

Refugee Migration and Urban Food Security: Somali Migrants in Nairobi, Kenya

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Abstract

This paper investigates the relationship between refugee migration and urban food security, focusing on Somali migrants in Nairobi, Kenya. Despite the abundance of literature on urban refugees and their economic integration, scant research has addressed their food security challenges. Utilizing a household survey conducted in Nairobi's Eastleigh neighborhood, the paper explores the levels, determinants, and spatial variations of food security among Somali refugees. Findings reveal that while migration to Nairobi generally improves food security compared to conditions in Somalia, substantial disparities exist within the refugee population, with a significant portion still facing severe food insecurity. Factors such as household type, household income, education level, and the education and employment status of the household head are significantly associated with food security status. Spatial analysis within Eastleigh highlights pronounced disparities in food security across different sections of the neighborhood. The study underscores the need for holistic, context-specific strategies to address urban refugee food insecurity, emphasizing the importance of economic empowerment and targeted support for vulnerable groups to achieve sustainable food security outcomes.

Keywords

refugee migration, urban food security

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Cover Image

Informal food market in Nairobi's Eastleigh neighborhood. Credit: Zack Ahmed



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Introduction

The relationship between migration and food security is complex and multifaceted (Choitani, 2017, 2022; Sadiddin et al., 2019; Zezza et al., 2011). As a result, South-South migration and food security tend to be viewed as discrete and largely unconnected realms in global policy forums and in the larger literature on both topics (Crush, 2013; Ramachandran & Crush, 2023). Although South-South migration now exceeds migration from South to North (Crush et al., 2021), the consequences for the nexus between migration and food security have received limited research consideration (Crush & Caesar, 2017). However, many migrants in the Global South experience chronic food insecurity due to their precarious economic, social, political, and legal status in destination countries as well as in bilateral and multi-lateral migration corridors (Orjuela-Grimm et al., 2021; FAO et al., 2018). Migrants can also make a positive contribution to the food security of their households in countries of origin through remittances in cash and kind (FAO et al., 2018; Obi et al., 2020). At the same time, the obligation to remit can exacerbate the food insecurity of migrants who have less disposable income to meet their own food requirements (Crush & Ramachandran, 2023).

The food security challenges facing refugee populations are relevant to the conversation on the links between migration and food security, primarily because hunger and food insecurity are often the most visible markers of forced displacement. The experiences of refugees, who have fled their home countries due to conflict, persecution, or environmental disaster, often involve significant disruption to their social, economic, and cultural networks (Jha et al., 2020; WFP, 2017). The specific circumstances surrounding displacement and refugee status also produce new challenges to livelihoods and food security (Delgado et al., 2021; Guerra et al., 2019). Flight from conflict and persecution invariably has serious negative consequences for access to adequate food, income-generating opportunities, and overall well-being (Weldemariam et al., 2022).

There are an estimated 26 million registered refugees globally, with as many as 80% facing food insecurity (Nisbet et al., 2022). In 2022, the World Food Programme (WFP) distributed food aid to more than 150 million people worldwide, including many refugees and internally displaced people. In Kenya, for example, the WFP assists 500,000 refugees in camps to improve their food security through various programs including general food distribution, complementary feeding for pregnant and lactating women for the first 1,000 days after conception, supplementary feeding for malnourished children under the age of 5, treatment of acute and chronic malnutrition, free rations for chronically ill, nutrition support to people living with chronic diseases, institutional feeding, school meals, and food for training young people in vocational skills (WFP, 2017). However, urban refugees in Kenya receive little or no direct food security support from the WFP or other organizations.

The abundant humanitarian, policy, and research profile of food insecurity among refugees in camps contrasts with the scarcity of research on the challenges to food security of urban refugees, especially in cities in the South. With a few exceptions, the food insecurity crisis among urban refugees has been largely ignored (see Abdollahi et al., 2015; Crush & Tawodzera, 2017; Khakpour et al., 2019; Napier et al., 2018). This is problematic as an estimated 60% of world's refugees now live in urban areas. As Jacobsen (2006) has noted, "refugees living in urban areas face a myriad protection and livelihood problems not generally encountered in camps" (p. 273). The unaddressed needs of urban refugees make them a 'hidden population' for researchers and policy makers (Verghis and Balasundram, 2019).

In Kenya, there is a large literature on urban refugees focused on such themes as security deficiencies and threats (Aronson, 2011; Whitaker, 2020), refugee protection (Balakian, 2020; Campbell, 2015), dispossession, exclusion, and xenophobia (Bhagat, 2020; Fernandez & Athukorala, 2023; Human Rights Watch, 2013), refugee mobilities (Kasujja, 2020), and economic and social integration in Nairobi (Campbell, 2006; Peter et al., 2020; Varming, 2020). In urban Kenya, as Pavanello et al. (2010) point out, refugees are both 'hidden and exposed.' There is also a patchwork of recent studies on Somali migrant livelihoods in Nairobi where participation in the informal economy is flourishing (Carrier & Scharrer, 2019; Johansson, 2020; Omata, 2021). This is most evident in studies of the transformation of Eastleigh, a densely populated neighborhood and Somali-dominated commercial and residential hub (Carrier, 2017), which has been described as "the archetypal Somali urban space beyond Somalia" (Carrier & Scharrer, 2019, p.15).

However, the food security experiences and challenges facing Somali and other urban refugees in Kenya have attracted minimal research attention. For example, a 2017 survey of the Nairobi refugee population provided important information on the economic circumstances of refugees, but had little to say about food insecurity, other than the finding that Somali refugee households with higher incomes had more diverse diets (Betts et al., 2018). More recently, a World Bank survey of refugees in three urban centres in Kenya (including Nairobi) concluded that around 60% of urban refugee households were highly food insecure and used consumption-based strategies to cope with lack of food (Pape et al., 2022). But neither report provides a detailed analysis and explanation of the food security status of Somali households in Nairobi. Using research findings from our 2022 survey, the current study aims to fill this gap by answering three important questions. First, what are the levels and determinants of food security and insecurity among Somali refugees in Nairobi? Second, are there variations in the experience of food security within the refugee population and, if so, why do these exist? And third, does food security improve with increased time since migration from Somalia and the duration of residence in Nairobi?

Towards Nairobi: Background and Context

The collapse of the Somali government in 1991 ushered in a prolonged period of conflict, instability, and political disarray that continues to this day. The turbulent environment, characterised by ongoing violence, civil war, and the emergence of armed rebel groups, has created significant challenges for the Somali population, prompting many individuals and families to seek refuge in neighboring countries. Kenya, which offers safer living conditions and better economic opportunities, emerged as the preferred destination for Somali migrants (Ibrahim et al., 2020; Kumssa et al., 2014; Kumssa & Jonnes, 2014). Additionally, Kenya's historical and cultural ties with Somalia amplified the attractiveness of Kenya as a destination (Kasujja, 2020; Omeje & Mwangi, 2014; Varming, 2020). Kenya has become a host for a significant number of refugees, economic migrants, and asylum seekers from neighboring countries in recent decades (Table 1). In 2020, nearly 500,000 originated from Somalia and have settled in Kenya since the collapse of the Somali central government. At the time, Somalis accounted for 17% of the total migrant stock in Kenya. This percentage has shown a substantial increase over time, reaching 67% in 2020 (UNDESA, 2020).

The main destination for Somali migrants is two refugee camps in the north of Kenya, Dadaab and Kakuma, which shelter more than 400,000 refugees. However, a significant number of Nairobi's estimated 91,000 refugees are originally from Somalia (Nation Africa, 2023). Refugees come to Nairobi by relocating from camps where there are very limited economic opportunities or they bypass the camps altogether and move straight to Nairobi (Miller & Graham, 2021; Omata, 2021). The precise number of Somalis in Nairobi is unknown since many refugees and asylum seekers remain unregistered and assimilate into the Kenyan Somali community in the city (Im et al., 2017).

The Eastleigh suburb of Nairobi is the primary destination for Somali migrants and has even been dubbed 'Little Mogadishu' (the capital of Somalia) (Carrier, 2017). According to the 2019 national census, refugees constituted 55% of the total population of Eastleigh, with a count of 147,551

out of 268,276 individuals (Lusambili et al., 2020). Over time, the neighborhood has grown and transformed into a residential, commercial, and networking hub for global Somali connectivity (Carrier, 2017). Despite their long-term refugee status and the legal and other challenges of integration, Somalis own shopping centres, plazas, and street vending enterprises in Eastleigh (Vergès, 2022). Others work as wholesalers, intermediaries, and retailers, linking small-scale farmers in rural areas with urban consumers (Carrier & Lochery, 2013; Carrier & Scharrer, 2019). Furthermore, Somali migrants in Nairobi have opened restaurants and other food-serving establishments, which have become popular destinations for both residents and tourists.

Methodology

The paper draws on the findings of our household survey conducted in July and August 2022 funded by the MiFOOD Network. The study was carried out in the Eastleigh administrative and residential neighborhood of Nairobi. Eastleigh is divided into three sections, namely, Sections 1, 2 and 3, located within Eastleigh North and Eastleigh South administrative areas. An equal number of households (106) were randomly sampled in each of the three sections, giving a total sample size of 318 households. A household food security questionnaire was administered on household demographics, migration history, income and livelihood sources, food sources and purchasing behaviour, as well as the impacts of COVID-19 on household food security. To assess levels of household food security, the survey relied on three metrics: (a) the Household Food Insecurity Access Score (HFIAS) which allocates each household a score between 0 and 27 based on responses to nine frequency-of-occurrence questions; (b) the Household Food Insecurity Access Prevalence (HFIAP) score which allocates each household to one of four levels of food insecurity: food secure, mildly food insecure, moderately food insecure, and severely food insecure; and (c) the Household Dietary Diversity Score (HDDS) which allots each household a score between 0 and 12 based on how many food groups were consumed from in the previous 24 hours (Coates et al., 2007; Swindale & Bilinsky, 2008).

Table 1: Migrant Stock in Kenya from Main Countries of Refugee Origin, 1995-2020

Year	Somalia	South-Sudan	DRC	Ethiopia	Sudan	Rwanda	Total
1995	172,164	53,996	391	29,521	41,215	5,861	303,148
2000	159,197	81,156	672	20,846	56,360	3,273	321,504
2005	208,156	62,546	2,749	20,917	76,711	4,059	375,138
2010	392,063	53,218	9,133	35,309	26,998	6,201	522,922
2015	488,470	95,765	24,738	36,889	10,266	6,330	662,458
2020	425,284	121,553	43,577	32,115	9,926	5,510	637,965

Survey Findings

Most respondents agreed that coming to Nairobi had positively improved their household food security when compared to the situation in Somalia (Figure 1). While this suggests a nearly universal improvement in relative food security, it does not mean that all refugee households in Nairobi are now food secure.

On the HFIAP scale, only 43% of the Somali households in Eastleigh were completely food secure (Table 2). The re-

mainder experienced a degree of food insecurity including mild (8%), moderate (11%), and severe (38%) food insecurity. Table 2 also compares the Eastleigh results with those for Nairobi as a whole (Owuor, 2018). This random city-wide survey of over 1,400 households found a lower level of food security (35%) and a much higher level of moderate to severe food insecurity (58%) than in Eastleigh. The mean HDDS was 7.4 out of 12 which indicates that the average Somali household enjoys a highly diverse diet. Less than 10% of households had low scores of 4 or fewer (Figure 2).

Figure 1: Post-Migration Improvement in Household Food Security

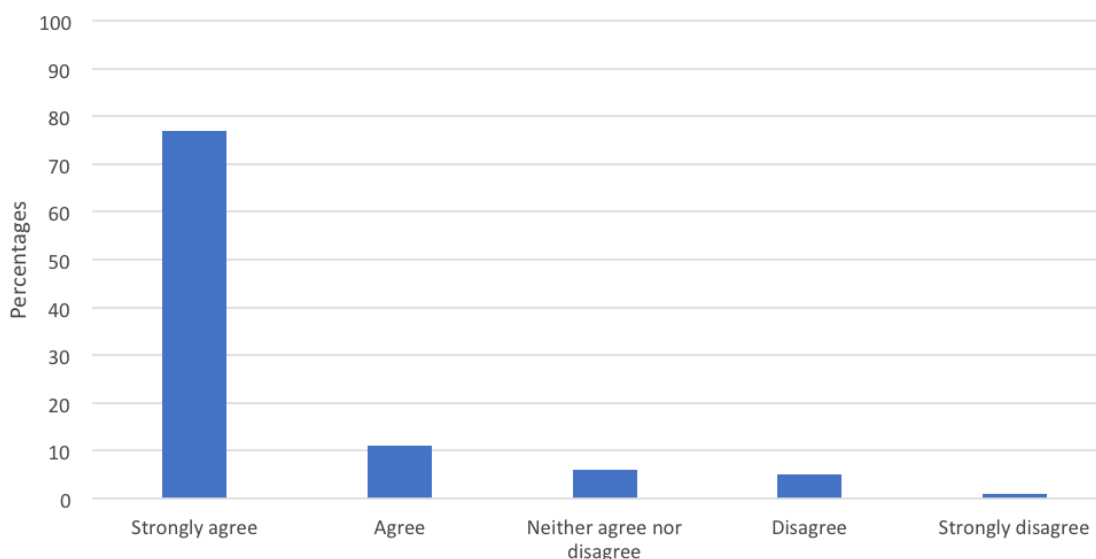
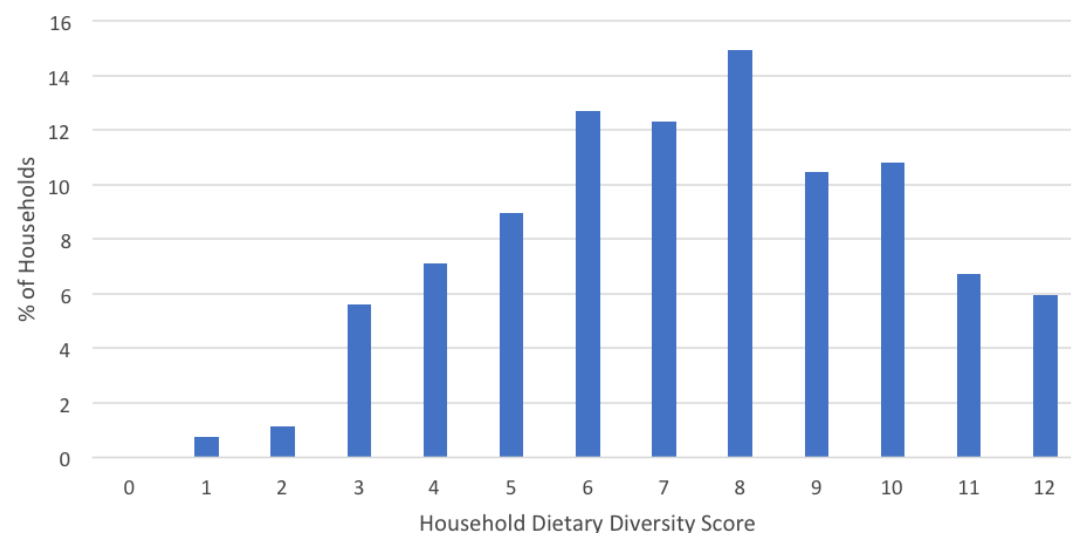


Table 2: Food Insecurity Prevalence in Somali Migrant Households

Categories	Eastleigh		Nairobi	
	N	%	N	%
Food secure	114	42.5	409	35.0
Mildly food insecure	21	7.9	176	12.6
Moderately food insecure	30	11.2	463	33.0
Severely food insecure	103	38.4	353	25.2
Total	268	100.0	1,401	100.0

Figure 2: Distribution of HDDS Scores



	Section 1	Section 2	Section 3	Total	
HFIAS	10.5	2.4	3.6	6.8	
HFIAP	Food secure	12.3	65.7	44.3	42.5
	Mildly food insecure	4.9	10.1	8.0	7.9
	Moderately food insecure	14.8	9.1	10.2	11.2
	Severely food insecure	67.9	15.2	37.5	38.4
HDDS	6.1	8.1	7.8	7.4	
Average income (KSH)	47,099	121,944	105,705		

The variation in levels of food security and dietary diversity among Somali households has a distinctive geography, varying spatially between the three sections of Eastleigh. Section 1 had the highest levels of food insecurity with an HFIAS score of 10.5 and lowest levels of dietary diversity with an HDDS of 6. Overall, 67.9% of Section 1 households were severely food insecure. At the other end of the spectrum, Section 2 had the lowest levels of food insecurity, with an HFIAS score of 2.4 and only 15.2% of households severely food insecure. Dietary diversity was also highest in this section (HDDS=8.1). Section 3 households had higher levels of food insecurity than Section 2 but were considerably better off than households in Section 1. This spatial pattern of food insecurity was mirrored in the average income levels, with Section 2 households earning the most on average (KSH 121,944), potentially contributing to the higher food security and dietary diversity observed in that section, compared to only KSH 47,000 in Section 1. Overall, 65.7% of food secure households were in Section 2, 44.3% were in Section 3, and only 12.1% were in Section 1 (Table 3).

Table 4 identifies a set of independent variables and their relationship with household food security and insecurity. Food security status is strongly associated with the sex, education level, and employment status of the household head, as well as household type and household income. 61% of food secure households are male-headed, and 70% of food insecure households are female-headed. As the level of education of the household head increases so does the food security of the household. Conversely, among food insecure households are headed by individuals with lower levels of education. For example, 55% of food secure households have a secondary or tertiary education, compared to only 26% of food insecure households.

Some 62% of food secure households have heads who are formally or informally employed, compared with 36% of food insecure households. As a result, household income is a strong predictor of food security status. For example, 57% of food secure households have a monthly income of more than KSh100,000, compared to 20% of food insecure households. Household type is also strongly associated with food security status with 9% of food secure households being female-centred compared with 30% of food insecure households. Table 4 confirms that spatial location

of the household is a good predictor of household food security status. Food security is also strongly associated with dietary diversity. Food secure households have higher levels of dietary diversity, while the opposite is true for food insecure households. Independent variables with a weak relationship with food security include the length of residence of the household head in Nairobi and whether a household sends remittances elsewhere or not. Similar numbers of food secure and food insecure households are recipients of remittances. Food secure households seem better positioned to send remittances elsewhere: thus, 41% of food secure households are remittance senders compared to only 26% of food insecure households.

Multinomial logistic regression analysis was used to model the odds of a household with characteristics being classified as food insecure (Table 5). The length of residence in Nairobi is not a significant predictor of food insecurity except for new arrivals and long-term residents: households with heads who arrived before 2000 have half the odds of being food insecure when compared to post-2015 arrivals (OR: 0.510 95% CI 0.249-1.022). The odds of a female-headed house being food insecure are marginally greater than for male-headed households (OR:1.145 95% CI 0.714-1.843). The level of education of the household head, their employment status, and household income are the strongest predictors of food insecurity. As the level of educational attainment of the head declines, so the odds of household food insecurity consistently increase such that households with heads with no formal education have more than three times the odds of being food insecure (OR: 3.329 95% CI 1.487-7.432).

Households with heads in formal and informal employment are less likely to be food insecure compared to households with an unemployed head or a head in part-time employment. Household income is also a strong determinant of the likelihood of being food insecure: households in the lowest income bracket have nearly three times the odds of being food insecure (OR: 2.951 95% CI 1.079-8.276) than those in the highest income bracket. The spatial location of the household in Eastleigh is the other significant predictor of food insecurity as households in Section 1 having higher odds of being food insecure compared to households in Sections 2 and 3 (OR: 1.621 95% CI 0.956-2.788).

Table 4: Relationship between Food Security and Household Characteristics				
Household head		Food secure (%)	Food insecure (%)	p-value
Year migrated to Nairobi	2000 and earlier	26.2	16.7	0.033**
	2001–2005	20.4	18.5	
	2006–2010	24.3	29.6	
	2011–2015	19.4	16.7	
	2016 to present	9.7	18.5	
Age	16–24	9.9	14.5	0.190
	25–34	34.7	34.6	
	35–44	21.8	26.4	
	45–54	21.8	15.1	
	>54	10.9	9.4	
Sex	Male	61.2	29.0	<0.001***
	Female	38.8	70.4	
Education level	No formal education	35.3	56.2	<0.001***
	Primary complete	9.8	18.5	
	Secondary complete	41.2	21.6	
	Tertiary level	13.7	3.7	
Employment status	Full-time formal	7.1	3.8	<0.001***
	Full-time informal	54.1	32.5	
	Part-time	5.1	11.3	
	Unemployed	33.7	52.5	
Household size	1 person	3.9	3.7	0.847
	2–3 people	13.6	15.4	
	4–5 people	26.2	21.6	
	>5 people	56.3	59.3	
Type	Female-centred	8.7	30.2	<0.001***
	Male-centred	12.6	8.6	
	Nuclear	53.4	28.4	
	Extended	24.3	32.7	
Monthly income (KSH)	<=20,000	4.0	13.7	<0.001***
	20,000–50,000	9.1	35.3	
	50,001–100,000	30.3	30.7	
	100,001–150,000	24.2	12.4	
	150,001–200,000	17.2	2.6	
	>200,000	15.2	5.2	
Spatial location	Section 1	9.7	43.2	<0.001***
	Section 2	53.4	27.2	
	Section 3	36.9	29.6	
Receives remittances	Yes	72.0	72.2	0.544
	No	28.0	27.8	
Sends remittances	Yes	40.6	25.7	0.011**
	No	59.4	74.3	
Dietary diversity	Lower (HDDS 0–6)	17.5	48.8	<0.001***
	Higher (HDDS 7–12)	82.5	51.2	

Significance level: * $p \leq 0.1$; ** $p \leq 0.05$; *** $p \leq 0.001$

Table 5: Odds Ratios for Household Food Insecurity		
	Odds ratios (OR)	(95%CI)
Year household head migrated to Nairobi	2000 and earlier	0.510 (0.249–1.022)*
	2001–2005	0.823 (0.393–1.696)
	2006–2010	0.812 (0.438–1.475)
	2011–2015	0.632 (0.327–1.202)
	2016 to present (Ref)	
Age of household head	16–24	0.887 (0.368–2.132)
	25–34	0.842 (0.413–1.678)
	35–44	0.711 (0.347–1.416)
	45–54	1.011 (0.481–2.097)
	>54 (Ref)	
Sex of household head	Female	1.145 (0.714–1.843)
	Male (Ref)	
Education level of household head	No formal education	3.329 (1.487–7.432)***
	Primary complete	2.587 (1.088–6.205)**
	Secondary complete	2.027 (0.883–4.707) *
	Post-secondary/tertiary level (Ref)	
Employment status of household head	Full-time formal employment	0.416 (0.063–2.306)
	Full-time informal employment	0.424 (0.077–1.794)
	Part-time employment	0.877 (0.146–4.301)
	Unemployed (Ref)	
Household size	1 person	1.343 (0.394–5.384)
	2-3 people	0.782 (0.443–1.402)
	4-5 people	0.813 (0.512–1.300)
	>5 people (Ref)	
Household type	Female-centred	1.049 (0.583–1.904)
	Male-centred	0.637 (0.282–1.499)
	Nuclear	1.465 (0.854–2.532)
	Extended (Ref)	
Household monthly income (KSH)	<=20,000	2.951 (1.079–8.276)**
	20,000–50,000	2.746 (1.228–6.101)**
	50,001–100,000	1.570 (0.783–3.087)
	100,001–150,000	0.952 (0.484–1.833)
	150,001–200,000	0.533 (0.231–1.210)
	>200,000 (Ref)	
Household location	Section 1	1.621 (0.956–2.788)*
	Section 2	1.007 (0.601–1.693)
	Section 3 (Ref)	
Receives remittances	No	0.699 (0.429–1.141)
	Yes (Ref)	
Sends remittances	No	1.025 (0.657–1.594)
	Yes (Ref)	
Dietary diversity	Lower (HDDS 0–6)	0.970 (0.604–1.558)
	Higher (HDDS 7–12) (Ref)	

Significance level: * $p \leq 0.1$; ** $p \leq 0.05$; *** $p \leq 0.001$

Discussion

The findings presented in the previous section shed light on the complex dynamics of food security among Somali refugee households in Nairobi, Kenya. Although these households share a common origin in Somalia and legal status in Kenya, the food security indicators used in the analysis all show that there is considerable variability between these households. In this section we therefore identify some potential reasons for the variable food security outcomes indicated by descriptive statistical analysis and multinomial logistic regression modelling, drawing particular attention to the independent variables that have a statistically significant relationship with the food security status of the household.

Blekking and Waldman (2024) recently noted that “it was surprising that current food security metrics are not more spatially explicit.” However, a few empirical studies of urban household food security in Africa have drawn attention to the existence of spatial variations in food security status within a city and even within a single neighborhood. Blekking et al. (2020), for example, found a wide range of household-level food security outcomes and high levels of spatial heterogeneity within nine low and middle-income households exhibited a differential spatial distribution based on their food insecurity status, with worse-off households located more in Korogocho than Viwandani, and spatial clustering of food insecure households in both localities.

Studies of the spatial patterns of food security and insecurity among migrant and refugee households in African cities are yet to be undertaken. This paper investigated the spatial distribution of food security and insecurity by comparing the food security metrics of households in three different sections of the suburb of Eastleigh. Section 1 exhibiting higher levels of food insecurity compared to Sections 2 and 3. This spatial disparity underscores the importance of considering localized factors and contexts when addressing food security issues among urban refugee populations. Another key spatial finding of the analysis is the significant improvement in household food security experienced by Somali migrants upon relocation to Nairobi. Most respondents reported a positive change in their food security status compared to their situation in Somalia. This improvement is corroborated by a low average HFIAS score, indicating a relatively low level of food insecurity among the surveyed households.

However, despite the general improvement in food security, not all refugee households in Nairobi are food secure. The HFIAP analysis shows that a considerable proportion of households fall into the severely food insecure category, highlighting the persistent challenges faced by a significant segment of the Somali migrant refugee population. Various demographic and socioeconomic factors have a significant association with food security and insecurity. The vulnerability of recent migrants, particularly post-2016, is consistent with scholarly assertions that newcomers face heightened food insecurity risks (Berggreen-Clausen et al. 2022; Jha et al. 2020; Orjuela-Grimm et al. 2022). Female-headed households are disproportionately represented among the food insecure, highlighting the intersectionality of gender and

food security. This finding aligns with existing literature indicating that female-headed households often face increased vulnerability to food insecurity due to factors such as limited access to resources and employment opportunities (Choitani, 2020; Mwaura, 2022).

Education emerges as a critical asset, with higher attainment levels associated with increased food security, echoing findings from previous studies emphasizing the importance of education in mitigating food insecurity (Magaña-Lemus, 2016; Mutisya et al., 2016). Education generally improves labour market access and employment in Nairobi’s formal and informal sectors clearly aligns with improved odds of food security (Blekking et al. 2020). The sizable income gap between the most and least food-secure households highlights the significance of economic means in determining food security. These findings are consistent with research highlighting the positive impact of stable employment and regular income on household food security (Haddad, 1992; Do et al., 2019; McCordic et al., 2021).

Contrary to expectations from the migration literature, the receipt of remittances by urban refugees made no discernible difference to household food secure (Moniruzzaman and Walton-Roberts, 2022). However, food secure households are more likely to be remittance senders. The descriptive analysis suggested a strong association between dietary diversity and food insecurity, with migrant households consuming a diverse range of foods more likely to be food secure. The complementary role of dietary diversity in this matrix is particularly pronounced; the higher HDDS scores among food-secure households align with assertions about the positive correlation of food security and nutritional adequacy (Mirmiran, 2004; Torheim et al., 2004). This underscores the importance of access to nutritious and varied diets in achieving positive food security outcomes for urban refugee households.

Conclusion

Urban refugees in Africa and elsewhere in the Global South face unique livelihood challenges (Koizumi & Hoffstaedter, 2015). While cities offer greater economic opportunities than refugee camps, they are also challenging environments in which to survive (Abdollahi et al., 2015; Ghattas, 2014; Khakpour et al., 2019). One of the consequences of economic marginalization, state harassment, and hostile citizenries in cities is a constant struggle to achieve and maintain food security. At first glance, the Eastleigh estate in the heart of Nairobi has come to be an exception to this characterization of the urban refugee. “Little Mogadishu” is a vibrant global, regional, and local commercial and cultural hub in which Somali refugees have clustered after being forcibly displaced from Somalia (Carrier, 2017; Carrier and Lochery, 2013; Carrier and Scharrer, 2019). However, there has been little or no research on the question of whether economic dynamism and vitality has translated into food security for all. This paper therefore provides new insights into the food security status of Somali refugees residing in Nairobi, addressing critical gaps in the literature and contributing to the understanding of urban refugee livelihoods.

The paper provides answers to the three pivotal questions posed at the outset regarding the food security of Somali refugees in Nairobi, employing data from a comprehensive 2022 household survey. First, while migration to Nairobi has generally resulted in an improved food security situation for most Somali refugees, this does not mean that all households are now food secure. For example, almost two in five Somali households in Eastleigh proved to be severely food insecure. At the same time, less than one in ten households have low levels of dietary diversity which means that a significant number of severely food insecure households are still able to enjoy a reasonably diverse diet.

Second, although 40% of households are severely food insecure, just over 40% are completely food secure, with the remainder experiencing less severe forms of food insecurity. The analysis revealed a complex interplay of factors that determine these variations in levels of food security. Spatial disparities were especially evident, with different sections of Eastleigh showing contrasting levels of food security. Food insecurity was most strongly related to the sex of the household head, their level of education, and their employment status. Household income proved to be the strongest determinant of food insecurity. As income increases, there is a consistent decline in food insecurity. The finding highlights the need for gender-responsive urban refugee policies that enhance education access, create job opportunities, and improve income levels.

Third, the relationship between the duration of residence in Nairobi and food security was residential areas in Accra, Ghana. In Nairobi, Mohamed et al. (2016) report that in the slums of Korogocho and Viwandani, few households were completely food secure. However, these urban poor explored. Our analysis indicates that food security does generally improve with increased time since migration from Somalia. However, the relationship was not a strong one, suggesting that other factors are more important determinants food security outcomes. The main exception to this conclusion is the fact that very recent migrants are significantly more food insecure than medium and longer-term Nairobi residents. This finding suggests that as Somali refugees integrate over time and acclimate to the local environment, they can better navigate the socio-economic landscape, leading to improved food security outcomes.

Overall, this study contributes to a deeper understanding of the factors influencing food security among Somali migrants in Nairobi and underscores the importance of adopting a holistic and context-specific approach to addressing food insecurity in urban refugee settings. In conclusion, we can underscore the dynamic nature of food security among Somali refugees in Nairobi, influenced by a multitude of factors including economic, social, and temporal elements. By identifying key determinants and disparities in food security outcomes, policymakers and practitioners are in a better position to develop targeted interventions aimed at improving the food security and well-being of vulnerable migrant populations. This demands a multipronged policy approach that recognizes the diversity within the refugee population and the multifaceted nature of food insecurity. There is a strong

case for targeted interventions that facilitate integration, support economic empowerment, and offer tailored support to the most vulnerable segments of the refugee population. By doing so, it is possible to enhance the food security of Somali refugees in Nairobi, ensuring that the improvements observed in the general trend are felt across all households.

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