. However, isolated pockets of high formality can be observed, represented by blocks—including some vertical housing complexes—where lot boundaries and a degree of spatial organization and control are identifiable. Unlike Hagadera, the areas of higher formality in Kibera are compact and spatially isolated from the broader urban fabric.

Thus, when comparing the land subdivision patterns of Hagadera and Kibera, it becomes evident that in Kibera, areas with a low degree of formality are more frequent and spatially widespread, whereas highly formalized areas appear only in small, isolated clusters. In Hagadera, the opposite pattern emerges: zones of high formality are more prevalent and evenly distributed across the camp's territory, while areas of low formality—characterized by greater building density—occur as isolated pockets. Accordingly, the predominance of high and medium formality in Hagadera's land subdivision indicates a significantly greater potential for the qualified consolidation of its urban structure when compared with Kibera.

The contrast in land subdivision between Kibera and Hagadera becomes clear when analyzing the building density of the two settlements. In Kibera, the absence of lateral and rear setbacks results in extremely high building density, whereas in the Hagadera camp, the presence of setbacks between structures and private, tree-lined outdoor areas (Figure 6) demonstrates a more spacious and organized form of occupation. This configuration reflects a markedly higher standard of building quality in Hagadera compared with Kibera..

**Figure 6** | Occupation Pattern of Hagadera (with lateral setbacks) and Kibera (buildings without lateral setbacks).



Source: the authors, 2025.

Finally, to classify the degree of formality in the land use and occupation mosaics of Kibera and Hagadera, three primary categories of use were identified: (1) predominantly residential use; (2) mixed use (commercial and service functions); and (3) public or institutional use. Cells with a low degree of formality correspond to those in which more than 75% of the occupation is residential; a medium degree of formality applies when over 75% of the occupation is mixed use; and a high degree of formality characterizes cells where more than 75% of the occupation is public or institutional.. It is important to note that while the Kibera mosaic was produced using OpenStreetMap data and imagery available on Google Maps (including Street View and user-marked land uses), the Hagadera mosaic was developed based on the land use survey provided by UN-Habitat (2021). The availability of such cartographic information—although originally created for different purposes—demonstrates the existence of basic planning tools that could support potential initiatives to transform the camp into a permanent urban settlement. This contrasts with the case of Kibera, where the scarcity of spatial information is considerably greater.

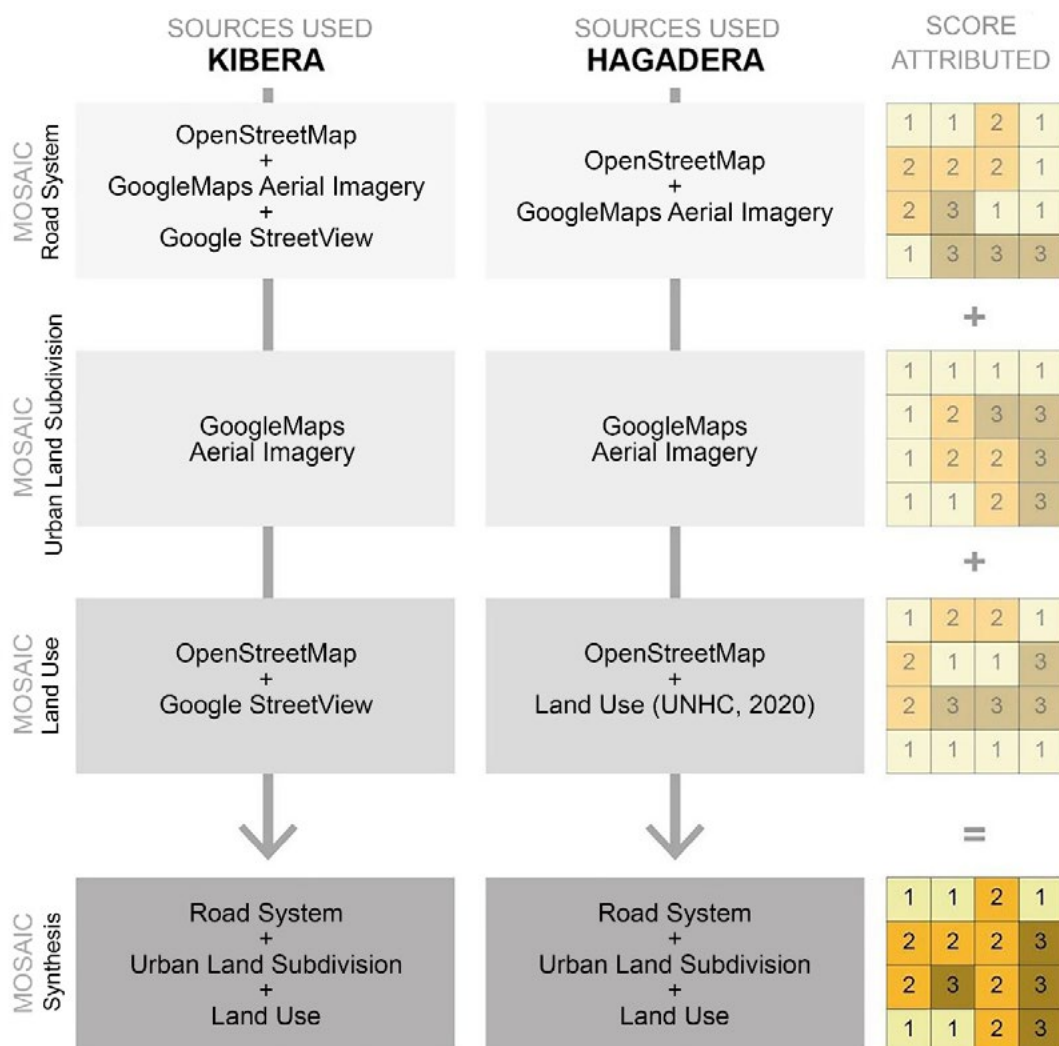
In Hagadera, land use and occupation are distributed as follows: approximately 57% residential, 33% open or undeveloped space, 8.2% public and institutional use, and only 1.6% commercial use (UN-Habitat, 2021). An analysis of the spatial distribution of these categories reveals that commercial activities are concentrated in specific commercial clusters, whereas residential and public/institutional uses are more evenly dispersed throughout the camp. Public and institutional areas primarily encompass educational and health facilities, as well as UN structures that provide operational support to the camp. In contrast, in Kibera, mixed-use development aligns predominantly with the main road network.

This configuration establishes a clear distinction between the residential clusters—characterized by limited vitality and restricted accessibility—and the main roads, which facilitate mobility, attract higher pedestrian flow, and consequently support a greater diversity of uses. In Kibera, mixed use and urban vitality are more widely dispersed across the settlement, whereas in Hagadera, these activities are concentrated within a commercial core adjacent to the public and institutional area that accommodates the UN's camp support facilities.. This contrast may stem from the differing demographic concentrations of the two settlements—Kibera being denser and more compact, while Hagadera is more spatially dispersed.



The analyses conducted through the mosaics made it possible to assess the degree of formality across three key morphological dimensions of urban space: the road network, land subdivision, and land use. To synthesize these observations, the three mosaics were superimposed, and a numerical score was assigned to each degree of formality: low (1), medium (2), and high (3). To assign these scores, each cell was qualitatively assessed using the criteria and data sources applied in the individual mosaics. Accordingly, each cell in the composite mosaic represents the arithmetic mean of the three analyzed dimensions. This methodological approach makes it possible to identify the areas where the degree of formality is higher or lower across the combined dimensions of analysis (Figure 7).

**Figure 7** | Sources used in the analysis of the three dimensions and method of construction of the synthesis mosaic



Source: the authors, 2025.



The comparative analysis made it possible to identify which of the two study areas presents a higher quality of urban permanence. In terms of transitoriness, the Dadaab camp represents a space that could, in principle, disappear as quickly as it was established—although such an outcome is unlikely. In contrast, Kibera’s transitoriness is manifested in the fragility of its urban fabric, reflecting an urgent need for structural transformation. From the perspective of permanence, the Dadaab camp demonstrates positive attributes such as the economic spillover effects it generates in its surrounding areas—particularly in the formal town of Dadaab—and its planned urban structure in terms of the road network and land subdivision, which confer a greater support capacity. In the case of Kibera, permanence derives from its diversity and dynamic patterns of land use, combined with its proximity and well-established connections to the formal urban fabric of Nairobi.

Given these perspectives, it would be inappropriate to determine which of the two structures is inherently more permanent. Accordingly, the research question was refined to identify which of the analyzed settlements allows for a more qualified form of permanence. The notion of qualified permanence is essential, as both spaces may endure for decades while continuing to provide inadequately structured living environments for their residents. Thus, the objective is not to determine which settlement is more likely to remain permanent, but rather to identify which one allows public authorities to formalize permanence in a more feasible and qualified manner.

Following the methodological process illustrated in Figure 6, a synthesis map depicting the degree of formality for both settlements was developed, highlighting in each mosaic cell the arithmetic mean of the three analyzed dimensions (Figure 8)..

**Figure 8** | Synthesis mosaic of the degree of formality of Kibera and Hagadera



Source: elaborated by the authors, 2025.

The synthesis map clearly reveals a higher degree of formality—and, consequently, a more feasible and qualified form of permanence—in Hagadera compared with Kibera. This greater formality primarily results from the planned design of the camp's road network and land subdivision, which endow it with a higher structural support capacity. In contrast, Kibera exhibits evident limitations, both in its road network—with extensive areas accessible only to pedestrians—and in its land subdivision, characterized by unsanitary, windowless, and continuously built structures. This finding underscores the urgent need for a conceptual revision of the notion of the refugee camp—no longer to be regarded merely as a temporary structure, as defined in the UNHCR Glossary of Terms (2023), which deprives

individuals of the right to the city and of prospects for permanence, cultural continuity, and identity formation. Such urgency becomes even more evident when considering refugee camps that have persisted for decades—such as the Katumba camp, established in 1972—housing multiple generations of families within structures that remain officially constrained by the label of temporariness.. Beyond the conceptual reconsideration of the refugee camp, the literature also points to the need to re-evaluate the establishment of new camps as a strategy for refugee reception. This is because camps fail to meet their most fundamental objective—temporariness—while simultaneously offering a lower quality of life compared with that of refugees who become integrated into formal urban settings (Crea, Calvo & Loughry, 2015). In this regard, decentralized alternatives for refugee reception within consolidated urban areas may prevent refugees from being both deprived of the right to the city and confined to the limbo of structures officially considered temporary yet enduring for decades.

## FINAL REMARKS

The analyses conducted in this study required an expansion of the concept of permanence, not only to encompass the factors that determine permanence and transitoriness in both settlements but also to address the differences in their potential for qualitative improvement and the feasibility of implementing the necessary strategies to achieve it. While Dadaab's formality suggests a more feasible and qualified permanence—facilitating implementation efforts and reducing insecurity for its residents—national and international political decisions often move in the opposite direction, hindering such consolidation. In the case of Kibera, the extensive accumulated knowledge about the dynamics of informal settlements demonstrates the predominance of lived realities over planning intentions, even if such consolidation occurs in a less structured and qualified manner. From a pragmatic standpoint, it can be concluded that the Dadaab camp should be conceived, implemented, and managed with the goal of achieving full consolidation and integration with its surrounding territory..

This conclusion does not extend to all existing refugee camps, as each is conceived and sustained according to distinct interests and needs that transcend a purely urbanistic interpretation. Nevertheless, these settlements reveal an urban structure that, once implemented, often exhibits





levels of formality significantly higher than those observed in the informal areas of many cities across the Global South. This situation points to the potential permanence of refugee camps and highlights their capacity to serve as foundational structures for new, planned cities, as well as catalysts for emerging regional arrangements. Further research on the regional integration of these settlements—and on the future expansion of their infrastructure and services—may offer strategic insights for managing their long-term permanence. In such a scenario, camps would no longer represent temporary territorial interventions aimed solely at addressing emergencies, but would also become integral components of broader urban-regional development policies in host countries.

Considering the main objective of this research—to determine which settlement exhibits a higher degree of formality and potential for qualified permanence—it can be concluded that, based on the analysis of land subdivision, land use, and road system, the Dadaab camp demonstrates a more formal urban structure and, consequently, a more feasible and qualified permanence than the Kibera informal settlement. Thus, there is clear evidence that refugee camps paradoxically fail in their most fundamental objective—to serve as temporary solutions. The scientific literature on housing policies increasingly emphasizes pragmatic approaches focused on re-urbanization and land regularization, moving away from earlier strategies of widespread displacement. Once again, permanence is reaffirmed—this time in the case of informal settlements. In both contexts, the notion is reinforced that urban structures, regardless of their level of quality or consolidation, tend to become enduring and difficult to reverse.

The ephemeral nature initially identified in the two urban compartment typologies stems less from their physical or urbanistic characteristics and more from the residents' prevailing sense of insecurity regarding the management of these areas. The persistent threat of removal—even if partial, as in re-urbanization processes—is the factor that most closely aligns compartments such as Kibera and Dadaab. These are settlement types with a strong likelihood of becoming permanent in terms of occupation, yet they remain transitory in the residents' sense of belonging and appropriation of the territory they inhabit. In this regard, we reaffirm a perspective already emphasized in the literature on refugee camps (Hart et al., 2018; Paszkiewicz & Fosas, 2019), which argues that these settlements, although established in response to emergency situations, should be conceived as structures with the potential to become permanent.



In the case of informal settlements, the phenomenon has already gained broader recognition with respect to its inherent permanence. The notions of subaltern urbanism (Roy, 2009), tactical urbanism (Brenner, 2017), and urban insurgencies (Nascimento & Ultramari, 2019) acknowledge the enduring nature of these large urban compartments, viewing them not merely as challenges but, above all, as catalysts for transformation within the broader urban systems that contain them. Finally, the comparative study between Kibera and Dadaab reveals similar indications of permanence—contradicting, in the first case, the idealized notion of urban reorganization and, in the second, the expectation of eventual disappearance. Nevertheless, Dadaab exhibits characteristics that enable a more feasible and qualified form of permanence compared with Kibera. This outcome highlights a dual challenge for future research: (1) the development of management strategies that allow for the gradual improvement and qualification of Kibera, acknowledging its inevitable permanence; and (2) the conceptual redefinition of refugee camps as temporary spaces—a paradigm that currently prevents Dadaab’s local management from fully harnessing its potential for structured and qualified permanence.

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