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Urban governance and its role in shaping low-income household food security in Bulawayo, Zimbabwe

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Urbanization in Sub-Saharan Africa (SSA) is accelerating without corresponding economic growth, leading to urban poverty and food insecurity. This paper examines the role of urban governance in shaping food security among low-income households in Bulawayo, Zimbabwe. Using a mixed-methods design that combined a household survey ($n = 398$) with in-depth interviews, focus group discussions, and key informant interviews in Ward 28, Bulawayo, Zimbabwe, the study assessed how urban governance shapes the four dimensions of food security. It highlights how governance structures influence food availability, access, utilization, and stability at the household level. Using proxy indicators such as the Household Food Insecurity Access Score (HFIAS), Months of Adequate Household Food Provisioning (MAHFP), and the Household Dietary Diversity Score (HDDS), the study reveals that most households experience mild to moderate food insecurity. The HDDS analysis indicates a nutrition transition, with high consumption of cereals, fats, sugars, and processed foods, raising concerns about dietary adequacy despite higher diversity scores. Stability, a key food security dimension, showed households' relative self-sufficiency, but COVID-19 disrupted this stability. Interestingly, no clear relationship was found between household income and food security, suggesting the significant impact of systemic factors. Governance elements like land allocation, infrastructure, and services significantly influence household food choices and behaviors. The findings emphasize the need for inclusive urban governance and participatory planning to address food insecurity in urban areas of Zimbabwe.

KEYWORDS

urbanization, food security, governance, Sub-Saharan Africa, household food insecurity

1 Introduction

The rapid pace of urbanization globally has profound implications for food security, particularly in the Global South. As of 2020, 56.2% of the world's population resided in urban areas, [United Nations Human Settlements Programme (UN-Habitat), 2022] with projections indicating a rise to 68% by 2050 and 90% of the increase will be realized mainly in Asia and Africa (United Nations, Department of Economic and Social Affairs, Population Division, 2019). Urbanization is recognized as one of the five megatrends shaping the contemporary world (United Nations, 2020). In Sub-Saharan Africa (SSA), the urban growth rate is the highest globally, driven by natural population increases, rural–urban migration, and historically low urbanization rates (Baeumler et al., 2021). Zimbabwe has also experienced considerable urbanization, with the 2022 national census results indicating that the proportion of the urban population had increased to 38.6% in 2022 [Zimbabwe National Statistics Agency (ZimStat), 2022], from 33% in 2012 (Zimbabwe National Statistics Agency [ZimStat], 2013).

Urbanization in SSA has not been accompanied by corresponding economic growth, leading to an increase in urban poverty and informality (Baeumler et al., 2021; Blekking et al., 2017). Many cities struggle to provide adequate services, resulting in the proliferation of informal settlements and a widening socio-economic divide (Ouma et al., 2024; Collord et al., 2021). The increasing inequality and strain on urban infrastructure have exacerbated food insecurity, which remains a persistent and underexplored challenge in urban governance and planning (Davies et al., 2021; Maphosa, 2022; Maphosa, 2025; Un-Habitat-World Food Programme, 2022). Several reports and studies highlight the dire state of food insecurity in Africa's urban centers. For instance, in 2024 55.7% of Africa's urban population was food insecure compared to the global average of 23.9%. Of the 55.7, 35% of experienced moderate food insecurity whereas 21% experienced severe food insecurity (FAO, IFAD, UNICEF, WFP, WHO, 2025; FAO, IFAD, UNICEF, WFP, WHO et al., 2021). The disproportionate levels of urban food insecurity in Africa is attributed to a plethora of factors including but not limited to increasing incidences of extreme climate events such as droughts and floods, spike in food prices, high disease burden, conflict and instability and weak social protection systems [FAO, IFAD, UNICEF, WFP, WHO et al., 2025; Maphosa and Moyo, 2024; Ndlovu et al., 2019; United Nations Human Settlements Programme (Un-Habitat), 2024].

The challenge of food insecurity has historically been relegated to the rural development agenda in the Global South, a bias that led to the phenomenon being termed an 'invisible crisis' in urban environments (Crush and Frayne, 2010). However, the scale of today's crisis is undeniable, driven by rapid, often unplanned, urbanization that strains municipal capacity and intensifies socio-economic inequalities.

In Zimbabwe, this crisis is deeply entrenched, fluctuating in response to economic and political instability. For instance, Bulawayo, the country's second-largest city, has seen food insecurity levels peak at 71% in 2003 and dip to 17% in 2011 (Zimbabwe Vulnerability Assessment Committee [ZIMVAC], 2004; Zimbabwe Vulnerability Assessment Committee [ZIMVAC], 2020). Despite this variability, the problem persists: the latest official assessment indicates a 41% food insecurity prevalence in Bulawayo against a national urban average of 35.4% (Zimbabwe Livelihoods Assessment Committee [ZimLAC], 2024).

Despite the growing scale of urban food insecurity, research and policy interventions still exhibit a profound tendency to focus on rural contexts (Battersby and Watson, 2019; Nenguda and Scholes, 2022). Furthermore, even where there is an urban focus, the prevailing tendency is to follow proximate, production-related issues (e.g., urban agriculture potential or income correlation), often neglecting the crucial and interconnected issues of access, distribution, and governance (Milhorance et al., 2024; South African Cities Network, 2025). This bias overlooks the core structural drivers of vulnerability.

To move beyond proximate explanations, this study adopts the Urban Political Ecology (UPE) framework. UPE is necessary because it treats food insecurity not as a simple technical failure of markets or agriculture, but as a result of socio-political processes and systemic governance failures (Swynedouw, 2004).

While recent foundational studies provide valuable data on the scale of urban food insecurity in the region (e.g., Matooane et al., 2025; Nenguda and Scholes, 2022; Tawodzera et al., 2016), and important theoretical work, notably the edited volume by Battersby and Watson

(2019), has effectively highlighted the inextricable link between urban governance and food systems, the prevailing research often remains focused on economic access (income) or production response (urban agriculture potential) (see Chihambakwe et al., 2019; Nenguda and Scholes, 2022). Even studies focused on contemporary shocks and resilience in urban food systems (e.g., Dube et al., 2021; Hannah et al., 2025) primarily address the effects and vulnerabilities created by external factors like climate or disease. The critical deficit, therefore, remains the lack of systematic research, particularly using the UPE lens, that moves from correlation to causality to analyze governance as the structural determinant of food insecurity across all four dimensions. The current literature is fragmented between studies that measure prevalence (quantitative) and those that describe lived experience (qualitative). There is an insufficient number of integrated mixed-methods studies that rigorously link measurable food insecurity outcomes (e.g., HFIAS scores) to the complex, underlying socio-political and structural governance processes that cause them. Empirical attention remains heavily concentrated on capital and primary cities, sustaining a geographical bias (Battersby and Watson, 2019). This neglects secondary cities like Bulawayo, which possesses a distinct industrial history, resource base, and political relationship with central government, requiring a context-specific, governance-focused analysis (Maphosa, 2022).

To address these critical theoretical, methodological, and geographical gaps, this study undertakes a comprehensive, UPE-informed analysis of food security outcomes among low-income households in Bulawayo. Guided by the UPE framework, this study asks: How do urban governance structures and processes in Bulawayo shape food availability, access, utilization, and stability among low-income households?

The contribution of this paper is threefold. First, it offers an empirically-grounded, multi-dimensional assessment of food insecurity in Bulawayo, providing critical data for a secondary city. Second, methodologically, it utilizes an integrated mixed-methods design to empirically link the statistical outcomes of food insecurity to the structural political and ecological drivers. Finally, theoretically, it advances the UPE framework by demonstrating how the spatial expression of governance (via service provision and regulation) is not a causal determinant in itself, but a mechanism through which socio-political power sustains vulnerability across different urban environments.

2 Literature review

Given the knowledge gap outlined in the introduction, this section goes further to review the body of knowledge on the interactions between urban governance and food systems. The review demonstrates both the progress made and the knowledge gaps that still exist in understanding how the food security of low income households in cities of the global south like Bulawayo are shaped by governance dynamics.

2.1 The interactions of urban governance and food systems: an overview

In this article urban governance is understood as "...the sum of the many ways in which individuals and institutions, public and

private, plan and manage the common affairs of the city, metropolitan area or region” (Un-Habitat-World Food Programme, 2022, p.245). Thus, urban governance encompasses a wide array of actors including state (e.g., local government, central government) and non-state (e.g., non-governmental organizations, private sector, community based organizations etc) whose interactions and or relationships are mediated by formal (e.g., national laws and city by-laws, policies etc) and informal institutions (e.g., social norms, patronage networks, traditional practices etc). The UN-Habitat definition also shows us that at the center of the activities of the different actors is the planning and management of a defined urban space which can be a city, metropolitan area or region. Crucially, within this managed urban space, a complex ‘food system’ operates and is profoundly shaped. A food system among other things encompasses activities in the

...production, processing, marketing, consumption and disposal of goods.... Food systems also involve the people and institutions that initiate or inhibit change in the system as well as the socio-political, economic and technological environment in which these activities take place (FAO, 2013, p. 3).

By extension, an urban food system encompasses “...the different ways food that is eaten in cities is produced, processed, distributed and retailed (i.e., different modes of provisioning)” (Maye, 2019, p. 20). Of particular importance is that the effective functioning and equity of this food system are directly linked to food security, which exists “...when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.” (FAO, IFAD, UNICEF, WFP, WHO, 2021, p. 190). From this conceptualisation it can be discerned that food security consists of four dimensions which are: availability (the physical presence of sufficient quantities and quality of food), access (having sufficient resources to obtain appropriate foods for a nutritious diet), utilization (the proper biological use of food, requiring a diet providing sufficient energy and essential nutrients, potable water, and adequate sanitation), and stability (ensuring availability, access, and utilization are maintained over time, even in the face of shocks or cyclical events).

It is precisely at the intersection of urban governance and the food system that these food security dimensions are critically influenced. For instance, food availability is affected by laws and policies on urban agriculture and supply chain management (see Battersby and Haysom, 2019). Cases across the SSA region give credence to this claim. For instance, in a study of Kirkos sub-city in Addis Ababa in Ethiopia approximately 34% of respondents indicated that urban agriculture (UA) helped them to meet their daily food needs whereas 47.2% year-round needs (Alene and Aga, 2025). Despite the importance of UA in sustaining household food security in SSA, there is a glaring lack of adequate institutional support. For instance, “[o]nly 3.62% of Sub-Saharan African countries implemented national urban policies, with little focus on urban farming integration (Kiribou et al., 2024, p. 3). In fact, some of the policies seem to be working against the reliance of locally grown food in urban areas. For instance, in Dar es Salaam, locally produced leafy vegetables have been on the decline because the governance system, specifically the zoning laws and development policies have been giving primacy to other competing interests for urban land at the expense of UA (Wessels and Hemerijckx, 2024). Thus, in general the absence of a solid governance structure to

support UA in SSA has resulted in challenges such as limited access to land, water, extension services and inputs among others (Kiribou et al., 2024). Consequently, the persistent gap in robust, supportive urban governance and policy frameworks across Sub-Saharan Africa directly undermines the substantial potential of urban agriculture to enhance food availability and fortify the livelihoods of the urban poor, underscoring a critical area for policy intervention to achieve greater food security.

The access dimension is intricately linked to factors such as transport infrastructure, market regulations and affordability among others and in SSA cities high density residential areas and informal settlements are often the most disadvantaged (Kunaka et al., 2025; Chigumira et al., 2019). An illustrative case can be drawn from Dar es Salaam. In that city, even though 67% of surveyed respondents indicated that they relied on informal food vendors (street traders and vegetable stalls) for the supply of their households’ requirements for leafy vegetables, these vendors like the case in most SSA countries face policy neglect or opposition (Wessels and Hemerijckx, 2024). This observation is also evident in South Africa where in a study of the informal food sector in Duncan village, a low income area in East London of the Buffalo City Municipality it was found that informal food actors faced challenges such as harsh regulatory and trading environment characterized by excessive regulation, limited provision of infrastructure and lack of meaningful financial support in spite of the fact that most residents relied on the sector for household food requirements (Masuku and Khalema, 2024). The food access challenges in SSA were accentuated by the COVID-19 pandemic mainly due to restrictions in movement which affected informal supply chains in the main and reduced income resulting from lockdown measures that governments instituted (Haysom and Battersby, 2023). Consequently, many urban residents faced acute food shortages, demonstrating how global shocks amplify pre-existing governance failures in supporting resilient urban food systems. Furthermore, the Zimbabwean case of Operation Murambatsvina (Operation Restore Order) (OM), a code name for a government directed military style operation purportedly meant to rid Zimbabwean areas unregulated activities and/or actors resulted in acute food shortages in affected low income areas “...owing to loss of income as well as loss of supply from the informal sector, the latter having been largely dismantled (Tibaijuka, 2015, p. 38). Collectively, these illustrative cases underscore that the prevailing urban governance approaches in Sub-Saharan Africa, characterized by neglect, stringent regulation, or even destructive interventions against the informal food sector, severely compromise the food access of residents in high-density and informal settlements, highlighting an urgent need for supportive and inclusive policy frameworks.

The utilization dimension of food security relates to food safety standards, sanitation, and public health systems. In poor urban neighborhoods of SSA, deficiencies in these three areas significantly undermine food utilization, even when food might be physically available (Apofeed, 2025; Safougne Djomekui et al., 2025). Across the SSA region there are countless cases that demonstrate these interrelationships. For instance, in most poor urban settlements water access is a key challenge with residents relying on communal water points or informal vendors. Moreover, sanitation coverage is minimal or non-existent at all which results in widespread environmental contamination (Dickson-Gomez et al., 2023). Resultantly, hygiene-related disease water borne disease outbreaks, such as cholera, are

common, with cities like Douala (Cameroon), Harare (Zimbabwe), and Accra (Ghana) experiencing them at various times (see Marumure and Nyila, 2024; Mboringong et al., 2025; Kungu et al., 2025). Furthermore, the utilization dimension is negatively impacted by energy poverty as many poor households in the low-income areas of SSA's urban areas lack access to clean cooking fuels with limited or no electricity supply. As a result, poor households resort to the use of harmful energy sources such as charcoal and firewood which compromises their health and the overall ability to utilize nutrients from food (Ifegbesan et al., 2016; International Energy Agency, 2022). In addition, energy poverty raises food safety concerns as poor households lack refrigeration for proper storage of perishables. Energy poverty also alters food preparation choices of poor households, forcing them to forgo nutritious options that require more energy to prepare (Masuku, 2024). Ultimately, these pervasive deficiencies in water, sanitation, and energy access create a precarious environment where, even with food present, the capacity of the urban poor in SSA to adequately utilize nutrients is severely undermined.

The fourth dimension of food security, stability, is equally shaped by governance dynamics. This dimension relates to the ability of a governance system to create an environment capable of withstanding various shocks. These include economic disruptions such as sharp price hikes and recessions (Tawodzera, 2012); health shocks such as the COVID-19 with its associated restrictive measures (Mekonnen and Amede, 2022); and extreme climate events like droughts and floods among others [United Nations Human Settlements Programme (Un-Habitat), 2024]. Thus, the effectiveness of urban governance in mitigating the impacts of these pervasive and often overlapping shocks, ranging from economic downturns to climate extremes and health crises, directly dictates its capacity to maintain consistent food security, particularly for the most susceptible urban residents.

To bring this brief review to a close, the foregoing discussion has demonstrated that urban governance is not merely an external factor but a fundamental determinant shaping every dimension of food security within Sub-Saharan Africa's low-income urban communities. The prevailing challenges in food availability, access, utilization, and stability are inextricably linked to existing policy frameworks, institutional capacities, and regulatory environments. To better understand the specific mechanisms through which governance operates is precisely where the Urban Political Ecology (UPE) framework offers a critical analytical lens for examining the intricate connections between power, policy, and the urban food environment.

2.2 Urban governance, food systems, and the urban political ecology framework

UPE provides the theoretical lens to understand the relationship between urban governance, socio-environmental processes, and the resulting food systems. UPE provides the theoretical basis to critically examine how power relations, economic dynamics, and political decisions shape the production of uneven urban environments and the distribution of environmental benefits and burdens within cities (Heynen et al., 2006). In the context of food systems, UPE presents a way of analyzing how governance structures and processes shape the spatial and social arrangements of food production, distribution, and consumption often leading to differentiated access to healthy and affordable food along socio-economic lines (Eriksen et al., 2024;

Haysom and Battersby, 2023). Thus, UPE offers a powerful lens to understand the deeper structural factors behind food insecurity, identifying it as a product of socio-political metabolism and historical power dynamics rather than simple scarcity.

In conclusion, this literature review has established that urban governance is a central and fundamental determinant shaping every dimension of food security within Sub-Saharan Africa's low-income urban communities. The body of knowledge demonstrates that challenges in food availability, access, utilization, and stability are inextricably linked to existing governance dynamics, often characterized by policy neglect, regulatory hostility toward the informal food sector, and weak institutional capacity to manage shocks. As a theoretical framework, Urban Political Ecology provides a critical lens to analyze these complex relationships of power and socio-spatial inequality, highlighting the need for a nuanced understanding of how these dynamics manifest in specific urban contexts. Building on this review, and in light of the identified knowledge gaps regarding the precise interactions in a city like Bulawayo, the following section outlines the research methodology employed to empirically investigate these relationships and contribute to the existing body of knowledge.

3 Materials and methods

This section outlines the research methodology and design employed to address the research questions arising from the literature review and the identified knowledge gaps regarding urban food security in Bulawayo, Zimbabwe.

3.1 Research design

This study employed a Convergent Parallel mixed-methods design, where quantitative data (household surveys) and qualitative data (key informant interviews and focus group discussions) were collected concurrently and analyzed separately. The crucial step of integration occurred during the interpretation phase (see Section 5). The quantitative data established the prevalence and measurable outcomes of food insecurity (i.e., what the problem is), while the qualitative data provided the structural, governance-related explanations (i.e., why the problem persists). This strategy ensured that the two datasets were triangulated, allowing the qualitative findings to provide the necessary nuance and causal depth required by the Urban Political Ecology framework to interpret the quantitative results.

The study was grounded in a critical realist paradigm, which acknowledges both objective structures and subjective experiences in shaping urban food systems (Wynn and Williams, 2012). This approach allowed for an in-depth understanding of governance mechanisms and their impact on food security outcomes. The study followed the embedded case study strategy (Yin, 2003) with the Bulawayo food system as the case, and Ward 28 as the focal study area. This strategy enabled a detailed exploration of urban food governance dynamics, food system actors, and their interactions. Additionally, a cross-sectional household survey was conducted to assess household food security dynamics, complementing the case study's qualitative insights.

3.2 Study area and sampling

The study was conducted in Bulawayo, Zimbabwe's second-largest city which is governed through 29 administrative wards, each represented by an elected official. The city is located in the country's semi-arid south-western region, classified as agro-ecological region 4 and is characterized by economic stagnation, high unemployment, and increasing food insecurity (Gambe et al., 2022; Zimbabwe Livelihoods Assessment Committee [ZimLAC], 2024; Zimbabwe National Statistics Agency (ZimStat), 2024). Part of these woes are seen as outcomes of frequent pernicious droughts that have afflicted the city. Resultantly, in a 2024 national urban survey in spite of 88% of respondents in Bulawayo indicating that they were connected to a council or Zimbabwe National Water Authority water source, 92.2% of them were dissatisfied with water supply issues. In addition, only 58.9% of respondents indicated having access to basic sanitation.

According to Zimbabwe's official statistics agency, ZimStat, the city's population was 665,940 in 2022 (Zimbabwe National Statistics Agency [ZimStat], 2022), although some sources question this figure, citing higher estimates of 1.3 to 1.5 million residents (Chigwenya, 2019; Hadebe and Mpofu, 2013). While the city has a relatively high labor force participation of 62.4% (Zimbabwe National Statistics Agency [ZimStat], 2025b), most of the employment is precarious as it is in the informal sector with 59.6% of business establishments designated as informal (Zimbabwe National Statistics Agency [ZimStat], 2025a). In addition, with a demographic youth bulge it is also alarming that the proportion of youth (15–35 Years) not in education, employment or training is at 39.2% (Zimbabwe National Statistics Agency [ZimStat], 2025b). While Bulawayo's household poverty prevalence was lower than the national average in 2017 (22.3% vs. 60.6%), its food poverty line for an individual (US\$32.1) was slightly above the national average (Zimbabwe National Statistics Agency [ZIMSTAT] and World Bank, 2019).

This study was specifically conducted in Ward 28, also known as Cowdray Park, a rapidly growing, low-income, high-density area on the city's northwestern outskirts. At the last census in 2022, it was the most populous ward in the city, with 75,070 people living in 19,702 households with the next biggest ward by population having a population of 39,805 people (Zimbabwe National Statistics Agency [ZimStat], 2022). The development profile of the ward clearly shows that there are two 'wards' in one. This is because there is a "serviced" section with amenities such as electricity, potable water, and shops, and a "partially serviced" section lacking basic infrastructure, a legacy of government's housing initiative (*Operation Garikai/Hlalani Kuhle*) in the aftermath of *Operation Murambatsvina*. It is in this respect that in the presentation of findings section, there is constant reference to these two categories. According to the latest food poverty survey to provide ward level data on food poverty in Zimbabwe, Ward 28 has a food poverty prevalence rate of 9.4%, which is the third-highest in the city and above the city's average of 7% (Zimbabwe National Statistics Agency [ZimStat], 2016).

A multi-stage sampling approach was employed in this study, with the city of Bulawayo purposively selected as the case study. This selection was based on its status as a secondary city, which is an under-researched area in food systems literature (Battersby and Watson, 2019). The city's 'subordinate' hierarchical status relative to the capital city (van Zutphen et al., 2021), its under-researched food systems, and the researchers' familiarity with the city all contributed to its selection.

Within Bulawayo, Ward 28 was purposively sampled. This ward was selected because it is the most populous and the third most food-insecure ward in the city [Zimbabwe National Statistics Agency (ZimStat), 2016], making it a crucial site for investigating urbanization and urban poverty. The ward's complex urban governance dynamics, particularly its section of houses built after Operation Murambatsvina, further justified its selection.

3.3 Sampling frames and sample sizes

The researchers sought sampling frames from relevant officials and were not successful. Due to the absence of readily available or accessible sampling frames, a combination of probability and non-probability sampling techniques was used to recruit participants. For households, to determine the sample size for the quantitative survey, a web-based sample size calculator, Raosoft, was used. Based on a population of 19,702 households in Ward 28, a 95% confidence level, a 5% margin of error, and a 50% response distribution, the minimum required sample size was 372 households. To select participants, the ward was divided into 10 equal strata, corresponding to the existing community administrative sections. A target of 60 households per stratum was randomly selected from section leaders' administrative records using the Microsoft Excel randomization (RAND) function. A minimum of 37 households were prioritized for inclusion, with the remainder serving as a contingency. A total of 400 households were accessed, with 398 participating after two households withheld consent.

A subset of 17 participants (13 females, 4 males) from the surveyed households were selected for in-depth interviews. Participants were chosen using a mobile "Random number generator" app. The sample size was determined by theoretical saturation, with the first 10 participants ensuring representation from each of the 10 sections of the ward.

Beyond the households, there were other respondents such as formal retailers, informal traders and key informants. Due to the small number of formal retailers in Ward 28, maximum variation sampling was used to include different types of establishments (e.g., supermarkets, butcheries, superettes). The inclusion criteria required the entity to be a food retailer operating in Ward 28. The final sample size was 5 participants, determined by data saturation. Maximum variation sampling was also used to select informal traders to ensure diversity in goods sold, area of operation and gender. The sample size of 6 informal traders was informed by data saturation. Lastly, 15 key informants were purposively selected basing on their specialist roles. These were drawn from Bulawayo City Council (BCC) departments, civil society organizations (CSOs), central government and the private sector.

3.4 Data collection

To ensure a comprehensive understanding of the research problem, this study employed a mixed-methods approach, combining both primary and secondary data collection. This approach was designed to tap into various sources of knowledge, including intuitive, authoritative, logical, and empirical data (Kivunja and Kuyini, 2017).

Secondary data was gathered through a comprehensive desk review of existing literature. This involved an online search of

published, peer-reviewed journals subscribed to by my institution, reports from local and international CSOs, United Nations agencies, and government bodies. The search for materials followed a phased approach, starting with broad keywords such as “food system” and “urban governance” and becoming more specific as the review progressed. The snowballing technique was also used to identify related sources from the references of key articles. This process was critical for understanding the theoretical and historical context of Bulawayo’s food system and informing the study’s methodological design.

Primary data was collected through a multi-method fieldwork approach that included key informant interviews, a household survey, in-depth interviews and focus group discussions. The household survey was deployed through KoBo Collect, a mobile-based application that facilitates efficient and accurate data entry and storage. It employed the Food and Nutrition Technical Assistance (FANTA) tools. The first tool employed was the Household Food Insecurity Access Scale (HFAS). It measures the severity of food insecurity based on household experiences over a recall period of 4 weeks. It assesses anxiety about food supplies, insufficient food quality, and reductions in food quantity. Scores from 0 to 27 indicate varying levels of food insecurity, with 0 being food secure and 27 being the most food insecure (Coates et al., 2007). Closely related, the Household Food Insecurity Access Prevalence (HFIAP) classifies households into four categories based on their scores: food secure (0–1), mildly food insecure (2–7), moderately food insecure (8–14), and severely food insecure (15–27). It is these four categories that give rise to the Household Food Insecurity Access Prevalence (HFIAP) (Tawodzera et al., 2016). The third tool which is the Months of Adequate Household Food Provisioning (MAHFP) tracks the number of months in a year when a household can meet its food needs. Households with 12 months of adequate provisioning are considered food secure, whereas those experiencing food shortages for multiple months indicate higher vulnerability (Bilinsky and Swindale, 2010). Finally, the Household Dietary Diversity Score (HDDS) measures the diversity of food groups consumed by a household within a 24-h period. A higher HDDS (above 6 out of 12 possible food groups) suggests better diet quality and greater food access, while a lower score (below 3) indicates food insecurity and potential nutritional deficiencies (Swindale and Bilinsky, 2006).

The quantitative survey was complemented by a number of qualitative data collection tools. These included key informant interviews (KIIs) where through semi-structured interviews These interviews were crucial for mapping urban food system actors and understanding how urban governance influences the food system, including historical changes and broader national processes. All interviews were audio-recorded with the participants’ consent. Similarly, semi-structured in-depth interviews were conducted at household level to gain a deeper understanding of household-level food security dynamics, including procurement and consumption practices, experiences of food insecurity, and how urban governance structures shape their reality. Similar interviews were also conducted with formal food retailers and informal traders to understand their business operations, challenges, and interactions with city authorities.

Four focus group discussions were held to gain collective perspectives. One group consisted of informal food traders, another of farmers, and two others were single-gender household head groups (one men-only, one women-only). The FGDs were instrumental in

exploring household-level coping strategies and understanding how inter-household collaboration and city authorities’ actions impact food security. All the data was collected after ethical clearance was granted by Rhodes University, Bulawayo City Council and the Office of the then Provincial Development Coordinator. Participants provided informed consent, and confidentiality was ensured throughout the research process.

The quantitative data that was collected was analyzed using SPSS (v.22), employing descriptive statistics (frequencies, means and percentages) and chi-square tests to explore relationships between governance elements and household food security outcomes. Qualitative data underwent thematic analysis. The thematic data analysis approach followed in this study is the one advanced by Braun and Clarke (2006) who identify six phases involved in the analysis process. Transcripts were coded and categorized according to emerging themes related to urban governance and food security.

4 Findings

This section presents the findings of the study, focusing on the interplay between urban governance dynamics and household food security in Ward 28, Bulawayo.

4.1 Demographic and socio-economic profile of respondents

As indicated in the foregoing, 400 households were sampled for the survey and of those, 398 participated, yielding a response rate of 99.5%. This subsection provides a snapshot of the demographic and socio-economic profile of the respondents. Most respondents in the survey (77.9%) were female. This is atypical of Bulawayo as the male household heads are more common than female heads, with a 2017 Inter-Censal survey showing that males lead over 60% of households [Zimbabwe National Statistics Agency (ZimStat), 2017]. However, in this study whereas heads of households were targeted, in some instances proxies were engaged. In addition, fieldwork was conducted during business hours when males, who are traditionally ascribed breadwinners, were often absent, and male household heads present often deferred questions about food to their female partners due to traditional gender roles that associate women with the kitchen. Marital status data in the survey revealed that most respondents were either married (59.8%) or were never married (22.9%). The age distribution was concentrated (88%) among the economically active population (ages 18–64), suggesting potential labor capacity, though employment patterns indicate a prevalence of informality and precarity. The modal household size was 4, with a notable number of dependents under the age of 18, increasing household food needs and caregiving responsibilities.

Survey findings reveal that income sources were predominantly informal, with over 75% of households relying on informal trading and casual work to meet basic needs. Monthly incomes were alarmingly low as 70% of households earned US\$100 or less, a figure well below Zimbabwe’s poverty datum line. This constrained economic base meant that most households spent a significant proportion of their income on food, with limited capacity to absorb shocks or secure diverse diets. Additionally, approximately 94.5% of surveyed

households indicated that the household head had no form of disability. These demographic and socio-economic conditions form a critical context for understanding the persistence and patterns of household food insecurity in the study area and the rest of the findings are summarized in Table 1.

Table 1 reveals the basic household characteristics of the study sample. This understanding of the respondents' context is critical, as the following section, 4.2, delves into how broader urban governance dynamics and institutional arrangements shape and mediate the household food security outcomes.

4.2 Urban governance dynamics and household food security

In this section we analyze how key urban governance objects and actors shape the food system in Ward 28. The analysis focuses on how land allocation, land use management, and the provision of basic infrastructure act as either enablers or constraints for residents seeking to secure their food supply.

4.2.1 Household food security and land allocation and land use

Land allocation and use management were found to be significant factors in household food security. Despite the widespread practice of backyard vegetable gardening (75% of survey respondents), its impact is limited by the small size of residential plots, averaging 200m². This constraint, highlighted in a qualitative excerpt, means households can only produce enough for subsistence.

Our yards are very small; they are just for you to subsist with your family because most of them are around 200 square metres in size.... (Household In-depth Interviewee)

This spatial limitation also restricts other agricultural activities like poultry rearing, despite by-laws permitting up to 20 units. A key informant in the City Council's Health Services Department noted that regulations requiring fowl runs to be at least 5 meters from any dwelling or boundary make this practice unfeasible for most households in the area. Similarly, unregulated agriculture on open spaces is prevalent as a survival strategy, with 153 households of the surveyed households involved. However, this does not significantly improve their food security, as 75.6% of these households remain moderately or severely food insecure. The practice is fraught with challenges, including land shortages and insecure tenure, as demonstrated by resident testimonies.

As people who are renting it's difficult to look for a plot as the next day you might be living elsewhere. So, it's best to utilise the place where you will be. (Household in-depth Interviewee)

We will be working the fields by taking the risk not knowing whether you will see your crops through, or the land will be taken away from you before you harvest. (Participant, FGD for men).

The local authority's response to this is ambivalent. While council officials use instrumental power (e.g., municipal police) to manage unauthorized land use, they also show leniency on "humanitarian"

TABLE 1 Socio-economic profile of respondents in ward 28, Bulawayo.

Indicator	Category	Percentage (%)
Gender	Female	77.9
	Male	22.1
Marital status	Married	59.8
	Widowed	12.8
	Never Married	22.9
	Divorced/Separated	4.5
Age group	18–25	16.1
	26–34	20.1
	35–44	23.4
	45–54	15.3
	55–64	13.1
	65 and over	12.1
Household size	1–4	52.3
	5–7	40.4
	8–10	7.3
Household composition by age	Less than 5 years old	49.1
	5–17 years old	68.6
	18–65	100
	Over 65 years old	17.2
Main source of income	Informal Business	43.2
	Permanent Wage Employment	18.8
	Remittances	12.6
	Temporary Wage Employment	5.8
	Formal Business	3.3
	Casual Labor	9.8
	Welfare Grants	1
	Pensions	5.5
	Average monthly household income	
Average monthly household income	US\$100 or less	70
	US\$101–500	21.9
	US\$501–1,000	1.6
	No knowledge/Withheld info	6.5
Disability in household	Yes	9.0
	No	91.0

grounds and for political expediency, as articulated by the Ward 28 Councilor, a key informant:

They [city council] are against it because it's on the riverbanks, we engaged council they wanted to slash [crops] but we showed them that with this hunger they should be sympathetic to people but it's not legal.

This is further complicated by an institutional framework for urban agriculture characterized by a weak and non-implemented policy. For

instance, a key informant from the City Council's Social Services section indicated that the City's urban agriculture policy provides for a multi-stakeholder forum designed to support among other actors, urban farmers. However, he noted that the multi-stakeholder forum is inactive, leaving households without crucial financial and technical support. This weak governance arrangement is cited as among the key reasons for urban agriculture's failure to positively influence food security.

Land management issues are not only confined to the food production element of the food system as they extend to the retail side too. The shortage of formal vending stalls, exacerbated by declining council income and a growing informal economy, leads to widespread unregulated street trading. Indeed, the researchers observed widespread street trading in ward 28 including trade in perishable food items such as chicken, beef, milk and honey among other things. This poses a potential risk to food safety, as food is sold in uninspected premises. The issue is further complicated by hidden forms of power, where parallel structures, allegedly linked to the ruling party ZANU PF, have taken over and allocated vending bays in some part of the city, like in 5th Avenue without local authority involvement (FGD, informal traders). The traders alleged that some of their colleagues are made to pay 1USD every day to shadowy entities which they believed were working in cahoots with the ruling ZANU-PF to subvert the authority of the City Council which is under the political control of the opposition.

Despite the critical role of land allocation and land use in shaping household food security, these are not the only governance factors at play. The subsequent section examines how deficiencies in urban infrastructure further exacerbate these food security challenges.

4.2.2 The state of infrastructure and food security

The provision of basic infrastructure and services is another critical aspect of urban governance affecting food security. The state of service provision in Ward 28 is described as "very poor" by the Ward Councilor. This is largely a legacy of central government-led programs like Operation Garikai/Hlalani Kuhle, which settled people on unserviced land. The area lacks adequate essential services such as a proper sewer system, clinics, and schools.

The problem we have got here in Cowdray Park is that government [central] settled people on unserviced land so we are only starting to service the land now and it's becoming a mammoth task. We are still using Blair toilets, we do not have a sewer system, I only managed to get them to connect water last year people were still using communal taps. Cowdray Park is a new baby it needs a lot of social services. (KII, Ward 28 Councilor)

The lack of infrastructure, particularly roads, also hampers access to essential services and affects daily life, as residents face significant challenges with mobility and social services. This deficiency in infrastructure, combined with land-related governance challenges, contributes to the precarious food security situation of households in the ward. To gain deeper insights into this issue, the following subsections explore the relationship between various food security indicators and the availability of specific services.

4.2.2.1 Food security status in serviced vs. partially serviced residential plots

This section highlights the division within Ward 28, which consists of both serviced and partially serviced residential plots. The

study aimed to determine if there was a relationship between the level of infrastructural development in the area in which a residential plot was located and a household's food security status, as defined by the Household Food Insecurity Access Prevalence (HFIAP). Table 2 summarizes the findings.

Table 2 shows that within a sample of 204 households from the serviced residential part of the study area 30.9% (63 households) experienced severe food insecurity. The remaining households were distributed as follows: 77 were moderately food insecure, 34 were mildly food insecure, and 30 were food secure. Simultaneously, a sample of 194 households from a partially serviced area was examined. In this group, 36.6% (71 households) were classified as severely food insecure. The distribution for the rest of the households was as follows: 70 were moderately food insecure, 27 were mildly food insecure, and 26 were food secure. A comparative analysis of the two groups revealed no statistically significant difference in the patterns of food security. A chi-square test confirmed this observation, yielding a p -value of 0.648, indicating that the relationship between household food security status and site category (serviced versus partially serviced) is statistically insignificant.

A similar comparison was done using the HDDS and the findings are summarized in Figure 1. The quantitative findings indicate that a significant portion of households in serviced residential plots (47.1%) had an HDDS in the range of 7 to 9, while 41.2% of households in partially serviced plots fell within the same range.

At the lower end of the scale, 30% of households in partially serviced areas had an HDDS of 6 or less, which is marginally higher than the 24% of households in serviced areas within the same range. A chi-square test demonstrated a statistically significant relationship between HDDS and site category ($p = 0.046$). However, the strength of this association was found to be very weak, as indicated by a phi coefficient of 0.216. This means that while there are marginal differences, they are not a strong predictor of dietary diversity.

To gain a deeper understanding of the relationship between site category and household food security, site category was cross tabulated with MAHFP. The findings are summarized in Figure 2.

Based on Figure 2, most households surveyed reported being able to meet their food needs for nine or more months in the 12 months prior to the survey. A slightly larger proportion of these households

TABLE 2 Comparison of HFIAP in serviced and partially serviced areas.

Site category		HFIAP				Total
		1	2	3	4	
Serviced	Count	30	34	77	63	204
	% within Site category	14.7%	16.7%	37.7%	30.9%	100.0%
	% within HFIAP	53.6%	55.7%	52.4%	47.0%	51.3%
Partially Serviced	Count	26	27	70	71	194
	% within Site category	13.4%	13.9%	36.1%	36.6%	100.0%
	% within HFIAP	46.4%	44.3%	47.6%	53.0%	48.7%

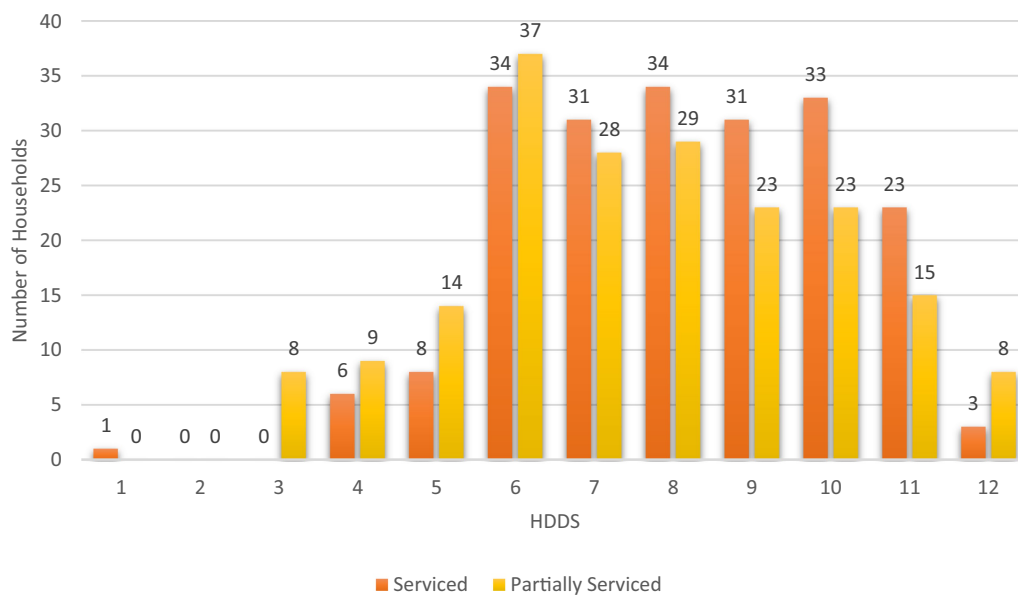


FIGURE 1

Distribution of HDDS by site category. $N = 398$ (Served $n = 204$ and Partially Served $n = 194$).

were in serviced residential areas. A chi-square test for independence confirmed a statistically significant relationship between household location (serviced vs. unserviced areas) and food security status ($p = 0.013$). Despite the statistical significance, the association's strength between a household's location, specifically, the presence of service delivery or infrastructure and its food security status was found to be weak. This suggests that while a relationship exists, the provision of services and infrastructure is not a strong predictor of a household's ability to meet its food needs. Therefore, other socioeconomic, environmental, and demographic factors likely play a more substantial role in determining food security.

This subsection scrutinized the relationship between household food security and infrastructure provision. While the overall association appears weak, a more granular analysis is warranted to examine how specific service elements, or their absence affect households' food-related experiences. Therefore, the subsequent section will focus on the relationship between household food security and service provision within Ward 28.

4.2.2.1.1 Main sources of food purchases by site category. This study further investigated the influence of service provision on household food-related experiences and behaviors. To achieve this, households were surveyed regarding their primary sources for purchasing food. The collected data was then cross-tabulated with their site category, distinguishing between households residing in serviced and partially serviced areas. The findings are summarized in Figure 3.

It is clear from Figure 3 that out of the 398 sampled households in the survey, 248 rely on supermarkets to access food. However, households living in serviced areas demonstrated a higher rate of reliance on supermarkets (79%) compared to those in partially serviced areas (45%). Another discernible difference is that while 26% of households in the partially serviced section of the Ward indicated they mainly bought their food from tuck-shops, only 7% in the serviced areas did so. Furthermore, 21.6% of households in partially

served areas primarily bought their food from the city's central business district, in contrast to just 4.4% in serviced areas.

These findings make it clear that the extent of service provision influences a household's choices regarding certain food-related aspects, in this case, where they buy food. The relationship between service provision and the food sourcing point was found to be statistically significant ($p = 0.000$), with a phi value of 0.407 indicating a moderately strong association.

Relatedly, distances traveled to the main source of buying food were also interrogated, and the findings are presented in Figure 4.

From Figure 4 households in partially serviced areas travel greater distances to their main food buying points compared to those in serviced areas. This is evidenced by the fact that the majority (68%) of households in serviced areas travel for less than a kilometer to their main food source, whereas only 38% have that luxury among those who stay in partially serviced areas. The relationship between distance traveled to the main food source and site category was found to be statistically significant ($p = 0.000$), and the association was mildly strong with a phi value of 0.345.

The distance traveled to the main food source affects the time taken, as Figure 5 shows. It shows that 63.7% of households in serviced areas, on average, take 30 min for a round trip to and from their main food source. This is in comparison to 38% for the households in the partially serviced areas. Furthermore, 22.7% of households in partially serviced areas indicated taking more than 2 h for a round trip to and from their main food source. This is not surprising given that a significant portion of them indicated that they actually go to the CBD to buy their food, and some stated that they reside more than five kilometers (round trip) from the nearest supermarket.

A chi-square test showed that the relationship between time taken to the main source of buying food and site category is statistically significant ($p = 0.000$) with a mild strength of association at a phi value of 0.315. The findings presented here also reflect on the accessibility system as an object of urban governance.

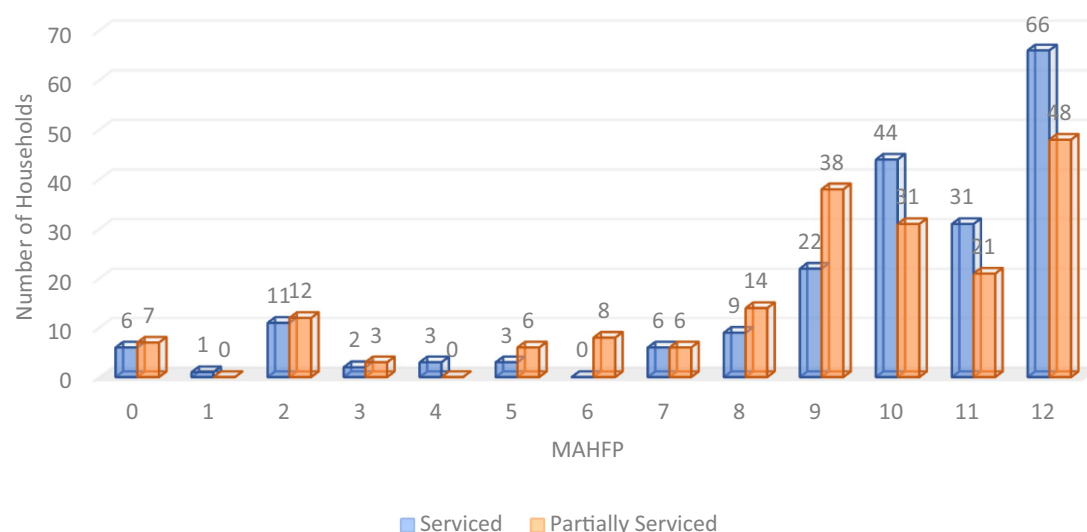


FIGURE 2
MAHFP scores distributed by site category. $N = 398$ (Served $n = 204$ and Partially Served $n = 194$).

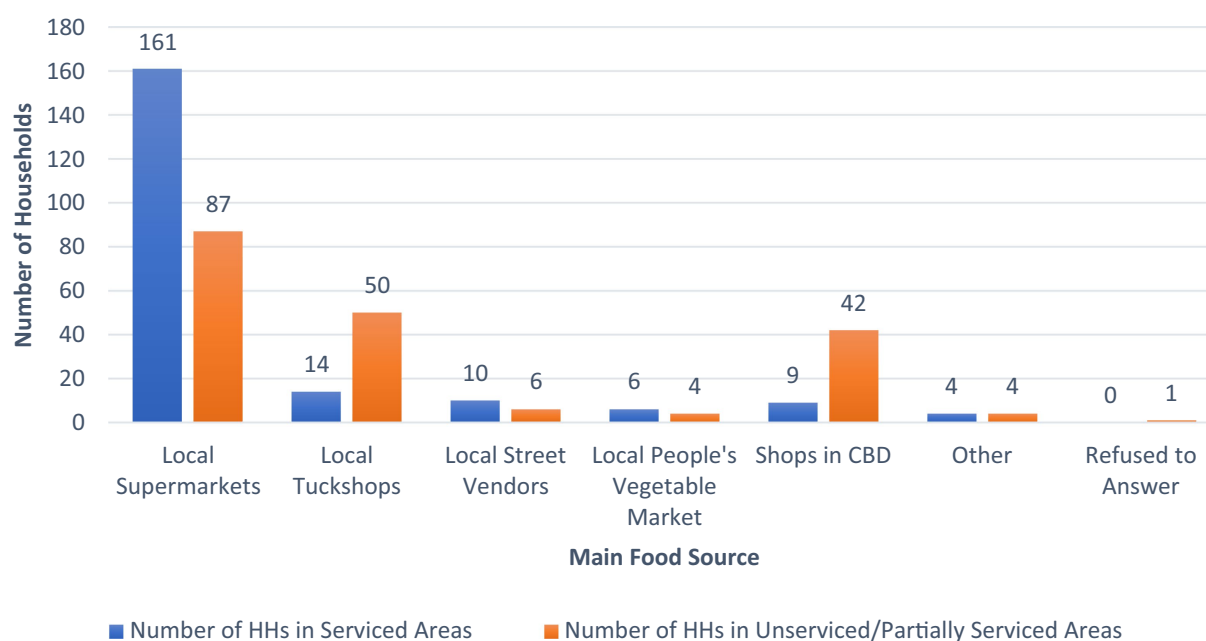


FIGURE 3
Households' main sources for buying food. $N = 398$ (Served $n = 204$ and Partially Served $n = 194$).

It was observed that roads were generally very poor and largely impassable during the rainy season. As such, residents indicated in Focus Group Discussions (FGDs) that this made it difficult for them to access certain foods, especially from the Central Business District (CBD). At the time of the survey, the Ward Councilor was trying to convince each household to contribute toward a road fund that would see the Ward residents taking the initiative to rehabilitate their roads.

Building on these observations about the challenges of road accessibility, the next section will delve into how the level of provision of utilities directly link to issues of household food security.

4.2.2.1.2 Site category, provision of utilities, and linkages to household food security. This subsection examines the provision of utilities and its potential impact on various dimensions of household food security. Specifically, it analyzes the primary source of cooking energy and provision of water across different site categories.

Figure 6 shows the gulf between serviced and partially serviced areas with respect to energy provision. While the primary source of urban household cooking energy in Bulawayo and other Zimbabwean urban areas is generally electricity, with Zimbabwe Livelihoods Assessment Committee [ZimLAC] (2024) finding

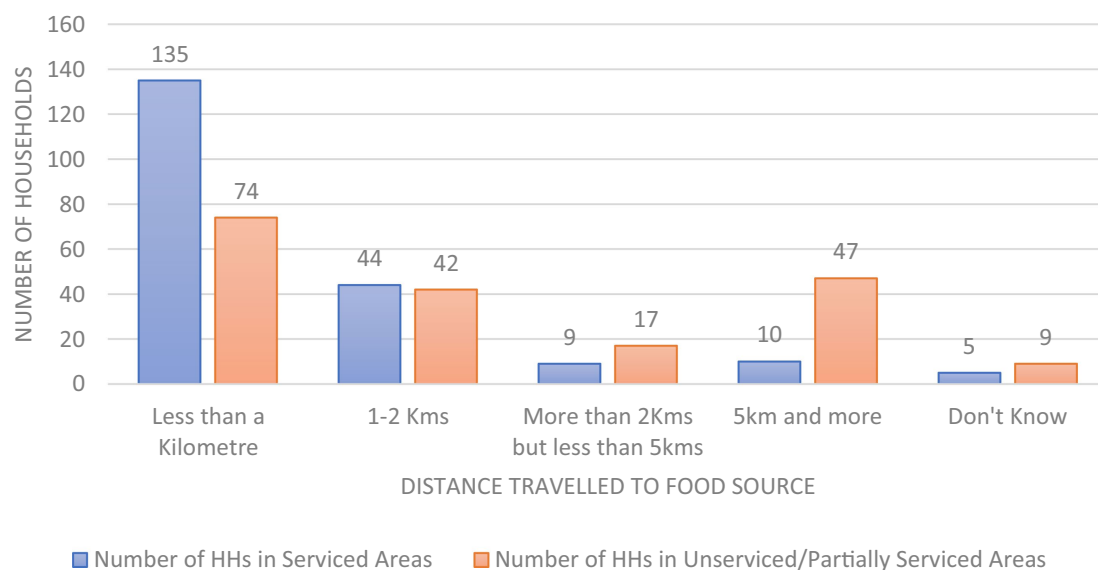


FIGURE 4
Distance to main food source. $N = 398$ (Served $n = 204$ and Partially Served $n = 194$).

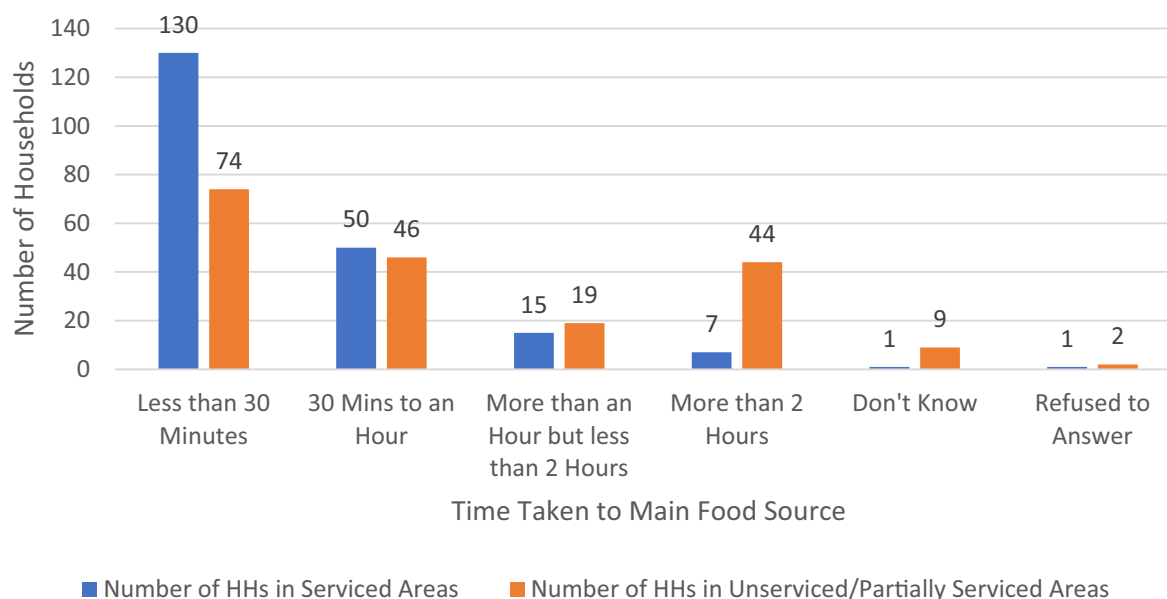


FIGURE 5
Time taken to travel main food source. $N = 398$ (Served $n = 204$ and Partially Served $n = 194$).

that 80.8% of households in Bulawayo rely on it, the reality in Ward 28 is different. Figure 6 shows that 68% of households in serviced areas primarily rely on electricity, whereas 83% of households in partially serviced areas rely on either Liquefied Petroleum Gas (LP Gas) or firewood.

Although the connection between the main source of cooking energy and household food security may not be immediately apparent, engagements with a cross-section of respondents in FGDs and interviews established interesting interconnections. As highlighted in the following excerpts, the primary issues affecting households are not only the supply of electricity but also access to it.

We avoid cooking meals that take some time to prepare like beans, samp, and tripe etc. using electricity because it is too expensive. Things like vegetables are very cheap to get and can be prepared in minutes. (Participant female FGD)

Here you have to go to the shops everyday whether one has electricity or not. You cannot afford to buy a lot of perishables because electricity supplies are unreliable. (Participant, female FGD)

I now cook once in the afternoon because getting firewood is a struggle especially during the rainfall season. I cannot afford

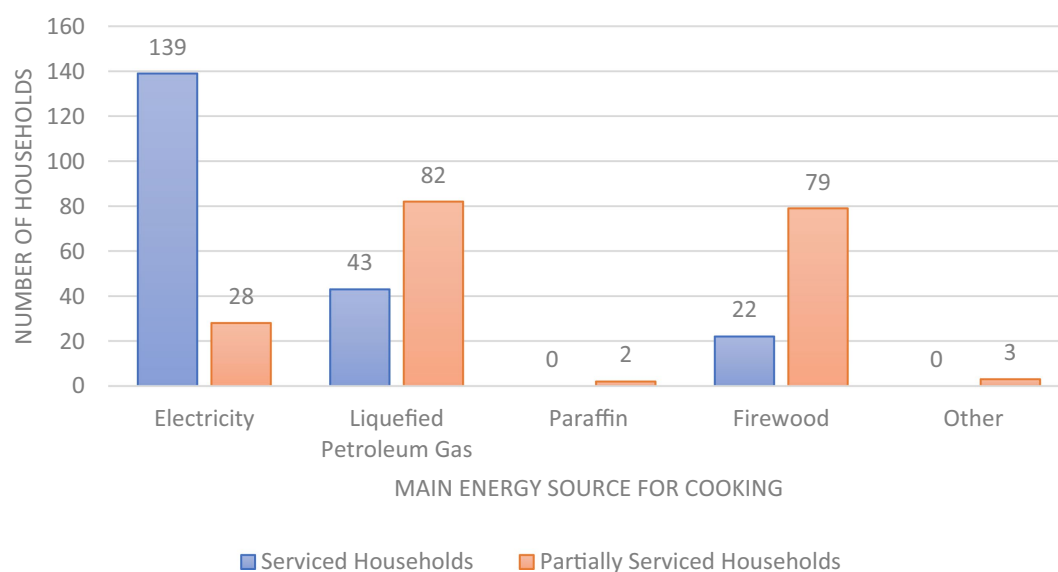


FIGURE 6
Main energy source for cooking by site category.

firewood that is on sale here in Cowdray Park because a bundle of about 3–5 logs goes for US\$1. (Household in-depth interviewee)

The above excerpts reveal that even households with physical access to electricity sometimes fail to use it due to supply disruptions or a lack of financial resources. Furthermore, electricity access is crucial for food storage, as most households use a refrigerator for perishable food. Two hundred (50.3%) of the sampled households indicated they did not have a refrigerator or had one but could not use it due to a lack of electricity. This limits the range of dietary items a household can consume.

Another key utility relating to household food security is water provision. Among the sampled households, most (74.6%) indicated that they relied on a tap inside their dwelling. However, FGD participants reported significant challenges due to haphazard water shedding that sometimes lasted for a week. This issue was captured in an excerpt from an FGD participant: *“Life in Cowdray Park [ward 28] is just the same whether you have a water connection or not, whether you have an electricity connection or not, it’s just the same. Even when they are load shedding or water shedding, they do that without prior notification. They just do it! For me Cowdray Park is the worst in Bulawayo.”*

Respondents indicated that these water supply challenges negatively affected their livelihoods, with their backyard vegetable gardens wilting due to prolonged spells without water.

5 Discussion

This article set to examine the role of urban governance in shaping food security among low-income households in Bulawayo, with particular attention to how governance structures and practices influence the four dimensions of food security. This discussion situates the findings within existing literature and theoretical debates to highlight the structural underpinnings of urban food insecurity in Zimbabwe and Sub-Saharan Africa (SSA) more broadly.

5.1 Governance, urban land use, and food availability

The findings reveal that land allocation and land use policies in Bulawayo significantly shape household food availability. While backyard gardening is widely practiced, its potential contribution to food security is limited by small plot sizes, restrictive by-laws, and insecure tenure arrangements. These constraints echo evidence from Dar es Salaam and Addis Ababa, where zoning regulations and inadequate policy support have marginalized urban agriculture despite its proven role in sustaining poor households (Wessels and Hemerijckx, 2024; Alene and Aga, 2025). The absence of a functional multi-stakeholder urban agriculture forum in Bulawayo demonstrates governance inertia, leaving households to rely on precarious and often illegal cultivation of open spaces.

From a UPE perspective, these findings illustrate how urban land is contested terrain, where competing interests pitting commercial, residential, political dimensions are prioritized over food production. As Heynen et al. (2006) argue, urban environments are socially produced, and decisions on land allocation embody power relations that determine who gains access to resources and who is excluded. In Bulawayo, the uneven enforcement of by-laws and the selective tolerance of informal cultivation for “humanitarian reasons” further highlight how governance responses are shaped by political expediency rather than systemic commitment to food security. This aligns with Battersby and Haysom’s (2019) assertion that governance failures in SSA often result not from the absence of policies but from fragmented, inconsistent, and politicized enforcement.

5.2 Informality, regulation, and food access

The study also shows that food access in Ward 28 is shaped by the dual forces of inadequate infrastructure and antagonistic regulation of informal markets. Households in partially serviced areas travel longer distances and spend more time accessing food, with many relying on

tuckshops or informal vendors due to weak transport and retail infrastructure. Yet, informal traders—the very actors who ensure food access in low-income communities—face constant harassment, poor working conditions, and manipulation by shadowy political actors. This finding resonates with evidence from East London's Duncan Village and Dar es Salaam, where informal food vendors provide vital services but are undermined by hostile governance environments (Masuku and Khalema, 2024; Wessels and Hemerijckx, 2024).

UPE helps interpret this pattern by foregrounding how regulatory regimes reproduce socio-spatial inequalities. Informal markets are simultaneously indispensable and delegitimised, a reality consistent with Blekking et al.'s (2017) observation that African urban food systems are characterized by governance flexibility and market heterogeneity, where informal actors fill critical gaps left by weak or exclusionary state institutions. Rather than integrating informal traders into inclusive planning, local authorities oscillate between repression and toleration, often mediated by political patronage. In Bulawayo, instances of the capture of vending bay allocations by partisan networks illustrates how hidden power operates within the urban food system, privileging some groups while marginalizing others. This reinforces Crush and Frayne's (2010) depiction of urban food insecurity as an “invisible crisis” sustained by governance neglect and political manipulation.

5.3 Infrastructure, utilities, and food utilization

The findings highlight the centrality of infrastructure and utilities particularly water, and energy in shaping food utilization. The absence of reliable water supply undermines backyard gardening and increases reliance on unsafe sources, echoing regional evidence that poor water and sanitation systems compromise food safety and nutrition (Dickson-Gomez et al., 2023; Safougne Djomekui et al., 2025). Similarly, energy poverty in Ward 28 affects food preparation and storage, with households forced to avoid nutritious but energy-intensive meals and unable to refrigerate perishables. This mirrors findings from Nigeria and South Africa, where reliance on charcoal or firewood undermines dietary adequacy and health (Ifegbesan et al., 2016; Masuku, 2024).

From a governance lens, these deficiencies are not merely technical gaps but reflect deeper institutional failures. The legacy of Operation Garikai/Hlalani Kühle, which resettled households on unserviced land, illustrates how state decisions create structurally uneven urban environments. UPE underscores that such infrastructural inequalities are not accidental but are the outcome of political choices and historical trajectories that reproduce differentiated capacities for food utilization. Thus, even when food is physically available, governance-induced infrastructural deficits constrain its safe and nutritious use, sustaining a cycle of vulnerability for low-income households.

5.4 Shocks, resilience, and food stability

Food stability was shown to be fragile in Bulawayo. While many households demonstrated relative self-sufficiency, shocks such as COVID-19 and water shortages disrupted this stability. The weak correlation between income and food security observed

in this study reinforces the argument that systemic governance factors, rather than household economic capacity alone, are key determinants of resilience. This finding is consistent with regional evidence that shocks, whether economic, climatic, or health-related, exacerbate pre-existing governance weaknesses (Tawodzera, 2012; Mekonnen and Amede, 2022).

From a UPE perspective, these disruptions highlight how global and national crises articulate with local governance to shape uneven vulnerabilities. The selective distribution of relief during COVID-19, infrastructural neglect, and the absence of effective social protection systems reflect broader processes of political ecology where crises are managed in ways that deepen rather than reduce inequality. As Haysom and Battersby (2023) argue, the resilience of urban food systems is not a neutral outcome but is actively produced through governance decisions that prioritize some groups over others.

5.5 Rethinking urban governance and food security

Anchored in the UPE framework, the analysis has shown that food insecurity in Bulawayo cannot be reduced to household income deficits or individual coping strategies but is fundamentally embedded within governance dynamics, institutional arrangements, and socio-political power struggles. The findings must be interpreted with caution against the temptation of geographical/environmental determinism which is the idea that the physical allocation of land or the level of service provision is the primary cause of food insecurity. Crucially, the comparison of the HFIAP showed no statistically significant difference in food security outcomes between the physically serviced and partially serviced neighborhoods. If infrastructure (e.g., formal roads, piped water) were the sole causal determinant, we would anticipate a clear disparity favoring the serviced areas. The observed HFIAP parity between the two site categories confirms that the root causes of food insecurity are not merely physical or geographic, but structural.

As demonstrated by the UPE framework, the true causal mechanism is the structural inequality reproduced by urban governance failures that operate across the entire low-income landscape of the city. The problem is not where the service lines end, but how the system is governed. The qualitative interviews illuminated that oscillating and punitive municipal regulation of the informal food market which is the indispensable primary food source for residents in both site categories creates systemic instability in food access and availability. Furthermore, the politicized management of water and sanitation services, combined with inadequate municipal planning for retail infrastructure, ensures that vulnerability is uniformly distributed. The key takeaway is that the precariousness created by municipal policy becomes the dominant factor shaping household food security, overriding the minor geographical differences in physical service provision.

Therefore, this study concludes that urban governance structures which manifested through policy neglect, oscillating regulation, and unequal resource management are the ultimate causal determinant of chronic food insecurity. The physical

location or level of service provision is merely a spatial expression of underlying systemic governance issues, rather than the primary cause of household food insecurity itself.

Overall, the study demonstrates that food insecurity in Bulawayo is not simply a function of resource scarcity or individual failure but is deeply embedded in governance arrangements. The weak policy support for urban agriculture, antagonism toward informal markets, infrastructural deficits, and politicized land management collectively produce an urban food environment that is hostile to low-income households. This confirms regional patterns documented in South Africa, Ethiopia, and Tanzania, where governance neglect and regulatory hostility undermine urban food systems (Masuku and Khalema, 2024; Alene and Aga, 2025; Wessels and Hemerijckx, 2024).

Theoretically, the findings validate UPE's core proposition that urban environments are socio-political constructs shaped by power relations. In Bulawayo, governance processes determine not only the physical distribution of food but also the socio-political metabolism of the city, that is, who is allowed to farm, who can trade, who has access to utilities, and who bears the burden of shocks. These dynamics produce an uneven urban landscape where food insecurity is not randomly distributed but concentrated among those structurally excluded from governance processes.

At the same time, the findings point to possibilities for reimagining urban governance. The observed reliance on informal coping mechanisms, community networks, and adaptive practices reflects the agency of low-income households in navigating hostile environments. However, without inclusive and participatory governance structures, such agency is insufficient to secure long-term food security. Strengthening multi-stakeholder forums, formalizing support for informal traders, investing in basic infrastructure, and depoliticising land management emerge as critical pathways for transforming Bulawayo's urban food system.

Based on the synthesis of these findings with the theoretical and literary perspectives, several policy implications emerge. First, urban governance in Bulawayo and other cities in similar contexts must shift from a sectoral, top-down approach to a holistic, systems-based one. This requires city authorities to view food security not just as an economic issue but as an integral component of urban planning. Second, there is a clear need for policy interventions that go beyond income support and address the structural issues identified in this study. This includes creating supportive environments for urban agriculture, investing in infrastructure to ensure equitable food distribution, and implementing public health campaigns to address the nutrition transition. Finally, the study's call for inclusive and participatory governance is a fundamental recommendation, arguing that any policy aimed at enhancing food security will fail without the active involvement of the low-income households it seeks to serve.

Despite its valuable contributions, this study acknowledges certain limitations. First, there was a female over-representation among survey respondents (77.9%), largely due to data collection timing and traditional gender roles in household food management as explained in the foregoing. While this bias is explained, it may slightly influence perceptions of food access and coping mechanisms. Second, the cross-sectional nature of the research

means it captures a snapshot in time and cannot fully account for the dynamic nature of food security. A longitudinal study would provide deeper insights into the seasonal and long-term changes in food security. Third, as a single case study focusing on Ward 28 in Bulawayo, the findings may not be generalisable to all Zimbabwean cities or other Sub-Saharan African contexts with differing governance and socio-economic dynamics. Nonetheless, the detailed contextual analysis offers valuable insights into broader patterns in similar urban environments. Future research could explore these dynamics through comparative case studies.

6 Conclusion

In sum, this study reinforces the argument that food security in African cities is fundamentally a governance issue. The four dimensions of food security in Bulawayo are mediated not just by household income or market dynamics but by institutional arrangements, infrastructural investments, and political power relations. By applying the UPE framework, the analysis has illuminated the socio-political underpinnings of urban food insecurity, showing how governance decisions shape uneven access to resources and resilience to shocks. Addressing urban food insecurity in Zimbabwe therefore requires moving beyond narrow productionist or income-based interventions toward systemic reforms in urban governance that prioritize inclusivity, equity, and resilience.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving humans were approved by Rhodes University Human Ethics Committee and Bulawayo City Council. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

Author contributions

MM: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Writing – original draft, Writing – review & editing. PM: Supervision, Writing – original draft, Writing – review & editing.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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