

RESEARCH ARTICLE

# Integrating Urban Agriculture into Resilient Urban Planning: A Review of Guerrilla Agro Urbanism and Food Security in Harare, Zimbabwe

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## Abstract

Urban food insecurity in African cities reflects deep structural gaps in planning, governance, and service delivery. This review examines how guerrilla agro-urbanism, the (in)formal community-led socio-economic use of vacant urban land, can be strategically integrated into resilient urban planning in Harare, Zimbabwe. Its low-cost, adaptive practices outside formal regulation, guerrilla agro-urbanism, is critical in enhancing food security, generating income, and delivering environmental benefits. However, it remains largely invisible in policy as it is seen as a threat to what is viewed as “modern cities” landscapes. The paper identifies both opportunities and constraints based on historical analysis, global and African case studies, and Zimbabwe’s legal and planning frameworks. Key barriers include insecure land tenure, inadequate legal recognition, and environmental risks. The review proposes reforms centred on formal policy recognition, secure and equitable land access, safe agricultural practices, and community participation, aligned with the African Union’s Agenda 2063, the SDGs, and devolved governance systems. By reframing informality as an asset rather than a threat, this study offers a pathway for transforming guerrilla agro-urbanism from a survival strategy into a pillar of inclusive, climate-resilient urban food systems. The findings intrigue further debates on sustainable urban planning, putting into perspective the realities of urban residents. It also provides actionable insights for policymakers, planners, and stakeholders committed to sustainable urban development in the Global South.

**Keywords:** African Cities; Food Security; Guerrilla Agro-urbanism; Urban Agriculture; (In)formality; Resilient Urban Planning; Zimbabwe.

## 1. Introduction

Urban food insecurity in African cities is increasingly symptomatic of deeper structural failures in urban planning. Rapid urbanisation, economic volatility, and climate change have outpaced formal planning systems, leaving large segments of urban populations reliant on adaptive, community-driven strategies to meet their food needs (Akinola & Matlosa, 2025; Sinthy, 2025). One such strategy is urban agriculture (UA), the cultivation of crops and rearing of livestock within city boundaries, which plays a crucial role in improving household nutrition,

supplementing incomes, and enhancing urban resilience (Loizou, Karelakis, Galanopoulos, & Mattas, 2019; Steenkamp, Cilliers, & Lategan, 2021).

Across the continent, UA occurs both formally and informally (Oja Da Silva, 2023). Guerrilla agro-urbanism, a prevalent but under-recognised form, refers to the unofficial (Shema & Abdulmalik, 2022), low-cost, and largely unregulated use of vacant urban spaces for food production (Meenar, Morales, & Bonarek, 2017). In cities like Harare, it has become a vital response for both high and low-density residents to food insecurity (Chibvongodze, 2020), yet remains absent from most urban policy frameworks (Chigwata & De Visser, 2018). Despite its prevalence and proven capacity to bolster food access during crises, it is constrained by insecure land tenure, lack of legal recognition, and environmental management concerns (Benedetti, de Almeida Sinisgalli, Ferreira, & Lemes de Oliveira, 2023; Movahhed, Azadi, Sklenička, & Janečková, 2025).

This policy blind spot matters. Resilient urban planning, which anticipates and adapts to socio-economic and environmental shocks, cannot ignore everyday practices that sustain communities when formal systems fail. The African Union's Agenda 2063 and African Urban Agenda acknowledge the importance of integrating food systems into city planning (Akinola & Matlosa, 2025; Sibanda & Mwamakamba, 2021) aligning with Sustainable Development Goal 11, which is to make cities and human settlements inclusive, safe, resilient and sustainable (Chen, Chen, Cheng, & Yu, 2022). Yet, in practice, these continental and global aspirations often fail to filter down into local urban governance, leaving community innovations like guerrilla agro-urbanism unsupported or even repressed (Baffoe & Antwi-Agyei, 2025).

While UA is increasingly acknowledged in global and continental development agendas, informal forms such as guerrilla agro-urbanism remain marginal in both theory and policy. In Zimbabwe, and Harare specifically, this practice plays a critical role in everyday urban food systems, yet it is excluded from formal planning and resilience-building strategies (Mbiba, 1999; Toriro, 2021). Against this backdrop, Harare presents a compelling case: a city where food insecurity is acute, informal cultivation is ubiquitous, but policy integration is minimal (Chirisa, Mhlanga, Dube, & Mukarwi, 2019; Toriro, 2021). With this puzzle, this paper asks: How can guerrilla agro-urbanism be strategically integrated into formal urban planning to improve food security and resilience in African cities like Harare? In responding to this question, this paper offers a theoretical review-based argument for their recognition and strategic incorporation into urban development policies. Furthermore, such a review potentially opens more avenues of research to understand the status of UA in Sub-Saharan cities. It also raises a further need for getting views from policymakers and residents towards transforming these discordant practices into standard practices that affect food security, environmental concerns, and other social and economic benefits. To get a detailed understanding of the complexities of guerrilla agro-urbanism in Harare, we start by tracing the historical evolution of UA, assessing current legal and policy frameworks, and analysing global and local case studies to suggest a possible way forward and enlighten the academic debates on UA and its municipal responses to the activities.

## **2. Purpose and objectives of the study**

The purpose of this study is to critically review literature and policy on UA, with a specific focus on guerrilla agro-urbanism as a grassroots resilience strategy in the context of Harare, the capital city of Zimbabwe. The review seeks to understand how this largely informal and often under-recognised practice can be strategically integrated into formal urban planning to strengthen food security, social inclusion, and environmental sustainability.

## 2.1 Specific objectives

- a) Define and contextualise guerrilla agro-urbanism within the broader discourse on urban agriculture, resilience, and inclusive urban development.
- b) Review global and African practices and policy frameworks on UA, highlighting successes, limitations, and lessons for the African urban context.
- c) Examine Zimbabwe's legal and urban planning frameworks to assess how they enable or constrain the recognition and practice of guerrilla agro-urbanism.
- d) Propose policy and planning pathways for integrating informal UA practices into resilient, sustainable, and equitable urban development strategies.

## 3. Conceptual and analytical framework

This review adopts guerrilla agro-urbanism as its central conceptual lens. Guerrilla agro-urbanism refers to grassroots, informal, and often unsanctioned cultivation of urban spaces to meet community food needs where formal planning frameworks are absent or inadequate (Meenar, Morales, & Bonarek, 2017; Hou, 2020). It is characterised by short-term, low-cost interventions that repurpose vacant or neglected land for productive use, providing both immediate food access and longer-term contributions to community resilience (Crush, Hovorka, & Tevera, 2018; Bennedetti, de Almeida Sinisgalli, Ferreira, & Lemes de Oliveira, 2023). This paper uses UA and guerrilla agro-urbanism interchangeably for informal, community-led cultivation in Harare. Guerrilla agro-urbanism is analytically positioned alongside two complementary urbanism frameworks:

**Tactical Urbanism** – citizen-led, short-term projects that test and showcase potential permanent urban improvements. In the context of UA, tactical urbanism bridges informal and formal planning by piloting small-scale agricultural interventions, such as community gardens or green rooftops, that can be incorporated into official plans (Lak & Kheibari, 2020). Examples from New Zealand and Kolkata show how creative reuse of vacant spaces can inspire policy uptake (Barber, 2013; Chatterjee & Khanna, 2023).

**Everyday Urbanism** – integrating daily practices and lived realities into urban space design (Adebara, Adebara, & Taiwo, 2023). Applied to UA, everyday urbanism ensures that agricultural initiatives reflect community priorities, cultural practices, and social diversity, making them more inclusive and sustainable (Chatterjee & Khanna, 2023). These three approaches share a community-centric orientation but differ in emphasis: guerrilla agro-urbanism foregrounds informality and necessity, tactical urbanism focuses on experimentation and transition, and everyday urbanism prioritises embeddedness in daily life (Felizardo, 2024). They highlight marginalised communities' agency, innovation, and adaptive capacity in producing urban space and sustaining food systems.

In Harare, guerrilla agro-urbanism is visible in high- and low-density suburbs alike, such as Westlea, Tynwald, Kuwadzana to the west of the city, Waterfalls, to the South, Eastlea, and Borrowdale to the north, where residents transform roadside verges, vacant plots, and wetlands into productive gardens (Toriro, 2021; Muderere, Murwira, Kativu, Tagwireyi, & Chiweshe, 2020). These sites often function as spaces of social cohesion, where knowledge is shared, seeds are shared, and labour is exchanged (Feinberg, Ghorbani, & Herder, 2023). These spaces also serve as food justice arenas, where residents challenge exclusion from formal food systems, and as informal resilience infrastructure, providing a buffer against economic shocks and climate-related disruptions (Chaminuka & Dube, 2017). The analytical value of this framework lies in its ability to:

- a) Foreground informality – recognising the legitimacy and contribution of unregulated practices in sustaining urban life.

- b) Centre community agency – showing how residents actively shape urban spaces to meet their needs.
- c) Highlight innovation under constraint – demonstrating adaptive strategies that emerge when formal governance does not meaningfully support residents.

Conceptually, guerrilla agro-urbanism is situated at the intersection of urban resilience, postcolonial urban governance (Bonnevera, 2025), and food justice discourses (Chen, et al., 2021). It challenges the modernist city model that excludes agriculture from the urban core, exposes the governance gaps that marginalise everyday survival strategies, and reframes food security as a matter of equity, dignity, and environmental stewardship. By linking these debates, the framework provides a basis and open debates for reimagining how informal UA can be integrated into inclusive, sustainable, and climate-resilient urban planning in African cities.

#### 4. Methodological approach

This study employed a qualitative methodology premised on a desktop review approach to collect and analyse secondary data on UA, guerrilla agro-urbanism, and their integration into urban planning for resilience and sustainability. This approach was chosen because it allows for systematically mapping an underexplored body of literature and synthesising policy gaps across multiple contexts, particularly in African cities where informal UA remains under-documented in planning debates.

Snyder (2019) emphasises that to gather an in-depth and exhaustive literature review, specific criteria should be followed to identify the documents, sources, and literature analysed. For this study, a review was drawn on a combination of over 60 papers, which included policy documents, academic literature, and legal frameworks which were published over the past 25 years, to grasp a full view of UA as Zimbabwe has gone through various policy and practical shifts when it comes to national land use. The steps suggested by van Wee & Namister (2016) regarding literature-based and influenced the review of the Constitution of Zimbabwe and related statutory instruments, as well as scholarly databases such as Web of Science, Scopus, and Google Scholar. Searches used a combination of relevant keywords, such as “urban agriculture,” “policy,” “guerrilla urbanism,” “urban planning,” “food,” “urban development,” and “resilience and sustainability”, combined with Boolean operators to make the literature search more precise and efficient. Manual searches of reference lists were conducted to capture additional relevant materials not retrieved in the initial database search. A review-based approach was adopted for three key reasons. First, it maps and synthesises a fragmented body of literature on informal UA, a domain seldom recognised as a formal planning category. Second, it facilitates a comparative analysis of global, African, and Zimbabwean policy frameworks, revealing both transferable lessons and critical gaps (Sigauke, 2020; Mazwi & Mudimu, 2022). Third, it enables the integration of historical, legal, and contemporary practice perspectives, providing a multidimensional basis for identifying pathways towards informed and context-sensitive policy reform.

The inclusion criteria for the literature review required that sources be written in English, peer-reviewed, or drawn from credible institutional and policy publications, and explicitly address themes related to UA, guerrilla agro-urbanism, or associated urban planning and food security issues within global and African cities. Sources were excluded if they lacked authenticity, were not peer-reviewed, fell outside the scope of the study’s thematic focus, or were published in languages other than English. This approach ensured the selection of high-quality, contextually relevant, and reliable materials to inform the argument and discussion. The literature was analysed using a thematic analysis approach, outlined in Section 3, with particular attention to the intersections between guerrilla agro-urbanism, urban resilience, postcolonial urban

governance, and food justice. This framework guided the identification of recurring patterns, critical gaps, and potential opportunities for integrating UA into policy and planning processes (Guzman-Molina, Sannou, Caucci, 2025). The analysis synthesised insights from global case studies alongside Zimbabwe's legal and policy landscape, enabling a comparative perspective that situates local practices within broader theoretical and governance debates.

#### **4.1 Limitations**

This review is subject to certain methodological limitations. Reliance on secondary data, in the absence of primary fieldwork, limits the capacity to capture nuanced, context-specific realities, such as the lived experiences and everyday challenges of urban farmers, which are instead drawn from interpretations of existing literature. Moreover, academic documentation from the Global South is comparatively sparse, with several regions notably underrepresented in peer-reviewed research. As such, the findings should be viewed as indicative rather than exhaustive, offering a valuable foundation for understanding current trends while underscoring the need for further empirical inquiry to close these gaps and enrich contextual understanding of the intersection of food security and resilient urban planning in the context of the Global South.

### **5. Synthesis of global and regional evidence**

This section synthesises insights from international and regional literature to offer a comparative analysis of urban agriculture's conceptualisation, implementation, and regulation, including guerrilla agro-urbanism, across various contexts. Through the study of both successful and failed cases, it discerns patterns, optimal practices, and prevalent obstacles that influence the function of urban agriculture in improving food security and resilience. The synthesis contextualises the Zimbabwean experience within broader international and African discourses while emphasising transferable lessons and contextual differences essential for guiding policy and practice.

#### **5.1 Legal and institutional support**

*Havana, Cuba (1990s).* During the "Special Period," Decree-Law 142 enabled residents to cultivate vacant land, prioritising organic methods and local food provisioning (Ross & Leal, 2022; Campos Pérez, 2021). Strong legal authorisation, municipal support, and extension services turned UA into a durable, city-wide infrastructure for food security and jobs. The success of urban agriculture in Havana during the 1990s "Special Period" provides essential insights for UA initiatives to incorporate guerrilla agro-urbanism into sustainable urban planning. Decree-Law 142 established a legal framework that empowers residents to cultivate vacant land, highlighting the significance of formal policy recognition in legitimising and expanding community-led agricultural initiatives (Ross & Leal, 2022). The city's dependence on organic methods, motivated by resource scarcity and reinforced by policy support, highlighted the potential for environmentally sustainable practices to achieve mainstream acceptance through appropriate training and regulation (Viera-Arroyo, et al., 2025). Localised food provisioning enhances food security by decreasing reliance on distant supply chains, an essential approach during periods of economic or logistical disruption (Pasara & Dunga, 2022). Havana's experience shows the significance of community mobilisation and its integration into municipal planning to transform underutilised spaces into productive urban assets. The city's crisis-responsive innovation, characterised by adopting low-cost, adaptive farming methods, illustrates how constraints can drive the development of scalable and resilient solutions. In Harare, these factors indicate that legitimising informal practices, integrating sustainability standards, promoting community ownership, and aligning urban farming with formal planning frameworks could

elevate guerrilla agro-urbanism from a mere coping strategy to a recognised component of urban food security.

**Berlin, Germany (2000s).** UA was folded into sustainability and green-city strategies (community gardens, rooftops, temporary uses), backed by district planning and land-use instruments (Miessner, 2020; Jiang, He, Li, Lu, & Zhang, 2024). The result was a planned access to land, recognition in formal policy, and co-management models that link civil society and the city, enabling sustainable urban growth (Wang & Lam, 2025). Berlin integrated UA into district planning and land use policies, ensuring spaces for cultivation and addressing land tenure insecurity, a longstanding issue in Harare. The city's varied urban agriculture models, including community gardens, rooftop farms, and temporary land uses, illustrate how design and location flexibility can enhance participation and optimise underutilised spaces. Environmental co-benefits such as urban cooling, biodiversity enhancement, and improved stormwater management are essential to urban resilience (Dong & Lin, 2024). This indicates that cities in the Global South could potentially utilise UA not only for food security but also for ecological advantages. Berlin's robust community engagement mechanisms illustrate the significance of urban agriculture in promoting social inclusion and cohesion, especially within diverse urban populations (Jardim da Silva, 2024). The revitalisation of underutilised land through productive green uses highlights the potential of guerrilla agro-urbanism to enhance urban aesthetics, prevent land degradation, and reinforce neighbourhood identity when incorporated into formal planning frameworks.

The above two cases show that when UA is explicitly recognised in law/policy and embedded in urban plans, cities unlock land, technical support, and multi-sector partnerships. These conditions stabilise projects and scale sustainable impact.

## **5.2 Community engagement models**

**Nairobi, Kenya.** The Urban Areas and Cities Act (2011) and the Urban Agriculture Promotion and Regulation Act (2015) provide safe, integrated UA standards. Implementation leans on community participation and public-health safeguards, enabling practical uptake.

Nairobi's experience with urban agriculture demonstrates how community participation can be institutionalised within a supportive legal framework to ensure safe and sustainable uptake. The Urban Areas and Cities Act (2011) and the UA Promotion and Regulation Act (2015) established clear standards for integrating UA into urban planning, including guidelines on land use, waste management, and water safety (K'oyoo, 2024). Implementation relies heavily on the active involvement of local communities, from planning and decision-making to daily management, ensuring that initiatives are tailored to residents' needs and capacities. Public health safeguards, such as regulated use of wastewater and controlled input application, have strengthened trust and reduced environmental and health risks (Mbugua, Mbugua, Mbugua, & Andati, 2025). By combining participatory governance with clear regulatory standards, Nairobi has facilitated the practical adoption of UA, fostered local ownership, and promoted long-term sustainability. This model highlights the potential of formalising guerrilla agro-urbanism by embedding community-driven decision-making within policy frameworks prioritising health, safety, and inclusivity.

**Cape Town, South Africa.** City strategies promote gardens, green rooftops, and public space-farming, with CBO-municipality collaboration, starter kits-, training, and market linkages to shorten supply chains (Kanosvamhira & Shade, 2025). Cape Town's strategy for UA provides valuable insights for enhancing guerrilla agro-urbanism within a resilient planning context. The city's varied utilisation of urban spaces, such as community gardens, green rooftops, and underused public land, illustrates how innovative site identification can enhance production while maintaining core urban functions (Kanosvamhira., 2025). Collaboration

between community-based organisations and municipal authorities is essential for aligning grassroots initiatives with city priorities. This model potentially connects informal growers with the local government effectively. Through starter kits, training, and technical support, Cape Town's investment in capacity building demonstrates that equipping farmers with skills and resources can enhance productivity and sustainability. Market linkages have facilitated the integration of urban farmers into local food systems, resulting in shorter supply chains, enhanced food freshness, and increased household incomes (Kanosvamhira & Shade, 2025). This presents an opportunity for structured support for informal producers. Cape Town's flexible land use policies, supported by district planning and land use instruments, legitimise temporary or adaptive land uses for agriculture, offering a degree of tenure security currently absent for informal farmers. Implementing these strategies, specifically formalising collaboration, integrating urban agriculture into planning frameworks, and facilitating market access, could elevate guerrilla agro-urbanism from a marginal coping mechanism to a recognised contributor to food security and urban resilience (Baffoe & Antwi-Agyei, 2025). Where cities pair enabling laws with mobilisation, training, and co-production, UA reaches vulnerable groups, strengthens local value chains, and builds trust with the government, as portrayed by the above-presented case studies.

### 5.3 Failures and risks

**Kinshasa, DRC (1970s–1980s).** UA efforts faltered amid weak/erratic state support, insecure tenure and evictions, political instability, and damaging practices (e.g., soil and water contamination) (Trefon, 2004; Cotula, Toulmin, & Hesse, 2004). Several lessons for modern urban farming techniques can be learnt from Kinshasa's unsuccessful UA initiatives in the 1970s and 1980s. Initiatives were susceptible to failure because they lacked institutional coordination, resources, and policy support due to the lack of steady state support. Bahati et al (2023) notes that long-term investment in sustainable farming methods was deterred by unstable land tenure and frequent forced evictions, weakening community trust. Efforts to continue and scale UA were disrupted by political instability, which took government focus and funding away from the sector (Lebailly & Muteba, 2011). Furthermore, environmentally harmful practices that harmed urban ecosystems and endangered public health included tainted water and inadequate soil management. These flaws highlight how successful and resilient urban agriculture systems depend on stable political environments, safe land rights, robust, long-term governance frameworks, and ecologically friendly practices.

## 6. Zimbabwe's planning and policy landscape: disconnects with grassroots practice

Zimbabwe's regulations and administrative frameworks that regulate the country's urban planning system are designed with a specific intention to address the spatial development, control urban expansion, and promote sustainability (Matooane, Matamanda, Bhanye, & Nel, 2025). However, UA tends to operate without a dedicated national law, relying instead on a patchwork, and without promoting sustainability through constitutional action, municipal by-laws, and policy statements (Chirisa, Mhlanga, Dube, & Mukarwi, 2019; Toriro, 2018). While legal instruments could potentially support UA, in practice, they offer little sustained protection for guerrilla agro-urbanism (Masvaure, 2016; Maphosa, 2025). The result is a significant gap between grassroots practice and the planning and policy framework. Table 2 maps Zimbabwe's key laws and policies against their enabling provisions, constraints, and overall impact on guerrilla agro-urbanism, drawing on scholarly references from the reviewed literature.

**Table 1.** Zimbabwe's planning and policy framework about guerrilla agro-urbanism in Zimbabwe

Law / Policy	Enabling Provisions	Constraints / Gaps	LOverall Impact on Guerrilla Agro-Urbanism
Constitution of Zimbabwe (2013) (The Government of Zimbabwe, 2013)	Guarantees right to food & water (Section 77); devolves powers to municipalities (Chapter 14).	No explicit mention of UA; leaves scope for uneven municipal interpretation	Provides a constitutional basis for support but no direct legal protection or operational guidance for (in)formal UA.
Urban Councils Act 2002 29:15).	Allows councils to allocate land for economic use.	Implementation prioritises housing/commercial projects over farming; no explicit recognition of informal UA.	Pushes residents to farm illegally in marginal spaces; creates land-use conflicts.
Environmental Management Act (Chapter 20:27 of 2002).	Mandates the protection of wetlands, biodiversity, and sustainable practices.	Enforcement often removes informal gardens; it lacks guidance for safe UA in sensitive areas.	Acts as a barrier by criminalising certain practices without offering adaptation or mitigation options (Government of Zimbabwe, 2018).
Public Health Act (Chapter 15:09).	Sets safety standards for agriculture, including wastewater use.	Focuses on prohibition rather than enabling safe compliance for informal UA.	Reduces public health risks but can remove critical food sources without alternatives.
National Environmental Policy and Strategies (2009).	Promotes environmental integration in urban planning.	No precise mechanism for balancing food production with conservation in cities.	Missed opportunity to reconcile urban farming with environmental protection.
Zimbabwe Agricultural Policy Framework (2019–2030).	Supports food security, sustainable land/water use, and smallholder empowerment	Omits urban agriculture, especially informal forms.	Excludes guerrilla farmers from formal support, finance, and extension services.
Municipal By-Laws – e.g., Harare	Permit temporary land use, composting, and non-potable water use;	Temporary, inconsistent application; no permanent tenure or recognition of informal UA.	integrate guerrilla agro-urbanism into long-term planning.
Temporary Use of Vacant Land (2006).	Bulawayo fosters partnerships.		

Table 1 synthesises Zimbabwe's key constitutional, legislative, policy, and municipal instruments, mapping their enabling provisions, constraints, and overall impact on guerrilla agro-urbanism. It reveals a pattern of partial support (Mbiba, 2022), such as rights-based provisions (The Government of Zimbabwe, 2013; Mazwi & Mudimu, 2022; Jardim da Silva, 2024), allocations of land for economic use (Urban Councils Act Chapter 29:15, 2002), temporal allocation and environmental integration policies (National Environmental Policy, 2009; Environmental Management Act, 2002), undermined by fragmented implementation, omission of explicit recognition for informal urban agriculture (Zimbabwe Agricultural Policy Framework, 2019), and enforcement practices that often criminalise rather than adapt (Mazwi & Mudimu, 2022). By juxtaposing enabling clauses with critical gaps, the table highlights the structural and regulatory tensions shaping guerrilla agro-urbanism in Harare. This synthesis contributes to the broader scope of the paper by showing how the legal and policy environment both constrains and creates entry points for integrating informal urban farming into resilient urban planning (Chaminuka & Dube, 2017), thereby framing the need for targeted reforms that legitimise and scale community-driven food security initiatives.

Across all instruments, the primary enabling factor is potential recognition through broad food security or sustainability mandates, but the primary constraint is the lack of explicit inclusion of (in)formal UA, resulting in insecure tenure, inconsistent support, and vulnerability to removal (Benyera & Nyere, 2015; Chipenda, 2024). This entrenches the disconnect between

policy intent and grassroots reality, especially in cities like Harare, Bulawayo, and Gweru, where guerrilla agro-urbanism fills critical food security gaps (Toriro, 2021).

### 6.1 Local Practice: Harare, Bulawayo, Gweru

In Harare, high-density suburbs such as Mbare host unauthorised maize and vegetable plots on public land, providing food and income but remaining vulnerable to eviction (Mbiba, 1999; Pasara & Dunga, 2022). In Bulawayo, suburbs like Pelandaba and Nkulumane benefit from community-managed gardens and some municipal support, yet lack comprehensive legal security (Chibvongodze, 2020).

In Gweru, women-led gardens in Mkoba contribute to food security and social cohesion but face challenges, including tenure insecurity and irregular water supply (Chaminuka & Dube, 2017). Zimbabwe's planning framework often frames UA as either a temporary welfare measure or an environmental risk rather than a legitimate, permanent component of urban development (Hanna & Wallace, 2022; Drescher & Menakanit, 2021). Consequently, guerrilla agro-urbanism remains marginal in law and policy while essential for food access, community resilience, and environmental adaptation, exposing it to displacement and limiting its potential contribution to resilient urban planning.

## 7. Benefits and challenges of guerrilla agro-urbanism

Guerrilla agro-urbanism delivers multi-dimensional benefits while facing substantial regulatory, practical, and environmental challenges. It serves both as a survival strategy for vulnerable urban households and as a planning opportunity to promote sustainable, resilient cities.

### 7.1 Benefits

Table 2 below outlines the multi-dimensional benefits of urban agriculture (UA), highlighting its potential to improve food security, livelihoods, and the urban environment.

**Table 2.** Zimbabwe's planning and policy framework about guerrilla agro-urbanism in Zimbabwe

Benefit Category	Description
Food security	Increases access to fresh, nutritious foods, reducing food deserts (Chen, Chen, Cheng, & Yu, 2022).
Economic benefits	Creates jobs and provides economic opportunities, enhancing local economies (Baffoe & Antwi-Agyei, 2025).
Environmental impact	Promoting organic waste utilisation as compost helps reduce waste, manage stormwater, and improve urban air quality (FAO, 2020; Hallett, Hoagland, & Toner, 2016).
Community engagement	Fostering community interaction and transforming underutilised lands into vibrant community spaces (Muderere, Murwira, Kativu, Tagwireyi, & Chiweshe, 2020).
Health and well-being	Improving residents' physical and mental health through physical activity and productive exercises.
Education and skills	Providing a platform for nutritional and agricultural education, offering hands-on learning experiences and passing on intergenerational agricultural knowledge (Balkrishna, et al., 2021).
Urban resilience	Enhancing the resilience of cities to climate change and providing local food sources during crises (Ratcliffe, Stubbs, & Keeping, 2021).
Aesthetic improvements	Beautifying urban areas by converting vacant land into attractive green spaces (Jardim da Silva, 2024).
Policy innovation	Driving policy changes to integrate sustainable urban food systems into urban planning, promoting sustainable urban development (Langemeyer, Madrid-Lopez, Beltran, & Mendez, 2021).

## 7.2 Challenges

Despite its multidimensional benefits, guerrilla agro-urbanism encounters persistent barriers that limit its integration into formal urban planning and policy frameworks. Tenure insecurity leaves informal farmers vulnerable to eviction and discourages investment in sustainable, long-term practices (Kamete, 2004; Toriro, 2021). Policy repression, rooted in legislation such as the Urban Councils Act (Urban Councils Act Chapter 29:15, 2002) and the Environmental Management Act (Environmental Management Act, 2002), fails to address the specific needs of UA, often resulting in restrictive measures or forced removals (Benyera & Nyere, 2015; Toriro, 2018)(Toriro, 2018). Environmental hazards, including the use of untreated wastewater, excessive chemical inputs, and poor land management, degrade soils, contaminate water sources, and pose significant public health risks (Chirisa, Mhlanga, Dube, & Mukarwi, 2019; Mbiba, 2022).

Guerrilla agro-urbanism sits at the nexus of necessity and opportunity: for households, it remains a vital survival strategy ensuring food access and supplementary income amid economic hardship (Ahmad, et al., 225); for urban planners and policymakers, it represents a strategic entry point for building inclusive, resilient, and ecologically sustainable urban food systems (Hou, 2020). Addressing tenure security, reforming legislation to be more enabling, and embedding environmentally safe practices could transform guerrilla agro-urbanism from an informal coping mechanism into a formally recognised and regularised pillar of sustainable urban development, where adverse effects are monitored and managed.

## 8. Study contribution to practice and policy

This paper contributes to the literature and policy by positioning guerrilla agro-urbanism as a critical analytical lens that integrates informality and resilience in urban studies from an African perspective. These challenging conventional planning paradigms marginalise grassroots practices. Theoretically, it advances a framework that situates informal urban agriculture within broader debates on urban resilience, postcolonial governance, and socio-environmental justice, thereby recognising community agency as a central driver of adaptive capacity. The literature bridges a significant gap between urban agriculture, urban planning, and food justice scholarship in the Global South, where empirical and conceptual engagements with informality remain underdeveloped. For policy, the study offers context-responsive insights into how African cities can move beyond top-down, enforcement-heavy approaches to instead nurture and integrate grassroots innovation into formal planning systems, thereby enabling urban food systems that are inclusive, environmentally sustainable, and resilient in the face of economic, climatic, and political shocks.

## 9. Recommendations and pathways for reform

To strengthen the role of urban agriculture in building resilient and inclusive cities, Zimbabwe should legally recognise informal UA and embed it within national and municipal planning frameworks, ensuring it is treated as a legitimate land use. Land access and zoning reforms are needed to allocate secure, designated spaces for community farming, supported by tenure arrangements that protect farmers from eviction. Urban planning processes should actively involve local communities, enabling co-designed solutions that reflect their needs and knowledge. Clear guidelines for safe agricultural practices, such as using treated wastewater, organic inputs, and soil conservation measures, must be enforced to safeguard public health and the environment. These reforms should align with the African Union's Agenda 2063 aspirations for inclusive and sustainable cities, contribute to achieving the Sustainable Development Goals (notably SDGs

2, 11, and 13), and be integrated into Zimbabwe's devolved local governance frameworks to ensure context-appropriate implementation and long-term impact.

## **10. Conclusion**

This paper has examined the potential of guerrilla agro-urbanism as both a coping strategy and a planning opportunity for building resilient urban systems in Harare, Zimbabwe. The urgency of integrating urban agriculture into formal planning is apparent: food insecurity in African cities is intensifying under the combined pressures of economic instability, rapid urbanisation, climate change, and policy neglect. By reconceptualising informal practices not as threats to urban order but as vital community assets, this study reframes guerrilla agro-urbanism as a catalyst for food access, income generation, urban greening, and social cohesion. Drawing on comparative case studies from across the globe, it demonstrates that legal recognition, secure land access, and community participation are critical to harnessing these benefits. The paper contributes to theory by integrating informality and resilience within urban studies from an African perspective to the literature by bridging gaps between urban agriculture, planning, and food justice in the Global South, and to policy by offering context-responsive pathways for aligning grassroots innovation with the AU Agenda 2063, SDGs, and Zimbabwe's local governance frameworks.

Harare should address regulatory gaps, implement zoning reforms, and establish safeguards for safe and sustainable farming to unlock the potential of guerrilla agro-urbanism fully. This requires coordinated action between government agencies, municipalities, civil society, and the private sector to ensure inclusive, environmentally sound, and economically viable urban food systems. While this desktop review offers critical insights, future research should deepen the evidence base through comparative case studies, participatory planning models, and empirical investigations into informal UA's socio-economic and environmental impacts. Such work will be essential for transforming guerrilla agro-urbanism from a survival strategy into a recognised pillar of resilient, sustainable, and just African cities.

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The authors declare no conflicts of interest associated with this publication.

## **Ethical approval:**

Not applicable. This study did not involve human participants or primary data collection.

## **Biography notes**

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