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Cultivating communities: Understanding motivations in urban gardening among low-income residents in Cape Town, South Africa

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Abstract

In local food systems research, a notable gap exists in exploring the personal motivations of individual gardeners, with most studies focusing solely on the overarching objectives of community gardens in Global South regions. This study bridges the gap by investigating the multifaceted motivations driving urban gardening among low-income residents in Cape Town's Cape Flats, using a mixed-methods approach that integrates survey data from 97 participants and semi-structured interviews conducted across 34 community gardens. Although community gardens are predominantly designed with economic aims as evidenced by 29 out of 34 gardens prioritizing income generation, the findings reveal a tension between these institutional objectives and the personal motivations of individual gardeners. Quantitative analysis of the responses indicates that while 76.3% of participants indicated economic reasons, all respondents affirmed the importance of social, health, and environmental benefits. Qualitative insights further reveal that many gardeners perceive their participation as a means to enhance

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Disclosure Statement
The author reports no potential conflicts of interest.

Ethics Statement
This research adheres to the highest ethical standards, ensuring the integrity and ethical treatment of all participants and data. The research methodology was reviewed and approved by the institutional ethics committee of the University of the Western Cape, ensuring compliance with ethical guidelines and regulations.

Data Availability Statement
The data that support the findings of this study are available on request from the author, T.P.K. The data are not publicly available as they contain information that could compromise the privacy of research participants.

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physical and psychological well-being and to promote sustainable environmental practices, despite facing structural barriers such as limited space, time constraints, and inadequate resources. This study contributes to urban food systems literature by challenging conventional economic framings of urban gardening in the Global South and advocating for inclusive policies that bridge the gap between institutional aims and individual experiences, thereby enhancing the resilience and sustainability of urban community gardens.

Keywords
motivations, urban gardening, mixed-methods inquiry, community gardening, community, Cape Town, South Africa

Introduction

Urban gardening has become a crucial element of sustainable urban development, especially in low-income areas facing food insecurity and economic challenges (Soga et al., 2017). Urban gardening involves the cultivation of plants and vegetables in urban spaces, including private areas such as backyards and balconies, as well as communal spaces (Schram-Bijkerk et al., 2018). The activity encompasses both home and community gardening, with the latter involving collective cultivation by local residents, often on vacant lots, rooftops, or other underutilized urban areas (Li & Long, 2024; Rogge & Theesfeld, 2018). Community gardens not only provide fresh produce but also foster social interaction, offer educational opportunities, and promote environmental stewardship (Guitart et al., 2012).

Urban gardening practices have been adopted in many regions worldwide for various reasons (Guitart et al., 2012; Lewis et al., 2018). The literature generally indicates a divergence in the primary motivations behind urban gardening between the Global South and the Global North (Gray et al., 2020). The *Global South* refers to regions of the world that are often characterized by lower-income economies, including most of Africa, Latin America, and parts of Asia. In the Global South, urban gardening is predominantly driven by economic reasons: residents engage in urban gardening to supplement their food supply, reduce household expenditure on food, and generate additional income through the sale of surplus produce (Gray et al., 2020; Modibedi et al., 2021). This practice is often crucial for survival, particularly in areas where formal employment opportunities are limited and food insecurity is high (Magidimisha et al., 2013). Furthermore, the literature indicates that urban gardening in the Global South is shaped by the cultural and historical contexts of the communities involved (De Bon et al., 2010). These gardens often reflect the agricultural practices and traditions of the communities' rural origins, demonstrating the enduring influence of rural–urban interlinkages. Such interlinkages facilitate the exchange of agricultural knowledge and practices while also strengthening social networks, thereby embedding urban gardening in broader socio-cultural and economic landscapes.

On the other hand, the *Global North*, which includes wealthier, industrialized nations such as those in North America, Europe, and parts of Oceania, often sees urban gardening motivated more by environmental concerns, health benefits, community engagement, and food movements (Davenport & Mishtal, 2019; Gray et al., 2022; Jansma et al., 2024; Poulsen et al., 2014). Urban gardening is often associated with promoting mental well-being, enhancing physical health through outdoor activity, fostering community cohesion, and contributing to environmental sustainability. Additionally, there is a growing awareness of the importance of local food systems and reducing carbon footprints, which further drives the adoption and advocacy for urban gardening practices.

This contrast in motivations between global North and South regions generally reflects broader socio-economic contexts and priorities. In the Global South, where urbanization often outpaces the development of infrastructure and social services, urban gardening is a pragmatic response to immediate economic and nutritional needs. In the Global North, where basic needs are more readily met, the focus shifts to improving quality of life and addressing environmental concerns. However, this dichotomy oversimplifies a far more intricate reality, as urban gardening in both contexts is shaped by intersecting factors such as historical land policies, governance structures, cultural prac-

tices, and localized socio-political dynamics. This research delves into these complexities, challenging dominant urban food systems literature in ways that transcend a simple North-South binary. This study argues that motivations for engaging in urban gardening can vary across different gardens and even within the same garden. Understanding these diverse motivations is crucial for developing targeted policies and interventions that effectively support urban gardening initiatives and enhance their sustainability and impact.

Several studies have examined the motivations behind urban gardening, particularly in Global North cities (e.g., Murtagh & Frost, 2023; Roberts & Shackleton, 2018; Scheromm, 2015). Although some research does focus on Global South cities in countries such as South Africa (see Olivier & Heinecken, 2017a; Roberts & Shackleton, 2018), they do not provide an in-depth analysis and understanding of gardeners' motivations, which restricts our comprehension of urban gardening practices and ways to support urban gardeners. Consequently, further investigation is warranted.

In South Africa, and specifically in Cape Town's Cape Flats, community gardens are visible in many underserved communities (Olivier & Heinecken, 2017a, 2017b). These gardens not only provide essential fresh produce but also foster community resilience, social cohesion, and environmental stewardship (Lucke et al., 2019). While urban gardening continues to attract increasing attention, there is limited insight into the specific personal motivations influencing urban gardeners, particularly in low-income environments. Existing food systems research often focuses on the broader objectives of urban community gardens, such as improving food security and promoting sustainable urban environments (Modibedi et al., 2021). While these objectives are important, they do not fully capture the personal motivations and experiences that fuel individual gardeners. This study aims to bridge the gap in local food systems research by addressing the research question: What are the personal motivations behind urban gardening among low-income residents in Cape Town?

To achieve this, the study employs a mixed-methods approach, integrating survey data and interviews to provide a comprehensive understanding of gardeners' experiences and perspectives. The findings underscore the need for a multifaceted support system that values gardeners' existing knowledge, recognizes the social and cultural importance of gardening, and addresses structural barriers like space constraints. This study provides insights into how tailored support mechanisms can bolster the resilience and sustainability of local food systems, highlighting the importance of inclusive and responsive programs that reflect gardeners' lived experiences and needs. By doing so, urban gardening initiatives can become more effective and sustainable, ultimately fostering healthier and more resilient urban communities.

Urban Gardening and Motivations

The motivations that drive individuals to engage in urban gardening encompass a rich tapestry beyond subsistence. They are not uniform; they reflect the diverse roles that such activities play within communities. Urban gardening serves as a multifaceted endeavour, deeply embedded in the social, environmental, health, and economic contexts of contemporary society.

Food access is a fundamental driver of urban gardening, particularly in the context of food insecurity, which is prevalent in many developing countries (Gray et al., 2020). In these regions, urban gardening is often viewed as a crucial response to economic distress and food scarcity, where households seek to supplement their diets and improve nutrition. Historical factors, including economic crises and shifts toward neoliberal policies, have also highlighted the importance of urban gardening as a viable strategy for addressing food insecurity (Binns & Lynch, 1998; Crush et al., 2011). Research indicates that urban gardens contribute not just to food production but also to alleviating poverty through enhanced household sustenance, providing essential resources in areas where access to affordable and nutritious food is limited (Gray et al., 2020).

Beyond fulfilling basic needs, urban gardening promotes holistic physical health and well-being. The physical activity involved in gardening, whether through planting, weeding, or harvesting, contributes to improved health outcomes by reducing stress levels and promoting a sense of calm and

well-being (Partalidou & Anthopoulou, 2017). This intersection of physical activity and exposure to green spaces promotes better health and also enhances quality of life. Research conducted in the Global North has highlighted the broader benefits of urban gardening, including social capital development and community engagement (Gray et al., 2020).

The psychological motivations for engaging in urban gardening are equally compelling. The act of nurturing plants can significantly enhance self-esteem and personal efficacy, as individuals often experience a profound sense of accomplishment from successfully cultivating a garden (Cheng & Pegg, 2016). The recognition that comes from sharing produce with neighbours or participating in community events fosters social validation, further enhancing feelings of competence and autonomy (Glover et al., 2004). This social dimension is vital, as urban gardening cultivates a sense of belonging and community ties, providing gardeners with meaningful connections that address psychological and social needs.

Furthermore, urban gardening is often a pathway to self-actualization, allowing individuals to express their creativity and engage in activities that resonate with their personal values and goals. For many, it becomes an avenue for self-expression and a form of quiet activism that promotes environmental sustainability (McClintock, 2010). This deep connection with nature fosters personal growth and also imbues participants with a sense of purpose, making their efforts meaningful both for themselves and their communities.

The motivations driving individuals to engage in urban gardening are diverse and multifaceted, encompassing essential needs for food security, physical health and psychological well-being. These motivations reflect the complex interplay of individual desires and community dynamics, illustrating the profound impact that urban gardening can have on personal and collective well-being.

Materials and Methods

Study Area

Cape Town, situated in the Western Cape Province of South Africa, is a city of striking contrasts, marked by both its stunning natural landscapes and significant socio-economic disparities. As the legislative capital of South Africa, Cape Town is a major economic hub, home to a diverse population of approximately 4.6 million people (Stats SA, 2020). The city is renowned for its tourism industry, driven by iconic landmarks such as Table Mountain and Robben Island, as well as its vibrant cultural and historical heritage.

Despite its economic strengths, Cape Town grapples with high levels of inequality and poverty. The Gini coefficient, a measure of income inequality, remains high, reflecting substantial disparities between wealthy and impoverished communities. Unemployment rates are also a critical issue, particularly among the youth and less-educated segments of the population. According to the Quarterly Labour Force Survey by Statistics South Africa (2020), the unemployment rate in Cape Town stood at 27.8%, exacerbated by the impacts of the COVID-19 pandemic.

The Cape Flats, a sprawling low-lying area southeast of Cape Town's city center, epitomizes the socio-economic challenges facing the broader metropolitan region. Historically, the Cape Flats were designated as a residential area for non-white communities under the apartheid regime's Group Areas Act of 1950, leading to forced removals and resettlements. This legacy of spatial segregation and socio-economic marginalization continues to influence the region's demographics and development trajectory.

The Cape Flats is characterized by high population density, inadequate infrastructure, and widespread poverty. Informal settlements and townships dominate the landscape, housing a significant portion of Cape Town's low-income population. Many residents live in overcrowded conditions with limited access to basic services such as clean water, sanitation, and electricity (City of Cape Town, 2018). Crime rates are also alarmingly high, driven by socio-economic deprivation and gang violence. Food insecurity is a pervasive issue, with many households experiencing limited access to affordable and nutritious food.

Urban gardening in the Cape Flats consists of a range of garden types, including home gardens and community gardens. Community gardens are

typically managed collectively by groups of local residents, often on public or semi-public land provided through schools or municipal initiatives. Access to land for gardening varies across the Cape Flats. For instance, in some cases, gardeners are granted the temporary use of vacant land through formal agreements with local authorities; in other cases, the arrangements are more informal.

In the Cape Flats, community gardens play a crucial role for low-income residents by providing seasonal crops that boost food security and offer fresh produce. In summer (December to February), gardeners cultivate a variety of vegetables and herbs, as well as fruit trees. In winter (June to August), the focus shifts to cooler-season vegetables and continued herb production, supporting both nutritional needs and culinary diversity. The harvests are used for household consumption and, in some instances, sold at local markets. Individual home gardens are usually smaller, focused on subsistence, and tend to rely heavily on rainwater or limited water access for irrigation. Access to resources, such as water supply, tools, and seeds, plays a significant role in sustaining these urban agricultural initiatives, which are crucial for improving food security and nutrition (Battersby, 2011; Olivier, 2018; Paganini, Lemke & Raimundo, 2018).

Research Methodology

This research is based on a mixed-methods approach conducted between 2020 and 2021 across 34 urban community gardens in the Cape Flats of Cape Town. This approach allows for the integration of quantitative and qualitative data for a more comprehensive analysis (Creswell & Creswell, 2017). The study employed questionnaire surveys, semi-structured interviews, and garden visits to gather data on the gardeners' experiences and perspectives.

The first phase of the study involved the use of questionnaires designed to understand the individual motivations of the gardeners. The questionnaires were developed through a comprehensive process that included a literature review and expert reviews to ensure relevance and clarity. Motivations for community gardening were assessed through a close-ended multiple-response question. Participants were asked to select all applicable reasons for their involvement, allowing for the categorization of responses following Tornaghi's (2014) perceptions of the multifunctions of urban gardening: social, economic, health, and environmental reasons. This approach enabled a nuanced understanding of the various motivations driving community gardening activities. To ensure the reliability of the questionnaire, a pilot test was conducted with a small, representative sample of 10 community gardeners who were not included in the main study. This pilot test allowed for the examination of internal consistency and reliability of the multiple-response questions and open-ended items. After the pilot, adjustments were made to improve question clarity, thereby enhancing reliability. Specifically, items were reviewed to ensure that they consistently measured each motivation category (social, economic, health, and environmental).

Gardens were purposively selected for the study. Access was initially granted through the largest civil society organization working in this area, as it was not initially viable for the researcher to engage independently. After accessing some gardens through this organization, additional gardens were reached through word-of-mouth referrals. The unit of analysis for this study was the individual gardeners, as the research focuses on understanding their personal motivations, historical engagement, and experiences. Gardens serve as contextual elements providing the setting for these individual practices, ensuring a diverse and representative sample of urban gardeners in Cape Town. The questionnaires included multiple-choice questions aimed at understanding motivations across the four categories, as well as open-ended questions that allowed participants to elaborate on their thoughts.

The next phase of the research involved semi-structured interviews targeting representatives of each of the 34 gardens. These interviews sought to understand the history of each garden and the main aims of the garden in relation to the individuals involved. The interviews, which lasted approximately 30–40 minutes, were recorded with the permission of the respondents. Due to the COVID-19 pandemic, some interviews were conducted via

phone, as travel restrictions were intermittently imposed and lifted.

Data Analysis

Quantitative data from the questionnaires were entered into SPSS (version 24) for statistical analysis. This process included generating graphs and tables to visualize and summarize trends, which provided a clear picture of overarching patterns among the variables related to gardening motivations and practices.

Thematic analysis was conducted following Braun and Clarke (2006). Data from semi-structured interviews and open-ended survey responses were coded inductively to identify recurring patterns in participants' motivations and experiences with urban gardening. Coded data were organized into clusters of themes, which were scrutinized to identify key patterns and areas of convergence or divergence among participants. This step was crucial for highlighting significant themes and understanding how different factors interacted to shape gardening practices.

The emergent themes were categorized into four overarching dimensions: economic, social, health, and environmental motivations. These themes were triangulated with quantitative findings to provide a holistic understanding of the gardeners' perspectives. Themes were analyzed individually and across participants, with qualitative findings presented as emergent themes and supported by direct quotes where relevant. This approach allowed for a deep exploration of participants' personal motivations influencing their gardening practices, revealing patterns not captured through quantitative methods (Creswell & Creswell, 2017). The open-ended responses from the questionnaires were also transcribed and analyzed thematically, which provided additional qualitative context to the quantitative results.

All data collection and analysis was conducted following ethical guidelines, with university clearance obtained before commencing any research activities. Adhering to these ethical protocols ensured the research's integrity and the protection of participants' rights.

As the principal researcher with a background in urban geography and experience in community-based gardening, my perspective influences the interpretation of the data. Despite a rigorous methodology to minimize bias, including data triangulation and thematic analysis, my involvement in urban gardening initiatives may have affected the research process and findings.

Findings

This section presents the key findings from the study, drawing on both quantitative survey data and qualitative insights from participants across 34 community gardens in the Cape Flats. The results are organized thematically to highlight participant characteristics, motivations for gardening, and the complex interplay between collective garden goals and individual experiences. By combining statistical trends with personal narratives, the analysis aims to offer a nuanced understanding of how urban community gardening functions as both a livelihood strategy and a space for social, health, and environmental engagement.

Characteristics of the Research Participants

A total of 97 participants across 34 community gardens in the Cape Flats took part in the questionnaire survey. Female gardeners comprised 57.7% of participants; male comprised 42.3%. This aligns with regional and local literature, which indicates that urban gardening predominantly involves females. Participants 60 years or older constituted 42.3%, followed by 20.6% in the 50–59 age group, and 17.5% in the 40–49 age group. Notably, 10.3% of the participants were under 29 years of age, surpassing the 30–39 age group, which constituted just 9.3% of the sample. These results suggest that the elderly population predominantly engages in urban community gardening in the Cape Flats. A majority, 67%, of participants were unemployed, 22.7% were self-employed, and 10.3% had formal employment.

The primary sources of income for the participants varied. About 48.4% were formally or self-employed, while 47.4% relied on social grants, particularly the State Old-Age pension. Only 4% indicated other sources of income, such as family support and garden activities. This suggests that urban gardening is not the primary income source

for most gardeners, who engage in multiple activities to support themselves and their households.

A majority of participants were Black (77.3%), followed by Coloured[1] (20.6%), and White (2.1%). A significant proportion of participants (42.3%) were born in Cape Town (Western Cape), while 57.7% had migrated from other areas, primarily the rural Eastern Cape Province, with a minority from provinces such as Gauteng. All participants had been residing in Cape Town for over 10 years. Educational levels varied, with 56.4% having some high school education (Grade 8 to 12), 12.4% having attended primary school (Grade 1 to 7), 23% having completed matric and pursued post-matric qualifications (courses, certificates, or diplomas), and 3.1% having obtained a university degree.

Regarding the use of garden produce, 95.9% of participants engage in both selling and consuming their produce at home, with only 4.1% growing strictly for personal use. When asked about prior gardening experience, 76.3% reported having previous knowledge, often from home gardening or training from nongovernmental organizations (NGOs) covering pest management, horticulture, and composting. Many experienced gardeners echoed the value of follow-up workshops, such as those on composting, while one noted, "The training showed me how to make gardening a community space." Conversely, 23.7% were new to gardening but benefited from training provided by an NGO, enabling them to develop relevant skills and integrate into community practices. The training provided a holistic approach, not only equipping participants with garden management skills but also reinforcing the social benefits of gardening. As one participant stated, "It's about building connections and contributing to a stronger community." This ongoing support underscores the broader motivations behind participation, emphasizing both the economic and social dimensions of urban gardening.

The increasing presence of NGOs in Cape Town has ensured that nearly all gardeners, including the 23.7% who were new to gardening, received basic training followed by regular workshops on more specialized techniques. This continuous support equips them to overcome practical challenges and also reinforces the multifaceted benefits of urban gardening. As one participant noted, "Gardening here isn't just about growing food; it's about building connections and learning how to contribute to a stronger community."

Tensions Between Collective and Individual Motivations

The convergence of quantitative and qualitative data elucidates a pronounced tension between the collective, predominantly economic orientation of the community gardens and the heterogeneous, multifaceted motivations of individual gardeners. Table 1 illustrates a multiple response analysis of the participants' responses. Participants were asked to articulate their motivations through a multiple-response format, acknowledging that individuals may be driven by a combination of factors. The survey provided options categorized into social, health, economic, and environmental reasons, allowing participants to select all that applied to them.[2] Health benefits were explained as enhancing food security and nutrition, while economic reasons were explained as money-saving and income generation.

Although 29 out of the 34 gardens explicitly prioritized economic imperatives manifest in strategies such as over-the-fence selling and income generation (Table 2), the individual-level responses from the questionnaire survey paint a far richer picture. In fact, 100% of respondents cited social, environmental, and health-related motivations

[1] The *Black* category under apartheid included Black Africans, Coloureds, and Indians. Despite apartheid's end, the term *Coloured* remains in use, carrying complex historical and socio-political meanings.

[2] The survey question provided the participants with multiple answer options categorized as social, health, economic, and environmental reasons. Social reasons were explained as community building, food sharing, education, and activism. Environmental reasons were articulated as air quality improvement, urban greening, and waste recycling.

alongside economic reasons, thereby underscoring a profound divergence between institutional objectives and personal aspirations.

Participants were also asked an open-ended question about additional benefits, and their diverse responses, illustrated in the word cloud in Figure 1, provide further insight into their motivations.

Economic survival

At the institutional level, most of the community gardens are primarily structured as adaptive responses to pervasive economic insecurity with 29 out of 34 gardens explicitly articulating financial objectives and 27 relying heavily on informal trade mechanisms such as over-the-fence selling. These operational strategies underscore the utilitarian function of the gardens in contexts of high unemployment and chronic financial instability. However, in-depth conversations with lead gardeners reveal that while economic necessity remains a compelling driver, it is far from an isolated rationale. For instance, one lead gardener remarked, "With rising food prices, growing my own vegetables ensures my family eats fresh produce without spending too much." This sentiment is complemented by voices from the open-ended survey responses; one participant observed, "The

Table 1. Multiple Response Analysis of Motivations for Community Gardening

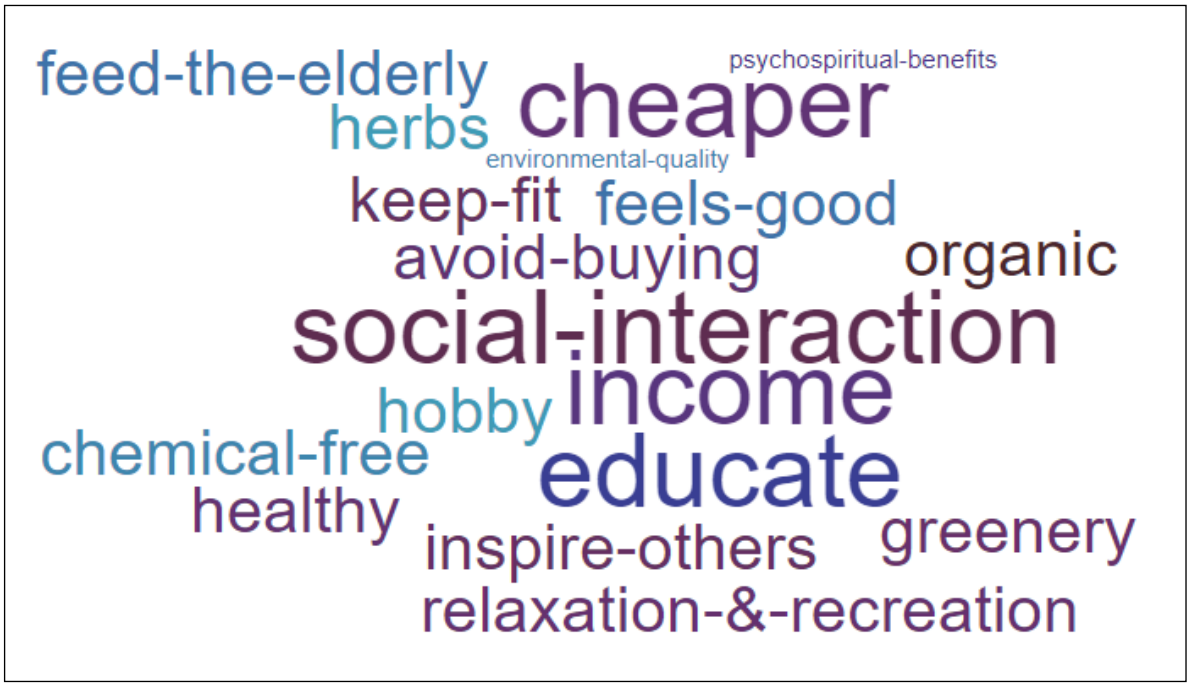
Motivations[a]	Responses		Percent of Cases	Sample Quotes From Open-Ended Responses
	N	Percent		
Social reasons	97	26.6	100.0	"Gardening is where we connect with neighbours, building friendships while working together."
Economic reasons	74	20.3	76.3	"Selling vegetables to neighbours helps us cover basic expenses."
Health reasons	97	26.6	100.0	"Having my own garden ensures we have fresh food, which I believe is better for our health."
Environmental reasons	97	26.6	100.0	"Gardening has taught me about composting and reducing waste, making me feel I'm doing something for the environment."
Total	**365**	**100.0**	**376.3**	

[a] Dichotomy group tabulated at value 1.

Table 2. Selected Collective Aims of Community Gardens

Garden	Category	Quote reflecting main aim
1	Social	"We established our garden … to share experiences and nurture a sense of belonging, fostering social cohesion through collective engagement that is essential for building a supportive community."
2	Economic	"Our garden primarily is as a supplementary source of income by cultivating produce for sale in local markets, thereby alleviating financial pressures and contributing to local economic stability."
3	Social	"Our garden prioritizes social interactions and collective support, thereby fostering an inclusive environment that strengthens community networks and resilience."
4	Economic	"Our approach is geared towards securing a revenue stream through the production and sale of agricultural produce, thereby reducing household food expenditure and providing an alternative financial resource during times of uncertainty."
5	Social and Economic	"This initiative is directed at economic benefits by cultivating produce that not only sustains our consumption but is also marketable, thus adding to food security and enhancing financial well-being."

Figure 1. Participants' Motivations for Gardening
Word cloud representation where the size of each term reflects the frequency with which it was mentioned in participants' responses.



garden not only saves me money but also connects me to my community in ways that nothing else can," while another noted, "It's not just about the money; being here makes me feel healthier and more connected." Such statements highlight that individual motivations extend beyond mere financial relief, embracing a broader spectrum of aspirations related to social connectivity, improved health, and environmental stewardship. These themes are explored in more depth below.

Social connectivity and community cohesion

While the operational framework of the gardens is largely anchored in economic viability, individual responses reveal a robust and multifaceted demand for social connectivity. Out of the 34 gardens, five articulated social aims as their primary objective, underscoring the potential for community empowerment even in spaces initially designed to address economic insecurity. In-depth interviews further elucidate this complexity: one lead gardener explained, "Our garden is not just about producing food; it's a platform for food activism, challenging the inequities in our community's food system." Another participant highlighted the critical role of the garden in youth engagement, stating, "Keeping our people engaged here is essential. It not only teaches them valuable skills but also keeps them off the streets." Moreover, even among the gardens that predominantly frame their goals in economic terms, individual gardeners frequently underscore the social dimensions of their participation. Respondents noted that the garden serves as a vital hub for community interaction, mutual support, and intergenerational knowledge transfer. For instance, one respondent observed, "The garden is more than just a source of food. It's where we come together, share stories, and help each other." This divergence between the collective economic mandate and the individuals' pursuit of social cohesion highlights a critical tension: while the institutional focus remains narrowly targeted on economic outputs, the intrinsic social value, whether as a primary aim in five gardens or as a complementary benefit in economically framed ones, plays a crucial role in fostering community solidarity and empowerment. These themes of

social connectivity, alongside health and environmental motivations, are explored in further detail below.

Health benefits and food security

The theme of health benefits and food security further amplifies the disjunction between collective objectives and individual motivations. Although the overarching management of the majority of gardens emphasizes economic returns, individual gardeners frequently articulate health-related imperatives as central to their participation. For instance, one elderly participant noted, "Since I started eating from my garden … I know what goes into my body," directly linking gardening with improved nutritional outcomes and enhanced physical well-being. Beyond the evident cost-saving measures, many gardeners emphasize that cultivating their own produce is a means to gain control over the quality and safety of their food which is a critical consideration in environments where access to fresh and nutritious alternatives may be limited.

Several respondents reported that their gardens have become a primary source of healthy food, replacing less nutritious, commercially available options and even mitigating issues related to chronic illnesses such as diabetes and hypertension. One participant remarked, "Growing my own vegetables has not only saved money but has given me a way to manage my health more effectively," while another commented on the physical benefits of gardening: "Working in the garden keeps me active and energized, which is essential for my well-being." These individual narratives underscore that, at a personal level, the benefits of gardening extend well beyond mere economic considerations, encompassing vital aspects of food sovereignty and physical health. This twofold tension between an institutional focus on economic outputs and the gardeners' broader quest for improved quality of life highlights the role of urban gardening as both a provider of healthy, sustainable food alternatives and a facilitator of enhanced physical and mental well-being.

Environmental awareness and sustainability

The theme of environmental awareness and sustainability further accentuates the complexity of individual motivations. A significant number of individual gardeners demonstrate a resolute commitment to ecological stewardship. Many respondents detailed their engagement in sustainable practices such as composting, organic waste recycling, and environmentally sensitive cultivation methods, all of which provide tangible ecological benefits. One participant noted, "Gardening has taught me about composting and reducing waste, making me feel I'm doing something for the environment." Another remarked, "By recycling garden waste and farming organically, I not only improve my soil's fertility but also help maintain healthier surroundings." Yet another participant added, "Our efforts to embrace native plants and rainwater harvesting show that our garden contributes to biodiversity, even if it's not our main financial goal."

These individual expressions of environmental commitment illustrate a broader vision that values long-term ecological benefits. However, such environmentally motivated actions are conspicuously underrepresented in the collective strategic aims of the gardens, which tend to prioritize immediate financial returns. This divergence suggests that while individual gardeners are driven by aspirational environmental ethics recognizing the critical importance of sustainability for the future, the operational frameworks of the gardens remain constrained by short-term economic considerations, thereby perpetuating an enduring tension between pragmatism and ecological aspiration.

Discussion

Understanding the motivations of urban gardeners in low-income settings, such as Cape Town's Cape Flats, is crucial for developing effective policies and programs aimed at sustainable food provisioning. This study addresses a gap in the literature by exploring the diverse motivations, experiences, and challenges of individual gardeners, demonstrating that their motivations extend beyond economic factors to include social, health, and environmental dimensions. The research underscores how urban gardening responds to both basic needs and more complex personal aspirations, emphasizing the nuanced and multifaceted nature of community gardening initiatives.

Urban gardening in the Global South has traditionally been characterized by economic motivations aimed at alleviating food insecurity and addressing chronic poverty (Nagib & Nakamura, 2020; Swanepoel et al., 2021). Access to food emerges as a frequently cited motive in urban gardening, with numerous studies highlighting its critical role, especially for impoverished populations and vulnerable groups in developing countries (Nagib & Nakamura, 2020; Swanepoel et al., 2021; Zezza & Tasciotti, 2010). In Cape Town, cultivating food is not seen simply as a leisure activity but also a strategy to address food insecurity. For many individuals living in economically disadvantaged areas, gardening provides a practical solution to immediate food needs, reflecting the urgent necessity of survival in contexts characterized by economic hardship and limited access to resources. This practice is further reinforced by both state and nonstate actors, who celebrate urban gardening as a viable pathway for poverty alleviation (Kanosvamhira, 2024; Paganini & Lemke, 2020). However, despite these endorsements, urban gardening provides limited economic gains due to various challenges, including poor soil quality, land tenure insecurity, and the small size of available plots, which constrain its long-term viability as a livelihood strategy.

This study reveals that while the collective management of community gardens in Cape Town's Cape Flats is predominantly driven by economic imperatives, individual gardeners report a far more multifaceted array of motivations that include significant social, health, and environmental dimensions. The quantitative data indicate that while most gardens explicitly prioritize financial objectives such as over-the-fence selling and income generation, a few gardens have articulated social goals as their primary focus. Despite this institutional emphasis on economic survival, questionnaire responses and in-depth qualitative interviews demonstrate that individual participation is not solely motivated by economic necessity. In fact, every respondent acknowledged additional benefits that extend well beyond mere cost-saving measures. At the institutional level, community gardens are structured as adaptive responses to pervasive economic insecurity. The utilitarian function of these spaces is clear, given that most gardens rely heavily on informal trade mechanisms in an environment marked by high unemployment and limited resources. Even this economically driven rationale is interwoven with other dimensions of personal well-being, revealing that financial necessity is only one part of a broader motivational spectrum.

The social dimension of urban gardening emerged as a powerful counterbalance to its economic orientation. Although many gardens are managed primarily to achieve economic outcomes, interviews revealed a strong emphasis on community empowerment. Social connectivity and community cohesion are central to individual participation, even when the garden's official aim is economic. This finding aligns with studies from other contexts that have highlighted the role of urban gardens in fostering social capital and intergenerational knowledge transfer (Murtagh & Frost, 2023). Even within economically driven institutions, gardeners value the role of these spaces in strengthening community bonds and enhancing collective identity.

Health benefits and food nutrition security also stand out as key drivers for many gardeners. Beyond the financial savings associated with self-cultivation, individuals consistently linked their gardening practices to improved health outcomes. Several respondents noted that cultivating their own food has enhanced their dietary quality and helped them manage chronic health issues, reinforcing the idea that personal health is a crucial component of their overall motivations. The broader recognition of urban gardening's societal benefits reflects a global trend towards acknowledging its multifunctional roles beyond food production (Egerer et al., 2024; Guitart et al., 2012; Poulsen et al., 2014). This evolving perspective highlights the importance of viewing urban gardening as a dynamic and complex practice that contributes to food security, nutritional improvement, environmental sustainability, and social well-being. As such, urban gardening should not be primarily understood as a strategy for addressing economic hardship but also as a holistic approach to fostering resilience, inclusivity, and sustainability in urban settings.

Environmental awareness and sustainability further enrich the motivational landscape of urban gardening. Despite the collective focus on immediate economic returns, a significant number of individual gardeners demonstrate a deep commitment to ecological stewardship. Many respondents reported engaging in practices such as composting, organic waste recycling, and environmentally sensitive cultivation techniques, which signal a long-term vision that is often not captured by the prevailing economic mandates of the gardens. While research in other regions suggests that some gardeners may not fully value the ecosystem services offered by urban gardens (Li & Long, 2024), the findings indicate that a majority of individual gardeners in the Cape Flats recognize and prioritize these ecological benefits.

This divergence between the collective economic focus and the multidimensional individual motivations underscores a critical tension. Although the operational strategies of these gardens are primarily designed to secure immediate financial and food security benefits, the personal aspirations of the gardeners extend to social connectivity, improved health, and environmental sustainability. This heterogeneity of motivations suggests that the gardens, while addressing immediate economic needs, may inadvertently encompass other aims and priorities that could change over-time. Recognizing the multifaceted nature of these motivations has important implications for policy and practice. Urban gardening initiatives should be reconceptualized not merely as economic interventions but as holistic platforms that simultaneously foster community cohesion, enhance public health, and promote environmental stewardship. Such an integrated approach is essential for building resilient and inclusive urban food systems in economically challenged contexts (Opitz et al., 2016; Zezza & Tasciotti, 2010).

These findings resonate with calls for more participatory and community-driven approaches to urban food systems governance (Paganini & Lemke, 2020). By centering the voices and experiences of local residents, policymakers can ensure that urban gardening practices are contextually appropriate and socially just. This approach addresses structural inequalities and also fosters a sense of ownership and empowerment among participants. Urban gardening thus emerges as a multifaceted practice that serves as a means of food production as well as a tool for community-building, environmental stewardship, and social inclusion.

Conclusion

This study enhances our understanding of urban gardening, particularly within low-income urban communities in South Africa. By examining the personal motivations, historical engagement, and experiences of urban gardeners in Cape Town's Cape Flats, the research provides invaluable insights that deepen comprehension of the multifaceted nature of urban gardening.

A key contribution of this study is its nuanced exploration of the motivations driving urban gardening practices. While economic factors have traditionally dominated discussions, this research highlights the importance of recognizing and valuing the individual social, health, and environmental dimensions of gardening. By uncovering the diverse range of motivations among gardeners, this study challenges prevailing narratives and underscores the necessity for holistic, multi-dimensional approaches to urban gardening policy and practice.

The findings of this study have implications for urban gardening policy and practice. To maximize the benefits of urban gardening and enhance its sustainability, policymakers and urban planners should develop support programs that address both economic and non-economic motivations. This includes providing financial incentives, technical assistance, and training on sustainable gardening practices.

Limited access to land remains a key structural barrier. Local authorities should implement policies that strengthen informal arrangements and where possible formalize land tenure arrangements for community gardens, ensuring long-term security for urban gardens. Urban gardening should be embedded within broader urban food security policies. Municipal governments should integrate urban agriculture into city planning strategies to enhance local food systems.

Empowering community members in decision-making processes can strengthen the sustainability of urban gardening initiatives. Local governments

should support participatory governance structures that center the voices of urban gardeners in policy formulation. NGOs and academic institutions could facilitate continuous training, skill-sharing workshops, and knowledge exchange programs to strengthen urban gardening initiatives. Intergenerational learning should be encouraged to preserve and enhance traditional agricultural practices in urban settings.

While this study offers crucial insights, its findings are specific to the Cape Flats and may not be generalisable to other urban contexts. Future research should focus on investigating how motivations for urban gardening evolve over time and in response to socio-economic and environmental changes. Comparative analyzes examining urban gardening practices across different cities and cultural contexts can identify broader patterns and place-specific variations. Additionally, assessments evaluating the long-term socio-economic and environmental impacts of urban gardening on food security, community well-being, and urban sustainability should be conducted.

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