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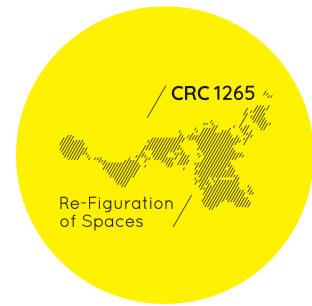
## Food Systems in peri-urban Nairobi

Insights into retail, consumption and food security  
in the rapidly changing neighborhood of Kasarani

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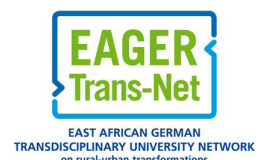
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# Global South Geographies of Urban Food Systems: An Introduction to the Case Study of Kasarani

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Alexander Kohrs & Linda Hering

Food and its related products are considered crucial commodities due to their requisite role in facilitating the continuation of human life and historically their production, processing and consumption were organised on a small scale. Today, due to the socio-technological progressions, and the influence of political and socio-economic changes associated with globalisation, there exists a continuous global division of labor in the manufacturing, processing and distribution of food. An outcome of this phenomenon is the increasing spatial disparity between the locations of food production and consumption, as noted by ROBINSON & CARSON (2015, pp. 1).

Particularly, agricultural commodities originating from the global South are frequently cultivated for export, reflecting the endeavors of nations in the capitalist periphery to incorporate their agricultural industries into global value chains. This phenomenon frequently manifests as a 'strategic' endeavor aimed at fostering economic growth through integration into the global value chains (KANAI & SCHINDLER 2018, pp. 303; GILLISPIE & SCHINDLER 2022, pp. 531-536).

Nonetheless, many scholars interpret this trend as the continuation of economic frameworks and structures inherited from colonial legacies (ROBINSON & CARSON 2015, pp. 12), emphasising the adverse consequences linked with export-oriented agricultural growth, such as land grabbing, displacement of people and environmental deterioration (BURCH ET AL. 2015, pp. 309-312).

Moreover, the phenomenon of rural-to-urban migration in numerous Global South Countries has fostered urban expansion and the emergence of new urban figurations (SMIT 2016, pp. 80-81; WISKERKE 2015). Consequently, erstwhile rural farmers undergo a transformation into urban dwellers they are more and more dependent upon a well-functioning urban food system (CABANNES & MAROCCHINO 2018, pp. 15). These growing urban populations pose new challenges for local food systems, notably in terms of the increased demand and changing trends in food consumption (CABANNES & MAROCCHINO 2018, pp. 3; SMIT 2016, pp. 80-81; WISKERKE 2015).

This observation is applicable to Kenya as well, a coun-

try where agricultural production (both subsistence and commercialised) plays a central role in the development of both rural and urban spaces. As OWUOR puts it:

*"The domestic food supply chain system in Kenya is the backbone of the economy, with the agricultural sector contributing 26% of national GDP" (OWUOR ET AL. 2017, pp. 29).*

Therefore, it can be affirmed that the Agro-Food sector is essential for ensuring food security, nutrition, employment, and income generation for the people of Kenya (ibid.). As urban areas in Kenya experience rapid expansion, rural landscapes are undergoing transformations driven by socio-technical innovations and the quest for new markets, introducing new crops, farming methods, and stakeholders (KENYA NATIONAL BUREAU OF STATISTICS 2022; KARURI 2021). However, these changes are intertwined with the deepening global interdependencies and a world increasingly vulnerable to various shocks and crises, jeopardising the stability of value chains and the benefits associated with agricultural production and consumption. The heightened interdependencies within Kenyan agriculture have been extensively studied, revealing significant impacts of biologically induced crises such as natural disasters (floods, frequent droughts), climate change, and pandemics. Moreover, political and economic crises, illustrated by events like conflict as well as the escalating energy prices, exert considerable influence on these dynamics (NZUMA 2015; MEKONNEN & AMEDE 2021; JEMUTAI ET AL. 2024).

In juxtaposition to the expanding agricultural production and rising agricultural export values Kenyan urban areas deal with fundamental social challenges. As a consequence, urban residents frequently face higher food prices, leading to restricted access to affordable food, along with health challenges stemming from both undernutrition and overnutrition (CABANNES & MAROCCHINO 2018, pp. 8-9). The food sector becomes entangled within the diverse multifaceted layers of urban inequality, encompassing differential access to housing and essential infrastructure

such as water supply, electricity, and sewage, alongside unequal opportunities in education and healthcare. These intersections of diverse dimensions of inequality are conspicuous in Nairobi. Estimates suggest that a substantial proportion of the urban population, ranging from 36% to 60%, resides in informal settlements (MWAU ET AL. 2020, pp. 15). Moreover, approximately 2 million individuals allocate more over half of their monthly income to cover food expenses (OWUOR 2019, pp. 4; AMENDAH ET AL. 2014). Furthermore, an additional 30-50% of their income is allocated towards rent (MAINA & MWAU 2019, pp. 219). Moreover, investigations across various informal settlements in Nairobi indicate a prevalence of informal employment, with a majority engaged in casual work, small-scale trading, or experiencing unemployment, thus, they often lack the financial means necessary to sustain a dignified livelihood. (AMENDAH ET AL. 2014, pp. 3; DOWNS ET AL. 2022; KIMANI-MURAGE ET AL. 2014; SOMA ET AL. 2022). These pronounced urban inequalities not only delineate Nairobi as a profoundly socially stratified and fragmented city (CHARTON-BIGOT 2010; MEDARD 2010) but also give rise to a diverse array of actors within the food retail sector. Various business models are active within the food market, ranging from informal setups like open-air markets (e.g. Muthurwa market, Githurai Market), small-scale food retailers such as food stalls (kibandas), kiosks, and vegetable vendors (mama mbogas[both mobile and static]), to established supermarket chains like Naivas or Carrefour, the latter with a global presence. These different retail types frequently diverge fundamentally with regard to their target clientele, the variety and pricing of the food they offer, the quality of their products, their geographical distribution within the city, their integration into global value chains, as well as their sales and profitability (OWUOR ET AL. 2017, pp. 38-48).

However, as noted by Brown and other scholars (BROWN 2019; BORN & PURCELL 2006, pp. 195), there remains a prevalent bias towards tackling urban food security concerns predominantly from the perspective of food production challenges, with a focus on intensification of production and a rise productivity through innovation. While interventions aimed at enhancing overall food production and mitigating food losses remain crucial, there exists a gap in attaining a more nuanced understanding of urban challenges concerning food production, logistics, trade, and consumption. Urban development, encompassing both material and immaterial infrastructures, serving as the primary locus for residence, commerce, and food consumption, as well as a stage for lifestyle differentiation, offers a promising point of departure for interventions in food security. In order to shift the emphasis from food production to consumption, we decided to conduct a student research project *'Global South Geographies of Urban Food Systems: Mapping the Example of Nairobi's Neighbourhoods'*.

## Description of Study Project

As the student project was related to a research project dealing with urban food systems in Nairobi, its aim was to explore various facets of this system, with a focus on providing students the opportunity to implement their own research topics and projects under professional guidance, allowing them to play an active role in the research. Henceforth, we endeavored to delineate the urban food system and the corresponding social realities through the lens of social and economic geography.

The study project was conducted as an intercultural cooperation between students from Humboldt-Universität zu Berlin and students of the University of Nairobi in the framework of the Eager Trans-Net university network. Thus, the collaborative student research project was marked not solely by the intercultural composition of the students but also by an interdisciplinary collaboration. Participants in the course brought diverse professional backgrounds ranging from geography and nutritional sciences to urban planning.

The project was conducted under the guidance of Prof. Dr. Elmar Kulke, Dr. Linda Hering, and Mr. Alexander Kohrs, and it was thematically divided into two parts. Firstly, there was a lecture and reading segment conducted as a hybrid, digital teaching course, which provided both theoretical insights and current knowledge on urban food systems, ongoing urban developments, and the urban history of Nairobi. Additionally, particular attention was given to characterising the study area of Kasarani as a peri-urban district experiencing dynamic urban development, impacting aspects such as the socio-economic composition of its inhabitants and the retail sector. Importantly, the seminar's preparation benefitted significantly from the invaluable input of Kenyan experts affiliated with the University of Nairobi. These experts enriched the students' learning experience through a diverse array of digitally conducted guest lectures. Therefore, on behalf of the Study Project, we express our sincere gratitude to Prof. Jonathan Nzuma, Prof. Samuel Owuor, Mr. John K. Shadrack, Dr. Marygorety Akinyi Otieno, and Ms. Pauline Liru for their invaluable contributions. In the second part, a food scape mapping (SEDELMEIER ET AL. 2021; MACKENDRICK 2014) of Kasarani (Nairobi) was carried out together with all participating students from the 2nd of August until the 12th of August 2023. This mapping included georeferenced data collection for different business types of food retailers (assortment, prices, range of products) in purposefully selected areas in four neighbourhoods of Kasarani: Chicken City Estate, Clay Works, Gituamba and Sunton. As a result of this initiative, a comprehensive quantitative database was developed, comprising more than 300 data points. Each data point corresponds to an individual retailer, encapsulating a diverse array of information. The analysis of this data falls under the purview of the *CRC Re-figuration of Spaces; Subproject A03: Knowledge and Goods II*, serving as a founda-



tional element for subsequent investigations into the retail landscape in Kasarani. Additionally, this dataset was made accessible to all students for their academic pursuits.

Besides the quantitative data gathering, the students had time to dedicate themselves to their individual research topics. Each of the four groups was assigned a field assistant who was based in Kasarani and therefore familiar with the research area. At this point, we would like to sincerely thank Ms. Eileen Kavata, Ms. Kate Owino, Ms. Charlotte Auka, Mr. Alexander Murithi, and Mr. John K. Shadrack for their invaluable assistance during the fieldwork. Without their support, organising such a seminar would have been considerably challenging. The field assistants played a crucial role in supporting the four groups by practically identifying potential interviewees and selecting locations for ethnographic or other sociological research methods. Moreover, attention was given to facilitating regular presentations by the students on the ongoing progress of their data collection during the field stay. Ensuring adherence to ethical principles in social science research was consistently emphasised to guarantee the integrity of their research projects.

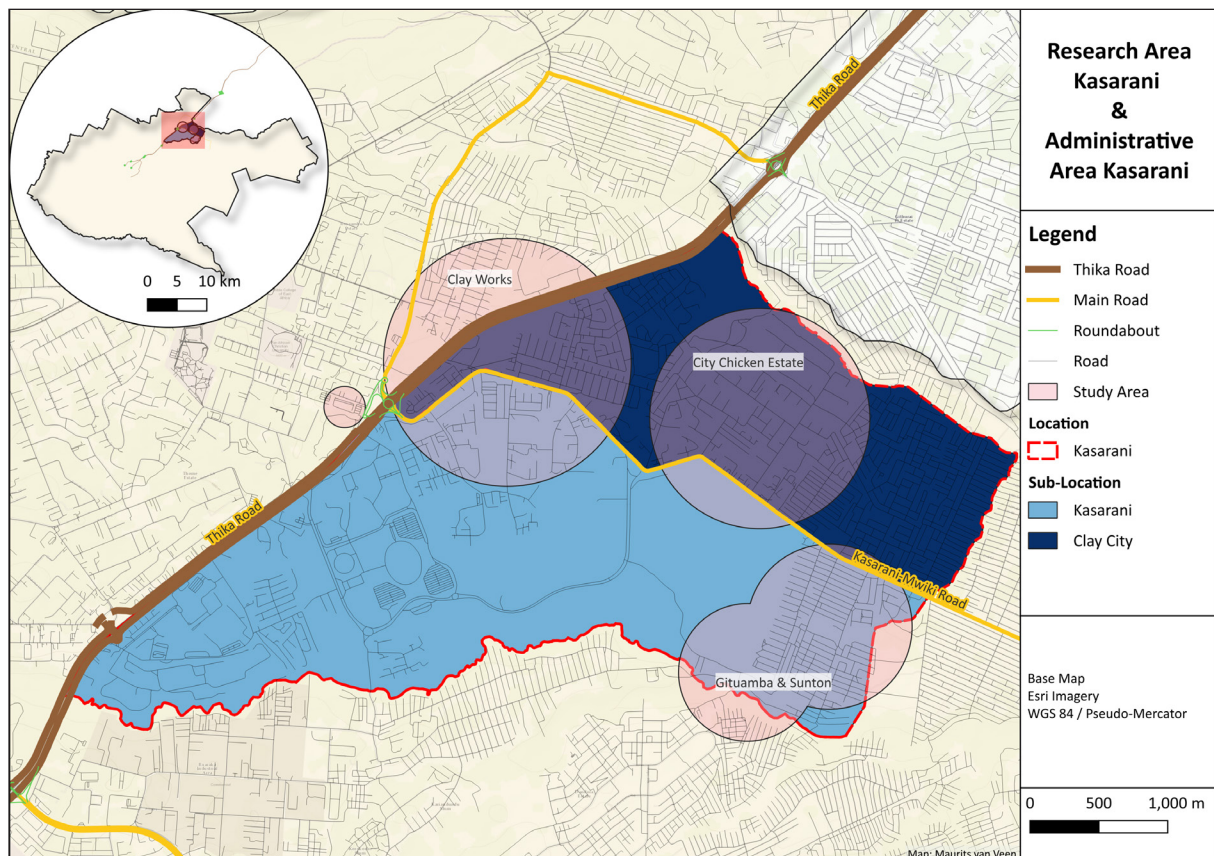
### Description of the study areas

Current societies worldwide are witnessing an escalating interconnectedness, through modern technologies, globalisation but also urban growth and in-

frastructure development. Yet this connectivity is far from leading into a uniform-built environment, rather it is leading to heightened fragmentation and differentiation in urban areas. The stark polarisation between the privileged and disadvantaged is notably evident in the fragmentation of urban (infrastructure) networks (GRAHAM & MARVIN 2001, pp. 10-15). In the Kenyan context, Nairobi stands as a pivotal node in this network, serving as a significant space for collective consumption (CASTELLS 1979; BRENNER 2019, pp. 92-96).

Nairobi's status as a continuously expanding and transforming 'multinodal' metropolitan region makes it a compelling subject for examining its urban food system, despite the inherent limits of studying a city's food system comprehensively. To address these challenges, the study project focused specifically on the city's boundaries, which include newly emerged neighbourhoods or those currently under construction. With reference to Brenner's theory of „planetary urbanisation“, it can also be pointed out that the non-urban surrounding of the city represents a kind of hinterland for urban growth (BRENNER & SCHMID 2017, pp. 48). As a result, it is characterised by various forms of resource extraction and human appropriation of nature, which follow the needs of the urban center and therefore particularly highlight the contradictions of capitalist urbanisation processes as a whole (BRENNER 2019, pp. 115-170; FOLLMANN 2022).

Kasarani - our selected research area - can indeed be characterised as one of such surrounding areas of the



Map 1: Research Area of the Study Project (van Veen 2024).



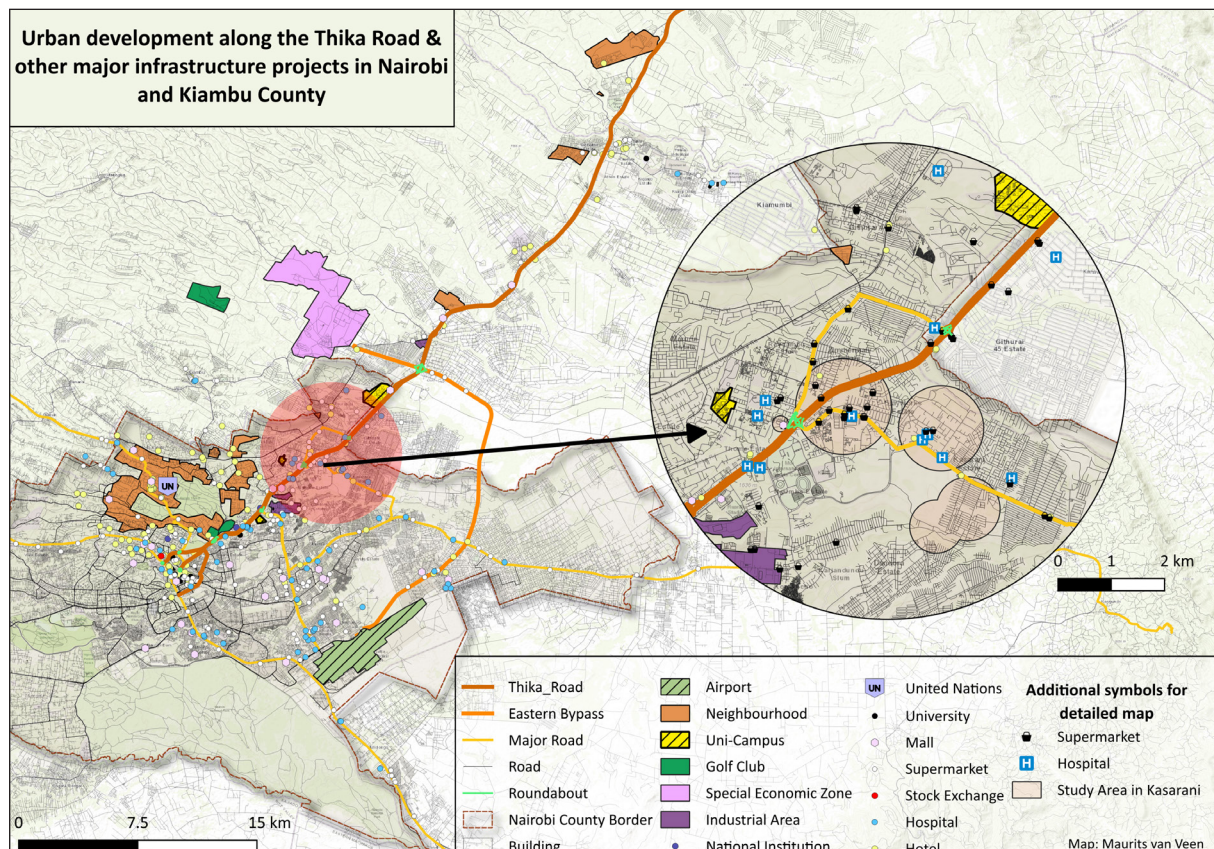
city, undergoing a transition since the 1990s to become an integral part of the proper urban fabric. Situated approximately 17 km northeast of the Nairobi Central Business District, Kasarani is aptly characterised as a peri-urban development area. Peri-urbanisation research delves into the dynamic transition where rural and urban landscapes, as well as livelihoods, undergo transformation, often marked by informal, unplanned, and illegal sprawl (FOLLMANN 2022, pp. 2-4). While Kasarani also designates an entire sub-county, our research focus was specifically on the Kasarani Location, a smaller administrative unit within the Kasarani sub-county. This location stretches from the Thika Road Superhighway to the Mwiki Location, encompassing various neighbourhoods. As of 2019, the Kasarani location was home to approximately 138,000 inhabitants (KNBS 2019), with an estimated half of the residents residing in the neighbourhoods under scrutiny. The specific areas of our research include Clay Works, City Chicken, Sunton, and Gituamba, all depicted on the following map (see, Map 1). A crucial aspect contributing to the relatively recent urban growth of Kasarani, which commenced in the 1990s but gained momentum in the 2000s is the construction of the Thika Road Superhighway (2009-2012), which established a new urban growth corridor extending northeastward between Nairobi and Thika (GILLIESPIE & SCHINDLER 2022; see, Map 2). Numerous studies indicate that this development has prompted significant changes in land use patterns (SIRO & SICHANGI 2017; LUGALIA 2018), notably characteri-

sed by the proliferation of expansive residential housing zones, supermarkets, and other contemporary service industries along the highway (K'AKUMU & GATERI 2023; GILLIESPIE & SCHINDLER 2022). Dynamics such as speculative land transactions (KINUTHIA ET AL. 2021), escalating rents, and an increased cost of living due to a middle-class influx have also been documented (MANJI 2016, pp. 216).

The selection of four research areas is predicated upon both theoretical and practical research considerations. Principally, the neighbourhoods demonstrate heterogeneity in terms of socio-economic factors, building structures, and access to public and private infrastructures (such as schools, water, and paved roads). More precisely it can be stated that the neighbourhoods of Clay Works, City Chicken Clay, and Sunton represent typical middle-class areas, differing in terms of construction, residents, and their history.

Clay Works is notably characterised by its proximity to the Thika Rd., leading to substantial investments in the construction sector since the 2000s. Currently, it is dominated by 5-7- storey apartments predominantly occupied by middle class tenants. Historically, Clay Works emerged around a brick factory in the 1960s, yet substantial population growth was not experienced until the late 1980s.

City Chicken Clay, developed mainly from the 1980s on, had its land acquired by the City Chicken & Eggs Co-Op-Society, a cooperative specialising in poultry farming and egg production which, according to interviewees, were privatising the properties as qui-



Map 2: Urban Development along the Thika Road Urban Growth Corridor (van Veen 2024).

te generous „greenfield land subdivision schemes“ (MWAU ET AL. 2020, pp. 40) to their higher-level employees as well as other middle-class buyers such as civil servants. As of the present, this area is predominantly characterised by upscale single-family homes, with modern apartment buildings emerging along the Kasarani – Mwiki Road. The low population density in this neighbourhood is particularly striking, which can be attributed to the large plots of land with gardens and the very limited street retail activities.

Established in the 1980s, Sunton was privatised after the independence era when it was owned by the former president's Kenyatta family. Today, it stands as a residential area for the middle and lower middle-income class, characterised by predominantly apartment block construction. Sunton is undergoing significant infrastructural transformations, evident in the proliferation of new apartment blocks, often juxtaposed with single-storey houses. Moreover, the area is distinguished by vibrant street commerce, particularly along the Kasarani – Mwiki Road, where retail activity, particularly in the food sector, thrives with kiosks, fruit and vegetable stalls, and informal vendors dominating the scene.

Gituamba, the smallest informal settlement on the border between Kasarani and Dandora, originated in the early 1990s. With over 10,000 residents, it is densely populated but characterised by insecure property structures and makeshift infrastructure. The retail sector exhibits low diversity, featuring Kiosks, Mama mbogas, and mobile vendors with a focus on a small packages trade, the so called „Kadogo Economy“. Although in many respects Gituamba does not correspond to the typical informal settlements in Nairobi - f.e. houses are built from stones from nearby quarries (CITIES ALLIANCE 2009, pp. 136-137) - that have already been described several times. Nevertheless, it can be described as a lower-class housing neighbourhood, with many residents affected by food insecurity, very low incomes, and other social exclusions.

Consequently, the investigation aims to discern the social and material manifestations of these differences and their interaction with the food retail sector. Positioned as a peri-urban spatial figuration straddling the urban periphery and its environs, the neighbourhoods within Kasarani undergo dynamic development. For our research, this area serves as a ‚laboratory‘ wherein we can observe the social and material differentiation of emerging neighbourhoods and, consequently, its food retail trade. Notably, we can discern certain structural similarities to peri-urban development patterns observed in other cities of the Global South, as previously elucidated in academic discourse (such as informality, pronounced inequality, and selective development of urban infrastructures). Moreover, due to our existing familiarity with the area and its residents, nevertheless through enormously valuable contacts to colleagues and friends living and knowing these neighbourhoods, we benefit from relatively unimpeded field access (facilitated by a favorable security situation

and established initial field contacts).

The results of this student research project are shown in the following 4 contributions, which are briefly summarised below.

The submission by *Jakob Gründler, Johanna Steep, Lia Mosch, Gerrit Manke and Maurice Ongosi* compares two food retail markets and elaborates the impacts of the formalisation of the urban food retail system in Nairobi. According to the authors such a ‘*formalisation*’ can be both advantageous and a challenge to the involved stakeholders. While a *formalisation* of these markets aims to enhance food safety, hygiene standards and implementation of a functioning taxation system, it can also be the source of alienation, expulsion and pose a disruption of the pre-established food retail system in local neighbourhoods. Reallocations resulting from infrastructure developments, especially when undertaken without engaging the public in the decision-making process, also pose significant threats. This study explores the complexity of the topic of formalisation in the urban food retail system of Nairobi.

The study by *Jonas Kaiser, Kürsat Gürbüz, Gerald C. Fraas, Simon Leight, Zenah Odhiambo and Charo Victor Otieno* investigates the impact of the evolving food retail sector on food security and malnutrition within the population of Kasarani. Specifically, it examines the expansion of predominantly international supermarket chains and their effects on traditional markets and street vendors. Expert opinions suggest that consumer demands are shifting, propelled by progressive globalisation and Kenya's developmental trajectory, thereby driving transformations in the retail landscape. The research delineates the pros and cons of these changes, pinpointing sectors where administrative and policy interventions are imperative.

The report by *Tabea Berger, Muia Bright Mutheu, Maurits Aloisius van Veen, Rop Gertrude Chepwogen, and Manuel Fischer* examines the impact of the COVID-19 pandemic on informal food retailers operating in stalls in Kasarani, and their responses to the challenges posed by the crisis. The study underscores the importance of understanding these challenges not only for academic inquiry but also for informing policy decisions, local governance, and the efforts of organisations aimed at assisting vulnerable communities. By shedding light on the experiences of informal food retailers amidst the pandemic, this research contributes valuable insights to discussions on informal economies, crisis resilience, and urban food security, both within Kenya and beyond. Through a deeper understanding of the specific challenges faced by informal food retailers in the aforementioned areas, this study offers implications for similar contexts and underscores the importance of recognising and supporting the informal sector as an integral component of the economy.

Authored by *Cynthia Khabetsa Mwavishi, Kristina Schletz, and Cecilia Weissenhorn*, an exploration on the nexus between social inequality, food consumption, and gender dynamics in Kasarani is provided. Income levels are noted to significantly shape food choices,



with socio-economic disparities evident in consumption patterns. On-site mapping reveals distinct food consumption prerequisites across varied socio-economic areas. Gender dynamics highlight women's traditional roles in food preparation, emphasising the need for societal changes promoting gender equality. The study highlights the importance of policy design in ensuring equitable access to healthy foods based on socio-economic status, particularly in achieving universal health coverage and reducing non-communicable diseases.

In conclusion, we would like to express our sincere gratitude to all students, field assistants, interview partners, guest lecturers and other supporters whose invaluable contributions were instrumental in bringing this publication to fruition. The study project provided all participants with an outstanding opportunity to deepen their understanding of the urban food system in Nairobi and to generate additional knowledge in this field. We hope you enjoy reading the following contributions.

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# The Process of Formalisation of Food Markets - Tracing Chances & Challenges on Current Examples from the City of Nairobi

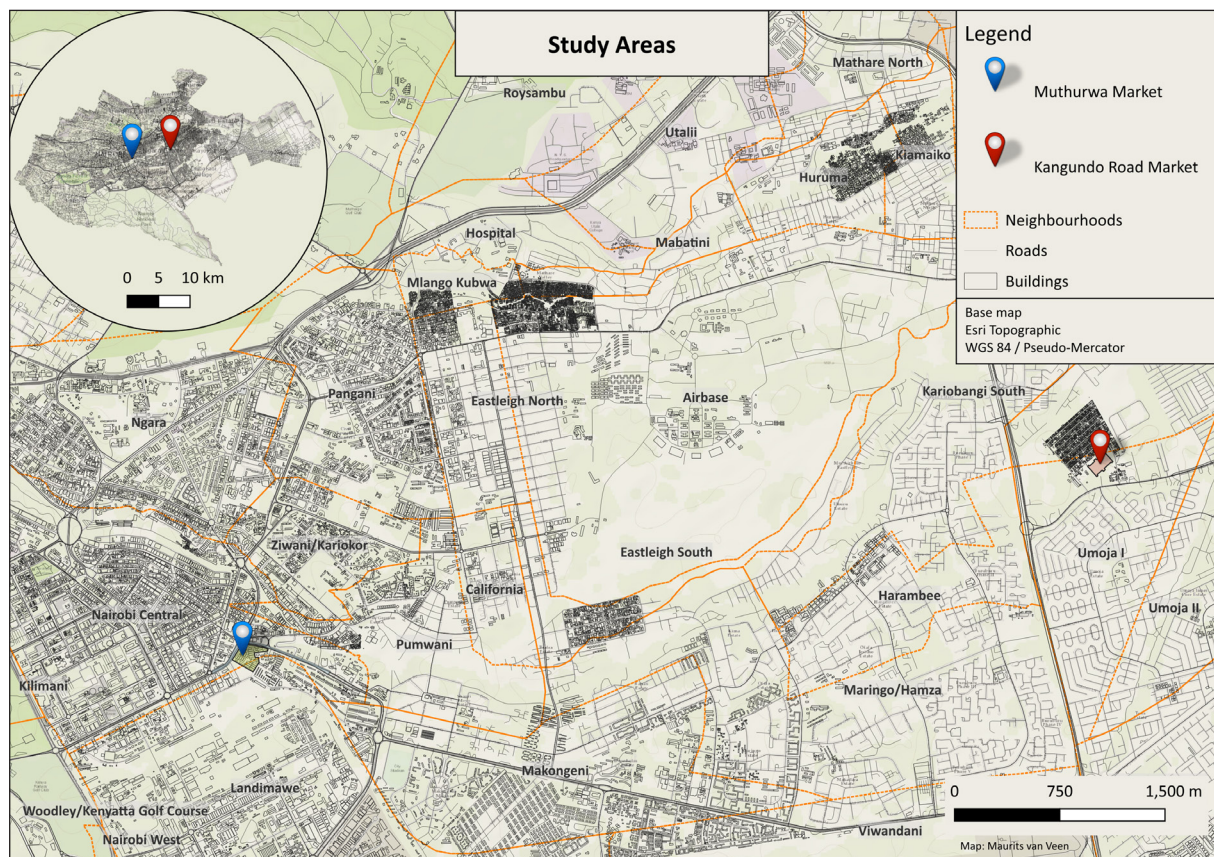
Jakob Gründler, Johanna Steep, Lia Mosch, Gerrit Manke & Maurice Ongosi

## Introduction

Globally, the urban food systems both in Global South and North are quite complex and keep on mutating. In Africa, with the cities experiencing rapid urbanisation these mutations and changes are evident. In Nairobi, a city that has undergone three phases of development; precolonial, colonial and post-colonial, the food systems too have been responding to these key developments. Today, the food retail system in Nairobi is currently undergoing profound visible changes. Central trends are firstly the dynamic *supermarketisation*, changing food consumption patterns of both upper- and lower-income classes (KULKE & SONNTAG

2021) and secondly the formalisation of informal food retail activities realised by the reallocation of former informal traders and hawkers to newly built markets with increasing regulations regarding registration and taxation (BERGER & VAN HELVOIRT 2018). The development of these new formal markets with well-structured stalls, parking lots and increased road access were part of a broader plan of the Nairobi Metropolitan Services (NMS) and the Nairobi City County government aiming at the creation of more trading spaces and the development of new income streams (BUSINESS DAILY 2021).

Building on the scientific literature in development studies and economic geography thematising the im-



Map 3: Study Areas - Muthurwa Market and Kangundo Road Market (van Veen 2024).



pacts of the formalisation of economic activities in developing countries, this paper analyses the implications and effects of the formalisation of food retail activities in Nairobi by providing an in-depth case study analysis of two formalised markets; the Kangundo Road market and the Muthurwa market (see map 3). The Research objective is consequently to elaborate an overview of the effects of the formalisation of food retail activities at the two observed markets for the sellers itself at the micro-level and the neighbourhood and city on a macro-level. Although the study focuses on two specific markets in Nairobi, there are many similar cases in the Nairobi metropolitan area and other rapidly urbanising cities in sub-Saharan Africa. This paper, therefore, joins the debate on the upgrading of urban informal trade activities by highlighting various opportunities and challenges related to it.

A deepened analysis regarding the dynamic formalisation of food retail activities in Nairobi is of manifold relevance. Firstly, it is of utter importance for the city itself and its local administration to fully understand the effects of the implemented formalisation policies in order to agree on possible adjustments to the current policies. On the level of scientific research, this report can potentially make a substantial contribution in the scientific discourse analysing the effects of formalising economic activities in developing countries.

## Theoretical Concepts

### *Formality and Informality in economic activities*

The concepts of formalisation and informal economy in this paper are important for the classification of Nairobi's food markets. The concept of an informal economy is not new in Nairobi's economic space. The International Labour Organisation (ILO) used the *Jua Kali* works in Nairobi during the 1970s to come up with the definition of informal economy. Since then urban scholars, geographers, economists and sociologist have been studying informal economies, not only in Kenya but also in Global South at LARGE (KING 1996; OKOLA 2010; ABUODHA & KING 2011). The significance of Nairobi's informal economy in terms of food security, employment, and economic development is discussed by different scholars (BROWN 2019; KOMOLLO 2010; HOUSE 1984; ALDER 1995; NG'ETHE & NDUKA 2011). Despite the focus on informal retail activities in this paper, the evaluation and exploration of these activities cannot be done without mentioning and touching on the formal retail activities for the distinction between the two is blurred (DANNENBERG ET AL. 2016).

### *Historical Overview*

In the early years of the World Employment Programme (WEP), the term informal sector made its debut in

ILO country mission reports, particularly those associated with economists from the Institute of Development Studies (IDS) (MAUL 2009). This period coincided with Wilfred Jenks taking over as the head of the ILO, succeeding David Morse between 1970 and 1973. Although the reports from Jenks's tenure are more notable for their perspective on informality than specific employment policies, the actual term informal sector was introduced in the third volume of the series, focused on Kenya.

Before the explicit use of the term, Dudley Seers oversaw the first two volumes, examining Colombia and Sri Lanka in 1970 and 1971, where the older concept of disguised unemployment was employed. The shift towards the informal sector occurred in 1971 when anthropologist Keith Hart presented his ideas on informal economic activities in the Ghanaian economy at the IDS. Hart's argument, advocating for the encouragement rather than suppression of these activities during development, resonated with researchers at the IDS. The concept of informality aligned well with the developmental framework that both IDS and ILO economists had been cultivating, emphasising the need for labour-using techniques and economic activities that catered to the broader population.

SINGER AND JOLLY quickly adopted the informal sector concept for the ILO's Kenya report before Hart had the chance to publish his ideas (SINGER & JOLLY 2012; JOLLY 1974). This adoption mirrored a broader trend, where developmental economists were turning to anthropological and sociological perspectives when facing challenges in their field. In the Kenya report, SINGER AND JOLLY distanced themselves from the *underemployment framework*, arguing that the informal sector encompassed a variety of urban enterprises and individuals engaged in economically efficient and profit-oriented activities (WAZIR 2020). They emphasised that the main issue faced by the small-scale sector was the illegality of much of its production, existing largely outside the system of government benefits and regulations. The term informal sector was chosen to imply that removing obstacles for the formalisation of small-scale enterprises would lead to a significant improvement in the conditions of this sector.

The discourse on informality commenced in the 1970s, marked by the introduction of the concept in Ghana through Keith Hart's 1971 work, 'Informal Income Opportunities', and in Kenya as defined in the 1972 ILO report by BENANAV (2019). Utilising the multicriteria approach outlined in the ILO report, a redefinition of the informal sector took place during the 15th International Conference of Labour Statisticians in 1993 (CHARMES 2016). The ILO defines Informal economy as the following:

*"The informal economy refers to all economic activities by workers and economic units that are – in law or in practice – not covered or insufficiently covered by formal arrangements."* (ILO n.d.)

Further, the ILO characterises the informal economy as low-quality employment without social protection measures, poor governance, and low productivity (ILO n.d.). Therefore, informal employment is created by informal economic activities and subsequently defined by the type of the employment relationships, if it is subject to national labour legislation, income taxation and social protection (CHARMES 2016). Since the establishment of the ILO's definition the role of the informal sector, especially in sub-Saharan Africa, gained particular interest in the light of its contribution to economic activities and employment (ARYEETEEY 2015). In general, it can be argued that two diverging approaches to the informal sector exist. Firstly one can view the informal sector as a problem which requires a solution and needs to be formalised. In this view the informal sector is seen as a vicious circle, where people in informal economies are trapped in the cycle of poverty. The second approach on the other hand views the informal economy as an important contributor to employment and poverty reduction and therefore economic growth (ARYEETEEY 2015). In terms of crisis (like Covid-19) the informal economy can also be seen as a safety net for those pushed out of formal employment (ARYEETEEY 2015).

For the analysis of food markets, KOMOLLO'S (2010) characteristics are best suited. He states that informal economic activities are mostly unregistered, have a low capital input, are labour intensive, take place in unregistered markets and do not receive support from the relevant state actors. Moreover, informal activities take place in unplanned urban spaces which lack adequate infrastructure, are poorly serviced and environmentally unstable. Because of these circumstances, the economic benefits cannot be maximised productively (KOMOLLO 2010). However, these are only some characteristics of informality, and a clear definition remains challenging. ETZOLD ET AL. (2009) define informality as a *"continuum of interrelated social processes and practices with different degrees of and qua-*

*lities of (in)formality"* (ETZOLD ET AL. 2009). This highlights that informality can also be seen as a more general logic of doing things and operating a business (DANNENBERG ET AL. 2016).

In this paper, formal economic activities in the food sector are defined as the opposite according to the characteristics by KOMOLLO (2010). This means that formal economic activities are registered by the governmental authority and therefore paying taxes and they take place in registered and planned markets where adequate infrastructure is provided. As the process of formalisation of food markets, different stages of establishing the described formal economy are understood. Particularly, the planning process of finding a suitable location for a market, the (re-)settlement of traders into the market infrastructure, the registration of these traders and the operation of the market can be understood as such. Nevertheless, these standardisations of the market activities do not necessarily lead to a weaker informality. However, the process of formalisation of economic activities is seen as a complex process, where different measures like interventions on law and regulations are needed. As an important step in the formalisation process the ILO names the reduction of decent work deficits (ILO n.d.). In proximity to the recently instituted formal markets, informal trade practices can persist and are frequently intertwined (DANNENBERG ET AL. 2016). This paper centres its study on the opportunities and difficulties presented by these complex dynamics for both businesses and the government, rather than delving into the procedures themselves. This paper does not claim to make a clear distinction between formal and informal activities. Rather, it aims to distinguish a market planned or upgraded by the Nairobi City Council from an unplanned market with inadequate infrastructure to which KOMOLLO'S characteristics apply, and to identify the opportunities and challenges of establishing new formal markets. As economic activities and value chains in the Global South in particular are



Figure 1: Food Retail along a Road in Sunton (Mosch 02.08.2023).



characterised by a continuum between formality and informality, an exclusive classification is not provided (DANNENBERG ET AL. 2016).

#### *Formalisation of Markets; Nairobi City at a Glance*

State designated markets such as Wakulima Wholesale Market play a vital role as the primary source of food for urban populations in many developing countries, thus contributing significantly to food security. Since gaining independence in 1963, Kenya has witnessed a deliberate lack of development in new public markets in Nairobi, despite the city experiencing significant population growth. BEEMANYA (1978) noted that in 1966, there were seven official retail markets and one wholesale market primarily handling fruits and vegetables, all overseen by the Nairobi City Council. A Metropolitan Growth Strategy in 1973 outlined plans for 55 new markets on public lands throughout the city, yet over the course of more than 40 years, the necessary funds for their development never materialised (MUNDIA 2017). Many markets that did emerge during this period, evolved organically, often on uncertain or disputed land. Efforts to formalise these markets, such as the Toi Market in Kibera during the 1980s, were hindered by attempts of political elites to exploit trading spaces for personal gain (MUNDIA 2017). Consequently, the shortage of market space has become increasingly acute, pushing the impoverished to conduct their business in precarious locations like road margins (see figure 1), beneath power lines, or crowded along railway lines — spaces prone to sudden closure or destruction.

City county government Bulldozers periodically arrive at night to demolish the ‘illegal’ markets, sometimes under mysterious circumstances or as a result of political decisions. Notably, the Gikomba market, a significant second-hand clothes market, was set ablaze in September 2000, leading to a riot and an attempted occupation of City Council Headquarters (MACHARIA 2007). Accusations were made against city officials, alleging the sale of the market’s land for development. In the same year, the market at Garissa Lodge in the Eastleigh area, a hub for Somali migrants, was engulfed in flames (ROBERTSON 2007). In affluent areas like the Westlands, one can view the remnants of hawker shops destroyed by the City Council. This subtly displays the micro-securitisation of road medians, with barbed wire nets discreetly embedded in the landscape to discourage informal traders (MANJI 2015).

The precarious situation continues, as evidenced by the burning of Toi Market in 2005 (CARDOSI ET AL. 2021) and the demolition of a substantial market near the Village Market Shopping Mall in Gigiri in 2006. In February 2009, under the cover of darkness, City Council tractors demolished the Mwariri market in Kariokor, a hub for Jua Kali artisans, resulting in injuries to some stall holders who attempted to protest or retrieve their property. Despite its vast expanse of

40 acres, the land remains undeveloped (LINEHAN 2015).

Presently, the primary source of fresh produce in Nairobi is the traditional city markets, as highlighted by WAIRIMU (2020) and OWUOR ET AL. (2017). Nevertheless, these markets have consistently faced insufficient investment over an extended period, as indicated by TSCHIRLEY ET AL. (2004). Widespread issues such as inadequate hygiene, poor sanitation, congestion, and insufficient infrastructure have been identified (USAID 2013; LANS ET AL. 2012; WAIRIMU 2020; BUSINESS DAILY 2021). Moreover, the challenges are compounded by factors like a lack of information on prices and technologies, high transaction costs, and credit constraints, as emphasised by MARKELOVA ET AL. (2009). Notably, these markets are predominantly driven by informal economic activities without proper regulation (ASANTE & HELBRECHT 2020; WAIRIMU 2020). Nevertheless, a positive trend has emerged, focusing on improving the condition of urban marketplaces to enhance local revenue as well (PRASTYAWAN & ISBANDONO 2018). Effective governance of market systems plays a critical role in determining the accessibility, affordability, and quality of food. Typically, local governments and market associations assume responsibility for managing marketplaces in Africa (SMIT 2016). They obtain revenue from collecting trader fees but the function of planning, regulating, and providing infrastructure is often neglected (MEAGHER 2011). In Nairobi, the county government of Nairobi is aiming at the creation of more trading spaces and the development of new income streams for the municipal government by formalising trade. This includes constructing new market halls or renovating old ones to ensure better infrastructure, security and accessibility. The rehabilitation furthermore aims to address food security issues by improving sanitation and hygiene (BUSINESS DAILY 2021). The state Department for Housing and Urban Development provided the National Markets Development Policy which serves as a guide for the implementation of new management models for the country’s markets, including the planning and design of markets, allocation and management of the trading spaces (BUSINESS DAILY 2021; STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT 2021).

#### *Positive Impacts Resulting from the Formalisation of Markets*

In existing literature, a prevailing argument supports the formalisation and modernisation of conventional informal markets, asserting that this transformation yields numerous advantages for the traders engaged in such settings (KAPPEL & ISHENGOMA 2006; ABRAHAMS 2010; CHEKENYA 2017; ROGERSON 2018; GERXHANI 2004). A pivotal benefit is the heightened resilience and significance of these markets, achieved

through the establishment of transparent and quality-oriented food networks. ABRAHAMS (2010) contends that enhancing market infrastructure has the potential to stimulate profitable economic transactions. For example, increased logistical efficiency can result in cost savings, and the implementation of an effective waste management system can improve hygiene, making markets more attractive to customers and positively influencing turnover.

Further investments, including initiatives like cold storage and other value-added services, have the potential to raise the standards of the traditional market system (TSCHIRLEY ET AL. 2004). Instances in Zambia have also shown that the formal regulation of markets releases traders from political pressures prevalent in traditional markets, where trader associations often wield considerable influence and levy fees on retailers (ABRAHAMS 2010; SIAME ET AL. 2020). Through formalisation, traders may experience reduced fees and a greater sense of representation, enabling them to articulate their needs more effectively. This, in conjunction with enhanced management transparency and upgraded infrastructure, contributes to justifiable market fees (ABRAHAMS 2010).

Overall, several scientific discourses (OLANIYAN & ADEPEJU 2023; SRIDHARAN ET AL. 2017) as well as practices in development cooperation are advocating this market-based approach to poverty alleviation, arguing that the formalisation of economic activities, hence increased entrepreneurship results in economic empowerment for the entrepreneur and overall economic development for the entire country (MENDOZA & THELEN 2008 IN PELS ET AL. 2022). In this context the formalisation of markets, extending the scope of formal economic activities became a central policy aim since the 1990s, pursued by instruments such as micro-loans.

#### *Negative Impacts and Hindrances Resulting from the Formalisation of Markets*

On the other hand, practical examples of formalising markets have also revealed certain drawbacks during the transition. PELS ET AL. (2022) not only highlight that regulations hinder informal sellers from accessing formal markets, but also emphasise the importance of normative and cultural-cognitive capabilities that are often lacking, requiring a significant 'habitus shift' for success in a formal environment. Another concern is that smallholders face challenges with scale and quality issues. Small-scale traders may struggle to compete with supermarkets and other large-scale traders and might find it difficult to meet the required quality and food safety standards in formalised markets. However, these challenges can be partially overcome through collective action. The poorest traders, in particular, may suffer losses when markets are upgraded and could be forced into street hawking (RESNICK 2020). Several scholars report difficulties, especially during the reallocation phase of market transitions, as moder-

nisation efforts often necessitate a change of location for traders.

Evidently, the traders in the informal sectors contribute economic, social, and environmental value to urban areas. Unfortunately, policymakers, elites, especially those advocating for sustainable cities, frequently disregard this contribution. Instead, they emphasise on formalisation and rely on perspectives that highlight the shortcomings of informal work.

This reallocation can be described as a shock, with long-lasting consequences for the traders (JØRGENSEN & ADAAWEN 2012). Many retailers rely heavily on established relationships with suppliers, distributors, and customers, where the spatial component is crucial (RESNICK 2020). Higher trust as well as loyalty of clients and suppliers and network effects, such as better access to information or collaboration with colleagues have a positive impact on the economic performance of traders with strong and numerous social ties (WALTHER 2015). A reallocation of the traders ignores these established relationships, and they often resist moving to sites in more unfavourable conditions, far away from their customer and supplier base (MUWOWO & BATTERSBY 2018). Additionally, traders are often excluded from the decision-making process in the construction of new markets, leading to inadequate numbers or sizes of available stores. This has negative economic implications for the traders and hinders their possibilities for expansion (ASANTE 2020).

Moreover, other drawbacks in newly built markets that negatively impact traders' businesses include gated walls and small entrances, preventing passers-by from recognising the market and increasing the risk of criminal activities within the market. Furthermore, inadequate advertisement of the market has been criticised (JØRGENSEN & ADAAWEN 2012).

Reacting on the previously presented argumentation that extending the scope of entrepreneurship, hence the formalisation of market activities is the key for economic growth, several scholars (SUTTER ET AL. 2013 IN PELS ET AL. 2022) comment that the formalisation of economic activities cannot be considered as a universal remedy to foster economic development. Building on the presented notion that the formalisation process itself requires high effort and external assistance (such as the required habitus-shift), the sole formalisation often does not result in an extension of economic activities (BRADLEY ET AL. 2011 IN PELS ET AL. 2022).

#### **Methodology and Research Design**

Various methods of data collection were utilised that helped producing a solid framework for data analysis and interpretation. The intention of the paper is to move beyond the limitations imposed by numerical data and, consequently, the decision was made to employ qualitative research methods. This choice was dri-

ven by the nature of our data collection process, which did not encompass numerical values. Qualitative research was deemed the most fitting approach for this study, allowing for a more nuanced exploration and understanding of the subject matter beyond the confinements of quantitative measures. This methodology facilitates a comprehensive examination, incorporating the richness of contextual details and insights that might be overlooked in a purely quantitative analysis. It largely entailed visual research characteristics that could be observed during the interview. (MARGOLIS & PAUWELS 2011; BERG & LUNE 2017). An open-ended questionnaire was used to obtain responses from the respondents, for example an urban planner who later shared the feedback as the questions were linked to our objectives and the case study research of the available literature which helped us to bridge the existing gap of formalisation of markets to foster more profitable income (ABRAHAMS 2010).

A Case study design as well as the grounded theory design were used as our research designs as they best fit our research objectives regarding formalisation of markets (BIRKS & MILLS 2011). The Case study design helped us to describe a market whether it is formal or informal and to also in comparing and evaluating different aspects of our research problem of formalisation of markets. This was successful through a field study, which was conducted in both the Muthurwa market and Kangundo road market in Nairobi, Kenya. During the exploration of the formalisation of food markets and the tracing of opportunities and challenges, the Grounded Theory was employed in the research process. The study focused on current examples from the city of Nairobi, and the application of Grounded Theory involved an inductive approach. The paper collected data systematically, utilising constant comparison to identify emerging patterns and themes. The coding process involved the systematic categorisation of data, with initial codes derived directly from the collected information. As the analysis progressed, these codes were organised into categories and, sub-

sequently, into higher-order concepts. Throughout the research process, detailed memos were maintained to document thoughts, ideas, and decisions.

This *memoing* practice facilitated the ongoing refinement of codes and the development of theories. The aim was to achieve theoretical saturation, ensuring that data collection continued until no new themes or insights emerged, resulting in a comprehensive understanding of the challenges and opportunities associated with the formalisation of food markets in Nairobi.

The participants' own interpretations of the questions were analysed using the MAXQDA program for data analysis, which helped in developing a theory based on the conceptualisation of raw data. The respondents included traders, customers, and experts. Our methodological approach enabled a comprehensive analysis of the research topic, providing insights into understanding the perceptions of formalisation among traders in Nairobi, our case study area. These findings served as a basis for informed decision-making in the research.

The interviews focused on experts from various fields, including the Retail Trade Association of Kenya (RETRAK), an urban planner of Nairobi County, and food sellers and customers. Passers-by were also interviewed to comprehend their perception of formalisation. It's also noteworthy that the urban planner was a crucial respondent because of her responsibility for planning and allocating new land for building new markets in our case study area, Nairobi. The RETRAK expert was selected as a key respondent due to her advocacy for a business-friendly working environment in Kenya. This directly aligns with our research problem of market formalisation.

#### Sampling Procedure

The primary sampling method employed in this research is purposive sampling, chosen due to its

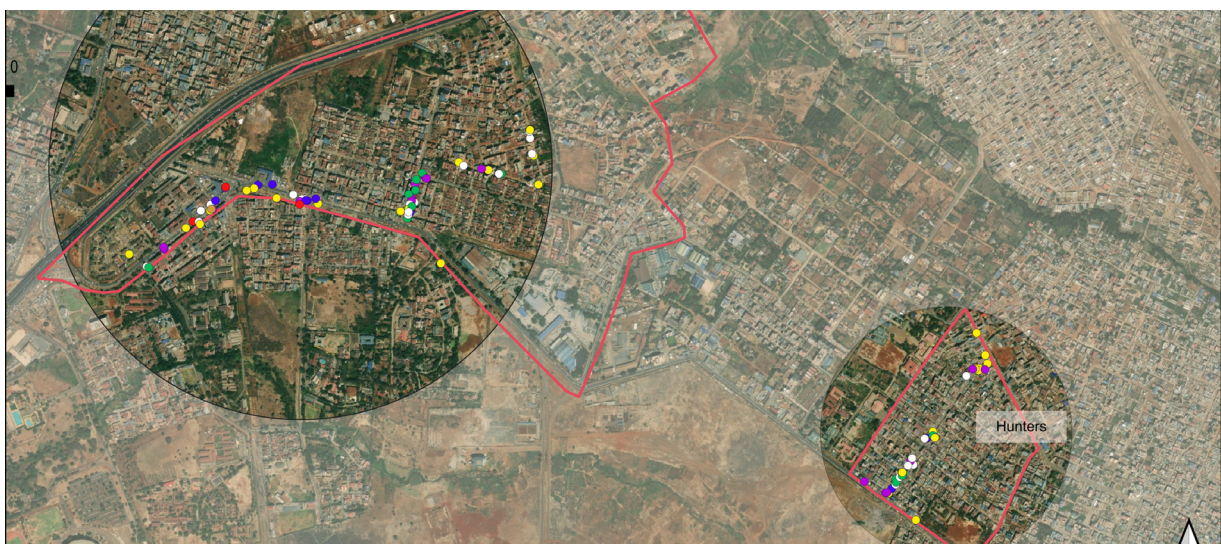


Figure 2: procedure used for data analysis using MAXQDA (vanVeen 2024).



transferability and the vast size of Nairobi, making it impractical to investigate all upgraded markets comprehensively (CAMPBELL ET AL. 2020). The Kangundo Road market and Muthurwa market were deliberately selected as the focal areas for the study, along with the inclusion of experts in the sampling process. This intentional selection aimed to facilitate a meaningful comparison between formalised and informal markets, aligning with the research objectives and problem statement. Given the complexity of large urban settings with numerous markets displaying both formal and informal characteristics, purposive sampling proved effective in data collection, particularly concerning infrastructure standards and government management.

The qualitative research sought to delve into the thoughts, opinions, emotions, and reasons influencing the current state of the market (BAUR 2011). The overarching goal was to identify gaps left by formalisation in the market sector, with a focus on infrastructure standards and government management.

Purposive sampling not only optimised the exploration of a specific population of interest but also yielded valuable outcomes, as evident in the findings and conclusion. It facilitated the collection of qualitative responses from both the study markets and expert interviews, contributing to more nuanced insights and precise research results on the contentious topic of for-

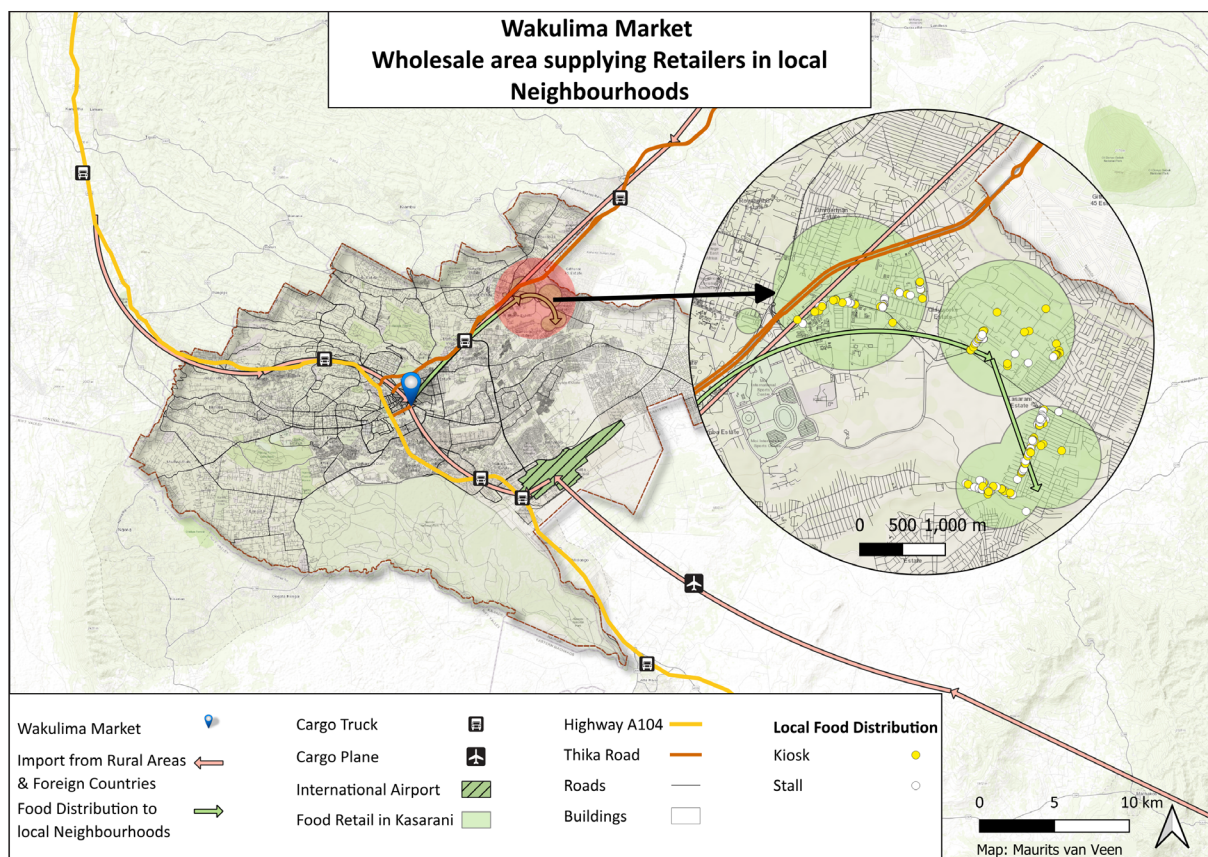
malisation, as indicated by literature reviews (DANNENBERG ET AL. 2016). The method also supports the refinement of existing hypotheses related to market formalisation.

Research materials include interview guides which align with the research objectives. The interviews were conducted with active consent of the interviewees. Respondents were encouraged to share their experiences in a comfortable manner, allowing for a more fluid conversation and the extraction of relevant information (HAMMERSLEY 2013). The consent-based use of audio devices enabled the transcription of conversations into written form, providing firsthand information crucial for addressing research objectives related to reallocation, formalisation, and the associated opportunities and challenges.

### Case Study

The literature highlights different chances and challenges as the result of formalisation of food markets.

In this section, the results of the observations and qualitative Interviews at two exemplary food markets in Nairobi are reported. First, the case of the newly constructed Kangundo Road Market is presented then the case of the open-air Muthurwa Market (see map 3).



Map 4: Importance of the Wakulima Market for Retail in local Neighbourhoods (van Veen 2024).



### *The Case of the Kangundo Road Market Old Nairobi's Wakulima Market*

In the realm of vibrant commercial centres, the prevailing mental imagery often gravitates towards imposing structures, long queues in banking halls, bustling stock exchanges, and teeming shopping malls replete with enthusiastic shoppers. However, Nairobi's Wakulima Market diverges significantly from such stereotypes. While it accommodates a multitude of retail traders engaged in the exchange of agricultural produce and caters to an astute clientele, the similarities end there. The edifices within this expansive market narrate a tale of antiquity, beseeching repair. Even amidst the heart of Nairobi's Central Business District, the thoroughfares succumb to mud during the rainy seasons (MUGO 2019). Furthermore, the market, although a nucleus of agricultural commerce in Kenya, bears witness to a haphazard arrangement of produce in various stages of degradation, emitting an unpalatable odour that may deter discerning patrons. Despite these challenges, the traders diligently follow the endeavour to maintain cleanliness within the market precincts.

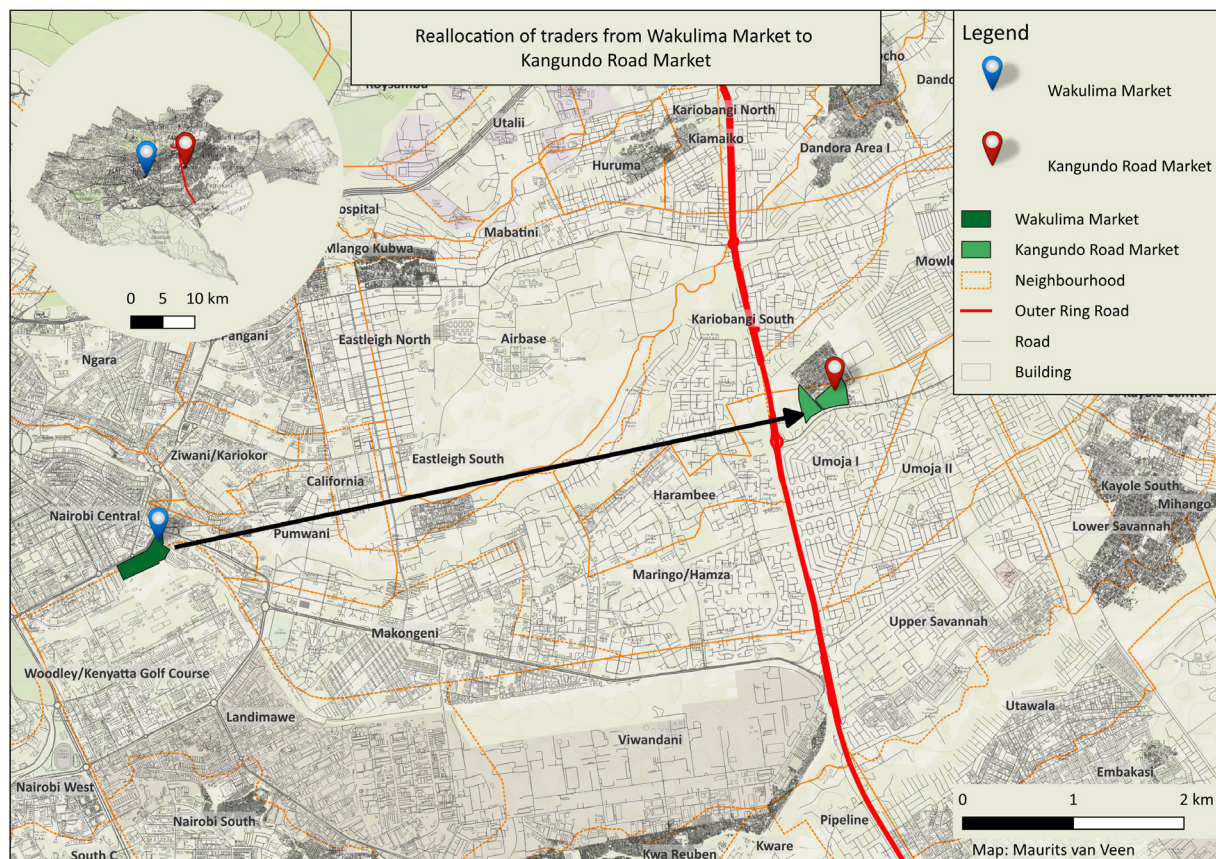
### *The Agricultural Hub*

Contrary to its unimposing visage, Wakulima Market stands as the bustling epicentre of agricultural

commerce in Kenya. Massive trucks traverse from neighbouring countries and counties, transporting essential food supplies and a myriad of produce (BE-EMANYA 1978; MWANGI 2018). The market serves as a conduit for the distribution of fresh and wholesome farm products to a diverse clientele (see map 4), including traders seeking to retail them and individuals aspiring to capitalise on wholesale prices. The traders, navigating a dynamic pricing landscape influenced by farm production levels, rely on rudimentary mobile phones to sustain commerce and communication, eschewing the high-tech systems characteristic of modern trade centres.

### *Quiet Efficiency*

In stark contrast to the cacophony typical of many markets, Wakulima Market operates as a relatively serene business hub. Trucks align in an orderly fashion, transforming into vigilant mobile shops upon unloading. Millions of shillings change hands daily within this unassuming nucleus of Kenya's informal food trade, transacted discreetly without ostentatious displays of wealth. Unassuming millionaires, adept at navigating the intricate dynamics of the market, emerge amongst the traders, defying societal expectations of conspicuous affluence. Simultaneously, a cadre of hawkers, brokers, transporters, loaders, and cleaners



Map 5: Second Location of the Wakulima Market (van Veen 2024).



contribute quietly to the economic vibrancy of the market.

*Revitalisation Imperatives*

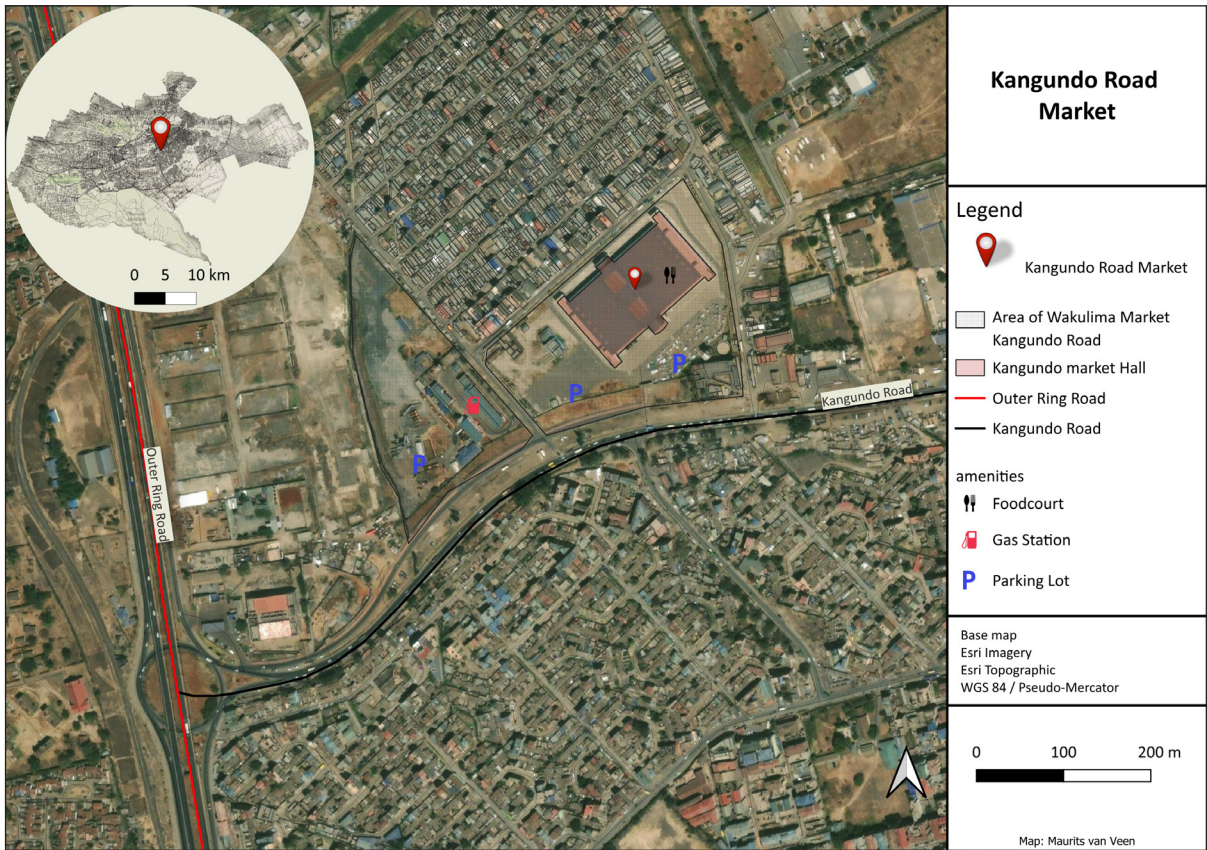
Given its pivotal role as a lifeline for numerous stakeholders, concerted efforts are imperative to enhance the aesthetic appeal and operational efficiency of Wakulima Market. Through the efforts of NMS, efforts to relocate traders to a new market along Kangundo Road, immediate attention is warranted to refurbish the existing market since the traders refused to relocate to the new market. The hawkers along Haile Selassie Avenue, acting as an additional outlet for market products, must align with city by-laws to ensure uninterrupted traffic flow. Initiatives encompassing the repainting of market structures, repaving of roads, and the improvement of drainage systems are critical to the overall revitalisation of the Wakulima Market. Despite its divergence from the opulence of the Nairobi Stock Exchange and prominent shopping malls, the market serves as the lifeline for numerous farmers and traders, deserving of a comprehensive makeover to ensure sustained vibrancy and relevance (see map 4).

*The Newly Constructed Wakulima Market Along Kangundo road*

The Wakulima Market, situated along Kangundo Road in Nairobi (see map 5) was inaugurated by President William Ruto (NAIROBI CITY COUNTY 2022).

During his inspection of the market, the governor of Nairobi addressed disputes related to the allocation of stalls and articulated the commitment to allot stalls to traders currently conducting business in the adjacent parking lot. The market, with a construction cost amounting to Sh800 million, its original purpose was to serve as a refuge for traders affected by road expansion endeavours in Kangundo Road, Mtindwa, and Dagoretti, as well as those from the existing Marikiti market in the Central Business District (CBD). The facility was designed to accommodate a total of 7,000 traders, consolidating a space for those impacted by diverse urban development initiatives.

In 2015, as part of the 13-kilometer dualisation initiative of Outer Ring Road, small-scale traders were reallocated, paving the way for the market’s development. According to research of the African Development Bank 445 traders, were identified to be dislocated during the 13-kilometer dualisation of Outerring Road, and to be reallocated to the Kangundo Road Market (KOKOYO 2016). Moreover, a specific allocation of stalls was designated for persons living with disabilities, reflecting an inclusive approach to the market’s spatial organisation (MAKAJUMA ET AL. 2013). This infrastructural venture underscores the government’s commitment to addressing the socioeconomic implications of urban development projects and providing viable resolutions for traders affected by such initiatives. As the first study area to analyse the challenges and chances of local traders and of the government in the process of formalisation of food markets the Kan-



Map 6: Kangundo Road Market in Nairobi, Kenya (van Veen 2024).



gundo Road Market was assessed. According to consistent media reports (NAIROBI NEWS 2022; THE STANDARD 2022; THE STAR 2022) the market was opened between October and November 2022 and is located along the Kangundo Road in Mowlem Ward, Embakasi West Sub-County of Nairobi. The market was funded by the African Development Bank and the Kenyan Urban Roads Authority (NAIROBI CITY COUNTY 2022). The purpose of the construction was the resettlement of food traders who were displaced by the construction process of the infrastructure project, outer ring road (see map 6) (NAIROBI CITY COUNTY 2022). The outer ring road is a construction project between 2015 and 2019 to improve the existing single carriageway road to a 2-lane dual highway. The highway runs along the Eastland area of Nairobi and should improve the mobility and accessibility of the City of Nairobi ( NYAGAHIMA 2020).

The area of the market is directly located at the Kangundo road, however visitors have to pass the entrance because of walls built around the area. The provided infrastructure includes parking lots, an outside wholesale area where the market traders are supposed to buy their products, a main entrance to the market hall which is divided into two floors. On the ground floor kiosks are constructed which are intended for non-food products like cloths and electronics (see figure

4) whereas in the first-floor uniform stalls of 4m<sup>2</sup> are constructed for selling fruits and vegetables (see figure 7). The food department was first supposed to be located on the ground floor, but is now located on the first floor, where it is too hot to sell fresh products all year round. On the rooftop a food court including a sitting area is planned (see figure 6) (Market Authority/6). In addition, inside the market hall emergency exits, fire extinguishers, toilets and water facilities are provided. For the future it is planned to divide the food stall area into departments: for example, one area only for explicit fruits and in other areas vegetables. Currently, there is no spatial division by types of food, which means that shoppers walk past several vendors to reach a desired product. In the planned food sections traders



Figure 3: Entrance to Kangundo Road Market (Steep 07.08.2023).

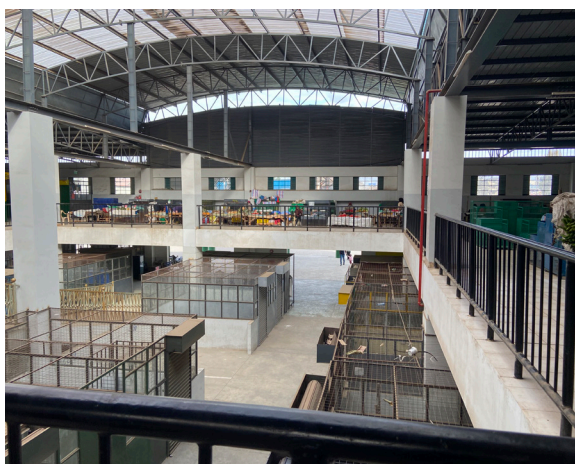


Figure 4: Inside Kangundo Road Market (Steep 07.08.2023).



Figure 5: Wholesale Area (Steep 07.08.2023).



Figure 6: Rooftop Kangundo Road Market (Steep 07.08.2023).



Figure 7: Standardised Stall Kangundo Road Market (Steep 07.08.23).



would then have to limit themselves to a product selection, which could change their location in the market. The market is open all week and the most customers of the market come after work between 7- 8 p.m. (Market Authority/6).

As the market authority confirms, the Kangundo Road Market was constructed as a compensation project for displaced traders at the newly built ring road. However, the process of the reallocation faced challenges in terms of completion of the market infrastructure and direct relocation of the traders inside the market hall. Regarding the authority of the Kangundo Road Market (Market Authority/6) the market hall was first opened in 2020, however due to the start of the Covid-19 Pandemic in March 2020 the market was closed. During that time and before the markethall was officially opened by President Ruto at the end of 2022, traders were selling their products in the parking lots of the market. As observed in August 2023 all traders from the parking lot moved inside the market. This represents, as stated by the market authority, a significant improvement of the conditions of the traders because they are no longer exposed to weather conditions which in addition affects the quality of their products (Market Authority/6).

The market authority states that the market hall provides approx. 570 stalls from which 200 are in operation at the moment. However, the observations showed that on the ground floor merely ten stalls are operating and on the first floor around 30 stalls actively sell products. Besides, the wholesale area is not active at the moment. Social media as well as physical meetings are used to mobilise traders to sell their products at the market. Additionally, there are no requirements for the traders to move inside. Furthermore, the Market Authority states that traders in the market were willing to move because they were offered protection, security, and facilities (Market Authority/6).

However, traders must pay 800 Kenyan shillings (5,60 US Dollar) per month to Nairobi County for a license to operate in the market and converting them to permanent operators of their stalls. The market authority also started a marketing campaign in social media and physical advertisement to mobilise the community around the market to buy products at the market. The main target group are customers from the nearby middle-income class (Market Authority/6). Currently one challenge of the newly constructed market is the low number of customers, this is an observation in August 2023 as well as a concern most interviewed traders mentioned (Food Trader/1/2/3/5). The interviewed traders (Food Traders/1/2/3/5) are concerned about the low numbers of customers and were in expectation to gain more customers when they move inside the formalised market. One trader reported that the gates and the security are one reason because customers are not coming inside the market (Food Trader/2). As another challenge traders remark the fee, they have to pay for selling their products inside the market hall (Food Trader/1/3). Nevertheless, traders also mentioned positive impressions of the new market in terms of the size (Food Trader/2) and wellbeing (Food Trader/3). Also, the provided infrastructure is considered to be advantageous, in particular the free access to water and electricity (Food Trader/1).

An interesting observation during the interviews with the traders was that they stated that they had previously sold their products in the area around the market and that the displacement due to the construction of the Ring Road was not reported (Food Trader/1/4). However, it must be mentioned at this point that the truthfulness of the statements cannot be verified. In two of the five interviews conducted with traders, a person from the Market Authority was present who, due to language barriers, also translated some of the traders' statements. It can therefore not be ruled out



Figure 8: Muthurwa Market I  
(Gründler 10.08.2023).



Figure 9: Muthurwa Market II  
(Gründler 10.08.2023).

that the statements were intended to convey a positive impression of the market.

#### *Muthurwa Market*

Muthurwa Market was selected to provide a further perspective on the challenges and opportunities faced by local traders and the government in the process of formalising food markets.

The name „Muthurwa“ has its origins in the Uttar Pradesh region of West India, derived from the name „Mithrwa,“ loosely translating to „To make covenant with.“ This possibly explains the resemblance of the Muthurwa Map to a footstep. The market, established on a 12-hectare piece of land acquired from the Kenya Railway Corporation at a cost of 700 million shillings, aimed to address issues of hawking and traffic congestion in Nairobi's city centre. Located about 1.5 kilometers from the CBD, the market spans a two-kilometer square area, including a bus terminal, and was designed to accommodate 8,000 traders.

Initially launched in 2007 as a hawker's market, Muthurwa provided open-plan shaded blocks for traders to walk, place their wares, and sell while walking. This initiative aimed to relocate hawkers from the busy Nairobi Central Business District. According to DEWAR & WATSON (1990), as cited by MENDELSON (2015), successful markets have specific characteristics, such as pedestrian movement, a public service hub, spatial arrangement, and flexibility to expand without hindering traffic. BEHRENS & WATSON

(1996) highlight physical elements like stalls, market buildings, shelter, and infrastructure as crucial for market success.

However, Muthurwa market's success is questionable due to informal alterations affecting both spatial and physical elements. Over the years, the market has adapted to traders' needs and a growing population, resulting in necessary expansions. Extensions, spills into public areas, knocked-down boundary walls, and additional entrances have altered the market's original design (see map 7). This informal transformation raises concerns about the market's operational effectiveness and adherence to the principles of successful market design outlined by DEWAR & WATSON (1990) and BEHRENS & WATSON (1996). In the market there are different products from household items to fabrics and food. There are cooked dishes, dried food and fresh food (vegetables, fruits, craft etc.). The products get sold by over 10 000 traders and they have several thousand buyers daily (WANJOHI 2014). Wholesale trade takes place at the Muthurwa market in the morning from 4 am to 8 am. After 8am, it turns into retail activities. Nevertheless, the market has priority as the city's retail center due to its central location. In the early hours, however, it is part of the city's wholesale system (OWUOR ET AL. 2017).

Muthurwa Market has narrow streets. All products are sold from the ground (see figure 8), unlike the Kangundo Road Market. Only a small number of vendors have stalls. In contrast to the other market, there is just a small area to eat the food. There are no open



Map 7: Muthurwa Market in Nairobi, Kenya (van Veen 2024).



spaces or seating areas. Food is bought and eaten to go. The traders' stalls and smaller places are mostly run by individuals or with family members. The research area was visited three days after the first market on 10 August 2023, and five interviews were conducted with market traders.

The formalisation of the market led to some restrictions for the traders. On the one hand, rental prices for the traders have been introduced, since the change. At the same time, there have been only minor changes in the infrastructure of the market. Official toilets were newly built for 10 Kenyan shillings per use (0,07 US-Dollar), as well as a new wall around the market.

Meanwhile, the prices for the toilets are too high for the traders. The rental price leads to much lower profits for the people, with almost no added value due to the formalisation (Food Trader/10).

The market has not received any improvements through formalisation, according to the respondents. The problems that existed before remained the same. The market areas are not clean. This includes organic food waste generated by retailers and suppliers. In addition, there is fabric waste on the floor, plastic waste from bags and shoes. To summarise, it is a mixture of organic and inorganic waste that can make visiting the area difficult. The open-air market is covered by fabric and plastic sheeting from above, but the rain still gets through. Some of the traders get electricity in the form of lamp connections. A new infrastructure for the market is planned for the future in 2030 with a new building, then the traders will probably be reallocated because of bad planning. The future of the market is called Vision 2030 (Food Trader/8). Kenya Vision 2030 aims to transform the country into an emerging economy by 2030. Citizens should earn a middle income and have an improved quality of life. One of the goals is to create a clean and safe environment. Due to the high informality that existed in the market before, the vision was not fulfilled. Formalisation should therefore strengthen the market and promote market productivity (MUTHONI 2013).

The Covid-19 pandemic and resulting price increases in the food sector in Kenya, are leading to uncertainty among traders in the formal market. One interviewee reported that a bag of onions cost him 3000 Kenyan Shillings (20,99 US-Dollar) in 2019. Today, the price went up to KES 3800 (26,59 US-Dollar). According to him, the price will continue to rise. He hopes for political intervention soon to reduce taxes and reduce the general price of fresh food in order to increase his profit (Food Trader/10). Despite these conditions, there is a high level of interest in trading in this market. Some of the interviewees had been active in the area for more than eight years, but some others also for only one year. For the interviewees, trade itself seems to be the economic sector of their future, which is why they gave up their previous professions for retail. Traders report positively that they are not disturbed or harassed at the market, unlike the previous street vending. Some had previously worked as mechanics and saw a

higher economic potential in trading at Muthurwa Market (Food Trader/8/9/10). The fees are influenced by the location in the market and the product selection, which is similar to the Kangundo Road Market. The location on the market has no direct effect on the product range. The same products, such as tomatoes, can be traded at different locations. However, there are locations for larger product categories (fabrics, cooked food, fresh fruit and vegetables, etc.) across the entire area. Here, in contrast to a monthly fee, a daily fee is payable. The researchers interviewed several people in the food sector and found a range of 20 to 60 Kenyan shillings per day (0,42 US-Dollar). If 50 Kenyan Shillings (0,35 US-Dollar) is taken as a basis and the people work 30 days a month, the monthly fee is almost twice as high as in the other market, at 1500 Kenyan Shillings (10,49 US-Dollar), even though the traders are offered less infrastructure and security, for example. Nevertheless, the number of customers is higher than at the Kangundo Road Market. The customers are from all social classes, in comparison to the Kangundo Road Market. This is due to the central location of the area, which means that people from all walks of life shop at the market (Food Trader/8/10).

In contrast to the traders in the area of the formalised market, there are also informal traders selling their products directly in front of the wall. Products of different categories are offered. The interviewees report that the trade "to go" is much better than inside the market, because the new wall from 2022 also leads to lower numbers of buyers inside. Traders do not want to sell their products in the market because of the higher charges. Nevertheless, the profit is not very high, as the interviewees report. This means that the traders can only survive "day by day" and cannot build up financial reserves. Formalised trade on the Muthurwa Market leads to a gain in interest for informal street and mobile traders, who make a profit through lower prices, which seems contradictory (Food Trader/11/12).

Unlike the formalised market, which is only ten meters away, traders rarely pay money to the municipality. In August 2023 some of the respondents had been operating in front of the market for more than 15 years (Food Trader/12).

Those traders report that they do not have a stall because it is too expensive. As a result, they also cannot use the existing electricity for lights and the toilets inside the market. People who work for the city council drop by the traders outside the wall irregularly. Sometimes money is collected at intervals of three days, at other times every two weeks. The traders then have to pay 50 Kenyan shillings (0,35 US-Dollar) as a fee to the city council. The result is lower prices, but these traders also have a different reputation and trade directly on a main road, which is characterised by noise and exhaust emissions (Food Trader/11/12).

### Expert Perspectives

Two expert interviews were conducted to provide the perspective of the administration, represented by an urban planner in the department of Urban Policy and Research of Nairobi, who is working on the preparation of urban development policies and land use plans. The second interviewee was a representative of the Retail Trade Association of Kenya (RETRAK), a business membership organisation for the retail sector which represents the traders' point of view.

In the past years, there has been some effort from the government side to formalise markets within Kenya and Nairobi (GOVERNMENT OF THE REPUBLIC OF KENYA 2007). 15 markets within the Nairobi region are on the agenda of being upgraded as part of the Nairobi Metropolitan Services Improvement Project (MINISTRY OF TRANSPORT, INFRASTRUCTURE, HOUSING AND URBAN DEVELOPMENT 2018).

The process of formalising markets begins with the selection of suitable land or markets with derelict infrastructure, which should serve preferably many people. Traders in the surrounding area are moved into the market or if an existing market is upgraded, the traders are moved to temporary spaces and reallocated in the market after completion of construction. During the planning process several stakeholder meetings take place to also involve the traders in the process and build consensus. The stalls are issued by the county government, or another local authority and traders moving into the market will be registered (Urban Planner/13). However, identification of markets where there is an urgent need for upgrading is often difficult, since the state lacks profound information about informal trade due to its characteristics. Lack of registration, many small-scale businesses and hiding economic operations to avoid taxation make it hard to measure informal economy (QUIROS-ROMERO ET AL. 2021).

The RETRAK Expert appreciates the change from informal to more formal trade. Since the establishment of the organisation in 2012 it has mainly engaged in lobbying and advocating for the retail sector with the goal to formalise the informal sector as well as modernising the formal sector. Although the informal food sector is the main contributor to urban food security, with 94 % of the fresh produce consumed by households in Nairobi is purchased at retailers not having a license or business permit (TSCHIRLEY ET AL. 2004), RETRAK sees a drawback in low access to the informal retailers through the government. On the one hand this exacerbates collection of taxes, which is inconsistent in the informal sector and based on the locality of the trader. In most cases City Council officers collect money from informal businesses to legitimise staying open, however a lack of transparency often causes loss of money, and it is not clear where it ends. Better control and accounting ensure the reinvestment of the collected fees from the traders, so it translates into services they are also benefiting from.

On the other hand, food safety is a major concern in the informal sector.

*"I would say the key concern in informal would be food safety. In terms of handling, in terms of sourcing, in terms of the environment they operate in." (RETRAK/7).*

People in the informal sector are mostly selling on the streets, where lack of hygiene is a problem. Products are exposed to smoke and dust, or they fall on the floor. The low governmental access impedes the enforcement of food safety measures, for example through regulatory bodies who ensure that the measures are followed. Another challenge which the respondent sees in the informal sector is the absence of advertisement, except for verbal advertisement. Other forms of advertising can be mostly observed in the formal sector but would also improve the business performance for informal retailers.

Given these challenges, formalising markets is an opportunity not only for the government, but also for informal traders. As maintained by respondents, there are two main reasons why the government is invested in the upgrading of markets. Next to the provision of space, which can be used innovatively and enables emerging and other than traditional enterprises to market their goods, the upgrading of markets also ensures that the available market space is used and planned properly. respondents see the main chance for the government in the collection of taxes and thereby contributing to the growth of the economy and financing the provision of necessities like infrastructure.

*"Formality means that the government knows you, that's what formality means." (RETRAK/7)*

Registering informal traders makes them traceable and the government can reach more people. The money collected will translate into services and thereby get back to the traders, who will benefit from it. By formalising markets, the government aims to improve the trading environment for traders and buyers (RETRAK/7). Access to services is the main chance RETRAK sees for traders in the process of formalisation, which will subsequently also result in better incomes and a potential for growing their business. Improved infrastructure, like water, electricity, sanitary facilities, and a proper garbage disposal system, allow for better hygiene and elevated product quality and food safety. Access to storage facilities for example, especially cold storage extends shelf life and reduces losses. So does a proper shelf system that prevents products from becoming dead stock by getting dirty or falling on the floor. Reduced food loss translates into a higher profit margin.

*"So yes, there is an increase in income and definitely an improvement in food safety. Not only for yourself but for the region that you are selling food in, because*

*then the circumstances of that food will become better.” (RETRAK/7)*

Security is improved for traders and customers with the provision of security lights and fire fighter systems. RETRAK remarks that just moving traders into formalised markets will not make their business structure formal. Formality as described in literature comprises the three aspects of legal, fiscal and labour formality (SOMA ET AL. 2022). A legally formal business is officially registered, which also increases traceability through government. This enables the collection of taxes but also access to financial services, which is defined as fiscal formality. Traceability moreover makes traders become eligible for government schemes that target capacity building. Enhanced business practices have the potential to grow the retailer’s business and skills in record-keeping and having a proper business plan facilitates convincing investors for funding. More importantly, RETRAK notes that traders’ attitudes change in a different environment;

*“Because you are paying more for the space now, you probably look at your business as a business now which is less informal, and therefore you’re willing to do more for it. So, you’re willing to look for better sourcing, you’re willing to have a layout that calls customers better so that you have more people coming to you.” (RETRAK/7).*

Moreover, knowledge in advertising can attract more customers, especially if the market is located in the estates, and improve business performance. To achieve labour formality, proper contracts that benefit the traders need to be established in the formalisation process (SOMA ET AL. 2022).

However, in reality there are certain challenges arising during the process of formalising markets. According to RETRAK, the main goal from the governmental side is to move trade from the streets into established markets. A prerequisite is that customers have to follow into these markets and currently acceptance among traders and customers is low. Customers prefer purchasing goods in the most convenient way, which is mostly near their home or workplace, while new markets are often located outside the city Centre. Most customers are not used to inside markets in multi-story buildings but prefer the traditional open-air markets, also because they think products are more expensive in the formalised markets. To ensure that customers follow into formalised markets, every single trader must be moved into the market. Most likely this can only be achieved by enforcing a reallocation of every trader and ban trading on the roadside, which requires enough space for all the traders and more markets being built. Challenges in the construction of new markets hinder this development. Most occurring problems are the acquisition of suitable land for new markets and land grabbing of land allocated for

markets. In addition to that, failures in planning and designing markets delay progress, as the urban planner reports. One example of flaws in planning is the Kangundo Road market, where the story attributed to the sale of fresh produce is not suitable because of the warm temperature.

Especially the traders are the ones who must deal with the situation and suffer most from failed planning. Although RETRAK states:

*“In my view there is actually no challenge to formalise. I think the only thing it does is disrupt your way of doing things, which in most cases in an informal sector is not always the best business practice, so the challenge would be in you conforming to a new set of rules” (RETRAK/7),*

there are problems the traders are facing in the process. Respondents confirm that the adaptation to a formal business environment is like a “culture shock” and traders do not receive support like training or capacity building from the government during the transformation. RETRAK adds that challenges occur when traders are being displaced, which leads to a disruption of the logistics. The main concern being that traders lose their steady customers, who do not follow to the new and most likely more distant location. Further, also the supply chain might be influenced, and traders need to find suppliers and develop new business contacts. In some markets traders are even restricted in the product range they may offer, as it is the case in the Kangundo Road market, meaning they must completely shift their business structure. Looking at the development of formalising markets in the next ten years, the respondent expects a bigger transition because of changing shopping habits and technology. The sector for e-commerce and home delivery is growing and requires less space for traditional shopping. But also, offline structures are changing with more supermarkets opening, providing a one stop shop experience, which could be also implemented in traditional markets. However, the interviewee from RETRAK believes that it is important to not neglect the African culture of open-air exhibition markets and consider this in the planning of new markets.

## Discussion

The following analysis of food market formalisation processes in Nairobi illustrates the highly complex and contested character of formalisation of economic activities in developing countries. The exemplary analysis of food market formalisation processes in Nairobi through the case studies of the Kangundo Road Market and the Muthurwa Market, as well as the conducted expert interviews clarify specific opportunities and challenges of this process, which are



further discussed in this paragraph and aim to deliver crucial recommendations regarding the possible design of formalisation processes to create a satisfactory outcome for all participating actors.

Coherent with significant scientific discourses (*see chapter Formalisation of markets*) the conducted expert interviews, representing stakeholders in favor of a comprehensive formalisation of trading activities underline the advantages of formalisation on different layers.

Firstly, for the government and the society, as the formalisation of trading activities directly result in higher tax revenues. By adopting the fact that higher tax revenues from formalisation are utilised to provide public goods and improve the business environment (DEWAN ET AL. 2022), the overarching effect of formalisation fostering economic development should be emphasised.

Secondly, for the consumer, as formally traded groceries meet higher standards regarding food hygiene and product quality, as prominently highlighted in the expert interviews (RETRAK/ 7).

Thirdly, for the traders, whose businesses had been formalised, as they benefit from improved infrastructure (access to storage, water, electricity, cooling etc.), increased safety and an expanded profitability also due to a rising business sense (RETRAK/7).

However, the analysed process of food market formalisation of the Kangundo Road Market and the Mutuhurwa Market illustrate that the above-mentioned opportunities and advantages of formalisation are highly limited due to the design and configuration of the formalisation process, found in Nairobi.

Initially, the assertion that the formalisation of trading activities invariably leads to heightened income is seldom applicable and tends to oversimplify the situation. The complexities underlying this argument are evident, particularly when examining instances such as the Kangundo road market. Here, the absence of customers renders the market vacant, leaving traders bereft of income. This underscores the notion that government-led projects may be implemented without due consideration for the welfare and interests of the population they aim to serve. Additionally, especially the reallocation of traders forces them to establish new relationships with customers, suppliers, and distributors, which has already been observed by other scholars (RESNICK 2020; JØRGENSEN & ADAAWEN 2012) and results in a worsening business environment. Further, the possibility to enhance business performance through capacity building is not realised, since the government does not provide any assistance in the transformation process, leaving the traders alone in an unfamiliar environment. This confirms the findings of PELS ET AL. (2022), who emphasise that a “habitus shift” is needed to persist in a formal environment.

Adding to the unsatisfied argumentation of an increased income for traders the previous advantages

of informal trade drop away. In this context the central advantage of informal trade regarding low market entry barriers as less formal education (in the sense of studies, formal school and training qualifications) is required to participate in trade, get lost. Therefore, increased bureaucracy, necessary accounting and sales standards directly lead to an exclusion of traders. Trainings, teaching the required skills to participate in formal trade, provided by public bodies or NGO’s are a solution to mitigate these challenges faced by traders but have not been identified in the analysed case studies.

A further central limitation to the successful formalisation of trading activities in the analysed markets is the lacking participation in the planning and design process, resulting in a low willingness to move trading activities and non-existent identification with the new market facilities. Quite the converse, there is no transparency for retailers about the future and what plans are in place for the entire market or sub-segments. Changes are made quickly, and retailers have no planning security (Food Trader/8/9/10).

Moving beyond the challenges on the level of the trader, the analysed formalisation of food trade by moving traditional, “street-based” vending activities to indoor, multi-story market centres represent fundamental challenges regarding the and cultural characteristics and affordability of the grocery shopping process in Kenya. In Nairobi the formalisation of trade is seen as an aspect of urban development and urban renewal, along modernist conceptions of retail and consumption organisation, also in order to develop vacant spaces of former street markets for new commercial or residential uses. In this endeavour centuries-old market patterns are destroyed, demolishing distinct features of the local social life and urban structure. Further this transformation and redesign of the city requires a reduction of poverty and an elevation of living standards in order to enable the majority of residents to use the formalised markets (with higher price levels), representing a fundamental challenge of the current food market formalisation process in Nairobi.

Summarising, the analysis underlines the overarching need to formalise trade activities in developing economies to increase public tax income, which is necessary to enhance living standards by improving the provision of social goods or infrastructure. Nevertheless, the analysed case studies prominently highlight that this formalisation process requires an:

- » **assisted**, (providing training to acquire essential knowledge, overcoming the habitus-shift),
- » **participatory**, (involving traders in the process),
- » **gradual** (not neglecting lower-income classes, who cannot afford groceries from formal markets) and
- » **and locally adapted approach**, catering to the unique features of the respective urban structures and cultural characteristics.

## Summary and Conclusion

In conclusion, the process of formalising food markets, as evidenced by the case studies in the city of Nairobi, is a multifaceted endeavour fraught with complexities that surpass initial perceptions of ease. While the overarching goal of formalisation is to bring about enhanced governance, improved hygiene standards, and increased economic efficiency, the intricate dynamics of the informal trading sector present considerable challenges that demand careful consideration.

One crucial insight derived from the examination of the Nairobi context is the paramount importance of public participation in the formalisation process. The heterogeneous nature of informal markets requires tailored interventions that are cognisant of the diverse needs and aspirations of the various stakeholders involved. Engaging the public in decision-making processes is imperative for the successful implementation of formalisation strategies, as it ensures that the unique concerns of the local community are adequately addressed.

Furthermore, it is essential to challenge the prevailing assumption that informal traders, despite their often-challenging working conditions, universally require new formal trading spaces. The nuanced nature of informal trading suggests that a one-size-fits-all approach may be ineffective. Rather than imposing formal structures on informal markets, it is advisable to conduct thorough assessments of each market's specific characteristics, considering factors such as location, clientele, and existing infrastructure. This approach allows for the development of tailored strategies that accommodate the unique needs of each market and its traders.

Through interviews with experts, market authorities and a large variety of traders, it was possible to get a detailed picture of the developments. Chances and challenges resulting from the formalisation of the mar-

kets in Nairobi could be identified.

In summary, there are opportunities for merchants in the area of security as a result of formalisation. Safe spaces of commerce are created, which can mean infrastructural and human security. Complementary, there is improved infrastructure and (better) access to services through these markets. For traders, there is the potential to expand business and generate more income. For the government, there are opportunities through the newly collected taxes. Formalisation results in traceability of traders and, in some cases, traded food products, leading to improved food safety. Thus, the economy of the country or city is driven, and new physical and network spaces of trade are created.

On the other hand, challenges also arise for the government. Due to the low level of urban planning in recent decades, there is a shortage of land for the construction of markets. There is a high risk of bad planning. In addition, there is a low level of acceptance by the population and, in some cases, by food retailers. For the merchants themselves, formalisation in parts leads to a disruption of the business network and thus also of the connections among merchants and with customers. Especially in newly established formalised markets, there is low acceptance among customers. Contrary to merchants' expectations, this can lead to a loss of income if a new customer network has to be built up first. The high financial contributions to the government bring new uncertainties for some merchants, which reduce everyday profits in the current state of development of the formalisation of markets.

To conclude, the formalisation of food markets in Nairobi provides benefits for traders as well as for the government. However, the mentioned challenges especially regarding the acceptance of new markets are crucial and must be addressed in order to realise the potential of formalisation.

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# Food Security and Malnutrition - The Relation Between the Changing Food Retail Sector & Food Security & Malnutrition in Nairobi Kasarani

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## Introduction

The metropolis of Nairobi is a dynamic and rapidly growing city undergoing an unstoppable transformation that affects all aspects of urban life. One of the most profound and critical changes relates to the food trade, which is also a key issue in Kenya, namely food security and malnutrition (QAIM 2021).

The Global Hunger Index (GHI) is an annual measurement that analyses and compares various factors such as malnutrition and child mortality worldwide, in different regions, and in individual countries. The goal of the index is to draw attention to the issue of hunger, identify which parts of the world require additional resources urgently, and provide recommendations for combating hunger (WELTHUNGERHILFE 2023). In the 2018 GHI, Kenya scored 23.2, which corresponds to the severity level of „serious“ on the scale. However, this represents a significant improvement compared to the year 2000 when the score was 36.5, categorising it as „extremely alarming.“ At the national level, there has been a consistent decline in all GHI indicators in Kenya since the year 2000. The mortality rate of Kenyan children under the age of five has steadily decreased since 2000. While the undernourishment rate in Kenya, reflecting the proportion of the population with insufficient calorie intake, steadily declined between 2001/2003 and 2013/2015, it has since experienced an increase (BERNSTEIN & WIESMANN 2019). We are examining the relationship between changing food retailers and malnutrition and food security in Kenya because Kenya serves as an excellent example of a transforming metropolis in the Global South. Specifically, the Kasarani neighbourhood in Nairobi is a very good illustration of the situations described in the previous chapters. Traditional markets and street vendors are increasingly being displaced by modern supermarkets, convenience stores, and online food retail platforms. These changes directly affect the availability, access, and variety of food items. The significantly increased food prices pose a threat to urban residents as they hinder access to food. This has led to growing

concerns about food insecurity and malnutrition in the cities (QAIM 2021). The transformation in the retail sector in Nairobi is closely linked to rapid urban population growth, increasing incomes and changing lifestyles. Despite this, still a lot of poor people remain and most of them are facing problems with food security and malnutrition. Over the past few decades, the food retail sector in Nairobi has evolved rapidly, bringing about a multitude of changes that not only affect the shopping behaviour of the population but also impact food security in the city.

Kenya's urbanisation rate currently stands at 4.3%, with 27% of the population residing in urban areas. Projections indicate that over the next two decades, urban areas will accommodate 50% of the population (BROWN 2019). Nairobi bears a notable urban challenge, where 60% of its residents inhabit slum settlements, and two-thirds of them live below the poverty line. From a perspective of food security, this situation carries significant ramifications. Alarmingly, half of all children in Nairobi suffer from malnutrition, a rate substantially higher than the national average of one-third. The process of urbanisation exacerbates the issue of food insecurity. Impoverished urban dwellers allocate a substantial portion of their income towards procuring food from open markets (ibid.).

In addition, urban population groups are vulnerable to diseases and may lack adequate access to clean water as well as sanitary and hygienic facilities. The child mortality rate in Kenya's cities declined much more slowly between 1993 and 2008 compared to rural areas, possibly due to the poor living conditions in urban settlements. In 2014, Nairobi had the second-highest child mortality rate among all Kenyan regions (BERNSTEIN & WIESMANN 2019).

For the present study, authors embarked on a university excursion to Nairobi to investigate the described transformation in the food retail sector and its intricate impact on food security and malnutrition. The research question that was investigated was to what extent the changing food retail sector is affecting the food security and malnutrition of the population. It

also focused on the expansion of mostly international supermarket chains and their impact on the traditional markets and street vendors. The Kasarani district in Nairobi was selected as the focal point for this research. On-site, interviews were conducted with pedestrians and experts, and data on various forms of food retail were collected using the Kobo Toolbox app. The findings of the research are presented in this paper and subsequently discussed.

## Theoretical Background

Numerous comprehensive studies (CLOVER 2003; GOPIKA ET AL. 2022; KHAN ET AL. 2023; KIMANI-MURAGE ET AL. 2014; RUEL ET AL. 2017) have delved into the complex interplay between urban food security, malnutrition, and the evolving food retail sector across a variety of global settings. These extensive research efforts have yielded invaluable insights, contributing significantly to our understanding of the prevailing circumstances in Nairobi, with a specific focus on the Kasarani region. Key findings and areas of scholarly investigation encompass several critical dimensions.

First and foremost, the importance of informal food retail, exemplified by street vendors and open-air markets, cannot be overstated. Research underscores their pivotal role in offering cost-effective and culturally suitable food options to poor urban residents. However, a noticeable shift away from informal markets in favour of modern retail structures carries profound implications for food accessibility and affordability, warranting in-depth examination (OWUOR 2019).

Changes in the food retail industry have the potential to significantly impact food sourcing patterns and supply chains. These alterations have noteworthy consequences on the availability of locally sourced, perishable food items in urban marketplaces, with discernible implications for small-scale agriculturalists and food manufacturers. This transformation necessitates urban dwellers to extend their considerations beyond local production as dietary preferences evolve and urban centres expand, as posited by the FAO (n.d.).

Governments and non-governmental organisations have introduced a multitude of policies and initiatives aimed at bolstering urban food security. These multifaceted interventions encompass strategies such as food subsidies, school feeding programs, and urban agricultural projects. The effectiveness of these measures in mitigating issues of food insecurity and malnutrition has been scrutinised in prior studies (HADDAD ET AL. 2016). Our research endeavours seek to incorporate additional dimensions and perspectives, enabling a comprehensive examination of the intricate interplay between the evolving food retail industry and urban food security and malnutrition in Nairobi, particularly within the Kasarani locality. Adopting a more comprehensive perspective is pivotal in enhancing our understanding of the complexities inherent

in the challenges and opportunities confronting urban communities in their pursuit of acquiring nutritionally sound and cost-effective sustenance.

Furthermore, the influence of urbanisation on food security has been well-documented in previous research. The rapid urbanisation often engenders heightened food demand, thereby exerting pressure on distribution networks and impinging upon food accessibility, particularly for vulnerable populations (OWUOR 2019).

An integral focus of scholarly inquiry is the transformation occurring in food retail sectors within metropolitan regions, prominently exemplified in Nairobi. Numerous scholarly investigations (FINN & COBBINAH 2023; HAROON AKRAM-LODHI ET AL. 2021; MWALE 2014) have scrutinised the proliferation of modern supermarkets, convenience stores, and online grocery platforms. These changes carry far-reaching implications for the accessibility of food, pricing dynamics, and consumer behaviour (REARDON ET AL. 2012). The transformations in food retail can potentially influence consumer preferences. Contemporary retail establishments possess the capacity to offer an expanded assortment of food items. Nevertheless, it is imperative to acknowledge that these outlets may also impact dietary habits and the consumption of processed foods, potentially contributing to the incidence of malnutrition (DUARTE ET AL. 2021).

## *Existing Typologies, Classifications, and Definitions*

To gain a comprehensive grasp of the intricate dynamics underlying urban food security and malnutrition within the context of the evolving food retail sector, it is imperative to acquaint ourselves with a series of typologies, classifications, and definitions.

First and foremost, food security can be categorised into four main dimensions: availability, access, utilisation and stability. Availability pertains to the physical presence of food, while access encompasses the financial and physical capacity to obtain it. Stability signifies the continuity of food access over time, while utilisation relates to the biological and social mechanisms governing how individuals and families utilise food (FAO 2019).

Malnutrition, a critical facet of our analysis, encompasses both undernutrition and overnutrition. Undernutrition includes deficiencies in micronutrients, acute malnutrition (wasting), and chronic malnutrition (stunting). Conversely, overnutrition results from the consumption of calorie-dense yet nutrient-poor foods, often leading to conditions such as obesity and overweight, as outlined by the WHO (2020).

The changing food retail landscape in Nairobi, particularly the transition from traditional markets and street vendors to contemporary retail formats like supermarkets and convenience stores, is pivotal in our analysis. Understanding these distinctions is principal in assessing the evolution of food accessibility and consumer choices (REARDON ET AL. 2012).

By incorporating these typologies and definitions, our analysis of urban food security and malnutrition in the context of the transforming food retail sector in Nairobi's Kasarani area becomes more nuanced. These concepts provide a conceptual framework for comprehending the multifaceted challenges and potential solutions in addressing urban food-related issues.

### *Ethical Considerations*

In this study, a comprehensive commitment to addressing ethical considerations played a pivotal role. This commitment was crucial not only for conducting scientifically rigorous research but also for upholding moral principles. The ethical research practices we employed were aimed at establishing trust between our research team and the communities under study. We also sought to ensure that our research would have a positive impact on the well-being of urban residents in Nairobi, particularly in the Kasarani area.

One of our primary ethical priorities was obtaining informed consent from the participants. We made extensive efforts to clearly communicate the research objectives, potential risks, and benefits to individuals, emphasising their right to decline participation or withdraw from the study without any negative consequences. This was particularly sensitive when working with vulnerable groups in urban slum settings, considering potential power imbalances and low literacy rates (SHAW ET AL. 2020). Mitigating harm was another fundamental ethical consideration. We took care to avoid posing questions that might make participants feel marginalised or financially exploited, which could have had emotional repercussions. We were diligent in reducing any potential harm that could result from our research, especially concerning the mental well-being of participants. We also remained mindful of how our research findings might impact disadvantaged populations in the future. Privacy and confidentiality were of principal importance. We collected sensitive personal data, such as nutritional preferences, income, medical information, and socioeconomic status, during our fieldwork. To protect participants' privacy and anonymity, we aggregated and anonymised this data, ensuring that specific individuals or families could not be identified (BAHN & WEATHERILL 2013).

Equity and fairness were central concerns in our research, as we were aware that our work had the potential to either reinforce existing stigmatisation and disparities or contribute to greater equity. Engaging with the local community was another key aspect of our ethical approach. By actively involving community members and organisations like the Kibera Mappers in the research conception and implementation, we aimed to conduct research that was relevant, respectful, and responsive to the community's needs. This approach fostered inclusivity and helped us avoid extractive research techniques.

### *Assumptions*

Our research was based on a set of fundamental assumptions that formed the foundation of our study. Firstly, we assumed that traders and sellers would naturally tend to collaborate with their neighbouring counterparts due to economic and logistical factors. This collaboration was seen as a crucial strategy for their survival in a competitive marketplace. An example illustrating this assumption was the widespread adoption of services like M-PESA (MEAGHER 2018), which underscored the economic and logistical incentives for cooperation among traders.

Secondly, we assumed that when consumers had the financial means to make choices in their shopping venues, there might be a preference for supermarket chains. However, we also recognised the enduring appeal of local, more informal shopping options. Factors such as convenience, community bonds, and personal preferences (ZHONG 2018) were considered as underlying reasons for this preference for traditional, neighbourhood shopping experiences.

Thirdly, we assumed that recent economic conditions, particularly the global consequences of the COVID-19 pandemic and the resulting disruptions in global supply chains, would have a significant impact. This impact could manifest as reduced demand due to rising prices and wage constraints, affecting both traders and consumers in tangible ways (MOULOUDJ ET AL. 2020).

These assumptions provided the conceptual framework for our research, guiding our exploration of the complex dynamics surrounding the changing food retail sector and its repercussions for consumers.

### *Formulating the Questions*

The questions posed to consumers in Nairobi were informed by a comprehensive review of existing research and typologies related to urban food security, malnutrition, and the evolving food retail sector. Extensive studies have explored the intricate relationship between urbanisation, food access, and dietary patterns, offering valuable insights into these dynamics. Prior research findings on informal food retail, food sourcing, and nutrition transition played a pivotal role in shaping the questions directed at consumers, illuminating the factors that influence their food choices and purchasing behaviours in the Nairobi context.

Furthermore, insights from studies on government policies, urbanisation's impact on food security, and the transformation of the food retail sector informed the questions aimed at traders in Nairobi. These studies have examined the effects of modern and traditional food retail on food access and choice and highlighted the unique challenges faced by urban slum populations concerning food security.

Ultimately, the research questions and assumptions



provided a robust framework for exploring the complex interplay between Nairobi's food supply chains, the choices and challenges encountered by traders and consumers, as well as the overarching economic dynamics that influence food security in Nairobi's urban landscape. Consumer Questions:

*„Where do you usually go shopping to buy your daily necessities?“*

Understanding the preferred shopping destinations of Kasarani's consumers is fundamental to comprehending their purchase behaviours within this urban landscape. This question helps identify the primary retail outlets frequented by Kasarani's consumers, shedding light on the economic activities associated with these locations within the neighbourhood.

*„What kind of stores do you prefer for grocery shopping?“*

This question uncovers the specific store types preferred by Nairobi consumers when purchasing groceries, revealing their inclinations towards supermarkets, local markets, or specialised stores within the city.

*„Why do you prefer to use these stores?“*

By probing into the reasons behind store preferences among Kasarani consumers, this question elucidates the underlying factors influencing consumer choices within the unique economic and cultural context of Nairobi. It can reveal the significance of convenience, product variety, pricing, and other attributes in shaping the decision what the consumer in an urban space.

*„Do you notice any changes in the price or supply structure since there are more supermarkets?“*

This question explores whether Nairobi consumers perceive any economic shifts due to the proliferation of supermarkets within the city. Their observations provide valuable feedback on the impact of market dynamics on pricing and supply chain structures in the Nairobi retail sector.

*„What are the factors influencing your food purchasing choices between supermarkets and open market stalls?“*

Understanding the factors affecting the choice between supermarkets and open market stalls among Nairobi consumers elucidates their attitudes towards convenience, pricing, quality, and cultural preferences specific to Nairobi's urban environment. This information gives the researchers insights in optimising retail strategies for the city.

*„If money was not a concern, where would you prefer to shop?“*

This hypothetical question reveals Nairobi consumers' ideal shopping destinations within the city when financial constraints are eliminated. It provides insights into the aspirational aspect of consumer preferences, which can inform market development strategies tailored to Nairobi's economic landscape.

**OPEN-ENDED COMMENTS:** Open-ended comments allow Nairobi consumers to provide additional context and nuanced insights that may not be captured by semi-structured questions. These comments serve a deeper understanding of Nairobi consumer sentiments and experiences.

## Methodology

As part of the research project, two expert interviews were conducted, as well as interviews with consumers. The interviews were guided by a semi-structured framework to align the discussions with the research focus of the study. Primarily open-ended questions were posed to allow the respondents the opportunity to express their perspectives comprehensively. A qualitative methodology was employed to enable the participants to elucidate their various viewpoints on the subject matter. Data gathered during the interviews were transcribed and subjected to qualitative analysis. This analysis encompassed the identification of patterns, themes, and key statements to address the research questions of the study (HUSY 2010; DÖRING ET.AL. 2016).

For the expert interviews, two individuals were selected due to their extensive experience and expertise, thereby providing additional insights and expert opinions for the study. The first expert (expert no. 1) is a lecturer in the Department of Geography, Population Studies, and Environmental Studies at the University of Nairobi. Their research interests lie around public participation in the planning and management of public open spaces and infrastructure. The second expert (expert no. 2) is a researcher at the International Centre for Tropical Agriculture (CIAT). Their research focuses on exploring healthy nutrition, agriculture, and food security. Currently, their research is based on consumer behaviour and the food environment for healthier nutrition.

Additionally, interviews were conducted with individuals on the street. Participants for the consumer interviews were selected through random approaches to passers-by on the street, without regard to demographic groups or specific characteristics. This approach was chosen to obtain a wide range of opinions and perspectives and to include a diverse group of consumers. It is important to note that this random selection, the limited number of interviewees and that the sample was conducted in only one dis-

strict may limit the representativeness of the results as it is not reflective of the entire population. However, it offers insights into shopping behaviours from various angles. The consumer interviews primarily aimed to gather additional contextual information and support the findings from the expert interviews. This allowed consumers to share their personal experiences and views. Through this the authors were able to link the conducted information on the topics explored in the expert interviews. This approach facilitated a more comprehensive understanding of food shopping behaviour by incorporating both consumer perspectives and expert opinions.

## Findings

In this section of the study, the results of the interviews with the experts, as well as the interviews with consumers are presented for later discussion.

Expert no. 2 shared valuable insights into the impact of supermarkets on consumer behaviour, food preferences, and food accessibility, with a focus on the Nairobi context.

They emphasised that the influence of supermarkets on consumers varies depending on the target demographic and location. Supermarkets have different effects on urban slums, rural areas, and upmarket urban regions. Furthermore, their influence is determined by the types of consumers they cater to (INTERVIEW 1). In urban areas, supermarkets offer a wide range of foods, including highly processed and ultra-processed products. The availability of processed foods, such as whole wheat bread, and fresh produce, particularly fruits and vegetables, varies depending on the location of the supermarket. In high-end markets, there is a significant emphasis on fresh produce, while in slum areas, fresh produce may be limited (INTERVIEW 1). Research conducted in Nairobi's slums indicated that supermarkets contributed to only 3% of food expenditures by consumers in these areas. Most residents relied on informal markets, kiosks, and street vendors for their food supply due to factors like price sensitivity and the availability of smaller quantities tailored to their needs (INTERVIEW 1). Street vendors and small local stores often offer lower prices or smaller quantities for food, so they offer a better option for individuals and families with limited financial budgets. Street vendors do so due to intense competition. To attract customers, they often offer competitive prices. In doing so, they often accept economic losses. In contrast, supermarkets can often sell their products at a similar or even lower cost because they purchase significantly larger quantities, thereby obtaining a more favourable purchasing price (INTERVIEW 1).

The presence of supermarkets has different effects based on their location. In middle-income areas like Kasarani, supermarkets offer a wide variety of food options, both processed and fresh. However, the avail-

ability of highly processed, unhealthy foods in supermarkets can contribute to issues like obesity and poor nutrition (INTERVIEW 1).

The expert no. 2 highlighted the role of urbanisation in influencing food preferences and supply chains. As we stated above, the urbanisation increases, due to this the demand for quick-to-prepare foods rises, because people don't possess land to grow their own food and don't have the time to prepare it. This is leading to the development of products like pre-cooked beans. This trend impacts food supply chains and accessibility, as it necessitates the introduction of new types of commodities (INTERVIEW 1).

The growth of supermarkets has both advantages and disadvantages. In areas where supermarkets are accessible and utilised, consumers benefit from a diverse selection of food products. However, this diversity includes highly processed, less nutritious options. Additionally, the supply chain benefits from increased supermarket demand, supporting smallholder farmers and vendors (INTERVIEW 1).

In informal settlements in Nairobi, factors like food security, malnutrition, accessibility, infrastructure, and community dynamics are interconnected. Malnutrition is prevalent in these areas, encompassing various forms of malnutrition, including undernutrition and obesity. Accessibility and affordability are major challenges, as informal markets often lack food diversity and have limited infrastructure (INTERVIEW 1). Community dynamics play a role in food security, with neighbours often supporting each other through mechanisms like food borrowing and credit arrangements. Vendors and retailers within these communities play a significant role in food distribution and education (INTERVIEW 1).

Regarding addressing urban food security and malnutrition in Nairobi, various interventions and strategies have been implemented. These measures are highly multifaceted and aim to target various aspects of the food system, spanning from production to consumption. One of these strategies is nutrition education, where consumers are provided with information about the importance of a diverse and nutritious diet. This contributes to raising awareness about healthy dietary habits (INTERVIEW 1). Another approach involves promoting the establishment of urban gardens. This encourages residents to cultivate their own fruits and vegetables in backyard gardens, thereby improving the accessibility and affordability of food in urban areas. Training informal food vendors is another crucial measure. This involves educating vendors about nutrition, food safety, and the benefits of diversifying their offerings to better meet consumer needs. Equally significant is the training of food producers in safe and sustainable agricultural practices. This ensures the availability of safe and nutritious foods in the market. The creation of direct links between producers and vendors aims to reduce transaction costs and make food more affordable, particularly in urban environ-

ments. In addition, vendors serve as sources of information to educate consumers about the nutritional value of available foods. This contributes to increasing **awareness of healthy nutrition** (INTERVIEW 1). These diverse strategies are pursued to enhance food security in urban areas and effectively combat malnutrition. The continuous consideration of experiences and the implementation of a holistic approach within the food system are crucial to further expand these efforts and achieve sustainable improvements (INTERVIEW 1). The analysis of the interview with expert no. 2 reveals that supermarkets play a multifaceted role in the transformation of the food retail sector in Nairobi, thereby exerting significant impacts on enhancing food security and reducing malnutrition.

The ongoing urbanisation often comes with an increasing demand for high-quality goods and services. This aligns with their statements. This demand is addressed through the transformation of the food sector, typically beginning with mini-supermarkets and then progressing to larger supermarkets or shopping centres. This development in the food retail industry not only contributes to diversifying shopping options but also promotes local development by creating jobs and offering a broader range of products and services within the community. Additionally, supermarkets and shopping centres enhance the accessibility of higher-quality goods and services, meeting the needs and expectations of the urban population and contributing to the improvement of the quality of life in urban areas (INTERVIEW 2).

The presence of supermarkets offers an expanded array of shopping options for the population and provides access to a wide variety of products. Additionally, with the greater number of shopping choices, consumers can now more effectively compare prices among different providers and identify more favourable pricing (INTERVIEW 2).

The presence of supermarkets presents both opportunities and risks to the local economy. Customers often prefer the lower prices and wider range of products in supermarkets, which can negatively impact the revenue of smaller, local businesses. Therefore, the role of supermarkets in a community is ambivalent, as they offer consumers more choices and convenience on the one hand but can pose challenges to local markets and the accessibility of affordable shopping options on the other hand (INTERVIEW 2). The acceptance varies significantly depending on the specific community and its attitude towards this format of food retail. In some cases, residents in low-income areas are accustomed to local stores and may have initial reservations about supermarkets, especially if they fear that they might be more expensive (INTERVIEW 2). This can lead them to continue shopping at small convenience stores or kiosks, even though larger supermarkets offer a wider range of products and possibly more competitive pricing structures. This underscores the complexity of the perception and acceptance of supermarkets as a social and cultural phenomenon influenced by various fac-

tors, including income, habits, and local expectations (INTERVIEW 2).

According to expert no. 1, the existence of supermarkets does indeed have positive aspects for consumers, particularly in the form of lower **prices**, a wider selection, and the direct visibility of prices. Additionally, supermarkets can promote competition and encourage local businesses to enhance their offerings and services to remain competitive. This can lead to an improvement in the quality of products and services offered, benefiting both consumers and local businesses (INTERVIEW 2).

At the same time, the emergence of new supermarkets can have negative effects. The introduction of a new supermarket can exert significant price pressure on local businesses and initiate competition in terms of product variety. This dynamic can have a substantial impact on the local economy and, in extreme cases, lead to the forced closure of local businesses that cannot compete with the supermarkets (INTERVIEW 2).

It is evident that the employment situation in supermarkets, mini-supermarkets, and kiosks varies significantly due to their different sizes and business models. Larger supermarkets tend to have a stable workforce and emphasise formal training for their staff, resulting in investments in professional development. In contrast, mini-supermarkets often rely on a more informal „learning-by-doing“ approach, where employees are trained through practical experience over time. Kiosks typically experience high employee turnover, possibly because these positions are often viewed as short-term employment opportunities. As a result, there is generally less emphasis on formal training and professional development in kiosk settings (INTERVIEW 2).

It's important to note that employment practices and corporate cultures can vary between these different types of retail businesses, which makes a direct comparison between them challenging. However, this illustrates how the size and strategic orientation of a retail company can significantly influence the employment situation and training approaches for employees (INTERVIEW 2).

The government and urban administration are essential components when it comes to combating malnutrition and establishing food security. Government interventions and initiatives aimed at ensuring food security and mitigating malnutrition are highly complex and encompass a wide range of strategies. These approaches include school feeding programs, the mobilisation of community health workers, as well as the integration of Non-Governmental Organisations (NGOs) (INTERVIEW 2).

Their influence encompasses all dimensions described in the theoretical framework of food security and malnutrition. As mentioned in the theoretical section, various government bodies and non-governmental groups have taken measures and policies to enhance food security in urban areas. These initia-



tives encompass a range of strategies, including food subsidies, school feeding programs, and urban agricultural projects. This aligns with the statements made by the experts. Expert no. 2 specifically addresses the situation in Nairobi, highlighting various strategies to improve food security and combat malnutrition in urban areas. On the other hand, expert no. 1 provides a more generalised overview of government interventions and initiatives to ensure food security and combat malnutrition, without focusing solely on Nairobi. In summary, both experts emphasise the complexity of measures for food security and malnutrition. When examining this complexity, it is crucial to understand the various actors and their relationships within urban food systems, as power is not evenly distributed. Instead, power is concentrated in certain „governance nodes“ where decision-makers mobilise knowledge, resources, and capacities to influence events (SMIT 2016). These nodes are critical for both formal and informal decision-making and regulatory processes, with informal processes often being more significant than formal ones, as expert no. 1 highlights. However, it is equally important for governance to support and promote these informal processes to enhance their impact and further improve the effectiveness of measures. As both experts underline, collaboration among various stakeholders is of significant importance to advance education and training in food security and to continue efforts to minimise food insecurity and malnutrition (INTERVIEW 2).

### *Consumer Interviews*

The interviews with four consumers provide insight into their shopping habits and preferences for their daily necessities. In general, they prefer different types of stores depending on various factors.

The four consumers from the interviews prefer to buy their daily necessities in markets or small stores. A common preference in all interviews is the emphasis on the freshness of the products. Supermarkets are questioned because of their perceived higher price and possible inferior freshness, although some respondents would still seek them out if they had a larger budget.

Prices play an important role in consumers' shopping decisions. Inflation and economic problems have led to price increases, especially in supermarkets. Consumers are careful to save money and choose stores that meet their financial needs. Therefore, all the consumers have told us that they consider money as the primary factor for shopping at local stores or open markets. However, if money were not an issue, they would all shop at supermarkets for various reasons, such as convenience and a wider selection. In addition, interviewed consumers value interactivity in shopping. They prefer stores where they can interact with salespeople and where negotiation is possible. This is one reason why some interviewees prefer open markets or local stores.

In summary, consumers prefer fresh products and pay

attention to prices and interactivity when shopping. The choice between supermarkets, open markets and local stores depends on individual needs and financial possibilities. Disposable income plays an important role in shopping decisions. Most consumers indicate that if disposable income did not play a role, they would shop in supermarkets, especially at Carrefour.

### **Summary of Results**

Consumers in Nairobi's district Kasarani continue to prefer open markets as evidenced by the consumer interviews. This decision can be attributed to several factors that influence their food purchasing decisions. Price level plays a central role in this decision-making process. Food freshness and quality are essential to consumers. There is a general perception of the consumers that open markets and local vendors offer fresher produce and a wider selection of fresh and unprocessed foods than supermarkets. In contrast, supermarkets offer convenience and variety for customers, but have an image of offering less fresh produce due to longer supply chains.

Package sizes are another influencing factor. Open markets and informal vendors often allow consumers to purchase food in smaller quantities. This flexibility is important for individuals or small households that do not necessarily need large quantities of food. In contrast, supermarkets often require larger quantities to be purchased; this can be too expensive in aggregate for some consumers. Thus, the perceived affordability of food can influence consumers' choices.

Habits also play an important role in deciding where to buy food. Some consumers may have grown up buying their food at local markets. Also, informal food retailers, such as street markets and local merchants, often offer the exact foods they want for everyday consumption. For many consumers, these foods, as well as this form of retail, are an integral part of their daily lives. Thus, they prefer to shop with trusted vendors who know their customers' needs very well and can cater to them specifically. Personal contact with retailers as well as the opportunity to negotiate prices or ask questions about products is another reason for customers' purchasing decisions. Such interpersonal relationships are often easier in open markets and local stores, where vendors and customers have the opportunity to build closer relationships. In contrast, prices at the supermarket are fixed and there is no room for negotiation for the consumers.

Community dynamics also influence food choices, especially in urban 'slum' areas. Neighbours often support each other through mechanisms such as food lending and credit arrangements. Local vendors, within these communities, can play a critical role in food availability. This can reinforce a preference for informal and local open markets, especially in urban neighbourhoods. Also, residents in such areas often do not have the financial means to shop at or access super-

markets.

In summary, consumers largely prefer open markets and the informal sector. This can be attributed to a combination of economic constraints, personal preferences, perceptions of freshness and affordability, as well as personal contact. Supermarkets, on the other hand, offer advantages such as variety and convenience. Consideration of consumer preferences and constraints must be considered for ensuring food security in urban areas, such as Kasarani, located in Nairobi. Thus, not only should supermarket expansion be emphasised, but local owner-operated retail must also be supported.

The evolving supermarketisation in Kasarani has complex and multi-faceted implications for urban food security and malnutrition. It affects food access, affordability, and choice. This has a significant impact on the nutritional status and well-being of urban residents.

For further research, it is necessary to consider how food retailing is intertwined with broader food security and nutrition issues in urban settings.

Expert no. 2 emphasises the significance of supermarket locations and target demographics. In urban areas, supermarkets offer a wide array of food products, including highly processed items, providing convenience and variety to consumers. However, this convenience can lead to changes in dietary habits, potentially contributing to rising rates of obesity and overweight due to the availability of unhealthy, processed foods. Furthermore, the influence of supermarkets varies depending on their location, with slum areas showing less dependence on supermarkets for food expenditures, relying more on informal markets and street vendors.

Expert no. 1 points out that the impact of supermarkets varies based on their size. Smaller supermarkets, often referred to as mini-markets, tend to offer similar products to local kiosks, albeit at slightly higher prices. The perception that supermarkets are more expensive can influence shopping behaviours, particularly in lower-income communities. Nevertheless, supermarkets provide a broader variety of products and enable consumers to compare prices.

Another crucial aspect is the effect on the local economy. The establishment of supermarkets can adversely affect local businesses, especially smaller shops and kiosks. Smaller businesses may struggle to compete with supermarkets due to the latter's lower prices and wider product selections, potentially leading to economic hardships and job losses within the community.

It is worth noting that supermarkets can also stimulate competition and encourage local businesses to upgrade their services to remain competitive. The competition factor can potentially benefit consumers by improving product quality and choices.

In terms of employment quality, expert no. 1 notes that supermarkets tend to offer more stable employment opportunities compared to irregular employment arrangements in kiosks. Supermarkets often invest in employee training and provide better working conditions, which can result in higher job stability and job

satisfaction.

In summary, the impact of supermarkets and their expansion varies depending on multiple factors, including store size, community income, consumer mindset, and the adaptability of local businesses. The advantages and disadvantages are complex and can differ across different contexts. Considering these factors is crucial for making informed decisions regarding the role of supermarkets in the economy and society.

## Discussion

The research and its results were conducted in Kasarani, a neighbourhood in Nairobi. Therefore, the results serve as an example of what the outcome of such research may look like in a versatile neighbourhood. However, it is not representative for entirety of Nairobi. Additionally, the research was conducted by six students on-site in Kasarani for only 10 days, with limited resources available. Two expert interviews, four street interviews and observations were carried out for this explorative study. Furthermore, it should be noted that four of the authors were evidently identified as non-locals, potentially influencing the responses from the locals differently than if the interviews had been conducted solely by Kenyans. This fact was brought to the attention of the authors during the related seminar, and adjustments were made accordingly. The chosen approach and research methodology have facilitated the generation of crucial and relevant insights into the issues of food security and malnutrition in Kasarani and, more broadly, in Nairobi. Through interviews with experts and four citizens, preliminary trends have already been identified, outlining an overall picture of the situation. To gain a deeper understanding of the situation, it would have been beneficial to conduct additional interviews, especially with consumers who have just made purchases at the open market and supermarket. Furthermore, conducting more interviews with consumers from various income classes would have been important. In addition, it would have been important to obtain voices from farmers and traders who may have lost their market share due to the opening of supermarkets, or benefit from it. Nevertheless, the present work demonstrates how the changing food retail sector can and currently does impact the challenges of food security and malnutrition in Kasarani.

## Conclusion

As evident from the present research, the issue of food security in Nairobi is a highly complex matter influenced by various parameters. According to experts, consumer demands are changing, and the retail sector is evolving due to progressive globalisation and Kenya's economic and social advancement. The

research highlights the advantages and disadvantages of these developments and identifies areas where administrative and policy interventions are particularly needed. Ensuring food security and combating malnutrition are imperative for the growing population of Nairobi in the future. It is crucial to maintain and expand nutritional education through various institutional bodies. Additionally, creating accessibility to a greater variety of shopping options, especially in socioeconomically weaker areas like slums, is essential so that residents have choices in where they shop. Adapting the quantities of products available for purchase, especially in supermarkets, to the needs of the local population is crucial. Furthermore, integrating local

small-scale farmers and various traders into the transformation of the food retail sector is essential. This ensures that not only global chains supply supermarkets but also that regional economic forces and the population benefit from the changes and progress. Particularly, those traders who lost their market share due to the introduction of new retail formats, such as supermarkets, need to be supported, including suppliers and farmers.

It will be interesting to see how the government and local administrations address the evolving food retail landscape and establish food security for all citizens. This should be the primary goal to ensure that no one suffers from malnutrition.



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# The Impact of the COVID-19 Pandemic - on Informal Retailers in Nairobi, Kenya

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## Introduction

The COVID-19 pandemic, caused by the novel coronavirus SARS-CoV-2, has emerged as one of the most profound global crises of the 21st century, transcending borders and boundaries to disrupt lives, economies and societies (WHO 2020). The pandemic, which swept across the globe in late 2019 and continued to wreak havoc throughout 2020 and beyond, was not just a health crisis; it was a multidimensional challenge that disrupted every facet of society. This study aims to investigate the impacts of COVID-19 pandemic on the informal food retailers operating in stalls. The study areas of Clay Works and Hunters in the Kasarani Constituency in Nairobi, Kenya were selected to provide an insight in the informal retail sector as well as to determine the challenges resulting from the pandemic. This report will delve into the multifaceted impact of the pandemic on these informal food retailers, exploring the ways in which their livelihoods have been challenged and reshaped by this unprecedented crisis.

In Kasarani Constituency, a residential area in Nairobi, informal food retailers are a common sight. They serve as essential intermediaries between urban consumers and the broader food supply chain (Expert Interview\_g3, para. 35-50). These retailers offer a diverse range of food products, from fresh produce to processed foods, contributing to the nutritional security of the community while sustaining their own livelihoods. These retailers operate in markets, streets, and stalls, serving as a vital source of sustenance for many households. However, when the pandemic struck, it threw this sector into disarray, posing a profound challenge to the livelihoods of those who depend on it (NGERE ET AL. 2023, pp. 33-40).

On March 11th, 2020, the World Health Organization (WHO) declared the COVID-19 virus as a global pandemic (WHO 2020). The virus's rapid spread, coupled with its high transmission rate and severe health consequences, led governments worldwide to implement a range of containment measures, including lockdowns, social distancing, and travel restrictions (PINCHOFF ET AL. 2021, pp. 211-221) and these measures disrupted transportation networks. Additionally, it led to a significant decrease in sales (KANSIIME ET AL. 2021, pp. 6). Understanding how the COVID-19 pandemic

affected informal food retailers in Kasarani constituency is not only an academic endeavour but also a social imperative.

This paper aims to emphasize the importance of the informal food retail sector for cities in the global south. Additionally, the economic implications of the COVID-19 pandemic on informal food retailers are of paramount importance (PUJAWAN & BAH 2021). Beyond the economic aspect, the pandemic has had significant social repercussions (NGERE ET AL. 2023, pp. 33-40). This seeks to elucidate the economic and individual consequences and impacts, including income loss, changes in business operations, and coping mechanisms employed by these retailers. The study provides a comprehensive assessment of how the COVID-19 pandemic has impacted informal food retailers in the areas of Clay Works and Hunters within the Kasarani constituency. This paper will discuss the immediate economic consequences of the pandemic on informal food retailers, changes in sales, profit margins, and financial stability. Furthermore, the measures taken by the retailers to adapt to the new operating environment created by the pandemic, such as changes in sourcing, marketing, and business practices will be examined (MPANJE ET AL. 2022, pp. 1-16). The effects of government policies and community responses on the resilience and survival of informal food retailers in the face of the pandemic were assessed, examining the economic crisis experienced by informal food retailers in Clay Works and Hunters during the pandemic.

Understanding the challenges faced by informal food retailers during the COVID-19 pandemic is not only essential for academic purposes but also holds practical implications for policymakers, local governments, and organizations working to support vulnerable communities. This report will contribute valuable insights into the broader discourse on informal economies, crisis resilience, and urban food security in Kenya and beyond. The significance of this research extends beyond its academic merits. It holds the potential to drive positive change in policy, economic strategies, and community resilience. By gaining insights into the specific challenges faced by informal food retailers in Clay Works and Hunters during the COVID-19 pandemic, we can better understand the broader implications for vulnerable populations in si-



milar contexts. Ultimately, this research contributes to building a more resilient and equitable society, where the informal sector is recognized and supported as a vital part of the economy. The findings will be beneficial to policy makers and other stakeholders in order to establish effective solutions.

### Research Question and Structure

To examine the impacts of the pandemic on the informal trader (referred to as vendors or retailers in this work), a field study was carried out in Kasarani in August 2023. This project is part of the study project at the Humboldt-University of Berlin in the context of the Collaborative research area 'Re-figuration von Räumen' (English: 'Re-figuration of spaces'), established by the German Research Foundation (DFG). As already described, the areas of Hunters and Clay Works are the focus of this study. In those areas, interviews with informal traders have been conducted. Also, an expert in this field has been interviewed. The following research question will be examined:

*How did the COVID-19 pandemic challenge the informal food retailers operating in stalls within the areas of Clay Works and Hunters in the Kasarani constituency of Nairobi (Kenya) and how did they react to it?*

To address this question, the theoretical background of each aspect of this topic is first examined. This will involve an examination of the informal sector and the COVID-19 pandemic in Kenya in general, followed by an introduction to previously conducted studies that have explored the situation of street vendors and the food trade during the pandemic. Subsequently, the methodology section will describe the approach, data, and study area. Following that, the results of the trader interviews and the expert interview will be presented. This will be followed by a discussion of the findings in the context of existing research and an outlook on future directions.

### Theoretical Background

The following chapter will provide an overview of the scientific background regarding the impacts of COVID-19 on the informal food retail sector.

#### *COVID-19 & the informal food sector in Kenya*

As already described, the COVID-19 pandemic and its containment measures had an impact on food supply chains worldwide and significantly disrupted them (ADAY & ADAY 2020, pp. 169-171). Throughout Africa, there is substantial evidence indicating that most food systems lack resilience to withstand various

shocks (KUNYANGA ET AL. 2023, pp. 3). Kenya's experience with COVID-19 reveals a multifaceted crisis that transcends health concerns, evolving into a severe socio-economic threat. In Kenya, the first COVID-19 case was reported on March 12th, 2020 and cases peaked in August following the relaxation of lockdown measures in Nairobi and along the coast (ibid.). The same pattern occurred during the second and third waves in November 2020 and March 2021, also following relaxations (ibid.).

The pandemic's impact extended beyond the virus itself encompassing economic turmoil, trade limitations, and soaring food prices. Even before the pandemic, Kenya struggled with food security, affecting approximately 10 million people who had inadequate access to affordable, quality food (ibid., 2). This pre-existing issue earned Kenya a serious hunger rating, ranking it 87th among 116 nations in the Global Hunger Index (2014-2019) (ibid.). The COVID-19 pandemic has further exacerbated this situation by challenging the urban food retail system, especially through disruptions in food supply chains.

The food system in Kenya heavily relies on the informal sector (OWUOR ET AL. 2017, pp. 44-48). This informal sector is characterized by economic activities that are undertaken with limited oversight and regulation by the government (e.g. regarding employment practices, safety standards and taxation) and generally do not receive government assistance. They are typically small-scale enterprises with modest financial resources, consisting of labour-intensive activities in sectors with easy entry in and mainly located in less developed nations (KULKE 2013, pp. 31). Street vending represents a traditional occupation within the informal sector.

The informal sector plays a substantial role in job provision and economic advancement in lower income countries all over the world. In African nations, the informal food sector typically is vital for ensuring food security for urban households with low incomes for food and employment (RWAGA-PONELA ET AL. 2022, pp. 2). In this part of the food system the businesses typically do traditional processing. They often have limited or no access to storage facilities, refrigeration, packaging, clean water and sanitation (GAIN 2020, pp. 7).

This holds true for Nairobi as well, where food trade and services make one-third of the informal sector. Over 80% of grocery purchases occur within the informal sector (OWUOR ET AL. 2017, pp. 44). This includes mainly fruits and vegetables (making up 31% of trade), prepared foods and snacks (19%), and cereals and grains (6%) (ibid.). The informal sector exhibits significant overlaps with the formal sector; they often share the same sources and are neither isolated nor in direct competition with each other (ibid., pp. 48). Both are important parts of the urban food system.

## *State of the Research*

Investigating the impacts of the COVID-19 pandemic on traders has been part of the research purpose of several studies in the East African region and other African countries, Kenya, and Nairobi in particular. These studies examined both retailers and street vendors in general and specifically food retailers in both formal and informal sectors. The following provides an overview of the existing findings.

A telephone survey involving 2739 small formal and informal retailers in and around Nairobi (HELPER ET AL. 2021) investigated the effects of COVID-19 and revealed significant negative impacts, either directly due to COVID-19 or the measures taken to contain the virus. The study reported that many traders faced a substantial reduction in business activity while receiving little to no support from the government or other organizations (ibid., pp. 1-2). Particularly, traders in the informal sector, who constitute a significant portion of the retail industry, had no access to government support or did not benefit from tax relief, since they were not paying taxes to begin with (ibid.). Many experienced a decline in revenue, leading to job losses and financial strains, often necessitating loans from formal and informal sources (ibid.). The prices of essential food items increased, and supply chains were disrupted (ibid.).

Another study investigated the effects of COVID-19 on selected actors in the fresh fruit and vegetable value chain in the cities of Nairobi and Kisumu, Kenya. It found that the prices of fruits and vegetables increased, leading to reduced purchases (ONYANGO ET AL. 2021a, pp. 93-94). Traders and producers reported irregular deliveries of goods, adjustments in business models and workforce planning, reduced sales due to curfews and lockdowns, increased losses, and even business closures, as ongoing operating costs could not be covered (ibid., pp. 87-94). This resulted in heightened stress and concerns among the traders and producers (ibid., pp. 87, 93). In general, there was a decline in food consumption and changes in consumer shopping patterns regarding location and food choice and diversity (ibid., pp. 87-94), as also observed by KUNYANGA ET AL. (KUNYANGA ET AL. 2023, pp. 17). This study in Nairobi identified a high inflation of commodity prices through interviews with traders (ibid., pp. 7-10). At the same time, there was a decrease in sales volume and delivery quantities, with market prices for cereals and pulses rising by 13.8%, while prices for cabbage and potatoes decreased (ibid., pp. 8, 15). The decreased sales resulted from reduced demand, which arose from fear of infection and lower income among the customers due to the consequences of the pandemic (ibid., pp. 10). Traders had to sell their products for lower prices to avoid losses because of an oversupply (ibid., pp. 16). The pandemic led to disruptions in food supply chains and restricted access

to markets for farmers and traders, resulting in higher food prices, food waste and limited food availability (ibid., pp. 15-17).

Informal food traders from South Africa, a country facing similar structural and economic challenges in the informal sector, also reported forced business closures (RWAFA-PONELA ET AL. 2022, pp. 8), the necessity of traders to increase food prices (ibid., pp. 9), and decreased demand (ibid., pp. 10.). They also experienced difficulties in re-entering their business after the lockdown phases, as the necessary capital was often lacking (RWAFA-PONELA ET AL. 2022, pp. 11; WEGERIF 2020, pp. 798). The lack of legal recognition of informal food retailers led to their exclusion as essential service providers and made their operation and the access to support from the government very difficult (RWAFA-PONELA ET AL. 2022, pp. 2, 18 & WEGERIF 2020, pp. 798).

Additionally, according to a study conducted in Kisumu, Kenya, the „struggle for the street“ (KIAKA ET AL. 2021, pp. 1264) and a lucrative location among street vendors intensified. The pandemic and government measures prompted a restructuring of urban space, which had adverse consequences for many types of traders (ibid., pp. 1263-1270). They were often relocated, becoming more “vulnerable and uncertain” (ibid., pp. 1279). Some resorted to evading lockdowns and curfews by hiding from the police or paying bribes (ibid., pp. 1270-1271). Conflicts with urban authorities and state actors, which existed before the pandemic, intensified (ibid., pp. 1278).

Regarding traders' coping strategies, KIAKA ET AL. mention various forms of collaboration and connections among street vendors (KIAKA ET AL. 2021, pp. 1277), as well as changes in their product assortments (ibid., pp. 1274). Furthermore, taking out loans (HELPER ET AL. 2021, pp. 1-2) and adjustments in business models and workforce (ONYANGO ET AL. 2021a, pp. 87-94) can also be identified as responses to the new situation.

This existing research has made a valuable contribution to understanding the impact of the COVID-19 pandemic on traders, demonstrating that they were significantly negatively affected. However, there is still insufficient research in this area. This study specifically focuses on informal food retailers in the Clay Works and Hunters neighbourhoods in Kasarani. This district is characterized by greater economic challenges, making it a relevant research context. Thus, this work aims to provide specific insights into a less-researched district and complement previous findings.

## **Methodology**

Below, a more detailed introduction to the study area will be presented, followed by an explanation of the employed methods and data.



## Research Area

Hunters and Clay Works contribute to the rich cultural fabric of Kasarani Constituency, showcasing the diversity and resilience of Nairobi City. These neighbourhoods continue to thrive, with their distinct characteristics making them integral parts of the local communities. They are two neighbourhoods with a different social status, that will be described hereinafter, forming a solid foundation for a study regarding the informal food retail sector as well as the impacts it has experienced during the COVID-19 pandemic. Figures 10 and 11 show the streets in which the interviews were collected, and you can already see the differences in the building structure and the condition of the underground that highlight the dissimilar status. The administrative unit Kasarani had an average population of more than 10,000 inhabitants per square kilometre in 2019, which makes it a densely populated area (KNBS 2019). Additionally, more than a third of the population in Kasarani did not have the privilege to attend a secondary school education (KNBS 2014, pp. 25-32).

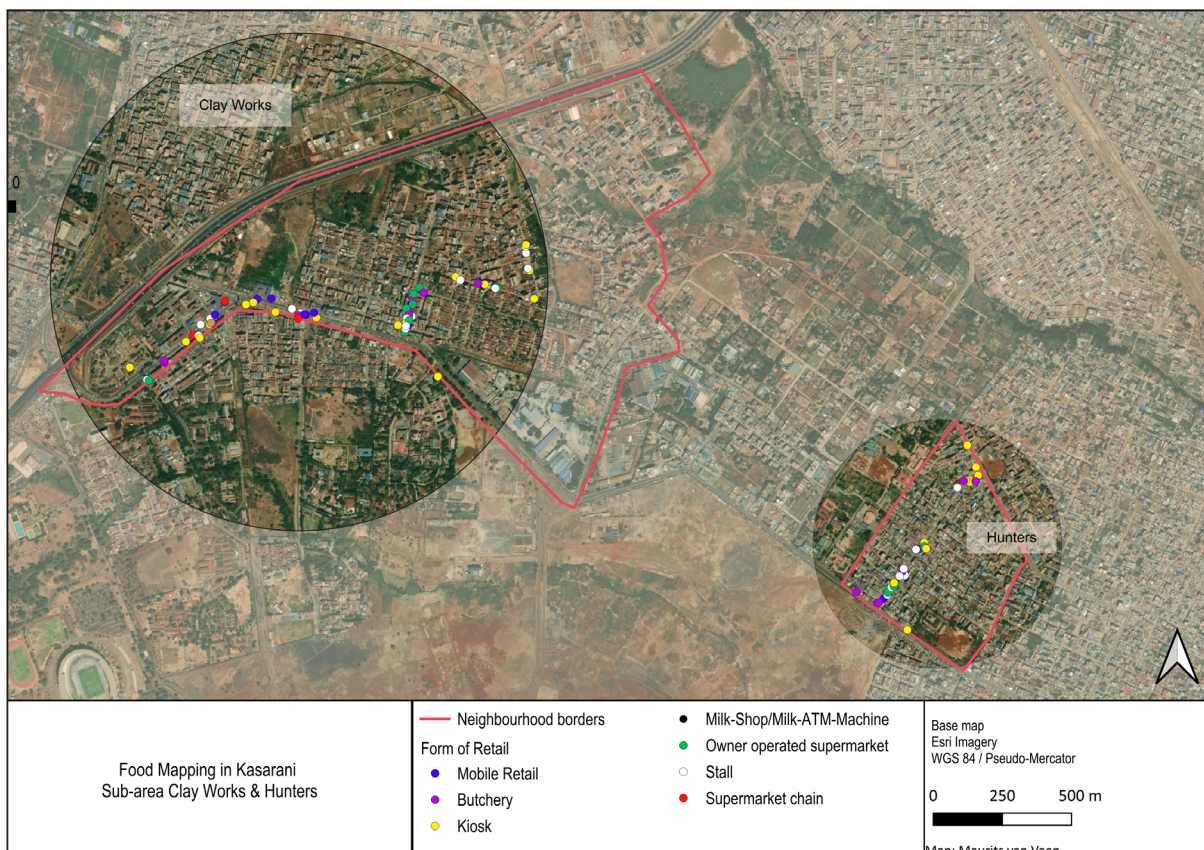
Hunters is notable by its market stalls, a few permanent shops and stores and small-scale food sellers who operate without formal structures as illustrated in Figure 10. Hunters emerges as an area with a lower social status and primarily housing a low-income population. This is evident in the neighbourhood's infrastructure, where streets and homes exhibit a more standard construction quality and appearance (Figure 10) consistent



Figure 10: Hunters, Kasarani (Shadrack 2023).



Figure 11: Clay Works, Kasarani (Berger 2023).



Map 8: Food Mapping in Kasarani. Neighbourhoods Clay Works and Hunters (van Veen, 2024).



with lower-income areas. The distribution of food suppliers in the two areas can be seen in map 8. Notably, the commercial scene in Hunters is characterized by stalls and kiosks, suggesting a prevalence of lower-income residents. The neighbourhood and the surrounding area have a high concentration of informal food retailers, making it an ideal setting for investigating the impact of COVID-19 on this sector. The area's reliance on informal food retailers for accessible and affordable food options makes it crucial to understand how they have been affected by the pandemic (CHERONO ET AL. 2019). The population comprises of a diverse mix of people from various socio-economic backgrounds. The area has a rich cultural heritage, with diverse communities from different ethnicities, cultures, backgrounds and social groups living and working together. The informal food retailers play an important role in sustaining cultural food practices and meeting the dietary needs of the community. However, the pandemic's impact on this sector has significant implications for the economic conditions of both the retailers and the consumers. Hunters and the surrounding areas are an ideal location to achieve research objectives related to the impact of COVID-19 on informal retailers. The high concentration of informal food retailers in the area provides a focused setting to examine their economic challenges, changes in consumer behaviour, and adaptations to new operating environments especially during COVID-19 pandemic.

Clay Works is situated near to the suburbs Kasarani and Zimmerman. It offers a unique charm to its residents. This neighbourhood benefits from a favourable location, providing easy access to amenities and neighbouring areas. Clay Works boasts a diverse demographic, with individuals from different socioeconomic backgrounds residing within its bounds. This is elucidated by the presence of well-designed apartments, a good number of private schools alongside public schools and as well private hospitals such as Radiant Group of Hospitals which provide specialized medical care and a higher level of personalized service compared to public healthcare institutions. Also, the streets and residences in Clay Works exude a newer and more modern appearance, indicating a higher economic status. The area has a greater number of permanent stores and a more diverse retail landscape, with proper supermarkets catering to a potentially more affluent population (see Map 9).

Clay Works showcases a blend of urban living and natural surroundings. In terms of food supply, community gardens and small-scale farming initiatives thrive in this neighbourhood, contributing to local food sustainability.

#### *Methods and Data*

The research employed a qualitative approach to gain in-depth insights into the challenges faced by informal food retailers during the COVID-19 pandemic. The methodology for conducting the research involved

a combination of semi-structured street interviews with food retailers as well as a guideline based expert interview. These interviews were mainly conducted in the English language, as it is one of the two national languages, next to Swahili. Swahili was only utilized if the traders' English comprehension capacities were not proficient enough for an interview. The interviewees were chosen by their profession and the location of their businesses. Stall operators located in the neighbourhoods of Clay Works and Hunters within the constituency Kasarani were selected as a target group. Small scale businesses like single stalls are usually informal (see chapter *Theoretical Background*), which is why the research is based on stalls (see Figure 12 & 13). In order to gain access to the retailers it was of paramount importance that the academic intentions behind the research were extensively explained before conducting interviews (ADEOYE-OLATUNDE & OLENIK 2021, pp. 1361).

We divided our research team into two groups, consisting of both German and Kenyan students and conducted the research simultaneously. A student from



Figure 12: Typical Stall in Clay Works, Kasarani (Berger 2023).



Figure 13: Typical Stall in Hunters, Kasarani (Shadrack 2023).

the university of Nairobi was represented in each of the groups to translate the questions and answers if needed. The trader interviews were conducted as semi-structured because this provides the respondents with the opportunity to emphasize certain aspects of the conversation. Additionally, BARRIBALL (1993) argues that semi-structured interviews aid researchers with the exploration of various attitudes, values, beliefs and motives (BARRIBALL & WHILE 1994, pp. 329). The guideline functioned as an outline for the interview, asking questions regarding the duration of employment in the food retail sector, which challenges they were facing during the pandemic, how they coped with them and if they learned any lessons from this time (see appendix – A). The interviews were never recorded due to rejection of the interviewees. Therefore, the answers were collected as notes (see. appendix – C).

The expert interview involved an individual with specialized knowledge in the topic of informal food retail. Additionally, the expert interview aims to supplement the retailer perspectives with expert insights. The research comprised of a guideline based expert interview with a representative of the Retail Association of Kenya (RETRAK). This interview provides a general insight into the impacts of COVID-19 on the informal food retail sector. Additionally, it provides information regarding possible administrative actions that policy makers could initiate. The expert interview was structured in a way that leads towards finding compromises or approaches for solutions. It starts with an introduction of the interviewee and the company she works with, then it asks for a specification of the informal sector and simultaneously compares it to the formal

food retail sector (see appendix – B). Afterwards the topic of COVID-19 is introduced, asking the respondent for specific restrictions that were implemented due to the pandemic and which effects it had on the informal food retail sector. The interview ends with an outlook into the future, asking the expert, which actions could be taken to increase the resilience of these informal traders. The expert interview was recorded and transcribed as well as analysed with the qualitative data analysis software MAXQDA. After the transcription the interview was coded to structure the analysis and connect the answers to the trader interviews.

Ethical guidelines were followed during data collection, ensuring informed consent from participants and protection of their identities and personal information (ZHANG, 2017). Steps were taken to ensure the validity and reliability of the research, such as using standardized interview protocols. This methodology, however, also holds potential limitations for the research, such as the small sample size and the generalizability of findings beyond the specific study areas.

## Results

The following chapter will present the results from both the trader interviews and the expert interview.

### Trader Interviews

The interviews give insight into challenges, coping strategies and lessons learned for informal food traders during the COVID-19 crisis in Nairobi. Ten interviews

	Results	n = 10
challenges	absence of state aid	9
	shortage of supply & demand	5
	liquidity problems	4
	supply bottlenecks	3
	rising costs	2
coping strategies	product range & price adjustments	6
	private / informal loans	4
	organising chamas	2
lessons learned	possibility of changing professions	5
	build up savings	2

Table 1: Most Mentioned Challenges, Coping Strategies and Lessons Learned (Own Data).

with stall owners and workers from two neighbourhoods were conducted. Four interviewees operated in Clay Works (Interviews\_1-4\_g3) and six in Hunters (Interviews\_5-10\_g3). No major difference between the two samples could be observed. Given the small sample size, 6 females and 4 males are seen as gender balanced. Average time in business is 6.8 years, ranging from a minimum of 2 to a maximum of 15 years. Results of the interviews are structured by challenges, coping strategies and lessons learned (see Table 1).

First, the challenges were the shortage of supply and demand, supply bottlenecks, rising costs, liquidity problems and the absence of state aid. They are partly interdependent and cannot always be sharply separated from each other. Second, the coping strategies mentioned were product range and price adjustments, private/informal loans and organizing chamas (community self-help groups). Third, the lessons learned were to build up savings and a greater awareness of the possibility to change professions.

#### *Challenges for Informal Traders*

COVID-19 restrictions, such as curfews and lockdowns, deliberately shut down public life. According to one interviewee, this led to reduction in customer footfall and thus a decreased income through sales (Interview\_10\_g3). In addition, many workers – the traders' customers – lost their income, for example due to business closures or unpaid leave (Interview\_5\_g3). Some of these moved out of the city to their families in the countryside because of the lower cost of living (Interview\_1\_g3). Often curfew started, when working shifts ended. Hence, traders were not allowed to sell during peak hours (Interview\_6\_g3). Food demand in the city collapsed. Other mechanisms such as the need for sanitary measures led to rising costs for traders. Regulations and controls from regional to international levels led to supply shortages and extended delivery times (Interview\_4\_g3, Interview\_7\_g3). One interviewee mentioned the expenses for sanitation as well as the required time and effort related to keeping the stall and products sanitized as a challenge (Interview\_7\_g3). Food became more expensive and could be lost due to low customer frequencies. Hygiene measures, such as the provision of disinfectants, caused additional expenditure items (Interview\_4\_g3, Interview\_7\_g3). This financial burden was particularly severe for the corona risk group, mentioned an old lady. Furthermore, attending markets to maintain food supply for the business was yet another risk (Interview\_7\_g3). Two traders reported benefiting from the shortage of supply and making higher profits (Interview\_1\_g3, Interview\_9\_g3). At the same time, temporary shop closures occurred due to low demand (Interview\_3\_g3, Interview\_6\_g3). Both traders and their customers suffered from liquidity shortages. For the customers, this was due to the loss of work, and for the traders, it was due to lower sales (Interview\_5\_g3, Interview\_6\_g3, Interview\_9\_g3, Interview\_10\_g3).

#### *Coping Strategies*

Despite the coping strategies described in this section, traders went through a tough time (Interview\_2\_g3, Interview\_5\_g3, Interview\_7\_g3). One of the measures was assortment and price adjustments. Quickly perishable products and those with large price increases were no longer traded, due to the low demand for such products (Interview\_2\_g3, Interview\_5\_g3, Interview\_6\_g3). The assortment was expanded, for example to include hygiene articles (Interview\_4\_g3, Interview\_8\_g3). Discounts were granted to increase sales (Interview\_2\_g3, Interview\_7\_g3). Good relationships with suppliers made it possible to continue operating despite insolvency or to generate profits (Interview\_1\_g3). On the other hand, temporary and permanent shop closures were also described (Interview\_1\_g3, Interview\_6\_g3).

To survive the liquidity bottlenecks described above, loans were taken out from informal sources. Creditors were friends, families, or Saccos/Chammas (Interview\_2\_g3, Interview\_6\_g3, Interview\_9\_g3, Interview\_10\_g3). The latter are independently organized self-help groups and cannot be considered in more detail in the context of this paper. Servicing the loans sometimes poses a new challenge to the traders (Interview\_9\_g3, Interview\_10\_g3). Despite government officials collecting information from traders for assistance programs (Interview\_6\_g3), none of the traders received government aid (Interviews\_1-9\_g3).

#### *Lessons learned*

In preparation for a new crisis, traders pay off their loans and build up savings (Interview\_1\_g3). Furthermore, a change in awareness about the possibility to change industry or profession was described (Interview\_1\_g3, Interview\_10\_g3). While two traders reported to have closed temporarily, there was no opportunity to interview people closing permanently. The statements were not elaborated in more detail.

#### *Expert Interview with RETRAK*

The research includes an expert interview in order to contextualize the answers provided by the informal street vendors in Hunters and Clay Works. Additionally, it aims to provide comparative information regarding the formalized food retailers and their reactions as well as coping strategies to the COVID-19 pandemic. The interview was conducted with a representative of the Retail Trade Association of Kenya (RETRAK). The Retail Trade Association of Kenya is a private association that specializes in the retail sector, focusing on food retail and aims to pose as a representative body that lobbies for the interests of the retail sector. The association also collaborates with the government, for example RETRAK is represented in the Retail Trade Committee, which aims to prevent exploitation between retailers and suppliers (KIGWIRU



2022). In the interview the expert states:

*"We are primarily a lobby and advocacy group, but we also venture into creating and enabling an environment for the retail sector" (Expert\_Interview\_g3, para. 2).*

She has detailed knowledge regarding the urban food retail sector, as she has spent 10 years working with RETRAK (Expert\_Interview\_g3, para. 10). During the interview she states that the informal retail sector is a crucial actor in the urban food system of Nairobi. Answering the question of how important the informal food retail sector with regards to food security is, the expert elaborates:

*"Extremely! [...] Oh my goodness. [...] for food safety it is the most important! [...] The majority of Kenyans shop in the informal sector." (Expert\_Interview\_g3, para. 34-44).*

#### *COVID-19 Related Restrictions and Correlated Challenges*

The Kenyan government utilized several restrictive measures to contain the transmission of the COVID-19 virus. The expert mentions the following restrictions: lockdowns introducing curfews in Nairobi, roadblocks preventing the transmission of the virus and social distancing as well as instructions to wear masks (Expert\_Interview\_g3, para. 81-137). The economy was widely shut down in Nairobi during that time, with the food retail being an exception as it is considered as essential services (Expert\_Interview\_g3, para. 83). Adherence to the measures of social distancing however is very limited in crowded streets with informal street vendors distributing their products on the side of the road (Expert\_Interview\_g3, para. 106-110). According to the expert even the acquisition of medical equipment, such as masks or hand sanitizers was a challenge for informal street vendors (Expert\_Interview\_g3, para. 111).

Additionally, Kenya experienced an economic recession during the heights of the pandemic. Especially informal labourers were heavily affected by the closure of businesses. This simultaneously had implications for informal food vendors. NECHIFOR ET AL. examined the impacts of the COVID-19 pandemic on the Kenyan economy and identified:

*"The April-June lockdown might have determined a significant decrease in GDP and household income which have then translated into a lower demand for food commodities" (NECHIFOR ET AL. 2021, pp. 8).*

The expert elaborates that casual laborers were no longer hired due to company closures, which reduced their income drastically. The street vendors located within the districts with many inhabitants working in the informal sector therefore faced the problem of

their customers being unable to pay for their groceries (Expert\_Interview\_g3, para. 123). She proceeds to say:

*"Which means you're giving credit, and if you're giving credit to somebody who's not able to pay, you will eventually close" (Expert\_Interview\_g3, para. 123).*

KIBE ET AL. (2020) reached a similar conclusion, whilst discussing the implications of the pandemic for informal settlements and their inhabitants, stating:

*"The COVID-19 containment measures have led to massive closure of companies and other businesses leading to far reaching effects especially for low-income daily wage earners. The loss of income has also affected the small-scale traders in the slums due to low purchasing power as a result of the surge in the number of unemployed persons in the slums. Many households which were already poverty stricken have been rendered even more vulnerable and are unable to afford food and to pay rent" (KIBE ET AL. 2020, pp. 2).*

Furthermore, the street vendors as well as formal retailers faced the disruption of their supply chains for fresh fruits and vegetables. These disruptions are a result of roadblocks preventing the delivery of food from rural areas to Nairobi implemented during the pandemic (Expert\_Interview\_g3, para. 87). The urban food security was therefore impacted heavily. NORDHAGEN ET AL. (2021) analysed the impacts of COVID-19 on the food supply chains of small enterprises in low- and middle-income countries. One farmer described the complications he faced:

*"My farm is in a different county... from where I live (Nairobi). My main market is also in another county... Movement from Nairobi to [home county] is restricted, and the people who man the roadblocks keep on shifting goals on the permits required to allow movement of fresh produce or do not allow me to go to the farm. As a result, I have lost two acres of tomatoes and am unable to plant other crops" (NORDHAGEN ET AL. 2021, pp. 3).*

According to the expert, the influx in prices was directly linked to these supply chain disruptions. Additionally, she elaborates that some of the street vendors utilized the mobility restrictions to artificially raise their prices (Expert\_Interview\_g3, para. 89). ONYANGO ET AL. (2021b) analysed the vulnerability to shocks in Nairobi, focusing on informal settlements. The researchers have found that there are several disruptions in the informal food sector, which also resulted in higher prices (see chapter *Theoretical Background*). These challenges severely impacted the informal street vendors in Nairobi and needed measures to counter them (ONYANGO ET AL. 2021b).

The Kenyan authorities engaged in supportive measures which primarily focused on formal food retail. RETRAK also participated in these measures transmitting driver related information to the authorities, to ensure that employees of supermarkets could pass the roadblocks. The informal sector on the other hand was supported in terms of survival rather than business, for example by receiving masks and hand sanitizers from the government (Expert\_Interview\_g3, para. 137). Additionally, private and bank owned food banks grew during the time although they were not prominent before the pandemic (Expert\_Interview\_g3, para. 91). MARTIN-NEUNINGER (2021) states:

*“In order to address the growing food insecurity issue during the pandemic, food banks have been taking care of vulnerable people and their basic needs by providing essential items” (MARTIN-NEUNINGER 2021, pp. 62).*

Additionally, a system was implemented which provided urban residents in need with money and food (Expert\_Interview\_g3, para. 139). Informal food retailers had to resort to other measures to earn money. Some ignored the curfews, selling after lockdown hours (Expert\_Interview\_g3, para. 87). Furthermore, the expert explains that a lot of people who were laid off entered the food retail system searching for jobs. These people established themselves as informal food vendors selling from their car boots, after driving up country, collecting fresh produce. These informal food vendors aided with food security during the pandemic (Expert\_Interview\_g3, para. 113-115).

According to the expert there must have been a lot of informal food vendors who gave their business up and moved to rural villages, where their families live. She describes this as a measure to ensure food security, since food is more accessible in rural parts of Kenya. VON SEIDLEIN ET AL. examined the impacts of population density on the transmission of the COVID-19 virus. They continue to elaborate that a lot of young Kenyans migrate to cities in order to find employment (VON SEIDLEIN ET AL. 2021, pp. 6). The Informal food retail sector is one prominent source of income for young rural-urban migrants which also supports their rural families through remittances (NYAKAANA 1997, pp. 98-109). The threat of lockdowns and COVID-19 then impacted these workers. VON SEIDLEIN ET AL. state:

*“Once there is a threat of an outbreak [of COVID-19] or perhaps even more worrying a lockdown, migrants may prefer to return to their village homes” (VON SEIDLEIN ET AL. 2021, pp. 6).*

One positive development which resulted from the pandemic was the rapid rise of online shopping and delivery services (Expert\_Interview\_g3, para. 131).

BANGA and TE VELDE elaborate:

*“Emerging evidence suggests that the pandemic has directly accelerated e-commerce, with a spike in both business-to business and business-to-consumer online sales, particularly in medical supplies, household essentials and food products [...] Online marketplaces allow for remote purchases and delivery services which adhere to social distancing” (BANGA & TE VELDE 2020, pp. 16).*

Food delivery is mainly conducted by formal food retailers which collaborate with delivery companies like Jumia, Uber Eats or Glovo (BANGA & TE VELDE 2020, pp. 22). The expert compares the relevance of online shopping as she states:

*“One supermarket that had a[n] online channel before Covid, but never used to register more than a hundred transactions in a month. [...] On the eve of the first curfew [...] they did 3000 transactions in one day, in one day and then everyone got on to Jumia or got on to Glovo. Cause Glovo grew a lot during Covid” (Expert\_Interview\_g3, para. 133).*

The rise of these delivery systems provides both an opportunity and a challenge for the informal retail sector, since they create jobs on the one hand but also reduce the income of food stalls on the other hand.

The expert is convinced that informality hinders many informal retailers from developing their businesses (Expert\_Interview\_g3, para. 145). Whilst being asked what actions one could take to prevent closures of stalls and provide food security to all urban residents she states:

*“Yeah, just we have general crisis always in the informal sector, so we don't have good logistics. We don't, in terms of even roads, accessibility to those areas. [...] Formalizing it would really go a long way in helping them get access to any help they need and that help could be finances, could be skills because sometimes it's not about the money, it's about the skills to run a business. Uhm, clarity in terms of what licenses do I need? What? Even understanding why do we need to have a registered business? So just a bit more capacity building in terms of knowledge share to people operating any kind of business in the, in the informal?” (Expert\_Interview\_g3, para. 145).*

This formalization is mentioned as one possibility that can ensure food security and food safety in urban agglomerations like Nairobi.

### Limitations and Reflection

In the reflection on the applied methodology, several crucial aspects have to be considered. The combination of empirical interviews with street vendors in the

field, as well as consulting with an expert in Nairobi's retail sector who could provide contextual insights, offered a comprehensive understanding of the subject matter. Nevertheless, both the surveyed street vendors and the expert that is working for an association, that follows its own philosophy and perspectives on the topic, involved in the respective sector of the research process may have been influenced by prevailing social expectations or preconceived notions. These influences could potentially lead to biased or socially acceptable responses. To mitigate this issue open-ended questions were employed.

One possible bias of the expert could stem from her work with RETRAK, an organization primarily focused on formal trade. According to her statements, a significant goal of her work is to formalize the informal trading sector (Expert Interview\_g3, para. 2 & 30). This, in her view, could provide traders with the necessary financial support and the opportunity to enhance their skills to stabilize their operations (ibid., para. 145), presenting a potential solution to their issues and notably their vulnerability during times of crisis such as the pandemic. However, it is important to consider that formalization processes can introduce significant challenges that she has not mentioned. In this context, ISHENGOMA & KAPPEL mention entry costs, taxes, bureaucratic time constraints, labour regulations, and overall expenses that can outweigh the financial disadvantages of informality (ISHENGOMA & KAPPEL 2006, pp. 15-21). Additionally, there is a risk of losing customers if the selling locations change due to formalization (e.g., a new covered market instead of a stall), when they are not willing to adapt to the new arrangement. Such cases were mentioned during the broader research project in Nairobi. Also, the expert's work mainly deals with formal traders, so her knowledge of the informal sector may only extend to a certain point.

The statements of the traders also might have been influenced by various factors. Firstly, due to the unfamiliarity of the German students, there could have been certain reservations or mistrust among the traders. Kasarani is not a district typically visited by 'white people'. Moreover, several language comprehension issues arose because the researchers used the English language to approach the traders. In Kenya, both English and Swahili are national languages, but most people are more proficient in Swahili, especially in socially disadvantaged districts like Kasarani. Therefore, interviews were sometimes initiated in English but completed in Swahili. During translation and in interviews conducted in English with poor language skills (possible on both sides), contents may have been lost or distorted. In addition, notes were taken solely during or shortly after the interviews, as the interviews were not technically recorded, which might have led to aspects being forgotten.

Additionally, the representativeness of the sample is severely limited. With only 10 interviewed vendors, the study has a very small scope and cannot be re-

garded as generalizable. Furthermore, the number of respondents varies between the two study areas. The research framework, constrained by a 10-day stay in Nairobi as part of the study project, limited the capacity to conduct extensive interviews. Other aspects that necessitate consideration include potential biases stemming from the researchers, memory lapses on the part of the respondents, and changes in the social context of the interviewees. These considerations are essential to ensure the robustness and reliability of the research findings.

Further aspects that might have been included in the research are the possible career changes of many traders, or the activities they pursued while they had to close their businesses. Also, the study could be enhanced through an expansion of the study areas, including more neighbourhoods representing the upper classes as well as informal settlements. This could aid in understanding the implications of COVID-19 on a city-wide level and could have yielded more valid results regarding differences in the trader's challenges and coping strategies between areas with a different social status.

## Discussion

The aim of this study was to examine the impact of the COVID-19 pandemic on informal food retailers and how they dealt with potential challenges. To address this question an expert from RETRAK was interviewed, and 10 informal food retailers in Clay Works and Hunters, Kasarani, were surveyed, alongside a review of current scientific studies. Many of the statements from the expert (*see chapter Expert Interview with RETRAK*), the studies in the existing literature (*see chapter Theoretical Background*) and the informal traders in Kasarani (*see chapter Trader Interviews*) regarding the effects of the pandemic align. The information from these three sources will now be interconnected and summarised.

In the context of challenges brought about by the pandemic, street vendors predominantly reported a decrease in customers, resulting in reduced sales and revenue, as well as financial difficulties during COVID-19. Supply chain issues, frequently mentioned in the studies, also led to delays in the delivery of many products and restricted the availability of goods, as reported by some interviewed traders and the expert. One significant outcome of this was price increases, one of the most commonly mentioned consequences of the pandemic in all three sources. Additionally, products went unsold due to reduced demand or increased prices, resulting in losses as perishable items spoiled and had to be disposed of or had to be discounted to be sold in time. This phenomenon was confirmed both in the literature review and in the empirical surveys conducted for this work. The decreased demand was attributed in all sources to job losses among customers and subsequently reduced incomes, as well as mobility



restrictions, curfews and lockdowns. These limitations affected both the working hours of the informal traders and the shopping opportunities for customers, as they had little time to make purchases after work and before the beginning of the curfew. This experience was shared by the retailers in this study as well as in the other studies. These problems often led to temporary or permanent business closures, as reported in all sources, or even to leaving the city, as our expert reported. She and the existing literature also mention major difficulties to re-enter the business afterwards. Regarding coping strategies, almost all interviewed informal traders, many studies, and the expert mentioned taking out loans. These loans were often obtained from informal sources. Business closures can also be considered a form of coping. In some cases, due to reduced demand, traders had no other choice, while in other cases, it can be seen as a response to the changed situation, a way to reduce costs and prevent further losses. Through closure, retailers could realign and explore other opportunities to generate income. The commonality among all the surveyed traders was that, according to their statements, no government support reached them. The other studies also reported that informal retailers, despite their essential role as food providers, encountered significant difficulties in applying for or receiving government assistance or being classified as essential workers with exemptions from restrictions. The expert also mentioned a lack of financial support but noted material assistance in the form of food banks, from which the informal traders could benefit apart from their work, and a system to support poorer residents, as well as the provision of hygiene items such as masks or sanitizers for informal traders, the purchase of which was cited as an additional burdensome cost factor by two surveyed traders. However, it remains questionable to what extent these supportive measures reached informal traders, especially since none of the respondents answered „Yes“ to the question about receiving support. Another source of support appears to be self-organized community self-help groups mentioned by two respondents. This suggests that participation in such groups may be a common coping strategy among informal traders, just as the increased connections among traders during the pandemic, as reported by KIAKA ET AL. (2021). Furthermore, both in the studies and by the expert (Expert\_Interview\_g3, para. 101), it was reported that retailers sometimes bypassed curfews to sell their products. As previously reported by KIAKA ET AL., this could lead to increased conflicts with the authorities, which intensified during the pandemic (KIAKA ET AL. 2021). The findings from the empirical investigations in this paper largely align with the existing research on the challenges faced by street vendors during the COVID-19 pandemic. Given the significant role of the informal sector in food supply in Nairobi, a fact also confirmed by the expert (Expert\_Interview\_g3, para. 34-44), the challenges faced by these vendors have substantial implications for the overall population and

food security. Particularly in Kasarani, a less affluent district of Nairobi, informal food vending plays a vital role in both nourishing and employing a substantial portion of its residents. Despite differences in socio-economic structures between the two neighbourhoods Hunters and Clay Works, in both areas informal traders appear to be similarly affected by these issues, although it's essential to note that this small sample size doesn't allow for generalisable conclusions.

Certainly, while the interviewed traders may convey a sense of successfully weathering the crisis (with two of them even experiencing improved conditions), it's crucial to acknowledge that these interviews, in this study and others, do not encompass all the traders who were unable to re-enter the market successfully.

## Conclusion

Generally, one can say that this qualitative study supports pre-existing literature regarding the impacts of the COVID-19 pandemic. The interviewed informal food vendors as well as the expert have highlighted that the pandemic led to an economic shock, disrupting the businesses of informal food vendors in the study areas. The implemented mobility restrictions due to the rapid transmission of the COVID-19 virus, such as lockdowns, curfews and roadblocks reduced the urban food security by partially prohibiting the transportation of goods from rural areas to Nairobi. The entire economic sector of urban food retail faced challenges that relate to the pandemic; however, the most vulnerable actors, like our interview partners, were hit the hardest. The utilization of private loans as well as community-based support groups were essential for the survival of these informal businesses. Additionally, many retailers were forced out of business and left the economic sector. Furthermore, there were also vendors who profited from the pandemic, although the proportion of vendors in the survey who view the pandemic as positive is distinctly smaller than those who dread it. One development, which could be viewed as positive is the expansion of online retail and delivery services. Although this development is dominated by formal supermarkets, it can provide the informal street vendors with opportunities of expanding their businesses or building more resilient structures that can withstand future economic shocks that infringe the mobility of their customers. Additionally, many vendors have learned to be financially more independent, for example by having another unrelated profession that can generate income.

The informal food retail sector was impacted gravely by the pandemic. This creates implications for local authorities and policy makers. A formalization of the informal sector, although very challenging, could create a resilient urban food system which can prevail during economic crises by centralized financial support systems from the government and simultaneously ensure food safety as well as food security. This ho-

wever would also have serious consequences for the entire economic sector, restructuring structures that are deeply ingrained in Kenyan society. Additionally, policy makers should incorporate the informal sector into their urban planning strategies, to ensure that solutions to these very deep-rooted problems can be implemented.

NARULA comments on the implications for policy makers with regards to the impacts of the pandemic on informal retailers:

*“There are, nevertheless, developing countries whose policymakers recognize that a collapse of the informal sector removes the backbone of developing countries’ economies. I believe that the pandemic is an exogenous shock of sufficient magnitude that it will motivate policymakers to realize that the long-term effects of not tackling informality now will be truly disastrous.” (NARULA 2020, pp. 306)*

The importance of the informal food retail sector must be highlighted, as it serves as the prominent tool for food distribution in Nairobi and provides especially vulnerable residents with groceries. Therefore, it must be a major objective of the policy makers to ensure an environment in which informal retailers are supported and incorporated in the local food system.

In conclusion this study provides a qualitative insight into the impacts of the COVID-19 pandemic on the informal food retail sector in the neighbourhoods of Hunters and Clay Works in Kasarani. The similar results from the different study areas allude to similar impacts on the informal food retail sector all over Nairobi and evoke a discussion that asks for policy changes which support the informal food sector as a whole and recognize its importance for the food security in Nairobi.

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# Food Consumption - A Question of Class and Income?

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## Introduction

In our daily lives, food consumption is a fundamental aspect of human existence as food is essential for human survival. Food consumption transcends beyond boundaries, and it encompasses cultural, social and economic dimensions. According to PÉREZ-ESCAMILLA (2017), the issue of food security is at the heart of States' engagement where food is a key element in the Sustainable Development Goals (SDG) of the 2030 Agenda for Sustainable Development as put forward by the UN Decade of Action on Nutrition (WHO 2004; PÉREZ-ESCAMILLA 2017). In the contemporary world, a question of Class and Income emerges as critical determinant of how we access, choose and consume food. This investigation is acknowledging the widespread problem of food insecurity and its deep-seated connections to social inequalities. As social inequality is a broad overarching concept in this study, particular attention was directed towards gender inequality, as it represents a central role in this specific topic.

This is a complex challenge that is characterised by limited access to sufficient, safe and nutritious food. The 1996 World Food Summit defines food security as the ability of having physical and economic access to sufficient, safe, nutritious food, at all times, which meets their dietary needs for an active and healthy life (FAO 2008). Who experiences food insecurity and who enjoys the benefit of a stable and nourishing diet is frequently determined by disparities in income, resources and education. Food insecurity is caused by various factors such as population growth, urban development and climate change. Another reason for food insecurity in Kenya is caused by inadequate farming area, drought, inadequate knowledge and ignorance among other factors (LIRU 2014). The underperformance of the agriculture sector seems to be one of the major causes of food insecurity and food crises in Kenya, highlighting the significance of agriculture as the backbone of Kenya's economy (GITU 2004). Inefficient agricultural productivity can, in part, be attributed to disparities in access to important resources such as land, advisory services, technologies, infrastructure, and other inputs essential for effective farming. This unequal access is frequently rooted in gender-based divisions. The various challenges women face contribute to a gender productivity gap, thereby hindering progress toward achieving food se-

curity. Consequently, the promotion of gender equality would play an essential role in enhancing food security (GNISCI 2016 15; AKINYI ET AL. 2023, pp. 9). This research focuses on the intricate interplay between socio-economic classes and food consumption within the context of Kasarani region encompassing the neighbourhoods of Sunton, Gituamba, Clay Works and City Chicken.

This study is guided by two central questions, each one examining the complexity of this issue.

1. *How does social inequality influence food consumption in Kasarani?*

This research question examines the socio-economic dynamics at hand, looking at how people of Kasarani's dietary habits and level of food security are affected by differences in income and resource access.

2. *How are gender-related factors expressed in the dynamics of food at the household level?*

This research question helps to recognise the pivotal role of gender in shaping food practices and the responsibilities within households, we seek to understand how these interactions affect who has access to food supplies as well as how the workload is distributed. This question welcomes investigation into the gender distribution, decision making and food consumption patterns within households in Kasarani. People of all ages, genders, and socioeconomic origins are impacted by the complicated social issue of gender inequality as it can take many different forms, including violence, prejudice and lack of opportunity.

## Theory

*"Up to 783 million people – one in ten of the world's population – still go to bed hungry each night. WFP estimates [...] that more than 345 million people are facing high levels of food insecurity in 2023" (WFP 2023).*

These numbers illustrate that food insecurity remains one of the most prominent issues particularly affecting countries in the Global South and demanding increased attention in the upcoming decades especially in the light of ongoing crises such as wars, the COVID-19

pandemic or climate change. Especially the latter has largely been seen as one of the factors leading to changes in the food systems in Kenya (AKYINI ET AL. 2023, pp. 6). To better comprehend the consequences of food insecurity, it is imperative to first examine the multidimensional concept of food security.

At the second World Food Summit convened by the FAO in 1996, the definition of food security still in use today was established. According to this definition, food security is defined as a situation where

*„all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (FAO 2008).*

In accordance with this definition, BARRETT (2010) delineated the three facets of food security as availability, accessibility, and utilisation. These three facets of food security exhibit a hierarchical nature, where availability of food is necessary but does not guarantee access. Conversely, access is a requirement for utilisation, yet it does not inherently ensure the sufficiency of utilisation (BARRETT 2010, pp. 825). In this definition, food availability pertains to the adequate production of food and is associated with the supply side (WORLD BANK 2023). Due to innovations in the agricultural sector, general food availability has significantly increased in recent years, theoretically producing an adequate amount of food per capita for the global population. However, the mere production of food does not guarantee food security for all individuals (BARRETT, 2010; MISSELHORN et al., 2012). The consideration of food availability on the supply side must be accompanied by an examination of food accessibility on the demand side, given the unequal global distribution of food. Access to food can be influenced by a multitude of factors such as occupation and consequently income, social status, price fluctuation, market conditions and the physical circumstances of individuals. From the perspective of accessibility, a strong correlation between food security and lower socio-economic groups and particularly poverty, becomes evident (BARRETT 2010). Alongside accessibility and availability, the appropriate utilisation also plays a significant role within the realm of food security. The term ‘utilisation’ encompasses the nutritional aspect of food, proper preparation under hygienic conditions, and overall dietary quality (BARRETT 2010; WORLD BANK 2023). In addition to the commonly recognised factors of food security in the literature, the stability of these three factors can also be considered as an extra determinant. Food security is only ensured when all these factors persist over an extended period. Furthermore, weather conditions, political instability or economic factors can also influence food security (WORLD BANK 2023).

The issues related to food security, particularly in Kenya and other rapidly growing countries in the Global South, are often exacerbated by urbanisation. Accord-

ing to this, the main

*“challenge is that the urban population [...] is growing very fast while the economic growth and development transformations necessary to support it and enhance the quality of urban life are not occurring at the same rate” (OWUOR 2019, pp. 162).*

This situation can lead not only to increased poverty and food insecurity, but also to a greater dependence on rural areas. According to this, an increasingly large segment of Nairobi’s urban population relies on food transfers from relatives in rural areas, since food cultivation in urban areas is constrained and unable to meet the needs of the urban population (OWUOR 2019, pp. 271). The food transfers from rural areas to migrants in urban areas are also referred to as *„Rural Urban Linkages”* and constitute a crucial source of food for many individuals in urban areas. Thus, ONYAGO ET AL. (2021) discovered in their study that these food transfers are of great importance to the well-being of 46% of the urban population and cover almost all categories of food (ONYAGO ET AL. 2021, pp. 8). However, the challenges of food insecurity arising from urbanisation are even more dependent on the income and social status of individuals. In his 2013 published paper, OLIELO (2013) discusses how the trend of urbanisation, when coupled with higher income, leads to a more diverse food consumption and positive changes in diet. On the other hand, negative effects of urbanisation are evident, especially in lower-income groups, where processed foods, increased sugar and fat consumption are more common in Nairobi (OLIELO 2013, pp. 4). This indicates a connection between income and consumed food in Kenya. However, this connection to income is not limited to dietary habits but also extends to food insecurity, as lower income households experience more food insecurity than higher income groups (OWUOR 2019, pp. 164-166). This becomes especially apparent when comparing the average food consumption of lower income, middle income, and higher income groups. With increasing income, the number of consumed food groups and calorie intake rises (OLIELO 2013). The lower income of lower socio-economic groups, therefore, also influences the purchased food items and serves as an explanation for the correlation between the increase in the purchase of processed foods, increased fat and sugar consumption and urbanisation as these food items often tend to be less expensive.

To compare the relationships between various socio-economic groups and food insecurity, it is also necessary to identify the different groups based on factors beyond their income. In addition to income, information about food shopping characteristics, mode of transportation, purchased food types, frequency of grocery shopping, type of cooking fuel or household infrastructures such as pantries or refrigerators provide insights into the socio-economic status for this study (ODUNITAN-WAYAS 2018; OLIELO 2013). It



becomes apparent that shopping location is a key indicator for allocating different individuals into varying socio-economic classes as lower-income individuals tend to rely on street vendors and informal markets, while middle- and upper-income groups have easier access to supermarkets (OLIELO 2013). Storage capacity at home is another significant factor, as middle- and upper-class households typically have more storage options, while lower-income households may lack refrigerators or adequate storage space. Refrigerator ownership itself is a common indicator of social standing, enabling higher-income individuals to store perishable goods and make bulk purchases, which often translates into economic advantages (OLIELO 2013). The frequency of grocery shopping reflects financial stability and preferences, with lower-income individuals often shopping more frequently, while higher-income individuals shop less often (BERGER & VAN HELVOIRT 2018). Lastly, the type of cooking fuel used is also connected to socioeconomic status; while higher-income households can afford cleaner fuels like electricity or gas, lower-income households rely on cheaper options like firewood or charcoal, which potentially leads to health-related risks (BENSCH ET AL. 2015). In the following, the factors behind food insecurity and social inequities are explored, with a particular emphasis on gender inequality. Gender inequality is a dimension of inequality, affecting approximately half of the world's population, albeit to varying degrees. Given the widespread implications of this issue, the United Nations (UN) has recognised the need to address it comprehensively. Although Goal 10, “*Reducing inequalities*”, one of the previously discussed SDGs, inherently addresses gender inequality in a broader context, it does not provide sufficient emphasis on this specific concern. As a result, the UN has created the 5th Goal, “*Gender equality*”, to provide the dedicated focus that this issue requires (UNITED NATIONS 2023). Broadly, gender inequality results in uneven access to rights, affecting numerous aspects of women's lives. This extends to their standing in all domains of society, whether public or private, within family structures or the job market, within economic and political spheres, as well as in power dynamics, decision-making processes, and social gender relations. Across nearly all societies, women find themselves in a disadvantaged position compared to men (EUROPEAN INSTITUTE FOR GENDER EQUALITY 2023). Notably, gender inequality is connected to the legal framework. An analysis reveals that legal provisions aimed at preventing gender-based discrimination can contribute to the empowerment of women. Nevertheless, relying solely on the legal framework is inadequate for achieving gender equality. Policymakers should complement it with additional initiatives, like awareness-raising campaigns and programs that reshape societal norms and behaviours (OECD 2022). An illustrative case of this is the 2010 Constitution reform that legally affirms women's right to inherit and own land. However, in practice, various mechanisms undermine the right to own

or access land, leading to women not achieving true equality in this respect (DJURFELDT 2019, pp. 4-5). Women who have limited or no formal education even face a higher risk of experiencing outcomes of gender inequality, including physical and sexual violence. Moreover, a low-income level is strongly linked to harmful effects of gender inequality, such as domestic violence, as well as emotional and psychological distress (ADEDINI ET AL. 2014, pp. 6052). This demonstrates the significance of intersectionality<sup>1</sup>, which involves the overlapping of various forms of discrimination, in the context of gender inequality. When specifically examining food insecurity, scientific evidence proves the statement that women are disproportionately affected by discrimination, both at the societal and household levels. This discrimination can lead to violations of their right to food (BOTREAU & COHEN 2020, pp. 104). This assumption can be reinforced further by existing literature which indicates that female family members are disproportionately exposed to health risks and undernourishment since “*those who prepare and serve a meal are often the last to eat*” (GNISCI 2016, pp. 18). This indicates that inequality is primarily rooted in socio-economic factors, yet it undeniably has cultural expressions. Especially when the cultural tradition of women being recognised as the leaders of the household is passed down and accepted. Notably, an observation underscores the substantial impact of adult women, in contrast to men, on shaping the nutritional health of children. As a result, they play a role in ensuring food security not only at the household level but also at the national level (GNISCI 2016, pp. 18; AKINYI ET AL. 2023, pp. 7). This means that when women achieve food security, it has a beneficial impact on their children, and vice versa. Hence, the issue of food security becomes salient when investigating the interrelation between gender-related factors and urban food systems. This given nexus is particularly pronounced in the Global South, with a notable emphasis on Sub-Saharan African countries (AKINYI ET AL. 2023, pp. 8). Consequently, this information is highly relevant when conducting a study in Kenya. When examining gender-related factors in this study, this leads to the question of the division of tasks between women and men at the household level. Existing literature consistently underscores the critical role of gender roles in shaping the divisions of these tasks. Gender roles contain the social and cultural expectations from society that describe socially acceptable and expected behaviours for individuals based on their gender (BLACKSTONE 2003, pp. 335). For example, in the work environments women rarely work in high-paid positions and are mostly represented in the “*low-opportunity occupations*” (KANTER 1977, pp. 967).

<sup>1</sup> Intersectionality is a concept that examines how different systems of oppression interact with one another. This concept originated from attempts to delineate the ways in which race and gender dynamics influence social and political aspects of life (GOERTZ & MAZUR 2008, pp. 193-194)

In terms of household responsibilities, gender roles continue to dictate tasks, with women assuming the primary responsibility for it. This can also be framed in the context of paid and unpaid labour. Women devote a disproportionate amount of their time to unpaid work, accounting for three-quarters of the world's unpaid labour, totalling 11 billion hours daily. However, there is a global distinction, with women in low and middle-income countries dedicating more time to unpaid work compared to women in high-income countries. Unfortunately, the unpaid work performed by women is often undervalued and overlooked in mainstream economics, failing to be considered in the overall contribution of women to the country's welfare. This unpaid domestic and care work is linked to adverse effects on quality of life, particularly impacting women's mental health (SEEDAT & RONDON 2021, pp. 1).

To take a closer look at Africa, here the traditional gender roles are very persistent as women invest approximately 3.5 times (UN WOMEN 2022) more time in unpaid care work compared to men. This discrepancy means that women have less available time than men for activities that can lead to financial gain, leadership roles, or personal growth. The typical unpaid caregivers in Africa are women aged 15 to 54 with limited financial resources, multiple children, low educational attainment, and often dealing with health issues or disabilities. These women frequently engage in income-generating work, primarily in the informal sector (UN WOMEN 2022). Informal employment plays a significant role for women in Kenya, as it accounts for 87% of female employment. However, this form of employment often lacks "*standard employment contracts, social protection, and fair compensation*" (BHARIJ 2022). Consequently, women face challenges in accomplishing a decent livelihood and struggle to achieve pay parity with their male counterparts (BHARIJ 2022). In examining the roles and the tasks of women, a clear distinction must be drawn between urban and rural contexts. In Kenya, the agricultural sector holds significant importance, particularly in its contribution to food security. Women in rural areas are deeply engaged in farming, for which the financial compensation is frequently inadequate or non-existent (DOSS & SOFA TEAM 2011, pp. 1). Nevertheless, the current focus centres on urban women in Kenya and their roles within the household. The problem about food insecurity of the urban women is focused on the access to food and not the production of food as a source of the access. This differentiation is important because women are responsible for (unpaid) domestic tasks and care work such as cooking, taking care of children, cleaning and other tasks which are labour-intensive and time-consuming. Consequently, this is limiting women's engagement in other areas of life, including accessing additional market resources (USAID 2022). Specifically, unpaid domestic tasks like cooking often consume time that could otherwise be devoted to paid employment. This recurring phenomenon undersco-

res the challenging circumstances faced by women, potentially leading to a degree of financial dependency (DICKINSON 1996, pp. 66; BHARIJ 2022).

In summary, women are often expected to carry out unpaid domestic work without financial compensation or due recognition. Additionally, in the workforce they encounter structural disadvantages that often confine them to low-paying and informal employment. When women are vulnerable to food insecurity and poverty, they are compelled to manage both paid and unpaid responsibilities, placing a significant burden on them. This is largely a consequence of deeply rooted gender roles, which persist and result in men not assuming their share of unpaid work, leaving it primarily in the hands of women.

The pronounced challenges above, which are faced by women, highlight the central focus of this study on gender-related factors at the household level. Given the established evidence of an unequal structure that places women at a disadvantage. The primary objective of this research is to examine the roles and responsibilities of women within households, elucidating their impacts on daily life and exploring their integration within the broader context of food insecurity.

## Methodology

In the following section, the methods utilised in this study, including interviews and the conducted mapping, as well as the analytical approach, will be expanded upon in greater detail.

### Interviews

Qualitative interviews were conducted in Kasarani to obtain a thorough understanding of the influence of social inequality on food consumption and the gender dynamics in food practices at the household level. Between August 4th and 9th 2023, a total of 13 interviews were conducted on the streets of Kasarani as seen in Table 2. Interviews are a useful tool for documenting people's perspectives, lived experiences and narratives of individuals in a particular setting (SMITH & OSBORN 2015). Semi-structured interviews were used, which allowed to balance the use of structured and open-ended questions. This strategy allowed for flexibility in examining respondents' points of view while ensuring that important research questions were answered.

An approach frequently used in qualitative research to gather a variety of viewpoints was the random selection of interview subjects from the neighbourhoods of Kasarani (CRESWELL & CRESWELL 2022). This strategy was used to ensure the sample accurately represented individuals from various socioeconomic origins, gender identities and age ranges. To give interviewees a relaxed and natural environment, interviews were held in the neighbourhoods of Kasarani. This decision was made to promote candid and open

communication while reducing the possibility of intimidation or discomfort brought on by more formal interview settings. A prepared interview guide was used which was conducted with literature. In addition to the semi-structured street interviews, an expert interview with a professor of the sociology department of the University of Nairobi was conducted to gain a deeper understanding of the topic of gender equality. Using a pre-established guide, information on gender-related issues could be further explored. Furthermore, the expert interview facilitated a comparative analysis, contrasting the insights derived from individual interviews with the profound expertise of the expert, particularly within the Kenyan context, specifically in Nairobi.

Before conducting the interviews in the field, an explanation was made to the participants about the intent of doing the research, objectives and the benefits and risks. Informed consent was obtained from the study participants, after they were being informed about the study's objectives, the voluntary nature of participation and the assurance of confidentiality for the street interviews. This is due to informed consent being a fundamental ethical requirement for research with humans (STUNKEL ET AL. 2010).

Number of Interview	Date and Time	Socioeconomic - Class
1	4 <sup>th</sup> August 2023 1:54PM EAT	Middle
2	4 <sup>th</sup> August 2023 3:22PM EAT	Lower
3	4 <sup>th</sup> August 2023 3:42PM EAT	Higher
4	7 <sup>th</sup> August 2023 3:44PM EAT	Higher
5	8 <sup>th</sup> August 2023 3:22PM EAT	Middle
6	7 <sup>th</sup> August 2023 3:10PM EAT	Lower
7	7 <sup>th</sup> August 2023 3:30PM EAT	Middle
8	7 <sup>th</sup> August 2023 3:20 PM EAT	Lower
9	8 <sup>th</sup> August 2023 10:48 AM EAT	Lower
10	4 <sup>th</sup> August 2023 1:15PM EAT	Middle
11	4 <sup>th</sup> August 2023 1:31PM EAT	Lower
12	4 <sup>th</sup> August 2023 11:50AM EAT	Middle
13	9 <sup>th</sup> August 2023 4:30PM EAT	Expert Interview

Table 2: List of Conducted Interviews (Own Data).

A thorough examination of how social inequality affects food consumption and gender dynamics was conducted. This analysis required the identification and classification of socioeconomic classes within the Kasarani community. To do this, a set of factors was used that were chosen for their applicability in the literature and their ability to successfully distinguish between lower, middle, and upper socio-economic levels. The selection of these factors was guided by research on social stratification and economic inequality, where they have been shown to be significant. These factors include place of residence, where people choose to shop, the reasons behind their store selection, their

home storage capacity, refrigerator ownership, grocery shopping frequency, and cooking fuel preferences.

### *Analysis of the Data*

The analysis of qualitative data from interviews was carried out using the MAYRING approach (2014) for coding and categorisation in the study on the impact of social inequality on food consumption and gender dynamics in Kasarani. MAYRING's qualitative content analysis is a widely used method for systematically analysing textual or interview data in social sciences research (MAYRING 2014). To extract significant patterns and themes from qualitative data, an organised and iterative process of coding and categorising is required. The strategy fits well with research objectives to comprehend the complex linkages between social inequality, food consumption, and gender dynamics. It is particularly effective at revealing latent meanings and subjective interpretations within the text (HSIEH & SHANNON 2005).

The street interviews conducted for this study were recorded, and the transcripts were then analysed using MAYRING's content analysis (MAYRING 2014). Interviews were transcribed as part of the process. The interviews had pertinent text portions that had been identified and coded. These codes indicated important concepts and themes relating to gender dynamics, food consumption, and social inequalities. Based on common topics, codes were organised into categories. The coded data was distilled to concentrate on the most pertinent and useful parts that answered the study questions. Instead of having the expert interview coded, it was summarised. Expert interviews frequently comprise a scripted discussion with a knowledgeable person who offers their ideas and experience on a particular subject (KVALE & BRINKMANN 2009). The expert interviewee's responses were summarised to extract key insights, findings, and expert opinions relevant to our research objectives.

### *Mapping*

The mapping previously described in the context of the larger study was also utilised in this analysis. For this purpose, the dataset was narrowed down to the GPS coordinates of retailers and the retailer types, enabling an examination of the distribution of various food retailers across different neighbourhoods. To achieve this, the distribution of retailer types was cartographically represented in a map using Q-GIS and further analysed in the context of the literature and the conducted interviews.

### *Study Site*

The study was conducted in main streets of Kasarani neighbourhood, Northeast Nairobi, Kenya. Gituamba, Sunton, City Chicken Estate and Clay Works were chosen as the four distinct areas in Kasarani based on their



representation of the low, middle, and high socioeconomic classes, guided by the need to obtain a comprehensive understanding of social inequality and how it affects food consumption. Gituamba was selected to represent the low socioeconomic class due to its documented lower income levels, restricted access to resources, and generally lower living standards. Sunton, which represents the middle socioeconomic class, was chosen to capture the experiences of a group with moderate income levels and varying access to resources and Clay Works and City Chicken Estate, which represents the upper middle class to high socioeconomic class, were included to give insights into the experiences of individuals with comparatively greater financial resources and access to high quality goods and more expensive lifestyles.

## Findings and Results

In the following chapter the results of the conducted interviews and the mapping will be presented.

### Interviews

The individuals from the 12 conducted interviews (see Table 2) were categorised into three different socio-economic groups in accordance with the theoretical framework presented in the chapters ‘Theory’ and ‘Methodology’ and their statements in the interviews. When assigning the interviewee to the individual groups, the following distribution emerged: 5 out of 12 interview individuals can be assigned to a lower-income group based on BERGER & VAN HELVOIRT’s (2018), OLIELO’s (2013) and BENSCH & PETERS’s (2015) criteria of food shopping characteristics, mode of transport, purchased food types, frequency of grocery shopping, type of cooking fuel and household infrastructures (BERGER & VAN HELVOIRT 2018; OLIELO 2013; BENSCH & PETERS 2015). 5 out 12 interviewees can be classified as middle-income earners according to Kenyan standards, whereas the remaining two interviewees were identified as higher-earning individuals and categorised into the high-income group. The categorisation of individuals into various socio-economic groups was carried out through the analysis of conducted interviews and the criteria. To assess the extent to which social inequality and different income groups influence food consumption, the main information from each income group will be presented as a result.

### *Social Inequality in Food Consumption*

Individuals from lower-income groups reported primarily purchasing their daily food essentials from stalls or street sellers (Figure 14) such as Mama Mbo-

gas<sup>2</sup>. Mini marts or supermarkets are typically visited only for the purchase of specific goods. The most influential determinant frequently mentioned in deciding on food purchases was the price. When prices fluctuated among different vendors, three out of five interviewees mentioned that they would seek out other food



Figure 14: Typical Stalls Selling Vegetables in Kaserani, Nairobi (Berger 2023).

retailers to obtain the best price. These results are consistent with OWUOR’S (2018) findings, wherein he argues that a household’s selection of retailers depends on a range of perceptions, including factors such as affordability (OWUOR 2018, pp. 29). Besides price, product freshness also plays a significant role in the food purchasing decisions within this income group. All respondents indicated that they make their food and typically need to shop almost every day. This is also in parts attributed to the situation of food storage, as all interviewees from the lower-income group revealed that they do not have refrigeration systems or other storage facilities for food at home. The questioning regarding the frequency of meat product consumption yielded a mixed picture. While some individuals stated that they do not consume meat at all (Interview\_8\_g4), two of the respondents from the lower-income group claimed to cook meat-containing dishes up to three times a week (Interview\_9\_g4). The results of the interviews with interviewees from the middle-income group portray a slightly more diverse picture. While in the lower-income group, the decisive factor for choosing the food retailer was primarily the price and freshness of products, convenience tends to play a more significant role in the middle-income group, especially when it comes to easy access and distance of the food retailer. For example, one of the respondents stated that they do consider the price but still occasionally choose higher-priced food retailers (Interview\_7\_g4). According to the convenience, most respondents from the middle-income group mentioned that they often

2 translation: “mother vegetable”, female street hawker usually selling vegetables.

choose supermarkets when deciding where to buy groceries to which they commute using Matatus; however, fresh groceries are additionally purchased if required from stalls or Mama Mbogas. Nevertheless, price remains an important determinant, as respondents in this group also tend to turn to other food retailers during significant price fluctuations in food products. In contrast to the lower-income group, the interviewees from this class have a refrigerator in four out of five cases. Furthermore, all of them have facilities for food storage. Despite the varying frequency of food shopping among the five interviewees, there is a noticeable decrease in the number of total purchases per week in this group compared to the lower income group. Two respondents indicated shopping only once a month, one person visits supermarkets once a week, while the number of grocery shopping trips varies among the remaining two interviewees. Meat consumption remains modest within this income group. The respondents reported either abstaining from meat almost entirely or consuming meat-containing products at most twice a week.

As expected, the outcomes of the interviews with the two participants from the higher-income class represent a contrasting perspective compared to the previously outlined results. The respondents in the higher income class prioritise convenience and access to fresh, locally sourced organic products when selecting their food retailer. As a result, the decision of which retailer to choose typically leans towards either major supermarket chains such as Carrefour or local farmers. For one of the respondents, the nutritional content of the food seems to be more important than the price of the product, as the first thing she considers is

*“what nutrients does this food have, what am I going to gain from this food? So, I don’t just buy any food.”*  
(Interview\_3\_g4).

The secondary role of price is apparent as food continues to be bought from farmers or upscale supermarkets, even in the case of price fluctuations. The frequency of food purchases is similar to that of the middle-income group, ranging from one to three times per week. Both interviewees own refrigerators and freezers and one of them indicated having a designated pantry room for the storage of food. There is also a difference in meat consumption compared to other income groups. One of the respondents indicated consuming meat products three times a week, whereas the other person consumes meat daily.

Apart from their food shopping and consumption patterns, the interviewed individuals were asked about their satisfaction with the consumed food products. Unexpectedly, among the respondents who were queried on this matter, most individuals expressed satisfaction with their dietary choices. However, when probed further, some participants from the lower-income group indicated a degree of dissatisfaction and mentioned that they would opt for a different food

consumption pattern if they had greater financial freedom. In addition to exploring the relationship between income classes and dietary habits, the interviews also placed a focus on the topic of gender roles in food preparation.

#### *Gender Aspects*

*“So, these days women also have a burden because they are doing more than they are supposed to do”*  
(Expert\_Interview\_g4).

This statement was articulated in our expert interview. This situation introduces another facet of social inequality, specifically gender inequality, which will be explored in the present study. The data collected during this study will be utilised to address the second research question:

*“How are gender-related factors expressed in the dynamics of food at the household level?”*

Responding to this question can provide deeper insights into the challenges posed by domestic responsibilities for Kenyan women.

Key questions revolved around responsibilities for food preparation, encompassing both purchasing the food and the cooking of meals. Additionally, efforts were made to assess the amount of time devoted to meal preparation. As mentioned in the chapter ‘Theory’, this can influence the role of women in terms of their engagement in the paid sector and consequently their financial (in)dependence. These questions were identified as pivotal in examining gender dimensions within this study and will undergo through analysis across various socioeconomic classes.

While examining the lowest socio-economic income group, it becomes evident that there exists a gender disparity among the participants. Specifically, four out of five respondents are male, while the fifth respondent is female. Among the male respondents, two live alone and have the exclusive responsibility for grocery shopping and meal preparation. In contrast, the remaining male respondents share grocery shopping responsibilities with their wives, while food preparation remains solely within the responsibility of their wives. The lone female respondent in this group states that she bears sole responsibility for both grocery shopping and food preparation. She reported that meal preparation typically consumes approximately one hour of her time. Another male respondent noted a similar one-hour duration for his wife’s meal preparation. Meanwhile, other respondents provided less precise responses regarding cooking times, explaining differences by considering the complexity of the meals being cooked (Interview\_2\_g4; Interview\_6\_g4; Interview\_8\_g4; Interview\_9\_g4; Interview\_11\_g4).

Conversely, the middle socio-economic class consists of a contrasting gender distribution when compared to the lowest socioeconomic group. In this segment,

four out of five respondents are female, while the fifth respondent is male. All participants within this class reported personally undertaking grocery shopping responsibilities, often with the assistance of family members, including mothers, daughters, husbands, and wives. There was a unanimous consensus among respondents, emphasising that food preparation was exclusively the domain of women within their households, meaning daughters, mothers and wives. In one case, the male respondent owned a restaurant and works professionally in the food service industry but stated that his wife was responsible for preparing the food at home (Interview\_12\_g4). Concerning the duration of meal preparation, responses aligned with those from the lowest socioeconomic group, varying in accordance with the meal's complexity. Consequently, meal preparation times spanned from 20 minutes to two hours, reflecting this variability (Interview\_1\_g4; Interview\_5\_g4; Interview\_7\_g4; Interview\_10\_g4; Interview\_12\_g4).

Within the highest socioeconomic group, consisting of only two female respondents, both individuals assumed responsibility for grocery shopping. One of these respondents lives alone, while the other resides with her family. Both respondents receive some form of assistance with their food preparation. The first respondent employs a household helper who is tasked with preparing regular meals, whereas the respondent herself takes charge of special or one-time meal preparations. The second respondent occasionally receives assistance from her siblings but predominantly does the cooking independently. Consistent with the patterns observed in the other socioeconomic groups, a wide spectrum of responses was noted regarding the time required for meal preparation within this group. One respondent mentioned that the duration ranged from 15 minutes to two hours, contingent upon the complexity of the meal being prepared (Interview\_3\_g4; Interview\_4\_g4).

After gathering insights from individual interviewees, the expert interview played a crucial role in enhancing our comprehension of the larger framework of gender dynamics within households, especially concerning food insecurity. The expert clarified a fundamental link between food insecurity and income, emphasising its pronounced relevance in urban settings where agricultural self-sufficiency is unachievable. In these urban settings, people are forced to get all the food through purchasing it. As income decreases, the ability to purchase food diminishes accordingly. Consequently, the most evident impact of this income-food insecurity nexus is observed within the lowest socio-economic class. A lot of these people live in non-spacious and informal settings, which is not suitable for farming. Consequently, they face substantial challenges in attempting to farm their own food. Furthermore, their available financial resources may be insufficient to meet their dietary needs through purchasing, a reality that does not affect the middle and higher socio-economic classes to the same extent. Therefore, the lowest

socio-economic class is disproportionately affected, leading to increased vulnerability to food insecurity. Additionally, there exists an interdependency in the dynamics between rural and urban areas, caused by a demographic shift. In many cases, rural areas predominantly consist of housewives and the elderly, as a significant portion of the male and young population has migrated to urban regions. This migration pattern has led to a reliance of urban areas on their rural counterparts dominated by women and their contribution in the agricultural sector. Urban areas, while engaging in activities like urban agriculture as illustrated in Figure 15, do contribute some agricultural resources. This photograph of urban farming was captured in Dandora an area bordering Gituamba and shows a smart way to manage resources such as water judiciously and operate as efficiently as possible within limited space. Despite this efficient operational approach, the demand for food in urban areas exceeds their local production capacity. But the dependency exists the other way around as well, as family members residing in urban areas often feel a responsibility to support their relatives in rural areas. The support typically takes the form of financial assistance sent back to their rural families. This underlines the still persistent urban-rural linkage that exists in Kenya (ONYANGO ET AL. 2021, pp. 1). This complex web of interdependence can be summarised by the statement of the expert:

*„Like you know in Africa, we all depend. You are not alone. You are with a family which you feed on“  
(Expert\_Interview\_g4).*



Figure 15: Urban Farming in Gituamba, Nairobi (Weissenhorn 2023).



This illustrates the reliance on a well-functioning system between rural and urban areas, among women, men and youth, to sustain the system and ensure food security.

The urban-rural linkage is also expressed in other forms such as the rural-urban migration. Individuals who migrate to urban centres are primarily seeking an improved life, often through employment opportunities. Since migration is highly gendered, women often encounter distinct challenges compared to men and frequently lack the necessary resources. Consequently, a significant proportion of rural-urban migrants are men. Meanwhile, many women in rural areas remain there, looking after their homes (INTERNATIONAL ORGANIZATION OF MIGRATION 2012, pp. 1-2). However, women accompanying their male partners are generally tasked with responsibilities in the 'non-cash economy', such as domestic and caregiving duties. This entails cleaning, washing, taking care of children, and cooking responsibilities (TACOLI 2012, pp. 7). The family's food security in urban areas relies on their income for purchasing food, as cultivating their own food presents challenges in urban environments (TACOLI 2012, pp. 6). As just mentioned, men in urban areas predominantly serve as the primary breadwinners, engaging in the so-called 'cash economy'. When they encounter difficulties in securing resources to support the family, it can lead to situations of hunger and food scarcity. It is evident that an unstable and low income of men enlarge the likelihood of such occurrences. The expert also highlighted that instances of domestic violence tend to rise toward the end of the month, as financial resources are shrinking, and food is becoming scarcer at the same time.

Nonetheless, as suggested by the expert, a potential measure to address this inequality is through the economic empowerment of women. One possible approach involves women engaging in income-generating activities, such as selling food like maize or mandazi on the streets or even in more lucrative employment positions, which intensify the emphasis on education and training. Considering the example of women vending food on the streets any unsold food can be consumed at home, effectively feeding their families while minimising food wastage. Even if undertaken on a minimum scale, such activities could represent an opportunity for women to reduce their reliance on men for the maintenance of themselves and their children (Expert\_Interview\_g4).

Moreover, there is a flip side to the coin of economic empowerment. It introduces added pressure on women, as stated by the expert:

*„men are not allowed to be in the kitchen“ (Expert\_Interview\_g4).*

This phenomenon underlines the deeply established distribution of gender roles and the associated responsibilities. Traditionally, women have been responsible of caring for the family by preparing all the meals and

managing household affairs, while men are expected to engage in paid work and take in the role as the primary breadwinners. However, in instances where men are unable to fulfil their financial provider role and women step in or participate in this capacity, it results in an increased burden on women despite their economic empowerment. This highlights the necessity of re-organising tasks that were once strictly divided among genders. It is crucial to raise an awareness that both men and women are equal and capable of handling responsibilities such as cooking and childcare to avoid the burden placed disproportionately on women. In academic circles, there are efforts to promote a shift in mindset, emphasising that tasks should not be confined to specific genders. Moreover, initiatives are being established to adapt to women's needs, including creating spaces where women can work while caring for their children and teach them on trades and financial literacy. These activities such as lifestyle changes and education are essential steps towards promoting greater gender equality and overcoming traditional cultural attitudes which should help to empower women in all aspects of their lives to achieve equality between men and women (Expert\_Interview\_g4).

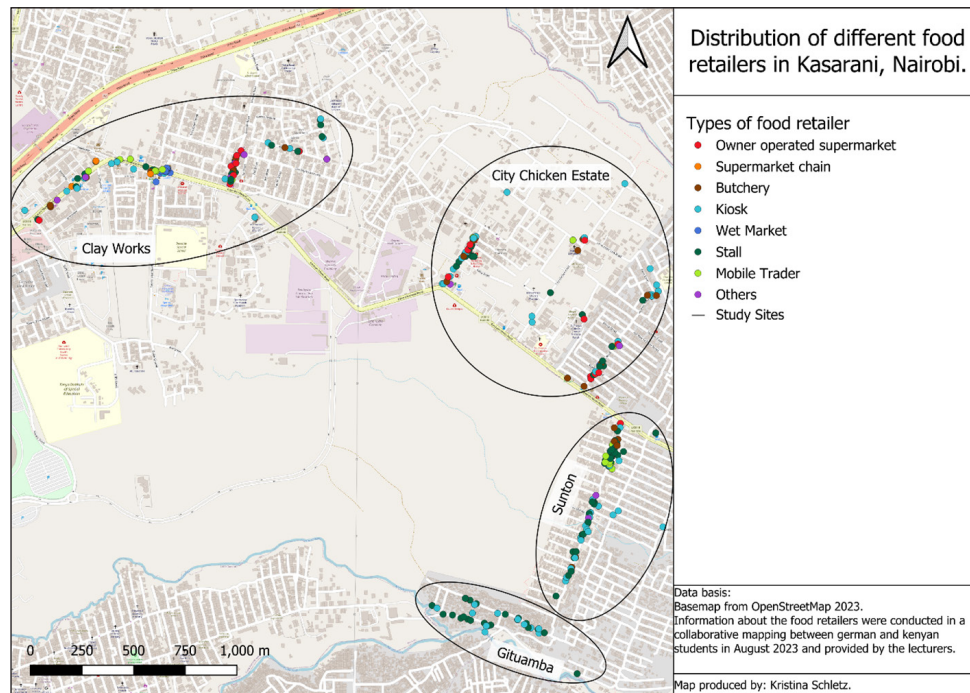
Looking at the role of the government, the expert says:

*“But I would say they are trying. They are trying to ensure that women are economically empowered through the performative action funds. And the youths are also being encouraged to take up agriculture because it's something very worrying in Kenya that young people [...] do not want to go to the farms” (Expert\_Interview\_g4).*

This lays emphasis on the significance of the first research question in this context. The migration of youth and many men to urban areas, leaving behind the elderly and women in rural regions, poses a challenge as the rural population is responsible for agricultural production to meet the food needs of both rural and urban areas. In response to this situation, the government is heavily investing in initiatives aimed at promoting the economic participation of women and youth. As the expert mentioned: encouraging the return of youth to agriculture can potentially provide support to the predominantly female rural population that bears the primary responsibility for farming and consequently, shouldering a substantial burden in ensuring food security.

#### *Mapping Results*

Given that the conducted mapping exercise has generated plenty of information about food retailers and sold food items in various neighbourhoods in Kasarani, the essential data regarding the locations and types of food retailers have been further processed for the purpose of this study. The mapping results are meant to offer additional insights into the shopping be-



Map 9: Food Mapping Results in Kasarani Showing Distribution of Food Retailers Throughout Different Neighbourhoods (Schletz 2023).

haviour of local residents, apart from the conducted interviews. Since the mapped areas encompass various residential areas and socio-economic groups, the distribution of retailers allows for inferences to be made about the likely shopping locations of different groups. In addition to the independent decision-making process regarding the choice of a food retailer, this also highlights the aspect of the availability of different retailers for various socio-economic groups. To gain a better understanding of how the various food retailers are distributed across the entire neighbourhood, the results are visualised in map 10.

As a result of the map, it can be observed that in Gituamba, which represents the lower socio-economic class, food retailers are only present in the form of kiosks and stalls. In Sunton, representing the lower middle class, situated to the north of Gituamba, a more pronounced diversity can be identified. The southern section of Sunton, in close proximity to Gituamba, predominantly features kiosks and stalls as well. In contrast, as one moves northward towards City Chicken Estate, there are butcheries, mobile traders, and an owner-operated supermarket. Clay Works, representing the upper socio-economic class, and City Chicken Estate, which represents the upper-middle socioeconomic class, both host a diverse range of food retailers. In both neighbourhoods are owner operated supermarkets, butcheries, kiosks, stalls, mobile traders, and other food retailers. Furthermore, a wet market and three supermarkets from prominent chains are located in Clay Works. As observed from the map, the diversity of food retailers increases with higher socio-economic status. This distribution of retailers suggests that particularly individuals from the lower socio-economic groups encounter greater obstacles in terms

of increased distances and additional transportation expenses when shopping at supermarkets, butcheries or mobile traders. Due to the proximity of various retailers in residential areas of middle-income and higher-income groups, there are both a wider selection of retailers and the absence of the previously mentioned barriers.

## Discussion

Within this study, qualitative interviews were conducted to examine interconnections and mutual influences among socioeconomic classes, gender and food preparation. Especially, the findings presented in the Chapters 'Gender Aspects' and 'Mapping Results' concerning the food preparation habits of various socioeconomic classes mostly aligned to the previously assumed expectations. Thus, it was confirmed that individuals from lower income groups as well as middle income groups primarily prioritise price when making food purchasing decisions. These findings are also in line with previous studies such as OWUOR ET AL. (2017), who stated that

*"food security is directly tied to access, and thus to earned income" (OWUOR ET AL. 2017, pp. 52).*

On the contrary, within higher income groups, a notable shift in mindset is apparent. Price usually has less impact. This is primarily attributed to the average income disparity among the different socioeconomic groups. Since individuals from lower and middle-income groups have a lower monthly income than the higher socioeconomic group it also affects the types of



food they consume (OLIELO 2013). As a result, food consumption can function as a social distinction marker, as income reflects the socio-economic status and serves as a means of representation concerning

*“who individuals are (identity), who they want to be (aspirations) and who they do not want to be (distinction)” (BAUR & KULKE 2023, pp. 165).*

This correlation is also visible in the choice of food retailers. As evident in the results of the mapping analysis, the various types of food retailers are distributed differently throughout the study area of Kasarani. The lower income group tends to rely more on low-cost stalls, Mama Mbogas and kiosks as gathered through the interviews and sources most of their food from the informal sector, partly because these retailers implemented a *“flexible pricing strategy”* making some of their products more affordable for individuals in lower income groups (BERGER & VAN HELVOIRT 2018, pp. 2). Furthermore, these retailers also offer additional customer retention benefits aside from price, such as the option for credit, special prices during closing hours or discounts for family and friends. The mapping results confirm the assumption that individuals from the lower socioeconomic group primarily shop there, as within Gituamba, only stalls and kiosks were mapped. These findings were corroborated by the literature; for instance, AKINYI ET AL. (2023) also attribute significant importance to open-air markets

*“in terms of ensuring availability of affordable food especially to the low-income households” (AKINYI ET AL. 2023, pp. 6).*

A verification of the distance from Gituamba to the nearest major supermarket chain revealed that the journey would take over 45 minutes by foot. This further reinforces the findings that individuals from lower-income groups not only primarily shop in their

residential areas but also have a limited choice of food retailers available to them. This demonstrates, on one hand, that location is a crucial determinant. On the other hand, it is evident that, when considering this aspect from the ‘supply side’ of food provision, supermarket chains appear to perceive increased risks in opening markets in informal settlements. On the contrary to the lower-income groups, individuals from middle-income and higher-income groups often prioritise convenience over price, making formal supermarkets one of their primary sources of food supply. This is primarily attributed to the extensive variety of food and other products available in supermarkets. These results are also closely related to the findings of the mapping. In the areas where individuals from higher socioeconomic groups reside, supermarkets and other retailers with a greater variety were identified, which indicates that these groups have more choices of food retailers. However, access to supermarkets does not guarantee the utilisation mentioned in the chapter ‘Theory’, which involves the meaningful use of the offerings, as both healthy and unhealthy food options are available in supermarkets (ODUNITAN-WAYAS ET AL. 2018, pp. 2). As evident in Figure 15, street vendors often offer only basic food items, supermarkets a wide range of products in multiple variations such as seen in Figure 16. Hence, individuals who shop in supermarkets typically make fewer shopping trips and visit fewer food retailers due to the diverse range of offerings available (OWUOR 2018). The varying frequency of shopping trips among different socioeconomic groups can also be attributed to their living conditions. Individuals from lower income groups often cannot afford refrigerators, stoves or other kitchen appliances and have little to no means to store purchased food items in their home. Consequently, this necessitates a higher frequency of shopping which can lead to time losses in other aspects of life. Moreover, most individuals with limited financial resources conduct their shopping by foot. As a result, they can carry fewer groceries



Figure 16: Selection of Products in a Supermarket Chain in Nairobi (Hering 2023).



per shopping trip compared to those who can afford a Matatu or car. To address the initial research question, money proves to be the most influential factor that not only determines the types of food and choice of food retailers but also significantly influences food storage practices and frequency of food shopping within different socioeconomic groups. This association can be reinforced by the findings from other studies, which have also shown a connection between household income and dietary diversity (OWUOR 2019).

However, the conducted interviews also revealed unexpected findings, including the partially missing disparities in meat consumption across different socioeconomic classes and the overall positive levels of satisfaction with the consumed food. Surprisingly, there was minimal to no notable difference in the frequency of meat consumption among the groups, though meat is generally a more costly food item. It was expected that there would be a significantly higher consumption of meat, especially in the middle and high-income groups, compared to the lower income groups. The fact that this was not observed in the conducted interviews could be attributed, in part, to the generally high price of higher quality meat. It is possible that meat remains a luxury even for higher income groups. Conversely, the partially more frequent consumption of meat in lower-income group can be attributed to the accessibility of lower quality meat within lower price ranges. Furthermore, this could also be due to the individuals randomly selected for the interviews, who may happen to consume less meat than might be typical. Moreover, the low consumption of meat did not appear to have an impact on the overall satisfaction with the consumed food items. Even though OLIELO's findings from the 2013 conducted questionnaire indicate that in some neighbourhoods in Nairobi, particularly in the lower income groups, the dietary diversity and dietary energy requirement does not meet recommendations established by the FAO and WHO, in this study only two of the respondents reported being dissatisfied (OLIELO 2013, pp. 8; Interview\_2\_g4; Interview\_11\_g4). This result is likely because of the sensitivity of the question and the influence of the interviewers (further details can be found in the upcoming chapter *'Limitations'*). To obtain a more meaningful result regarding satisfaction, additional questions about the consumed food groups and the general food preparation situation would have been necessary.

Turning to the second research question, which explores how gender dynamics manifest in food-related matters at the household level, the insights gained from the street interviews with randomly selected individuals and the expert's information provide a clear presentation of the connection between gender and food-related concerns within households.

During the interviews, the two primary household-level responsibilities, namely grocery shopping and meal preparation, were analysed. Concerning grocery shopping, it can be challenging to define distinct gen-

der roles since many respondents indicated occasional assistance from other family members. Nonetheless, an evident trend emerges where women across all socioeconomic classes tend to be more active in this task. Conversely, the division of responsibility for cooking is markedly gendered across all socioeconomic classes. Therefore, it is clear that there is a long-standing expectation that women primarily handle domestic responsibilities. This becomes especially noticeable when you look at the case where the husband is a professional cook, and yet, it is his wife who is responsible for cooking at home. The only deviation from this trend is observed in the case of single men. Evidently, gender roles and the corresponding tasks heavily involve women in household chores across all the socioeconomic classes and only minimal deviations exist within these classes. Overall, these gender roles persist and are perpetuating gender inequalities within households and significantly influencing the daily lives of the interviewees. This observation aligns with existing literature that highlights notable gender disparities in urban-based groups concerning food security resilience (ALINOVI ET AL. 2010, pp. 33).

The intention behind the question

*"How long does it take you to cook a meal?"*

was to gain insight into the time commitment associated with typical, yet unpaid, housework for women. The underlying assumption is that when cooking consumes a lot of time, leaving limited room for engaging in paid work, women often find themselves financially reliant on their husbands (DICKINSON 1996, pp. 66; BHARIJ 2022). Unfortunately, the responses from the interviewees, across all socioeconomic classes, tended to be quite vague, with many individuals offering the response, that it depends on what they prepare. This response is entirely plausible, suggesting that respondents likely prepare meals of varying time intensiveness. Furthermore, it implies that a more precise question is needed to generate more specific and nuanced responses. Alternative approaches might be employed that not only request timing but potentially involve the cooking process itself. Nonetheless, the provided timeframes for meal preparation, ranging from one hour in the lowest socioeconomic class and 15 or 20 minutes to two hours in the middle and highest socioeconomic classes, indicates a broad time spectrum. This also highlights the potential time-intensive nature of the task, particularly when preparing a hot meal twice a day, which can consume up to two hours. However, due to the vague nature of the responses, it is only possible to make assumptions rather than generalised statements.

Indeed, there seems to be a greater problem here as it is about relying on a system that is frequently not dependable. When men are unable to provide food or income due to insufficient earnings during the day, the inclusion of women in the paid workforce presents both a solution to this problem and a way for econo-

mic empowerment. However, some literature suggests that women's increased contributions in such economic activities may pose potential risks to both their own and their family's overall nutritional and health security. This is because women play a pivotal role in maintaining both private and public food security (GNISCI 2016, pp. 18). Furthermore, the paid work simultaneously places an additional burden on women, as they now have to juggle multiple responsibilities. This claim can be confirmed with existing literature, which explicates that the responsibilities associated with ensuring food security place a disproportionate burden on women (HYDER ET AL. 2005, pp. 333). This raises a crucial question of how the traditional division of domestic responsibilities should be redefined in a scenario where the traditional male responsibility of earning money to support the family is adopted by women. According to our expert, work should not be assigned based on gender. However, it is evident that achieving such a shift in mindset and practice is a long path and Kenya is not there yet<sup>3</sup>. The increased burden of managing multiple responsibilities, particularly among women, is notably observed in the lowest and middle socioeconomic classes. This stems from the financial constraints faced by families, often due to men's unstable and insufficient income. Consequently, the gender-based division of labour within these families no longer effectively serves its intended purpose. As the risk of food insecurity remains high, women increasingly enter the paid workforce, reinforcing their already significant burden.

Literature demonstrates that the issue of gender inequality overcomes specific socioeconomic classes. Even within non-poor families, there exists a phenomenon known as „*intrahousehold distributional inequalities*“ (AGARWAL 2015, pp. 287), highlighting that disparities in access to food persist. However, it is important to note that not all women experience these inequalities in the same way. This highlights that the second research question cannot be completely addressed in isolation; the first question must also be considered when formulating a response. This is due to the concept of intersectionality, which plays a significant role in this context. In essence, women with fewer financial resources at their disposal are more profoundly affected than those in financially secure households. Consequently, women from lower socioeconomic classes often bear an additional burden because for example they lack the means to hire domestic help to share the workload on the household level. Hence, special consideration and support from the government and other assisting institutions and organisations should be directed toward women in the lower socioeconomic classes. Additionally, it is essential to recognise and appreciate the significant role that women play in ensuring food security at both the household and national levels (GNISCI 2016, pp. 18; HY-

DER ET AL. 2005, pp. 328). Addressing and reducing gender inequalities serves as a strategic step in enhancing the resilience of families and advancing towards a more food-secure world (AGARWAL 2015, pp. 294).

### Limitations

When considering the execution of the interviews, specific limiting aspects come to light that require examination within the framework of an independent scientific study. As previously described in the chapter 'Methodology', priority was given to establishing a spontaneous interview situation in advance, both to interview diverse individuals and to maintain the interview environment as natural as possible. This approach led to a preselection of interviewees, as only individuals present in the field were considered. Additionally, the street interview setting was heavily influenced by external factors. Due to the loud environmental conditions, the atmosphere was not conducive to conducting lengthy, in-depth interviews. The resulting consequence was that, in certain interviews, not all spoken content was comprehended, leading to instances where brief segments of the interview could not be replicated and analysed. Moreover, as revealed during the analysis of the interviews, the interview guide was not used in its entirety in all interviews, resulting in some interviews lacking essential information. This could be attributed to interviewers intentionally skipping questions to maintain a conversational flow in this setting or, in some cases, it may have been an unintentional oversight. Nevertheless, it is not only the execution of the interviews guided by the interviewers that should be critically examined but also the responses provided by the interviewees. The researcher in the field inevitably influences the responses of the interviewees simply through their presence or visual characteristics (MISOCH 2019). These so-called interview effects on the respondents are considered to be potentially high in this study due to the different cultural background of the interviewers. These different backgrounds can also present challenges when it comes to speaking different languages in research. For instance, some interviews were not conducted in English and had to be translated from Swahili. During this translation process, data and statements may be lost, as certain idiomatic expressions are difficult to translate accurately. Research conducted in a foreign language and in different cultures can furthermore pose challenges, particularly during the analysis of the results since researchers may interpret data differently due to their social embedding (KRUSE ET AL. 2012). To minimise the influence of researchers from different social backgrounds and perspectives, the analysis was conducted with local researchers. Furthermore, it is important to bear in mind that both men and women were chosen through random selection for interviews. Consequently, the gender distribution within various socioeconomic groups may not be uniform given the

3 As Kenya ranks 77th out of 144 countries, placing it below the average (ZAHIDI 2023).

random nature of the selection process. As a result, the statements of the interviewees should not be extrapolated or generalised.

Furthermore, in the expert interview there was a pre-defined list of questions to follow. But, because the conversation delved into interesting areas beyond our focus on gender-related aspects, questions were asked that were not directly related to the primary topic. This led to some valuable insights, especially regarding the Kenyan government's role in societal issues which, however, had no relevance to the study. For future research, it is important to keep in mind to narrow down the questions and to have a clearer plan for the interview, where the previously agreed questions are asked in the official part. Afterwards there still could be the opportunity to ask questions without them having to be part of the official interview and be recorded.

In addition to the entire process of interview collection, it must be considered within a critical analysis that the twelve conducted interviews cannot comprehensively represent all socio-economic classes. Especially considering that the researchers independently classified the interviewees into different socio-economic classes based on the interview results. It should be noted that there is no clear-cut division between the individual groups, and the categorisation is partially reliant on the subjective assessments of the local researchers. To achieve a more precise classification of individuals into different socio-economic groups, it would have been necessary to ask more detailed questions regarding income or educational qualifications. However, given the study's scope and the sensitivity of the subject matter, it was not possible to include such inquiries.

When it comes to the content of the interview, some questions were not as precise as they should have been, which made it challenging to get meaningful information. One specific area where this issue arose, as mentioned earlier, was the question concerning the duration of preparing a meal. Unfortunately, the answers from the interviewees were a bit vague and therefore it was difficult to draw significant conclusions but rather assumptions. To improve this, more specific questions should have been crafted.

Regarding the sequencing of randomised street interviews and the expert interview, it would have been better to conduct the expert interview initially, thereby gaining a comprehensive overview of the state of gender aspects in Kenya. Subsequently, this knowledge could have led to a reconsideration of the questions posed during the street interviews. Following the expert survey, it became clear that the burden placed on women by both unpaid work in the household and paid work is high. This is particularly evident in the lower socioeconomic class in the urban area. With the help of more specific questions, this burden on women could have been more specifically queried. As a result of logistical considerations and the temporal constraints associated with the expert's availability, the execution of the interview was conducted until after

the completion of the randomised interviews. It is advisable that the suggested sequence be taken into consideration for future projects.

## Conclusion

This research has given valuable insights into the intricate relationships between social inequality, food consumption and gender dynamics in Kasarani. Income levels emerged as a significant determinant of food choices and shopping behaviours, with lower-income individuals prioritising affordability and daily shopping, middle-income individuals balancing price and convenience and higher-income individuals emphasising quality and health aspects. There are existing socio-economic inequalities in the consumption, purchasing and expenditure of various sources of food (WERE ET AL. 2023). The different prerequisites for food consumption were further confirmed through on-site physical mapping. It was observed that in areas with a demonstrably lower socio-economic income group, there are fewer food retailers available, and they are predominantly active in the informal sector. As income increases, the variety and the level of formality of retailers in the area also tends to grow. This is indicative of the impact on the consumed food among various socioeconomic groups.

When it comes to exploring gender aspects in food practices, an examination into gender's impact on food practices revealed that women, regardless of their financial status, tend to assume traditional gender roles when it comes to food preparation. Also, as LIRU (2014) contends that in Kenya, as in many other rural parts of Africa, women play crucial roles in agriculture as producers and providers of food. In urban settings, women play a significant role in ensuring food security, as well. They take on essential responsibilities at the household level, such as purchasing food and, notably, preparing meals for the entire family. Women even enter the workforce when men are unable to fulfil their traditional 'breadwinner' role within the family. While this contributes to the economic empowerment of women, it can also result in inadequate nutrient provision for the family and additionally placing a disproportionate burden on women as in many instances, women are required to perform in both the unpaid domestic sphere and the paid workforce. These findings underscore the necessity for more comprehensive societal changes that promote gender equality in household responsibilities (LIRU 2014).

Designing policies that guarantee access to healthy foods for all populations based on their socioeconomic status is necessary as the countries move toward achieving universal health coverage and lowering the burden of non-communicable diseases. At the same time, the low socioeconomic class need to be protected from overspending above their capacity to access healthy foods.



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# List of Abbreviations

CBD: Central Business District

chap.: chapter

CIAT: Centre for Tropical Agriculture

CRC: Collaborative Research Center

DFG: German Research Foundation

e.g.: *exempli gratia* (for example)

etc.: *et cetera* (and other similar things)

et al.: *et alia* (and others)

FAO: Food and Agriculture Organization of the United Nations

f.e.: for example

GAIN: The Global Alliance for Improved Nutrition

GHI: Global Hunger Index

ibid.: *ibidem* (in the same place)

IDS: Institute of Development Studies

ILO: International Labour Organization

KNBS: Kenya National Bureau of Statistics

KURA: Kenya Urban Roads Authority

NGO: Non-Governmental Organisation

NMS: Nairobi Metropolitan Services

OECD: The Organization of Economic Cooperation and Development

para.: paragraph

pp.: *per procura* (page number)

RETRAK: Retrail Trade Association of Kenya

SDG: Sustainable Development Goals

UN: United Nations

USAID: United States Agency for International Development

WEP: World Employment Programme

WFP: World Food Programme

WHO: World Health Organization

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