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Urban community gardens and urban justice in the Cape Flats of Cape Town

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TABLE OF CONTENTS

LIST OF TABLES vi
LIST OF FIGURES vii
DECLARATION viii
ACKNOWLEDGEMENTS ix
DEDICATION x
ABBREVIATIONS xi
ABSTRACT xii

CHAPTER 1: INTRODUCTION 1
1.1 Introduction 1
1.2 Problem Statement 4
1.3 Aim of the study 5
1.4 Objectives of the study 5
1.5 Research questions 6
1.6 Rationale of the study 6
1.7 Thesis Outline 7

CHAPTER 2: REVIEW OF THE LITERATURE ON URBAN COMMUNITY GARDENS 10
2.1 Introduction 10
2.2 Definition of terms 10
2.2.1 Urban agriculture 10
2.2.2 Urban community gardens 10
2.3 Urban agriculture, urban community gardens and the global North- global South dichotomy 12
2.4 Contextualising urban agriculture as activism 21
2.4.1 Urban community gardens as counter-agents of neoliberalism 26
2.4.2 Urban community gardens complicit in neoliberalism? 34
2.7 Urban agriculture and urban community gardens in South Africa 40
2.8 Research gap 41
2.9 Conclusion 48

CHAPTER 3: THEORETICAL FRAMEWORK 50
3.1 Introduction 50
3.2 The social production of space 50
3.2.1 Social production of space and the spatial triad 52
3.2.2 The integrated triad as an analytical tool 56
3.3 The production of space in neoliberal cities 59
3.4 Social space production, neoliberalism, and urban gardening 63
3.5 Criticism of the social production of space theory 65
3.6 Justification for this framework 66

UNIVERSITY of the
WESTERN CAPE

http://etd.uwc.ac.za/

3.7 Conclusion 67

CHAPTER 4: STUDY AREA 69
4.1 Introduction 69
4.2 General characteristics 69
4.3 Historical background 71
4.4 Socio-economic conditions in Cape Town 74
4.5 Urban agriculture in the Cape Flats 80
4.6 Conclusion 84

CHAPTER 5: RESEARCH METHODOLOGY 86
5.1 Introduction 86
5.2 Research philosophy 86
5.2.1 Positivism 87
5.2.2 Interpretivism 87
5.2.3 Pragmatism 88
5.3 Research paradigm 89
5.4 Research design 91
5.5 Sampling unit and design 92
5.6 Methods of data collection 92
5.6.1 Questionnaire survey 93
5.6.2 Semi-structured Interviews 94
5.6.3 Observations 97
5.6.4 Audio-visual and digital materials 97
5.6.5 Satelite Images 98
5.6.6 Document analysis 98
5.6.7 Pilot testing 99
5.7 Data analysis and presentation 99
5.7.1 Quantitative data 99
5.7.2 Qualitative data 100
5.8 Ethical considerations 101
5.9 Limitations and lessons learnt during the data collection process 102
5.10 Conclusion 104

CHAPTER 6: URBAN COMMUNITY GARDENS & LAND TENURE IN THE CAPE FLATS 106
6.1 Introduction 106
6.2 Demographic profile of the research participants 106
6.3 History and distribution of gardens 112
6.4 Land Tenure 114
6.5 Discussion 120

UNIVERSITY of the
WESTERN CAPE

http://etd.uwc.ac.za/

6.6 Conclusion ... 125

CHAPTER 7: URBAN COMMUNITY GARDENS: A PATHWAY TO ACTIVISM ... 126
7.1 Introduction ... 126
7.2 Aims and operations of the gardens ... 126
7.3 Garden organisation ... 137
7.4 Garden resources style of use ... 138
7.5 Membership and access to the community gardens ... 142
7.6 Gardener networks ... 144
7.7 Discussion ... 145
7.8 Conclusion ... 155

CHAPTER 8: URBAN COMMUNITY GARDENS ENGAGEMENT WITH STAKEHOLDERS TO ACHIEVE SOCIAL GOALS ... 157
8.1 Introduction ... 157
8.2 Urban community gardens engagement with the state ... 157
8.2.1 City of Cape Town ... 158
8.2.2 Provincial Department of Agriculture ... 160
8.2.3 National Development Agency ... 161
8.3 Urban community gardens engagement with non-state actors ... 162
8.4 Coordination of activities between supporting actors ... 170
8.5 Discussion ... 172
8.6 Conclusion ... 182

CHAPTER 9: URBAN COMMUNITY GARDENS IN THE CAPE FLATS: DISCUSSION OF CROSS-CUTTING THEMES ... 184
9.1 Introduction ... 184
9.2 Unpacking urban community gardening projects and social space production ... 184
9.3 Influence of the neoliberal environment on community gardening projects ... 188
9.4 Conclusion ... 191

CHAPTER 10: CONCLUSIONS AND RECOMMENDATIONS ... 193
10.1 Introduction ... 193
10.2 Research overview ... 193
10.3 Conclusion ... 193
10.4 Contribution to the knowledge ... 197
10.5 Recommendations ... 199

REFERENCE LIST ... 202
APPENDICES ... 224
Appendix i: Questionnaire for community gardeners ... 224

UNIVERSITY of the
WESTERN CAPE

http://etd.uwc.ac.za/

Appendix ii: Semi-structured interview guide for urban gardeners 236
Appendix iii: Semi-structured interview guide for State officials 238
Appendix iv: Semi-structured interview guide for non-state actors 240
Appendix v: Urban gardeners interviewee codes.. 242
Appendix vi: Garden elements style of use 243
Appendix vii: List of civil society actors identified during the study 245

UNIVERSITY of the
WESTERN CAPE

http://etd.uwc.ac.za/

LIST OF TABLES

Table 2. 1: Forms of political gardening 25
Table 3. 1: Lefebvre's Spatial Triad....53
Table 3. 2: Interpretation of Harvey's Matrix....56
Table 4. 1: Municipal policies supporting urban agriculture....82
Table 5. 1: Key informants interviewed.... .95
Table 6. 1: Sex of the participants.... 106
Table 6. 2: Marital and employment status of the participants 108
Table 6. 3: Crops grown in community gardens 109
Table 6. 4: Gardening experience 110
Table 6. 5: Multiple response analysis of motivations for community gardening....111
Table 6. 6: Form of public land tenure 116
Table 6. 7: Cross-tabulation of lease agreement and type of land occupied....117
Table 7. 1: Use of garden plots and infrastructure....139
Table 7. 2: Organisation of labour, use of resource units and produce in gardens 141
Table 7. 3: Volunteer support from the community....143
Table 8. 1: State organisations supporting community gardens in the Cape Flats 158
Table 8. 2: Gardener satisfaction with State support 160
Table 8. 3: Non-state organisations supporting community gardens 164
Table 8. 4: Gardener satisfaction with support from non-state actors....168

UNIVERSITY of the
WESTERN CAPE

http://etd.uwc.ac.za/

LIST OF FIGURES

Figure 4. 1: Map of Cape Town 70
Figure 4. 2: Map of the Cape Flats 74
Figure 5. 1: The convergent mixed-methods research approach…………………………….91
Figure 6. 1: Age distribution of the participants…………………………………………107
Figure 6. 2: Level of education of the participants 109
Figure 6. 3: Emergence of NPOs between 1981-2020 110
Figure 6. 4: Participants motivations for gardening 112
Figure 6. 5: Location of surveyed urban community gardens 113
Figure 6. 6: Number of community gardens established in different time periods 114
Figure 7. 7: Urban gardeners main challenges.. 115
Figure 6. 8: Location of Garden 2 and open vacant space. 117
Figure 6. 9: Juxtaposition of Garden 2 size in 2019 and 2020. 120
Figure 7. 1: Activities offered by Garden 4…………………………………………………130
Figure 7. 2: Garden 3 Social media presence. 131
Figure 7. 3: Collective management of garden plots in Garden 4 and Garden 22................ 140
Figure 7. 4: The enclosed state of community gardens in the Cape Flats 143
Figure 10.1: The dichotomy of urban community gardening ……………………………...196

http://etd.uwc.ac.za/

DECLARATION

I, Tinashe P. Kanosvamhira, declare that this Ph.D. thesis is my work and has not been submitted before for any degree or examination at any other university. All sources used or quoted have been indicated and acknowledged by a complete list of references.

Name ....Tinashe P. Kanosvamhira..

Signature Tinashe Paul Kanosvamhira ....Date......07/25/2022..

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DEDICATION

This work is dedicated to Takudzwa Kanosvamira.

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ABBREVIATIONS

AFSUN	African Food Security Network
AgriHub	Agriculture Hub
CANs	Community Action Networks
CBD	Central Business District
CIDs	Central Improvement Districts
CSOs	Civil Society Organisations
COCT	City of Cape Town
COCT UAU	City of Cape Town Urban Agriculture Unit
DOA	Department of Agriculture
DOSD	Department of Social Development
DEIC	Dutch East India Company
EDP	Economic Development Partnership
GUFI	Gugulethu Urban Farmers Initiative
IBM	International Business Machines
KB	Kronendal Block
MSDF	Municipal Spatial Development Framework
NGO	Non-Governmental Organisation
NPC	Non-Profit Company
NPO	Non-Profit Organisation
PEDI	Philippi Economic Development Initiative
PHA	Philippi horticultural area
PHMSA	People's Health Movement South Africa
IUDF	Integrated Urban Development Framework
SAFSC	South African Food Sovereignty Campaign
SAUFFT	South African Urban Food & Farming Trust
SAP	Structural Adjustment Programme
SCAGA	Siyazama Community Allotment Garden Association
SDGs	Sustainable Development Goals
SEED	Schools Environmental Education and Development
SFL	Soil for Life
SPSS	Statistical Package for the Social Sciences
UAP	Urban Agriculture Policy
UN	United Nations
UK	United Kingdom
USA	United States of America
UWC	University of the Western Cape
VUFA	Vuka Uzezenzele Urban Farmers Association
WB	World Bank
WCEDP	Western Cape Economic Development Partnership
WCG	Western Cape Government
WCUFI	Western Cape Urban Farmers Initiative

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ABSTRACT

Cities worldwide are undergoing neoliberal transformation processes, culminating in deep income inequalities, erosion of public space, and the depletion of social fabric across distressed communities. The process of neoliberalism has coincided with a renaissance of urban community gardens across the globe. This has been apparent, especially during financial crises, due to the failure of the capitalist system. Such crises have resulted in various unemployed and distressed citizens engaging in urban gardening activities for several reasons. Traditionally, the literature has observed that the motivations behind urban community gardening were to address the people's immediate needs such as food security and nutrition. While this is true, the post-productivist discourse indicates that there are more deep-seated motivations behind such activities. Under this perspective, the literature views urban community gardening projects as a form of activism against the neoliberal system and its ills. Here urban gardening projects are interpreted as bottom-up initiatives to counter the ills of neoliberalism such as food injustice, spatial injustice, socio-ecological injustices, especially in distressed neighbourhoods. Despite the globalisation and widespread adoption of neoliberal ideologies, the bulk of such literature has focused on global North regions in North America and Western Europe. On the other hand, the research on urban community gardens in global South countries such as South Africa has grown over the past two decades, focusing on various topics such as food security and nutrition, income generation, and the benefits of gardening to the community. While these lines of inquiry have been insightful, minimal research examines urban community gardening projects as spaces of activism against socio-economic and ecological injustices in distressed neighbourhoods. South African cities such as Cape Town have suffered from a double precarious nature of inequality. First, they were affected by the legacy of apartheid spatial planning affecting socio-economic development, and the adoption of neoliberal policies influenced urban governance strategies resulting in massive inequality. Given this background, it is surprising that limited studies examine urban agriculture activities such as community gardening as a form of activism in the context of neoliberal urbanism and deep-seated inequalities within the contemporary city. Therefore, this research adds to this gap in the literature by examining urban community gardens as an activist tool to address urban injustices in the distressed communities of Cape Town. Using Lefebvre's theory of the social production of space, the research investigated how specific urban community gardens counter urban injustices prevailing within their distressed communities. To this end, the researcher employed a mixed-methods research approach consisting of a questionnaire survey and semi-structured interviews with urban community gardeners from 34 community gardening projects in the Cape Flats. Results were triangulated with other data sources involving satellite images, observations, audio-visuals, and a systematic literature review and document analysis. Moreover, key informant semi-structured interviews were pursued to augment the questionnaire and semi-structured interview findings. Quantitative data were analysed using the Statistical Package for Social Sciences (SPSS) 27 software, where cross-tabulations and frequencies were employed to identify possible patterns and associations emerging from the collected data. Qualitative data were coded, categorized according to themes, and analysed in a textual manner. Ethical considerations, including consent and anonymity, were upheld throughout the study. Based on data gathered and analysed, the findings demonstrate that urban

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community gardening projects in the Cape Flats exhibit varying forms of activism in response to problems faced within their communities. Although from the surface, the motivations behind participating in community gardening reflect immediate problems such as unemployment and food insecurity, they also indicate a deep-seated longing to address socio-economic, spatial, and environmental injustices that linger in the post-apartheid city. This research demonstrates that community gardens are sites of activism, implicitly or explicitly to varying degrees. More clearly, despite the limitations of garden space, gardeners are utilising these sites to nurture and develop progressive ideas which they spread to the immediate community. Therefore, the research argues that the rubric of activism needs to be extended beyond visible acts of heroism and mass protests to include small but yet impactful everyday routines such as gardening. However, the research findings suggest that the broader socio-economic and political environment influences the community gardens cultivating neoliberal subjects. In this way, urban community gardens are depoliticised by the state and non-state actors. For instance, most community gardens are located on interstitial spaces, which are not necessarily contested; hence, they do little to address spatial injustices. Moreover, the historically entrenched colonial system and present neoliberal policies continue to suppress any attempts towards transforming distressed neighbourhoods. In other words, urban community gardening projects in the Cape Flats function simultaneously as tools of domination and resistance. The research concludes that although the broader context is militating against urban community gardens' activist nature, they still possess elements that could promote the necessary environment for transformative change within these communities. Urban community gardening projects exploit 'cracks' in the capitalist system, and it is on these cracks that they can gather momentum to drive for change within their communities. Finally, the research draws practical recommendations for urban community gardens that need to be aware of the duplicity of their activities within the neoliberal environment. Working with this in mind could produce more impactful activities to address problems within these distressed communities.

Keywords: Urban community gardens, neoliberalism, activism, social space production, mixed-methods, Cape Flats, Cape Town.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

Historically, urban community gardens emerged as a response to an economic crisis resulting in the need for alternative ways of feeding the population. In Africa, urban community gardens took root in response to dwindling economies, which resulted in massive unemployment and poverty due to the failure of the Structural Adjustment Programmes (SAP)s adopted in the 1980 and 1990s. For example, in Lusaka, Zambia, the economic crisis resulted in increased urban cultivation activities as a stratagem to cope with high unemployment, poverty, and food insecurity (Smart, Nel, & Binns, 2015). In Zimbabwe, during the mid-1980s, urban community gardens sprouted during the economic collapse (Frayne et al., 2014). In North America, during the great depression of the 1980s, various cities in the United States of America (USA) encouraged urban agriculture activities to curb food insecurity (Lawson, 2004). For example, urban gardens mushroomed across the USA during World Wars I and II to feed its citizens (Lawson, 2004; Saldivar-Tanaka & Krasny, 2004). In Cuba, the emergence of community gardening projects was a response to the economic decline in the 1990s. In the United Kingdom (UK), urban community gardening projects emerged as a self-help scheme for the working class in most cities (Warner, 1987). These precedents indicate that historically urban community gardening projects emerged as a strategy to counter economic crises, although the scope and context differ across geographies.

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In this regard, most of the literature on urban agriculture traditionally focused on the nexus between urban agriculture and food security (Gray, Elgert, & WinklerPrins, 2020). This productivist lens of framing urban agriculture soon evolved to a post-productivist framing where urban community gardens were conceptualised as a tool to address environmental, social, economic concerns and cultural uneasiness within distressed neighbourhoods (Eizenberg & Fenster, 2015; Lawson, 2004; Ohmer, Meadowcroft, Freed, & Lewis, 2009; Walker, 2016). In this way, urban agriculture and community gardens were viewed as forms of collective action against various injustices entrenched in distressed neighbourhoods. This was triggered by heightened neoliberal policies in the 1970s, which affected every aspect of urban life. Neoliberal ideologies promote free-market trade, individualisation, and the privatisation of resources resulting in the commodification of urban space (Purcell & Tyman, 2015). This ideology culminated in the adoption of policies that promoted the intensification

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of income inequalities, erosion of public space, and the depletion of social fabric, especially across distressed communities (Certomà & Tornaghi, 2015).

On this basis, urban gardening initiatives were interpreted as a form of activism or insurgence with the potential to destabilise neoliberal hegemony and its constituents thereof (Certomà & Tornaghi, 2015; Corcoran, Kettle, & O'Callaghan, 2017; Darly & McClintock, 2017; Tornaghi, 2014). To this end, the literature shows that urban community gardens can enhance social capital, educate the community, and beautify the neighbourhoods through the cultivation of trees, flowers, and other vegetation within distressed neighbourhoods (Glover, Shinew, & Parry, 2005; Hou, 2017; Milbourne, 2012; Parry, Glover, & Shinew, 2005). The inclusive space provided by urban community garden projects permits them to function as a social learning platform on issues affecting the community, for instance, racism or an unequal food system (Kato, Passidomo, & Harvey, 2014). Some of the literature indicates how urban community gardening projects resist the neoliberal food system (Wilson, 2013). The neoliberal food system is viewed as problematic due to its failure to allocate food to all individuals in society, thereby perpetuating food poverty (Tornaghi, 2017). In response to the failed corporate food system, community gardening projects promote food decommodification and provide alternative markets in distressed neighbourhoods (Alkon & Mares, 2012).

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Furthermore, some of the literature shows how urban community gardening projects are spaces where citizens can redefine land-use management against the neoliberal land use management systems, which promote exchange value as opposed to land use value (Domene & Saurí, 2007; Eizenberg, 2012; Purcell & Tyman, 2015; Schmelzkopf, 2002; Smith & Kurtz, 2003). This discourse shows that urban community gardens function as acts of resistance against neoliberal urbanism that encourages urban space appropriation for market purposes (Staeheli, 2008). Scholars such as Eizenberg (2012) show how urban community gardens offer alternative urban resource management forms. Here, Eizenberg (2012) argues that community gardens function as experimental urban commons, which provide a new understanding of how individuals can manage resources such as land in neoliberal cities. In this respect examining urban community gardens as commons is vital as it aids in understanding alternative forms of resource management in neoliberal cities (Rogge & Theesfeld, 2018). The examples above indicate the scholarship that views urban gardening as a form of activism against the various injustices experienced in the contemporary city. What cuts across such studies is the ability of urban community gardens to address specific neoliberal ills within their communities.

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Despite the emergence of such critical studies, Gray et al. (2020) note that from a global perspective, most global South studies are still centred on a productivist lens of analysing urban agriculture. In other words, most of the literature on post-productivist themes such as political gardening has focused mainly on cities in the global North (Certomà & Tornaghi, 2015). Hence there is a gap in the literature on issues of political gardening, for instance, urban food activism in the global South (Gray et al., 2020; Siebert, 2020). The failure to explore political gardening in the context of global South cities does not imply that it does not exist (Gray et al., 2020). Limited literature in this respect is mainly due to how urban agriculture studies have been framed across the global North and South, as to be explained in-depth in subsequent chapters of this thesis.

Key specificities exist in global South cities, which begs the question of why such studies have not been undertaken in the region. For one, neoliberal policies are not just a global North phenomenon as these have been implemented across most cities in the global South due to globalisation. In Africa, the implementation of SAPs resulted in government withdrawal of subsidies and welfare (Binns & Lynch, 1998; Bryld, 2003; Hampwaye, 2013), leading to the collapse of state enterprises and rising levels of inequality and poverty. Furthermore, urbanisation is occurring at a rapid rate in global South cities, thereby presenting considerable sustainability challenges in terms of land use and demand (Purcell & Tyman, 2015). The practice of urban community gardening is also visible in the global South cities such as Dar es Salaam (Schmidt, 2012), Bulawayo (Ziga & Karriem, 2021), Harare (Drakakis-smith, Bowyer-bower & Tevera, 1995), and Cape Town (Paganini, Lemke, & Raimundo, 2018). All these conditions make global South cities suitable sites to explore how urban gardeners engage in their activities to address various injustices faced across the different geographies.

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Against this background, the overarching aim of this research was to examine urban community gardening projects in Cape Town and understand and characterise them as sites of activism against social, environmental, or economic injustices faced in the communities. To this end, the research examined why, how, and to what end some urban community gardening projects are engaging in community gardening activities in different spaces. It goes beyond a mere inquiry of motivations and actions but links them to the city's broader socio-economic processes. The research further explored the nature of urban community gardening projects to examine how they address the omnipresent challenges within distressed communities.

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Additionally, the research examined how the urban community gardening projects partner with supporting organisations to achieve their social agendas. Simultaneously, the research analysed how supporting actors have institutionalised urban community gardening projects to depoliticize them. The above lines of inquiry were achieved through a case-study of Cape Town, South Africa, where urban agriculture activities are prevalent in distressed neighbourhoods in the Cape Flats region. Cape Town is characterised by several urban gardening activities supported by civil society and state organisations (Kanosvamhira, 2019). Moreover, the city is characterised by several socio-economic issues, including unemployment, poverty, poor service delivery, crime, and food insecurity, among other challenges (De Swardt, Puoane, Chopra, & du Toit, 2005; Turok, 2001; Turok & Watson, 2001). Traditionally, the bulk of the literature has focused on urban community gardening and its capacity to enhance household food security and nutrition (Battersby & Marshak, 2013).

Nonetheless, some scholarship shows that urban community gardens provide benefits that transcend economic gains (Battersby & Marshak, 2013; Olivier & Heinecken, 2017a). However, a few studies directly examine urban community gardens within the context of neoliberal transformation. The lack of such studies has created a gap in the literature that hampers our understanding of how specific communities address urban injustices through community gardening. Given this gap in the literature, there was a need to examine community gardening to provide a comprehensive understanding of the activity and its influence on alternative resource management within neoliberal cities. Hence, all these factors made the Cape Flats a suitable study area to investigate urban agriculture from a post-productivist lens.

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This research went beyond the benign descriptions of community gardening and added to the literature by investigating how some urban community gardening projects are exploited as a form of insurgence to counter neoliberal planning and social injustices within the contemporary African city. Following Kato, Passidomo, & Harvey's (2014) categorisation of political gardening, this research treated political gardening as a continuum instead of a binary i.e., gardening is political or apolitical. The objective was to identify the political elements rather than attempt to classify gardening projects as political or not. Lefebvre's theory of social space production informed the conceptualisation of the research.

1.2 Problem Statement

Due to neoliberal transformation, cities are considered places where poverty and social exclusion are most dominant and visible (Bedore, 2010). Given the above, there is an emerging

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debate on how some distressed communities use urban community gardens as a form of activism to address social, cultural, and spatial injustice in neoliberal cities (Certomà & Tornaghi, 2015). As indicated in the previous section, urban community gardening occurs in many South African cities such as Johannesburg and Cape Town. Nevertheless, in South Africa, there is minimal literature that examines urban community gardening projects as tools of insurgency against neoliberal urbanism. In other words, few studies have attempted to explicitly explore how urban community gardening offers a prism to understand how the different communities address socio-spatial injustices that culminate from neoliberal transformation processes. This scenario compelled the researcher to add to this gap in the literature by exploring how urban community gardens emerge as activist platforms for the marginalised communities. To date, to the best of the researcher's knowledge, few investigations have been carried out which attempt to examine such connections in Cape Town comprehensively. This is surprising given the apartheid legacies of marginalization, which are still visible today in the form of divided cities (De Swardt et al., 2005; Turok, 2001). Cape Town remains an unequal city with socio-economic imbalances. The neighbourhoods in the Cape flats region were created through a systematic relocation of the black and coloured population resulting in residential areas with several socio-economic and political problems (Karaan & Mohamed 1998). Some of these problems include poor housing, poverty, unemployment, inadequate service provision, a lack of public open space, and poor environmental quality. Inequality has been perpetuated by adopting neoliberal-based policies that deepen the divide between the rich and the poor (Lemanski, 2007). In the Cape Flats region, urban community gardening initiatives occur with varying support from supporting actors. On this backdrop, this research explored whether some urban community gardening provides a platform to deal with post-apartheid socio-spatial injustices for residents in the Cape Flats region of Cape Town.

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1.3 Aim of the study

To investigate the spatio-temporal evolution of urban community gardens and how they operate as activist platforms to counter socio-spatial injustices in the Cape Flats of Cape Town.

1.4 Objectives of the study

i. To explore the evolution of urban community gardens and how land tenure security has influenced gardens that have emerged in the Cape Flats.

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ii. To examine the capacity of urban community gardens to operate and function as urban commons in the Cape Flats.
iii. To investigate how urban community gardens in the Cape Flats challenge the neoliberal planning elements such as the neoliberal food system in Cape Town.
iv. To examine how urban community gardeners engage with various levels of the state and civil society organisations to achieve their social agendas.

1.5 Research questions

i. How have urban community gardens evolved overtime and what has been the influence of land tenure?
ii. How do urban commons function as urban commons in the Cape Flats?
iii. How are urban community gardens challenging the neoliberal food system elements in Cape Town?
iv. How have community gardens engaged stakeholders to achieve their goals and with what effect?

1.6 Rationale of the study

Most of the literature on post-productivist themes such as political gardening is concentrated in global North cities (Gray et al., 2020). This has been mostly due to the effects of neoliberalisation policies, resulting in various injustices at macro and micro levels. Hence various studies have emerged to understand the capacity of community gardens as a form of activism against injustices, particularly in distressed low-income neighbourhoods. However, urbanisation and poverty are rampant across developing countries such as South Africa. The legacy of apartheid and the implementation of neoliberal policies post-apartheid continues to create highly unequal societies characterised by poverty and social exclusion (Lemanski, 2007). Due to the legacy of the apartheid regime, the level of poverty, segregation, and injustices are ominous in most South African cities. These issues have resulted in the erosion of social cohesion and a sense of community, specifically in distressed neighbourhoods accentuating social ills such as crime, family disintegration, drug addiction, and poverty. In this context, this research examined how some members of distressed communities utilise urban community gardens to counter injustices in their communities. The study explains how urban community gardening functions to redefine social cohesion and identity within these troubled urban spaces. Specifically, it provides information for supporting institutions in the city to effectively support community gardens. Policymakers can utilise these findings to make

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informed decisions to improve community gardening activities in urban areas. Furthermore, this empirical study contributes towards the global discourse on political gardening, adding a global South voice to the mostly global North centred debate. The research explores community gardens' potentials and limitations as a practice geared towards a more just and sustainable city.

1.7 Thesis Outline

This thesis is divided into ten chapters, and each chapter is subdivided into separate sub-headings. The chapters will be structured as follows:

Chapter 1: Introduction

This chapter provides the study background and conveys the research question, aim, and objectives. It also provides the rationale for the study, which states the importance of the research and its benefit.

Chapter 2: Review of the literature on urban food gardens

The chapter presents a review of the literature on political gardening. Consequently, this chapter uncovers the salient aspects of previous research and identify the gap(s) in the literature and how it will attempt to fill in the existing gap(s).

Chapter 3: Theoretical Framework

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This chapter introduces the theoretical framework of the study. Lefebvre's framework of space production is explored in terms of its origin, concepts, applicability, and criticism. The chapter also highlights the suitability of the framework within the context of the research.

Chapter 4: Study Area

The chapter justifies why the Cape Flats was the most suitable area to conduct this research. To provide a contextual basis for the research, the physical and socio-economic conditions in the Cape Flats are explored. A historical account of the apartheid spatial planning is presented as a basis for understanding the contemporary social-economic context of Cape Town and the Cape Flats more specifically.

Chapter 5: Methodology

This chapter explains the epistemological foundations of the research study. The suitability of the pragmatist paradigm and the subsequent use of the mixed-methods research approach adopted for collecting data is justified in this chapter. Data collection instruments utilised,

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sampling methods, data presentation, and analysis are presented and explained in this chapter. This chapter concludes by providing some reflections on the data collection process, challenges, opportunities, and limitations.

Chapter 6: The evolution of urban community gardens in the Cape Flats

This chapter presents the research findings of the first objective of the study. It presents the socio-economic characteristics of the research participants and also shows that the individual motivations of urban gardening in the Cape Flats go beyond food production. It also explores how space continues to hinder the development of urban community gardens in townships. The chapter provides an analysis of this objective and critically compares it to related literature.

Chapter 7: Urban community gardens: A pathway to activism

The findings relating to objectives 2 and 3 are presented in this chapter. More specifically, it shows how community gardens function beyond mere food production and also how urban community gardens address various issues within their communities. This chapter effectively demonstrates how community gardening in the Cape Flats is a form of activism against systematic problems emanating from apartheid planning and solidified by neoliberal ideologies. In this chapter, the findings are discussed in the context of existing empirical and conceptual literature.

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Chapter 8: Urban community gardens and their engagement with supporting stakeholders

In this chapter, the findings of the last objective are presented. Here data is presented, which answers how urban community gardening projects partner with various actors to achieve their goals. The chapter argues that supporting actors such as the state and civil society play a role in dampening the progressive nature of urban community gardening due to their entrenchment in the neoliberal environment. The findings are then discussed in the context of the existing empirical and conceptual literature.

Chapter 9: Urban community garden in the Cape Flats: discussion of cross-cutting themes

This chapter provides an overview and consolidated analysis of the research findings from all the four objectives of the research and discusses them within the context of the theoretical framework adopted for the research. With the limitations of Lefebvre's theory of social space production in mind, the framework is employed to enhance the understanding of the findings.

Chapter 10: Conclusions and recommendations

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This chapter provides the conclusions and draws some critical insights that the research findings have raised. The chapter also presents the contribution of the research to the post-productivist literature on political gardening. The chapter closes with a set of relevant and practical recommendations targeted at specific stakeholders in the urban agriculture sector of Cape Town.

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CHAPTER 2: REVIEW OF THE LITERATURE ON URBAN COMMUNITY GARDENS

2.1 Introduction

The chapter aims to situate the research within the broader body of the literature on urban agriculture and urban community gardens. The chapter is based on a review of the literature from journals, and other accredited information sources. The literature review provides an overview of the literature on urban community gardens from both a global South and global North perspective. This approach highlights and justifies the gaps that exist in the literature between the two geographic regions. Before engaging in the literature, the chapter defines fundamental terms that are used throughout the thesis.

2.2 Definition of terms

2.2.1 Urban agriculture

The practice of urban agriculture has been in existence since the dawn of cities (Peša, 2020). Urban agriculture is defined as cultivating crops and livestock rearing in urban environments (Koc, MacRae, Mougeot, & Welsh, 1999). van Veenhuizen (2006:2) extends the definition from cultivation and rearing of livestock to include 'related activities such as the production and delivery of inputs, and the processing and marketing of products'. In a South African context, the city of Cape Town defines it as the 'process of production, processing, marketing and distribution of crops and animals and products from these in an urban environment using resources available in that urban area for the benefit largely of residents from that area' (COCT, 2007:5). Several other definitions can be found in the literature; however, most highlight cultivation in urban environments with several aims such as consumption, selling, or leisure activity (Rogge & Theesfeld, 2018). Cultivation of crops or flowers can occur on various locations, for instance, backyards, roadsides, rooftops, under electricity power lines, besides railway tracks, open vacant areas, steep slopes or riverbanks, and the grounds of institutions such as schools, prisons, or hospitals (van Veenhuizen, 2006). Urban community gardens, the focus of this research, are a subset of urban agriculture.

2.2.2 Urban community gardens

The definition of urban community gardens is contested in the literature, hence the emergence of various definitions (Guitart, Pickering, & Byrne, 2012). The multiple definitions stem from

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how the term is defined in different contexts where the activity is practised. Generally, urban community gardens are described as cultivation spaces with some form of collective organisation in how they conduct their activities to grow vegetables, crops, or flowers. Urban community gardens can occur in different locations, ranging from communal vacant plots, prisons, nursing homes, shelters, and school premises (Pudup, 2008). Urban community gardens can also differ in aims; for instance, some may be geared towards selling produce to generate income, whereas some may aim to provide food for schools, shelters, or vulnerable groups within the community. Pudup argues that community gardens differ in two main ways. Urban community gardens range from individual plots to collective gardening in different spaces (Pudup, 2008). A community garden can be either divided into individual plots, collectively cultivated or even both.

Allotment or plot community garden refers to those urban community gardens where individuals separate the land into segments for individual use and maintenance. For instance, Ernwein (2014) classifies the 20-allotment plot, Collectif Beaulieu garden in Geneva (Switzerland), as a community garden. Similarly, Corcoran et al. (2017) report allotment-type gardens in Dublin, Ireland. Irvine, Johnson, & Peters (1999) defines urban community gardens as sites where individuals pursue agricultural activities on land collectively owned or managed or public land. In such situations, community garden members utilise the garden spaces at their own schedules or upon agreed times. Community gardeners are generally free to cultivate what they want on their plots and decide what to do with the harvest. Gardening on allotments does not imply a total lack of collective action. Various other activities can be conducted in union, and these sites still promote social interaction (Corcoran et al., 2017).

On the other hand, collective urban community gardens consist of gardens where members contribute to the garden activities and share the produce. Each member has a say in the design of the community garden and what is planted. Such community gardens are characterised by a common goal around which everyone in the garden aims to achieve. Some community gardens combine the two where they have plots managed collectively and some individually. Garden members generally have free will on their plots but act in unison to manage the collective plots.

For this research, the term urban community garden is used broadly, as indicated above. This is because Cape Town is characterised by community gardens that exhibit both characteristics. Hence, adopting a broader definition of community gardening allowed examining the diverse forms of community gardens in the Cape Flats, which significantly benefited the research. Hence, for this research, community gardens refer to land located on either public or private

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land in an urban area cultivated individually or communally by people from the vicinity or the wider city. The underlying element was the existence of some form of collective action in how activities are conducted.

2.3 Urban agriculture, urban community gardens, and the global North- global South dichotomy

Globally the literature on urban community gardens and urban agriculture, in general, is widespread. However, there is a noticeable difference between the focus of studies conducted in the global North and global South regions. What distinguishes the focus of studies on community gardens between the global North and the South is that there remains a strong focus on household food security and poverty alleviation in global South studies (Gray, Elgert, & WinklerPrins, 2020). Research on urban agriculture in the global South has historically been driven by an advocacy approach due to the high levels of urban food insecurity in the region. In most developing nations, rapid urbanisation is coupled with unemployment, poverty, and food insecurity (Matei, 2019). Hence, the continued engagement of urban agriculture as a response to economic crises, this problem has deeply influenced the discourse. For example, multi-country reviews conducted by Zezza & Tasciotti (2010) and across continents of Africa, Asia, Latin America, and Eastern Europe all indicate that the primary motivation behind the engagement in urban agriculture activities was primarily for household food security. Similarly, Poulsen, McNab, Clayton, & Neff (2015) arrive at a related conclusion after reviewing studies based on cities, which include Lagos, Nairobi, Mwanza, Buea. Most of the research in the global South often focuses on materialist determinants of urban agriculture such as food production to tie it to the alleviation of food insecurity issues and nutrition and livelihood. This 'productivist' perspective of framing the practice emerged in the 1990s due to the conditions under which urban agriculture surfaced and advocacy from global institutions (Gray et al., 2020).

Traditionally urban community gardens were formed in response to economic crises; hence this initially influenced the literature to focus on the productivist aspects of urban agriculture. In most former colonies in Africa, such as Zimbabwe and Mozambique, settler laws, rules, directives, ordinances and regulations were prohibitive, hence the practice of urban agriculture, especially by the indigenous populations was not allowed. Urban agriculture was only allowed after the unseating of colonial governments. The advent of neoliberal reforms and subsequent decline in state welfare and employment after independence of some African nations have been linked with the growing practice of urban agriculture to support food security in African

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countries (Binns & Lynch, 1998). In Africa, urban community gardens were formulated in response to economic distress. For example, Southern African countries like Zimbabwe, Mozambique, and Zambia suffered from an economic decline in the 1990s, which resulted in urban residents engaging in various informal activities to make ends meet (Rogerson, 2016). One of such informal activities was the engagement in community gardening activities on vacant plots. For instance, Zimbabwe experienced economic decline post-independence after adopting the structural adjustment programme, which resulted in the neoliberlisation of the market and a cutback on government subsidies. Ultimately, this resulted in massive rates of retrenchment and unemployment in the formal sector. This, coupled with the rapid migration into urban areas after independence in 1980, saw several unemployed citizens opt to use open spaces for urban agriculture activities for self-sustenance (Frayne, McCordic, & Shilomboleni, 2014).

An identical scenario is reported in Mozambique, where the post-independence civil war between 1977 and 1992 disrupted the main modes of food production and distribution channels. This resulted in food insecurity, especially in urban areas, and the national government incentivised urban residents to engage in urban agriculture in open spaces (Sheldon, 1999). The state provided gardeners with land and tools to support their activities. In the same vein, the collapse of Zambia's copper industry during the 1970s plunged the country into economic decline, resulting in high unemployment levels (Smart et al., 2015). In addition to the failure of the SAP, this resulted in widespread poverty and unemployment, which forced urban residents to turn to urban agriculture to fulfil household requirements (Frayne et al., 2014; Smart et al., 2015). In the 1970s, following an economic crisis in Tanzania, cities such as Dar es Salaam encouraged its citizens to cultivate to foster food security and generate some income. Consequently, residents in the city resorted to public land and residential plots for crop cultivation.

Like in most African countries, the establishment of urban community gardens in Cuba resulted from economic distress. For example, Cuba started to engage in such practises in the 1990s due to the collapse of the Soviet Union in 1989 and the subsequent breakdown in trade and food imports (French, Becker, & Lindsay, 2010; Hardoy & Ruete, 2013). Exacerbated by the embargo imposed by the United States sanctions that cut its main food supplies, Cuba resorted to growing its food in different forms of urban gardening, including popular gardens cultivated by the community (Altieri et al., 1999). The government responded by implementing the Huerta programme to establish urban community food gardens in low-income areas for

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household food security. Cubans grew food in the cities on available land, and from necessity, they cultivated on this land organically due to the inaccessibility of industrial chemicals and fertilisers. Similarly, in the early 2000s, Rosario's (Argentina) economy collapsed due to increasing national external debt, low commodity prices, and economic deregulation resulting in the closure of numerous small and medium scale enterprises. In response to the problem, the city launched an urban agriculture programme to feed the urban poor, specifically in the slums. The Parques Huerta programme took advantage of vacant spaces, such as edges of streams, highways, and railway lines for urban agriculture. Such studies demonstrate that governments and civil society have historically employed urban community gardens to address urban food insecurity.

Therefore, the above examples of Zimbabwe, Mozambique, Zambia, Tanzania, and Cuba demonstrate that urban agriculture surfaced as a response to economic crises hence it follows that most of the research would focus on these aspects. Battersby & Marshak (2013) argue that international donors, NPOs, and researchers primarily drove the notion that urban agriculture is a stratagem to food security. Stated differently, with several influential bodies and institutions endorsing and promoting the practice, much research followed suit to inquire along the lines of those lobbying for the practice. Research on urban agriculture in the global South gained traction in the 1980s due to the 1975 World Food Conference, which highlighted food insecurity as a developmental challenge. The practice was endorsed as a pro-poor development strategy by international organisations such as the United Nations Development Programme and UN Habitat's, Sustainable Cities Programme (Korth et al., 2014). These organisations highlighted the improved socio-economic condition of the urban poor as a significant advantage of urban agriculture. For instance, one such organisation was the International Development Research Council (IDRC) that explored urban agriculture and its ability to contribute to the development of cities in the global South. Much of such optimistic research was disseminated through their paper series in the mid-1990s and the AGROPOLIS (van Veenhuizen 2006). Such developmental work placed urban agriculture on the fore globally, demonstrating how the practice could enhance food security and livelihood in global South cities (Gray et al., 2020). This was specifically crucial given that most cities did not openly welcome the practice of urban agriculture at the time.

The practice of urban agriculture was generally not been met with open hands by most municipal governments across global South cities. Most municipal governments were critical of the practice hence did not give it any formal recognition. Hampwaye (2013:R8) argues that

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urban cultivators in Africa faced ‘several constraints such as limited access to land and the failure by many local authorities to integrate this activity in urban plans’. This is because most government's attitude towards the practice is still negative (Hampwaye, Nel, & Rogerson, 2007); hence several bylaws and regulations still inhibited the practice. Binns & Lynch (1998:778) suggest that most policymakers believed that ‘`rural' and `urban' are distinct entities, where rural is perceived as being synonymous with agriculture and urban is associated with services and manufacturing’. Consequently, the presence of urban agriculture was perceived as evidence of the failure of modernization. This argument was fuelled by the belief that urban agriculture is a public health hazard and takes up land for housing (Hubbard & Onumah, 2001). Faced with such challenges, most of the literature advocated for the practice of urban agriculture activities, and this meant attempting to showcase the one major benefit the activity was heralded for i.e., food security and nutrition. In other words, most of the literature advocated for urban agriculture in its various forms to ensure that local governments took it seriously as a livelihood option. Simultaneously, a counter-discourse emerged that showed the limited potential of urban agriculture to enhance food security and income generation (Crush, Hovorka, & Tevera, 2011; Koc et al., 1999). During this period, scholars had been debating whether urban agriculture made significant contributions to household food security and nutrient. A considerable amount of literature was published on urban agriculture and urban food gardens during this time to understand the relationship between urban agriculture and food security. For example, the African Food Security Network (AFSUN) urban food security baseline survey was conducted in 2008 across 11 Southern African cities, including Harare, Blantyre, Gaborone, and Cape Town. This study concluded that urban agriculture did not significantly contribute to household food security for urban households (Frayne et al., 2014).

Hence the background of urban agriculture, advocacy from international organisations and the subsequent plethora of research influenced the nature of the studies that emerged. For example, recent literature shows that the narrative generated regarding urban agriculture influenced the views on the practice and the nature of the scholarship that emerged. In the Copper Belt region encompassing the Democratic Republic of Congo and Zambia, Peša (2020) conducted a study revealing that urban agriculture has been historically framed as a subsistent, informal activity that does not have a place in the contemporary city. This resulted in the misconception that urban agriculture was an unimportant activity, usually a response to an economic crisis by impoverished residents. In contrast to this, the author demonstrates that urban agriculture practices have been a part of urban identity for the longest time and provide a sense of belonging. In addition to food production, urban agriculture shaped the lifestyle and the identity

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of urban residents. Consequently, the narrow focus of the productivist narrative has been largely responsible for the plethora of literature that focuses on urban agriculture and food security failing to capture the complex nature of the practice within urban residents' lives across African cities (Peša, 2020).

The general assumption is that urban gardening in the global South is conducted for household food security and income generation, and the other benefits of the practice appear to be a luxury. Quite to the contrary, more recent research has indicated various elements of urban agriculture, for example, social capital development in Kenya (Gallaher, Kerr, Njenga, Karanja, & WinklerPrins, 2013) as well as active management of urban space in Brazil (Visoni & Nagib, 2019). For instance, in South Africa, scholars such as Slater (2010) and Battersby & Marshak (2013) indicated that urban agriculture's benefits extend beyond economic benefits, including social aspects such as social cohesion and community integration. Nevertheless, limited literature explores urban community gardening in global South cities beyond the productivist perspective. Instead, the literature shows that most of the research on urban community gardens in global South regions continues to focus on gardens' capacity to address urban food security and nutrition (Slavuj Borčić, Cvitanović, & Lukić, 2016). As a result, scholars predominately focus on urban agriculture, community gardens and their link to improved food access, nutrition, and increased economic opportunities.

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On the other hand, a different trend can be observed when looking at studies on urban agriculture and community gardens in the global North. Indeed most studies did look at urban agriculture from a productivist approach, but this has since extended onto more nuanced elements of urban agriculture, for instance, issues such as citizen participation, social capital, the transformation of urban space, and resilience (Battersby & Marshak, 2013; Gray et al., 2020). The first urban community gardens are thought to have appeared during the 19th century in Europe, where they were adopted as a source of food and a tool to deal with urban poverty as a result of the influx of rural labour to the growing slums in industrial cities (Bende & Nagy, 2016; Haskaj, 2020). However, Warner (1987) reports the presence of community gardens as early as the 18th century in the United Kingdom (UK). Community gardens were established to feed the poor during the rapid migration into urban areas due to the rural agriculture revolution and industrialisation (Warner, 1987). Previously common land in the rural areas was privatised in an attempt to increase production. As a result, most of the land was fenced off, and landless villagers were either forced into the city or rent out the land from the landowners. Around the same time as rural enclosures occurred, industrialisation was booming in the urban

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spaces of England. Urbanisation resulted in the built-up areas and limited open spaces, which landowners rented out to the working class labourers to cultivate crops and flowers (Irvine et al., 1999). City dwellers organised themselves to rent out plots in the city where they could cultivate. However, obtaining a piece of land for such practises was somewhat problematic because of a lack of clear procedures to access land; hence the national government improvised to make the process smoother. This was achieved in 1907 when the British parliament passed a national law ensuring that local governments could provide cultivation land for their citizens more systematically. This allotment garden system spread to other nations in Europe, for example, in Austria, Norway, Germany, and the Netherlands (Francis, Cashdan, & Paxson, 1984). Most of these community gardens started as sites for simply growing vegetables and flowers to feed the local population and served as important sites for social interaction for urban residents. In Berlin (Germany), factory owners contributed land for community gardens. These spaces were typically 15 x 30 meters and were used for vegetable production, flower growing, and leisure space. These are affectionately known as leisure gardens in Germany (Follmann & Viehoff, 2015).

During the 20th century, urban community gardening projects were initiated to respond to economic crises (Haskaj, 2020; Ohmer et al., 2009). Here urban community gardens were generally supported by the state, after which they were abandoned when the crisis was averted (Lawson, 2004). Urban gardening was an important tool to counter urban food insecurity in times of mass economic distress. In North America, a similar trend is observed in the literature. In the USA, such gardens appeared as early as the 1890s in response to a severe economic crisis (Irvine et al., 1999). During this time, the state supported its citizens by providing vacant land for employment relief, and gardeners were allowed to cultivate crops to feed their families and sell the surplus (Lawson, 2004). This programme was triggered by the economic crisis of 1893 in the United States, which significantly affected several sectors of the economy. The crisis resulted in soaring unemployment levels and household food insecurity due to the lack of income. During this time, the government of Detroit encouraged its citizens to engage in gardening to produce their food (Walker, 2016). The ‘Filigrees Potato Patches’ initiative soon spread to other cities in the country, for instance, New York, Boston, and Chicago, where governments incentivised citizens to engage in food production at a local level. Essentially, citizens were provided with the land and seedlings to grow in what became known as the potato gardens. Lawson (2004:155) indicates that the idea here was twofold: firstly, to reduce citizens' dependency on charity benefits and keep the citizens productive. Secondly, keeping the

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unemployed busy in the gardeners reduced any incentive for the citizens to organise and possibly rise against the state during this period.

Similarly, urban community gardening garnered attention again during the Great Depression of 1929, where it was upheld as a vehicle to supplement household food and income. The crash of the stock market caused a drop in consumer spending and investment, resulting in massive retrenchment and unemployment. During this time, citizens were again encouraged to cultivate food crops to feed themselves and the domestic market. For instance, Detroit launched the Thrifts Gardens Programme to ensure that its citizens could feed themselves (Walker, 2016). The suggestion followed the success of the 'potato patch plan', which had seen several families fed in Detroit during the economic crisis of 1893. Following a similar approach, the government encouraged citizens to cultivate food on vacant lots provided by the city. Nevertheless, in both cases, most of the gardens were envisioned as temporary and most projects and were terminated once the state came out of the economic crisis (Lawson, 2004).

With the onset of the World Wars, countries such as Great Britain, Germany, and the United States had to rethink reducing national food shortages. The world wars had a tremendous effect on disrupting traditional food production and global trade, causing massive food insecurity from local to national scales. This resulted from the substantial number of men joining the army due to military conscription, organised blockades of food consignments, and the damaging of agricultural produce and agricultural land. To cope with the situation, city dwellers turned to the cultivation of crops on vacant land, resulting in the rise of community gardening projects (Ohmer et al., 2009). The national governments in such scenarios encouraged the establishment of gardens as a way for citizens to feed themselves and their families. Although it served to address dire food shortages, it also fostered the encouragement of active citizenship. For instance, during the First World War, President Herbert Hoover's Food Administration encouraged gardening to supplement local markers and possibly export the surplus to Europe (Lawson, 2004). It was imagined that those unable to go to war would want to contribute substantial efforts towards the war. Hence, the USA government announced the cultivation of crops under various patriotic slogans, for instance, 'the Kaiser is canned' or 'Sow the seeds of Victory' (Warner, 1987:17). These war gardens, or victory gardens as they were termed, successfully supplied food to many people who would have otherwise starved during the war. Warner (1897) estimates that approximately 130 000 individuals in England were engaged in gardening initiatives to fend starvation during the submarine blockade of the First World War. In Germany, Berlin used most of its open surfaces to produce food for local consumption

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during the world wars. During this period of the world wars, urban cultivation was deemed a significant urban planning priority (Appel et al., 2011 in Follmann & Viehoff, 2015).

Similarly, during the Second World War, victory gardens in the USA were encouraged to the same effect. The state and civil society were crucial in providing material support for such gardeners. The community gardens served as essential food sources for the population, where approximately 20 million individuals cultivated 44% of the vegetables in the USA in 1944 (Warner, 1987). However, as the war ended, technical and financial support for such initiatives dwindled, although a few of the gardens continued to be supported under the guise of health benefits (Lawson, 2004). The decline in general support of community gardens from the state and the general population was attributed to the expansion of the food distribution system and large-scale agriculture.

Based on the preceding paragraphs, the notion that urban residents in the global North are not affected by issues such as food insecurity is misleading. As a result, it is false to assume they only engage in urban gardening activities for other reasons, such as leisure purposes or beautifying their neighbourhoods. Indeed the literature indicates several community gardens are created for purposes other than food security and poverty alleviation, for example, Neuland Garden in Cologne, Germany (Follmann & Viehoff, 2015). However, this assumption ignores the literature, which indicates that there are numerous cases where residents engage in gardening as a livelihood option due to increasing levels of poverty and food insecurity across low-income neighbourhoods, even in global North countries such as the USA (Siegner, Sowerwine, & Acey, 2018). In other words, poverty and food security issues do not have a global North or South face. Hence in several cases, urban agriculture may be adopted as a survivalist strategy as well. Still, such narratives are usually masked due to the literature's populous nature on other themes that have emerged over time in studies in the region. For example, scholars such as Alkon & Mares (2012) have highlighted the food security issues across low-income neighbourhoods in Oakland, California, and Seattle, Washington. Many food activist movements emerged in response to the structural factors' causing food insecurity in such places. Therefore, it is clear that issues of food insecurity are present in the literature and discrediting the assumption that global North countries are not faced with such issues, especially at a local scale is cursory.

Nonetheless, it boils down to the voluminous studies that focus on other themes that mask such issues, thereby perpetuating the global North and South divide nature of studies. The advent of neoliberalism and its effects in the 1970s resulted in increased research on urban community

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gardens and space. Even in the global North, community gardens resurging times of crisis. For instance, Tornaghi (2014) noticed that the financial crisis in 2008 was paralleled by a resurgence on urban community gardens in the global North. This means there is still a connection between urban gardening and socio-economic crises. The only differentiating factor has been the prisms through which the issues have been examined from a global North and South perspective. Neoliberalism is a global phenomenon; however, the global South has been slow in investigating the effects of the ideologies at various levels, including community gardening activities.

Whereas earlier community gardens focused on food production, contemporary gardens focus on community development (Sullivan, Kuo, & DePooter, 2004). According to Lawson (2004), the renewed expansion of community gardening in the 1970s resulted from citizens reacting against negligent local governments. These were a result of the eclipse of the Keynesian era and the advent of neoliberalism. Haskaj (2020) attributes this re-emergence of urban community gardens especially in the US to the failure of Keynesian welfarism in the 1980s. During these times citizens appropriated abandoned private and public spaces to cultivate crops. The concept of Neoliberalism rose to prominence in the 1970s due to the decline of industry and the failure of Keynesian welfarism. Nonetheless, the adoption of neoliberal ideologies resulted in uneven economic development, intensified inequality, destructive competition, and social insecurity (Peck, Theodore, & Brenner, 2009). During this period, unemployment levels rose, and many urban citizens were isolated in declining post-industrial cities within limited economic opportunities and accelerated environmental degradations. Here, urban community gardening sprouted from grassroots levels and utilised by communities to address localised economic, cultural, environmental, and social problems in distressed neighbourhoods (Saldivar-Tanaka & Krasny, 2004). During these times, people began to transform vacant land as a form of insurgence against the effects of the demise of the Keynesian era. In other words, the seizure of the devalued open spaces was an alternative to the urban decay, crime, vandalism, and poverty in poor neighbourhoods (Warner, 1987).

From the 1970s onwards, many studies focused on the benefits of urban community gardening in distressed communities. Community gardens play a crucial role in empowering community members to become active citizens in transforming their communities, for instance, through reclaiming devastated open areas in their communities. Accordingly, research in regions such as North America and Europe has branched out and attempted to examine community gardening and its impact on economic, social, cultural, and environmental injustices within the

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context of neoliberal hegemony. In providing a more critical analysis of the practice of community gardens, the literature has critiqued community gardens as both agents and counter-agents of neoliberal transformation (Slavuj Borčić et al., 2016). Based on this, the discourse emerged, which interpreted urban community gardening projects as a form of activism against the ills of neoliberal hegemony.

To conclude, the above discussion shows that the way urban agriculture activities are viewed has significantly affected the studies and knowledge generated to improve our understanding of urban agriculture activities, especially in the global South. Ultimately, this creates one major problem in terms of the literature that emerges across the two regions. The distinction which has emerged is based on assumptions created and reproduced in the literature. The dichotomy contradicts urban agriculture's multifaceted capacity across the individuals who engage in it. Therefore, this current study was conceptualised with this in mind. This research seeks to merge the two rigid concepts from the North and the South by showing the multiple functions of gardening through the case of the urban community gardens projects in the Cape Flats. While citizens may well engage in urban agriculture activities for immediate benefits such as food security and nutrition or income generations, this research attempts to link the motivations and activities to subversion against the system that generates these conditions.

2.4 Contextualising urban agriculture as activism

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Although the term activism is used widely in the literature, there is no consensus on its definition. Activism is a part of actions that can be loosely classified as resistant activities (Hughes, 2020). Activism generally describes actions aimed towards influencing social change. The activists' aims vary from social, political, or environmental aims that they pursue using various tactics to meet their goals. The concept of activism has existed for a long time; however, the literature traditionally overlooked how small, routine everyday practices could contribute to social change within communities (Martin, Hanson, & Fontaine, 2007). Traditional literature portrayed activism as only those actions which were vocal, confrontational and, demonstrative. Such scholarship configures activism as a conditional state characterised by a specific identity and mind-set. This shortfall can be explained due to the geographical scale of the activities. Usually, activism is viewed as an individual or group that identifies a problem and addresses it to create some change. The issue of scale is always apparent in terms of the number of individuals, the scale of action, and results (Martin et al., 2007). Moreover, the scholars argue that the term activists' was usually assigned to specific

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individuals dedicated to a cause and demonstrated commitment to it through their identity and actions (Bobel, 2007). These assumptions collectively resulted in associating activists with risk-taking activities, iconic action, and attention-seeking to achieve their cause (Sandover, 2020). Geographical scholars have also called for a more flexible and fluid understanding of different forms of resistance, such as activism (Hughes, 2020).

The literature has enhanced our understanding of activism by demonstrating how small, routine, yet purposeful everyday life activities can contribute to social change in distressed communities (Askins, 2014; Hughes, 2020; Martin et al., 2007; Pottinger, 2017). Perhaps one such typical study was conducted by Scott in 1989. Based on class conflict in a Malaysian rural village, Scott (1989) contends that individuals can indirectly challenge domination through less visible forms of resistance. These resistance forms are usually 'quiet, disguised, anonymous, often undeclared forms of resisting' used by less powerful people in society to counter unpleasant systems or scenarios (Scott, 1989:37). Such examples include peasants' slander, sabotage and foot-dragging, and pilfering, among others. He termed these types of resistance 'weapons of the weak'. His main argument was that although these are small and often invisible, they were equally powerful, especially when a significant population adopts them. According to Scott, such forms of defiance are easier to adopt as they are the first resort for the oppressed, especially when open defiance is likely to result in danger. Moreover, these forms of resistance require little planning or coordination and are thus different from more organised forms of resistance.

Similarly, Martin et al. (2007) argue that the literature does not recognise feminist activism due to its limited geographic scale. They argue that despite the limited geographical scale of such activism, they are not insignificant because they create social networks that emulate stages of political activism. Therefore, however small they may appear, they are a crucial aspect of activism due to their progressive nature. Horton & Kraftl (2009) conducted a study on activism among 150 carers at a care centre in the East Midlands (UK). They demonstrated that the carers exhibited a quiet form of activism that progressively challenged the problems they encountered. They argue that contrary to the dominant literature on activism, quiet activism was progressive and encompasses small, modest acts that were potentially transformative. Horton & Kraftl conclude that the current understanding of activism should be expanded to include such small yet purposeful acts of resistance.

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In the same vein, Bobel (2007) argues that the term activist is usually expressed as a perfect standard that dismisses other forms of activism. The author argued that the literature generally portrayed political activists as individuals who had to live the issue and express dedication to the cause in a sustained manner to merit the activist label. Through a case study approach on a menstrual activism social movement, the author challenged the assumption that social movement actors always identified themselves as activists. Bobel found that the respondents rejected the term activist despite engaging in activist work. Therefore, Bobel (2007) demonstrates how individuals of the movement engaged in activism work without being 'activist'.

Similarly, in the UK, Chatterton & Pickerill (2010) conducted a study to explore activism among anti-capital grassroots autonomous activist groups. Their findings indicated that participants rejected the divide between activist and their non-militant being. Their findings argued that labelling activism as a militant subject was limiting. It failed to capture the impact of individuals' everyday efforts, which, small but purposeful, could transform the societal issues being challenged. Examining seed savers in the UK, Pottinger (2017) argues that their actions were purposefully oppositional to the food regime despite their quiet actions. Visser, Mamonova, Spoor, & Nikulin (2015) explore social movements geared towards food sovereignty in Russia's rural communities. They conclude that the Food sovereignty movement was rather implicit and not out in the open like other social movements. They label this as 'quiet food sovereignty', which, although not directly against the dominant food system, requires attention due to its potential to provide ecological food for local residents in these studied villages. Finally, in examining social space reproduction and the potential for resistance against capitalist hegemony, Lefebvre (1991:418) notes that resistance to capitalist hegemony appears in various forms, including small, everyday actions, sometimes unconnected, and even implicit. Collectively, the literature mentioned above indicates that activism can be conceptualised 'beyond the militant subject' (Chatterton & Pickerill, 2010: 478). In this way, studies need to appreciate the small, overlooked how different forms of resistance can equally lead to progressive change. The issue of activism has also spread across to urban agriculture activities as well.

Much of the contemporary literature on urban agriculture has demonstrated how community gardens counter various challenges in distressed communities. However, only recently has the term political gardening been adopted in contemporary debates where gardening is seen as a

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form of activism (Certomà, 2011; Tornaghi & Certomà, 2019). Political gardening conceptualises gardening as a form of activism to address ills of the neoliberal system such as the corporate food system, urban poverty, privatisation of public space, and social injustices (Kato et al., 2014). Therefore, political gardening envisions such grassroots movements as political agencies with transformative power to address cultural, social, and economic issues within these distressed communities (Follmann & Viehoff, 2015; Tornaghi & Certomà, 2019). In other words, gardening initiatives possess aims that transcend food self-sufficiency for its members (Visoni & Nagib, 2019). For instance, scholars such as Glover (2004) have demonstrated that community gardens are more about community development than they are about cultivation. Contemporary community gardens usually exist in response to problems faced in the community; therefore, in this context, political gardening seeks to examine how urban gardening counters neoliberal planning models, which have resulted in austerity, disinvestment in low-income neighbourhoods, and several related problems. The recent growing number of community gardening activities has resulted in renewed interest from academics who have sought to examine how gardens can solve the effects of neoliberal urbanisation such as social disintegration, food poverty, climate change, and ill health (Eizenberg, 2012; Follmann & Viehoff, 2015).

The literature shows that activism exists in varying degrees and ranges from protests, riots, cultural opposition, and Do it yourself (DIY) practices (Crossan, Cumbers, McMaster, & Shaw, 2016; Tornaghi & Certomà, 2019). In other words, political gardening takes place in various forms and varying degrees. Like the recent literature on activism (Askins, 2014; Martin et al., 2007), the literature on urban gardening shows that activism is not always vocal, confrontational, and can be quiet and subtle (Kato et al., 2014; Pottinger, 2017). For example, in the UK, Pottinger (2017) conducted an ethnographic study on the link between urban gardening and political activism among members of the Heritage Seed Library and the Seedy Sunday project. The study findings illustrate that the seed saver was engaged in a form of 'quiet activism' to subjugate the dominant food regime. Kato, Passidomo, & Harvey (2014) distinguish the varying degrees and classify the nature of political using three main typologies shown in Table 2.1.

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WESTERN CAPE

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Table 2. 1: Forms of political gardening

Form of political gardening	Diagnostic framing	Prognostic framing of gardening
Explicitly political Broad scope	Concerned with broader social and political concerns beyond gardening and food (e.g., structural inequality, racism, neoliberalism)	Gardening as the catalyst for tackling broader social injustice Focus on food sovereignty as well as food access and sustainability
Narrow scope	Gesture towards social justice but focus on specific issues (e.g., access to local food, environmental sustainability)	Gardening is a primary tool for resolving specific social issues. Tend to focus less on food sovereignty, more on food access & sustainability
Implicitly political	Interested primarily in raising awareness about local food and gardening techniques	Gardening as a symbolic tool for raising awareness about social issues. May include educational or outreach components but tend towards a market orientation or gardening as ends and means

Source: Kato, Passidomo, & Harvey (2014)

Kat et al. (2014) categorise the garden's degree of political activism according to the aims and functions. The first category consists of gardens that are explicitly political. Such gardens engage in broader political engagement to address social injustices in their community, for instance, inequalities in the food system. While food security may be the central focus, the garden is seen to engage in various other political engagements, for instance, public conversations on societal problems such as poverty and inequality. Medial to the two extremes is the narrow category. Gardens that fall into this group may engage in certain activities that address specific societal issues they face, such as food access and local food production. The distinguishing factor to the explicitly political category is that they do not explicitly address larger structural societal issues but view gardening as an immediate panacea to societal issues. The last type is classified as 'implicitly political' where the gardening activities indirectly address social injustices within the community. Such gardens are labelled as mainly geared towards food production instead of driving social change within their communities. Such include gardens that offer guidance to interested individuals rather than actively engaging in political or social activism. In other words, such gardens can produce social benefits, although they do not articulate them in their aims. Similarly, In the Western Cape of South Africa, focus on food sovereignty by the KEF. She argues that although the movement is not explicitly deliberate in articulating food sovereignty, it is evident in their work and everyday life. Hence she argues that although they did not 'talk the talk…they walked the walk' (Siebert, 2020:415).

Due to the increase in urban agricultural activities across various regions such as Europe and North America, geographers began to call for more critical research on the practice instead of

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the more traditional advocacy narrative (Certomà & Tornaghi, 2015; Tornaghi, 2014). As a result, scholars became more critical of urban gardening from a social and environmental justice viewpoint. McClintock, Miewald, & McCann (2017) observe that urban agriculture is nothing but political. This is because community gardening presents progressive elements against neoliberal urbanism. The following section presents the scholarship which shows the transformative nature of urban gardening activities within the contemporary neoliberal city.

2.4.1 Urban community gardens as counter-agents of neoliberalism

Urban community gardens have been examined as forms of protests or activism within the context of neoliberal processes (see Certomà 2011, McKay 2011, Quastel 2009, Schmelzkopf 2002, Staeheli et al. 2002). The scholarship on gardening's progressive nature shows how urban gardening is subversive of unequal food systems, can create inclusive spaces, and promote community adhesion. While most of the studies presented here show how community gardening activities address injustices within the community connecting them to activism is not always the foci.

The contemporary neoliberal city is characterised by the elimination of public spaces, decreased social cohesion, and the privatisation of free time (Tornaghi & Certomà, 2019). In this context, the literature argues that urban community gardens produce sociality and identity spaces (Milbourne, 2012:946). Urban community gardens produce a 'third space' intersecting private and public worlds creating a neutral social interaction space (Dolley, 2020; Schmeizkopf 1995). Even in cases where strangers cultivate on individual plots, they find it easier to interact with one another since they share a commitment to cultivation (Huron, 2015). Community gardens also provide a space where garden members and non-members can meet and interact. This is achieved through the day-to-day activities such as social events that occur in the garden. Therefore, in addition to cultivation spaces, community gardens can serve as social spaces in various communities. Empirical studies have confirmed this phenomenon (Certomà & Tornaghi, 2015; Dolley, 2020; Hou, 2017; Ohmer et al., 2009; Veen, Bock, Van den Berg, Visser, & Wiskerke, 2016).

Mendelson, Turner, & Tandon (2010) conducted a study to explore community gardens and social capital in Toronto (Canada). The study demonstrated that the garden increased community members' ability to interact and strengthen social capital. In Melbourne, Australia, Kingsley, Foenander, & Bailey (2020) conducted a study on six urban community gardens. They reported the gardens provided spaces for interaction and enhanced a sense of community among the group members. In a Midwestern city (USA), Glover (2004) examined the impact

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of community gardens on community garden members and neighbours' social ties. This study indicated that the community garden improved social capital in the neighbourhood and encouraged socialising beyond the garden borders.

Similarly, Kuo, Sullivan, Levine-Coley, & Brunson, (1998) investigated the effects of the green spaces on social interaction in inner-city neighbourhoods in Chicago (USA). The findings demonstrated that public areas with vegetation facilitated more social interaction than barren spaces without vegetation. Such studies illustrate that vegetated areas are crucial in stimulating interaction among the garden members and the broader community. In New York City (USA), Saldivar-Tanaka & Krasny (2004) investigated Latino community gardens to examine the link between gardening and community development. Besides crop cultivation, they report improved social interaction through various activities such as church gatherings, school tours, health fairs, and children's activities. In Perth (Australia), Middle et al. (2014) reported that community gardens were crucial in facilitating bridging capital between different social groups in the community. A similar trend is reported in the Melbourne, where the gardens are regarded as a site for social capital development (Yotti Kingsley & Townsend, 2006). In the UK, Milbourne (2012) highlights how community gardening activities created social spaces in despoiled neighbourhoods. The cases of Chicago, New York, Toronto, the UK, Melbourne, and Perth indicate that community gardens facilitate social interaction in urban areas. These examples demonstrate urban community gardening projects' capacity to enhance social capital in urban areas where interaction is generally limited due to individualism.

UNIVERSITY of the
WESTERN CAPE

Community gardens play essential roles as cultural melting pots in various communities where they strengthen ethnic groups and promote cultural integration. For example, Mares & Peña (2010) explored community gardening and cultural identity in Seattle and Los Angeles. The findings in both cities demonstrated that immigrant gardeners got a sense of belonging as they could express their culture and maintain a sense of community in the garden spaces. Moreover, they found that the community gardens could bring together individuals from diverse backgrounds, thereby promoting cultural integration. Saldivar-Tanaka & Krasny (2004) conducted a study of Latino community gardens in New York. They report that the community gardens were sites that enabled the gardeners to express their cultural heritage. The gardeners used the garden spaces to practice their culture through various activities such as playing music, dancing, and consuming cultural food. Similarly, Eizenberg (2011) argues that the ethnic garden in New York provided a platform where gardeners could express their cultures collectively. This improved a sense of belonging as it fostered social interaction among the

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ethnic groups instead of practising their culture in private. In Melbourne, Agustina & Beilin (2012) report that community gardens provided a safe space for migrants and facilitated their connection to the broader community. In another case, in São Paulo, Brazil, Visoni & Nagib (2019) report the emergence of urban community gardens as activism where members the occupied space to strengthen community ties and improve social integration. The above cases collectively demonstrate that community gardens represent spaces that present a sense of belonging for ethnic groups and can meet and interact with one another. As such, community gardens enable specific communities to express their cultural identities and heritage. Moreover, it encourages learning of different cultures when multiple ethnicities are found, which improves cultural integration. In this way, it challenges the neoliberal governmentality that results in individualism and limited solidarity within distressed communities (Tornaghi & Certomà, 2019).

Besides encouraging social capital development, community gardens also offer neighbourhoods an opportunity to address other social ills within their community. Community gardens can be used to combat crime by turning abandoned spaces into green spaces. For example, Glover (2004) reported that residents participated in gardening to address crime in the community. Residents engaged in gardening activities by reclaiming downtrodden open spaces and creating green areas, which enhanced the sense of security among the community members. In 2004, Saldivar-Tanaka and Krasny published a paper in which they examined community gardens' effects on community development in Latino gardens in New York (USA). They report that most of the gardens were located on public open spaces that had previously been used for illicit activities such as the drug trade. Hence the establishment of the garden in these spaces eliminated the occurrence of crime in these areas. Collectively, these studies outline the critical role of community gardens in addressing criminal elements in distressed communities.

UNIVERSITY of the
WESTERN CAPE

Urban community gardens have often existed in marginalised neighbourhoods to convert open vacant land into green spaces, thereby resisting displacement and disinvestment (Corcoran et al., 2017). This has given rise to various urban movements among which urban inhabitants have attempted to claim vacant land for various activities such as housing and urban gardening activities (Dellenbaugh, Bieniok, Müller, Schwegmann, & Kip, 2015; Foster & Iaione, 2016). The New York City Green Guerrillas, founded in 1973, and the Boston Urban Gardeners founded in 1977, emerged as a way to reclaim communities through gardening (Lawson, 2004).

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The progressive potential of community gardening as counter-agents of neoliberal planning has been presented in the literature. The case-study of community gardens in New York under the Giuliani administration is perhaps seminal in influencing future studies by various scholars (Aptekar & Myers, 2020; Eizenberg, 2012; Purcell & Tyman, 2015; Schmelzkopf, 2002; Staeheli, 2008). This case shows that during the 1970s recession, the state allowed community members to re-appropriate abandoned public space for gardening when it seemed least valuable to them. When the land-value increased, the state then attempted to re-appropriate the gardens under the guise of the need for more housing. Community members who had invested time transforming the abandoned spaces into a common space for themselves felt they had a right to the new urban green spaces they had transformed. Through the help of coalitions, some community gardens were saved from the private acquisition process. This example shows that the gardeners used green space to show their disgruntlement with the dominant discourses of exchange-value over use-value. New York's case highlights that the circumstances encouraged the gardeners to turn to activism to save their gardens.

In Europe, The Berlin Tempelhofer Feld, a former airport, is used for various urban gardening activities by Belin citizens (Dellenbaugh et al., 2015). When the real-estate market began to gather moment post-2008, the Senate wanted to re-commodify. This was met with resistance from the users. The citizens protested against the move resulting in a referendum that blocked its acquisition plans in 2014. In Athens, Greece, Apostolopoulou & Kotsila (2021) report the formation of the Hellinikon guerrilla community garden in resistance to the commodification of the former International Airport of Athens for real estate development. Similar resistance is reported in Cologne, Germany, where Cologne residents occupied land in protest to privatisation and formed the Neuland garden (Follmann & Viehoff, 2015). They observe that urban citizens use urban community gardens as a form of activism in urban politics from the onset. They show this by detailing how the Neuland garden was created on a contested site. Collectively, these cases show urban gardeners challenging the commodification of land by presenting a decommodified land-use. In this case, the initial reason was not to garden but to claim green space in the city. Beyond the simple occupation of land, the literature explores how the occupied land is utilised, arguing that it presents a better alternative to the neoliberal model of resource management.

Community gardens are usually collectively managed spaces, promoting the collective management of resources and decision-making (Rogge & Theesfeld, 2018). In this way,

UNIVERSITY of the
WESTERN CAPE

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community gardens present an alternative way of resource management that counters the dominant neoliberal system that takes away citizens' capacity to be actively involved in decision-making processes (Eizenberg, 2012; Follmann & Viehoff, 2015). Such scholarship explores urban community gardening projects as urban commons. Harvey (2012:73) defines commons 'as an unstable and malleable social relation between a particular self-defined social group and those aspects of its actually existing or yet-to-be-created social and/or physical environment deemed crucial to its life and livelihood'. In other words, commons constitute the common resources, the communities utilising the resources, and the communing practices that govern resource use. Drawing from the New York case, Eizenberg (2012) highlights how community gardens function as urban commons. Using the Lefebvres spatial triad as a conceptual frame, she detailed how social space reproduction enables gardeners to manage resources in the gardens collectively. She observes that the community gardens in New York are existing commons that transform and de-commodify urban spaces with market-based systems. In Berlin, Rogge & Theesfeld (2018) examined the degree of collective action among community gardens. Their findings demonstrate how urban community gardens function as micro-spaces where gardeners collectively manage resources such as labour, material inputs, social time, and infrastructure in varying degrees. Not only are community garden spaces used collectively, but other resources such as infrastructure, finance, and waste can be shared as well (Rogge & Theesfeld, 2018). In Cologne, Germany Follmann & Viehoff (2015:1169) investigate the Neuland garden as an example of an 'unperfected' common where resources and decision-making area collectively conducted. In Dublin, Ireland, Corcoran, Kettle, & O'Callaghan (2017) examine individual plots as forms of commons. They argue that despite individual plot cultivation, there was still a sense of commoning across the allotments. They report that land is used under commonage principles, where food is produced for non-market purposes and in a non-hierarchical system. Hence in this way, allotment gardens can also be considered as urban commons. The scholarship clarifies that urban community gardens are not seen as perfect commons due to their entrenchment in a neoliberal system. As a result, they can never be entirely free from neoliberal elements; however, the discourse indicates that there are elements of collective action that offer a glimpse of how the management of resources could look like, hence deserve further investigation (Eizenberg, 2012).

Due to the collective nature of activities and processes that occur at urban community gardens, they promote democratic participation and catalyse community organising. For example, McIvor & Hale (2015) examine urban agriculture activities in Denver Colorado through a 'deep

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democracy' framework. They employed interviews and participant observation from varied participants engaging in urban gardening activities such as NGOs, municipalities and schools. Their findings indicated that beyond cultivation, gardening activities provided 'an opportunity for citizens to get involved in conversations and actions that shape the future course of their communities' (McIvor & Hale, 2015:738). Their findings conclude that the practice enabled citizens to engage in long-term relationships that could shape the communities' future through collective action. Hung (2004) conducted a qualitative study on community gardens in Brooklyn (New York), which demonstrated how gardens provided the community with fresh produce but also engaged the youth in terms of their culture, identity, and value to the community. Similarly, Saldivar-Tanaka & Krasny (2004) reported that Latino gardens were utilised to educate the youth and the community on gardening and the Latino culture and traditions thereby bridging the gap between the communities. In Australia, King (2008) reported that community gardens were essential spaces that provided a space for information sharing, communication, and co-learning about various issues faced in the communities.

The learning spaces enable gardeners to raise their political consciousness of various issues capacitating them to participate in activism in issues beyond garden borders. For instance, Saldivar-Tanaka & Krasny (2004) found that in addition to usual garden activities, 20% of the garden members were involved in social and political activism to promote community organisation. Specifically, gardeners formed support groups for different functions such as fundraising and local campaigns. They report that organisational experiences gained were used in political processes such as rallies and voter registration. Similarly, Glover, Shinew, & Parry (2005) in St Louis (Missouri) demonstrate that community garden coordinators were politically invested in community transformation initiatives.

UNIVERSITY of the
WESTERN CAPE

Further studies on the gardens in the same area revealed that women were empowered to engage in additional responsibilities beyond the garden (Parry et al., 2005). In Florida, Hite, Perez, D'ingeo, Boston, & Mitchell (2017) used a mixed-methods approach to examine how community gardens were functions of social resistance in an African American community in Tallahassee. Their findings indicate that residents turned empty spaces into spaces of engagement and activism against racism. In Perth, Middle et al. (2014) report that engagement in community gardening activities provided an opportunity for members to engage in urban planning. Armstrong (2000) conducted a survey on community gardeners in low-income areas in New York where he discoursed that besides the immediate benefits of gardening such as access to fresh produce and enhance mental health. Armstrong reported that the gardens lead

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programme coordinators became more involved in community development activities and awareness. Kato, Passidomo, & Harvey (2014) examine the Lower Ninth Ward Food Access Coalition in New Orleans and report how the coalition resulted in local residents addressing racism issues. The platform created from gardening allows local residents to engage in political conversations and collaborate with various stakeholders to address the problem. They conclude that gardening enables marginalised communities to engage in political conversations on issues that affect them. The examples mentioned above demonstrate how urban gardeners are more conscious about various issues in their communities and hence organise to address these issues.

Neoliberalism has resulted in a global food system characterised by monopolies that control the food system from production to distribution (Alkon & Agyeman, 2011; Alkon & Mares, 2012; Guthman, 2008). The neoliberal food regime causes unequal access to food and the provision of highly processed unhealthy food options. In contrast to the neoliberal food system that promotes profits over individuals' well-being, food activism encourages localised food production, fair producer prices, and better control over production resources (Alkon & Agyeman, 2011). The literature shows that community gardens promote food activism through the decommodification of food and the provision of alternative healthier markets, especially in low-income neighbourhoods (Barron, 2017). The literature also shows that community gardens provide an educational opportunity for the community regarding issues such as a sense of identity, food justice, and food sovereignty. Food sovereignty is a mostly global South concept that calls for the democratisation of food systems. In contrast, food justice deals with more localised attempts to resist structural processes resulting in an uneven food system (Clendenning, Dressler, & Richards, 2016). However, both are used to demonstrate how community gardening projects counter food injustice.

In line with food activism scholarship, proponents argue that food commodification is the driver of hunger (Alkon & Mares, 2012). Consequently, they argue that urban community gardening activities present a non-commodified channel free from the neoliberal food system (Wilson, 2013). According to Wlison (2013), community-based gardening presents autonomous forms of food production beyond the capitalist system. For example, In Melbourne (Australia), Kingsley, Townsend, & Henderson-Wilson (2009) investigated the link between a community garden and its members' health and well-being. The authors report that the garden offered clean and organic produce for the gardeners. Armstrong (2000) reports that community gardens in New York contributed to reducing blood pressure and cholesterol through the consumption of healthy food and exercise. In this way, community gardening projects present

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WESTERN CAPE

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an alternative, healthier, and decommodified food source that the corporate food system and the state may have failed to address. The main criticism against the decommodification of produce is that simply growing the produce for a few gardeners and perhaps their immediate community does not contribute to any systematic change (Barron, 2017). However, it can be aligned with other movements towards systematic change at a broader level. For instance, urban community gardens can bring food movements and networks, ranging from food activists, researchers, and policymakers. In this way, they can influence policy change from a bottom-up approach. Such is demonstrated by food movements in Toronto (Canada), who influenced food policies despite operating in a neoliberal environment (Wekerle 2004).

Another food movement is food sovereignty focused on dismantling the neoliberal food system through more localised food options. Urban gardening activities can be viewed as a form of food justice movements where individuals and groups seek to destabilise the dominant capitalist-based food system (Guthman, 2008). For instance, in California, most low-income neighbourhoods are tied to structural issues that perpetuate food accessibility and security (Alkon & Agyeman, 2011). Therefore, urban gardening activities are viewed as a counter-movement to address this systematic gap in areas such as Oakland (California). Baker (2004) argues that low-income areas are characterised by low social services and difficulty accessing healthy food. Hence, the author maintains that community gardening projects in low-income neighbourhoods in New York improved access to healthy, affordable food. In the Western Cape of South Africa, focus on food sovereignty by the KEF. She argues that although the movement is not explicitly deliberate in articulating food sovereignty, it is evident in their work and everyday life (Siebert, 2020:415). Collectively, such literature indicates that urban gardening can present alternative market options within the corporate food regime.

All the scholarship presented in this section suggests that urban community gardens intervene in the organisation and governance of public space by bringing together various social actors and exhibiting alternative uses of urban space (Certomà & Martellozzo, 2019). Urban community gardens can address social, economic, cultural, and environmental problems in distressed communities. However, scholarship on political gardening has encouraged research that shows the dialectical tension between community gardens functioning as progressive or regressive against neoliberal co-optation (McClintock, 2014). Therefore, the next section will highlight how community gardens possess the potential to militate against community development by producing and reinforcing neoliberal elements.

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2.4.2 Urban community gardens complicit in neoliberalism?

From a conceptual level, the argument is that urban gardening activities usually occur in interstitial spaces, with limited tenure security and no room for expansion. Coupled by the various constraints that urban gardens face, this makes them inadequate to address neoliberal ills (Tornaghi, 2017). However, justice movements can only build upon the cracks in the capitalist system. Hence the idea is to promote and enlarge the cracks enabling activist activities to have a more progressive impact (Holloway, 2010). Critical geographers have challenged the capacity of urban agriculture to contribute to the dismantling of neoliberal urbanism. The scholarship has shown that despite their best intentions, urban community gardens are in some cases being used to advance the neoliberal agenda. Generally, such scholarship notes that community gardens encourage individualism, which perpetuates the elements of neoliberalism.

One line of critique indicates that despite the radical intentions of the practice, urban community gardens can be complicit in reinforcing neoliberal transformation by cutting back public services and the transfer of service provision to civil society actors. Rosol (2012) uses community gardens in Berlin (Germany) to highlight how the state can be complicit in using community gardening activities to reproduce neoliberal structuring through a neoliberal roll-back[1] and roll-out[2] functions that often operate simultaneously. Rosol demonstrates how state withdrawal or cutting back of services in the maintenance of urban green spaces results in the increasing participation of non-state actors who perform services originally provided by the state. In other words, community gardens are used as a strategy for outsourcing formerly public-provided services.

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Shifting the responsibility of such services to the voluntary sector is a form of neoliberal roll-back strategy, which results in the reduction of spending from the government (Rosol, 2018). The emergence of civil society can create competition between voluntary organisations, halting any forms of success of such activities countering neoliberal regimes (Wolch, 2006). This has been the case at the Real Food Wythenshawe project in the UK, where such dynamics are highlighted (St Clair, Hardman, Armitage, & Sherriff, 2020). In pulling out their services, the state encourages volunteerism as an alternative to the maintenance of public spaces they should

[1] Rollback neoliberalism generally refers to programmes and policies which promote market deregulation, privatisation and the cutting 'back' on government spending on public services, welfare and subsidies.

[2] Roll-out neoliberalism refers to the consolidation process of neoliberal based governance through the creation of new policies and programmes to protect capital accumulation interests. For instance, states engaging in public-private partnerships.

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otherwise maintain. Rosol (2018) highlights the use of the communities' uncompensated labour as a form of neoliberal roll-out strategy because it outsources the state's responsibilities to maintain public spaces by encouraging urban gardening projects. Rosol (2010) has demonstrated how community gardens may function as voluntary actors in urban space governance instead of a social movement. She cautions against this by stating that when it comes to institutional support, 'garden projects can use this support to promote their cause, but have to be aware of the local state's differing interests' (Rosol 2010:559).

In Cologne, Germany, Follmann & Viehoff (2015:1157) also highlight another form of neoliberal rollout mechanism through the shift away from public service in the management of green spaces by the state through the city's partnership with Kolner Grun Stiftung, a private entity tasked with the refurbishment of dilapidated community parks and management of the city's green belt. In Ireland, many public allotments in Dublin are managed through co-operative partnerships between the municipality and residents (Corcoran et al., 2017). Corcoran, Kettle, & O'Callaghan (2017:314) argue that in this way, the management of sites is devolved to the residents such that the municipality plays 'an advisory rather than a hands-on management role'. In a similar vein, Perkins (2012) contends that Milwaukee's austerity measures resulted in a diminished investment in the urban parks. Many public employees lost their jobs, and the Park Director encouraged volunteer activities to maintain the urban parks, shifting the state's responsibility to the residents. In the same city, Ghose & Pettygrove (2014) show how neoliberalism is precarious because the maintenance of urban community gardens demands various resources such as time and energy in already dis-advantaged neighbourhoods. Residents in such environments usually do not possess the wherewithal to maintain such activities. Ghose & Pettygrove (2014) report that the Milwaukee community gardeners in New York (USA) simultaneously empowered and challenged the participants due to neoliberalism. They showed that the garden enforced neoliberal ideals of active participatory citizens, which were not always accessible to all community members due to lack of knowledge, time to volunteer, and sometimes limited physical abilities.

Pudup (2008) goes a step further to demonstrate that community garden projects, in most cases, do not promote community development but rather encourage individuals into entrepreneurship. Neoliberalism operates in its various form by converting all social problems into market terms (Brown, 2006). Brown argues that examples such as the selling of bottled water as a solution to water contamination and privatised health care as a response to the failure of a national health care system are all examples of this. Following this reasoning, urban

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community gardens are sites where citizens are cultivating according to the neoliberal ideology. Rather than relying on welfare from the state, the government enforces the mentality that it is an individual responsibility to address socio-economic problems. According to Barron (2017), gardening projects that focus on overcoming food security through food production reinforce 'neoliberal subjectivities' since they magnify the assumption that insufficient food is the individual's fault instead of the neoliberal food system. In Amsterdam (Netherlands), Bródy & de Wilde (2020) examine community gardens within the context of neoliberalism. The qualitative study based on nineteen community gardens reports that the gardens are controlled spaces. According to these scholars, urban community gardening projects diffuse any potential mobilisation by keeping the citizens occupied. Furthermore, the burden of food security is shifted from the state to civil society in low-income areas. Therefore, civil society groups that support food production in these communities may unintentionally or intentionally play a role in bolstering neoliberalism.

Another line of criticism against the capacity of urban community gardens functioning as agents of neoliberal hegemony is their ability to perpetuate socio-spatial inequality. The literature shows that emphasising self-help in urban green spaces becomes problematic when it is focused on selected groups (Rosol, 2018). The state's involvement can perpetuate the level of socio-spatial inequality across urban areas through the process and procedures of providing land or resources. For example, Eizenberg & Fenster (2015) show that the municipalities Jerusalem and Tel Aviv-Jaffa (Israel) reproduced inequality through the unequal distribution of urban community gardens in wealthier neighbourhoods. Similarly, the bureaucracy often involved in obtaining the appropriate resources to successfully manage a garden only allows individuals with the highest social capital to navigate the administrative hurdles (Ghose & Pettygrove, 2014). The more educated and middle-income groups are better positioned to acquire such projects and articulate their demands and needs. Similarly, Reynolds (2015:255) reports that urban agriculture in New York is characterised by class and race-based disparities, promoting specific groups of people to access resources. Bródy & de Wilde (2020) concur by highlighting that NGOs in Amsterdam usually have a membership fee they require before they provide assistance; hence this limits the services provided to those who can afford.

Perhaps more clearly, the literature has also shown that urban community gardens have varying levels of inclusivity (Parry et al., 2005). Therefore, by this very nature, a community garden can prohibit other community members from participating in the garden. In some cases, community gardens' establishment on public spaces could be viewed as the privatisation of

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public space by social groups. For instance, community gardens that erect fences tend to communicate that the garden is not open to everyone and is exclusionary. Parry et al. (2005) argue that community gardens could create social divisions or exclusion by encouraging homogeneity among garden members. In this way, community gardens are not always agents of change but can be symbols of exclusion hence feeding into the neoliberal elements that they should be ideally countering (Ernwein, 2014). Nevertheless, this is also a contentious issue, especially in areas where fences may be erected to protect the garden resources from theft or damage. For instance, Roberts & Shackleton (2018) are that gardens functioning without a fence in the Eastern Cape province of South Africa are impractical due to livestock roaming freely, easily damaging the crops.

Some of the critical discourse on political gardening indicates that the state can employ urban community gardens to increase neighbourhood appearance or as a sustainability fix (McClintock et al., 2017; Sbicca, 2019). In Singapore, Montefrio, Lee, & Lim (2020) conducted a study on urban community gardens and aesthetics. They report that the state employed community gardens to enhance the green city space under various green urbanism campaigns such as the 'City in the Garden' programme in 2010. They also indicate that urban community gardeners were conditioned to uphold this in their activities through expectations from the state institutions that support the practice. In the same way, Corcoran, Kettle, & O'Callaghan (2017) argue that the municipalities in Dublin, Ireland, promote active participation in greening initiatives to fulfil the City Development Plan. They achieve this through the devolution of activities and responsibilities to the residents while minimising resource input.

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In the long-term such urban greening initiatives are used to promote gentrification, especially in decaying neighbourhoods. One of the main strategies exploited to make space attractive for middle-class taste includes sustainability fixes like green spaces. According to Sbicca (2019), urban agriculture is an easy tool to adopt for such ends due to the economic modes of production and unlimited environmental and social benefits. In a study in Denver (USA), Sbicca notes that it coincided with the booming economic recovery in 2011 when the local government embarked on urban agriculture campaign. This resulted in a wave of gentrification, causing a displacement of residents living in the neighbourhoods where urban agriculture activities had been started under the campaign. Sbicca argues that there was a limited effort from the government to promote affordable housing. Hence, other interest groups such as real

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estate and property developers capitalised on the neighbourhoods' greenery to drive prices up and attract wealthier residents while simultaneously displacing low-income residents in the very communities. Instead of urban agriculture addressing local food problems, it advanced neoliberalism by increasing property values and promoting gentrification. Quastel (2009) makes a similar observation by highlighting how the practice can be exploited as a marketing strategy by developers to increase the land-value costs in neighbourhoods in Vancouver in Canada. More of the young and educated population are drawn to such neighbourhoods as they may be cheaper for them. Similarly, McClintock (2018) argues that urban agriculture activities can drive gentrification due to the enhancement of urban greenery in low-income neighbourhoods in global North cities. Consequently, the community engaging in the activities potentially suffers from increasing property values, which may potentially drive them out of the neighbourhood in the long run.

While each of these aforementioned points of critique offers insights into the complexities of community gardening in general, recent scholars indicate it is crucial to understand that urban agriculture is complex and can exhibit both characteristics simultaneously due to its entrenchment in the neoliberal environment (Bródy & de Wilde, 2020; Engel-Di Mauro, 2018; Ghose & Pettygrove, 2014; McClintock, 2014). After all, community gardens do exist in society; hence the broader neoliberal environment is likely to affect the gardens (Ernwein, 2014). This dualist capacity of urban gardening as transformative or complicit within neoliberal cities has been critically reflected in the literature. Ernwein (2017) argues that one single actor can engage in contradictory practices in this regard. A study in Switzerland Ernwein observes that the municipality in Vernier (Geneva) contributes to the reinforcement and contestation of neoliberal hegemony. The author highlights this by bringing to the fore-front the contradictory activities the municipality engages in, such as strict governance of urban gardening projects and the municipalities attempt to purchase land from private landowners for community gardening initiatives. While this may be seen as countering the capitalist ideologies the state then goes on to control the garden activities, which reinforce neoliberal elements. In Barcelona (Spain), Domene & Saurí (2007) show that the Terrassa municipality supported vegetable gardens conformed to a more orderly nature required by the municipality instead of gardens that emanated without the influence of the municipality. As a result, the municipality went on a rampage of shutting down illegal gardens under the guise of environmental degradation and failure to conform to the urban plans.

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In Amsterdam Bródy & de Wilde (2020), report that community gardens are controlled spaces that simultaneously counter neoliberal processes and perpetuate them. They show how the relationship between gardeners and the governance actors can both enable civic participation and impair it. The above cases demonstrate that community gardens can be controlled spaces where the state executes influence depending on the agenda. Therefore, governance institution usually uses the activity to fulfil different agendas. This is true, especially in the case of community gardens that are formed and influenced by the state. On the other hand, gardening projects with limited government influence are better positioned to maintain their autonomy by operating based on their own rules and fulfiling their aims (Bródy & de Wilde, 2020). In such cases, there is freedom in decision making in the garden operations with limited external influence.

While highlighting the perspective of community gardening as urban commons, Eizenberg, (2012) underscores that the presence of such complexities does not take away from the progressive nature of urban community gardens as commons. Therefore, it is crucial to understand that although not perfect, they are actually existing commons that may take a long time to fulfil the perfect common (Follmann & Viehoff, 2015). Moving beyond the either/or framing of the urban agriculture as counter-agent or promoter of neoliberal restructuring Crossan, Cumbers, McMaster, & Shaw (2016) use the concept 'do it yourself citizenship'. Through an enquiry on Glasgow's community gardens, they demonstrate how despite gardens being governed by local governments from a top-down approach, the spaces can promote civic participation. Similarly, Bach & McClintock (2020) conducted a study in Canada where they examined the radical political nature of urban gardening projects. Their findings show that the spaces offered political activism spaces where the gardeners could work collectively and articulate alternative realities to the capitalist hegemonic structure. However, they also note that most of the projects had been largely depoliticised due to institutionalisation by the state and civil society groups such as NGOs. Based on their findings, they conclude that the gardening projects' capacity to transform the capitalist system, although present, was severely limited. Hence, this line of discourse indicates that whether a garden is transformative or complicit in capitalist hegemony depends on the community within which it operates (Engel-Di Mauro, 2018). Community gardening projects in more insurgent environments are likely to be more transformative than those in capitalist-friendly environments whose efforts are subdued by various internal and external forces.

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2.7 Urban agriculture and urban community gardens in South Africa

Although urban agriculture is an old activity, before the 1980s, limited information existed regarding the extent, scholarship, or significance of the practice in South Africa (May & Rogerson, 1995; Webb, 2011). The only evidence of the viability of urban agriculture was based on case studies from African and Asian cities and the endorsement of the activity by international organisations (Rogerson, 1993). Without much literature at the time, research took an advocacy role based on case studies elsewhere and the development discourse promoted by international institutions such as the World Bank research, the International Labour Organisation, Food, and Agricultural Organisation, the Canadian International Development Research Centre, the Resource Centres on Urban Agriculture and Food Security and the United Nations (Webb, 2011). For instance, Rogerson's writings encouraged municipal governments and the academic community to look into the potential of urban agriculture as a livelihood tool within the context of unemployment and urban poverty (see May & Rogerson, 1995; Rogerson, 1993, 1998).

In 1989 food security was a significant concern in the country due to a rise in unemployment and surging food prices, which had devastating effects on the urban poor. Apartheid legislation had resulted in the relocation of the black population to the rural homelands, where movement was severely restricted. However, between 1991 and 2001, there was an increase in rural to urban migration of people who went to urban centres searching for employment. The lack of jobs in most cities limited the employment opportunities available to migrants resulting in soaring unemployment levels. Under apartheid planning, the poor had been relocated to the margins of urban areas and rural areas; as such most of the urban poor were concentrated in the rural area (Rogerson, 1998). Hence, post-apartheid, the economy's failure to absorb migrant labour was simply a phenomenon of the relocation of poverty. The urban poor engaged in informal activities as livelihood options, and the majority of the urban residents had limited access to food while some had to spend up to half of their income on food.

On this background, the government and NGOs launched several initiatives to address urban poverty in low-income areas. One of these strategies was encouraging urban citizens to partake in backyard and community gardens to contribute to household food security (Rogerson, 1993). As a result of these initiatives, several urban gardening projects mushroomed specifically in townships and informal settlements in the 1980s and 1990s. For instance, sixteen food gardens were created by the community of Zonk'Izizwe, a township in Johannesburg, to generate income and create employment (Ormet 1992 in May & Rogerson, 1995). Similar trends were

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reported elsewhere across cities in the country; for example, in Cape Town, most urban community gardens sprouted in low-income townships such as Khayelitsha, Phillipi, Nyanga, and Crossroads (Karaan & Mohamed, 1998). In the Eastern Cape, the Isithatha Agricultural Project and the Masizakhe Agricultural Project were community gardening initiatives established in Uitenhage and Lingelihle, respectively, to create unemployment and reduce poverty (Jacobs 1994 in Webb & Kasumba, 2009). Most community gardening projects and home gardeners received support from NGOs in the form of inputs, tools, training, and monitoring (Karaan & Mohamed, 1998; Schmidt & Vorster, 1995).

The primary motivation behind the promotion of urban agriculture and community gardens was to enhance household food security and income generation. Scholars such as May & Rogerson (1995) argued that urban agriculture was a crucial livelihood option, especially for the women who were the main partakers in the activity. In their study based on household surveys in Tembisa, Kwamashu, Umtata Grouteville and Inanda the authors concluded that although the practice of urban agriculture faced many obstacles, it played a crucial role within the context of post-apartheid developmental initiatives. Even then, the studies were critical of urban agriculture activities. May & Rogerson (1995) argued that although agriculture was a livelihood option for the poor, it was not the most effective survival stratagem for the urban poor. Therefore, scholarship argued that it was crucial to compare urban gardening with other alternative livelihood options before fully supporting it under insufficient information that proves its economic viability. Rogerson (1993) stated that residents preferred the more economically beneficial option of erecting a backyard for rentals as opposed to cultivating land. The main message across studies such as those by Rogerson was for urban policymakers to pay more attention to urban agriculture's potential as a poverty alleviation tool. Traditionally, urban agriculture was labelled as an illegal activity under the apartheid planning system (Magidimisha, Chipungu, & Awuorh-Hayangah, 2013; Modibedi, Masekoameng, & Maake, 2021). Therefore, there was no recognition of urban agriculture as a livelihood option from the local governments, and the activity was not included in any planning and land use activities. Hence most of the work at the time is what Webb (2011) would call advocacy work rather than recommendations based on sufficient evidence.

Accordingly, the bulk of the literature during this time aimed to showcase the potential of urban agriculture to contribute to household food security and income generation (Belete, Mariga, & Goqwana, 2006; Reuther & Dewar, 2006; Thornton, 2009; Thornton & Nel, 2007). This was not surprising since the adoption of urban agriculture activities coincided with a rise in urban

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poverty in the country (Slater, 2010). For instance, some of the literature focused on understanding the motivation behind the resident's engagement in community gardening activities or other forms of cultivations reporting the strong presence of the need to fulfil household requirements and generate income (Karaan & Mohamed, 1998; Moller, 2005).

The advocacy work eventually saw several local governments embrace urban agriculture as a solution to household food security (Battersby, 2012). Support for urban agriculture also grew from provinces and municipalities across the country, for instance, in Cape Town (Rogerson, 2011), Johannesburg (Ruysenaar, 2013), and eThekwini (Beall & Todes, 2004). The City of Johannesburg adopted a Food Resilience Policy in 2012 (Malan, 2015). Under the slogan '*A City Where None Go Hungry',* the policy seeks to fulfil its objective through five initiatives namely; better information on food insecurity; support for individuals who want to cultivate their food to sell or consume, to ensure the availability of affordable healthy food, raise awareness on food security across communities and promote healthy consumption patterns. In Cape Town, in 2007, the municipality passed the Urban Agriculture Policy to promote urban agriculture as a livelihood strategy in low-income areas (Rogerson, 2011). At provincial level, Gauteng supported urban agriculture through the Gauteng Agricultural Development Strategy, while the Western Cape achieved this through the Department of Agriculture's Urban Renewal Programme (Rogerson, 2011). In eThekwini, despite unclear plans and guidelines, the municipality offered various support programmes that support urban agriculture activities in low-income areas 'mainly for socio-economic impact purposes associated with food availability and livelihood creation'(Bisaga, Parikh, & Loggia, 2019:15).

In addition to the literature showcasing the potential of the activity as a poverty alleviation strategy, some studies examined the structural barriers that militated against the success of the activity. For instance, in Cape Town, Reuther & Dewar (2005:97) conducted a study evaluating the SCAGA garden in Khayelitsha. After identifying the various challenges, the community gardeners faced, they concluded urban agriculture was 'potentially economically viable' if various other militating factors could be addressed. In Peddie, Thornton & Nel (2007) examined the Masizame Community Garden project and cautiously reported that the garden could generate income and contribute to household food security. They argued that urban agriculture's full potential was significantly affected by 'structural historical and socioeconomic barriers' (Thornton & Nel, 2007:13). In another case, Dyer, Mills, Conradie, & Piesse (2015) conducted a study on the contribution of the social enterprise Harvest Of Hope

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on community gardening projects in Khayelitsha and Nyanga in the Cape Flats. They reported that the Harvest of Hope, a social enterprise made a critical contribution to the community gardens' livelihoods.

The literature tended to show the challenges which made urban agriculture difficult to practice and fulfil its potential, for instance, land tenure insecurity (Thornton, 2009), limited access to markets (Thom & Conradie, 2013), poor infrastructure, limited extension services, poor policy frameworks (Rogerson, 2011), and poor soils among others. Therefore, there was an understanding that addressing these underlying problems could improve urban agriculture's viability.

In the case of community gardens, it was clear that group instability was a significant deterrent to the success of gardening activities. For instance, Tembo & Louw (2013) reported high attrition rates in the gardens due to various factors such as conflict and securing employment. Battersby & Marshark (2013) found out that in some cases, NGOs opted to support home gardeners as opposed to supporting group gardens due to group instability which often failed the project. Based on the various challenges limiting the development of the practice of urban agriculture and community gardening the scholarship was cautious of overstating the economic benefits of urban agriculture. Even to this day, such studies do exist, for instance, Bisaga, Parikh, & Loggia (2019) use a mixed-methods approach to examine the challenges and opportunities for urban agriculture in the context of under-resourced communities in eThekwini. Their findings demonstrate that urban agriculture could make environmental, social, cultural, and developmental if issues such as resources access and enabling policy framework were in place. Moreover, they show that the success of urban agriculture activities hinges on effective stakeholder consultation; otherwise, projects are likely to fail as in the identified cases of communal vegetable gardens in Joanna Road, eThekwini. Hence, they recommend that supporting actors be able to tap into existing networks of people with skill and motivation to ensure that projects succeed.

On the other hand, more research trickled in that argued that urban agriculture's economic and household food security potential was exaggerated. This was also due to some studies that indicated the limitations of urban agriculture and painted it as a safety net for the poor. In Cape Town, empirical research by Eberhard (1989) indicated that urban agriculture was unable to significantly contribute to the poor's livelihoods. He concluded this after investigating the

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economic capacity of urban agriculture across low-income areas in the city. He reported that the economic benefits were insignificant and less than a percentage of the surveyed households' incomes. More, case studies began to indicate that urban agriculture did not significantly contribute to household food security and nutrition (Crush, Hovorka, & Tevera, 2011; Frayne, McCordic, & Shilomboleni, 2014; Webb, 2011). One such critic was Webb (2011), who argued that there was no evidence that urban agriculture was a livelihood option for the urban poor. In Ezebelini (Queens Town, Eastern Cape), Webb & Kasumba (2009) conducted a study on the benefits of urban agriculture on low-income households. Their study findings demonstrated that the financial benefits from urban agriculture were negligible. Such scholars essentially claimed that the advocacy of urban agriculture as a livelihood option was linked to the broader developmental discourse instead of local empirical evidence.

Thornton (2008) in Peddie (Eastern Cape) reported that social grants were the primary survival strategy for the urban poor. Across informal settlements in Pretoria, Van Averbeke (2007) conducted a study to provide quantitative information on the material benefits attained from urban gardening. The author reported that the contribution of urban agriculture towards household income and food security was generally modest. Moreover, the literature showed that only a few percentage of the urban poor engage in the practice; hence the assertion urban agriculture benefits the pro-poor urbanites was improbable (Webb, 2001; Crush et al, 2011). AFSUN conducted a study based on a survey of 1 060 households from Philippi, Ocean View and Khayelitsha (Cape Town). The reported that the level of participation in urban agriculture activities was very low among the urban poor, moreover, among the participating households a limited number were food secure as a result of gardening activities (Crush et al., 2011). Schmidt & Vorster (1995) also reported no significant difference between the nutritional status of gardeners and non-gardeners in Slough in the North-West Province. Their study assumed that community gardeners ate more vegetables hence had better nutrition as opposed to non-gardeners. The study was based on the assumption that people who grow their vegetables had a better nutrition status compared to non-gardening households. Using a sample of 18 children who engaged in community gardening and a control group. Their findings indicated that gardening did help them save money and improve food variety. Nonetheless, the gardening households did not consume vegetables daily, neither did they eat more than the control group. Schmidt & Vorster (1995) conclude that engaging in community gardening projects did not guarantee better nutrition.

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In another case, Frayne et al. (2014) reported that urban agriculture did not make any significant contribution to the income or food security status of engaging households. Their study was based on a household survey focusing on 11 cities in Southern Africa including Johannesburg and Cape Town with a sample size of 996 and 1060 households respectively. Their analysis demonstrated that urban agriculture was an inefficient food security strategy for the surveyed households. Their quantitative analysis was unable to report any significant relationship between food security and urban agriculture. Hence, they conclude by questioning policymakers who support urban agriculture as a poverty alleviation strategy. A more recent case, in Tongaat, eThekwini, Khumalo & Sibanda (2019) conducted a study to examine the link between urban agriculture and food security. Their study is based on 109 gardening and 99 non-gardening households selected through a stratified random sampling method. Based on their analysis they argue that although gardening improved food availability the results are inconclusive to show that gardening households have a better dietary diversity as compared to non-gardening households. Wills et al. (2010) conducted a study on a community gardens impact on health and food security in Johannesburg. They reported that the impact on health was not measurable although it was useful for adding to household food security.

Reuther & Dewar (2006) highlighted that community gardeners were quick to abandon the gardening project once they secured employment. From a conceptual level, Battersby (2012) argues that the framing of urban agriculture as a solution to food insecurity was based on the rural conception that food insecurity could be addressed through strategies of increasing household food production. Unfortunately, this approach had been shifted to the urban centres when in fact household food insecurity in urban centres is an issue of access rather than availability. Collectively, this triggered a shift in the scholarship to understand why people continued to engage in urban agriculture activities and community gardening despite the limited economic gains from the activity. The discourse slowly began to shift from the traditional economist framework of interpreting urban agriculture to more diversified approaches to understanding the broader motivations and benefits of urban agriculture practices.

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Most of the studies prior the 2000s had focused on the economic benefits of the practice; hence there was a gap in the literature regarding the immaterial benefits of urban gardening such as its capacity to contribute to community development (Battersby & Marshak, 2013; Rogerson, 2003). For instance, in a 2003 writing on urban agriculture, Rogerson notes that there was limited investigation of other facets of agriculture such as social and environmental benefits.

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This does not mean previous studies did not identify these; for example, studies by Eberhard (1989), Karaan & Mohamed (1998) all mentioned the social benefits. However, this was never in great detail as the focus was primarily to understand the economic aspects.

Studies stressing a focus on other concomitant benefits of the practice began to emerge (Battersby & Marshak, 2013; Olivier, 2019; Slater, 2010). Perhaps, the most highlighted of such studies was conducted in Cape Town by Slater, who examined the benefits of urban agriculture amount 11 women from community gardens in the Langa, Khayelitsha, and Crossroads in the Cape Flats. Arguing that most of the research in Cape Town was largely quantitative focusing on economic gains of urban agriculture, she used life histories to explore urban agriculture's social impacts on selected women in the Cape Flats (Slater, 2010). Her results demonstrated that urban agriculture for women extended beyond economic gains. The women's participation in group gardening provided a sense of empowerment and enabled them to control household food consumption. Furthermore, it helped them to improve social capital and participate in the development of their respective communities. Nevertheless, Slater's study focuses on gender benefits, thus partly filling the gap existing in the literature.

Numerous more case studies emerged that examined urban agriculture more broadly and with different goals, such as exploring the multiple benefits of urban agriculture, for example, social benefits (Battersby & Marshak, 2013; Kanosvamhira & Tevera, 2019). In Cape Town, Battersby & Marshak (2013) conducted a qualitative study investigating the perceived benefits of urban agriculture among gardeners supported by a local NGO in Vrygrond and Seawinds. Their findings revealed that there were minimal economic benefits obtained from the practice; instead, the gardeners engaged in the practice for reasons that extended beyond the material benefits. Therefore, they recommended that policymakers consider the multiple benefits of the practice when creating policies or supporting projects. A similar finding was reported by Van Averbeke (2007) in Pretoria, where the author reports that there were other social and environmental benefits as well. Some studies have sought to indicate how community gardening and backyard gardening contribute to social capital development in distressed communities (Kanosvamhira & Tevera, 2019; Olivier & Heinecken, 2017b, 2017a). For example, in Cape Town, Olivier & Heinecken (2017b) showed that gardening was a tool to foster social cohesion among gardeners and the local community. Again, in Cape Town, Hosking & Palomino-schalscha (2016) conducted a study that focused on the benefits of gardening beyond. They conclude by stating that 'the garden represents her monetary livelihood, to her it also builds and reflects the well-being of the land and the people on it'

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(Hosking & Palomino-schalscha, 2016:1266). However, the study is only conducted based on a single individual and thus cannot explore the issues across a varied base of participants. Most recently, (Siebert, 2020) explores urban cultivation as a form of social movement in response to the neoliberal food system. This is perhaps one of the few studies that provide crucial information on the transformative nature of urban food producers.

Generally, most contemporary studies on urban agriculture and community gardens now focus on a broader range of issues than they did a decade ago. Such studies adopt varied methods to enhance our understanding of the place of urban agriculture in the city. For example, there is still work showing how regressive policy environments continue to militate against urban agriculture's benefits (Magidimisha et al., 2013). Nonetheless, some studies continue showing community gardening projects' capacity to contribute to food security and nutrition. For instance, based on a survey of 254 community gardeners in Emfuleni Local Municipality in the Gauteng Province, Modibedi, Masekoameng, & Maake (2021) found urban community gardens to contribute to food availability for the urban gardeners. Another group of studies has sought to show the need for continued stakeholder participation and dialogue to ensure urban agriculture's success (Kanosvamhira, 2019; Malan, 2015, 2020, 2021). Some focus on environmental benefits (Menyuka, Sibanda, & Bob, 2020). Therefore, it is clear that studies now range on various other aspects of urban agriculture, ranging from economic, social, health, and environmental benefits.

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The discussion above shows that the rise of urban agriculture and community gardens largely responded to the economic crisis in post-apartheid South Africa. The rate of economic expansion at the time was not sufficient to absorb the massive influx of migrants in search of employment. As a result, there were massive levels of unemployment and food insecurity in the urban areas of South Africa. In this context, urban agriculture was adopted to address the food security and employment creation for the urban poor. This is in line with various studies globally that show a similar trend of adopting urban agriculture in economic crises, for instance, in Cuba (González-Corzo, 2010), in the USA (Lawson, 2004), or the UK (Warner, 1987).

2.8 Research gap

Traditionally, the bulk of the South African literature advocated for the support of urban agriculture on the premise that it could contribute to food security and income generation. With time, more literature began to understand the limited potential of the material benefits, partly

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because of the practice's various barriers. This triggered broader research into urban agriculture and barriers against it. However, due to the continued poverty levels in urban centres, urban agricultural practices remain an omnipresent feature across most South African cities. A few studies have explored urban agriculture as a form of activism against neoliberal ills. Despite the research identifying the multiple benefits of the practice, a gap continues to exist regarding research focusing on urban community gardening within the context of activism. The literature followed a similar trend from other regions where community gardens were initially a response to economic or food crises. However, with time, the discourses explored different aspects of the practice, especially with a lens of social change in distressed communities. A review of the literature in South Africa shows that studies have diversified their lines of inquiries to broaden the understanding of agriculture. However, there still exists a gap in examining gardens within the context of neoliberalism and resistance initiatives. This research addresses this gap in the literature by arguing that urban community gardens in Cape Town are activist platforms geared towards broader injustices faced in distressed townships.

2.9 Conclusion

This chapter demonstrates that urban agriculture both in the global North and global South is practiced for reasons that extend beyond the provision of vegetables. Scholarship in the global South on urban agriculture and urban food gardens is still largely influenced by developmental agendas due to the high unemployment and poverty rates. Hence studies in the global South still have a large, strong focus on the connection between food gardens, food security, and nutrition. However, in addition to food security, the more recent studies on community gardens incorporate various other aspects of community development, albeit less than the plethora of studies in global North cities. Despite the productivist approach and post-productivist framing of urban agriculture across the two aforementioned regions, it is clear that there is some convergence on the basis that urban agriculture allows for the addressing of physical, social, economic and environmental issues. Although a bulk of the studies in the global South have focused on the material aspects, recent scholarship is indicative of a shift and convergence with the research in global North cities on the themes which include but are not limited to the social and political landscapes of cities. Since urban agriculture is about access to resources for production it is rather unavoidable to analyse the urban politics at play. In this respect, more research needs to be conducted to understand urban areas even in global South cities. Perpetual focus on production tends to water down the deeper processes at play of urban politics. Increasing the significance of urban agriculture hinges, in part, on overcoming the global North

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and South divide. This study addresses this gap by viewing urban community gardens as commons, examining the level of collective action, and attempting to assess how they counter urban injustices in the Cape Flats communities. The next chapter discusses the theoretical framework used in this research.

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CHAPTER 3: THEORETICAL FRAMEWORK

3.1 Introduction

This chapter provides an in-depth review of the theoretical framework that guided this research. The chapter commences with an overview of how space has been viewed overtime in urban geography before narrowing down to Lefebvre's theory of the social production of space. Lefebvre argues that urban space is a social product, implying that all societies have ways of producing space. Lefebvre's spatial triad shows how the contradictions between lived spaces, conceived and perceived, result in urban space contestations in the contemporary city. The chapter also demonstrates how the triad has been utilised and also built upon by other influential urban geography scholars over the years. The chapter justifies why the social production of space was the most suitable theoretical framework for this research and its major weakness.

3.2 The social production of space

This research employed Lefebvre's theory of social production of space. His ideas on space are celebrated as they helped improve the understanding of the influence of human's interactions on space production. Prior to the 1950s, in the discipline of geography, space used to be understood strictly in its absolute terms. In other words, space was viewed as a geometry or absolute grid on which objects were located, and events occurred (Hubbard, Khitchin, Brendan, & Fuller, 2002). This view was primarily held by positivist thinkers and quantitative geographers who reduced space to geometrical values of x and y (Hubbard et al., 2002). Old notions of space emphasised it as a flat cartographic location or container where human activity occurred, and this failed to realise that humans shaped space formation (Soja, 2010).

This school of thought received criticism from scholars who argued thinking of space as strictly absolute was limiting. Such scholars argued that space was not an objective reality but instead socially constructed; hence it was crucial to understanding how humans shaped the space they lived in. One such scholar was Henri Lefebvre, who advocated that space was socially produced. The French Marxist philosopher published several influential materials on everyday life, social struggles, and social space during his time. He argues that space is not just a container in which human activity occurs, but the interactions were crucial in actively

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producing and shaping that space. In line with this, his most influential work on the social production of space is his 1974 publication titled *'The production of Space'*.

His book 'The production of Space' examines the spatial dimensions of the capitalist society. The main idea communicated in this book is that humans socially produce space through the way they utilised the land and social relations, which continuously give meaning to the space (Lefebvre, 1991). Lefebvre contends that space users are confronted with various forms of space, including 'the physical- nature, the cosmos; secondly, the mental including logical and formal abstractions; and, thirdly, the social physical' (Lefebvre, 1991:11). According to Lefebvre, under the capitalist system, space is produced and reproduced through plans, grids, and schedules. Due to space production's nature under the capitalist system, these types of spaces are separated in theory and practise. As a result, space users are blinded to understand the nature of space production and how all the multiple interactions between the different forms of space function. Lefebvre believes that the capitalist society achieves this by structuring space according to class and the immediate result of this was the failure to understand the relationship and often contradictory practices that emerge within space.

To Lefebvre, this blinding is perpetuated by the ruling class through knowledge. He distinguishes between 'savior' and 'connaissance' knowledge i.e. serving power and knowledge that is refusing to acknowledge power respectively. The capitalist society utilises various tools to make sure people are conditioned to work within this framework, which suits the needs of the elite. For example, everyday activities such as waking up and community to work fit the system. Such an organisation of activities has the ultimate effect of cultivating citizens who conform to capitalist society's hegemony. Therefore, Lefebvre's goal was to enhance our understanding of these multifaceted spaces through a single theory.

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Lefebvre proposed a theory that consists of two intertwined frameworks, the first referring to the periodization of space and the second being the spatial triad framework. The periodization of space framework discusses different kinds of space, namely abstract space, sacred space, historical space, and differential space. He attempts to explain how these types of space; physical, mental, and social space had been previously envisioned separately, thereby limiting our understanding of space in society. Given this separation, Lefebvre proposes a unitary theory that showed that physical nature, the mental space, and the social space were of the same substance and force. He expounded and supported his propositions through the second

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framework, the spatial triad, which provided a dissected understanding of the elements involved in the social production of space. Essentially, Lefebvre's work anchors on the idea that social struggles in society could be reduced to spatial conflict. Examples of this are the culmination of various social movements across cities of communities that sought to redefine a different way of living from the one imposed by the capitalist society (Harvey, 2012). Here the right to the city movements consists of individuals who collectively attempt to harness some power in how their urban spaces are shaped. Based on his work, it is argued that spatial conflict is a manifestation of the divergent ideas about space (Purcell & Tyman, 2015).

Lefebvre's work has been celebrated in the social sciences and widely utilised by geographers to analyse social life (Hubbard et al., 2002). Lefebvrian propositions on space are central in understanding aspects of space. For example, prominent geographers such as David Harvey and Ed Soja have incorporated Lefebvre's arguments into their works to understand social space production in contemporary times. A bulk of Harvey's work calls for the need to understand urban spatial practices within the context of neoliberalism (Unwin, 2000). He draws inspiration from Lefebvre's spatial trial to unpack space and time and the urbanisation process. Similarly, Soja challenges ideas about space, drawing from Lefebvre's argument and other spatial theorists (Hubbard et al., 2002). For instance, in his book titled '*Seeking Spatial Justice*', Soja argues that scholars need to be spatially conscious to ensure that they can dissect social hierarchy and its influence on the city's spatial organisation (Soja, 2010). The scholars mentioned above concur that space represents a complex system of interlocked physical and social relations that give meaning to space. This research adopted the theory based on Lefebvre's original developments and significant contributions made by contemporary geographers.

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3.2.1 Social production of space and the spatial triad

The spatial triad consists of three elements summarised as spatial practice, representations of space, and representational space (see Table 3.1). The spatial triad integrates physical, mental, and social space in the unitary theory of space (Lefebvre 1991:21). These elements are denoted by the terms 'perceived', 'conceived', and 'lived' space respectively. In spatial terms, he refers to them as spatial practice, representations of space, and representational spaces (Lefebvre 1991). Lefebvre tends to use these terms interchangeably, as do most scholars.

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According to Lefebvre's work, spatial practices or perceived space 'embraces production and reproduction, and the particular locations and spatial sets characteristic of each social formation' (Lefebvre, 1991:33). In other words, the spatial practice encompasses the material space and all forms and objects which possess the power to influence the location of human activities, communication, and social relations (Leary, 2009; Purcell, 2002). In this way, spatial practice's structure everyday life within the broader socio-economic environment. These spatial practices also serve to reproduce urban space enabling it to function as a system (Lefebvre, 1991). Members of society engage in activities such as daily routines, production, and reproduction of social relations, shaping spatial practices.

On this basis spatial practice is related to the physically observable hence it is tangible and thus can be 'seen, felt, touched, heard, tasted, [and] manipulated'(Carp, 2008:132). According to Carp (2008), the same space can be perceived differently depending on various factors such as visual capacity, age, socio-economic characteristics, among other things. Essentially the perception of space is largely linked to patterns of movement and encounters which are in turn affected by sounds, smell, and so on. For instance, in his book, he provides an example of a tenant's daily practices living in a housing project as perceived space (Lefebvre, 1991). In this way, spatial practices give structure to everyday activities within the broader socio-economic environment. Therefore, as a tool of analysis in the context of this research, it was essential to gain insight into the participant's use of the space and their patterns of movement and activities in a bid to harness their attitudes and knowledge towards the space.

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Table 3. 1: Lefebvre's Spatial Triad

	Perceived space	Conceived space	Lived space
Subjects	The working class, society in general	Urban planners, engineers, scientists, architects, technocrats	Passive users, general society
Objects	Locations, transport routes, undesirable and desirable spaces	Theory, plans, maps, ideology, images, signs, codes, knowledge	Art, culture, symbols, memories, images, social life
Activities	Daily activities, social relations	Planning, calculation, representation	Daily activities

Source; Adapted from Lefebvre (1991)

Representations of space is conceived space and encompasses the elements 'which are tied to the relations of production and to the 'order' which those relations impose, and hence to knowledge, to signs, to codes, and 'frontal' relations' (Lefebvre, 1991:33). These abstract perceptions of space are reproduced using the same tools used to create them (Stewart, 1995).

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Stated differently, the conceived space possesses the ability to reproduce space. The society produces signs which give meaning, and these are reproduced through creation, storage, and dissemination. Mediums that influence how space is represented include books, images, maps, and films. These mediums have a bearing on how one views specific spaces. For instance, maps carry such power since they are created to influence how a space functions and should be perceived by society (Hubbard et al., 2002). According to Lefebvre, representations of space reduce space to a quantifiable variable that erases the social aspect of the space. Institutional structures and professionals are responsible for producing representations of space. These include scientists, urban planners, social engineers, and architects responsible for constructing, calculating, and conceiving space through different mediums (McCann, 1999). Therefore, such individuals shape how the city works by offering a view of how urban space should be consumed. However, this means that individuals can alter space based on their representations of it. In the context of this research, appreciating how space is conceived was crucial to show the points of contention across the different actors involved in urban space utilisation.

Third, representational space or lived space is space, 'embodying complex symbolisms, sometimes coded, sometimes not, linked to the clandestine or underground side of social life, as also to art' (Lefebvre, 1991:33). In contrast to spatial practice and conceived space, representational space is the space felt by humans as they go about their day-to-day lives. In this element, users passively experience space through different objects such as art, imagery, symbols, and memories (Lefebvre, 1991). In other words, these are the felt experiences of everyday life interactions and activities. Lived experiences go on to be a crucial component of one's memory. Lefebvre argues that lived space provides the people power to overcome social struggles that emerge from capitalism. In these spaces, individuals can see alternative ways to utilise space, which usually brings about conflict with other stakeholders. Consequently, lived spaces possess the capacity for transformation

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To further improve the understanding of the Triad, several other prominent contemporary geography scholars such as Edward Soja and David Harvey interpret the framework in several ways. For instance, Soja developed the spatial trialects he articulated in his work *'Third-space: Journeys to Real and Imagined Places*'. Influenced by the spatial triad, he argues that space consists of First space epistemology, where spatial practice is primarily a result of history. The second-space focused on how space users obtained ideas through conceived space and projected them to lived experience. Finally, the Third space focused on better understanding

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the lived space. Perhaps in enhancing the understanding of this space he showed that third space could be both real and a figment of imagination. Stated differently, for Soja, the third space is objective or subjective and hence, more fluid than the first and second space. He argued that to better understand spatialisation more attention had to be paid to the third space and how it influenced the other two elements.

Scholars such as David Harvey have improved our understanding of space by building on Lefebvre's theory and main arguments on space. David Harvey encourages geographers to examine space in relational terms. Harvey built upon Lefebvre's idea arguing that space was not absolute. In his work titled 'Social *Justice'* published in (1973), he argues that it was important to examine space as a prerequisite to understanding the urbanisation process under capitalism. Like Lefebvre, Harvey showed how social practices created space and in turn altered the practices and processes. In other words, he rejected the belief that space had no effect on the social practices in society. To further expand on his idea, Harvey argued that space could be understood through a tripartite framework that consisted of absolute space, relative space and relational space. Absolute space here refers to the physical space surrounding us, whereas relative space explains the idea that objects exist because of their relationship to each other, and relational space exists as far as 'it contains and represents relationships to other objects' (Harvey 2006: 120). While Absolute space can be easily understood relative space is rather abstract; however, he provides explanations to ensure that the concepts are understood. Relative space entails the scale of the objects in relation to each other and the means of measuring these. Relational space deals with the forms of measurement depending on the framework of the observer (Harvey 2006: 122). Consequentially, Harvey argues that these spaces are held in dialect tension although not necessary to the same degree. Harvey compares these categories to those proposed by Henri Lefebvre spatial practice, representations of space (Table 3.2). He presents a matrix that demonstrates points of intersection that suggest the different ways of understanding space and space- time (Harvey 2006: 133).

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Table 3. 2: Interpretation of Harvey's Matrix

		Lefebvre's categories		
		Spatial practice/ Perceived space	Representations of space/ Conceived space	Representational space/ Lived space
Harvey's categories	Absolute space	Property, buildings, structures	Locations, maps	Sense of ownership, feelings about space
	Relative space	People, natural environments, capital	Property documents, spaces of mobility	Feelings, experience, social norms, expectations
	Relational space	Social relations, property rights	Enforcement, metaphors of power	Memories, imagination

Source: Adapted from Lefebvre (1991) and Harvey (2006).

Therefore, to provide a more enriched analysis this study adopted the above the spatial triad with the crucial additions developed by Harvey. The main advantage of this is that it allowed the focusing on absolute space with improved clarity in terms of actors involved. This made it easier to draw connections between the objects and different elements of the triad. Such an exercise allows for the possibility 'to think dialectically across the elements within the matrix so that each moment is imagined as an internal relation of all the others' (Harvey, 2006:281).

3.2.2 The integrated triad as an analytical tool

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Intertwined, all these three previously mentioned elements make up space. The relationship between lived space and representations of space is always held in tension shaping spatial practice (Stewart, 1995). In other words, material space is the platform on which lived space and representations of space play out (Hubbard et al., 2002). Zhang (2006) provides a useful example to explain the intricate relations between the elements of the trial by comparing them to three cameras simultaneously projecting an event where one camera captures mathematical data of the building, i.e., length of the corridor or size of the floor, the other captures body movement at the event and the last capturing the inner feelings of the individuals present at the event. Hence in this example, each camera captures different data yet, simultaneously projects the event as a whole (Zhang, 2006). Such is the situation when it comes to understanding space production through the spatial triad.

Through the spatial triad, Lefebvre was able to show how the three elements result in the production of different forms of urban space. According to Lefebvre, in an ideal society representation of space should come before spatial practices. State differently, those who

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influence structures should consider the life stories and experiences of people before deciding how space is conceived. Nevertheless, Lefebvre argued that this is not what transpired in the 20th century. Lefebvre argues that under the capitalist society, the state, for example, through urban planners, is mostly responsible for shaping space representations. Influenced by Marxist teachings, Lefebvre wrote that the capitalist state has a primary goal of bestowing all the space with exchange value to meet their interest of profit-making. In other words, under the capitalist system, a few individuals were strategically driven to develop space in a way that serves their modes of production. This objective manner of thinking and crafting plans (conceived space) merely serves as tools of domination i.e., dominating the means of production and the thought and action of the subjects within the systems. According to Lefebvre, various strategies are employed under the capitalist hegemony to perpetuate this system, and these are the encouragement of entrepreneurial behaviour and the focus on urban planning (Lefebvre, 2003:78). Through these two strategies, capitalist societies can consolidate power in managing the built environment, which aids in transforming space into commodities.

Moreover, the use of knowledge is crucial where the spatial practices are designed to shape acceptable behaviour in certain spaces, thereby blinding the consumers of spaces led to believe that the use of the space reflects the broader vision of the people (Lefebvre, 2003). Consequently, the lived experiences (representations of space) are not considered; instead, they are fragmented, forgotten, and destroyed. Lefebvre warned that failure to take into account the people's experiences could potentially result in conflict between those who seek to control the space against those who live in the space. Lefebvre analysed this relationship between social organisation and institutional decision-makers and highlighted the difference between conceived and lived space. This creates antagonism between planned space and lived space, resulting from a top-down planning process. The elite may produce conceived space that does not exhibit the citizens' lived experiences. As a result, conflict may arise between the two groups as the plans regarding the use of the space are usually irreconcilable since the ‘lived experience is crushed’ (Lefebvre, 1991:51).

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Consequently, Lefebvre’s call was for the state and urban planners to consider how the inhabitants perceive and live in the space as this enables them to implement projects accepted by the citizen. In other words, bottom-up planning is crucial in the development of inclusive cities because top-down planning fails to capture and incorporate how the inhabitants of the space (Lefebvre, 1991). However, the inhabitants of the space usually restructure the space

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according to how they perceive it. In an ideal society, the conceived space is repurposed by the inhabitants and incorporated into the planning of the space to benefit those living in the space rather than the dominant class, as is the case in capitalist societies (Fuchs, 2019). Lefebvre warns that failure to do so provokes opposition. Towards the end of his book, Lefebvre argues that activism against this dominant regime can only be achieved through the active occupation and use of space that counteracts the intended exchange use-value. In this way, alternative forms of use can be shown. He also notes that the struggle against this dominant regime emerges in various ways and forms and varying degrees. Lefebvre's concept highlights that even in small ways, bodies change the conceived and perceived space (Lefebvre, 1991). This is expressed in the following excerpt:

> 'Struggles directed towards these goals [against capitalism hegemony], whether implicitly or explicitly, are waged on many fronts- and along many frontiers; they need have no obvious links with each other; they may be violent or non-violent in character; and some combat the tendency to separate while others combat the tendency to confuse' (Lefebvre, 1991:418).

The above extract shows that Lefebvre observes that it is the unusual actions, which improve our understanding of space production. In other words, the rather minimal practices in the city can also be indicative of resistance against capitalist hegemony in urban space production. Space production occurs at local levels through otherwise everyday life routines that challenge mainstream principles within the city's context. Kowalewski (2014) provides an example of social space production by investigating urban wild swimming within the context of city regulations that do not permit it. The author states that such an activity may only be viewed lightly with limited interpretation as a social space production. However, it is still indicative of common city regulation critique. The author argues that although not similar to protests in a public space, graffiti, these acts, however, minimal they may seem do speak to urban life and space production. Similarly, Borden (2001) investigates skateboarding as a critique of the city. He argues that although marginal such an activity is, in fact, is a critique of the city. In both the wild swimming and skateboarding cases, the city contests are seen to be producing the space in terms of their encounter with it.

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3.3 The production of space in neoliberal cities

In a capitalist society, the ruling class seeks to accumulate capital by producing and selling commodities for profit (Lefebvre, 1991). The generation of profit is contingent on the production, exchange, and consumption of commodified production spaces (Fuchs, 2019). As a result, capitalism it creates a class society where one group controls social space to best serve its interest of the elite at the expense of other groups in society. Therefore, the general public is not integrated into the designing of urban spaces despite their presence and how they experience this space. This means that under capitalist societies, the main aim is wealth generation. In recent times this has been characterised by the adoption of neoliberal policies that facilitate this goal at the expense of the general population (Harvey, 2021). In other words, capitalist societies rarely implement policies that are pro-poor. On the contrary, most policies encourage capital accumulation while at the same time reducing space for the poor populations. While social space production has mainly examined social space production within the context of capitalism in general, these issues were heightened due to the advent of neoliberalism in the 1980s. In this way, as a result of neoliberalism, city governments across the globe are collaborating, assisting, or functioning like the private sector seeking to generate profit. This practice has significantly resulted in uneven economic development, intensified inequality, destructive competition, and social insecurity in urban environments (Hackwork, 2007; Peck, Theodore, & Brenner, 2009, Harvey, 2021).

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Neoliberalism is generally used to describe a system that favours capital accumulation by protecting the free-trade market system and the erosion of welfare (Harvey, 2005; Theodore & Peck, 2012). The concept rose to prominence in the 1970s due to the decline of industry and the failure of Keynesian welfarism. Keynesian economics was the dominant ideology that rose to dominance after the Great Depression of 1929. The Keynesian economics model was based on the belief that active government policies through fiscal policies were crucial in addressing economic recovery through a fixed exchange of market regulation. An example of such policies was the New Deal adopted under the Roosevelt administration in the 1930s. These were characterised by government expansion of public work projects to increase employment and social security for workers. Hence, following this system's failure in the 1970s and the decline in profits of major industries, neoliberalism was adopted as a dominant ideological and political ideology based on the belief that unregulated markets with minimal state control were the key to socio-economic development (Harvey, 2005). A free-market system would expand the economy, creating jobs for the general population (Peck et al., 2009).

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Neoliberalism is characterised by policies that justify the privatisation of state enterprises and services, cutting back social welfare programmes, trade liberalisation through limited state control on markets and industry to increase competitiveness and attract more capital. Peck & Tickell (2002) distinguish between 'roll-back' and 'roll-out' neoliberalism to clarify how neoliberal processes operate. According to the authors, roll-back neoliberalism is mainly concerned with government or state retreating from its normal duties i.e. rolling back its control on market regulation and control of resources, including the provision of basic services resulting in the privatisation of most public services. This privatisation of services takes many forms, such as selling off public assets, cutting back on welfare, and outsourcing services to non-public entities. Rollout neoliberalism refers to those policies which consolidate the already existing neoliberal structures. Hence, it involves the government seeking new opportunities to expand their policies, such as creating new regulations and adopting policies that protect capitalist accumulation interests (Peck & Tickell, 2002).

Harvey (2012) argues that neoliberal-based planning has led to the polarisation of wealth distribution, mainly deep-rooted in modern cities' spatial forms. In other words, the system has resulted in destructive competition, intensified inequality, and uneven economic stagnation (Peck et al., 2009:51). To understand the impacts of neoliberalism at localised levels it is necessary to examine the impacts beyond the free-market policies and dismantling of the welfare state (Brown, 2006). The broader neoliberal policies ultimately influence all aspects of social life, leading to the cultivation of neoliberal subjectivities (Barron, 2017). For example, at a localised level, the market logic influences individuals in various ways to embrace entrepreneurial tendencies, efficiency, and individualism (Brown, 2006; Guthman, 2008).

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Neoliberalism also affects social space production in several ways. Neoliberalism promotes urban competition, erasure of public space, and the cutting back of state welfare. (Hackwork, 2007, Tornaghi & Certomà, 2019). Moreover, it results in dissolving social fibre in communities, displacements of residents, and the dispossession of common livelihood resources for the urban poor. Such a system has created exclusionary spaces in the city, which dispels other groups' right to the city. This has been the case world over where neoliberal policies have resulted in the dismantling of welfare, for example, in the USA (Hackwork, 2007). In three major cities, New York, Seattle, and Chicago, Hackwork shows how the

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reduction of welfare coincided with the erasure of public housing resulted in several homeless citizens.

In relation to urban space, the adoption of neoliberal policies results in sharpened competition for resources between cities, which encourages them to adopt entrepreneurial tendencies and conceive cities as businesses that need to generate income (Harvey, 1989). The state has to effectively manage urban design to promote a business at the expense of other groups within the city. Once such strategies were through the adoption of Business Improvements Districts (BID)s in the 1980s by Mayor Guiliani in New York City. Plenty more cities in the US and across Europe adopted a similar strategy to boost economic development. A BID is a Public-Private Partnership where stakeholders identify urban zones and target them for development. Essentially such spaces are monitored and sanitized of the urban poor to ensure that they uphold a world-class city status and attract investment. The neoliberalisation of cities across the world has resulted in the state quashing the urban poor's rights to create world-class cities and attract investment. For example, Dasse (2019) notes that public spaces for the poor population can be crucial in survival activities such as informal trading. However, several anti-poor policies were passed across various cities. In Los Angeles (USA), the local municipality implemented the Safer Cities Initiative, a programme designed to eliminate the poor from public streets (Dassé, 2019).

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Similarly, in most African countries, neoliberal policies were rolled in through the Structural Adjustment Programmes (SAPs) in the 1980s and 1990s. The International Monetary Fund and World Bank promoted these neoliberal economic policies as a precondition to providing developmental loans. The SAPs were characterised by reduced public expenditure, deregulation of the market, and removal of tariffs on main goods production and opening the industries to global competition. The adoption of such policies culminated in the shrinking of the informal sector and high rates of unemployment and poverty. For example, in most African countries, this resulted in the rise of informality. Informality is barely permitted across most African cities as it is seen as a nuisance and embarrassment to the urban landscape (Brown, Msoka, & Dankoco, 2015). Government responses result in the forced eviction and relocation of informal economy workers from public spaces (Brown et al., 2015). According to Potts (2007:7), this increasing trend results from neoliberalist policies that promote an elitist image of the city to improve the city's global image. This elitist view is seen especially when African cities host international events (Rogerson, 2016). In South Africa, Huchzermeyer (2011) argues that cities in the region prioritise orderly and clean cities to attract foreign investment, resulting

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in the suppression of the urban poor. For example, Huchzermeyer (2011) describes how the city of Johannesburg started a process of removing informal settlements in visible areas in preparation for the FIFA 2010 soccer world cup. This was all done to ensure that the city looked clean for the tourists. Central Improvement Districts (CIDs) have also been implemented in Johannesburg, resulting in increasing inequalities in the city (Peyroux, 2008). Peyroux (2008) argues that in the case of CIDs in Johannesburg, corporate interests are usually promoted at the expense of social problems.

Similarly, in Zimbabwe, after the collapse of the economy due to the adoption of the SAP, the state failed to cope with the increasing demand for employment and basic services such as housing. As a result, the informal sector economy intensified where people engaged in various activities such as street vending, gardening, and other activities to generate income. Under the guise of restoring the clean city, the state underwent a clean-up programme in 2005, destroying and displacing several people from their informal housing. Operation Murambatswina[3] 'Restore Order' was conducted to make the city clean through the systematic removal of informal activities in the city (Potts, 2006). Moreover, Rogerson (2016) shows how local governments under the guise of a 'modern city' do not consider the growing informal sector community in Harare, Zimbabwe. He highlights that policy responses to informal vendors in the Central Business District (CBD) range from aggressive reactions such as forced removals and confiscation of goods sold. Ironically, Rogerson also reports that the state simultaneously promotes informality to extract wealth from the already impoverished citizens trying to make a living.

In the study area, Cape Town has made it clear it aspires to be a global city, and it has done this by several PPPs, which have further increased the polarisation between the wealthy and the poor (Lemanski, 2007; Robins, 2002). In terms of urban space management, Miraftab (2005) argues that the implications of the GEAR were that municipal governments had to generate their own fiscal base to support services. In other words, the national government's limited funding encouraged local municipalities to adopt strategies to generate income and through PPPs. One such of these activities is through the state partnership with the private sector to improve the city's image to promote business and attract investment. Cape Town launched the Cape Town Partnership (CTP) in 1999 with the private sector. This programme was designed to promote the city as a global market and attract investments specifically in the

[3] 'Murambatsvina translates to 'one who say no to filth' which was the term used to argue that the operation was a clean-up procedure.
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city centre. The partnership was criticised because it encouraged elite businesses' development while segregating the informal sector enterprises (Dewar, 2004). The COCT adopted the CID in the year 2000, where it prioritises specific zones to make them more attractive for investment, thereby creating jobs through tourism and real estate development. These CIDs is overseen by a public-partnership between the city and the private sector CTP. Unfortunately, the CTP adopts practices that have sanitised the public space in the CIDs thereby reinforcing spatial and social-spatial integration. For example, Miraftab (2007) argues that to create an orderly city that is attractive to foreign investment, the implementations of CIDS have resulted in the quashing of informal sector activities in certain spaces.

Instead of integrating the informal sector into the partnership, informal sector activities were forced out of the CBD area through community policing methods. This is achieved through enacting bylaws that limit informal trading options. The ultimate goal is relocating informal sector services from CID spaces to market spaces prescribed by the COCT (Miraftab, 2007). For instance, the COCT passed the Streets, Public Places, and the Prevention of Noise Nuisances By-law of 2007. The law criminalised the urban poor in the central city by prohibiting things such as begging. Hence poor individuals were displaced to protect the valuable urban spaces in the city. Policing has been a huge component of ensuring the social sanitisation of public spaces in CIDs where police are regularly sent out to round up the homeless and take them out of CIDs. The city partnered with other stakeholders such as NGOs to set up shelters to keep the homeless out of CID territory. Another effect of CIDs' development has been the increase in property values in the city, resulting in the pushing out of the poor population to the urban periphery (Lemanski, 2006). The above cases indicate how social production of space is used to benefit the dominating class at the expense of poor groups as argued by Lefebvre. According to Lefebvre, the state should be able to engage in practices that incorporate citizens' views. In this way, the city is inclusive, and antagonism is reduced between the rich and the poor.

3.4 Social space production, neoliberalism, and urban gardening

As already alluded to in earlier sections of this chapter, the dominant class leverages the social production of space to accumulate wealth in ways that exclude the poor populations. This concept is also well documented in the literature on urban gardening. Urban agriculture activities are usually viewed as temporary practices, hence are not considered when it comes to land use and planning by the state and professionals (Lawson, 2004). For example, when

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countries go through recessions or economic crises, property values go down, and there is limited incentive for capitalists to engage in various capital accumulation endeavours such as housing (Corcoran et al., 2017). This means that open vacant spaces are usually not seen as profitable during such times; hence the state or landowners will usually allow the land to be used for other purposes.

Simultaneously, during such crises, several people are left jobless, and there is widespread poverty; hence people are likely to turn to various other informal activities that allow them to generate income and aggregate household food security. Some people may turn to open vacant land for such cultivation. Nonetheless, when the capitalist economy sees signs of recovery, the same open spaces that were viewed as unprofitable are now conducive to development, and this is where conflict emerges. The above-articulated scenario is brought to life through the cases of urban community gardens under the Gulliani administration in New York, which has already been highlighted in earlier chapters. In fact, garden spaces are normally targeted when other 'pressing needs' such as housing arise in the city. Urban community gardens thus suffer as they are not viewed as a profitable land-use option in light of other needs that may arise in the capitalist's interest. This neoliberal-based urban governance approach has significant implications when it comes to urban agriculture activities.

Firstly, the land is viewed as a commodity; hence the state is unlikely to provide any permanent consideration of urban agriculture activities for land-use. A bulk of the literature indicates that the issues of land provision or access for urban agriculture activities are a major challenge across global cities (Lawson, 2004; Roberts & Shackleton, 2018). For instance, even in the area of study, Cape Town, land provision for agriculture practices is seen as a problem (Paganini et al., 2018; Philander & Karriem, 2016). The Philippi Horticultural Area (PHA) has been in several reports due to its threat against developmental activities that seek to convert the land into various other land use options such as housing and commerce. Even in instances where lease agreements are provided, the garden's future is never guaranteed, as the land is likely to be repossessed when a more profitable landuse option becomes available. To this end, Follmaan & Viehoff (2015:1157) report that one of the main conditions for gardeners to cultivate on the highly contested Neuland garden in Cologne, Germany was that the individuals had to agree to vacate the premises 'upon request'. The community gardeners had to pay a collective deposit of 20 000€[4] to guarantee that they would indeed vacate the land when required. This neoliberal-based governance approach to urban agriculture has been met with

[4]As of 31 January 2021, 1 euro was approximately 18.45 ZAR hence 20 000 euro is 368 998,32 ZAR

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some resistance from the bottom. Citizens can become frustrated by how the system affects them and their everyday lives and thus take action.

The scholarship shows how some urban gardening exists to counter neoliberal policies where the state priorities are increasingly being skewed away from the needs of the inhabitants to those of the market (Certomà, 2011; Mckay, 2011; Quastel, 2009; Schmelzkopf, 2002). Urban gardening emphasises use-value instead of exchange value, which has resulted in conflict between the city and the inhabitants (Purcell & Tyman, 2015). However, the literature has shown that inhabitants of these spaces usually resist neoliberal policies. Here the literature has shown that urban gardening can be viewed as one of the practises in which inhabitants fight for their right to the city. In such cases, the citizens produce and reproduce the urban space through the practise of gardening. In fact, several studies have used concepts such as the spatial trial and the right to the city to examine community gardening initiatives within this context (Eizenberg, 2012; Purcell & Tyman, 2015).

3.5 Criticism of the social production of space theory

The social production of space theory has been open to much criticism across several disciplines. At the core of the criticism is how Lefebvre cultivates his argument, making it difficult to comprehend (Unwin, 2000). This stems from the translation of his work from a French audience to an Anglo-American speaking audience. Unwin (2000) argues that although some aspects are relatively straightforward, the book's subsequent arguments are rather complex, challenging to follow, and sometimes contradictory. As a result, several scholars have concentrated mainly on specific concepts in his work rather than incorporate the theory as a whole. Of course, this is limiting in terms of the theoretical and empirical work that utilise the theory.

The applicability of the theory has been challenged due to contextual variations. Lefebvre's analysis of the social production of space was limited to France and Western Europe in general (Stewart, 1995). Lefebvre's work, the social production of space, was a product of site-specific circumstances in the late 1960s (Stewart, 1995). His analysis of space was influenced by the political upheavals occurring at the time, thus influencing his work's political ideologies. The criticism stems from the applicability of the theory to different times and geographies over time. Some scholars believe that it is therefore limited as each place has different contextual variations, which may render the application of theory unsuitable. Nonetheless, several scholars have utilised the theoretical framework in various urban studies to be explained in the

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next section. As a result of globalisation, capitalism and neoliberalism are now indeed found in all corners of the globe. Hence it is not surprising the theory has been tried and tested in capitalist societies elsewhere. Although Lefebvre's production of space theory remains contentious, it remains relevant to understanding urban space transformation (Soja 2010; Harvey 2012).

3.6 Justification for this framework

Lefebvre's concept of the social production of space has been one of the foundations of theoretical and empirical studies in human geography (Unwin, 2000). The value of employing Lefebvre's spatial triad in the context of this research is because of its potential to aid in understanding how spatial practices, processes, and relations perpetuate urban injustices in the contemporary city of Cape Town.

This theory was utilised as the theoretical lens for this study due to its triad nature of interpreting the meaning of space through its lived experience, material form, and emotional form. Lefebvre imagined a city where power relations underlying urban space would be transferred from the state to the inhabitants. In other words, he believed that urban citizens had the right to engage in the governance of urban spaces. Therefore, in situations where this right was revoked, marginalised communities could collectively reclaim urban space as a way to assert their rights. This phenomenon is becoming increasingly true across the global cities due to the widespread adaptation of neoliberal urban governance policies (Purcell & Tyman, 2015). Cities in the global South are characterised by new forms of production that are dominantly market-centred. Consequently, this has created neoliberalised and commodified urban spaces that are less inclusive and are generally difficult to access by the urban poor. In this respect, one can argue that the social production theory is equally relevant now due to the intensification of capitalism across the globe.

Despite its French origin, Lefebvre's framework has been employed by various scholars to understand the production of space across varying contexts across the globe. For instance, Uitermark (2004) used the theory to analyse the London May Day protests that occurred in 2001. In Hong Kong, China, Ng, Tang, Lee, & Leung (2010) adopt the framework to examine the removal of the Queen's Pier and Star Ferry inhabitants. Whitehead (2003) uses the framework to examine neighbourhoods in the UK, demonstrating the various contestations that emerge due to land-use. In Lexington, Kentucky, Jones (2000) looks at the production of space using Lefebvre's framework to show the neighbourhood's spatial deconstruction.

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Goonewardena & Kipfer (2005) adopt the framework to explore space production in Toronto (Canada). In Singapore, Lowe (2020) employs the Lefebvrian theory of space production to shed light on minority space users who reproduced their areas of residence to monetise them. The theory has been used in African cities as well. For example, in South Africa, Nkooe (2018) exploits Lefebvre's production of space and the elements of rhythm-analysis to explore space production in public spaces in Bloemfontein. Mwathunga & Donaldson (2018) adopted the framework to show the disjuncture between conceived space and lived space in Malawi. In all the studies mentioned above Lefebvre's framework has provided a rich theory to enhance our understanding of space production across varying contexts.

In the context of urban community gardens, various scholars such as Eizenberg (2012) and Follmann & Viehoff (2015) have utilised the framework to explore urban community gardens as commons. Stakeholders usually have different views and ideas about how urban space should be consumed. For instance, planned urban parks are naturalised, while urban gardens are viewed as wastelands (Domene & Saurí, 2007). Therefore, utilising the social production of space helped in understanding how the different stakeholders view space and the emerging conflicts thereof. As already highlighted, the Cape Flats is significantly marginalised and characterised by a mushrooming number of community gardening activities in open spaces awaiting development, school land, and private land. Therefore, this approach allowed the research to explicitly dissect how community gardens present an opportunity for the community to address injustices faced within their communities.

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Finally, Lefebvre's ideas are in line with scholarship on activism explored in the previous chapter (Askins, 2014; Martin et al., 2007; Pottinger, 2017). His teachings highlight social space production occurs in various ways and various scales. Therefore, it does not dismiss otherwise small activities that may not necessarily be confrontational but act against the capitalist hegemony and improve our understanding of social place production within the contemporary city. Such activities include among others, urban wild swimming and skateboarding in undesignated urban space. This research seeked to expand this category by including urban gardening activities in the form of urban community gardening projects in the Cape Flats of Cape Town, South Africa.

3.7 Conclusion

The chapter discussed the framework which informed the research. Lefebvre's theory was chosen to provide an analysis between urban space and various stakeholders to show how they

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conceptualise the space. Lefebvre’s theory has been celebrated mainly for its ability to dissect all the elements involved in the production of space. The spatial triad presents pertinent elements which aid in dissecting how space is produced within the context of a capitalist society. Therefore, the theory dovetailed well with the study's epistemological perspective, as explained in chapter 5. The theory was potent in ensuring that all the mind-sets of all stakeholders involved in the study were captured and were able to be juxtaposed against one another to show how and why they may differ. The chapter also showed how previous researchers adopted the framework to examine urban issues across the globe. A handful of studies have also used the framework to investigate the relationship between urban community gardening and urban space. Finally, the chapter focused on social space production within the context of neoliberalism, detailing how capital accumulation processes have resulted in deep inequality and urban poverty. The chapter also specifically focused on how neoliberalism and social space production affects urban agriculture activities in the contemporary city. The next chapter focuses on the study area and argues for its suitability as a study site.

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CHAPTER 4: STUDY AREA

4.1 Introduction

This chapter explores the physical and socio-economic characteristics of the study area. The chapter presents the city's general characteristics before giving a detailed description of its historical development. The provision of the historical background in the Cape Town context is essential, given that most of the historical injustices continue to influence contemporary city life. The chapter then focuses on the study area's socio-economic characteristics from a broader city level to the specific study area. The chapter concludes by justifying the suitability of the study area for this research.

4.2 General characteristics

South Africa is a coastal country located on the southernmost part of Africa. The city of Cape Town lies in the Western Cape Province of the country (Figure 4.1). It is the second-largest city and follows Johannesburg as the country's economic hub (Haysom, Crush, & Caesar, 2017). Cape Town is one of the eight metropolitan municipalities in the country, which means that it executes all local government functions of a city. The City of Cape Town covers an area of 2 446km² and has a coastline of 294km, stretching from Gordon's Bay to Atlantis. With a population of approximately 4 322 031 inhabitants, it continues to experience rapid urbanisation at a growth rate of 1.6% annually (COCT, 2016). A significant component of this rapid urbanisation is the internal and external migration. Internal migration is characterised by rural to urban migrants mainly from the Eastern Cape province who relocate to Cape Town due to limited economic opportunities, poor education, and a failing rural economy in their province (WEF, 2017). Moreover, a significant contribution to the population increase is attributed to international migration. After South Africa relaxed its immigration policy in the mid-1990s, many international migrants relocated to the city, moving away from economic, political, and social instability in their countries of origin.

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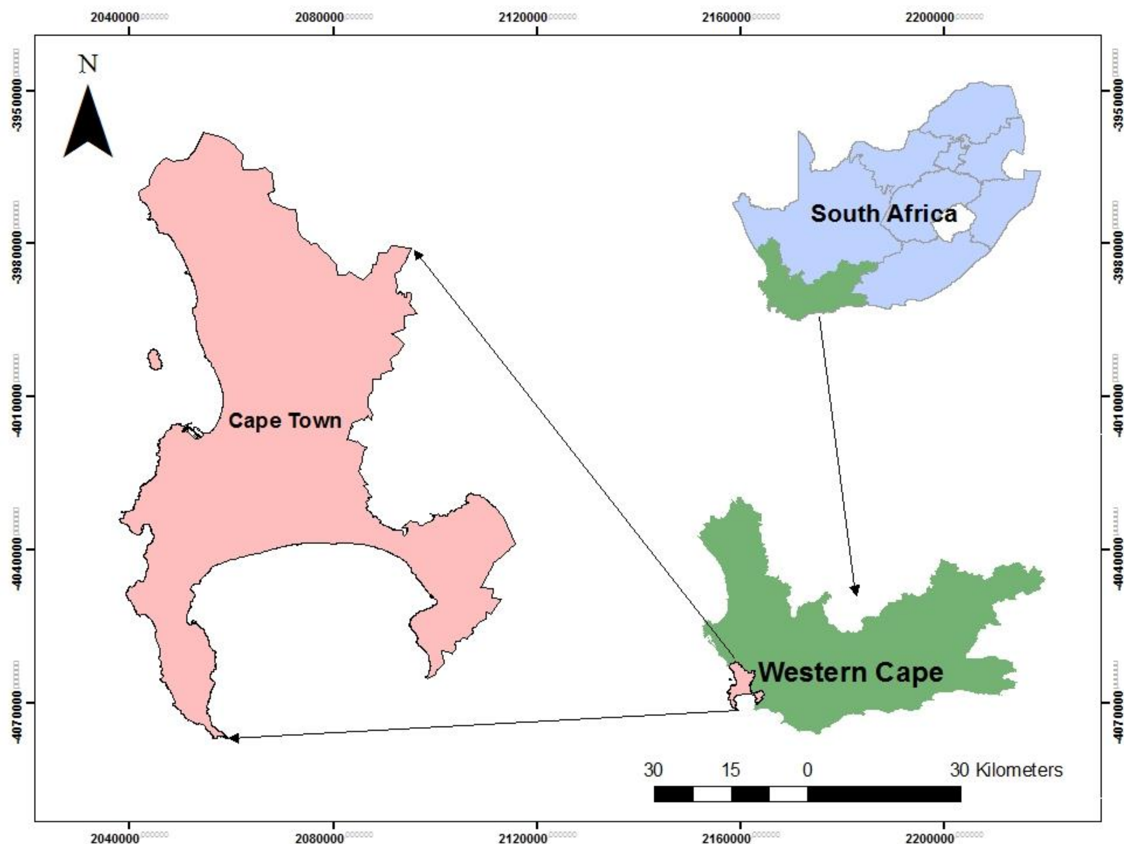

Figure 4. 1: Map of Cape Town (Source: Author)

The Western Cape Province falls under the warm Mediterranean climate experiencing cold winters and hot, dry summers (WCG, 2005). Cape Town receives its highest rainfall during the winter months of June, July, and August, with January, February, November, and December usually being the dry months. Cape Town receives rainfall ranging between 500mm to 700mm annually and, like the rest of South Africa, is a drought-prone region. For instance, in 2015, Cape Town experienced a drought that lasted into 2018. The municipality taps were projected to run out of water; however, this was averted through water savings techniques employed by stakeholders and subsequent rainfall. Cape Town has rich underground water reserves due to the nature of the soil, which promotes infiltration. The city is located on an extensive Aquifer named the Table Mountain Group, running from the Great Karoo to Cape Agulhas. The local government has since looked into the aquifer to complement the municipality's water supply. Cape Town experiences harsh southerly winds during the summer months and in winter the north-westerly winds (WCG, 2005). The city is a popular tourist destination due to its harbour and natural landmarks such as the Cape Point and Table Mountain. The city is also part of the Cape Floral Kingdom, one of South Africa's World Heritage Sites. The floristic regions cover an area of approximately 90 000km² hosting a variety of endemic plant species. Some of the

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City's world-renowned plants include the King Protea, the Silver Tree, and the Ixia Versicolor. The Western Cape is generally characterised by grey sandy and loam soil, specifically in the plains of the Cape Flats, the study site comprises sandy and calcareous soils. Moreover, with the exception of calcium carbonate, the soil is generally low in nutrients and characterised by high ph. values (Meadows, 2000). Collectively the high winds, the poor soil structure, and water challenges pose a significant hindrance to the successful cultivation of food crops.

4.3 Historical background

There is limited documentation on the first inhabitants of Cape Town; however, it is believed that the Khoi and the San were the first people to inhabit the Cape approximately 2000 years ago. Established as a colonial city in 1652, Cape Town is the oldest city in South Africa. Cape Town was established in the 17th century as a temporary station by Jan van Riebeeck of the Dutch East India Company (DEIC) to accommodate ships that were sailing to Asia and supply the ships with essential resources such as water and food (Haysom et al., 2017; Lemanski, 2007). With time the Dutch settlers had dislodged local residents and established an agricultural system that relied upon slave labour imported by the DEIC from various regions such as Asia and other African countries. In the late 1680s, several French immigrants made their way to the Cape, fleeing from persecution under King Louis XIV's rule. By the end of the slave trade, approximately 60 000 slaves were transported into the Cape across different countries. This laid the foundation of the multiracial and cultural character of Cape Town as it is today.

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The British invaded the Cape by defeating the Dutch at the battle of Muizenburg in 1795; however, they lost the Cape back to the Dutch in 1802 and then eventually won it in 1814. The Cape Colony's British occupation was motivated by their need to safeguard their trading interests with India. The British settlers were responsible for developing the city and transforming its economy and governance structures. By 1870, the British had increased the urban centres in the town and established municipal councils to facilitate governance. For instance, the municipality of Cape Town was established in 1840 (Mäki, 2010). At the same time, the British abolished slavery and adopted a low-wage-based economy. With the discovery of diamonds and gold and the rise in mineral trade in the 19th century, Cape Town was an essential trading port for minerals and food imports. The local economy's transformation led to an increase in population from about 8400 in 1865 to 181 240 at the end of 1920. Until the early 1940s, the city was mostly multi-racial, which ended when the National Party took office

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in 1948. The National Party made it their mandate to ensure racial division by implementing various racial segregation policies.

Although racial segregation existed before the apartheid era, the dawn of apartheid intensified it. During the apartheid era, people were labelled as distinct racial groups and awarded specific privileges. After coming to power, the National Party moved to pass the Group Areas Act 41 of 1950, which ensured the separation of racial groups in terms of residential and leisure areas (Dewar, 2004). According to this Act, people from selected racial groups could occupy land and work in certain areas. The Act designated urban spaces for the exclusive ownership or occupation of a particular group. The White population was allowed to reside in pleasant suburbs while the Coloured and African people were forcibly removed from their original areas of residence into bleak townships at the periphery of the city, disconnected from economic activity. Implementing the Act was far from a pleasant process as it was characterised by forced removals and heavy policing to ensure that people complied with the legislation. The Group Areas Act of 1950 made provision for criminal proceedings to be lodged against individuals found in land designated for another race. The Act also gave authorities the power to displace people and demolish housing that was not permitted in specific declared areas. More legislation was passed to intensify this division, for instance, the *Prevention of Illegal Squatting Act* of 1951, which facilitated the eviction of the African population's on unauthorised land occupation (Muller, 2013). The *Natives Act* was amended in 1952, which had various laws that restricted the movement of the Black Africans, while the *Reservation of Separate Amenities Act of 1953* further intensified racial segregation in public spaces and service provision. All these laws and regulations collectively resulted in the emergence of a carefully crafted segregated city according to race.

The African people who were moved from their original areas of residents were relocated to rural homelands and townships. In South Africa, townships are described as underdeveloped residential areas that were generally reserved for the non-white population during the Apartheid regime. These townships were mostly built on the periphery and continue to be synonymous with poverty today. During their construction, interstices were left between the townships and the White areas, and these served as buffer zones creating large pools of unoccupied land on the fringes of the city and neighbourhoods. The townships also served to accommodate the controlled in-migration of African labour from the Eastern Cape required for the city's growth. Some of the townships created include Gugulethu, Nyanga, Mitchells Plain, and Delft, built in

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the 1950s, 1960s, 1970s, and 1980s, respectively (Turok, 2001). For instance, Langa was one of the first townships established under the *Urban Areas Act* of 1923. The township was designed to accommodate African black migrant workers as evident by the hostel's remnants present today.

Despite the apartheid government's strategies to restrict movement into the cities, much migration of the African black population from the homelands continued. This was because the homelands were bleak and unproductive sites with limited infrastructure. Due to the failure of housing to keep pace with the influx of in-migration, there was a continuous erection of backyards and overcrowding, resulting in the sprouting of informal settlements. The abolition of pass laws such as the Influx Control Act of 1986 allowed more effortless movement of segregated populations into the city. Post-apartheid, the situation was exacerbated by the rapid migration of people searching for employment due to the abolition of migration restrictions (Dewar, 2004). This migration persists, and the people continue to flock into the city and reside in informal housing at the periphery of the city (WEF, 2017). Most of these townships in Cape Town were erected on what is called the Cape Flats.

The term Cape Flats refers to a generally flat and sandy stretch of land located on the outskirts of the city of Cape Town's central business district (Figure 4.2). de Swardt et al. (2005) describe the Cape Flats as a sandy expanse separating the wealthy northern and southern suburbs. Geographically it is located in the southern part of the City, administratively covering 13 200 ha with a population of approximately 583 380 inhabitants (City of Cape Town, 2013). In reality, the Cape Flats stretches more than the administratively stated area as it includes several townships in the periphery of the city. The area is mostly dominated by the Coloured (59%) and Black (34%) racial groups. The townships in this area have been coined to be the worst planning disasters of the apartheid regime (Karaan & Mohamed, 1998). Historically, housing developments in the area were discouraged due to its poor soils; however, this changed with the apartheid spatial planning policies.

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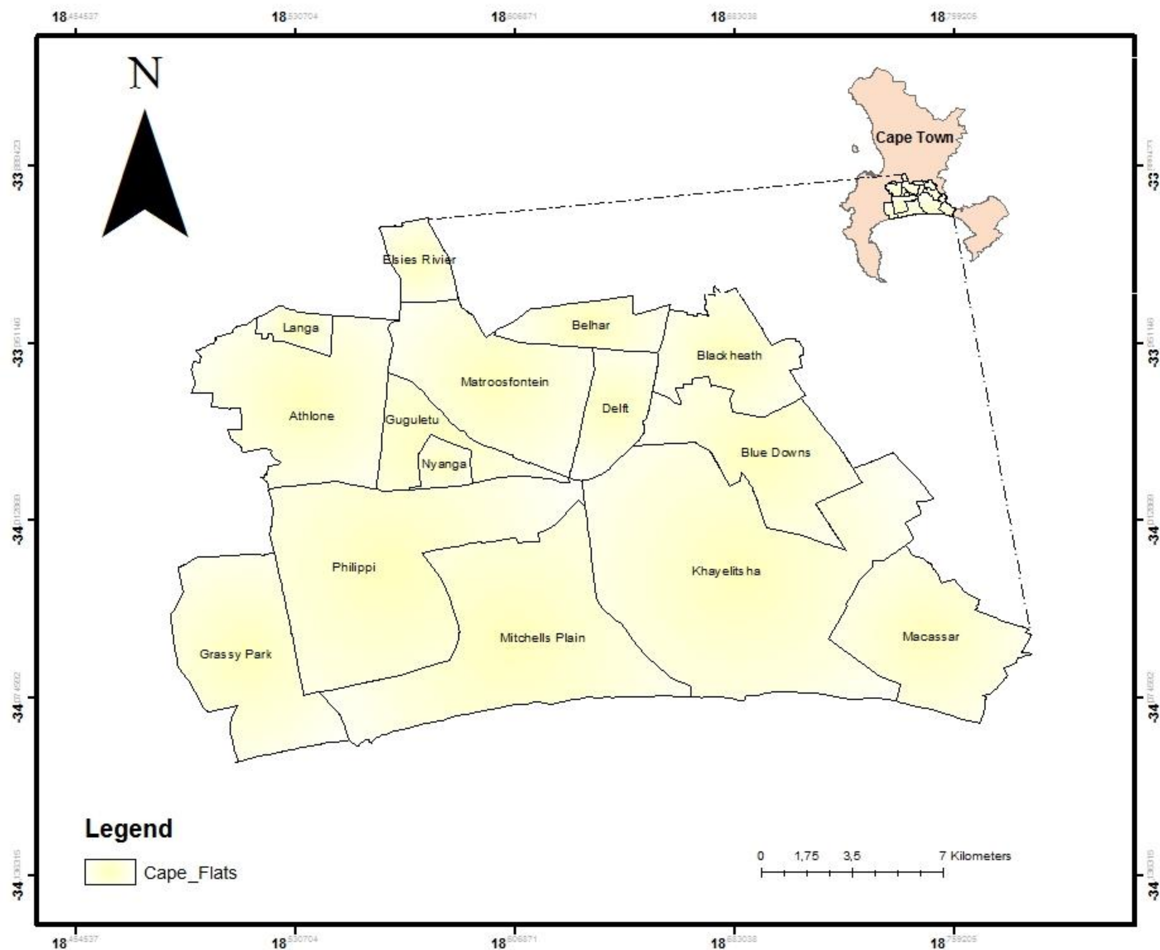

Figure 4. 2: Map of the Cape Flats (Source: Author)

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Due to the selective development initiatives under the apartheid system that favoured development in other zones and essentially secluded the township areas, many spatial and social inequalities persist today. Townships in the Cape Flats are characterised by inadequate recreational and social facilities and limited industrial and commercial centres compared to the more affluent suburbs. It houses the city's most impoverished townships, for example, Khayelitsha and Nyanga, which face several socio-economic and political problems (Karaan & Mohamed, 1998).

4.4 Socio-economic conditions in Cape Town

Cape Town is the second economic hub of the country. Its main economic sectors include finance and business services, manufacturing, trade and hospitality, community services and general government, transport, storage and communication, construction, electricity, agriculture, and mining. Cape Town's economy has grown faster than other cities over recent

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years (COCT, 2017). This growth is attributed to the dominance of a tertiary industry instead of other cities dependent on the volatile mineral sector (COCT, 2017). In fact, the finance and insurance industry has constituted above 30% of the city's economic growth (COCT, 2016). This means that the city's labour market heavily relies on skilled labour, which is racialised in favour of the White population (Caesar & Riley, 2018). As a result, most unskilled or semi-skilled individuals are integrated into the informal sector economy. The last census in 2011 estimated that the informal sector economy had approximately 122 000 people operating in it. Cape Town has the lowest unemployment rate in the country, estimated at 24%, compared to the 32.6% national estimate; however, youth unemployment is relatively high at around 47%. Moreover, unemployment levels vary across different areas in the city. For example, the Cape Flats' unemployment levels are significantly higher than in other areas of the city (Turok, 2001). The 2011 national census pegged unemployment levels at 41.33% and 39.66% in Delft and Gugulethu, compared to wealthier neighbourhoods such as Constantia and Camps Bay at 4.01% and 3.29%, respectively.

Like any other city in South Africa, Cape Town is driven by neoliberal planning ideologies that appear to have polarised the country's wealthier and poor citizens (Lemanski, 2007; McDonald & Smith, 2004; Miraftab, 2007). Neoliberalism-based economic policies pursued by the national government post-independence resulted in local and foreign investors possessing significant power in shaping the urban landscape (Didier, Morange, & Peyroux, 2013; Houssay-Holzschuch & Teppo, 2009). Peet (2002) argues that although the government adopted left-wing social policies to support the country's citizens post-independence, it was not long before they switched to right-wing neoliberal policies. One of the signs of this was the African National Party's (ANC)[5]s replacement of the social development orientated policy titled the Reconstruction and Development Programme (RDP) by the neoliberal based Growth, Employment and Redistribution strategy (GEAR) in 1996 (Narsiah, 2002; Peet, 2002). The RDP was a socio-economic policy framework adopted by the Government of National Unity (GNU) to address the inequalities of the apartheid era (Cheru, 2001; Corder, 1997). It aimed to meet all people's basic needs, develop human resources, build the economy, and empower the youth and women (Corder, 1997). However, it was criticised for its strong focus on service provision instead of economic efficiency. The pressure to switch to a liberal market came from the International Monetary Fund (IMF), the World Bank, and local business organisations

[5] The African National Party (ANC) was an anti-apartheid organisation and has been the ruling party in South Africa since 1994.

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(Peet, 2002). In particular, the IMF exerted pressure on the country after providing a loan to ensure that it adopted a macro-economic strategy promoting private markets and reduced government spending (Padayachee, 1998). The GEAR has been referred to as a 'homegrown structural program' that encouraged fiscal austerity and the privatisation of resources (Narsiah, 2002:32). Created without public consultations, the policy is considered a top-down neoliberal-based plan (McDonald & Smith, 2004). Essentially the macro-level policies trickled down from national, provincial to local levels. As a result, the national government lost absolute power in shaping the cities, which allowed the city to be emphasised as the driver for growth at a local level (Didier et al., 2013; Narsiah, 2002). To this effect, all the local governments in the Western Cape were restructured into a single taxation unit and budgetary environment. Reconstruction and Development Programme Forums and Integrated Development Plans were formulated to ensure public participation in decision-making (Miraftab, 2005).

Nonetheless, the local government could not fulfil the Integrated Development Plans or provide essential services to the poor. The adoption of GEAR, decreased government transfers of finances from national to local levels to reduce expenditure. Hence, the local government had to find new ways of financing their activities and provide services to their citizens. To this end, they had two options; they could ring-fence budgets for certain services such that each service had to recover the cost incurred. The other strategy was that the local government had 'to look to the private sector as a way to finance and expand service delivery' (McDonald & Smith, 2004:1464). For example, Cape Town adopted the Local Economic Develop strategy at the city level, which devolved economic responsibility to local government (Parnell, Douglas, & Boulle, 2006). While the idea was to promote economic growth from local stakeholders, this promoted urban competition, erasure of public space, and the cutting back of state welfare, exacerbating existing inequalities carved by the apartheid regime. For example, Lemanski (2007) notes that shortly after the dismantling of the Apartheid system in the 1990s, the City of Cape Town's economy went through structural changes to match the global demands. During this period, the country opened up to the global market and dropped its tariffs bans, leading to what Lemanski (2007:452) calls 'the manufacturing depression'. The immediate result of these structural changes was the closure of all previously protected industries in the manufacturing sector such as food, textiles, and clothing due to global competition and limited government subsidies.

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Turok & Watson (2001) note that uneven development in Cape Town resulted in a polarised development pattern. Post-apartheid, nothing of significance has been done to reverse the trend where developmental policies benefited areas of the wealth instead of townships in the periphery (Turok, 2001). During the apartheid era, the Cape Flats were denied any industrial, retail, or commercial opportunities. Post-apartheid, a similar trend occurs where most private sector development and job growth continue to occur close to prosperous suburbs in the city. On the other hand, public investment in services and low-income housing continues to target the Cape Flats (Turok & Watson, 2001). Moreover, despite calls for more investment in townships, investors typically steer clear of such areas citing a lack of development as a significant challenge to investing. In this way, the Cape Flats continues to be marginalised with limited economic opportunities and many socio-economic problems. Therefore, although polarisation results from the apartheid regime, post-apartheid policies have failed to readdress the spatial inequalities of the apartheid regime (Lemanski, 2007; McDonald & Smith, 2004; Miraftab, 2007). Instead, they have only served to deeply entrench the already existing inequalities well into the 21st century.

Townships in the Cape Flats are characterised by inadequate recreational and social facilities and limited industrial and commercial centres compared to the more affluent suburbs. It is home to some of the city's poorest townships, for example, Khayelitsha, Gugulethu, and Nyanga, which face several socio-economic problems (Karaan & Mohamed, 1998). Some of these problems include poor housing, poverty, high unemployment rates, inadequate service provision, gangsterism, a lack of public open space, and poor environmental quality. Housing standards in the area vary but are typically low-cost formal housing or informal structures with limited sanitation and water supplies (Meadows, 2000). Furthermore, Teppo & Houssay-Holzschuch (2013) note that due to the social and economic challenges in the Cape Flats, townships have been spaces of contestations before and post-apartheid. As a result, different communities continue to engage in protests against various issues affecting townships, for instance, gangsterism and poor service delivery (Teppo & Houssay-Holzschuch, 2013).

Poverty remains a significant problem in Cape Town, where the coloured and black African racial groups, dominate the poorest households in the city (COCT, 2018b). In terms of income, approximately 53% of households receive a monthly income of ZAR3 200 or less in the city (COCT, 2016). According to the 2011 census, the annual household income was ZAR57 300. The 2011 census showed that 61.5% of the city's households earned less than ZAR6 400 per

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month. Nonetheless, this average figure masks the variations in income levels across the city as low-income families are more likely to be located in the townships (Haysom et al., 2017). Moreover, inequality has a gendered face where men have more jobs than females (Tsegay & Rusare, 2014). As a result, food security is gendered, and women-headed households are likely to be food insecure compared to male-headed households (Caesar & Riley, 2018). In this way, women experience intersecting inequality based not only on race but also their gender.

Despite the country being considered food secure at the macro-level, a significant population remains food insecure at more localised scales (Crush, Frayne, & Pendleton, 2012; Tsegay & Rusare, 2014). Poverty plays a huge role in this, with South Africa being deemed one of the most unequal countries in the world by most metrics. For instance, the country recorded a Gini coefficient of 0.65 where the Gini ranges from 0 to 1, with 0 indicating an equally perfect country and 1 indicating a perfectly unequal country (StatsSA, 2019). Another metric is the Palma ratio which expresses the ratio of national income of the top 10% population in relation to the bottom 40%. Here South Africa scored a 7.9, which translates to 10% of the population sharing close to 8 times more of the total expenditure than the bottom 40%. By the same metrics, the Western Cape Province recorded the highest inequality in the country. Within an urban context, this translates to limited income to sustain oneself through basic needs such as purchasing food. This is why household food insecurity and nutrition remain a problem in Cape Town. In 2011, Battersby found that 80% of the sampled households in a baseline survey were moderately or severely food insecure (Battersby, 2011). A household survey in 2016 revealed that the metropole had the highest household food insecurity rate in the country, with 31% of households in Cape Town having difficulty accessing food (WCG, 2016). Unsurprisingly, the highest percentage of those food insecure are located in low-income areas of the city. Indeed, this problem is deeply rooted in apartheid planning but has been exacerbated by policies and practices adopted post-apartheid.

The food manufacturing and retail industry in South Africa plays a crucial role in propagating hunger in the form of food access and food pricing (Tsegay & Rusare, 2014). South Africa's agricultural production system is inextricably tied to apartheid roots. During the apartheid years, the food system was dominated by a few companies who benefited from government policies and subsidies and cheap labour tailored through the apartheid laws (Greenberg, 2010). Despite the fall of the apartheid system in 1994, little has changed in addressing the old system's inequalities (Greenberg, 2015). The nations' agricultural policies have followed neoliberal ideas to compete globally, which has resulted in the development of an uneven food system at

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the mercy of a few companies that possess the power that shapes food production and distribution (Greenberg, 2015). The adoption of neoliberal policies gave the private sector more control, making it difficult for the state to monitor and enforce policies effectively. For example, Tsegay & Rusare (2014) report that only five food corporations control approximately 60% of the country's market. As a result, the food supply and distribution system has marginalised small-scale producers and suppliers. Moreover, the large corporations have power in influencing policy and have been accused of allegedly engaging in price-fixing essential commodities such as bread and milk (Tsegay & Rusare, 2014).

Food security is an issue of access both financial and geographical hence it is no surprise that food insecurity continues to prevail in urban households due to their reliance on income to purchase food (Greenberg, 2015). However, such drivers of food insecurity are largely ignored (Battersby, 2015). For instance, research has shown unequal access to supermarkets and healthy food across neighbourhoods in the city (Battersby & Crush, 2014). Battersby & Peyton demonstrate that supermarket distribution is unequal (Battersby & Peyton, 2014). Although supermarkets have rapidly expanded into low-income areas, supermarkets in such places do not stock healthy food compared to those in wealthier neighbourhoods (Battersby & Peyton, 2014). In fact, the expansion of these supermarkets through the introduction of malls is also characterised by the presence of fast-food chains. Hence there are food deserts in most income townships due to the limited availability of safe, nutritious food.

Moreover, large-scale food corporations have transformed consumers' dietary patterns by providing highly processed food options (Greenberg, 2017). Hence, it is no surprise that most individuals in such areas suffer from various food choice-related illnesses such as diabetes and high blood pressure. For example, South Africa has one of the world's highest obesity levels (Tsegay & Rusare, 2014). In a recent study, Otterbach, Oskorouchi, Rogan, & Qaim (2021:105368) conclude that the increased proximity of supermarkets and fast-food chains likely contributes to the obesity epidemic in the country. The Western Cape has the highest cases of obesity in South Africa (WCG, 2016). This shows that the present food system makes it easy for communities in low-income townships to make wrong food choices, which usually leaves them sick in the long-term. Even Spaza shops' which are the alternative to supermarkets, stock up on limited ranges of low-quality food procured from the dominant retailers (Tsegay & Rusare, 2014). Stated differently, the people in townships are entrenched in a system that

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has improved their access to bad food, perpetuating food insecurity and causing various health issues.

In this context, one of the interventions the municipality and provincial government have adopted as a self-help programme to address poverty and food insecurity in low-income areas is through urban agriculture projects (Battersby, 2012; Battersby & Marshak, 2013). Battersby (2012) argues that the reason behind adopting urban agriculture as a strategy to counter food insecurity is that food insecurity in urban areas is still conceptualised as a problem of production, hence policymakers respond accordingly. In line with Battersby, Crush & Frayne (2011) argue that policymakers fail to realise that urban household food security is an issue of income rather than food production. Hence crop cultivation is a less significant solution to food insecurity in urban areas but rather food purchase is a critical option and policymakers need to promote economic growth to counter such a problem as opposed to urban agriculture activities.

4.5 Urban agriculture in the Cape Flats

Although no explicit policies focus on urban agriculture at a national level, some documents allude to the practice. For example, the White Paper on Agriculture of 1995 referred to urban agriculture, stating that 'food insecurity among the urban poor … can be reduced by various short and long-term programmes such as employment programmes and … by urban food production by means of food gardens' (DOA, 1995:19). The DOA furthered the discussion of the White Paper on Agriculture of 1995 in the Discussion Document on Agricultural Policy of 1998. The Discussion Document further acknowledged the distinction between household and national food security and called for addressing food security through agriculture in rural and urban areas. Other documents at the national level include the White Paper on a National Water Policy for South Africa of 1998 and the White Paper on Spatial Policy and Land Use Management of 2001, which all refer to urban agriculture support as an approach to food security (Thornton, 2008).

The Integrated Urban Development Framework (IUDF) is another framework document that seeks to sustainably manage urbanisation through sustainable economic development and improved living conditions for urbanites. Divided into nine levers to achieve its aims, lever seven focusing on empowered, active communities state that 'land-use planning should consider the needs of all groups of society, e.g. the need for urban farming, recreational facilities for the young and retail space for informal traders' (IUDF, 2016:79). Similarly, the Integrated Agriculture Development Finance Policy Framework (IADFP) for Smallholder

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Farmers of 2015 recognises the need to provide micro-finance to gardeners in rural and urban areas. The afore-mentioned national policies do not appear to speak to the capacity of urban agriculture in detail. However, they acknowledge the inequalities in urban areas and allude to urban agriculture's potential to address the problem.

The Western Cape Department of Agriculture (DOA) supports various urban agriculture projects across Cape Town in the Western Cape Province. The Western Cape DOA passed the Strategic Planning document in 2013, which shows its support for urban agriculture activities. The document recognises the importance of urban and peri-urban agriculture in improving food security and nutrition. Similarly, the DOA's Urban Renewal Programme is geared towards the support of urban agriculture. The Western Cape DOA has a directorate that supports implementing one of the pillars of the Integrated Food Security Strategy of South Africa (IFSS) passed by the National DOA in 2002. The Western Cape DOA contributes directly to alleviating household food insecurity through the 'Farmer support and development programme', which delivers household, school, and community gardens. Furthermore, the DOA has information on the benefit of urban gardening on its website[6]. Besides the Department of Agriculture's involvement, the local government actively supports urban agriculture through a food security lens.

In Cape Town, urban agriculture receives support from the provincial government, local government, and civil society (Battersby & Marshak, 2013; Kanosvamhira, 2019, 2021). Urban agriculture occurs across the city but is particularly visible in the Cape Flats due to the municipality's promotion of the activities as a panacea to food insecurity. Cape Town is perhaps the most supportive municipality of urban agriculture initiatives (Olivier & Heinecken, 2017a). The municipality has directly worked with other actors such as the provincial government and Non-governmental Organisations to implement food production projects within the city. However, realising that these activities lacked coordination, the city adopted a specific policy to improve urban agriculture initiatives across the city. The municipality of Cape Town endorsed urban agriculture through the now-defunct Urban Agriculture Policy (UAP) of 2007. The development of this first policy resulted from multiple processes, such as the policy formulation in 2002, where an urban agriculture summit was conducted to facilitate a dialogue on urban agriculture development. The first summit aimed to build an improved

[6] The Provincial DOA website at https://www.westerncape.gov.za/general-publication/urban-farming provides information on the benefits of urban agriculture and reasons why people in the province should engage in it.

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understanding of urban agriculture in the city, identify opportunities and challenges presented by the activity, promote information exchange and networking, and create a vision for urban agriculture. The summit was a multi-stakeholder event involving various people and groups from the government, the gardeners, civil society groups, and research institutions. This was then followed up with a second summit in 2003, where the original discussion was refined before the final policy was signed in 2006 (Rogerson, 2011).

Table 4. 1: Municipal policies passed to support urban agriculture

Policy	Aim
UAP of 2007 – now defunct	Enable the poorest households to utilise urban agriculture as an element of their survival strategy for household food security and income generation
UAP of 2012 – never passed	Provides subsidised resource materials and technical capacity to community gardens with a broader vision on non-material benefits
Food Garden Policy of 2013	To establish Community Food Garden Projects to help residents support themselves by providing them with skills to earn a living

Source: Kanosvamhira (2021)

The Urban Agriculture Policy was passed in 2007 and attempted to achieve its overall objectives through four main strategies. These were to enable the urban poor to utilise urban agriculture for household food security, enable economic opportunities for the urban poor through urban agriculture, redistribute land for cultivation to the historically disadvantaged, and enhance human resources development (CoCT, 2007). It divided beneficiaries into four categories: home producers, community groups, micro-gardeners, and emerging gardeners and prescribed the type of support[7] that would be offered to each group. Essentially the policy aimed to improve coordination among its various departments when it came to urban agriculture. The policy saw the Urban Agriculture Unit's establishment located under the Directorate of Economic and Human Development. The unit's main function was to oversee the policy's implementation, for instance, by assisting the gardeners to access land, input resources, and markets.

The Unit started with three employees; however, this was reduced due to restructuring within the city departments. Hence human capacity to implement the policy was significantly limited. The policy received criticism over its overemphasis on economic benefits and insufficient human resources to implement it. The Urban Agriculture Policy was sent for a revision in 2013

[7] Types of support are generally classified as provision of infrastructure, access to and, tools, inputs and monitoring.

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to broaden the understanding of urban agriculture and highlight its multifaceted benefits (Haysom et al., 2017). However, the policy was never promulgated; instead, the COCT passed the Food Gardens Policy in 2013. The Food Gardens Policy is a policy in support of poverty alleviation and reduction. Its goal is to address food insecurity by establishing food gardens in low-income areas (CoCT, 2013). Furthermore, the COCT published some resources on its website[8] in 2016 to assist gardeners with starting gardening activities. One such document is the '*Guide to Step-By-Step Urban Community Gardening,'* which briefly introduces how individuals can begin community gardening.

Cape Town's Municipal Spatial Development Framework (MSDF) is another framework that incorporates urban agriculture, albeit implicitly. The MSDF communicates the spatial vision of a more inclusive and sustainable city. The framework points out three main strategies to fulfil its goals. These include building an inclusive, vibrant city, sustainable urban growth through balancing environmental protection and urban development and improving access to economic opportunities for its citizens (COCT, 2018a). This framework incorporates the Urban Agriculture Policy to fulfil strategy 2. Besides the municipality, the civil society organisation in supporting urban gardeners in the city.

Civil society organisations play a prominent role in encouraging urban agriculture activities in Cape Town (Kanosvamhira, 2019, 2021). Civil society organisations range from, Non-Governmental Organisations, Non-Profits Organisations[9], Community Based Organisations, Activist movements, and Churches, among others. For instance, NPOs operate through donor funds, which enable them to subsidize inputs, improve infrastructure, and present market opportunities for urban gardeners (Karaan & Mohamed, 1998; Olivier & Heinecken, 2017b; Tembo & Louw, 2013). NPOs operate on donor funding; therefore, NPOs are likely to face challenges in meeting their target when funding is inconsistent or terminated. Most urban gardeners in the Cape Flats, the study site, depend on NPOs for receiving subsidizing inputs, infrastructure, and market opportunities (Kanosvamhira & Tevera, 2020; Paganini et al., 2018).

[8] The website is at http://www.capetown.gov.za/Family%20and%20home/Greener-living/Green-gardening-and-eating. Under the greener living section the COCT provides information of gardening, which include learning about gardening, how to start a garden and what to cultivate in the garden.

[9]

NPOs and NGOs are both Non-Profit entities in the generic sense; a distinction is usually drawn based on operations' scope and nature. NGOs usually engage in large projects, whereas NPOs may depend on NGO funding and operate on a more localised scale. For this research, the word NPO is used, which aligns with how these organisations identify themselves unless otherwise explained.

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According to the literature, there were quite a few NPOs who operated in the Cape Flats, however, there are now several NPOs supporting urban agriculture projects in the area today. Moreover, these organisations have various aims and methods of operations, and this has resulted in the conscientisation of urban gardeners beyond mere food production.

Despite the presence of various stakeholders, there has been criticism over the limited coordination of activities among supporting stakeholders in the sector (Haysom & Battersby, 2016; Kanosvamhira, 2019; Paganini & Lemke, 2020). The main argument is that there are limited synergies due to conflicting interests across the supporting organisations (Paganini & Lemke, 2020). Another point of criticism regarding supporting stakeholders is the heavy reliance of urban gardeners on civil society actors for resources such as inputs and markets (Kanosvamhira & Tevera, 2021). According to Paganini & Lemke (2020), this uneven power structure causes problems in cultivating a sustainable food system, in low-income communities.

There are a few productive agricultural areas in Cape Town, for example, the Philippi Horticultural Area (PHA). The PHA is characterised by smallholder gardeners who produce a significant proportion of vegetables for local consumption. Livestock production is also prominent where gardeners rear poultry, sheep, goats, and pigs. The area is located on the extensive Cape Flats Aquifer covering approximately 630 square kilometres. However, the PHA has been under pressure due to competition for the land for housing and developmental needs. Most of the remaining urban gardeners in the Cape Flats cultivate vegetables in their backyard spaces and on community gardens, mainly on public land (Philander & Karriem, 2016). These receive support from civil society organisations such as NPOs as well as the state. The latter gardeners are the focus of this study.

4.6 Conclusion

The preceding chapter explored the study area in detail. Firstly, it outlined the Cape Town metropolitan municipality's general characteristics before zeroing down to the Cape Flats. Cape Town inherited its apartheid legacy of inequality along racial lines both spatially and socially, which continues to this day. Inequality is also exacerbated by the city’s neoliberal-based planning, as alluded to in the section that focused on the area's socio-economic characteristics. The city’s drive to be a global city has meant that spatially there is overinvestment in one area at the expense of perceived non-attractive areas. This neoliberalist-based planning has affected how space is shaped and consumed by individuals. This is one critical element seen across

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most studies that have analysed urban community gardens within the context of neoliberalism, hence presenting an essential aspect to the research. Cape Town is suitable site to explore political gardening for several reasons. Cape Town is perhaps the most unequal and segregated city in the country, characterised by the geographic and social division of the wealthier population and the low-income townships. This area faces several socio-economic challenges, including high unemployment levels, poverty, food security, and various social ills. Such a socio-economic environment makes it a suitable breeding ground for activist movements, as seen by various activism activities, such as protests against poor service delivery. Second, Cape Town was one of the first cities in the country to support urban agriculture activities as a self-help mechanism to address food security and nutrition in under-resourced communities. This is underscored by the city championing the first Urban Agriculture Policy in the country.

Moreover, urban agriculture activities are characterised by the involvement of many stakeholders supporting the practice, specifically in the Cape Flats. We see several stakeholders from the private sector and civil society who provide different forms of support to urban gardeners. Collectively all these factors made it a suitable study area. The chapter concludes by examining policies from the national to municipal level, which incorporates urban agriculture activities. National policies generally do not directly mention urban agriculture activities, although they are alluded to in some cases. Provincial and municipal policies directly mention urban agriculture and its potential to contribute to food security and poverty alleviation. The following section presents the methodology adopted to address the research objectives.

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CHAPTER 5: RESEARCH METHODOLOGY

5.1 Introduction

This chapter provides a detailed account of the methodological approach adopted to achieve the research objectives. It presents the research paradigm, research design, as well as sampling techniques and procedures followed. Further, the chapter examines the methods used in collecting, analysing, and presenting the research data. The research adopted the pragmatic epistemological position, which dovetails well into a convergent mixed-methods research paradigm. Here, the mixed-methods research approach combines qualitative and quantitative data collection forms to present a more consolidated understanding of the issues under investigation. This paradigm enabled the generation of rich contextual information to enhance the understanding of urban community gardens in the study area. Questionnaire surveys, in-depth interviews, and direct observations are a few of the multiple data collection tools employed during the collect data process. Accordingly, both qualitative and quantitative data analytical tools were employed in the analysis and presentation of results. The chapter concludes by providing the main challenges encountered and lessons learnt during the data collection process and the limitations.

5.2 Research philosophy

The conduction of research requires a basic understanding of the underlying philosophical underpinnings. The beliefs held by researchers often lead to embracing either a quantitative, qualitative, or mixed-methods research approach; therefore, they must understand these (Creswell & Creswell, 2017). Quantitative and qualitative research differs in terms of their epistemological foundations (Bryman, 2012). These differences in epistemological foundations or research philosophies influence the research methodology selected, data collection tools, and results. Generally, two fundamental philosophies influence research, namely interpretivism and positivism, although other philosophies emerge from them (Creswell, 2003; Kothari, 2004). These stem from ontological perspectives that determine a person's view of reality. Objectivism and constructivism are the ontological perspectives aligned to positivism and interpretivism, respectively (Bryman, 2012). It remains contentious among different scholars which research approach is applicable in certain situations; nevertheless, some scholars argue that no one philosophy is considered superior. Consequently, adopting a specific philosophy depends on the nature of the research and what the researcher intends to achieve by it (Creswell,

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2003; Guba & Lincoln, 1994). Both philosophical underpinnings have different strengths and weaknesses, such that more academic research in the social sciences has begun to adopt both underpinnings simultaneously.

5.2.1 Positivism

Positivism is a philosophical research position that upholds the use of natural science methods in research (Bryman, 2012). In other words, positivism advocates believe that world reality is independent of social construction and should be measured through experiments and observation. It is also referred to as quantitative research, empirical science, or positivist research (Creswell, 2003). According to Bryman (2012), this approach is rooted in the ontological position of objectivism. Objectivism implies that world reality is constructed by external forces that humans are unable to control. Therefore, positivism is based on scientific methods and systematises the generation of knowledge through quantitative techniques to describe variables and the relationship between them. It involves hypothesis testing and data collection to measure against established theories rather than the formulation of one. The post-positivists branched off from this approach where researchers believe cause determines effect. As a result, post positivist thinkers argue for the need to identify causes that influence effects, such as those found in experiments.

However, some scholars argue that this positivist approach assumes that individuals are passive counterparts in their circumstances. This basic understanding that humans are passive and thus shaped by their external environment is highly criticised (Creswell, 2003). This presents a significant limitation of the positivism approach since leading detractors argue that individuals can be active in shaping the environment around them in many instances (Guba & Lincoln, 1994). This gave rise to the anti-positivism thinkers who argue that there is a need to understand the role individuals influence their surroundings.

5.2.2 Interpretivism

Interpretivism, also called social constructivism or anti-positivism, is a philosophical approach based on the belief that humans influence their world reality; therefore, reality may differ between people (Bryman, 2012). Unlike positivism, this approach attempts to understand human behaviour instead of the forces that act on it. Therefore, interpretivism research is conducted to comprehend humans and how they counter the natural order. This approach is built on phenomenology philosophy that attempts to understand how humans understand the

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world they live in. Entrenched in the constructivism ontological perspective, interpretivism asserts that social phenomena are continually being created and revised by social actors who play a significant role in shaping them. The objective of interpretivist research is to understand the participants' views as much as possible rather than focusing exclusively on the external influences.

The interpretivist research paradigm is usually lined towards qualitative research design, which poses many open-ended questions so that participants can construct their reality. Such research predominantly emphasises the use of words instead of merely quantifying data in the research process. The purpose of the researcher is to listen to what the participants say and, therefore, how they interpret their reality. Furthermore, under this paradigm, data collection is not structured, allowing for the generation of new theories rather than constantly testing against established ones.

5.2.3 Pragmatism

The preceding discussion indicates that both dominant epistemological perspectives have their strengths and weaknesses. As a result, some scholars have drawn inspiration from both research approaches to enrich research methodologies (Creswell, 2003). Contemporary research is less structured into either interpretivist or positivist approaches but instead tends to lie on a continuum between them. In other words, research is no longer binary but can include both interpretivist and positivist elements. Following this logic, pragmatist proponents argue the research problem as being more important as opposed to the methods employed. They believe researchers should be free with regard to what approaches and techniques they utilise to understand the problem they are investigating. This does not imply that research is conducted without acknowledging the different epistemological approaches, but rather researchers need to adequately justify the rationale for mixing the two paradigms (Guba & Lincoln, 1994). In this way, philosophical underpinnings are not limiting but rather enhance the research process.

This research adopted both philosophies to ensure that the research process produced rich data and comprehensive findings that enhance the understanding of the issues under study. The adoption of both epistemological approaches is called pragmatism. Guba & Lincoln (1994) argue that the nature of research questions influences the epistemological approaches adopted; as such, there are cases where both epistemologies can be adopted to complement each other. In other words, one study may possess research objectives that draw from both positivism and

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interpretivism. This is increasingly true in contemporary research, where multi-disciplinary research is adopted to provide a more holistic view of research problems tackled. The adoption of this paradigm in the context of this study was crucial for one fundamental reason.

As noted in chapter 3 of this thesis, this research adopted the theory of social production of space as an analytical lens. One of the critical features of this theory is that space is not just a vacuum or space where things occur. In as much as the x and y values of space can be calculated, the literature shows that space is a social construct. Any undertaking to understand issues involving space should cater to space production, which involves human elements and relations. Hence in addition to any scientific or quantitative data that could be collected surrounding such issues, the human influence on space is equally critical. Empirically, it was crucial to collect quantitative data in this research, such as the size of the gardens, to generate the research participants' socio-demographic profiles. This improved the understanding of the results which were collected from the qualitative instruments. Qualitative data was also crucial in this study. Qualitative data ensured that rich information was collected from all the research participants. The way various stakeholders influenced space through, for example, lived experiences was crucial and could only be captured using qualitative methods. Therefore drawing from both philosophical perspectives ensured that the researcher provided a holistic picture of the issue under investigation. The sections on the research paradigm, research design, and data collection methods will further detail how both epistemological standpoints were incorporated into the study.

5.3 Research paradigm

The selection of a research paradigm is a crucial part of the research process since it determines the methodological approach employed in a study (Bryman, 2012). As indicated in the proceeding section, philosophical approaches have a bearing on the research methodology employed. Accordingly, this research adopted the use of both quantitative and qualitative research paradigms. The research objectives included both inductive and deductive aspects; hence, they presented a good platform for conducting the research from a pragmatic stance. Guba & Lincoln (1994) argue that the research question determines the research philosophy employed; therefore, it follows that one method may be more suitable to answer specific questions. Consequently, it is possible to adopt both interpretivism and positivism during research inquiries (Creswell & Creswell, 2017). For this reason, it was deemed suitable to

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bridge both quantitative and qualitative research approaches and employ a mixed-methods research approach.

The mixed-methods research approach entails exploiting varying methodologies to develop analysis with greater detail (Kothari, 2004). The mixed-methods research approach has increasingly been employed as a research design in the social sciences. Using a mixed-method research approach provides a consolidated understanding of the phenomenon under study, and the merits of the other can effectively compensate for the demerits of one method. The quantitative research approach enabled the researcher to collect statistical data, for instance, demographic information, which was crucial in improving the interpretation of the data generated from the study. A mixed-methods research approach also allowed for triangulation where data generated from one method informed another method (Figure 5.1). Specifically, the convergent mixed-methods research approach was adopted. Other forms of mixed-methods research approach such as the exploratory sequential or the explanatory sequential mixed-methods approach could not be adopted due to the unpredictability of a second opportunity to collect data due to the COVID-19 pandemic and imposed restrictions. Therefore, the convergent mixed-methods research approach was deemed as the most convenient approach.

The convergent mixed-methods research approach is a single-phase approach where the quantitative and qualitative data is collected simultaneously, analysed separately before comparing the results to determine whether they conform to each other (Creswell & Creswell, 2017). The central assumption of such a research design is that quantitative and qualitative data afford different types of information to paint the same narrative. Stated differently, this research design helps triangulate the data as it helps pick out discrepancies in the data allowing for further examination or fact-checking, which improves the reliability of the research results.

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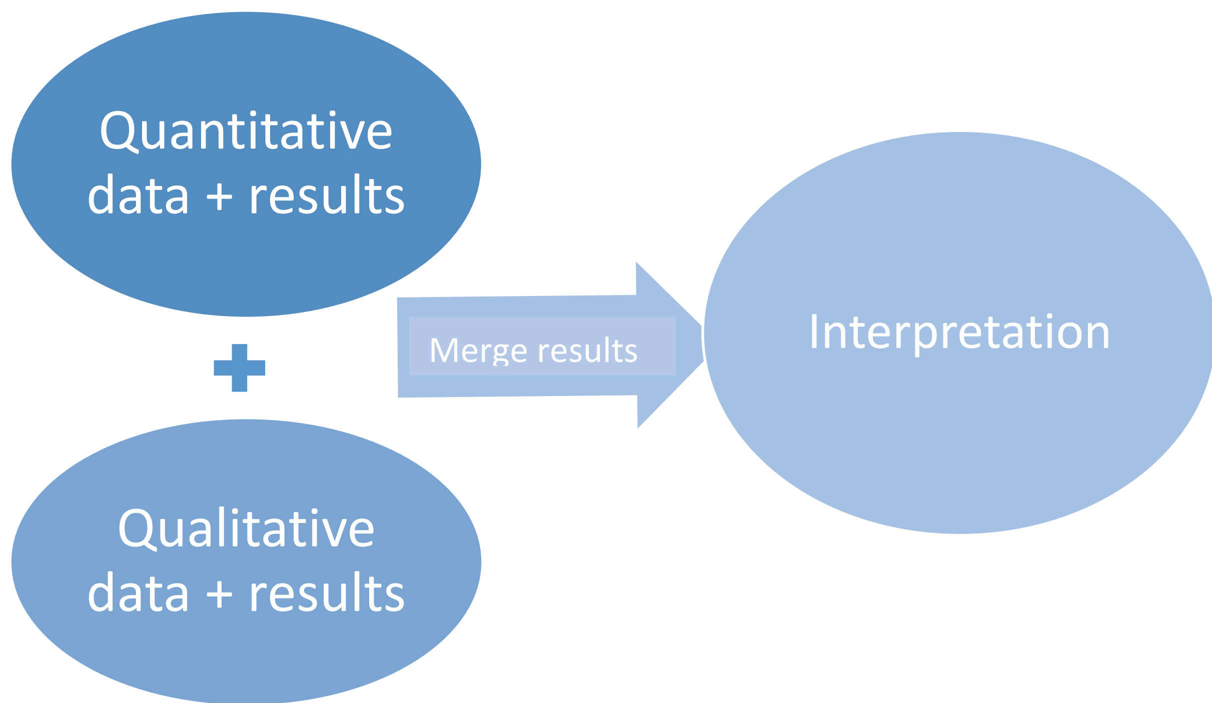

Figure 5. 1: The convergent mixed-methods research approach (Adapted from Creswell & Creswell, 2017)

5.4 Research design

A descriptive and analytical case study approach was utilised as the research design for this study. Case studies enable researchers to explore a research problem in-depth in a specific setting and collect rich information through various data collection tools over a certain period. Most studies that investigate issues of political gardening focus on particular cases to ensure that issues under investigation can be well unpacked. For instance, Bach & McClintock (2020) in Ville de Montreal, Quebec, Canada; Bródy & de Wilde (2020) in the Municipality of Amsterdam, Netherlands and Follmann & Viehoff (2015) in Cologne, Germany. According to Kothari (2004), case studies enable detailed data to be collected and allow for qualitative and quantitative methodological tools of data collection. Moreover, case study designs dovetail well with the convergent mixed-methods approach, ensuring that the research arrives at a fuller picture, rather than just validating results through triangulation. Given the selected data collection instruments and the time over which the research was conducted, detailed data were collected from the study area. Finally, using a case-study design allows for the purposeful selection of the research site (Creswell & Creswell, 2017). In this case, the researcher selected the specific area of Cape Town where several urban gardening activities occur. Hence the

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purposeful selection of the case study area helped to understand the problems under investigation.

5.5 Sampling unit and design

The urban community garden was utilised as the sample unit for this study. The rationale behind this is that community gardens are more suited to community development due to their collective nature instead of individual home gardening initiatives. From the onset, non-probability sampling was utilised in the selection of the community gardens. Non-probability sampling means that some sample units in the population are more likely to be selected than others (Bryman, 2012). To a large extent, the identification and selection of research participants for the research was achieved through a combination of dependence on a web of connections, negotiating access through NPOs, and a loose version of snowball sampling. In 2018, the researcher worked on a research project that put them in touch with some of the community garden members, hence in such a case; it was merely an issue of reaching out to them as there was already a development of rapport and trustworthiness. The criterion for selection was loosely any form of urban garden located in any of the townships in the Cape Flats. All the major NPOs operating in the area were also approached and requested in advance to assist in identifying community-based gardening projects in their areas of operation. After that, with the NPOs' consent, the researcher collected data from the list of gardens provided by the NPOs. Snowball sampling was exploited to identify other community gardens in the visited sites. Seven community gardens were identified through this method. Most of the gardeners were well aquatinted with other gardeners in the area; therefore, the researcher exploited this to ensure that more urban community gardens could be identified for the study. Here participants were made aware that they were not obliged to provide any other names. Rather, they were asked to encourage potential participants to come forward. In such cases, the primary participant was provided with the researcher's contact details and linked the potential participant and the researcher. With the potential participant's consent, the primary participant shared the contact details of the potential participant, after which contact was made. At the end of the data collection process, 34 community gardens were identified, with 97 questionnaires administered.

Purposive sampling was employed in the selection of key informants scheduled for the in-depth interviews. This was deemed the most appropriate form of sampling to ensure that the necessary information was captured. The key informants for this study included several

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informants including the two Provincial DOA Officers, two City of Cape Town officials, two Abalimi Bezekhaya officials, one Food for Tree Africa official, one People's Health Movement South Africa Programme Coordinator, one Philippi Economic Development Initiative AgriHub Project Manager, and the selected lead gardener or knowledgeable gardeners (see Table 5.1). For instance, interviewing the non-state officials was crucial since they were responsible for training gardeners and possessed information on the community gardeners' experiences and challenges, they faced. Interviewing the informants mentioned above prevented the entire inquiry from being vitiated due to cross-examining some of the cross-cutting issues among the research participants. In the case of non-state actors, snowball sampling was also exploited as interviewees were very keen on suggesting other organisations the researcher could interview. Thus, the number of non-state actors increased significantly from the original selection, further enriching the research findings.

5.6 Methods of data collection

Following the selection of a mixed-methods research approach, this research employed a combination of both qualitative and quantitative research instruments for the data collection process. The instruments utilised during the data collection process included structured questionnaires, semi-structured interviews, observations, audio and digital archives, satellite photography, and document analysis. This section justifies the selection and use of specific research instruments to collect data within the broader research context.

5.6.1 Questionnaire survey

A questionnaire survey was employed to capture the history and current state of the identified urban community gardens. Following the adoption of a mixed-methods approach, the questionnaire contained a mixture of close-ended and open-ended questions. To ensure that participants respond to the same questions, the close-ended questions were presented in the same order and wording. This standardisation also facilitated more straightforward data analysis. Closed-ended questions were employed because they restricted participants to select answers from set options, which made quantitative data analysis easier. A set of open-ended questions invited free responses from the participants. A few open-ended questions were also included in the questionnaire to elicit the participant's views on specific issues. Free responses enabled the researcher to augment the initial close-ended responses. Likert-like based

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questions were also used to understand how the participants felt about specific issues under question.

The questionnaire was divided into four sections that attempted to gather data on the study's specific objectives (Appendix I). The first section collected general socio-demographic data of each community gardener and the community garden's general characteristics. Section two focused on the garden activities, resource utilisation, and how the gardens countered various challenges within their communities. The last section of the questionnaires focused on the relationship of each urban community garden with supporting actors, namely, the state and civil society actors.

Most of the questionnaires (95.9%) were administered through face-to-face interviews following the university-recommended social distancing guidelines. Although this was time-consuming and expensive, it ensures a higher participant response rate (Kothari, 2004). This form of questionnaire administration enabled the researcher to probe specific questions and observe non-verbal cues from the participants. Also, because the survey was conducted at the garden sites, the researcher observed the community gardens and, in some cases, the gardeners at work. The remaining questionnaires were completed telephonically due to the COVID-pandemic and subsequent travel restrictions, which at times prevented the possibility of traveling to research sites. Also, due to health reasons, some of the gardeners were not comfortable with face-to-face interviews; hence there was a need to find alternative methods to gather the data.

The questionnaire was pilot tested to ensure that questions were as straightforward as possible. The questionnaire was relatively short, and on average it took approximately 20-30 minutes to complete. Furthermore, the questionnaires were translated into the main languages utilised in the study areas (IsiXhosa and Afrikaans) to ensure that each participant fully understood the questions and was free to respond in their preferred language. The researcher was accompanied by a translator in the field who was eloquent in both IsiXhosa and Afrikaans; however, most participants were quite comfortable communicating in English.

5.6.2 Semi-structured Interviews

Interviews are a qualitative data technique used in ensuring the researcher can understand how an individual interprets an event or situation (Bryman, 2012; Macdonald & Headlam, 2008). There are three main types of interviews: structured, semi-structured, and in-depth interviews

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(Macdonald & Headlam, 2008). This research employed semi-structured interviews to collect data from the purposively selected informants. These included civil society representatives, local authority officials from the City of Cape Town, and two representatives from the Provincial Department of Agriculture Provincial Department. These informants were selected due to their involvement directly or indirectly in urban agriculture initiatives in the city hence it was necessary to understand the role of their respective institutions in the support of urban agriculture initiatives (see Table 5.1). The semi-structured interviews were structured to obtain information on the kind of support offered by the organisation, other kinds of work they implement, and the organisations perception of the role of urban community gardens in community development and addressing societal problems.

Semi-structured interviews are beneficial because they ensure that rich information is captured from the interviewee since the conversation is not fully structured (Kothari, 2004). This merit ensured that the researcher gathered rich and comprehensive data from the research participants. Furthermore, semi-structured interviews enabled the researcher to engage in lines of conversation following themes but simultaneously allowed a degree of flexibility in responses from the participants. Semi-structured interviews with government and civil society officials were conducted online via video-communication services and, in some instances, telephonically. Although it was not ideal, the conditions which encouraged social distancing and limited travelling required the researcher to employ such a method to minimise health risks. Most of the participants were elderly, hence are the most vulnerable group to the pandemic. Telephone interviews have certain advantages, such as reduced cost and enable one to ask sensitive questions more effectively (Bryman, 2012). Although different from face-to-face interviews, digital online meetings through various video-communication platforms[10] allowed a sense of better interaction as interviewer and interviewee could see each other via the video interface.

Semi-structured interviews were also conducted with handpicked lead urban gardeners selected following the questionnaire survey. In this case, the questionnaire survey informed the structure of the semi-structured interview guide. The questions were generally structured to understand major issues and themes identified in the questionnaire responses. This exercise was crucial to probe further into issues that emerged from the questionnaire survey. Most of the interviews were conducted immediately after the questionnaire survey where possible, but in most cases,

[10] Zoom, Microsoft Teams and Google meet where the main video-communication services used depending on the interviewees preference.

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they were scheduled telephonically at agreed-upon dates and times following a structured template consisting of questions prepared before the interview dates (Appendix IV). The semi-structured interviews lasted between 20-40 minutes. The primary advantage of the telephone-based interviews was that they provided more information and were conducted more than once in some cases. This meant that issues being discussed were dealt with in detail to the point of saturation. Notes were taken during all the interviews, and audio recordings were conducted during most of the interviews with the participants' permission.

Table 5. 1: Key informants interviewed and the rationale for their selection

Interviewee	**Reason for the interview**
State officials	
Provincial DOA Senior Extension Officer Provincial DOA Director of Food Security Programme (out-going) (see Appendix III)	To obtain information on the role of the DOA in assisting urban gardeners in the Cape Flats To obtain information on synergies, the DOA maintains with other supporting actors and the challenges faced.
COCT Urban Agriculture Unit officer COCT Principal Resilience Officer (see Appendix III)	To obtain information on the role of the COCT in assisting urban gardeners in the Cape Flats To get information on synergies, the COCT maintains with other supporting actors and the challenges faced.
NDA Western Cape Representative	To obtain information on the role of the NDA in assisting urban gardeners in the Cape Flats
Non-state officials	
Abalimi Bezekhaya Interim Manager Abalimi Bezekhaya Field Team Manager FoodFlow South Africa Representative Food for Trees Africa Senior Programme Manager Local Wild Founder Slow Food South Africa representative Soil For Life Founder & Director South African Urban Food & Farming Trust Executive Manager People's Health Movement South Africa Programme Coordinator Philippi Economic Development Initiative (PEDI) AgriHub Project Manager OASIS Founder Oribi village Programme manager UCOOK Social and environmental impact coordinator Western Cape Economic Development Partnership Programme Lead (see Appendix IV)	To obtain information on how the organisations were assisting urban gardeners and how they coordinate activities with other players.

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Gardeners	
Lead urban gardeners (see Appendix II)	To obtain in-depth information on garden history and activities. To explain the trends observed during the questionnaire survey.

Source: Author, 2020.

5.6.3 Observations

Observations were adopted to gather non-verbalised information, for instance, the state of the community gardens and non-verbal communication from the research participants. Non-participant observations were largely adopted where the researcher observed the phenomenon understudy while staying separate from the garden activities. This was appropriate given the pandemic atmosphere and sanitary guidelines to ensure limited contact with the participants and/or tools utilised. Observations were conducted throughout the primary data collection when the researcher visited the community gardens for the questionnaire survey and semi-structured interviews. In some cases, the gardeners were approached while conducting gardening activities such as weeding, watering plants, planting, harvesting, holding meetings, or food consumption. The main advantage of observations is that it enables the researcher to observe and interrogate the group's activities to better understand issues under investigation (Creswell & Creswell, 2017). The use of a mobile camera accompanied observations to photograph the garden sites, including crops under production and garden infrastructure. Observations were crucial in augmenting the research findings collected through other data collection instruments such as satellite imagery or semi-structured interviews.

5.6.4 Audio-visual and digital materials

Audio-visual and digital materials in the form of photographs, website pages, and social media text were crucial for qualitative data collection. Information was harnessed from civil society groups such as NPOs, food activism websites, and the Provincial and Local Governments websites. Such documentation included policy documents and information about the various stakeholders' activities concerning urban community gardens and urban agriculture in general. In some cases, the research participants sent images via WhatsApp of gardeners conducting activities, crops under production, and related material. Data from these sources proved to be an unobtrusive method of data collection which was triangulated with other data sources. Research participants also provided information about various items relating to the research,

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such as links to websites, pictures of garden activities, and garden events via online communication platforms.

5.6.5 Google earth images

Satellite images were accessed to examine the spatial information about the community garden sites. The Google Earth Pro software was used to identify the satellite images used in this research. Analysing satellite images were crucial in this research for several reasons. For instance, it allowed the researcher to obtain a general understanding of the selected sites' land-use and, in most cases, present information in a more effective way. Moreover, the use of Google Earth Pro enabled the use of basic spatial analysis, which also allowed for examining land-use changes overtimes. This allowed for the corroboration of information garnered from the primary data collection tools. One such example is when an interviewee indicated that garden cultivation space was reduced due to the school's expansion project. This was quickly corroborated with the time series function on Google Earth, as shown in the findings (see Figure 6.5).

5.6.6 Document analysis

The systematic review of peer-reviewed articles and policy documents was ongoing from the research's conceptualisation to completion. Reviewing relevant literature informed the identification of the research gap, formulation of research questions and prevented a parochial analysis of the study findings. The study followed a desktop review of peer-reviewed literature. The literature search was conducted from electronic databases recommended by the University of the Western Cape's Faculty of Arts and Humanities librarian, specifically Academic Search Complete, GreenFILE (Open Access environmental database on the EBSCOhost platform), Forestry (via the Sabinet Reference platform), JSTOR (Advanced search), Science Direct, Scopus and Sage Journal Online. These search engines were selected to try and limit the scope to geography and related sub-disciplines. The search followed a Boolean/Phrase search mode where the primary keyword 'urban community garden' was combined with "AND" before connecting with the secondary keywords 'neoliberalism,' 'political gardening,' and 'commons.' Search results were screened by the author based on potentially relevant abstracts. The selected studies were compiled into a Microsoft Excel spreadsheet where each study's specific characteristics were recorded. The author, journal, location, year of study, methods, results, and overall themes of each study were captured. This ensured that basic patterns could

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be identified for analysis, such as the disproportion of studies based on geographic settings and the dominant methodologies used across the studies.

5.6.7 Pilot testing

Before the actual data collection exercise, a pilot survey was conducted to test the survey techniques and questionnaires of any weaknesses. Kothari (2004) argues that pilot surveys enable the researcher to identify potential problems with the questions' wording, allowing them to be adjusted accordingly. The questionnaire was tested among five individuals in one of the selected study sites. Interviews were also tested telephonically with 3 selected lead urban gardeners from two study sites. From the process, the researcher was able to identify problematic and ambiguous questions, which were amended accordingly. Moreover, pilot surveys allow the researcher to observe how long the survey will take (Creswell & Creswell, 2017). As a result, concerns for participant fatigue were identified, and the questionnaire was adjusted accordingly.

5.7 Data analysis and presentation

5.7.1 Quantitative data

The quantitative data from the questionnaires were subjected to a data cleaning process before analysis. This involved the careful examination of each questionnaire against their corresponding responses and the correction of errors to ensure data accuracy. Moreover, each questionnaire was checked for missing values or values which appeared where they should not have. The questionnaires were then entered into a statistical software for analysis. The Statistical Package for Social Sciences (SPSS) is a widely used software to analyse quantitative data (Macdonald & Headlam, 2008). This software was utilised to analyse quantitative data due to its relatively user-friendly interface. The data entry procedure involved entering each participant's response into the spreadsheet based on variables created before the data entry process. Post data entry, the data view function enabled the researcher to check for omissions and errors to improve the accuracy of the process. The data view option is presented in the form of a spreadsheet, which allows for data entry. Hence once data entry was complete, the researcher could check if all the data had been entered. A licenced IBM SPSS software 27 was utilised to present and analyse the nominal and ordinal data obtained from the quantitative data collected. The analysis provided descriptive statistics, presenting data in tables or bar charts depending on the most suitable presentation tool.

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5.7.2 Qualitative data

After data was collected, qualitative data from the in-depth interviews was extracted from phone recordings, online drive recordings, and these were transcribed verbatim and cleaned out. The cleaning out process involved re-listening to each audio-recorded interview and manually editing it to identify missing segments and correcting any errors. Data was thematically analysed; however, word clouds were used to gain some basic understanding of the data transcribed. Word clouds allowed for the visualization of text to identify frequently used words in the interview transcriptions. These proved to be helpful as a preliminary analysis tool indicating what the participants were talking about and the validation of past findings. Of course, these were used as a supplementary tool and did not substitute any traditional analysis method utilised in this study.

The data were thematically analysed following a repetitive process outlined by Roberts et al. (2019). The steps involve organising the data for analysis by transcribing interviews, typing field notes, organising the visual material. Before the data coding was conducted, repetitive reading of the data was performed to get a general sense of the data. For instance, interviews were read to get a general sense of what the research participants were saying. This process involved reading, highlighting opinions and phrases, key-words and writing down notes, and recording general thoughts about the data. Coding was then conducted, where data was segmented into themes for analysis. The research objectives guided the emergent themes. Themes were analysed for each interviewee as well as across the different interviewees. Qualitative findings were presented in the emergent themes and, where appropriate, as direct quotes.

Document analysis was conducted on all the gathered documents from the research participants and the internet. This analysis was crucial in substantiating data collected from other primary data collection instruments. All the findings were discussed in relation to the theoretical framework. The findings were also presented in relation to previous empirical literature to highlight the contribution of the study to knowledge. Regarding urban gardener interviewees, the individuality of the gardener quoted in each case was distinguished using a number ranging from 1 to 33, sex, and age range (see Appendix V). For instance, the first male participant between 40 and 49 years old was identified as (M1/40-49). The age ranges used for the interviews were as follows: -29 (29 years and below), 30-39 (30–39 years), 40-49 (40–49 years) and 50-59 (50–59 years) and +60 (60 years and above). For reporting purposes, the

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community gardens were assigned numbers ranging from 1 to 34. The full names of each garden can be found in the appendix. The secondary data in the form of literature used in this thesis was analysed using content analysis. Secondary data from satellite images were analysed through the use of Google Earth Pro. The software enabled the researcher to access the satellite images and generate maps that were exported for visual presentation.

5.8 Ethical considerations

Issues of ethical consideration should be upheld not only during the data collection and analysis phase of the research but rather the entire research process (Creswell & Creswell, 2017). This means that ethics need to be kept in from the conceptualisation of the research problems, beginning of the study, data collection, data analysis, data sharing, and data storage. As already alluded to in earlier sections of this thesis, an extensive literature review was conducted to ensure that an appropriate research gap was identified and the research could be beneficial to the participants. The research was conducted in line with the University of the Western Cape's policy on research involving human participants. To this end, an ethical clearance (Reference Number: HS19/9/2) was obtained from the UWC Humanities and Social Sciences Research Ethics Committee before any data collection commenced. The researcher followed the university ethics guidelines to ensure that the anonymity, confidentiality, and consent of research participants were not compromised during the research process. The additional research health protocols provided by the university were adhered to as well. Before engaging with any community-based research, the researcher completed the UWC COVID-19 screening daily for the duration of the research period. The physical distance of at least 1.5-meters was maintained during the questionnaire and interview administration process. The researcher wore a mask at all times and regularly sanitised.

Research participants were all issued with a consent form and information letter, which informed them of the research aims and the confidentiality of their information. The study's objectives, the reason for selection, potential risks, and other crucial communication were verbally communicated to the research participants before data was collected to avoid deception. In-depth interviews and questionnaires were conducted after the consent form was signed, and a verbal understanding was communicated in the case of phone call interviews. Participation was voluntary, and participants were made aware that they could withdraw their participation at any stage without any repercussions. The semi-structured interviews were conducted at the community gardens, and the researcher made sure not to disrupt the gardeners'

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activities. Creswell & Creswell (2017) argue that researchers must ensure limited disruption of the research sites. As a result, the research made sure to minimise the disruption of the research site, for example, by conducting the questionnaire survey as gardeners were engaged in their work or visiting the sites when they were not very busy.

All semi-structured interviews were recorded with the interviewee's consent, and the participant's names were not requested at any stage of the data collection process. In cases where participants mentioned the names of other individuals, these were replaced with pseudo names. Photographs were captured with the consent of gardeners. All appointments were scheduled well in advance and the data captured was stored in a password-protected location accessible only to the researcher and immediate supervisor. The researcher reported the research findings according to the data generated. The final report was communicated in clear and straightforward language to present the research findings as accurately as possible.

5.9 Limitations and lessons learnt during the data collection process

This research aimed to examine urban community gardens as an activist tool against urban injustice in the Cape Flats. The study collected data to fulfil the research aims and objectives based on a reliable mixed-methods approach. Nonetheless, this present research had some limitations and challenges that need mentioning. This disclosure is deemed necessary for two main reasons. Firstly, highlighting limitations is essential to assist future research in countering these challenges and conducting more robust research with insightful results. Secondly, highlighting the research limitations helps the reader interpret the research findings, conclusions, and recommendations within the context of the limitations.

This study adopted a case-study design to fulfil its purposes. The generation of research results and recommendations which can apply to a broader population rely on a more extensive sample. In other words, the sample size of 34 urban community gardening projects utilised for this study means that the findings generally cannot be considered to be representative of the city, province, or country. There are a lot more community gardens in the Cape Flats and other places such as Seawinds and Vgrybond. Hence it would have been beneficial to include more urban community gardens to present since there are several community gardening projects in the city. Nonetheless, this research is a crucial case-study on a topic with limited research; hence the findings will still provide a good case upon which future research can build upon. While the Cape Flats is considered unique, townships in the area do resemble townships

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elsewhere across the country, for instance, in Soweto, Johannesburg, where urban gardening activities are also well documented. Hence, with caution, lessons learned from the Cape Flats are instructive for townships with similar socio-economic contexts in the country and even abroad. Future research on the subject can exploit larger sample sizes within the study area or compare to other gardening communities in other cities in South Africa and beyond.

In terms of challenges, the data collection coincided with the novel coronavirus outbreak in South Africa. With the reporting of several cases in March 2020, the country declared the National State of Disaster and initiated a hard lockdown as a strategy to slow the spread of the virus and prepare response strategies. Since then, the country adjusted its levels of lockdown, varying in terms of regulations from Level 5 to the eased Level 1. These all affected the data collection process. The introduction of several restrictions on internal travel affected the research data collection process. The researcher had to adhere to government regulations, specifically during the nationwide lockdown level 1, where no forms of travel were allowed. During this time, the researcher was forced to adopt innovative ways of ensuring continuing the data collection commenced. The researcher resorted to the use of telephonic and online interviews were possible. Only when the restrictions were relaxed to level 3 in June 2020 was the researcher able to visit the research sites in person, but even then, safety measures such as the use of masks and social distancing were practiced. Although willing to participate in the study, other research participants did not allow face-to-face interactions, for instance, Key informants such as the government. Nonetheless, online and telephonic interviews proved to be an acceptable data collection method in such cases. Although the use of telephonic interviews removed the element of face-to-face interaction, it did offer other advantages. Telephonic interviews allowed the interviewees to be somewhat more relaxed, and the conversations usually extended beyond the prescribed time. Moreover, interviewees were willing to have follow-up interviews at agreed-upon times. In essence, the pandemic showed that research could still be conducted robustly and generate rich data using modern technologies such as cellular phones and social media platforms.

Another main challenge encountered during the data collection process was the availability of gardeners at the garden sites. Despite communicating with the garden leaders in time, it was normal to realise that not all of the garden members of a particular garden were available at the garden at the same time. This meant that not all members were able to respond to the questionnaire survey in some community gardens. In some cases, even the lead gardener was not present at the site. However, there was always a knowledgeable member who was then

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interviewed on behalf of the lead gardener, and the necessary information could still be captured in such a scenario. Although the gardeners' views were crucial, the garden was the unit of analysis; hence this limitation did not significantly affect the results since the required information was collected from the members present. Moreover, in some cases, the researcher was able to conduct telephonic interviews with members who were not present to mitigate this problem.

There was also some trouble getting some of the key informants to participate in the study due to various reasons. Some key informants were not available for the interview because they were busy. At the same time, some organisations maintained that the person who could respond to the particular set of questions was no longer available. For instance, the latter was the case when it came to attempting to interview a key informant from the Provincial Department of Social Development. Nevertheless, in such cases, the review of policy documents and the websites of the organisation was triangulated with information gathered from the research participants

Finally, the entry point to the gardens was mainly through the use of non-state organisations. This is somewhat unavoidable since they are the main points of contact to most urban gardeners across the city. This meant that urban community gardens with limited support from non-state actors were not equally represented in this research. While the researcher could not conduct transect walks across the various townships for security reasons, some strategies were employed to connect to gardens outside of the NPO information provided. The use of snowball sampling meant that the researcher could access other community gardens that were not recommended or supported by NPOs. In this way, some community gardening projects without NPO support were identified to counter this limitation.

5.10 Conclusion

This chapter discussed the research methodology employed in this study and the challenges encountered during the data collection process. This chapter highlighted the philosophical underpinnings of the research process. The research adopted a mixed-methods research approach to present a data set that can help enhance our understanding of community gardens in Cape Town. The chapter was also able to justify using both qualitative and quantitative research methods in this study. As noted earlier, such an approach enabled the researcher to generate a data set, which enhanced the understanding of the issues under investigation. It went

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beyond the simple triangulation of data from the different approaches but was geared towards the generation of a more in-depth picture and understanding of the issues under investigation. The research purposively selected the urban community gardens, which were the sampling unit for the study. Key-informants who were deemed to possess the necessary knowledge surrounding the issues under investigation were also purposively selected for the semi-structured interviews. The appropriate qualitative and quantitative data analysis method was employed to analyse data collected from the questionnaires and semi-structured interviews. All the collected hard and soft data was protected in locked cabinets and a password-protected computer that only the researcher could access. All ethical issues were adhered followed to protect the research participants. The researcher's main challenge was collecting data during the pandemic. Limited travel restrictions and social distancing characterised the pandemic; hence, various mitigation measures were adopted to ensure data collection was successfully conducted. The empirical results generated from this methodology will be presented in the proceeding chapters.

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CHAPTER 6: URBAN COMMUNITY GARDENS & LAND TENURE IN THE CAPE FLATS

6.1 Introduction

This chapter presents the results of the first objective of the study, which aimed to explore the evolution of urban community gardens and how land tenure security affects them in the Cape Flats. The chapter gives a description of the urban community gardens history and when they were established. The chapter also examines how the different land tenure forms affect the development of the community gardens before discussing these in relation to the literature. The chapter begins by presenting the demographic profile of the study participants.

6.2 Demographic profile of the research participants

The demographic profile shows the characteristics of the study participants. Although the study attempted to capture the lead gardener's responses and all garden members, this was not possible in some cases due to various reasons explained in the methodology section. Nevertheless, the lead gardener for each garden provided crucial information related to the research objectives. The research saw 97 participants partake in the questionnaire survey from 34 community gardens identified in the Cape Flats. Table 6.1 shows the gender of the questionnaire participants across all the Cape Flats. The sex of the participants is skewed towards female gardeners (57.7%) compared to 42.3% males. This is not surprising given that the literature regionally and locally has indicated that most of the individuals who engage in urban agriculture are usually females; hence this is an accurate presentation of the situation in the Cape Flats.

Table 6. 1: Sex of the participants

	Frequency	Percent
Female	56	57.7
Male	41	42.3
Total	97	100.0

Source: Field Survey, 2020

Figure 6.1 shows the age distribution of the questionnaire survey participants. The results indicate that most gardeners (42.3%) are either 60 years or above, followed by the 50-59 and 40-49 age group at 20.6% and 17.5%. Also of note was that 10.3% of the participants were

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below 29 years of age, which was more than the 30-39 age group comprising just 9.3% of the total population sample. The results, therefore, imply that the elderly population group dominates urban community gardens in the Cape Flats.

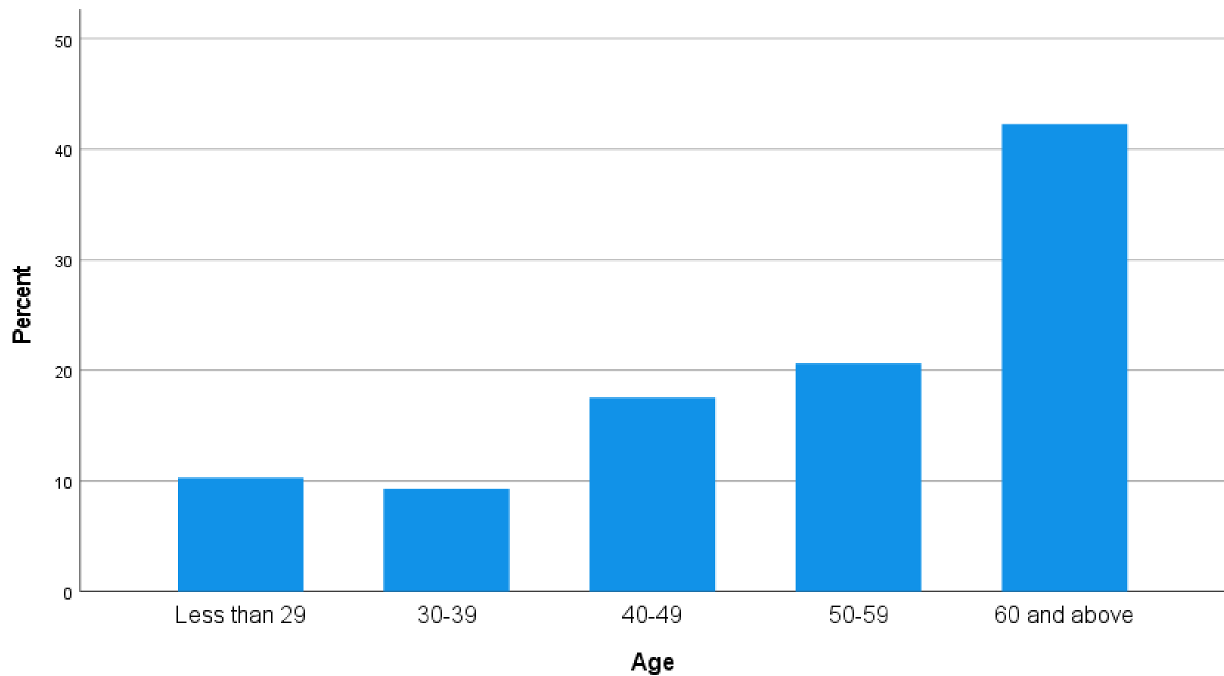

Figure 6. 1: Age distribution of the participants

Table 6.2 shows the marital and employment status of the study participants. The majority of the participants were either married or single and with frequencies of 35.1% and 36.1%, respectively. A total of 28.8% were either separated, divorced or widowed. In terms of employment, 67% of the participants indicated that they were unemployed, 22.7% self-employed, and only 10.3% were formally employed. Additionally, the participants' primary source of income per annum came from their jobs (48.4%), whether formal or self-employed, 47.4% from social grants in the form of State Old-Age pension. Only 4% indicated that it was from other means such as family support and garden activities. Generally, this shows that urban gardening activities are not necessarily the primary source of income for most gardeners in the study area. The results indicate that the participants engage in multiple activities to generate income to support themselves and their households.

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Table 6. 2: Marital and employment status of the participants

		Frequency	Percent
Marital status	Married	34	35.1
	Separated/Divorced/Widowed	28	28.8
	Single	35	36.1
	Total	97	100.0
Employment status	Formally employed	10	10.3
	Self-employed	22	22.7
	Unemployed	65	67.0
	Total	97	100.0

Source: Field Survey, 2020

A majority of the participants were black (77.3%), followed by the coloured[11] racial group at 20.6%, and 2.1% belonged to the white racial group. A total of 42.3% of the participants had been born in Cape Town (Western Cape), and 57.7% had migrated from other towns across the country, most predominately the rural Eastern Cape Province with a minority from other provinces such as Gauteng. Nevertheless, all the participants had been residing in Cape Town for more than ten years. In terms of the participant's level of education, Figure 6.2 indicates that most of the participants (56.4%) had received some form of High school education (Grade 8 to 12). Primary school (grade 1 to grade 7) was attended by 12.4% of the participants, with only 23% completing matric and proceeding to pursue a post-matric qualification (courses, certificates, or diploma). Only 3.1% of the participants had obtained a university degree.

[11] The apartheid regime created a racially separated society. The term 'coloured' is used officially to refer to mixed-race people

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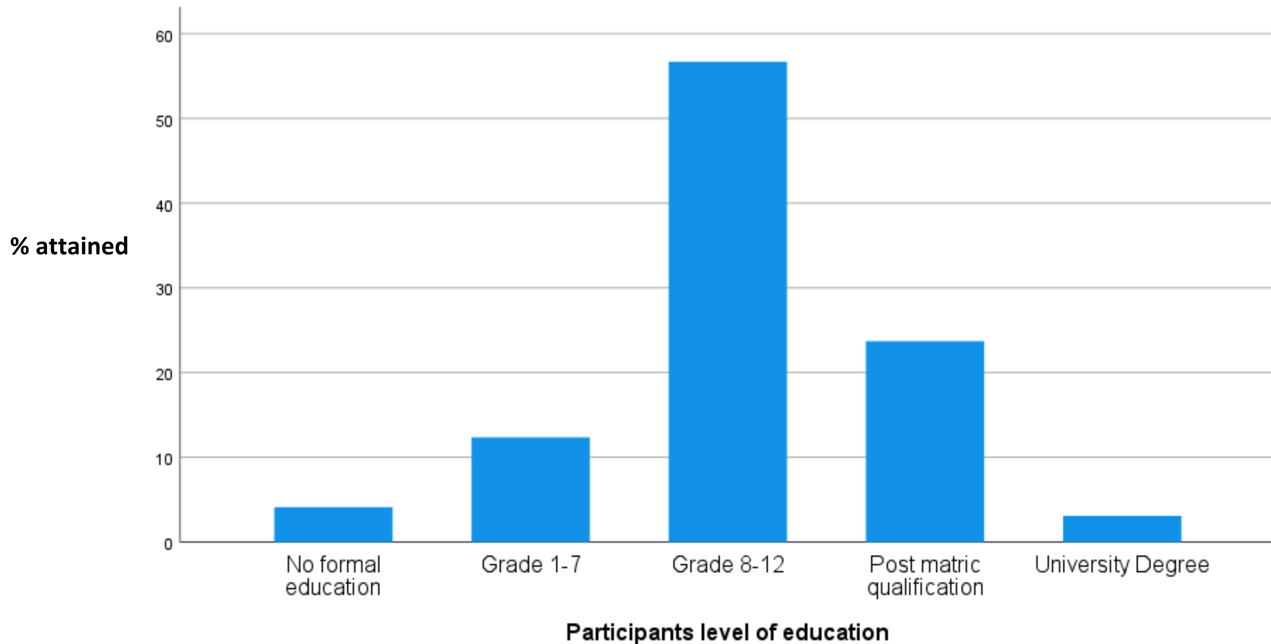

Figure 6. 2: Level of education of the participants

The surveyed community gardens cultivate a variety of crops within their gardens (Table 6.3). The growing of crops is primarily determined by the season and the availability of seeds and seedlings.

Table 6. 3: Crops grown in community gardens in the Cape Flats

	Summer	Winter
Vegetables	Baby marrow, beetroot, butternut, cabbage, pak choic[12], carrot, cauliflower, cucumber, lettuce, leeks, melon, onion, pumpkin, radish, tomato, watermelon.	Beetroot, cabbage, carrot, cauliflower, lettuce, onion, peas, potato, radish, tomato.
Herbs	Lavender, mint, chervil, coriander, rosemary, sage, chives, thyme, basil.	Lavender, mint, parsley, coriander, rosemary, sage, chives, thyme, oregano, thyme
Fruit trees	Oranges, Lemons	

Source: Field Survey, 2020

[12] pak choi is a type of Chinese cabbage

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Regarding the use of garden produce, 95.9% of the participants indicated that they engage in both selling of produce and consuming the produce at their household, with only 4.1% growing for strictly home consumption. Questionnaire participants were asked to indicate whether they had any experience gardening before joining the garden (Table 6.4). A total of 76.3% of the participants indicated they had some form of gardening experience before joining the garden as opposed to 23.7%.

Table 6. 4: Gardening experience

	Frequency	Percent
No	23	23.7
Yes	74	76.3
Total	97	100.0

Source: Field Survey, 2020

Of the 76.3%, all of them practised some home gardening at their residence and received some form of training on gardening from NPOs (Figure 6.3). The study showed that there was generally an increase in NPOs operating in Cape Town over the years. Hence there was a large possibility that urban gardeners would have been exposed to one organisation or another.

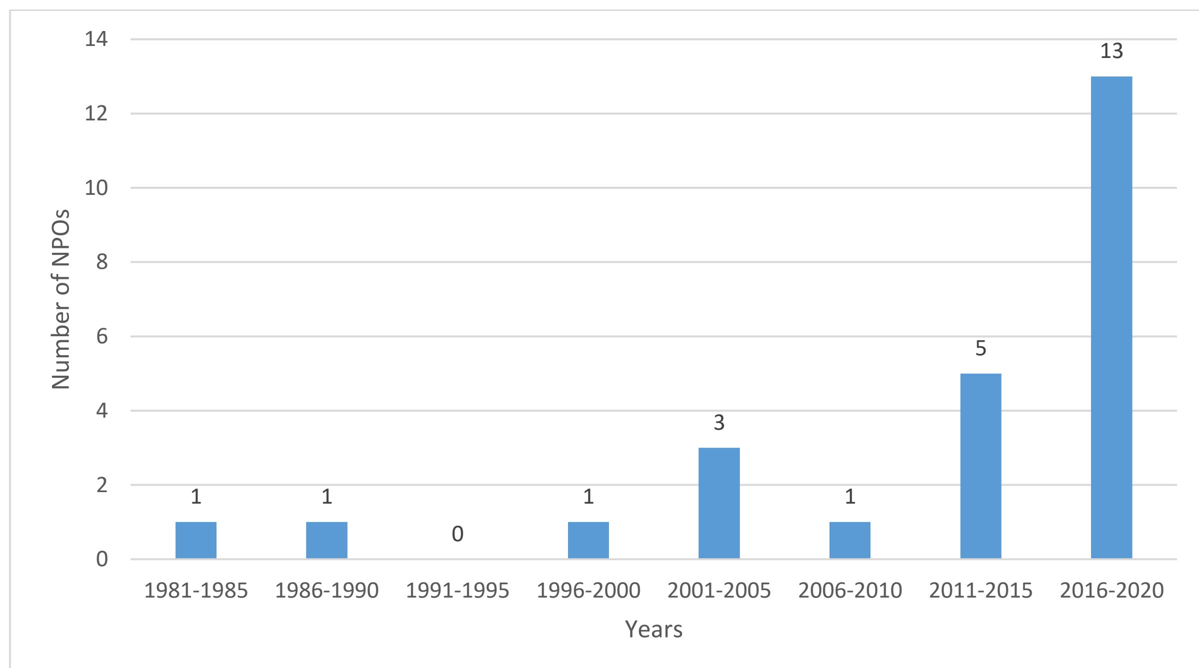

Figure 6. 3: Emergence of NPOs between 1981-2020[13]

[13] Calculated by cross-referencing organisations obtained from online search engines, identified organisation through snowballing and examining one NPO's databases. Full list of NPOs can be viewed in appendix vii.

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Other reasons generally involved growing up gardening or being taught by a friend or neighbour. The 23.7% without prior experience indicated that they all learned gardening after joining the community gardening. Nevertheless, all of the gardeners have received training or attended a workshop from one of many NPOs operating in the area. In this way, they gathered information on different aspects of gardening, such as pest management and general gardening skills and techniques. This result was an indication that gardeners were generally able to cultivate on their own but had decided to extend their activities to the community for various reasons to be explored in the next paragraph.

Participants were requested to provide information on their motivations for engaging in urban community gardening. The literature review and pilot test indicated that a single response was not possible for such a question; hence, multiple response was used. A multiple response allows one to navigate questions where more than one response is possible. The survey question provided the participants with multiple answer options categorised 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 and improvement, urban greening, and waste recycling. Health benefits were explained as enhancing food security and nutrition, while economic reasons were explained as money-saving and income generation. The following table illustrates a multiple response analysis from the participants' responses. The results indicate that gardeners engage in gardening for more than one reason, with more than 90% indicating that motivations cut across all four categories. For instance, the table shows that of the 365 responses, 97 (100%) participants stated that they engaged in gardening for social (100%), environmental (100%), and health reasons (100%).

Table 6. 5: Multiple response analysis of motivations for community gardening

		Responses		Percent of Cases
		N	Percent	
Motivations[a]	Social_reasons	97	26.6%	100.0%
	Economic_reasons	74	20.3%	76.3%
	Health_reasons	97	26.6%	100.0%
	Environmental_reasons	97	26.6%	100.0%
Total		365	100.0%	376.3%

a. Dichotomy group tabulated at value 1.

Source: Field Work, 2020.

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Participants were asked to mention some of these benefits in an open-ended question, and these ranged from various issues as displayed in the word cloud below (Figure 6.3). Nevertheless, it was clear from the conversations that the primary aim was mainly for household food consumption.

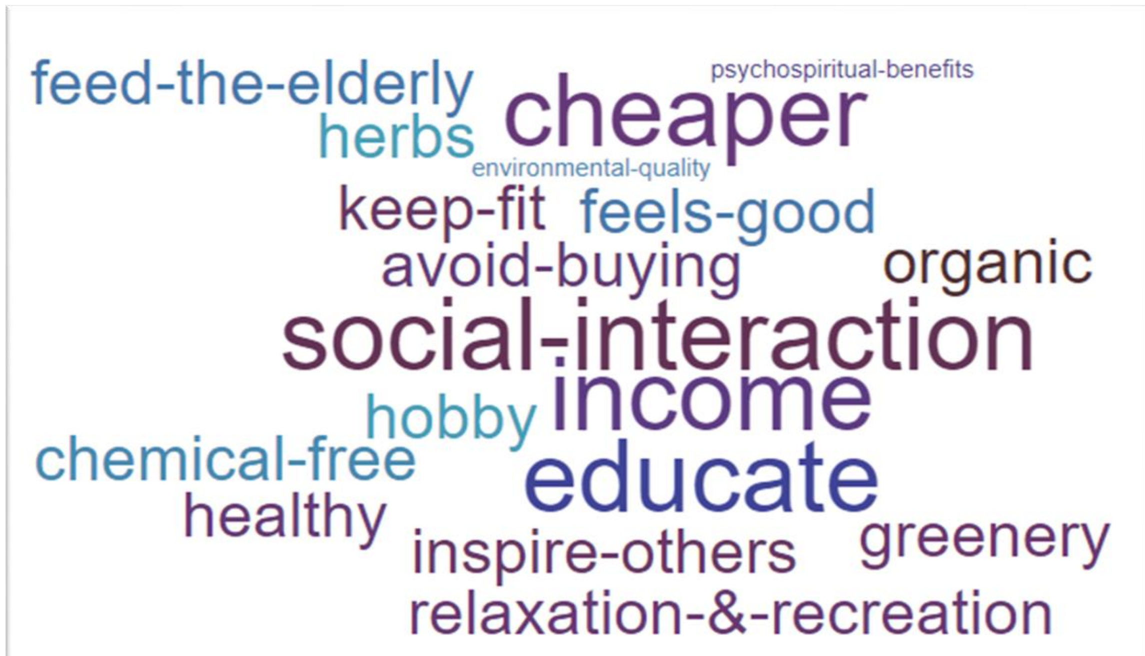

Figure 6. 4: Participants motivations for gardening

6.3 History and distribution of gardens

Figure 6.5 shows the distribution of the 34 community garden sites throughout the different townships. The figure shows that most of the gardens are located in Khayelitsha, followed by Gugulethu, Nyanga, Philippi Browns Farms, and only one garden surveyed in Emfuleni, Mitchells Plain, and Ottery. The gardens' average size is 907.35m², with the smallest garden measuring approximately 150m² and the biggest at 10000m². The average number of members was calculated at 3.9 members, with the smallest garden with two members and the largest with 11 members. The findings also indicated that some survey participants hold multiple memberships in their area.

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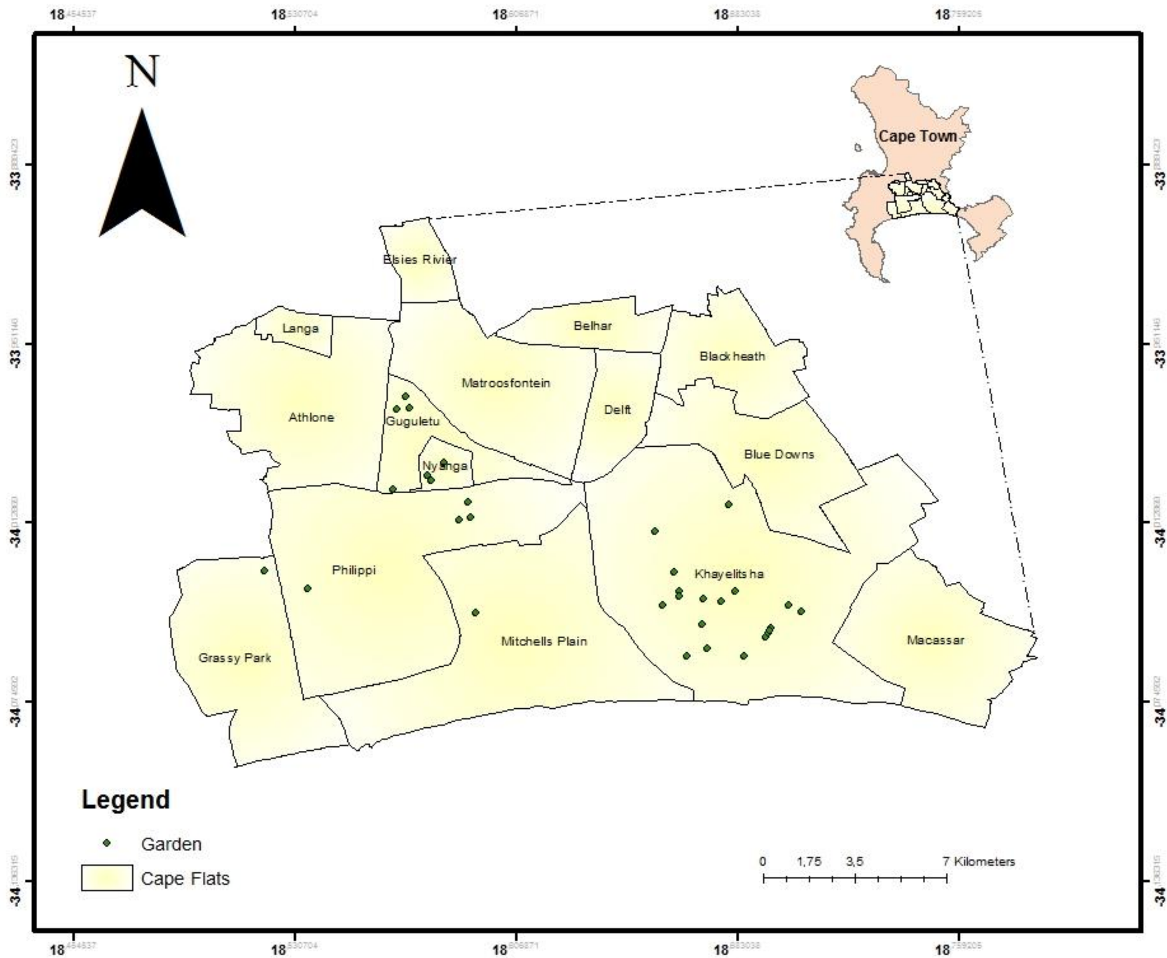

Figure 6. 5: The location of surveyed urban community gardens in the Cape Flats

Semi-structured interviews were conducted among the lead gardeners, and these aimed to obtain a brief history of the garden. The interviewee results indicate that the oldest garden was established in 1997 and the latest in 2020. These were grouped into categories of 5 year intervals, as seen in Figure 6.6. The figure indicates that close to 40% of the gardens were established during the 2016-2020 period. Further inquiries indicated that half of these were established within 2020. This spike in garden formation during the year 2020 was partly due to the Covid-19 pandemic, which had affected the participant's income and limited their access to food. Hence most individuals decided to engage in urban agriculture activities to meet their immediate needs.

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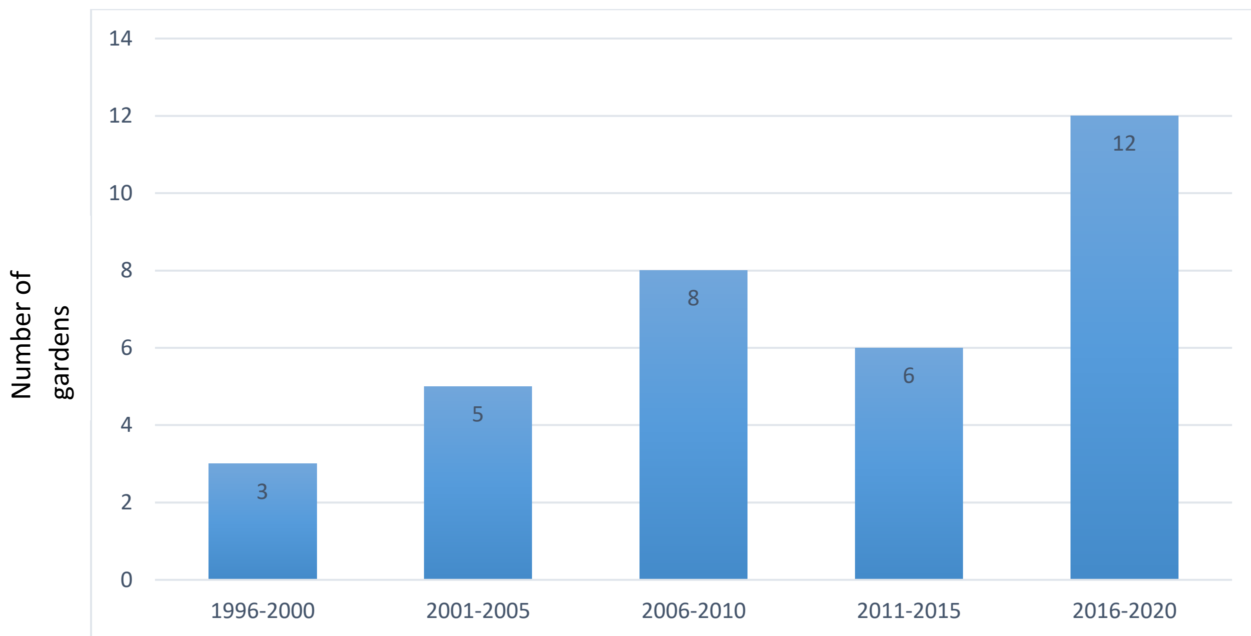

Figure 6. 6: Number of community gardens established in different time periods

6.4 Tenure

The semi-structured interviews revealed that none of the community gardening projects is located on the gardeners' personal property. This shows that none of the gardens had title deeds for the land they were utilising for crop production. Moreover, a word cloud based on the lead gardener interviews indicated that the issue of land tenure was mentioned numerous times as the main challenge in their activities (Figure 6.7).

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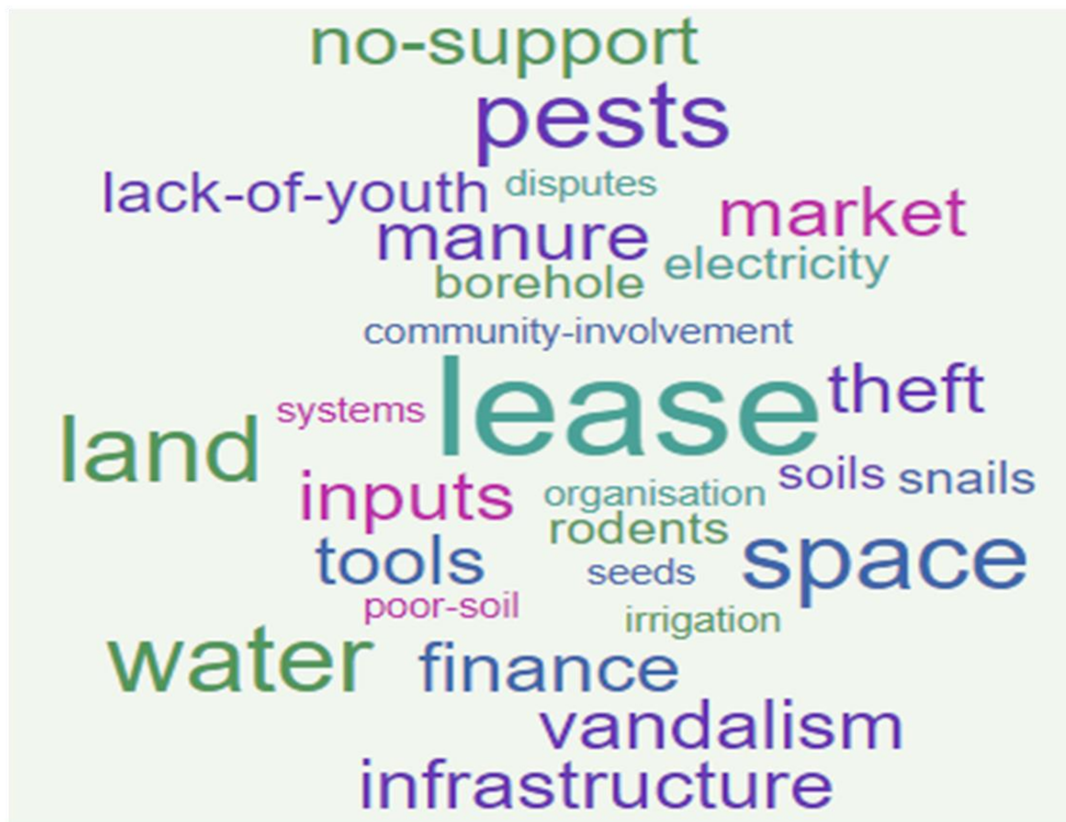

Figure 6. 7: Urban gardener’s main challenges N=30

Of the 34 surveyed gardens, 27 were located on public land and the remainder on private property in the form of church property, NPO premises, early childhood development premises, and private property. As shown in Table 6.6, the community gardens on public land were primarily located on school land, public open spaces, and the premises of state institutions in the form of municipal office space and nursing homes. A majority of the gardens had negotiated lease agreements without any need to rent out the land. Instead, they had agreements with the schools; for example, they could split the produce and contribute to the school feeding programme. Only one garden indicated that they were required to pay a specific rental fee for land use.

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Table 6. 6: Form of land tenure on public land (N=27)

	Frequency	Percent
School Land	13	48.1
Public Open Space	11	40.8
State property (Municipal buildings, old age homes)	3	11.1
Total	27	100.0

Source: Field Survey, 2020

Since none of the gardens had title deeds for the land they were using, it was important to find out whether they had a lease agreement for the land. Of all the surveyed gardens, 22 had a formal agreement with the property holder to utilise the land. These contracts were in the form of signed documentation from the property owner allowing the garden to utilise the piece of land. The leases were renewable based on the agreed time frames, which were, on average, 3 to 5 years. The other 12 gardens did not possess a written lease agreement to serve as a contract between the landowner and the community gardeners. Of these 12, only two were located on private property, and the interviewees specified that they were in the process of negotiating a lease agreement. From the interviews, it appears that it is easier to obtain a lease agreement on private land than public land. However, all the interviewees without a formal lease indicated that they had a verbal agreement with the landowner. Gardens 24-28 were located close to each other and had received a verbal agreement to use the land. In the past, they felt secure since there was no alternative use of the land due to its location under power lines. However, now they were attempting to obtain a formal lease agreement to use the documentation for various activities such as applying for funding and partnerships with other stakeholders.

Focusing on the 27 gardens on public land, a cross-tabulation of land occupied against lease agreement type was conducted. The results in Table 6.7 show that urban community gardens located on school land have more formal agreements than those on either state premises or public open spaces. Of the 12 gardens located on open space land, only 5 had a formal agreement with the relevant authorities to utilise the land.

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Table 6. 7: Cross-tabulation of lease agreement and type of land occupied

		Type of land occupied			
		School Land	Public Open Space	State property (Municipal buildings, nursing homes etc)	Total
Lease type	Formal agreement	12	4	1	17
	Verbal agreement	1	7	2	10
Total		12	12	3	27

Source: Field Survey, 2020

Obtaining a lease on open space land is generally a cumbersome task for gardeners, usually with little or no results. One interviewee explained that when it comes to acquiring open space land, their option was to '*go to the councillor, but then that doesn't guarantee you that he will help you to get the land'* (M3/50-59). Consequently, interviewees indicated that it was much easier to obtain land and a lease agreement from a school. For instance, the figure below is an satellite image showing Garden 2 in Philippi Brown Farms, located on school premises despite an unutilised open space land of approximately 4000m² to its right.

Figure 6. 8: Location of Garden 2 (yellow border) and open vacant space (red border).

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The Garden 2 leader explained that they had unsuccessfully attempted to obtain permission to use the open space adjacent to the school. She expressed this as follows:

> '*Obtaining a piece of land is difficult, you go to a councillor in the ward and ask for the plot number to go to the COCT thinking that this land belongs to the COCT they will refer you to City parks or whatever department but at the end, you find exactly who is using the land and sometimes they can give you the land but sometimes they do not. Like this one, as you see the open space there, we do not know the plan what they will do there, and it is not easy to cultivate land when you do not have lease agreement, we have failed'* (F3/60+).

There was a consensus among interviewees that land tenure security was a prerequisite to ensure the success of their activities. Without land tenure security, it was difficult for the gardens to plan how to use their land with the impeding thought of a possible eviction. Furthermore, most stakeholders usually support gardens that have tenure security as to be explored further in Chapter 8. Consequently, the reasons above made it easier for gardeners to seek land at schools. Besides the ease of securing land at a school, another reason for opting for school land was infrastructure and security purposes. Gardens could negotiate using the school's borehole for watering purposes and had a better piece of mind since the garden is located within the school fence. Although school land was a preferred option, interviews indicate that the process of obtaining a lease could also be strenuous and frustrating. For instance, one female gardener negotiating a lease agreement on school promises in Khayelitsha voiced her frustrations by stating that *'the garden was established in 2019, but we started there this year 2020 in July but it is taking a long time to negotiate a lease…they give us a run-around and they said speak to the secretary and every time she is never there'* (F1/30-39). The process of obtaining a lease from the school involves a vetting process, and this could take anywhere between 3 to 6 months, depending on the school's processes. In the meantime, the gardeners cannot apply for funding and support from major stakeholders, which in turn affects garden activities.

The issues of land tenure significantly affect the location of the community gardens. Of the 34 surveyed gardens, four were identified as migratory gardens. Migratory gardens here refer to gardens that were not in their original location of establishment. Various reasons could have resulted in the shift of location; for instance, Garden 21 was established on public land. Due to

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lease termination from the local council, they were forced to vacate the open land and seek a lease on school premises. The interviewee indicated that *'the garden started in 2006, but we came here in 2019, we were behind the police station on municipal land but left because they said they would renovate and houses'*(M1/40-49). This predicament meant that the gardeners had to vacate the land despite 12 years of working on the soil. The second migratory garden was Garden 3, initially established by an unemployed migrant from the Eastern Cape practising guerrilla gardening on an open space along a highway in Khayelitsha. The garden was usually faced with problems of theft of garden produce as the public space was not enclosed. The garden was eventually moved to a different location with the help of an NPO operating in the area and provided them with a fence for their garden and received inputs such as manure and seedlings in 1990.

Similarly, Garden 11 consists of a group of women in Makhaza, Khayelitsha, who established a garden with the support of the local council in a bid to conserve a wetland that was rapidly degrading as a result of waste dumping. Some community members in the area had been involved in maintaining the wetlands and engaged in organised clean-up campaigns before eventually establishing a garden. Receiving support from the COCT and the Environment Monitoring Group, they obtained some infrastructure for their garden. The interviewee indicated that *'initially the garden was just next to the wetland, but because of vandalism it had to change and people did what they want, cows got in and so forth and so we left there 2014'* (F4/50-59). They relocated from the open space to school land, where they had to move again to their current location due to lease issues and tension with the landowner. Similarly, in Khayelitsha, Garden 19 was established in 2007 and had to relocate to another school in 2018 due to the failure of obtaining a lease renewal with the current principal. The case of gardens 11 and 19 shows that even those gardens located on school land are also at risk of relocation.

Moreover, the findings show that urban community gardens are at risk of garden size reduction. For example, Garden 2 suffered from the reduction of cultivation space due to school developments. Figure 6.5 below shows a juxtaposition of Garden 2 before and after the erection of a school hall at the school premises. The erection of the new building resulted in the shrinking of cultivation space from approximately 700m² to 300m².

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Figure 6. 9: Juxtaposition of Garden 2 size in 2019 and 2020.

6.5 Discussion

The findings generally demonstrate that the urban gardeners in the Cape Flats are usually the elderly engaging in crop cultivation for household food security and other associated benefits. This is consistent with other findings on urban agriculture in the area (Meadows, 2000; Olivier & Heinecken, 2017a; Paganini & Lemke, 2020). Moreover, the results are in line with the literature that shows similar trends elsewhere across the globe, for example, in California (USA) (Algert, Baameur, & Renvall, 2014), New York (USA) (Saldivar-Tanaka & Krasny, 2004) and Buea, Cameroon (Ngome & Foeken, 2012). Most of the literature has shown that South African youth do not usually engage in urban agriculture activities because the activity is old and belongs to the rural areas (Moller, 2005; Thornton, 2008). However, the current study found that the youth also partake in the practice of urban agriculture activities. In fact, the 29 had more gardeners as opposed to the 30-39 age group category. In terms of gender, it is clear from the study that most urban community gardeners are female. Once again, this is in line with the literature on urban agriculture elsewhere in the region and abroad (Bisaga et al., 2019). Ngome & Foeken (2012) argue that this is so because males usually engage in other jobs to generate income for the household. Therefore, this suggests that urban agriculture activities are still, to some extent, a gendered activity.

In terms of individual motivations for gardening the results demonstrate that cultivation goes beyond the mere productivist narrative, suggesting that gardeners in the global South cultivate for household food security and income. This does not mean this is not a significant motivation, however, it shows that gardening is more than vegetable provision. The multi-motivations of urban gardening can be explained through two possible reasons. Firstly, the urban gardeners being a part of a group are exposed to the views and thoughts of their counterparts, and this is likely to influence their own views on different issues including the motivations and benefits

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of urban agriculture. As indicated in the literature, for instance, by Kato et al. (2014) and as to be explained in subsequent chapters, urban community gardens are usually formed around specific aims and objectives. Hence by default, garden members are likely to be influenced by these motivations. The second reason is the influence of NPOs in the area. Given the presence of NPOs in the Cape Flats, it is easy for gardeners to obtain help in terms of assistance and training. Previous research has demonstrated that in some areas in the Cape Flats, NPOs are much more accessible as opposed to state actors (Kanosvamhira & Tevera, 2020). This implies that gardeners are exposed to the ideas of the NPOs, which could possibly expand their view of the motivations and benefits of urban gardening. Hence this increase in consciousness of the multiple benefits of the practice can in part, be attributed to the presence of such organisations as to be explored further in subsequent chapters.

Moving to the gardeners' experience, the results demonstrate that several gardeners possessed some knowledge of gardening before joining the community garden. This was not surprising, given that most gardeners usually engage in gardening in the limited space available in their backyards. In this way, gardening was simply an extension of an activity they had already been engaging in at home. Most gardeners had received some training on home gardening from NPOs operating within their communities. Hence, it was easy to transfer the skills they had acquired from backyard cultivation to the community garden. Moreover, the history of cultivating for the majority of the community gardeners dates back to their childhood. As most gardeners indicated that they grew up cultivating back in the rural Eastern Cape. Similarly, the literature has shown that most people who engage in gardening have prior experience of cultivation (Olivier & Heinecken, 2017b; Paganini & Lemke, 2020). For the few gardeners who had no experience whatsoever, this was because they were eager to learn and hence were not concerned that they joined the garden without any skills. Gardeners generally grow various crops in their spaces, including high-value food crops such as tomatoes, spring onions, and butternuts. This can be explained by the fact that these high-value crop choices fetch higher returns for gardeners engaging in the marketing of their produce. Hence, they are motivated to cultivate vegetables that are on demand. Moreover, they are encouraged to cultivate them by supporting organisations such as NPOs to ensure they market their produce and generate some income.

In terms of employment, the findings show that most of the community gardeners are unemployed. Similarly, studies on urban gardening in South Africa indicate that most of the

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participants in urban agriculture activities are usually unemployed (Khumalo & Sibanda, 2019; Reuther & Dewar, 2006). Unemployment makes poor households vulnerable to food insecurity since food security in urban centres is primarily a function of accessibility rather than production (Battersby, 2012; Crush & Frayne, 2011). Therefore, the high unemployment levels may suggest that urban agriculture is engaged primarily as a source of income; however, this is not the case. The current research findings show that most gardeners rely on other sources of income, specifically social grants in the form of old age grants, income from informal work, with only a minimal percentage acknowledging the garden as the main source of income. These findings concur with Khumalo & Sibanda (2019) and Thornton (2008). They also report that partakers of urban agriculture in eThekwini and Eastern Cape respectively, primarily relied on social grants as a source of income (Khumalo & Sibanda, 2019; Thornton, 2008). On this basis, this research concurs with most of the South African literature, which argues that urban agriculture activities are not the primary source of income for households but instead provide an alternative stratagem or additional income streams. Nevertheless, this does not speak to the individuals' food security status as social grants have been criticised for their insufficiency to adequately feed a household, especially with several family members. In other words, to ensure the whole family is fed, income could be used to purchase calorie dense food stuffs which may be filling but not necessarily healthy. The fact that urban agriculture activities are the not the primary source of income supports the discourse that gardeners engage in the practice for multiple reasons as reinforced by the findings from this research.

The findings demonstrate that urban community gardening projects face land tenure security challenges. In exception to a few cases, most urban community gardening projects are located on school land as opposed to the majority of community gardens in the literature, which tend to be located on open vacant land (Eizenberg, 2012; Lawson, 2004; Schmelzkopf, 2006). Only a few community gardens are located on vacant open spaces and possess adequate lease agreements from the necessary authority. Therefore, these findings indicate that local municipalities do not view urban agriculture as an economically viable land-use option. This negative view of such activities is based on the premise that the land is usually not rented hence inefficiently utilised (Khumalo & Sibanda, 2019). This fits well into the neoliberal framework which seeks to commodify land (Purcell & Tyman, 2015) to ensure that the city can generate some revenue. In Cape Town, housing issues are of greater concern; hence open spaces are earmarked for this purpose (Philander & Karriem, 2016; Reuther & Dewar, 2006), which leaves community gardens to occupy land on alternative spaces such as schools, churches, and

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municipality grounds. This notion somewhat brings out some contradictory positions regarding supporting actors who promote urban gardening as a livelihood option but cannot guarantee pre-requisite resources such as land. Community gardens have to rely on temporary agreements, either verbal or written, with landowners to be able to secure a piece of land for gardening. Despite possessing lease agreements, urban gardeners can never fully invest in their gardens because the presence of a lease does not necessarily guarantee tenure of security. For example, the case of the community garden where school construction activities reduced available land for cultivation. The decrease in cultivation space can increase food insecurity among the participants (Roberts & Shackleton, 2018); hence this is a challenge, especially for gardeners cultivating for household food security. Even in cases where gardeners have been occupying the land for a relatively long time, they may have to give it up when the landowner decides to seize the space for alternative uses. A good example is Garden 21, which relocated to school land from vacant public land owned by the council after a decade of operations. Furthermore, the example of Gardens 24-28 is indicative of a similar scenario where despite being in existence for approximately two decades, they still do not possess adequate lease agreements for the land they are utilising. In some cases, community gardeners indicated that they have to pay for the lease agreement. Hence lack of tenure security partly reduces the incentive to fully invest in the projects since the participants are not sure when the land will be ceased by the relevant authorities. The concept of lease agreements creates the impression that community gardening projects are temporary and thus are susceptible to repossession to facilitate the future use of the land for competitive uses (Nikolaïdou, Klöti, Tappert, & Drilling, 2016). Even in global North countries, a similar situation is witnessed (Lawson, 2004:71). For instance, in the Neuland garden, one of the requirements presented by the BLB was that gardeners cultivate their produce in transportable boxes and pay a hefty deposit as a promise to vacate the land when they were eventually required to move out of the area (Follmann & Viehoff, 2015:1157).

Furthermore, the issue of lease agreements also explains the tendency of viewing land as a commodity. The findings of this research indicated that some gardeners are required to rent out the land as part of their lease agreement. This research argues that the payment of lease agreements is partially responsible for the entrepreneurship tendencies exhibited by some of the community gardens. This is because the gardeners have to make sure they cultivate and sell enough produce to pay for the lease. This factor drives urban gardeners to cultivate and generate an income to maintain rentals on the land occupied. Land tenure security also has an impact on

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community gardens' sustainability. Urban community gardens are generally prone to high retention rates for various reasons (Reuther & Dewar, 2006; Roberts & Shackleton, 2018; Tembo & Louw, 2013). In the case of Cape Town, this is seen through the nature of challenges they face, which usually result in the migration of gardens. This migratory garden process results in other members dropping out as the next location of the garden may be at a location not suitable for all the original members.

Access to sufficient area land is crucial for urban gardening activities. The results of this study indicate that urban community gardens are located on limited sizes of land. The land generally averages between 150m to 10000m. In other studies, results show a bigger average size of land, for example, in UKZN, the garden sizes range from 1 to 3 hectares (Khumalo & Sibanda, 2019). To put things into perspective, this means that the smallest land in that particular study equates to the biggest land size in the present study. The effect of land size comes into play, especially for community gardening projects which are geared towards production for the market. Limited land reduces the number of crops cultivated and affects the implementation of good agriculture practises such as crop rotation. Moreover, this may partly explain why most households remain food insecure despite engaging in urban agriculture. Most of the literature has shown that urban agriculture activities barely contribute to food security (Frayne et al., 2014). In the context of land size, this partly explains it since limited land size equates to limited output. This is exacerbated when taking into account other factors that already militate against output, such as poor soil quality, poor rainfall, and limited markets. Moreover, this is supported by the behaviour of some of the gardeners. The research discovered that some of the gardens were members of other community gardening projects in the area. This was an attempt to obtain more land to improve output.

The issue of land size also explains current trends in urban agriculture studies in South African literature. Most of the literature indicates that a few individuals engage in urban agriculture activities in the city (Crush et al., 2011). Some reasons have been provided for this, for example, viewing the activity as rural. However, prominent is the scarcity of land for cultivation in urban areas (Magidimisha et al., 2013). Most people may see that those engaging in the practise have limited land; hence they are discouraged from engaging in these activities. Nonetheless, the literature has argued that intensification should be adopted as an alternative (Smith, 2013). Unfortunately, this could perpetuate food nutrition insecurity as gardeners could use the limited space to cultivate high-value crops which are then sold on the market rather

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feeing themselves. This has been an alternative way adopted by urban gardeners and supporting organisations to be explored further in the next chapter.

6.6 Conclusion

This chapter reported the findings on the first objective of the research, namely the community gardens' general characteristics, individual motivations, the evolution of the gardens in terms of when they were formed, and land tenure security status. The data were collected from the questionnaire surveys and semi-structured interviews. The findings indicate a varied population of those engaging in urban agriculture with regards to age, gender, motivations, and other elements. One crucial finding is that the individual motivations of gardening are varied and go beyond the productivist perspective of framing urban agriculture studies. The findings show a mixture of urban community gardens, from gardens that emerged a long time ago to recent gardening formed in 2020. Gardens generally struggle with the land size and tenure security due to various historical and institutional barriers, further explored in the subsequent chapter. Therefore, this diversity provides a good base for exploring the research's subsequent objectives in the next chapters.

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CHAPTER 7: URBAN COMMUNITY GARDENS: A PATHWAY TO ACTIVISM

7.1 Introduction

The chapter provides the results for the second and third objectives of the research that sought to investigate how urban community gardens in the Cape Flats function as urban commons and their potential to serve as a transformative tool against the injustices of neoliberal hegemony. The chapter also explores the aims and activities of the urban community gardens and their interaction with the immediate community. The chapter then focuses on urban community gardens regarding their degree of collectivity by focusing on six key components: infrastructure use, inputs, land-use, produce, labour, and immaterial components. Finally, there is a shift of focus to the engagement of urban community gardens with the community. The chapter closes with a discussion section that argues that community gardens are spaces that aid in the resistance of neoliberal transformation.

7.2 Aims and operations of the gardens

As already indicated in earlier findings, the individual aims of the urban community gardeners are usually multifaceted; however, in this section, the community garden is the unit of the analysis rather than the individual gardener. The aims and activities of the community gardens were gathered through semi-structured interviews with the project leaders. While gardens generally aim to enhance household food security, key motivations and activities make some community gardens stand out from one another.

Generally, most urban community gardens aim to grow vegetables for home consumption and sell whatever is left over to generate income. With most community gardens located within walking distance of the members, food is easily accessible, and they can take home vegetables for home consumption. However, some community gardeners have to travel long distances to get to the garden. Even for gardens geared towards income generation, the primary consensus is to feed themselves first before selling. Most community gardens, for instance, Garden 20, indicated that improving access to vegetables within their community was one of their objectives. They usually conduct their activities together and share the produce among themselves but may also make an effort to sell the produce to markets.

On the other hand, some community gardens have a strong employment creation element and income generation. The majority of the gardens can sell their produce to the community,

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although those geared towards income generation also sell to external markets. The supporting stakeholders consider such gardens as production gardens. For example, Gardens 17 and 34 sell their produce to the market. Garden 17 in Khayelitsha was started in 2014 by residents to grow crops for home consumption and sell to the local and external market; however, they welcome individuals who want to learn about the benefits of cultivation into their garden. When the garden project started, garden members were reminiscent of the leader going around the township in a car, announcing and inviting people to attend meetings to discuss how they could address food security issues within the community through the use of the land they had obtained from the municipality. During the initial meetings, before the garden's operation, they discussed issues regarding how they would pay for the plot and share electricity costs. The majority of the people thought that the government would pay them to work in the garden rather than working and covering the costs themselves. As a result, most of the prospective gardeners at this stage dropped out of the project.

When it comes to selling produce, community gardens rely on intermediaries to sell their produce since a few of the gardens have direct links to the market. Therefore, organisations such as the uMthunzi[14] and PEDI assist in bridging the gap between the gardeners and the market. The main markets available to the gardeners include hotels and restaurants. According to some gardeners, marketing was problematic due to the closure of Harvest of Hope. The now-closed social enterprise facilitated the sale of produce through a vegetable box scheme to predominantly wealthier neighbourhoods in the city. Furthermore, such gardens indicate that their main problem is market access which significantly affects their selling ability. According to the gardener and key-informants, market access was problematic at the time of the study due to the lockdown and subsequent restrictions. The lockdown reduced the demand of their output from their typical customers, including restaurants and hotels.

Also, during the hard lockdown, most community gardens could not operate since they were not categorised as essential services, and they faced difficulties obtaining licenses to continue their operations. Consequently, such gardens were inactive, and the products went to waste, especially during the first hard lockdown enforced in March 2020. Besides selling the food to the market, gardens also sell over the fence to the community at a lower price as opposed to the market price. Community gardens that sell their produce to the market usually have two

[14] Now defunct as of April 2021. Cited reasons for closure include bad debt and limited options to sustainably run operations.

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prices for the same product, where one is for the market, and the other is for the locals. As one participant explained, '*this ensures that people within the community are attracted to buy the produce'* (F1/30-39). However, the interviewees indicated that there was limited support from the surrounding community in purchasing their produce; hence, this encouraged them to seek markets elsewhere. In some cases, the selling of produce was not to generate income but rather to make sure the garden was sustainable. There are various costs involved in sustainably running a garden, for instance, paying for electricity to maintain the boreholes and irrigation system. Hence, sometimes it is necessary to sell the produce and use the income to maintain infrastructure and purchase garden inputs.

Despite a strong focus of some community gardens on generating income and employment opportunities, gardens also included various other community developmental aims. Most of the participants spoke on the educational capacity of the community gardens within their community. They were generally not happy with limited youth involvement and were delighted to welcome and educate the youth on the multiple benefits of community gardening. For example, Garden 1 in Gugulethu was started by four members in 2020 who wanted to address health issues such as high blood pressure and diabetes in their community. While the garden is geared towards food production and selling produce to generate income, it also promotes agro-ecological food production within the community. Similarly, Garden 8 was established in 2018 by a former field trainer for a local NPO cultivating land at an elderly centre in Emfuleni. The community garden aims to ensure that there is access to healthy food options in the community. As the founder explained: '*for health reasons, I did research on what food to eat and not to eat and I came across organic foods which I cannot afford so I started gardening'* (F5/50-59). When she eventually obtained a bigger piece of land at the elderly centre, she started selling the produce to the market. The founder created the garden with two other members who assist with garden operations. Although the garden sells its produce to the market to generate some income, a significant amount goes to the elderly centre feeding scheme. Moreover, the garden is a part of various food movements in the city, for instance, the SAFSC and the GUFI. The garden actively promotes healthy food consumption through the use of platforms such as Facebook and WhatsApp.

Similarly, Garden 24 was established in a vacant area in Khayelitsha under power-lines where housing was prohibited. With time gardens 25, 26, 27, and 28 emerged, collectively called the power-line project. They focus their activities on cultivation for home consumption and selling

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produce for income generation. They have received support from various stakeholders; for instance, they have a hall for their meetings, trainings, and community gatherings. Besides cultivation, for home consumption and selling, they also run their soup kitchen to feed the needy regularly. Moreover, there is a strong culture of sharing produce, especially for vulnerable groups within the community. For example, one elderly female interviewee mentioned that *'the main aim is to eat and sell the extra and also donate to the needy'* (F2/60+). This is in line with the questionnaire results, which showed that engaging in gardening was multifaceted. Most of the community gardens donate food to the needy within their community. Some community gardens, especially those located on public school land, contribute a percentage of their produce to the school feeding scheme at no cost.

Of all the survey community gardens, some had aims beyond food security issues or income generation. This means that the selling of produce was not entirely central to their activities. Instead, their main aim was to influence the communities in specific ways, such as promoting social, environmental, and health benefits of cultivation. A case in point is Garden 4, located in Mitchells Plain, used as a training hub to promote home gardening and agro-ecological vegetables within their community. The garden emerged from the Kronendal Block (KB) neighbourhood watch, a group of community members who came together to improve safety within the community; however, during the pandemic, the KB reconfigured its objectives to address food needs in the community. Hence in addition to safety issues, it expanded its efforts to address food security in the community, for instance, through soup kitchens and donations. The group had some home and community gardeners who decided to build upon their expertise and promote urban gardening within their community. Hence the KB decided to pursue a community gardening project to foster change within the community. According to the lead gardener, *'this [garden] is a learning ground, and we want to use gardening as an empowering tool for the community and ensure that people grow their own food and improve the environment'* (F7/40-49). Shying away from the word activist, the project leader indicated that *'activist is a rather strong word, but we consider ourselves more of wanting to be a change agent and make a positive difference in the community'.* Central to their aim is to enable community members to produce healthy vegetables instead of relying on the dominant commodity markets. The garden was formed in 2020 due to the COVID-19 pandemic when a few community members decided to take an active role in encouraging the rest of their community to engage in crop cultivation. During the first lockdown, the group members identified a vacant piece of

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land in their community and requested it from the local councillor. The councillor allowed them to use the land for the requested purpose.

Currently, the community gardening group has five active members that facilitate the garden's day-to-day operation. For this particular garden and its members, it was important to ensure that community members were aware of the power of growing their crops. Therefore, the garden mobilises its community by raising awareness of the benefits of growing produce through utilising space available around the household. The garden engages in community building by hosting fun days for families where the community is invited to spend a day in the garden (Figure 7.1). The garden hosts other introductory training programmes on gardening, offered free of charge to the community. The garden has attracted the interest of approximately 50 residents who have shown interest in the activities and are regularly communicated with in person and through WhatsApp groups. These platforms of communication enable the different new home gardeners to request assistance from more experienced gardeners.

Figure 7. 1: Activities offered by Garden 4

Garden 3 in Ottery was established by a reformed gang member who wanted to give back to the community and create safe spaces within the gang-ridden township. The garden started by utilising public school land but extended the cultivation of crops to the communal spaces found between the residential flats in the community. The interviewee explained the aim of the garden as follows:

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'the aim is to educate the immediate community on what is the value of the garden in the community but then also to educate the youngsters and even getting children involved. The youth and the elderly must be involved it doesn't have to be permanent but they have free access to come and work in the garden and learn but also through the participation in the project they will have access to the vegetables in the garden' (M3/50-59).

For this interviewee, the goal was to ensure that reformed gangsters had an avenue to reconnect back into the community. The community garden he co-founded utilises urban agriculture as a form of what he calls 'horticultural therapy', which can help the outcast community members in the area reconnect with the community. Within the garden, the members are capacitated to improve a number of their skills beyond gardening, such as leadership skills and bookkeeping. This garden attempts to create a space for the youth in the community and ensure they engage in productive activities to keep them off the streets. To this end, the garden partnered with the local library in Ottery and conducted training on urban gardeners to ensure that the youth could start a garden in their area of residence. The garden also maintains a strong social media presence where it advertises its activities through platforms such as Facebook and WhatsApp (Figure 7.2).

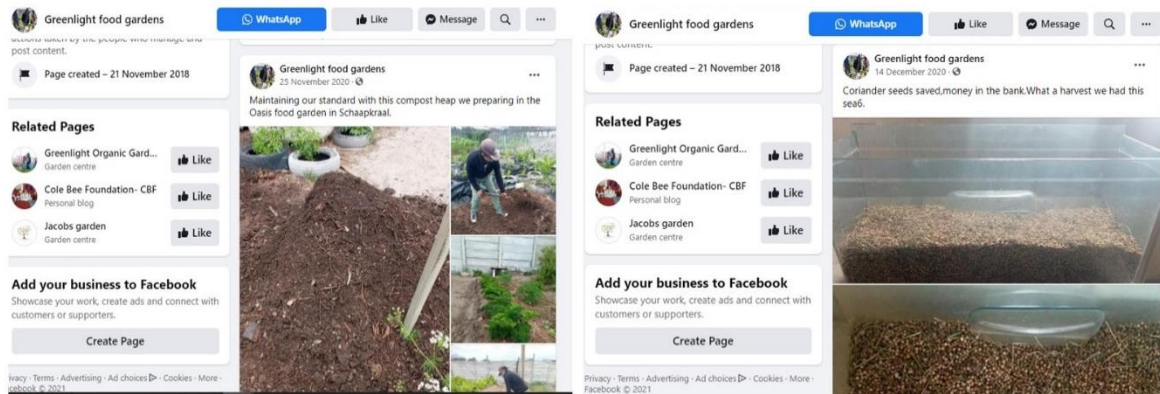

Figure 7. 2: Garden 3 Social media presence.

According to the co-founder, social media presence is crucial in disseminating the garden activities to the broader community. It is a way of advertising their activities but also serves as an information platform. Moreover, it allows the community garden to connect with other networks and potential partners. In fact, their track record and social media presence enabled other stakeholders to reach out to its leader to obtain assistance on providing training and

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technical support for gardens in their institutions. One such organisation is OASIS, a registered NPO which offers help to the homeless in Cape Town. The organisation uses sports as a driver of social change; however, it reached out to the leader of Garden 3 to obtain assistance with setting up a garden on its premises. Essentially, the garden's purpose is to ensure that members in the institution can learn different skills from the garden and work collectively. Hence, they can leave the shelter with a few skills when they head back into the community. As the project leader indicated:

> *'the management was following us on Facebook, now for quite some time. And also, they have always wanted a food garden project on their facility. See that during the winter, every year, they take most people from the street and they stay for a couple of months. But they also wanted to, teach people how to sustain themselves, and start a garden, and that's why the owner approached me'*(M3/50-59).

This was corroborated by the Oasis informant, who stated that the garden aims to provide the gardens skills they could use elsewhere when they left the programme. In addition to the aforementioned activities, Garden 3 created a platform to organise urban gardeners across the city. During the second quarter of 2020, the gardening project established the Western Cape Urban Farmers Initiative (WCUFI), a registered NPO geared towards uniting urban gardeners across the province. At the time of this research, the organisation reported approximately 50 members from Khayelitsha, Ottery, Langa, and Emfuleni. According to the cofounder, these aims came from the realisation that urban gardeners in Cape Town were not aware of the institutional structures when searching for land for cultivation and resources. Therefore, the organisation seeks to assist gardeners in understanding land and resource access issues. It also seeks to act as a lobbying group for policies that affect urban gardeners across the region. The co-founder indicated that he was partly eager to form the network because of his experience with gardening activities and support with the local government. Moreover, he is involved as a Ward committee member in his community; hence he has an idea of the bureaucracy involved in how the government functions.

Garden 24, in Gugulethu, is a registered NPO that emerged in 2014 to address the health needs of its members and the broader community in Gugulethu. The founder indicated that he had lost some family members to cancer; hence, after conducting some research, he decided to cultivate agro-ecological produce to ensure he ate healthily. The three-member garden is located on a school land where they cultivate vegetables for household consumption. Besides this, the community garden also supplies the vegetable produced to the school feeding

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programme. The initial purpose of the community garden was to improve access to nutritious food. However, these aims have since broadened to include educating the school children on the benefits of cultivation and mobilising the community. The cofounder is also aware of how vegetable produce found its way out of the community and hence was attempting to curb this to ensure that the community primarily benefited from agro-ecological gardens in the area. The Covid-19 pandemic inspired the garden to extend its aims to the broader community by creating a social movement that promoted healthy nutrition and lifestyle across the township of Gugulethu. As the lead gardener explained:

> '*GUFI*[15] *is a product of the lockdown .... we are unique in that we not just a gardening project, we realised that what attracted the majority of us is the lifestyle we are living and we realised that GUFI is a lifestyle-related movement so our main drive is health and nutrition so for us we want to make sure that the food we produce does not go out of the community and there should be enough healthy food that circulates in the community' (*M2/50- 59).

During the pandemic, a food crisis occurred, and soup kitchens sprung up across the city through various networks that support one another. Eventually, these networks organised into Community Action Networks (CAN)s to mobilise resources to support their communities and beyond. The idea was for resourced communities to support under-resourced communities in the city, for instance, by providing food relief. Garden 24 joined the Gugulethu CAN, and it was during this time, the leader of garden 24 realised that there were several gardeners located in his neighbourhood. On this premise, he decided to formulate a movement to network all the gardeners in the township. The Gugulethu Urban Farmers initiative is thus a social movement geared towards addressing food insecurity and nutrition issues and promoting healthy food habits in the community. At the end of 2020, the movement had approximately 30 members from various walks of life who aimed to mobilise the community to adopt a healthy lifestyle. According to the cofounder, there are various activities that they engage in to meet their vision, and these include mobilising backyard gardeners and community gardeners through iLima projects where gardeners assist each other in their gardens to promote their activities to the rest of the community. At the time of the research, the organisation was informal. However, it was conducting discussion geared towards formalising themselves into a functional body with a clear structure and management system. The cofounder also indicated formalising was to sustain themselves through fundraising activities, membership, and joining

[15] Gugulethu Urban Farmers Initiative

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fees. Such money would be used to run programmes the organisation would engage in, for example, hiring trainers on several components to fulfil their broader objectives.

According to the co-founder, the vision behind the organisation was to ensure that projects within the community were sustainable as a result of a peer-to-peer network operating from a ground level. They were already engaged in various projects to fulfil their targets, for example, in trying to ensure that the bulk of the produce was not siphoned out of the township there wanted to engage in awareness campaigns where they educated the residents of Gugulethu on the benefits of agro-ecological produce. This was a significant problem which the founder indicated as he explained that when it came to the issues of produce being sold outside of the community, it was because in wealthier suburbs '*there is a demand for this kind of produce which is a different story in our communities here where they look down on the produce coming from the backyard and community gardens and that is where we want to do a lot of education and mobilising to make sure that the produce stays local'*. Therefore, in addition to education and awareness, another step they were taking was to target the middle-class residents to buy their produce. In addition to this, some of its members would be involved in Food Security Councils at a local level where they would be able to interact with other stakeholders and possibly influence a change in the food system. Ultimately, their efforts aim to improve the local food system and educate the community on healthy food choices.

Garden 15, located on open space land in Gugulethu, was established in 2004 by a group of women who approached the local councillor to obtain the land for cultivation after a spike in dumping waste and corpses on the open space. The initial reason for the garden's formation was to clean up the area and deter the illegal activities that were going on. Since then, the community garden members had left the garden from about 26 active members to approximately 2 with a few volunteers. The current leader has extensive knowledge of gardening as she was once an NPO fieldworker with 16 years of experience in the agriculture industry. She asked for the piece of land in 2020 when she saw that it was no longer utilised. The current aim of the garden is to educate specific groups of people in the community on urban gardening and its benefits, as the interviewee indicated:

> '*When I left work I aimed to start educating the kids from 6 years and upwards, disabled people, and those coming out of prison because those who come out of prison when they come back into the community are not welcome and do not get employment. So it's a rehabilitation programme and then a kid who leaves school without completion because there is no money so I take them out of the street and*

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teach them urban agriculture because it has a lot of benefits and a lot of people don't understand this and think it's work for the uneducated.' (F13/60).

The lead gardener indicated that she also grew up with a stigma against urban agriculture in the Eastern Cape. However, with time she changed her perception as she interacted with gardeners within her community. Based on this, she indicated that she was patient with people who disapproved of the practice as she could relate to it. Even during the interview, several children came to ask whether the garden was open. The garden is also a part of GUFI, the previously mentioned network of urban gardeners in the distressed neighbourhood.

Garden 9, located on the premises of a private day-care centre in Khayelitsha, was established by two young men in 2020. The aim is to generate income and provide quality agro-ecological produce to the community. After completing a horticultural course, the cofounder decided to look for a piece of land and apply his skills. One of his friends helped him obtain a piece of land from a day and night centre. It currently operates on approximately 30 beds, where they cultivate vegetables for the market and donate 30% of the produce to the centre. The interviewee indicated that the garden attempted to address various food-related issues such as to *'create economic opportunities while at the same time conserving the environment'*. Acknowledging the limited cultivation space, the cofounder indicated that the garden was a hub for him to apply his skills and develop them before obtaining a bigger piece of land. As the co-founder expressed:

> *'the plan is to start small scale not to go on a bigger scale without mastering the small scale and everything as a gardener when it comes to rotation, calendar and deliveries … if I can master them here then I will be ready so now I am ready, finding land is not easy especially when it comes to the black society in townships … but I believe if you start somewhere, there are some people who are going to join you and say you doing the right thing, that is the best way for a black young man to get the land, if I was writing to the Department from January asking for land do you think I will be sitting on 30 beds now?'* (M5/29-).

Therefore, although operating on a limited scale, the garden had an ultimate vision of eventually obtaining a bigger piece of land. Currently, the gardening project sells its produce to the local community and other areas outside of Khayelitsha through traditional and contemporary marketing forms. The gardeners indicated that they use word of mouth to obtain customers, but they also used social media platforms such as Instagram and Facebook to

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advertise their vegetables. The cofounder lightly accepted the term activist but did indicate that changing or encouraging people was through actions rather than talk. This was expressed in the following sentiments:

> *'farming is not only growing food and making money it is also about the environment, the land and soils, the air and you as a person, I consider myself as an activist through action in greening the world. I can give you a lot of detail and convince you that green is the way to go and the only way to green Khayelitsha but I start little by little because now I want to collect their kitchen scraps, waste as well I need to find at least 50 drums and place at different houses and they dispose there and the 50 people get discounts when it comes to my harvest and that ill engage them in that way* (M5/29-).

Garden 6 is located on public school land in Khayelitsha. According to one of the cofounders of the garden, the project was established to function as an educational centre for people in Khayelitsha to educate them on food production and sustainable livelihoods. As the interviewee indicated, '*this is a training centre to inspire the people in our community, to produce your own food is very radical in my own opinion because we are used to the capitalist society of supermarkets'* (M4/29-). According to the interviewee, it is necessary to encourage people to grow food in their homes as an act of defiance and show that they were not just passive consumers in the food system. Inspired by a gardening project the cofounder had witnessed take shape when he visited his grandmother in the Eastern Cape, he thought he could use a similar project within the urban context to address issues affecting the community. The 6 member project was established in 2014 after negotiating a lease agreement on primary school land in the community. The National Youth Development Agency supported the garden at its inception by providing funding directed towards the purchase of items such as seeds and spades. Since its establishment, it has been able to engage various food issues. Its members have been invited to engage with like-minded people beyond the township's borders to other countries such as Italy and Tanzania. The garden pursues various activities to promote its aims, such as hosting various workshops relating to food events about food politics. It has several partnerships with food networks, for example, the Slow Food Youth Network, a global food activist network. The garden is also pushing to establish food gardens across the city; for example, one of the gardeners was organising to establish a food garden at a local university to extend their ideas of food politics and sustainable livelihood to the tertiary students. The

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members are also aware of the current limitations of gardening on school land, but this is a means to an end for them. In other words, they use the garden to disseminate information, but at the same time, the garden is plugged into several social movements at various levels. As the co-founder explained:

> *'For people to start such projects we still utilise the land at school and which is also state land. The land question is central but were are part of the food sovereignty social movement and challenging the land issues so we organise and we do picket lines, workshops and awareness activities, events and we did occupation ... for instance we took land from Citrusdal which was not occupied but you need to mobilise because you cannot do it alone'*(M4/29-).

For this particular garden, mobilisation and lesson sharing are crucial components of their activities as they believe there is a lot to learn from other social movements elsewhere beyond the Western Cape. Nonetheless, the cofounder indicated that he was not naïve to understanding that activism was a slow process, as he indicated that *'change will not materialise immediately but we have had several young people who have come forward to learn the skills ...you can go and visits them you will see they still have gardens to me those are small but they are milestones, social ills can't be transformed in a day'* (M4/29).

7.3 Garden organisation

Most of the community gardens are characterised by a relatively informal non-hierarchal structure of governance. In such cases, the most active or senior member of the garden is considered the group leader, sometimes without clear rules on the rotation of leadership. However, some of the gardens with several members do have registers to record gardener's presence in gardening activities and identify members who do not attend the garden. This is specifically true for gardeners who conduct their activities collectively. Garden leaders are usually in charge of organising the garden activities, disseminating information, and allocating resources received. Usually, communication is done during meetings conducted at the garden site when all the garden members are available. Various issues can be discussed during meetings, such as major decisions to be made and garden maintenance. Disputes are also settled amongst members at such gatherings. Garden members are also part of WhatsApp groups where information about the garden and related activities such as workshops are communicated when away from the garden.

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On the other hand, some of the gardens are formally structured, and registered as NPOs or Cooperatives. Such gardens have more formal structures of governance in terms of leadership committees. They have drafted a Memorandum of Understandings and constitutions which stipulate how their gardens function and have rules and regulations for their members. Gardens usually apply as an NPO because it is a generally easier process that provides the garden documentation to improve its credibility and funding opportunities. Moreover, it allows the garden to open a bank account with limited charges. The process is generally simple, involving completing and submitting the application forms at a Department of Social Development branch in the province. Moreover, applying for an NPO status is free and generally takes less time to process. Some gardeners register as a co-operative where the organisation is recognised as an enterprise providing service or products to the public for profit. Registering as a co-operative is slightly different in a few ways. Members need to be well structured with an elected committee steering the organisation; hence, a clear constitution and business plan must outline how the organisation will be managed. The process is rather extensive, involves various documentation, and requires a processing fee. As a result, most gardens usually register as an NPO as opposed to a co-operative.

7.4 Garden resources style of use

As aforementioned earlier, the degree of collectivity was classified using collectively, individually, and a combination of both (individual-collective). The semi-structured interviews attempted to identify how different elements were utilised within each community garden to assess their capacity to function as urban commons. For the first element, garden plots, Table 7.1 shows that 18 of the 34 examined community gardens use their plots collectively.

Table 7. 1: Use of garden plots and infrastructure in garden.

		Frequency	Percent
Use of garden plots	Collectively	18	52.9
	Individually	14	41.2
	Individually/Collectively	2	5.9
	Total	34	100.0
Use of infrastructure	Collectively	34	100.0
	Total	34	100.0

Source: Field Survey, 2020

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Individual use of plots meant that each gardener was assigned a portion of the total available land. The interview responses suggest that the rationale behind the use of individual plots was to encourage efficient production. As one lead gardener indicated:

> '*the first thing we did here is work as a team but you know people are troublesome, there were those who duck and dive and we do not want that and the production was very low for many people we had 12 thousand only for 12 months and we shared that and then we decided that this is not ok each and every one must do for themselves then we got 6 thousand each depending on your energy… we changed after a year in 2016'* (F2/60+).

Gardeners like the lady above believed that if each individual had their own plot, they would be encouraged to maximise their effort to ensure that they harvested some produce. Such a system ensured that no one gardener relied on another, and the output generated was entirely based on the labour invested. Next to the individual utilisation of plots, 18 gardens use their plots collectively. In such gardens, individuals work on the garden plots as a collective rather than assigning each other to their own plots (Figure 7.3). Working collectively is a choice preferred for such gardens, as explained by one interviewee who stated that '*we don't use the plots individually because we love to work together rather than dividing our plots that's how we have always done things'* (F11/60+). Only gardens 4 and 24 combine the individual and collective use of garden plots. Although garden members have individual plots in these two gardens, there are also some plots where they work collectively. Individual plots in these cases were targeted for selling to the market while collective plots were used to grow food for home consumption and donate to vulnerable groups in the community.

The questionnaire survey results indicated that most of the participants (98%) were happy with how they used their plots. The other 2% from Garden 11 indicated they were not entirely happy because some members were lazy. As a result, some were thinking of changing to the individual plot system.

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Figure 7. 3: Collective management of garden plots at Garden 4 (right) and Garden 22 (left).

Table 7.1 shows that all of the community gardens use infrastructure collectively rather than individually. In this case, infrastructure refers to fundamental systems and facilities that enable the garden to function sustainably, for instance, a tool shed, marketing shed, water system, toilets, and furniture. The fact that all the gardeners collectively utilised such infrastructure was not surprising. In most cases, infrastructure at these gardens was sponsored to the garden and hence did not belong to anyone specifically but rather to the garden as a whole. For instance, gardens 17 and 24 all have irrigation systems, tool sheds, furniture, and toilets, which are used collectively. In cases where expenses need to be covered, for example, in the case of paying electricity for watering pumps, the gardeners share costs among themselves.

The questionnaire survey results indicated that most of the participants (100%) were happy with how they organised their labour. Table 7.2 demonstrates how labour is distributed among the surveyed community gardens. Labour here refers to garden work, which consists of creating beds, weeding, planting, watering and harvesting. Nineteen of the surveyed gardens indicated that labour was utilised collectively. Compared to the style of garden labour, there is some consistency except for one garden. Most of the community gardens that collectively own the plots indicate that they resort to the division of labour when conducting the duties mentioned above. It follows that gardens with individual plots expect their members to use labour individually as well.

Table 7. 2: Organisation of labour, use of resource units and produce in gardens

		Frequency	Percent
Labour organisation	Collectively	19	55.9

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	Individually	13	38.2
	Individually/Collectively	2	5.9
	Total	34	100.0
Use of resource units	Collectively	28	82.4
	Individually	1	2.9
	Individually/Collectively	5	14.7
	Total	34	100.0
Use of garden produce	Collectively	19	55.9
	Individually	14	41.2
	Individually/Collectively	1	2.9
	Total	34	100.0

Source: Field survey, 2020.

The aggregated data in Table 7.2 shows that 28 gardens utilise resource units collectively. Resource units here are defined as tools, compost, seeds, and seedlings. Once again, the reason behind a majority using resources collectively is because most of the resources do not have a single owner. For instance, input resources, like compost, seedlings are supplied by supporting stakeholders each planting season. Some tools are also sponsored by supporting organisations when gardens apply for funding. As a result, they belong to the garden rather than individuals. Only one garden, Garden 31, indicated that resources were utilised individually, and five gardens use some collectively and others individually. In the latter cases, interviewees indicated that although they may share sponsored items like tools, seedlings, and compost, they still individually purchased and used other items such as seeds. Across the surveyed gardens, 19 of them indicated that they use their garden produce collectively. Produce here refers to the harvested product from the garden. Collective use means that the gardens share the produce equally among themselves, and in cases where produce is sold, they sell collectively and share the proceeds equally.

Besides the variations in the use of garden plots, labour, resources units, produce and infrastructure and work, immaterial components were shared collectively. These were largely reflected in the time spent together working in the garden. Social interaction represents a large component of what occurs when the gardeners participate in the garden. Observations revealed that the gardens are usually a hive of social interaction among the gardeners. Gardeners were observed to be talking just about anything, from their daily lives, societal issues, and current affairs. Most of the activities are conducted collectively as well, for instance, attending workshops and training. The sharing of experiences and information was also collectively done

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in most cases, for instance, when tackling pest problems affecting the garden as a whole. Even garden members who individually manage their plots meet regularly and share their experiences in terms of challenges they face and offer one another solutions. This sharing of immaterial components is also extended to the rest of the community.

7.5 Membership and access to the community gardens

In the exception of gardeners who had established the garden, all of the study participants had joined the garden through word of mouth. Most of the gardeners had been invited by a friend to join the garden when there was an opening. Community gardens generally have a specific number of members depending on the size of the cultivatable land. As a result, garden membership is usually limited depending on the space and can only accept new members when space is available. This is particularly true for community gardens that cultivate on individual plots and seek not only to feed themselves but generate an income. For example, the interviewee from garden 17 indicated that '*we don't have any more land so we don't want more people here we want a limited number so that we can be able to manage effectively so if only people leave then we recruit others'* (F2/60+).

Garden space openings usually arise when members leave the garden for various reasons such as obtaining employment, leaving the city, or death. However, the interviewees' indicated that there was limited interest for the community to join the gardens as people generally wanted to be paid for gardening. Despite this, gardens indicated that they were willing to welcome new members when space was available or other participation forms such as volunteering. Most urban community gardens are located in schools hence are enclosed by barriers such as fencing and concrete walls (Figure 7.4). Hence it is largely the community gardening members who have direct access to the garden.

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Figure 7. 4: The enclosed state of some urban community gardens in the Cape Flats

Despite gardens being fenced off, they indicated that they were open to the community and welcomed community involvement in the garden. Interviewees explained that their gardens were open to volunteer support from the community. However, most did indicate that community engagement was minimal. A three-point Likert scale was employed to determine how the participants felt about volunteer support from their community. Volunteer support was defined as a person(s) who freely offered to participate in garden activities. It can be seen from the data in Table 7.3 that the majority of participants (60%) were not happy with volunteer support from the community.

Table 7. 3: Volunteer support from the community

		Frequency	Percent
Valid	Average	39	40.2
	Poor	58	59.8
	Total	97	100.0

Source: Field Survey, 2020.

Most participants ranked volunteer support as poor and argued that most community members were unwilling to volunteer but required to be paid. This is expressed in the sentiment by a gardener who stated that '*people come all the time but they want to be paid and I have to tell them that I cannot pay you so if you don't understand that I don't want to keep talking to you because I am old'* (F8/60+). In other cases, the interviewees revealed that the community was militating against the aims of the garden. Several gardens indicated that they face theft in terms of anything ranging from infrastructure, garden equipment, and garden produce. In some cases, vandalism was so problematic that the gardeners made sure that they removed all the tools from the garden and kept them at home. However, some of the participants believed that there was a need to ensure that the community was involved in the garden to ensure limited vandalism and theft. As one interviewee explained, *'people won't be in agreement with you when you want to establish a food garden because they haven't got the knowledge about the value of the food'* (M3/50-59). According to this interviewee, it was important to make sure that everyone around the garden was aware of the project's benefits such that they felt they were a part of the project. The interviewee uses this strategy to provide eyes to safeguard the garden from thieves.

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Although this did not entirely solve the problem, the interviewee indicated that the garden had limited incidences of vandalism or theft.

7.6 Gardener networks

The questionnaire survey attempted to determine whether the gardeners were a part of any formal groups in the city addressing socio-economic or spatial injustices. A network was explained as a group of people who campaign for some kind of social change within their community. Only 22.7% indicated that they were a part of formal urban gardener activist groups such as the South African Food Sovereignty Campaign (SAFSC) and the PHA Campaign. Historically, most participants were a part of the Vukuzezenzele Urban Farmers Association (VUFA), an urban gardener association, which had since been dismantled. According to the participants, the association was formulated to mitigate urban gardeners' issues but collapsed due to infighting.

Despite limited engagement in more formal urban gardener organisations, in-depth interviews revealed that gardeners engaged in various informal networks to ensure that they connected and shared opportunities and resources, and information. The networks were available at various levels, garden level, community level, municipal level and so forth. Gardeners are generally well-knit groups of individuals and regularly interact at the garden, and beyond the garden borders. They exploit the use of mobile technology to communicate and stay in touch. WhatsApp groups are used to share information about the garden activities and events, such as calling an urgent meeting or informing members about a training programme or workshop. For instance, WhatsApp groups are a prominent communication tool through which gardeners receive information about anything related to urban agriculture within their communities and beyond.

Beyond the gardening groups, gardeners also engage in various networks with other gardeners within the townships. This is primarily achieved through physical exchange and through the use of mobile communications. Some of the community garden run social media pages where they communicate their work and activities with larger audiences. Other local movements were also gathering traction; for example, the Gugulethu Urban Farmers Initiative (GUFI) formed to connect urban gardeners in Gugulethu. The pandemic and subsequent restrictions saw a rise in WhatsApp-based communication even when it came to marketing produce.

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7.7 Discussion

This chapter aimed to explore how urban community gardens operate and address various injustices in the Cape Flats. This was achieved through an examination of the aims and the activities of the urban community gardens. Political gardening conceptualises urban gardening as a form of activism addressing social inequality and injustices in communities (Kato et al., 2014; Tornaghi & Certomà, 2019). This research indicates that urban community gardens in the Cape Flats possess various elements of political gardening. Although the slow nature of cultivation appears to be at odds with more visible forms of protest or activism, the findings indicate that urban community gardens are spaces that counter various challenges faced within distressed communities. In some cases, this is more apparent than others for various reasons to be explained further. As Kato, Passidomo, & Harvey (2014) explain, community gardens can be classified as implicitly or explicitly political. Hence while some activities may be more visible than others, they are equally purposeful in resisting neoliberal forces (Pottinger, 2017). Overall, the findings indicate that the aims and activities of urban community gardens are eclectic and dynamic. While some urban community garden projects maintain they engage in urban cultivation for household food security and income, some engage in it for agro-ecologically cultivated food, reconfiguring the use of public space, conservation of land, and many other reasons. Although the urban community garden's aims can be direct and focused on one element, the garden activities tend to address various other issues beyond the main purpose. This section will discern the research findings and interpret the chapter findings in relation to the literature.

One key feature of neoliberalism is the privatisation and erasure of common-pool resources (Harvey, 2011). In this context, urban community gardens are lauded for producing spaces that operate like urban commons (Eizenberg 2012; Follmann & Viehoff, 2015; Tornaghi 2014). The present study found diversity in how the urban community gardens utilise their resources, namely; plots, labour, infrastructure, resource units, and immaterial components. However, all urban community gardens utilise one or more resources collectively. The results indicate that some community gardens engage in individual use of plots because there is an attempt to improve a sense of ownership within the garden; however, this does not mean there is no sense of collective action. Some of the community gardens have gone through trial-and-error methods to identify which way works best for them before adopting a specific style. Individual plot cultivation by no means implies that there are no opportunities for collective action. For instance, Corcoran et al. (2017) report an allotment type of cultivation on vacant plots in

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Dublin, Ireland. They find that despite the allotment form of gardening, there was a 'sense of fellowship connected to the joint project even if each plot holder is engaged in an individual enterprise' (Corcoran et al., 2017:322). Besides the individual use of plots, most of the other examined components are managed collectively. For instance, most community gardens collectively utilise infrastructural resources and immaterial resources. There are several possible explanations for this result. Firstly, infrastructure is a relatively long-term component of the garden. Supporting organisations such as the Provincial DOA and NPOs usually sponsor the infrastructure such as boreholes, irrigation pies, or tool sheds; hence, these resources are owned collectively by the community garden instead of the individual. With regards to the use of input resources, a similar explanation is plausible.

Supporting actors frequently donate inputs such as seedlings and compost to the garden. Hence, these are shared accordingly by the lead gardener. Immaterial components are also shared collectively among the gardeners. Social time is shared through various activities that gardeners engage in as a unit, such as attending workshops, exchanging seeds, and discussing gardening experiences and pest solutions in the garden. This is specifically evident for gardeners who work on the plots collectively and share more social time to conduct the garden chores assigned to each other. Therefore, these results suggest that community gardens, to a greater extent, enable gardeners to engage in activities that promote collective action. Moreover, in some cases, the gardens' organisation promotes leadership skills development among the community gardeners. For instance, some community gardens follow a meticulous bookkeeping process, sign the register regularly and participate in decision-making on important issues affecting the garden as a whole. Some community gardens are strictly formalised as NPOs or Co-operatives; hence, they have to adhere to various democratic processes, such as formulating a constitution and electing a leader. The abovementioned results indicate that gardeners provide a new meaning to how resources can be managed in an urban society.

This collective management of urban space resources is why scholars have labelled urban community gardens as 'actually existing' (Eizenberg, 2012:745) or 'unperfect' (Follmann & Viehoff, 2015:1169) commons. In such spaces, community members organise on private or public land and formulate their own goals, and collectively manage the urban landscape in diverse ways (Siebert, 2020). In this way, community gardens are 'actually' existing commons that offer an alternative resource management system in the neoliberal city. The community members come together and organise what they will cultivate, the division of labour, and decide what they will do with the garden's produce. In some cases, they decide to split the

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produce for home consumption. In other cases, they can decide to donate the produce to vulnerable groups in their communities. These activities are consistent with democratic involvement and active decision-making in managing the resources under their control (i.e., the garden resources, and the produce). Moreover, most community gardens have mechanisms to address intra-community garden conflicts through formal or informal rules and regulations. Meetings are held to address any disputes which may appear. These actions are in stark contrast to the neoliberal system, where a few individuals manage resources, and profits are unevenly distributed in certain areas instead of others. Therefore, this system indicates an alternative form of resource management within the contemporary neoliberal city. It is important to note that this is not to say that these are perfect examples of commons because the concept of commons is not a rigid notion (Eizenberg, 2012; Follmann & Viehoff, 2015). Hence, it is a trial-and-error process where the community garden evolves to identify the most appropriate management form.

Another critical feature of commons is that they are spaces that are open to the community (Dellenbaugh et al., 2015). As a form of activism, urban gardening is often in contrast to neoliberal hegemony that promotes the destruction of social cohesion and the privatisation of leisure activities (Tornaghi & Certomà, 2019:5). Urban life is known to disrupt social interactions; hence urban community gardens promote social interaction. Some research points to how urban community gardens are a third space bridging the gap between public and private space (Dolley, 2020). The present research indicates that in addition to crop production, the urban community gardens are to some extent inclusive social spaces that enhance solidarity links within these communities. The community gardens present spaces to rebuild the social fabric between the garden members and the broader community. Firstly, as already explained earlier, the gardens promote interaction between the garden members through gardening activities. When new garden members come into the garden, they are welcomed into social spaces where they can grow, form new friendships and relationships with the garden members. Even in individual plots, gardeners still show a good sense of understanding their garden members. As Haron (2015) has explained, community gardeners find it easier to interact with one another despite being strangers since they share a commitment to cultivation.

Second, the gardens are generally open spaces to the community, which promotes interaction in various forms. The community gardens are generally accessible to the community, and some gardens conduct social activities such as fundraising events, which attract the broader community to the spaces. Some community gardens have infrastructure such as halls, which

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are used for training programmes for the community. Such facilities do not always host gardening issues but can promote other issues affecting the community. Community gardens host other social gatherings such as parties, fun days, market days, which bring in the community. For example, Garden 4 views the gardens beyond agricultural production as spaces for interaction, support, and social learning for the broader community. The current study's findings are consistent with Saldivar-Tanaka & Krasny (2004), who report that Latino gardens in New York were viewed as social and cultural spaces that promote community member interaction. Similarly, Milbourne (2012:954) reports that urban community gardens are socio-ecological spaces that promote social capital and public participation in despoiled neighbourhoods in the UK. In line with such literature, the present study confirms that urban gardening is a form of social activism. The community gardens ensure that non-gardening members are encouraged into the spaces and use the garden spaces as education sites. The community gardens can capture a wider audience through such activities, resulting in improved social capital and social learning on issues that transcend food. In addition to this, gardens are also adding to the development of information commons. Here the gardeners being aware that garden space limits the involvement of the community they attempt to support prospective gardeners in every way possible through other means such as WhatsApp groups where information about cultivation is provided, informal talks and workshops.

Nevertheless, this has to be taken with caution because most community gardens are located in enclosed spaces; hence they are not easily accessible to people who may not be aware of the garden. One of the main elements of neoliberalism is the privatisation of resources (Brown, 2007). Hence, the presence of urban community gardens on fenced-off premises and controlling who comes in limits the use of the space to non-gardeners (Ghose and Pettygrove 2014). Similarly, Parry et al. (2005) argue that community gardens can create social divisions or exclusion by encouraging homogeneity among garden members. The rules and regulations reveal exclusions, indicating that labour gives a right to 'reward' (Tornaghi, 2017:789). A similar situation is noticeable in the findings. For instance, one of the participants indicated that sometimes when they conducted activities such as selling of produce, by-passers were unsure whether it was an open even or not due to their enclosure on school property. Most of the surveyed community gardens are located on school land, and there is no open access to just about anyone due to the threat of theft of garden produce or tools. Therefore, in this instance, these gardens' locations potentially limit the number of community members who could be attracted to the garden space. However, the fencing of community gardens is not peculiar to

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Cape Town. Fencing usually occurs in response to theft and vandalism (Milbourne 2012). Although it can be argued that the community gardens do not function as open-access urban commons free to all, they can be distinguished as managed urban commons (Barron, 2017). This means that urban community gardens are neither entirely private nor public but rather lie in the category of a defined common (Ghose & Pettygrove, 2014). Community gardens in the Cape Flats operate in a similar fashion where immediate access is permitted to the garden members since they are the ones who mainly manage the garden. However, the community garden can be closed when no members are available. The majority of the gardeners are generally from the same places and similar race and ethnicity, hence; the gardens are not necessarily a cultural melting pot where people from different backgrounds use the activity as a bridging stone to cultural integration.

Previous literature demonstrates that urban gardening improves access to affordable and healthy food in distressed neighbourhoods characterised by low social services and difficulty accessing healthy food (Armstrong, 2000; Baker, 2004). More progressively, urban gardening plays a crucial role in challenging the neoliberal food system (Siebert, 2020). The findings of this research are consistent with those stated above. Despite the rapid supermarket expansion in Cape Town supermarkets, wealthier neighbourhoods still have more supermarkets than low-income areas like those in the Cape Flats (Battersby, 2013; Battersby & Peyton, 2014). Studies also show that supermarkets in low-income neighbourhoods usually sell less nutritious foodstuffs as opposed to wealthier neighbourhoods (Battersby, 2013). Furthermore, the Cape Flats has higher unemployment rates and less access to basic services compared to neighbouring suburbs. Consequently, diets in low-income areas are mostly monotonous and lack micronutrients required for a balanced diet and healthy lifestyle, partly responsible for the high rates of micronutrient deficiencies and non-communicable diseases. Hence it is accurate to state that the neoliberal food system in Cape Town separates the low-income communities from safe and nutritious food. On this background, the cultivation of agro-ecological produce in community gardens to some extent improves access to healthy food for gardeners and the community, something which the present food system has failed to do. In this way, the gardeners are taking responsibility and actively participating in the food system. Several community gardeners clearly expressed their discontentment with the corporate food system. This fight against the neoliberal food system is apparent in three ways: providing an alternative food system, promoting alternative food systems, and the decommodification of food.

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Urban community gardens in the Cape Flats provide fresh produce to the gardeners and neighbourhoods in the Cape Flats. This by no means indicates that the gardener makes them food or nutrition secure. However, when gardeners grow fresh agro-ecological produce that could be the only source of micronutrients in that household diet and coming off a near-zero baseline, those micronutrients can make a significant difference as opposed to the alternative calorie-dense food options available in the neoliberal food system. Therefore, in this way, community gardening presents an opportunity for the gardeners and general community to access ecological produce in rebellion against the unhealthy food options presented by the neoliberal food system. The findings indicate that gardeners do not just engage in cultivation for food production. Their experiences cultivating community garden spaces also encourage a reflection on the broader processes of the food system. Some community gardens indicated that they sell their produce to the community, enabling them to access healthier vegetables. Moreover, the produce that goes to the schools is also significant as it ensures that students are fed nutritious food options. Most students could be exposed to unhealthy food options at home. Without community gardens in the community, the schools would source their vegetables at alternative markets. Hence, community gardens in the townships present a vital source of nutritious vegetables for school children compared to the alternative neoliberal market. However, previous research has indicated that most of the produce from community gardens in the Cape Flats are not consumed locally by is propagated out to wealthier neighbourhoods (Paganini & Lemke, 2020; Paganini & Stöber, 2021). In other words, they create alternative markets for the wealthier who are unsurprisingly already in places with healthier food options and can afford such. In this way, this system reproduces the inequality of the food system by ensuring that the local community does not have access to more nutritious food options. While this may still be the case, such are the duplicities of operating in a neoliberal environment, as to be explained in the next chapter. The findings indicate that increasing consciousness of such flaws and attempting to address them. The effects of the COVID-19 pandemic had resulted in most community gardens failing to sell their produce to these regular markets due to the markets' closure. This scenario compelled urban gardeners to try and promote their produce within the communities instead. For instance, one of the gardener networks surveyed their community to get a sense of the residents' socio-economic profile to target them as a market for agro-ecological produce. This could be a long-term solution to the challenge of siphoning produce from distressed neighbourhoods to wealthier suburbs.

Community gardens facilitate the development of various skills, enabling the members to participate in food movements (Baker 2004; Staeheli 2008). The present study demonstrates

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that community gardens provide spaces where gardeners are exposed to knowledge about food, the complexities of the food system and unequal dynamics, and other social, environmental, and economic issues. This is primarily achieved through the knowledge most gardeners possess and share with other members and linkages to activist groups, promoting awareness of several food issues, such as the SAFSC and the Slow Food Movement. In this way, community gardeners are more conscious of the politics surrounding food and the systematic challenges underpinning the system. The gardeners are conscious cultivators of the soils who plant seeds in resistance or challenge the dominant food system in Cape Town. Similarly, Pottinger (2017) illustrates that seed savers at the Heritage Seed Library and the Seedy Sunday project in the UK engaged in a form of quiet activism to subjugate the dominant global food regime. In this respect, although some of the gardens do not acknowledge activism in their aims, they do engage in quiet activism against the neoliberal food system, which is seen in their activities. The cultivation of their own food provides gardeners with some control over their food choices and provides an alternative food system for themselves. Thus, the gardeners feel like active citizens in the food system rather than passive consumers. Food justice and food sovereignty consciousness is not confined to specific community gardens but finds ways to spread across other gardeners and the broader community.

Beyond simply cultivating food for themselves, some community gardens openly engage in social movements to promote food sovereignty within their communities. Such gardens engage in activities that seek to promote the benefits of gardens, such as access to fresh ecological for the broader community. For example, the community gardens also promote food justice by virtue of their location. The literature indicates that the neoliberal food system promotes food disability, also perpetuated by limited educational options on food issues such as food preparation (Tornaghi, 2017:791). Hence, part of food activism involves challenging the educational system to promote necessary food preparation skills and food behaviour. Most urban community gardens are located on school land and produce vegetables for the school feeding scheme. They also offer educational opportunities for the school children, where they are exposed to the garden and are taught the benefits of cultivations. Beyond the garden borders, gardens actively seek out the community to make them buy into the cultivation of crops as a response to the corporate food system. The issue here is not about the space or resources as explained by some participants, but the mere fact of gardening or growing a vegetable immediately changes your perception about the food system. For example, Garden 6 in Khayelitsha actively promotes a healthy lifestyle through good nutrition. Similarly, Garden 4, located in Mitchells Plain fits this description. The garden's main aim is to promote home

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gardening activities in the community and educate the residents about the food system. This is also clear in the activities they conduct in the area, for example, workshops on gardening and healthy eating in the neighbourhoods. This is despite the leader stating that they do not consider themselves as activists but rather agents of change in the community. Hence this finding coincides with Bobel (2007), who also found that activists did not resonate with the label activist despite engaging in activist activities.

Most gardeners have created a neighbourhood-based network of home gardeners whose sole purpose is to transfer knowledge and connect gardeners. Collectively, these community gardens are engaged in activist activities where they seek to influence how the community views certain issues surrounding food and the corporate food system. Therefore, this illustrates community gardens extending the fight against the dominant food system by increasing the community's consciousness. The overall aim appears to be ensuring that every citizen is an active participant in the food system. Such actions can be classified as progressive against the neoliberal system (McClintock, 2014). The urban gardeners oppose the dominant food system that controls food production and distribution (Siebert, 2020).

The literature argues that gardening activities provide an opportunity for citizens to engage in activities that can bring about change within their communities (McIvor & Hale, 2015). The education of community members on various issues can enhance their political efficacy, thereby increasing their capacity to organise and participate in meaningful change, for example, at a policy level. This is seen in the present research through the organisation of gardeners into networks. Community gardens are engaged in various networks where they share information relating to issues surrounding basic challenges, they encounter but central to this are food justice issues. Although in their infancy, GUFI and WCUFI are examples of urban gardener networks that promote the unity of urban gardeners. Such structures improve their capacity to participate in stakeholder dialogues and articulate issues to policymakers. In other words, these organisations are vehicles to drive bottom-up change within these communities, enabling them to influence policy potentially. For example, the co-founder of WCUFI stated that engaging with the state was one of their primary aims. Hence such organisations could play a significant role in articulating the challenges of urban gardeners.

The literature has shown that urban gardening can drive the food sovereignty agenda and possibly influence policy within corporate food systems (Levkoe, 2006; Wekerle, 2004). For example, Levkoe (2006) demonstrates how people's participation in urban agriculture resulted in community organisation, enabling them to influence Toronto's Food Systems Policy. In the

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same city, Wekerle (2004) demonstrated how food movements in Toronto influenced food policies despite operating in a neoliberal environment. Therefore, in the same light, the improved consciousness of urban gardeners around the failure of the food system in Cape Town appears to result in various gardener networks determined to counter this failed corporate system. They achieve this in several ways: presenting a unified voice of urban and directly engaging with influential stakeholders affecting the food system. This is seen in the involvement of some gardeners in local food nutrition councils which could potentially influence the food system at a local level. The food and nutrition councils are made provision for in the National Food and Nutrition Security Plan (2018-2023), hence offers a platform through which conscious gardeners could influence change from district to provincial levels. Although the plan was not effectively operational before the pandemic its potential has came back to the forefront as a result of the pandemic, which displayed the ineffectiveness of the neoliberal food system.

The capitalist food system in Cape Town has excluded specific people from the system based on their income. Despite the county being food secure at a national level, food insecurity exists at local levels. The existence of hunger and food poverty demonstrate a failed market system for just food allocation (Tornaghi, 2017:790). In line with the literature on food movements is the decommodification of food to counter the capitalist food system (Tornaghi, 2017; Wilson, 2013). The findings of this present research also speak to the decommodification of food within the neoliberal city. This is seen in the mere planting of vegetables, which means that gardeners need not spend money on the same product at the supermarkets. As seen in the participants' responses, gardening's primary motivation was to make sure they could produce their food and not rely mainly on the market. Several participants indicated that simply planting a vegetable meant not spending money buying that particular vegetable in the store. The concept of the decommodification of food is especially demonstrated in those community gardens that engage in crop cultivations to benefit themselves and the community rather than sell the produce for income generation. Such gardens thus do not place any price value on their produce. Moreover, this is also seen in how the community gardens share their produce with community members in need. Hence, this decommodification of food fills the gap brought about by the capitalist society, which requires individuals to possess some income before they can access essential commodities needed for survival.

Similarly, Wilson (2013) reports a community garden in Kingston, Ontario, that presented autonomous food production for the garden members, offering them an alternate means of food

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access. Community gardens are thus in direct contrast to the capitalist food system. Food is produced to ensure that people can access the safe and nutritious food they do not necessarily have to pay for. In this way, this present study's findings indicate community gardens decommodifying food in response to the global food system. The main criticism against the decommodification of produce is that simply growing the produce for a few gardeners and perhaps their immediate community does not contribute to any systematic change (Barron, 2017). The same can be said in the Cape Flats, where gardeners cultivate under challenging conditions and limited space. However, the argument here is not that it is sufficient but rather an act of defiance against the corporate food system (Tornaghi, 2017). Moreover, it can be aligned with other movements towards systematic change at a broader level. For instance, urban community gardens can be tied to food movements and networks, ranging from food activists, researchers, and policymakers (Levkoe, 2014). In this way, they can influence policy change from a grass-root level. The promotion of urban agriculture activities in Cape Town is fed into the agenda of localised food production in retaliation to the corporate agricultural food sector.

Community gardens are a means of seeking spatial justice (Barron, 2017). This is based on the idea that the use of space should reflect the needs of the residents. Urban community gardens fulfil the demands for spatial justice by indicating the needs of marginalised communities for, green space, food security, culture, and recreation spaces (Schmelzkopf 2002, Eizenberg 2012, McClintock 2014). Much of the contemporary literature on community gardens highlights community gardens' capacity to address space related societal problems. For example, some scholars have demonstrated how community gardens effectively reduce crime and promote community participation in distressed communities (Glover, 2004). Similarly, the present study shows that some community gardens are explicitly playing active roles in contributing to the reuse of land to address specific problems in the communities. For instance, some gardeners indicated that they are engaging in the practice to address the impacts of crime within their township. Another community garden transformed a dumping site used by criminals into a garden that benefits children in the community. One of the gardens engaged in clean-up activities to ensure the conservation of a Wetland area before seeking permission to cultivate in the area from the local municipality. Thus, this use of space has offered an alternative use that is more beneficial to the community. Garden 9 expressed its hope to green the community in light of limited greenery and create sustainable waste disposal systems through the collection of biodegradable food waste from the community. This research argues such gardens, although

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the activities are minimal and indirect, make small changes and are progressive in transforming the community. Hence such community gardens are indicative of individuals and groups coming together to manage spaces. Specifically, in the cases where gardens are located on open vacant land, they contribute to spatial justice as they involve the community's participation in deciding the use of the space in ways that will benefit them.

Nevertheless, this finding needs to be interpreted with caution. As indicated, most of the urban gardens are located on school land. Hence, they do not necessarily challenge the market value of the land they occupy. The kind of spaces the urban community gardens occupy are contingent and temporary, reducing any capacity to counter neoliberalism-based planning. Even for those community gardens located on open spaces, their long-term survival is not guaranteed. The landowners can effortlessly displace them when more profitable opportunities arise. Hence, the gardens do not possess much potential in addressing urban injustices within the Cape Flats. Despite their temporary nature, community gardens do provide an alternative vision of land-use rights in the capitalist system hence could make common cause in collaboration with other social movements in the city (Corcoran et al., 2017; Purcell & Tyman, 2015). In addition to this, while the use of land to address problems such as illegal dumping can be seen as gardeners coming together to self-manage urban space, critics argue that this is an attempt by the state to cultivate neoliberal subjects (McClintock et al., 2017; Pudup, 2008; Walker, 2016). In this way, gardeners are exploited into doing the work on behalf of the state. This and other contradictions will be explained further in the next chapter.

7.8 Conclusion

The chapter aimed to explore political gardening across the surveyed gardens in the Cape Flats. This was achieved through analysing the aims and operations of the community gardens. This research indicates that community gardening projects in the Cape Flats possess elements of political gardening in varying levels, some more explicit than others. Community gardens are seen to address various injustices that are present in their communities. For example, community gardens seek to promote food sovereignty and the decommodification of food against the neoliberal system. Moreover, the findings indicate that community gardens in the Cape Flats are an expression of self-organisation and collective management of urban spaces. Furthermore, urban community gardens have diverse ways of operations but are, to a greater extent promoting collective action within their gardens. This is shown through how community gardens manage different garden components such as land, tools, produce, and labour. The

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research findings also demonstrate the benefits of gardening activities and how they improve distressed communities, promote community development and increase civic engagement. The results show that community gardens exhibit forms of quiet activism within their different communities. Although political the garden the degree and scope of activism and engagement vary from one garden to the next, and aims may change over time. Furthermore, the garden aims may not necessarily cover the scope and impacts of all the garden activities. Finally, while the gardens exhibit activism in various forms, this is projected explicitly, while others are rather implicit but purposeful. The next chapter explores how community gardeners align themselves with supporting actors to fulfil their goals.

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CHAPTER 8: URBAN COMMUNITY GARDENS ENGAGEMENT WITH STAKEHOLDERS TO ACHIEVE SOCIAL GOALS

8.1 Introduction

This chapter examines how the surveyed urban community gardens engage with state and non-state actors to achieve their goals. The chapter analyses how the different stakeholders impact the nature and activities of urban community gardening in the Cape Flats. The section will explore how supporting actors affect the development of community gardening projects in the study area. The information in this chapter is gathered from a triangulation of data from the research participants, key informant interviews, online documents and, the websites of the supporting actors. Several supporting actors promote urban agriculture activities in Cape Town. Therefore, the highlighted actors in this chapter are not an exhaustive list of non-state actors supporting urban agriculture projects in the Cape Flats. However, it is intended to present a snapshot of the types of support urban community gardening projects receive within the context of the neoliberal environment.

8.2 Urban community gardens engagement with the state

Urban community gardens generally engage with stakeholders to ensure that they obtain resources to achieve their goals. During this research, the main state actors identified were the City of Cape Town, the Provincial Department of Agriculture, and the National Development Agency. Community gardening needs significant inputs before any product can be realised. As a result, community gardens require resources such as infrastructure and inputs before engaging in gardening activities. Most of the community gardening projects engage with the stakeholders above to obtain the resources necessary to garden. Government support is usually in the form of inputs such as seedlings, seeds, and manure and subsidised access to infrastructures such as well-points, boreholes, and irrigation systems.

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Table 8. 1: State organisations supporting community gardens in the Cape Flats

Organisation	Assistance provided
City of Cape Town (Urban Management)	Provides subsidised resource materials and technical capacity to community gardens
Provincial DOA (Department of Agriculture)	Training, gardening implements, seeds/seedlings, compost, irrigation equipment, boreholes, well points, water harvesting tanks
National development agency	Provides subsidised resource materials and technical capacity to community gardens

Source: Author compilation (2020).

8.2.1 City of Cape Town

In the past, the COCT has been guided by a few policies that support urban agriculture activities. For instance, the Urban Agriculture Policy of 2007 provided guidelines for supporting urban agriculture within the city borders. The policy was withdrawn and sent out for revision but never reinstated again. According to a COCT informant, the reason behind this was the revised policy was never signed off by the necessary officials. Currently, there is no Urban Agriculture Policy; however, discussions are ongoing regarding passing a new Urban Agriculture Policy. Despite the failure to endorse the revised policy of 2007, the Food Gardens Policy was passed in 2013. The Food Gardens Policy is geared towards poverty alleviation through the establishment of food gardens. It also aims to link food gardens with Early Childhood Development centres to provide nutritional foods for the children. According to the policy, the food gardens will be supported by using the Extended Public Works Programme funding. Thus, the COCT supports community garden projects by providing various inputs such as seeds and manure.

The COCT is aware of the challenges urban gardeners face, especially when accessing land for production. According to the key informants, there is still much red tape involved in accessing open spaces for production. The interview with the COCT informant revealed that accessing land was a lengthy process that the public generally did not understand. One of the informants indicated that obtaining land required signing off from all the departments and could take up to 18 months:

> *'advertising the land for transparency purposes you can't just give someone a piece of land a report has to be written, and all the departments need to be on board and agree that it should be used for urban agriculture, then it has to be advertised, you can't just*

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give it to one person because it has to be transparent and everyone needs to be given an equal opportunity to access it so for a piece of land to be made available to a person, community or anyone it can take 18 months, it is not a simple process' (COCT Informant)

Nevertheless, there was an indication that there were discussions on simplifying land access for community developmental projects. At ward level, it appears that some ward councillors were able to provide verbal agreements to facilitate the establishment of community gardening projects. Such was the case with Garden 4, which had received verbal permission from its local ward councillor to cultivate vacant land adjacent to the local community hall. As already indicated in earlier chapters, even when you receive verbal permission to utilise the land, there is still no guarantee of tenure; hence you can be disposed of the land when deemed necessary. In the meantime, the only feasible alternative for the COCTs Urban Management Department is to provide alternative solutions such as encouraging gardeners to seek land at schools or other private land owners.

In terms of conceptualisation, the COCT has always conceptualised urban agriculture as a solution to urban food insecurity. This is seen through the aims and objectives of various policies it has passed in the past. Although the pending urban agriculture policy document intends to take a more holistic view of urban agriculture within the context of food security, recent events do not indicate so. For example, the City's Mayoral Committee for Urban Management launched the City's Food Gardens Project on the 14th December 2020[16], which focuses on home gardens. According to details from the city's website, the programme would be implemented in January 2021 to address urban food insecurity in more impoverished areas. This would be achieved by providing fertilizer, seeds, equipment, and training, among other things. The press release indicates that the initiative is driven by the pandemic, reaffirming the city's view of urban gardening activities as a source of food and employment for affected households.

The questionnaire survey indicated that 60.8% of the participants had received support from the COCT in various forms, including the temporary provision of land, inputs, infrastructure,

[16] The Food Gardens Project under the Urban Management Support Programme's seeks to establish food gardens to address food insecurity. The programme commenced in January 2021. https://showme.co.za/cape-town/news/city-of-cape-town-launch-urban-food-garden-program/#:~:text=The%20City's%20Mayoral%20Committee%20for,focus%20on%20promoting%20home%20gardens.

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and tools. Of the 64 participants who rated their satisfaction with the city's support, most rated it average. The main reasons behind this were limited support and inaccessibility to land for cultivation purposes.

Table 8. 2: Gardener satisfaction with State support

	Level of satisfaction	Frequency	Percent
City of Cape Town	Poor	18	18.6
	Average	44	45.4
	Good	2	2.1
	Total	64	66.0
Missing	System	33	34.0
	Total	97	100.0
Department of Agriculture	Poor	13	13.4
	Average	52	53.6
	Good	11	11.3
	Total	76	78.4
Missing	System	21	21.6
	Total	97	100.0

Source: Field Work (2020).

8.2.2 Provincial Department of Agriculture

The Provincial DOA supports urban community gardening projects through the Food Security Programme. According to the key informants, the DOA provides various resources, including containers, irrigation systems, tools, compost, and seedlings. This was corroborated by 75.3% of the questionnaire respondents, who mentioned that they had received some form of assistance from the Provincial DOA. It appears that the DOA is the actor likely to provide infrastructural support for community gardens. This explains why more participants are happy with the DOA as opposed to the COCT (Table 8.2).

The DOA implements the Food Security Programme, focusing on improving household food security by targeting poor cultivating households. The programme's outgoing Director indicated that the awarding of funds was achieved by assessing applications based on a point system that includes factors such as; the number of garden members, history of funding, requested amount, and land tenure security. Collectively these factors ensure the selection of a project with the most potential to make a more significant impact on the community. For instance, other factors held constant; applications with more garden members are likely to

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obtain funding instead of a single applicant since they are perceived to impact more beneficiaries. Of all the factors, land tenure security appears to be a critical one. Land tenure security is essential because the Provincial DOA does not support urban community gardens without title deeds or a formal lease agreement for their land. The outgoing director of the Food Security Programme indicated that the reason behind this was for sustainability purposes. Since the Provincial DOA provides infrastructural support, tenure is a key element before such resources are provided. As expected, this issue was of concern among community gardens without lease agreements that required infrastructural support. Of the 76 questionnaire participants who rated their satisfaction with the DOA's support (Table 8.2), a fair amount thought the relationship with the state organisation was average. Gardeners were generally happy to receive infrastructural support from the state actor. The points of grievances were failure to obtain support without lease agreements due to the difficulty involved in securing such documentation and a generally lengthy process before they received feedback on their applications.

8.2.3 National Development Agency

The National Development Agency (NDA) is a government agency formed in 1999 to tackle poverty in South Africa. It empowers civil society organisations (CSOs) to counter address poverty and unemployment. The NDA assists CSO through four main pillars, including helping them formalise into organisations such as NPOs or Co-Ops, providing training programmes and mentorship, providing grants to expand activities, and ensuring the sustainability of CSO activities. The kind of CSOs it supports ranges from community safety, education, environment, and poverty alleviation. From its mandate, it is clear that it mainly aims to promote poverty alleviation. This also translates to its support for urban agriculture activities listed under the poverty alleviation category. For instance, in 2017, the NDA supported Garden 17 in Khayelitsha with an indoor mushroom production facility. According to the key informant, they have assisted various food garden projects in Khayelitsha and Nyanga. The NDA is connected to several organisations, which it taps into when assisting community developmental projects. For example, they assist with formalising community projects by providing advice on the best organisational form of the project. It then links the garden projects with the necessary institutions that assist with formalisation, for example, the Small Enterprises Development Agency (SEDA), which helps with co-op formulation.

Two approaches are used in providing support for beneficiaries. One involves applicants applying for grants through the submission of a project proposal. The other approach involves

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a project formulation process where they identify under-resourced communities and attempt to create projects in consultation with them. Unlike the other two state actors, the NDA does not appear to provide support on a continuous basis. Moreover, it was only mentioned by a few informants who had reported obtaining support for their gardening activities. The NDA key informant indicated that they had in the past been faced with several sustainability challenges due to various dynamics, such as taking on too many projects with limited human resources. However, they were adjusting to focus on the sustainability of projects by adopting a quality over quantity approach. Among some of their sustainability strategies is ensuring the projects are adequately trained and connected to supporting organisations within their vicinity that can continue providing skills development programmes after project completion.

8.3 Urban community gardens engagement with non-state actors

The online descriptions of non-state organisations (Table 8.3) and information from staff interviews indicated that they significantly influence community gardens by providing technical assistance, material resources, and advocacy roles. Non-state actors such as NPOs, NGOs, NPCs, and private organisations are the primary source of contact for most gardeners who require assistance in various forms. There has been generally an increase in the number of non-state actors supporting urban agriculture in Cape Town. For example, a report by Battersby et al. (2014)[17] reports a total of more than 100 NGOs working on urban agriculture in Cape Town. Olivier & Heinecken (2017b) reported the figure to be approximately 130 NGOs. This is supported by the general increase in NPOs identified during this study in Figure 6.3.

Most NPOs provide pre-requisite resources such as technical support, inputs, infrastructure, and monitoring. The NPOs usually have a presence in the Cape Flats; for instance, Abalimi Bezekhaya has garden centres in Khayelitsha and Nyanga where resources such as seeds and seedlings compost and tools are provided to members. Similarly, the SEED has a garden centre in Mitchells Plain through which it operates and provides services to its members. In most cases, these materials are offered free of charge or at subsidised rates exclusive to a minimal membership fee that the community gardeners pay annually. Monitoring is also a crucial aspect provided for members where field workers from the organisations conduct field visits to check on the community garden progress and assist them with advice on problems they might be

[17] Food System and Food Security Study for the City of Cape Town Report 2014 commissioned by the City of Cape Town.

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facing. In addition to monitoring, various other technical assistance for community gardens, such as pest identification and soil testing, are sometimes provided.

The results indicate that urban community gardening projects generally align themselves with such organisations to obtain support on the best cultivation methods. For example, Garden 34 aligned themselves to Abalimi Bezekhaya due to their promotion of health and agro-ecological cultivation. Being involved with the NPO means that the gardeners can learn the necessary chemical-free cultivation techniques that ensure the production of agro-ecological produce. Abalimi Bezekhaya, established in 1982, has been operating for a long time in these areas. Therefore, it provides crucial information for gardeners regarding water conversation techniques, soil building under the problematic soil, and water conditions in Cape Town. Water conversation techniques encouraged by the NPOs promote water retention and reduce water waste. Despite most of the gardeners possessing years of experience in crop cultivation, some did indicate that most of their experience was in different conditions, for instance, in the Eastern Cape. They mainly focused on a few crops, such as maize and pumpkins. As a result, they felt that the training received from NPOs aligned with the difficulties of cultivating in Cape Town conditions. In addition to material assistance, some organisations offer gardeners assistance with land tenure issues. For example, the Abalimi Bezekhaya informant indicated that their fieldworkers help community gardeners obtain land tenure security from various landowners, typically on private land and public-school land. Also, the organisation indicated that although the Harvest of Hope social enterprise was closed in 2019, they still do provide market assistance to members. Harvest of Hope was created in 2008 to facilitate market access for the gardens that sold their produce directly to other institutions such as schools, hotels, and restaurants.

According to information gathered from the non-state actors, their aims are usually multi-dimension and cut across various elements such as poverty alleviation, healthy food consumption, and greener environments in the townships. However, as seen in Table 8.3, poverty alleviation appears to be a central aim of most NPOs where members are encouraged to operate as a business to generate income to sustain their activities and livelihoods.

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Table 8. 3: Non-state organisations supporting community gardens

Organisation	Main focus	Assistance provided
Abalimi Bezekhaya*	To assist impoverished groups and communities within the Cape Flats to establish and maintain their vegetable gardens to supplement their existing, inadequate supply of food and create livelihoods	Subsidised resource materials and technical capacity to community gardens
FoodFlow*	To facilitate small-scale farmers to viably feed their local communities	Marketing of produce
Food for Trees Africa*	focuses on food security, urban greening and environmental sustainability	Subsidised resource materials and technical capacity to community gardens
Fresh Life Produce*	to show the world that there is an alternative to the thinking that we need to have a few large-scale producers to feed households and entire cities	Training of urban gardeners on sustainable production methods
Impilo Yabantu market*	To demonstrate and create space for fostering healthy lifestyles with the township, bringing access to organic produce and healthy meals from garden to fork.	Local markets for the community and awareness of healthy food choices
Local Wild*	To promote local wild foods as a way to address societal and ecological challenges	Awareness
People's Health Movement (SA)*	To improve the capacity of individuals and communities to realise their right to health and health care.	Awareness campaigns and workshops on food politics through workshops
PEDI*	To build Philippi into a thriving urban hub where businesses choose to invest and grow, and where people choose to live, work and play	Provides subsidised resource materials and technical capacity to community gardens
SEED	To promote resilience in people and communities, using permaculture education and skills to redesign our cities and settlements.	Subsidised resource materials and technical capacity to community gardens
Soil For Life*	To teach people how to grow their own food, improve their health and well-being, and nurture and protect the environment.	Awareness & workshops on food, improve their health and well-being, and nurture and protect the environment.
Slow Food*	To prevent the disappearance of local food cultures and counteract the rise of fast life and combat people's dwindling interest in the food they eat	Awareness
South African Urban Food & Farming Trust*	To build stronger urban communities through food and farming	Awareness, workshops, input provision
UCOOK*	to contribute to socio-economic, environmental, and food security in South Africa	A marketplace for organic produce grown by small-scale gardeners
Oribi Village*	To capacitate social entrepreneurs	Training, mentorship
Umthunzi Farming Community	To create empowering economic opportunities for small-scale gardeners.	Provides a marketplace for organic produce grown by small-scale gardeners
Western Cape Economic Development Partnership*	improve the performance of the Cape Town and Western Cape socio-economic development system.	Facilitating dialogue between various actors

Source: Author compilation (2020)

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FTFA is another prominent NPO supporting urban agriculture in Cape Town. The NPO supports community gardens through various training programmes that promote agro-ecological and permaculture production. They also provide essential inputs and training for project beneficiaries. Support offered depends on the funding and donations they receive. Programmes range from short-term grants to long-term grants from 12 to 18 months with an exit strategy of 2 years, promoting the projects' business capacity to ensure that they can sustain themselves at the end of the project. One interesting finding was that Soil for Life no longer supported urban community gardening projects. Although Soil for Life does not support community members anymore with material resources, it plays a role in providing training on well-being workshops for community members. These bi-monthly workshops cover a holistic health and well-being scope from body functions, lifestyle diseases, mental and physical health, healthy food choices, and home food gardening. Some of the gardeners indicated that they received training from the organisation in the past.

PEDI is an organisation that supports community gardens in the Cape Flats. The NPC was established in 1998 in partnership with the Western Cape Provincial Government. PEDI started an Agricultural Academy to train small-scale gardeners on crop production planning, production quality, and agro-processing. It also assists its members in achieving quality produce through the Participatory Guarantee System Organic Certification Programme. It established an AgriHub in 2019, which connects urban gardeners from the Cape Flats, providing them with a market to sell their produce. To corroborate the findings from the survey participants, the key informant indicated that obtaining sufficient markets for the gardeners was a challenge, and they had a waiting list of gardeners who wanted to sell their produce. Based on the interviews and website information, it is clear that the organisation has a strong entrepreneurial element whereby it aims to ensure that gardeners operate as a business that fits into the broader vision of the PEDI. For example, this encouragement is seen through its various synergies infused in its training programmes, such as its partnership with ORIBI village, an impact incubator. ORIBI village is a non-profit company that aims to enhance entrepreneurs' capacity to contribute to change through skills development, training, and mentorship. In light of the pandemic, it established the '*Entrepreneurship Programme for Sustainable Food System Solutions'*. The programme is centred on the belief that social entrepreneurs in the food system can contribute towards a resilient food system. Social businesses such as Umthunzi, FoodFlow, and other gardeners have all been a part of the training programme and benefited from its mentorship.

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Most gardeners, specifically those who aim to generate an income, align themselves with such organisations to sell their produce. In this case, supporting organisations promote higher-value crops to ensure that the community gardeners can generate some income. However, gardeners who sold their produce indicated that market access was a significant problem. The PEDI key informants indicated that many gardens wanted to market their products, with many prospective sellers on a waiting list. Although they attempted to do their best to make sure all the involved gardens could sell their produce this became a challenge, especially within the coronavirus pandemic context. The breakout of the pandemic resulted in the closure of various hotels and restaurants according to the varying levels of lockdown restrictions; hence there was a limited market to sell the produce from the community gardens. Despite this, the informant also reported that the pandemic brought a shift in the flow of produce from the community gardens.

The pandemic had severely affected food security in the Cape Flats; hence produce from the operational gardens was purchased and sold back into the community at local kitchens to feed the hungry. The PEDI informant indicated that the network of soup kitchens in the area was their biggest client at the time. This was corroborated by the UCOOK informant, who indicated that this was possible through fundraising of money, which allowed the organisation to purchase produce from gardeners and redistribute it back into the community in the form of food parcels. This was done in collaboration with FoodFlow. FoodFlow is an initiative that came out of the pandemic. The idea was to ensure that under-resourced communities were fed during the food crisis. As already noted, several gardens lost their market due to the closure of restaurants and schools. FoodFlow raised funds and purchased food from local gardeners, which were repackaged back into the community. Hence, it partnered with PEDI, Abalimi Bezekhaya, and redistributed the food by exploiting actors already present within these communities, for example, the Western Cape DSD.

Most NPOs typically support community gardeners throughout the entire lifecycle of the garden i.e. production to harvest and the selling of produce, while some actors usually specialise in a specific aspect of the gardens. For instance, some might be entirely focused on marketing garden produce, while some may focus on cultivation practices. Such organisations include Umthunzi Farming Community, a social enterprise that used to assist small-scale gardeners in selling produce. The now shutdown organisation was established in 2018, which coincided with the closure of another social enterprise organisation called Harvest of Hope.

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According to the organisation's website, Umthunzi Farming Community was formed in response to a crisis where '*hundreds of brinjals [in the Cape Flats community gardens] were ripening in their fields and they had nowhere to sell them'*. They operated as a middleman to market produce obtained from small-scale gardeners to clients such as hotels and restaurants mainly outside of the Cape Flats. Although the organisation was operating during the data collection phase of the study, it eventually shut-down in April 2021. Although PEDI focuses on production practices it also assists with the marketing of produce from these gardens. It achieves this by partnering with organisations such as UCOOK, which sells locally sourced organic food produce via vegetable box schemes to wealthier communities in the city. UCOOK incorporates into its business an involvement in activities in communities it deals with as a part of corporate social responsibility. The organisation has a social and environmental department where it attempts to give back to the community. For instance, the organisation partnered with PEDI and Abalimi Bezekhaya to help improve gardeners transition from subsistence gardening to profitable business. Hence, it is currently running a pilot project with five gardens located in the Cape Flats to provide them with the necessary skills and training to ensure that they can market their produce. Moreover, to ensure that the activities impacted the community, the organisation indicated that they encouraged the gardeners to keep a certain percentage of their produce for themselves rather than sell it in its entirety to the market. Similarly, the Fresh Produce informant concurred. Nonetheless, there was an understanding that ultimately, they cannot control how the gardener manages their plots and how they decide to utilise their produce.

The SAUFFT is a non-profit public benefit organisation formed in 2014. It plays various roles, which include providing support to urban gardeners, research, and also advocacy. According to the co-founder, the organisation's focus is not on starting up new projects, but on identifying potentially catalytic projects in communities and working to maximize their potential. Hence, they bring in resources, fundraising, technical skills, networks, market access, and other urban gardeners after identifying such projects. In other words, their strategy is to enhance the benefits of urban gardening that are possible without motivating people to do what they are doing in the first place. The SAUFFT informant made it clear that they support food gardens, but not as a primary means of addressing food security. Instead, their experience showed them that growing one's own food, particularly in an under-resourced community, is not effective for directly addressing food security. Hence, their approach is supporting gardens and positioning the participants and the surrounding community to address some of the issues they face. Since its inception, it has attempted to improve stakeholder dialogue among various

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players in the city. For instance, in 2014, it conducted its first Food Dialogue to bring various stakeholders together and discuss the food system issues. A follow-up dialogue was conducted in 2020, which coincided with the COVID-19 pandemic.

Most of the community gardening projects indicated that they had received assistance from CSOs. Generally, most of them indicated that they were happy with the support they had received from CSOs (Table 8.4). During the data collection, it was noted that participants mainly indicated primary NPOs as organisations that provided support instead of other civil society organisations. Some supporting organisations indicated that they would terminate full-time support for specific community gardens due to funding issues and promote independence. This had received mixed reactions from the community gardens. On one spectrum, gardens were fine with the decision and thought that it would help them be more sustainable on their own. On the other hand, others thought they would not survive, especially when dealing with borehole maintenance issues, which are significantly expensive. This indicated that there was an element of over-dependency on supporting organisation for specific kinds of assistance.

Table 8. 4: Gardener satisfaction with non-state actor support

		Frequency	Percent
	Poor	2	2.0
	Average	62	62.0
	Good	17	17.0
	Total	81	81.0
Missing	System	19	19.0
Total		100	100.0

Source: Fieldwork (2020).

Some urban community gardening projects are more cautious with whom they partner with to ensure that their goals are not compromised. As a result, they have not accepted or applied for any support from supporting organisations, and in some cases, they are selective of the support they accept. For example, one gardener informant indicated a need to be selective on who and how you partner. The participant said it was crucial to select whom you partnered with as most NPOs had poor exit strategies. Another compared the emergence of NPOs to supermarkets by stating that:

> '*these NGOs are now all basing themselves in the communities you see its exactly like what corporates have done if you look at Spar, Pick And Pay and Shoprite, they*

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are all now coming into our communities setting up malls you can imagine now what exactly they have done they are monopolising the space and disrupting the space.'

Besides non-state actors focusing on the gardeners' material needs, several activist organisations are also conducting work in the Cape Flats. For instance, the PHM SA, a health movement that runs workshops to promote health rights in disadvantaged committees across the city. The PHM SA informant revealed that they partner with community gardening projects to promote healthy food habits and raise awareness of food politics. Therefore, their workshops educate the communities on food consumption habits and food sovereignty issues. Similarly, some gardeners indicated that they were a part of the South African Food Sovereignty Campaign (SAFSC), a movement formed in 2015 to promote food sovereignty. SAFSC is aimed at unifying all stakeholders at various levels to enhance the impact of the food justice movement. Therefore, community gardeners can benefit from such networks due to their interaction with other stakeholders such as NPOs, food and environmental justice organisations, and other community-based movements. As indicated in earlier chapters, some gardeners were members of such groups.

Local wild movement is another movement identified in the study areas. The movement aims to reintroduce endemic plants back into the food system. The movement believes that commercial farming resulted in the erasure of local indigenous knowledge, threatening the local food heritage and ecosystems. Hence, they conduct awareness campaigns to reintroduce the lost practices. The organisation has worked with various gardens in the Cape Flats, assisting them to grow local foods such as dune spinach, wild rosemary, and sour fig.

Similarly, a group of food activists and researchers founded the Impilo Yabantu market in 2016, a social justice movement promoting food activism in the low-income township of such as Khayelitsha. The idea behind Impilo Yabantu is to function as a local market for citizens in the township, enabling them to access agro-ecological produce from local cultivators, thereby promoting healthy lifestyles. To achieve this, they conduct awareness campaigns to ensure that the communities are food conscious and become aware of the need to make better food choices. According to the key informant, the project has been a crucial information-sharing point for citizens across all age groups in the township. It has associated with various local community gardening projects such as the Ikhaya Gardens and Ekasi Project Green to push its initiative. Although the market ran smoothly, it faced some challenges, mainly due to the COVID-19 pandemic, and went into hibernation but recently partnered with research institutions to resuscitate the local market. One significant challenge that the movement met was the limited

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support for agro-ecological produce when they conducted market days across various locations in the township. This corroborated the finding that community gardeners faced difficulty obtaining a market for their produce within their communities. According to the informant, this is mainly due to a lack of awareness of the potential of agro-ecological produce.

Slow Food South Africa is part of a global Slow Food Movement geared towards challenging the corporate food system and creating a more equitable and sustainable food system. The movement aims to raise awareness around the food system's exploitative nature through various activist activities such as workshops, social media, and localised networks. The movement exists across several countries and also has sub-organisations that target the youth. For example, the Slow Food Youth Network South Africa is a sub-group that incorporates the youth into the movement. The youth movements tailor their programme to ensure that they can capture the attention of the youth, thereby increasing membership. The movement has worked with several community gardens in the Cape Flats, for example, Garden 6 in Khayelitsha. These partnerships enable the movement to reach out and disseminate information to localized communities.

The PHA campaign is a ten-year movement formed by small-scale farmers opposing urban development in the Philippi Horticultural Area. It engages in various awareness initiatives to ensure residents are aware of the benefits of the horticultural area and the possible effects of massive urban developments. It has taken the COCT to court several times in an ongoing battle against a proposed housing development project in the area.

8.4 Coordination of activities between supporting actors

Supporting actors generally agreed that the level of coordination of activities was steadily improving. Specifically, non-state actors indicated much better coordination of activities between the various actors involved in urban agriculture. Non-state actors generally agreed that there was better coordination of activities among them. Although several NPOs focus on similar problems, their areas of operation and the services offered vary. This allows for most CSOs to cultivate working relationships with various other organisations when implementing their projects. For example, despite the Harvest of Hope social enterprise's closure, Abalimi Bezekhaya still connects urban gardeners with other market access organisations such as PEDI to link their members to the market. FFTA indicated that it was working with Abalimi Bezekhaya in implementing its exit strategy phase of some of its community projects in the Cape Flats. Generally, it appears that larger organisations such as the FFTA partner with

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smaller localised organisations when implementing their activities. PEDI works with other organisations such as Fresh life produce when implementing their activities. Fresh for Produce is an organisation that focuses on sustainable crop production solutions and has introduced innovative ways of cultivation, such as its vertical hybrid hydroponics plant-growing system, which according to the founder, utilises 90% less water than the average garden. PEDI thus partners with the organisation to ensure their beneficiaries have access to their specialised services. PEDI, also being an NPC, was established in partnership with the Western Cape Government and receives funding from the government at a municipal and national level. Other partnerships identified were between the NGOs, NPC, and the private sector. During the pandemic, PEDI had partnered with FoodFlow and UCOOK, which assisted in purchasing urban gardeners, produce, and repackaging it back to the Cape Flats community as food relief.

State actors were also happy with the level of organisation and activity coordination amongst the supporting actors. The Provincial DOA, for example, indicated that they work with various other departments such as social development and health when coordinating their activities at the provincial level. In the same vein, the Food Security Programme's outgoing Director indicated a strong working relationship with the COCT, particularly the Urban Agriculture Unit. The head of the UAU is, in fact, a part of the DOA provinces board, which evaluates applications for funding from the city; hence the two departments, municipal and provincial, can coordinate activities to improve the implementation of activities. The Provincial DOA also indicated that NPO organisations were crucial, especially when monitoring activities on the ground. This is due to the Provincial DOA's limited capacity to provide extension services to all of its beneficiaries since it caters to urban gardeners in the city and farmers across the province.

Overall, most stakeholders indicated that the COVID-19 pandemic resulted in more dialogues between the various stakeholders. For instance, the SAUFFT conducted a multi-stakeholder workshop on the food system in 2020. The Provincial Western Cape government mandated the Western Cape Economic Development Partnership (EDP), a public benefit organisation to coordinate food relief programmes across the province. The EDP convened the Western Cape food relief coordination forum consisting of NPOs and the government. The forum ensured that there was improved coordination of approaches to distribute food aid during the pandemic. The Western Cape Economic Development Partnership is a partnership of approximately 150 institutional stakeholders who came together in 2012 to address socio-economic development in the Western Cape Province. Its establishment was based on the realisation of the multifaceted

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socio-economic problems in the province, hence requiring partnerships across various stakeholders to implement effective solutions. Therefore, the EDP facilitates collaborations in implementing solutions to a range of issues such as community safety and cohesion, agriculture development, drought responses, support for small businesses, among many other things. The NPC receives support from the Provincial government and several municipalities in the province. It continues to host conversations around the food system, which aids in facilitating synergies among various actors in the province. The conversations are held monthly under the Western Cape Food Forum banner with participation from civil society actors, gardeners, and academics.

8.5 Discussion

The case of the Cape Flats demonstrates that most urban community gardening projects are usually bottom-up initiatives started by community members. However, they rely on support from groups that may not have ties to the community, including the supporting actors, the municipality, and the provincial government. At first glance, it may appear that as opposed to other gardening programmes elsewhere, for instance, in Vienna (Ernwein, 2017), residents in the Cape Flats have control over how they conceive and manage their gardens. This research indicates an acceptance of growing support from the state in the establishment of community gardens. This contradicts early research where citizens were generally stymied by local administrations from collectively managing urban green spaces, for instance, in New York under the Giuliani administration (Staeheli, 2008). Community garden projects in the Cape Flats appear to be actively supported by the state at municipal and provincial levels. This is seen through the open support for such practises under the banner of food security and poverty alleviation and the continuous provision of resources for active participants. The Provincial DOA, the COCT, and the NDA provide much-needed infrastructural resources and inputs for the community gardening projects, which are all crucial in gardening in Cape Town. However, there is limited policy framework support for community gardens and urban agriculture in general from a national to municipal level. Despite the history of the COCT supporting urban agriculture, under the now-defunct Urban Agriculture Policy of 2007 and the Food Gardens Policy of 2013, little mention has been made to support urban agriculture especially when it comes to the issue of land access and tenure. In fact, the study results indicate that the lack of a comprehensive policy and the red-tape involved in accessing land and resources influences where community gardens emerge and how they function. This section will discuss the findings in detail and in relation to the literature on political gardening in neoliberal cities.

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The literature explains how the local government can shape community gardening projects (Ernwein, 2017; Pudup, 2008). Bródy & de Wilde (2020) argue that local governments can encourage community gardening projects to fulfil various agendas. The present results align with the scholarship above, which shows how the state can influence community gardens. Despite the few urban community gardens located on public open vacant spaces, most community gardens are located on public school land and government institutions' land, for instance, municipal offices. Access to land remains a problem for gardeners across the country, for example, in Durban (Bisaga et al., 2019; Magidimisha et al., 2013) and Johannesburg (Malan, 2015; Suchá, Schlossarek, Dušková, Malan, & Šarapatka, 2020). The Cape Flats' gardeners are aware of the arduous process of obtaining a piece of vacant land for cultivation hence are usually discouraged from engaging in the process.

Obtaining public land from the city is a cumbersome process characterised by bureaucracy and red tape. Most gardeners are unwilling to go through such a process and opt to use the 'the encouraged options' of cultivation spaces, for instance, school land or private land. From a municipality perspective releasing land for such activities is a bureaucratic and time-consuming process. Hence, it always encourages community gardeners to seek lease agreements on alternative pieces of land. Despite this, the COCT possessed perhaps one of the most organised policy and frameworks to support urban agriculture (Rogerson, 2010) and land access. For instance, The Urban Agriculture policy of 2007 provided guidelines on how the COCT would identify vacant land suitable for urban agriculture and make it available for cultivation through leases, disposal, and commonage land. Moreover, the policy called for the inclusion of urban gardening as a formal land use in the City's planning. Although now defunct, all these strategies are incorporated into the MSDF of 2018, but land access is still an omnipresent problem among the city's urban gardeners. Therefore, this suggests that the issues of failure to access land for cultivation can be attributed to the failed implementation of strategies rather than failed policies. Previous research elsewhere has shown that urban community gardens do not receive adequate recognition, especially when it comes to being incorporated into urban planning (Hou, 2014; Pothukuchi & Kaufman, 2000; Warner, 1987). The results of this study are in line with such research. Although mentioned in various policy documents, urban community gardens are not backed with effective support and implementation, especially when it comes to being incorporated into urban planning processes. Local government support for community gardening projects has existed historically, for example, through various policy frameworks

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and support programmes for gardeners across low-income townships. However, land tenure has not been adequately dealt with despite being recognised as a problem post-apartheid (Karaan & Mohamed, 1998). The concept of lease agreements for gardening creates the impression that urban community gardening projects are temporary and opportunist endeavours. Therefore, the activity is likely to be overlooked in local governments' long-term planning (Lawson, 2004).

Even in cases where the municipal government provides land for cultivation, that particular community garden is still susceptible to repossession by the municipality to facilitate the use of the land for competitive purposes (Nikolaïdou et al., 2016). Such developments are consistent with neoliberalism planning ideologies where municipalities engage in entrepreneurial activities to promote economic growth. This means that all available space needs to be maximised for its exchange value, even at the detriment of welfare programmes (Purcell & Tyman, 2015; Schmelzkopf, 2002). Based on this logic, the availability of land for cultivation will always take a back seat within the context of a neoliberal environment. A similar trend is noticed in the case of the Cape Flats, where one of the gardens lease agreements was terminated on the premise that the land was required for development.

Most studies on urban community gardening projects show that appropriated land is usually open vacant space (Francis, Cashdan, & Paxson, 1984; Schmelzkopf, 2006; Visoni & Nagib, 2019). This usually occurs when land becomes available due to a financial crisis discouraging capitalists from utilising the land for development (Corcoran et al., 2017). Despite a few cases, this is not the trend in Cape Town. It may appear that despite the difficulty of obtaining land for cultivation, the majority of gardeners could easily occupy vacant open space without the municipality's approval; however, this is not the case. A possible explanation for this reluctance may be the lack of support for their activities. The results demonstrate that most gardeners are largely unemployed and do not always possess the resources to kick-start gardening in the Cape Flats successfully. The study area's climatic and poor soil characteristics show that a significant pull of resources is required before sufficient production is realised (Meadows, 2000). Support in the form of input resources and infrastructure provision or subsidies is essential for community gardeners in these areas. The results indicated that the provision of these such resources is tied to specific requirements from the state institutions. For instance, the Provincial DOA can only support gardeners who possess title deeds or have a

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formal lease to the land underuse. Indeed, this is a rational approach in the context of project sustainability but has some implications.

Given that state actors cannot provide infrastructural support for community gardens without lease agreements, most gardeners are discouraged from illegally occupying the open space land due to the difficulty in obtaining a lease from the state. Most gardeners admit to the need for support from the government; hence, they would instead secure land with a lease agreement than on public land. Therefore, the enforcement of a specific list of regulations has largely determined where community gardens emerge in the area. These results corroborate the findings of the previous work on the state's influence on community gardens. For instance, Ernwein (2017) showed that the municipality in Vernier (Vienna, Switzerland) greatly influenced the development of community gardens in the area through design and a set of rules which beneficiaries were expected to follow. However, unlike Vienna's case, where the municipality directly influenced the gardens, the Cape Flats' case indicates implicit ways this is accomplished. This has resulted in urban community gardens being synonymous with schools rather than public spaces, which affects access to the general public, as explained in Chapter 7.

Historically, the COCT has supported urban agriculture as a panacea to food insecurity in low-income townships (Battersby & Marshak, 2013; Haysom & Battersby, 2016). In fact, the literature shows that most of the gardening projects are concentrated in low-income areas as a means to address food insecurity (Paganini et al., 2018). The findings from this research indicate a similar trend that persists in encouraging the establishment of urban community gardens and urban agriculture in general. There appears to be an over-emphasis on the narrative of the practice's potential food security benefits instead of other benefits. This is indicated in the most recent announcement of the Food Gardens Programme in response to the COVID-19 pandemic. The programme encourages the establishment of food gardens to 'aid in addressing food insecurity in vulnerable areas'. Hence, within the context of job losses and high food prices during the pandemic, such initiatives indicate that the city has no role in addressing food issues. Instead, the role is outsourced to the citizen. Previous scholars on urban food security in South Africa argue that the adoption of urban food agriculture as the panacea to food security is entrenched in the rural idea that household food insecurity is an issue of production (Battersby, 2012; Haysom et al., 2017). Hence policymakers adopt production strategies in urban centres to address household food insecurity, failing to realise that it is a more complex phenomenon involving food access rather than availability. Building on this discourse, this

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research argues that neoliberal policies influence such practices, which trickle down to local community levels.

Neoliberalism operates in its various form by converting all social problems into market terms (Brown, 2006). Hence, urban agriculture's continued promotion as a solution to household food security and employment creation is one such localised solution implemented to neoliberal subjects. Initiatives such as urban agriculture for food security or income generation appear to shift the responsibility of food security from the state to the individual in times of economic crisis. However, given the constraints urban community gardens face, the activity can barely produce sufficient food and income. In this way, urban gardening creates a continuous cycle, where the practice brings enough to gardeners to be worth doing but is not solving the underlying problem, which results in these injustices in the first place. This is in line with Pudup's (2010) findings which show that local governments encourage personal responsibility in dealing with the effects of economic restructuring. Cape Town is a highly unequal city characterised by unequal wealth, basic service distribution, and employment rates between the Cape Flats and wealthier suburbs. The apartheid administration historically drove the inequality; however, this has been solidified by the advent of neoliberal policies, which have only served to perpetuate inequality along racial and gender lines (Lemanski, 2007; Miraftab, 2007; Turok, 2001). One of the key principles under a neoliberal government is the encouragement of the entrepreneurial citizen (Brown, 2006). Barron (2017) argues that government programmes that encourage food production for income and food security encourage individualism and entrepreneurship are all facets of neoliberal politics. The narrative of food security resonated with the aims of some of the gardens that emphasized food security and income generation as opposed to other benefits. This research argues that this is a possible explanation behind the division of plots for individual cultivation instead of collective cultivation. For example, Garden 7 indicated they wanted to transform their garden from collective plot usage to individual plots to increase production.

Furthermore, one interviewee also indicated that they only accepted people who wanted to work and did not want people who would be lazy in the garden. These findings collectively demonstrate how urban gardeners have taken it upon themselves to address structural problems within their communities. Urban residents are conditioned to take ownership of broader socio-economic problems into their hands by engaging in entrepreneurial activities. Moreover, the promotion of urban agriculture in this context distracts attention from the underlying systematic problems which have resulted in food security in the first place (Barron, 2017). It is also

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unethical to expect the under-resourced to independently address the impacts of the system established and solidified over many decades. As Ghose & Pettygrove (2014:1103) put it, community gardening 'requires extracting material and labour resources from already resource-poor citizens, who struggle to fulfil basic survival needs'. In the Cape Flats, urban gardening is always promoted but requires expensive resources such as water and manure. All this is driven by various actors, including the state and supporting actors.

Another key issue is that urban agriculture activities can be used to limit the voice of citizens. A feature of capitalist societies is ensuring that people are preoccupied with activities that discourage them from organising against the system. For instance, Lawson (2004:155) contends that urban community gardens in the USA were encouraged during a crisis to ensure that citizens kept busy and did not organise against the businesses responsible for the crash. Similarly, Bródy & de Wilde (2020) show that urban community gardening projects diffuse any potential mobilisation by keeping the citizens occupied specifically during times of crisis. A similar trend occurs when a financial crisis hits; government tends to promote activities that keep people busy. Crises leave people unemployed and with more time, which can be directed at various things such as organising to counter problems within their communities. For instance, in Cape Town, during the COVID-19 pandemic induced a hunger crisis, many people organised into CANs and activist groups to address food insecurity in their communities. In this context, urban agriculture can be viewed as a tool to keep the unemployed occupied and depoliticize any chances of people organising to dismantle the underlying causes of the inequalities.

Another key element of neoliberalism is roll-back mechanisms (Brown, 2006; Harvey, 2005; Peet, 2002). Neoliberal roll-back mechanisms involve cutting back public services and transferring service provision to civil society actors and the neoliberal subject (Corcoran et al., 2017; Perkins, 2013). The literature indicates that environmental conservation speared by NGOs and volunteers is an integral part of the rollback neoliberalism of welfare provision (Rosol, 2012) while simultaneously enhancing the neighbourhood image (Montefrio et al., 2020). In other words, the state no longer has to spend any money in managing those spaces, for example, cleaning out illegal dumpsites, as this function is outsourced to the community members who manage the space with minimal funds from the state. The present study reports similar findings, for example, Garden 15, which repurposed land previously utilised as an illegal dumpsite. Such open spaces would otherwise require the state to maintain and clean to avoid an outbreak of diseases. Instead, the community members have stepped in to use the land

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in sustainable ways, promoting greenery in the community. In this manner, community gardens fulfil roles that the state would otherwise have to perform. The responsibility for environmental preservation is shifted to the community gardeners, which unburdens the states from its social and environmental responsibilities, possibly justifying downsizing.

In terms of civil society actors, the emergence of several non-state supporting actors is consistent with civil society engaging in activities that the government may otherwise have to conduct (McClintock, 2014; Rosol, 2012). Based on this understanding, if one considers the general rise in civil society actors and supporting urban agriculture and gardener in Cape Town, it is rational to conclude that these can be interpreted as a response to the fading capacity of the state to provide welfare. Several organisations have emerged that seek to address poverty and related social and environmental challenges present in low-income townships. This is consistent with Rosol's (2012), who reports that urban community gardening projects in Berlin are characterised by the cutting back of services in the maintenance of urban green spaces results in the increasing participation of non-state actors who provide services that the state should have originally provided.

In situations where volunteerism is filling in government activities, the government can justify austerity measures that have a knock-on effect of perpetuating the need for civil society's participation due to reduced welfare. Neoliberal roll-back mechanisms have created a fragmented civil society landscape. This has resulted in a highly competitive space that affects civil society groups' capacity to make social change (Wolch, 2006:xiii). For example, St Clair et al. (2020) report that conflict between project partners in the Real Food Wythenshawe project in the UK created sustainability problems. This present research reports similar findings. There are various civil society actors in the urban agriculture sector in Cape Town. The literature indicates that civil society plays a more prominent role in supporting urban agriculture activities than state actors (Kanosvamhira & Tevera, 2020, Kanosvamhira & Tevera, 2021; Olivier & Heinecken, 2017b). Civil society groups such as NPOs provide a conduit for project funding from donor agencies, businesses, and even the state. However, civil society is not a homogenous body of organisations; hence, their interests are specific to their aims. Paganini & Lemke (2020) argue that although civil society actors' diversity could promote collaboration, a lack of transparency and conflicting interests affect the success of urban agriculture activities. In this way, the neoliberal environment is partly responsible for the emergence of multiple actors, creating a polarised and competitive environment of actors with varying and not always reconcilable objectives. Within this context, the literature has always called for better

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collaboration between CSOs over the years (Haysom & Battersby, 2016; Kanosvamhira, 2019; Paganini & Lemke, 2020).

The research findings show that several non-state actors support urban gardening activities in various ways in the Cape Flats. Several civil society organisations are mobilising around organic cultivation, food waste, health, and awareness of food justice through educational workshops. Most NPO-gardens in the area operate based on membership where the gardeners pay a particular price to have access to subsidized resources, training, and monitoring. Bródy & de Wilde (2020) have indicated that membership-based operations are exclusionary since they require members to pay subscription fees to access the services, which may exclude other populations. In this case, the findings indicate that the subscription fees required are relatively low and hence render services accessible to individuals and groups within these communities. For instance, some gardens have been members of specific organisations for a relatively long time. Furthermore, NPOs sometimes offer free services to community gardens, specifically when it comes to monitoring and particular workshops.

NPOs operate by focusing on different needs of the gardeners, such as production, processing, or selling. Organisations implementing projects always ensure that they promote sustainability by implementing various implementation strategies during the project. NPOs are usually based in the community hence they are easily accessible to the community. This means that the NPO has a demonstrative effect on the community as they can show the community their activities and gardening benefits. In this way, more people are encouraged to buy into the idea of cultivation. Previous research has shown that NPOs' presence in the communities raises awareness of their activities (Kanosvamhira & Tevera., 2020).

Some organisations improve urban food justice by focusing on various elements. For instance, organisations such as Soil for Life offer food preparation training. The literature argues that diet change requires cooking skills to transform food into healthy and tasty food (Tornaghi, 2017). Otherwise, it is easier for people to return to the often cheaper and flavoured foods from the corporate food system. Hence in this respect, some civil society groups in the Cape Flats play crucial roles in addressing some aspects of the food sovereignty movement. Some NPOs also assist in the land mediation on behalf of the garden to ensure that they obtain the necessary lease agreements. However, they are also aware of the difficulty involved in accessing state land, hence also encourage beneficiaries to seek land at alternative locations where leases are easily attainable, for example, from schools and other privately owned lands. Therefore, in this

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way, they unconsciously contribute to the pattern of community gardening projects in the Cape Flats. These conditions collectively encourage gardeners to conduct their garden in a certain space encouraged by the city. As a result, most of the Cape Flats' gardens are likely to be located on public school land, church land, or other private property despite the availability of unutilised open spaces present within these communities. However, the Cape Flats case demonstrates some cases where gardens have appropriated spaces and managed them collectively. This research showed that some community gardeners were established on open spaces with or without the municipality's support. Specifically, the older gardens were formulated on open spaces and have been operational on verbal agreements from the landowners for many years. In addition, non-state actors partner up with various organisations to improve social innovation within these communities. Nonetheless, most of such gardens have significant NPO involvement in their activities.

Most non-state actors focus on developing local entrepreneurs, positing social enterprises as key to addressing food issues and creating a more just food system. Non-state actors operate within a broader social-economic and political environment of the city and thus are not immune to the effects of neoliberalism. The dominance of non-state actor operations in distressed communities is evidence of the state shifting the responsibility of addressing social ills in communities to the voluntary sector. Indeed, NPOs are more visible in these communities as opposed to the state. Furthermore, this research argues that NPOs are complicit in cultivating neoliberal citizens within these communities. Although some supporting organisations may promote urban agriculture and all its benefits, there still appears to be an emphasis on the enterprise aspect of cultivation. Accordingly, this encourages entrepreneurship and the zeal for urban gardeners to sell produce to generate income. Previous research in the Cape Flats has shown that gardeners usually join gardens to produce income from the very beginning of their efforts (Karaan & Mohamed, 1998; Tembo & Louw, 2013). Research has confirmed this to be unrealistic, given the physical constraints and additional structural barriers affecting agriculture in the city (Battersby & Marshak, 2013; Eberhard, 1989). In attempting to improve the income aspect of gardening activities, non-state actors focus on producing high-value crops and seeking markets that offer competitive prices for the agro-ecological produce from the gardens. This means that gardeners grow crops aligned to the market's needs that they may not necessarily eat. Alkon & Mares (2012:349) argue that the 'belief that the market can address social problems is a key aspect of neoliberal subjectivities'. Hence, in the case of community

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gardeners and urban agriculture in general, this appears to explain the continued promotion of urban agriculture under the guise of food security and poverty alleviation for a very long time.

Previous research has reported that urban gardeners in Cape Flats heavily rely on supporting organisations for resources and marketing of produce. On the question of linkages with NPOs, this research found that most gardens are heavily reliant on NPO support. This is not surprising given the fact that NPOs are perhaps easily accessible to the gardeners and gardening generally requires a significant number of resources before it can be sustainable. However, given the amount of time in existence, some of the gardens have been supported one would expect limited reliance on donor support. This otherwise makes community gardens unable to sustain themselves in the absence of donor assistance. For example, most gardeners who primarily focus on food production and selling of produce highlighted that their main problem was market access. Paganini & Lemke (2020) argue that the heavy reliance on middlemen organisations encourages the selling of harvest outside the townships. This is partly because gardeners usually want to fetch higher prices on the agro-ecological produce, resulting in them selling their produce to richer neighbourhoods. Such a scenario effectively militates against the activist roles that gardens could play in providing fresh and accessible food to their communities. In other words, they wind up being captive within their communities, either by NPOs or other intermediary organisations who support them. This can create a disconnect between the gardeners and their community regarding what they grow, what is available, and the price.

Besides the state's influence on neoliberalism, the scholarship argues that food activist movements can be complicit in producing neoliberal subjects responsible for their well-being (Guthman, 2008). For instance, Guthman (2011) contends that promoting individual well-being extends neoliberal individualism. Within many activist groups, there is an emphasis on individual empowerment, such as cultivating your own crops and developing a more resilient food system. Although this is beneficial, it indirectly reinforces the idea that it is up to the individual or the community to address these issues such as obesity, malnutrition, or unjust food systems. Similarly, Alkon & Mares (2012) report that the USA's food movements play a similar role in reinforcing neoliberal individualism and self-empowerment. Ultimately, such actions depict health as a personal responsibility issue instead of dismantling the system that results in the problems.

Other civil society organisations exist in Cape Town, promoting various issues such as food activism and environmental activism in the Cape Flats. Several activist organisations have

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played crucial roles in raising awareness of food issues within these communities. The gardener’s consciousness has often raised their awareness, their connections to supply, and the urban food system. In this way, they have a greater opportunity to make some different choices, but they are not free of the structurally unjust food system that keeps them food insecure. In other words, while the gardener may be positioned to make better food choices, they are not independent of that system that created the inequality in the first place, hence continuing to be afflicted by it. Nonetheless, this makes gardeners more aware of their environment and can make more informed decisions tackling issues they face.

8.6 Conclusion

This chapter addressed the final objective of the research, exploring how urban community gardens engage with supporting stakeholders to fulfil their agenda. This research observed that urban community gardens engage with either state or non-state actors to archive their goals. In this study, the state actors that influence urban community gardens in the study area are the COCT and the Provincial Department of Agriculture. The non-state actors include civil society such as Abalimi Bezekhaya, Food for Trees Africa, Soil for Life, Fresh food produce, People’s Health Movement South Africa, and the PEDI. The City’s history in terms of policy and legislative framework relating to urban agriculture appears to provide detailed support and recognition of urban agriculture. However, as seen in the policy documents, there is currently no legislation that could be enforced concerning urban agriculture and spatial planning. Therefore, existing or future policies need to be revised to recognise urban agriculture in land-use planning. The chapter demonstrated that accessing land is arduous and, therefore, community gardeners are usually encouraged to seek land and tenure agreements from public school land or private landowners. This situation has resulted in state actors with some support from non-state actors shaping where community gardens emerge. Community gardening projects have primarily emerged on school land due to the difficulty of obtaining lease agreements on open spaces. Since civil society organisations usually support beneficiaries under the prevailing circumstances, they also encourage gardeners to obtain land in areas where tenure is easily secured. Furthermore, the findings indicate an element of cultivation of neoliberal citizens, as highlighted by scholars such as Barron (2017) and Bródy & de Wilde (2020). This is seen through the continuous narrative of promoting food gardens through a specific lens that encourages citizens to adjust their socio-economic conditions in distressed communities in the Cape Flats. While this may appear to be crucial in improving the gardeners'

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socio-economic condition, it always has its implications to be discussed further in the next summative chapter.

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CHAPTER 9: URBAN COMMUNITY GARDENS IN THE CAPE FLATS: DISCUSSION OF CROSS-CUTTING THEMES

9.1 Introduction

This chapter provides an analysis based on the four objectives of the research: the evolution of urban community gardens, their aims and operations as commons, how they counter neoliberal ills and engagement with supporting actors to fulfil their agendas. The chapter presents a discussion that cuts across all objectives in relation to the theoretical framework adopted. The theoretical framework used for this chapter is Lefebvre's social space production concept. According to Lefebvre, space is a social construct that he explained through a spatial triad consisting of spatial practice, representations of space, and spaces of representation. Harvey further enriched the understanding of the triad through the concepts of absolute space, relative space, and relational space. Therefore, this chapter explores how the social production of space manifests in urban agriculture activities in the Cape Flats within the context of the city's neoliberal environment. It will first dissect how urban community gardening projects are socially produced before presenting the external neoliberal influences that militate against the community gardens' progressive nature. In this way, the conflicts between the various stakeholders are highlighted. It is important to note that although the theoretical framework is crucial in analysing the study findings, it also has its limitations; therefore, these are highlighted where appropriate.

9.2 Unpacking urban community gardening projects and social space production

Leferbve (1991) argued that citizens cannot identify themselves unless they actively occupy and use space (produce it). In the context of activism, this implies that any form of movement that seeks to ascertain some form of power needs to assert a material presence (Harvey, 2006:292). The spaces on which urban community gardens are located are the material space, i.e., actual space where the activities of cultivation occur (Eizenberg, 2012). The 34 surveyed urban community gardens in Cape Town occupy various locations such as public land in the form of open spaces, school land, and municipal institutions premises. Due to the difficulty of obtaining open land for cultivation, urban gardeners seek various forms of land for cultivation, such as lease agreements on school land. During the lease tenure, they utilise the land to create space where members engage in gardening and other related activities. Moreover, these spaces offer various services to the environment as well as the community. These spaces function as a social space allowing community gardeners to engage in meetings and exchange information

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about cultivation, education and seed exchange, and the selling of produce. This reflects Lefebvre's spatial practise where the members are actively managing the spaces according to how they perceive it. In other words, urban community gardens within these distressed communities are assigned to a specific set of spatial practices through which garden members discern the space through their various senses such as touch, sight, and sound. In this way, the spatial practices present spaces that the community gardeners shape through the transformation of otherwise unproductive land, such as open spaces or unutilised school land. The result is the emergence of attractive spaces that are beacons of hope within the context of injustices in the distressed communities. Therefore, urban community gardens have cultivated material spaces that influence the lived experiences of the community gardeners themselves and the immediate community. The urban community gardens are spaces that practise some autonomy away from capitalist influences and provide identity and emotional attachment to its members and the community. The spatial practices within these gardens are shaped by the lived experiences of the community gardeners. However, according to Lefebvre being active users of land requires the active location of land; hence many studies have linked this to the appropriation of land particularly in open vacant spaces (Corcoran et al., 2017; Eizenberg, 2012; Follmann & Viehoff, 2015; Schmelzkopf, 2006). The land occupied is usually under contestation, showing the struggle between land-use value versus exchange-use value. Cape Town's situation does not follow this trend as community gardens occupy not necessarily contested land, for example, school land and privately owned land. On this basis, it appears that urban community gardens may not produce adequate resistance to neoliberal urbanism, especially in terms of urban space. However, this research argues that the sites are being utilised to influence change on a broader scale beyond the actual space.

In Cape Town, urban community gardening projects represent lived spaces where marginalised citizens in the Cape Flats engage in various practices advancing different forms of resistance implicitly or explicitly against urban injustices within their communities. As indicated in the findings, although most gardens are located on school land, some gardeners are involved in the appropriation of vacant land, for example, areas under power lines, illegal dumpsites, and open spaces in the townships. Such community gardens appropriated open spaces within their communities to create community gardens where they cultivate crops. Therefore, in such cases, the gardening projects can represent sites through which the gardens contest the production of space. Most of the community gardeners in the Cape Flats are migrants mainly from the Eastern Cape and possess some background in cultivation. Gardening for them symbolises an activity

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they used to partake in growing up. Some indicated that longing to connect with the soil or see something grow from the ground. Hence the garden offers them an opportunity to relive such memories. Most of the gardens are localised and consist of members mainly from the same community. Despite the presence of production-oriented gardens, there are many collective activities conducted within these gardens, for instance, sharing of infrastructure, labour, and produce, which collectively show how community members can come together and manage resources collectively.

Similarly, the literature has shown that urban community gardens are spaces of lived experiences (Eizenberg, 2012). Although most of the literature focuses on community gardening projects and social space production on open spaces (Follmann & Viehoff, 2015; Purcell & Tyman, 2015; Schmelzkopf, 2006), this research also shows that even community gardens located on land that is not necessarily contested, for instance, school land can be space where lived experience is shaped. Some community gardens functioning on confined land in schools still engage in their activities collectively and create spaces to cultivate their crops and strengthen bonds between themselves and the community. Moreover, the gardens' aims and activities are not necessarily tied to the current space they occupy but transcend to influencing the community around them. While the use of the garden in such instances does not necessarily result in the contestation of the space, it facilitates the creation and cultivation of ideas that contest the community's injustices, for instance, the unjust neoliberal food system. Hence while engaging in their lived experiences, urban community gardening projects, in turn, influence the communities around them. When looked at from Harvey's concept of relative space, it becomes clear that the gardeners develop their lived experiences through the activities they conduct in the space. Nonetheless, these are extended to spaces that are beyond the absolute space occupied by the garden.

Conceived space refers to mental constructs about space usually produced by formal structures. The state plays a significant role in shaping community gardening activities. The broader neoliberal environment influences community gardens in the Cape Flats. However, some community gardening projects present spaces fighting against these dominant ideals by carving out alternative spaces they shape through various activities. In other words, through their lived experience, community gardens engage in activities that aid in producing and reproducing the notions of space according to their own understanding. By their very existence within these communities, some of the gardens communicate an alternate environment, especially in those

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gardens located on open areas highly visible to the rest of the community. Such community gardens possibly attract outside members into the garden space where they are educated on the value of gardening and its related benefits. While community gardens emerge for various reasons, the existence of community gardens in these areas on its own can serve as a stimulant for others to follow suit hence influencing conceived space. Community gardens usually engage in various social activities that promote interaction between their members and the broader community. This provides a platform for information dissemination that can shape the minds of the broader community. For example, some gardens conduct workshops for the community members on various issues such as crop cultivations and food activism. Garden aims such as 'turning the neighbourhood into a green forest' are also examples of how awareness can influence conceived space within the communities. Therefore, in these various ways, community gardening projects are engraved into the gardening members' lives and the rest of the community.

In terms of representations of space, community gardens lay several roles in educating and raising awareness of cultivation and other issues which affect their communities. Gardeners conduct their day-to-day activities and influence the community to engage in gardening at various levels. For instance, the results indicate that most of the gardeners joined their garden through word of mouth. As such, the gardeners are continuously disseminating information and giving new meaning to the idea of space and gardens within their communities. More people are becoming aware of community gardening and its benefits. This is partly demonstrated through the spike in new gardens that emerged during the pandemic. Although supporting actors may play a role in this respect, the community gardens themselves play a significant role not only through their cultivation activities. For example, this research demonstrates how this is achieved; through workshops, ilima events, and school programmes, among other activities. Some gardeners are engaged in movements that seek to raise awareness of the need to consume healthy produce. Some are organised to teach community members how to cultivate their crops and the benefits of such initiatives. Their mere presence may show potential gardeners a real-life example of what they may be contemplating doing.

Beyond the garden, some gardeners are uniting to promote the voice of urban cultivators across the city. Some of these community gardens are engaged in various other networks that seek to lobby for urban gardener needs across their localities. Such initiatives indicate urban gardeners' willingness to be active citizens who want to participate in the decision-making process,

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affecting them and their activities. According to Lefebvre (1991), there is a need for the state to consider the views of those who utilise the space before deciding on its use. Hence this is a perfect example of the gardeners attempting to participate in land-use management from a bottom-up perspective. In other words, community gardeners want to play an active role in decision-making processes that affect them. Various platforms make it possible to potentially influence policymakers and have them listen and address their concerns. In this way, they are making attempts to influence the conceived space in their communities. However, despite appearing to be places of collective action and sites for community development, community gardens have been significantly shaped by the city's neoliberal ideals.

9.3 Influence of the neoliberal environment on community gardening projects

The state plays a crucial role in influencing absolute space through its manipulation of conceived space. In this regard, representations of space are enforced through various means, such as laws and regulations and sometimes violent tactics and mechanisms (Lefebvre, 1991). Accordingly, the state has played a major role in influencing material and conceived space in Cape Town. The current spatial practices were influenced by several governments that governed the city since its inception; however, one government that had a significant impact in carving out inequality was the apartheid government. The apartheid government systematically developed the city along racial lines to ensure that certain races were separated. More specifically, legislation such as the *Group Areas Act of 1950* resulted in the forced removal of specific populations to the city's periphery, far away from economic opportunities. Furthermore, limited attention was given to these areas hence being termed the dumping ground of the apartheid government. Such areas were characterised by poor service delivery, limited open space, and several other social and economic problems that persist today. As expected, policing and violent tactics were adopted to ensure the implementation of these laws and regulations. In this way, the apartheid government could defragment the population and shape it according to their ideas. Traditionally urban agriculture was not permitted in urban centres under the apartheid system (Modibedi et al., 2021); hence it was not included in the urban planning models. This simultaneously shaped the representations of space because the practice was illegal and not mentioned in zoning plans, strategy documents, master plans, or any kind of documentation passed under the apartheid governments. Therefore, within the context of perceived spaces, the apartheid government influenced the city's urban design and the conceived space.

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Unfortunately, the legacy of the apartheid spatial planning is still very much visible years after its demise. Through local government and professional planners, the state continues to be the key player in the production of conceived space. The adoption of neoliberalist policies in the city has further intensified the polarisation between the wealthy and the poor populations through spatial and social segregation (Lemanski, 2007). Even post-apartheid urban agriculture received limited recognition from municipalities across the country, and it was only after much advocacy from international organisations and the academic community that the practise began to receive support. The literature shows that there was limited engagement in urban agriculture activities. Various reasons have been presented to explain this within the South Africa context, for example, the belief that gardening is a rural and dirty activity (Moller, 2005; Thornton, 2008). Based on this reason, it can be argued that the conceived space shaped individuals' lived experiences. The limited support for urban agriculture in the city played some part in perpetuating this belief as land for cultivation was not readily available. In some cases, municipalities went as far as damaging crops which were close to harvest to discourage urban cultivation (Rogerson, 1993:25). Therefore, the urban citizens had limited incentive to engage in urban agriculture activities. While there is still limited support of urban agriculture in terms of spatial planning, Cape Town has made significant strides in supporting the activity post-apartheid. This is seen through various government documentation such as the Urban Agriculture Policy of 2007, the Food Gardens Policy of 2013, Cape Town's Municipal Spatial Development Framework (MSDF) which communicates the spatial vision of a more inclusive and sustainable city and the continued promotion of urban agriculture as a livelihood option or coping strategy particularly in times of crisis for the poor. However, the state continues to shape conceived space in two main ways.

First, the state influences where urban community gardens emerge. The continued inaccessibility of land for cultivation affects conceived space and ultimately the lived experiences of the cultivator in the Cape Flats. As already indicated, the apartheid system did not permit urban agriculture activities, making no provisions for it in their spatial planning. Currently, accessing land is a challenging process, and hence urban community gardening projects are encouraged to seek land at alternate sites, such as school land. As indicated in the findings, some gardeners did not attempt to search for open space areas when they decided to start cultivating as a group because they already knew that this was difficult. In this way, they are conditioned to seek land in desired spaces rather than open vacant areas where land occupation is discouraged through various mechanisms such as difficulty accessing land tenure

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rights and limited resources access. Therefore, prospective gardeners are likely to seek land on alternative locations, which further perpetuates the idea that open spaces are not available for cultivation and urban agriculture cannot be fully included in spatial planning models. These mechanisms all feed into the directly lived experiences within these communities. For instance, these lived experiences are shared with prospective gardeners who come to know of the difficulty involved in accessing land and hence may be discouraged from engaging in the practice in the first place.

Second, the state influences the shaping the representations of space, where urban agriculture projects are viewed as a livelihood strategy for the urban poor. As indicated in an earlier chapter, the adoption of urban agriculture as a livelihood option for the urban poor is based on the failure to understand the food system and its complexities (Battersby, 2012). In addition to this, the present research argues that the continued promotion of urban agriculture as a food security tool is in line with the neoliberalisation of citizens within a neoliberal society. In such environments, the state adopts neoliberal policies that promote capitalist profit accumulations and individualise social-economic problems, especially in a crisis. The municipality, therefore, influences its citizens by encouraging urban cultivation as a self-help mechanism in the back yard or leased land. This all happens while ignoring the underlying problems of the neoliberal food system, which cause such problems.

A few major corporations are in control of the food system. These powerful elites determine the food flows, the prices, and the availability of food, and the types of food available across different communities (Haysom et al., 2017). These huge corporations push for a food system geared towards profit accumulation rather than meeting society's needs. This is evident in their actions, such as influencing food prices which reduces the ability of the poor to afford. Also, the food system has resulted in improved access to cheap and calorie-dense foods in low-income areas such as the Cape Flats. Despite this being the systematic cause of food insecurity issues in the country, the state does not do much to regulate the huge corporations as expected under a neoliberal market. Instead, one approach that seeks to address food insecurity is geared towards empowering the individual to produce their own food. This is despite the bulk of research and evidence that demonstrates that food insecurity is not an issue of food production (as the nation is food secure) but rather inadequate income to buy food a household level (Battersby, 2012; Crush & Frayne, 2011; Tsegay & Rusare, 2014).

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In this way, this system continues to shape the representations of space in these distressed communities where individuals are neoliberalised into active citizens to address problems in their communities. In the context of the unequal food system, the state advocating for smaller activities such as urban agriculture, especially in times of crisis, appears to be a piecemeal alternative to addressing the main underlying structural issues. It could be serving as a distraction to the overt underlying problems of the food system.

Besides the state, civil society actors perpetuate the neoliberalisation of citizens through their actions and effort to support the urban poor across the distressed townships in the Cape Flats. Within the uneven geographies across the city, urban residents in the marginalised community are the target of such programmes which encourage self-sufficiency. NPOs, through a combination of mentoring, skills, and tools that encourage gardens to utilise the available space to grow vegetables for home consumption. In other words, this encourages complacency within the environments where such individuals are located. Through a combination of these factors, this shapes their lived experiences where individuals engage in gardening projects intending to generate some income, and even when they fail, they blame themselves as poor entrepreneurs. The urban community garden is conceived as a tool for self-sufficiency against a systematic problem that has been developed and reinforced over many decades. Taken into context, the uneven development can be termed as a strategy that cultivates citizens to operate accordingly within the broader environment. Such strategies and programmes tend to focus on the behaviour of the community members rather than tackle the underlying issues of the food system, resulting in the limited availability of healthy food options. Furthermore, this is seen in some gardening projects that divide plots and activities to improve productivity, reducing the garden's collective capacity. As already evident, the issue of food security has colonial roots and has been perpetuated by neoliberal policies, which have resulted in the rapid expansion of malls and supermarkets in low-income townships which unfortunately only perpetuate poor food choices. In this way, it can be argued that the use of urban agriculture is meant to distract the urban citizens from the systematic failure of the system. Hence policy responses that focus on individuals growing food or making better food choices are stifled by the broader systematic environment.

9.4 Conclusion

This chapter adopted the spatial triad to examine how it affects social space production within the context of community gardening in the Cape Flats. It shows the power of the state in shaping

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spatial practises in townships. Furthermore, the triad is crucial in explaining how some community gardens challenge the city's dominant ideals of space and urban planning. Therefore, there is a disconnect between urban planning and space utilisation from the perspective of the state versus those who live in this area. This disconnect continues to be perpetuated by various players within the city.

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CHAPTER 10: CONCLUSIONS AND RECOMMENDATIONS

10.1 Introduction

This final chapter presents an overview of the research and a summary of the research findings. The chapter also provides the impacts of the research and highlights the research contribution to the knowledge gap. It concludes by suggesting some key recommendations that could be adopted to uplift urban community gardens in Cape Town. Chief among these is the organisation of urban gardeners across different townships to improve their ability to coordinate activities that seek to transform their communities.

10.2 Research overview

The overarching purpose of this research was to investigate urban community gardens as an activist tool to counter socio-spatial injustices in the Cape Flats. To fulfil this purpose, four interlinked objectives were formulated, namely, to explore the evolution of urban community gardens, to investigate their aims and functions as commons, to examine how they counter neoliberal injustices within the community, and examine how they engage with the state and non-state actors to accomplish their goals. The study adopted a mixed-methods research approach where qualitative and quantitative data collection methods and analysis were employed to fulfil these objectives. The primary data collection involved a questionnaire survey, semi-structured interviews, observations, and satellite photographs. A questionnaire survey involving 97 participants was employed across 34 urban community gardens in the study area. Semi-structured interviews with key informants were also conducted with selected key-informants, including lead gardeners, state officials, and civil society actors. Observations and satellite photographs were crucial in identifying the gardens' location in relation to the surrounding land-uses. The data was triangulated with content collected from various other sources such as organisation websites and state documents. Research ethics provided by the University were strictly adhered to in addition to the COVID-19 protocols throughout the research process. The research findings were analysed with reference to the literature and Lefebvre’s theoretical framework on social space production.

10.3 Conclusion

This research goes against the bulk of productivist centred research, which conceptualises urban agriculture in the global South as primarily a survivalist stratagem for poor households. This research has demonstrated that while urban community gardens engage in the practice for

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such purposes, the motivations usually extend beyond this basic reason. While urban community gardens are viewed as tools to address household food insecurity on the surface, this research shows that they play various roles in countering the dominant neoliberal system and its related ills. This research presents findings showing that urban community gardening projects can be viewed as a form of activism in varying degrees, implicit and sometimes explicit, against urban injustices faced in distressed neighbourhoods in Cape Town. Based on the surveyed community gardening projects' aims and activities, the findings indicate that community gardens contribute to their communities' development in small yet progressive ways that challenge the communities' societal ills. Many of these societal ills have been formed by the apartheid regime; however, these have been accentuated by neoliberal policies adopted by the state post-1994.

The research findings indicate the transformative potential of community gardening and its capacity to de-commodify the food system and present an alternative food option for the community. Urban community gardens offer a healthy food option that garden members can access. Moreover, the community gardens provide relatively cheap agro-ecological produce to the communities within which they operate. The community gardens provide food for schools, soup kitchens, and general members of the community. In this way, they contribute to food activism by improving economic and geographic access to healthy food options to garden members and the broader community including school children and teachers. Community gardens present spaces of socialisation and function as learning platforms on various issues faced by society. In collaboration with certain actors, urban community gardeners are educated and more conscious of their food choices and food rights. This has led to the emergence of activist communities fighting certain problems such as unhealthy food consumption. This research does not maintain that these actions are sufficient to challenge the mainstream food regime in the city. Nonetheless, they are purposeful actions; however small they may appear hence need to be recognised within the context of the broader environment. One good example is the possible involvement of some urban gardeners in shaping the local food system through the Food Policy Councils, which have been brought back to the fore as a result of the pandemic.

Most significantly, the research findings indicate that community gardens in the Cape Flats are an expression of self-organisation and collective management of urban spaces. While some studies have highlighted the social benefits of community gardening (Battersby & Marshak, 2013; Olivier & Heinecken, 2017b; Slater, 2010), a few have examined its organisational

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nature in relation to resources management. Contrary to most community gardening studies, most community gardens in the Cape Flats are located on public land, specifically school land. They do not follow the trend of the emergence of urban community gardening activities on vacant spaces made available due to property crashes (see Corcoran, Kettle, & O'Callaghan, 2017). In this respect, they do not provide much resistance against neoliberal urban land-use. Nonetheless, the community garden sites reflect the collective organisation and management of the spaces which they occupy. The findings also indicate that most gardeners operate based on democratic systems when implementing their activities and making decisions about the garden. This collective management of resources shows how urban community gardens function as pockets of urban commons within the neoliberal city. Community gardens promote civic engagement for the communities and, to a lesser extent, provide economic self-reliance for gardeners. Some community gardens have transformed unsustainable land-use used as dumping sites into food production and community building spaces. Therefore, this research agrees with scholars such as Kato et al. (2014) and Pottinger (2017), who argue that activism can appear in various forms that may be explicit or implicit. Indeed, some of the acts presented in this research indicate explicit political gardening were some community gardens consciously seek to transform their communities while other gardens are making such small transformative steps unconsciously.

However, in examining urban community gardens' capacity to address socio-economic injustices, various institutional and systemic elements stifle the progressive nature of community gardening projects. Currently, most community gardens operate in marginal spaces, with temporary land tenure and limited opportunity for expansion. Hence, this reduces the capacity of gardens to 'answer to the failures and injustices of neoliberal urban environments' (Tornaghi, 2017:782). The case of community gardens in the Cape Flats is in line with critical literature that presents the dual nature of community gardening within neoliberal environments (Bach & McClintock, 2020; Bródy & de Wilde, 2020; Ernwein, 2017; Ghose & Pettygrove, 2014; McClintock, 2014); hence their potential for transformation can be compromised and subdued (Kato et al., 2014). Stated differently, the urban community gardening projects function both as a tool of domination and resistance (Haskaj, 2020), as illustrated in the figure below.

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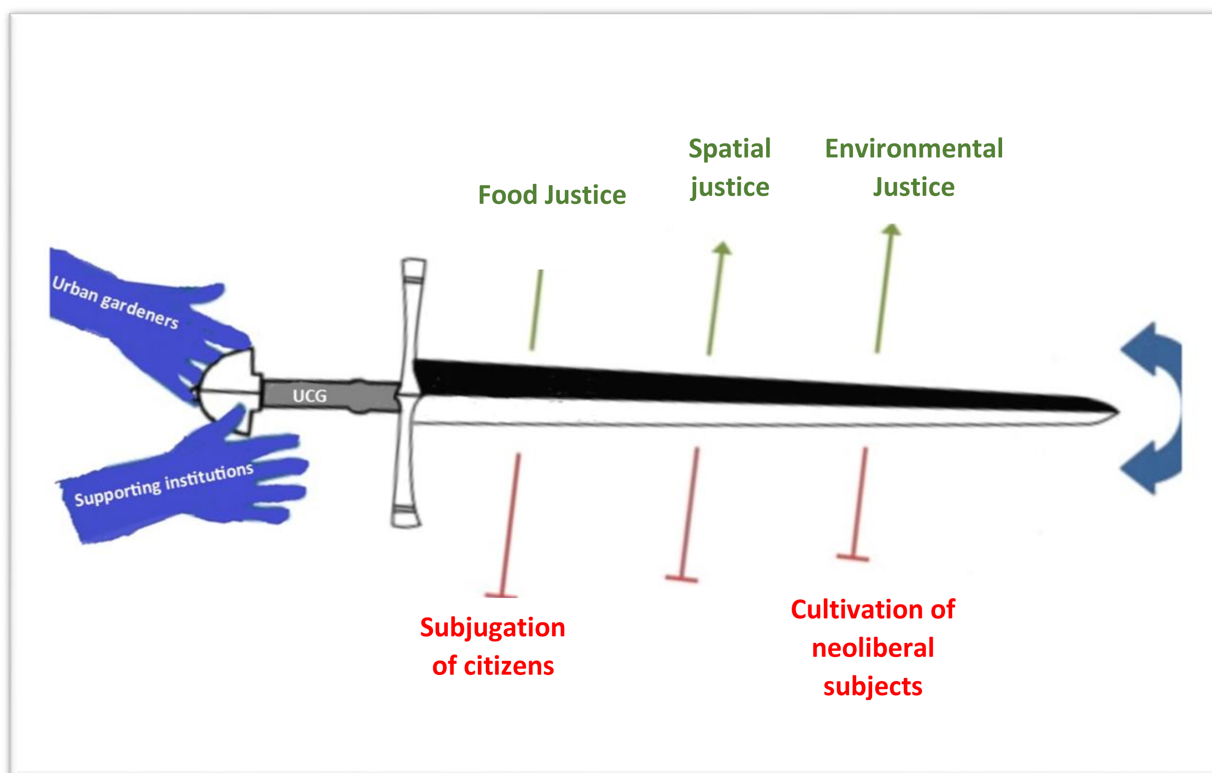

Figure 10. 1: The urban community gardening dichotomy (Author, 2020)

In line with this literature, urban community gardening projects perform duplicate roles of countering neoliberalism while simultaneously perpetuating it (Fig. 10.1). The study shows that the practice of community gardening is characterised by several stakeholders that control or influence urban gardening in one way or another. As a result, community gardens in the Cape Flats are not immune to such influences but instead are weaved into the city's broader neoliberal context. For instance, most gardeners are subjected to a neoliberal mind-set of self-help and are conditioned to take responsibility for the failed system that exposes them to food and nutrition insecurity.

The local government plays a significant role in controlling where community gardens appear in the Cape Flats. Inaccessibility to land is the legacy of the apartheid government, but it also is the current government's inheritance. The difficulty of obtaining land coupled with the encouragement of gardens on school land where tenure is easily obtained has resulted in gardens sprouting in specific areas. In this way, the local government influences where gardens occur. Furthermore, the narrative that community gardens are the panacea to food security has been grossly exaggerated but is still maintained by local institutions. The idea that urban gardening can generate income has been preached so much that it has been common sense to

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believe so despite the literature which suggests otherwise. In this way, governmental programmes are in line with neoliberal politics, which encourage individualisation and entrepreneurship (Barron, 2017; Guthman, 2008; McClintock, 2014; McClintock et al., 2017), as opposed to addressing the systematic issues which have resulted in the mass levels of inequality in Cape Town. Hence, increasing economic self-reliance blends with the neoliberal trait of linking social welfare to voluntary participation. The difficulty of obtaining land, limited sizes of land provided in light of the several other challenges urban gardeners face do not seem to go in line with the promise of economic benefits.

Supporting actors such as NPOs, and activist organisations support several gardens and have been doing so for a long time. Indeed, they have been able to educate the gardeners on good agriculture practices and healthy food consumption. In this way, they have played a significant role in increasing the conscientization of urban gardeners on issues surrounding urban agriculture and its multiple benefits and potential to address environmental and social issues in these distressed communities. However, their support programmes appear to be underpinned by neoliberal elements as well. Some supporting actors promote social enterprise initiatives within these communities where the market is seen as a solution to the problems. Community gardeners are educated to believe that it is their responsibility to address poor dietary habits through cultivation. This is in line with neoliberal governmentality, which suggests that the state has no role in any of these activities. Hence rather than address the structural issues such as markets, the problems are moved to the individual. Indeed, some non-state actors are aware of this and are caught in the crosshairs of realising that while systematic change can take a long time, there are people who need assistance at present.

Collectively, both the state and civil society use urban agriculture intentionally or unintentionally to cultivate neoliberal citizens. State and non-state actors pursue entrepreneurial approaches to implement urban agriculture activities in the city rather than address the deeper structural causes of social ills within these communities. In other words, we see a situation where the urban poor are simply integrated into the neoliberal system through efforts that promote self-sufficiency while conditioning the citizens to believe it is their fault that they are in a precarious situation.

10.4 Contribution to the knowledge

Through the use of the Cape Flats as a case-study, this research contributes to the literature on political gardening in several ways. Firstly, most studies focusing on urban community

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gardening as a form of politics have focused mainly on global North countries (Gray et al., 2020). Research on urban agriculture as a form of activism remains underrepresented in the global South (Siebert, 2020). This has largely been due to the conceptualisation of cultivation between the two regions culminating in an either-or mentality and the subsequent divide in study focus. This does not imply that no studies have focused on the benefits of urban gardening activities, for instance, social capital creation (Olivier & Heinecken, 2017b) or urban gardener networks (Kanosvamhira, 2021; Kanosvamhira & Tevera, 2021). However, none of such studies have explored the aims and activities of gardens as a form of activism. Therefore, this research adds to this gap in the knowledge by exploring political gardening from a global South post-colonial city. Against the socio-economic context and history of South Africa, this study has shown the capacity of urban community gardens to function as an activist tool. It comes when there is a resurgence of urban gardening activities across many areas within the city. As already highlighted, such activities are not always about gardeners simply feeding themselves but are an attempt to counter various community ills. In this way, this research broadens the understanding of the motivations behind urban agriculture activities in the global South. It shows that engaging in urban agriculture activities goes beyond basic motivations such as the ability to generate income or meet household food security, but these can be deep-seated into activist attempts against a capitalist system that results in several societal problems.

The research also adds to the literature on urban commons that a few scholars have theoretically discussed (see Eizenberg, 2012; Follmann & Viehoff, 2015). More so, limited literature in the global South has examined urban community gardens as a form of commoning. Unlike most studies that focus on urban community gardens in open spaces, this study provides a different perspective by indicating how urban community gardens on public land such as schools also exhibit elements of the 'unperfected' common. This has been demonstrated by showing how the community gardens within their limitations function as a space where resources are managed collectively in various degrees. In this way, although the land is not public, it shows us an alternative manner in which resources could be collectively managed. Beyond urban commons, the research also adds to the literature by showing how urban community gardens function as sites where information commons are created. This research indicates that some gardeners are quite aware of the limitations of their garden sizes. However, they utilise these sites as spaces for cultivating ideas they seek to share with the broader community at no cost through free workshops, WhatsApp groups, and other informal means. In other words, community gardens are leveraged as geographies through which ideas are cultivated and

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disseminated to the broader community to improve community conscientisation of societal problems.

Several scholars across urban studies have used the Lefebvrian analysis within the context of neoliberalism; however, a few have applied it to urban gardening. This theoretical guide has proved beneficial in unpacking the nuanced reasons behind some of the main issues that have been highlighted in urban agriculture studies, for example, land tenure insecurity and the promotion of agriculture as a livelihood option. Indeed, existing literature has shown how and why such issues continue to exist; however, the use of the framework adds to the literature by enhancing our understanding of the basis for such issues and their connections. For instance, the connection between urban food security and urban agriculture and how these stem from adopting a ruralist approach to addressing hunger. In addition to this, it shows how these strategies are all entrenched in a neoliberal system that functions to cultivate urban citizens in a particular manner. While these results indicate that the actual geographies of production barely provide resistance against land-use planning, they are equally crucial in the fight against it. This is evident in most gardeners' participation in several movements, such as the PHA campaign. This research also indicates that resistance and subversion ideas can be cultivated against the neoliberal hegemony regardless of the garden location. In other words, resistance is not tied to a particular locale but can be breaded in an individual and emanates in various forms.

Finally, a handful of studies have examined urban agriculture and obtained insights into its implications in working beyond the neoliberal environment while simultaneously being influenced by it. This research showed how urban community gardens function as activist tools to counter specific localised problems within the communities while at the same time showing how the broader environments work against them. It shows the tug-of-war nature between those using the practice either as a tool for domination or resistance within the neoliberal city.

10.5 Recommendations

The research findings indicate that urban community gardens can address various injustices in the Cape Flats. Based on the research findings, the following recommendations are suggested to enhance the benefits of urban community gardening projects in Cape Town.

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- **Policy:** This needs to be driven by the City of Cape Town. Urban agriculture appears to be a permanent feature of the city. Therefore, there is a need for more recognition and involvement of such activities in long-term developmental policy documents, such as land-use planning. The formulation of such policies should follow an iterative process of consultation with the appropriate stakeholder, especially at a grassroots level, to ensure that the final product sufficiently represents the people's will. Consultation with other stakeholders such as civil society groups and also research groups cannot be overemphasised. Such policies need to be effectively communicated to the beneficiaries in a language they can understand at the lowest level, for instance, through the ward councillors or workshops. Furthermore, the success of such policies or programmes hinges on effective implementation. Therefore, adequate human and financial resources are required for the success of any initiatives adopted. For instance, better communication and procedures can help improve land access since the COCT consists of several departments. It is essential that governments and institutions that implement poverty reduction strategies set-up robust internal systems to manage and evaluate performance. Programmes need to consider reliable feedback from the beneficiaries and relevant stakeholders and be fed into the programmes' reconfiguration. For instance, in terms of food security, the state needs to engage in an intervention that results in the transformation of the unequal food system rather than promote self-help programmes that do not address the structural issues resulting in inequality.

- **Partnerships:** These need to be driven by civil society actors in collaboration with urban gardener networks. While the coordination of activities appears to have improved, more can be done within and among institutions. Various actors conduct their activities to meet multiple objectives that are not necessarily in line with one another. The civil society landscape is a somewhat competitive landscape instead of a collaborative landscape. Partnerships should ideally be set around a shared vision that reflects the interest of those engaging in the practice.

- **Developmental programmes**: Indeed, the literature clearly shows that urban agriculture's contribution to food security and poverty alleviation is exaggerated. Therefore, supporting actors such as NPOs need to ensure that programmes implemented to address social ills in low-income areas challenge structural issues of poverty in the long-term rather than overselling urban agriculture's capacity as a short-

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term panacea to the challenges in distressed communities. While the needs of the urban gardeners across the city may vary, urban agriculture programmes need to consider the multi-faceted benefits of the capacity of the practice, i.e., economic, social, environmental, and psychological benefits. Moreover, supporting organisations need to adopt programmes that focus on the entire lifecycle of food issues. For example, in promoting food sovereignty practices, supporting organisations can encourage food production and facilitate the marketing of produce through cooperatively owned supermarkets or spaza stores. Such a value chain approach can help in creating localised economies. More significantly, supporting organisations need to advocate and lobby for a change in the current food system.

- **Urban community gardener organisation and networking:** while urban gardening projects possess the capacity to address specific challenges within the communities, there appears to be limited synergies and coordination of events between community gardening projects. Hence, community gardening projects need to continue to improve their level of organisation to present a more unified voice that can effect change at local levels. With the improvement in synergies among stakeholders, there is a better chance that they can engage with influential stakeholders to influence change in a progressive manner. Moreover, the community gardening projects need to acknowledge the broader neoliberal context in which they operate to engage in informed decision-making processes and programmes to enhance their social agendas.

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APPENDICES

Appendix i: Questionnaire for community gardeners

Faculty of Art, Department of Geography and Environmental Studies

Private Bag X17, Bellville 7535, Cape Town, South Africa

Telephone :(021) 959 3858/6 Fax: (021) 959 3865

Dear Sir/Madam

Questionnaire for a study on urban community gardens and urban justice in the Cape Flats of Cape Town

My name is Tinashe Kanosvamhira, and I am currently studying for a Doctoral Degree in Geography at the University of the Western Cape, Cape Town, South Africa. I am conducting a research project which seeks to investigate how urban community gardens counter urban justice in the Cape Flats of Cape Town. I would greatly appreciate it if you would participate in this study by answering the questions in the attached research questionnaire. Please be assured that the findings of this study will be used for academic purposes only. The information you give will be treated with confidentiality and you are not required to provide your name for the sake of maintaining anonymity. Participation in this study is voluntary and you can withdraw if you feel uncomfortable at any stage of the study.

Your time and patience in answering the questionnaire are much appreciated.

__________________ ____________________

Tinashe Kanosvamhira — Prof. D. Tevera

Researcher — Supervisor

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Questionnaire_ for Community Garden Members

Please tick the appropriate box.

SECTION ONE: BACKGROUND INFORMATION				
S/N	**Question**	**Reponses Categories**	√	Codes
1	Migration History	Born in Cape Town		1
		Migrated from another town		2
		Others Specify		3
2	How long have you lived in Cape Town	Less than one year		1
		1-3 years		2
		4-6 years		3
		7-9 years		4
		10+Years		5
3	What is your ethnicity	Black		1
		Coloured		2
		Other - specify		3
4	What is your gender?	Male		1
		Female		2
5	What is your age?	Less 29		1
		30-39 years		2
		40-49 years		3
		50-59 years		4
		60+years		5
6	What is your marital status?	Single		1
		Married		2
		Widowed		3
		Separated or Divorced		4
		Other- specify		5
7	What is your highest level of education?	No formal education		1
		Completed Primary (Grade 1-7)		2
		Completed Secondary (grade 8-12)		3
		Completed grade 12/post matric		4
		University degree		5
		Other- indicate		6
8	What is your current employment status?	Not employed		1
		Self-employed		2
		Formally Employed		3
		Other- specify		4
9	What is your main source of income?	Employment		1
		Garden activities		2
		Government Grant		3
		Other		4
10	What is your household's main source of food?	Buy from supermarkets/tuck shops		1
		Friends and relatives		2
		Garden activities		3
		Other specify:		5
11	Including yourself, how many people are in your household?	1-2		1
		3-4		2

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		5-6		3
		More than 6		4
SECTION TWO: GARDEN CHARACTERISTICS & MEMBERSHIP INFORMATION				
12	Location of Garden	Mitchells Plain		1
		Gugulethu		2
		Khayelitsha		3
		Ottery		4
		Other		5
13	Name of garden			
15	When did you join this garden?			
16a	Why did you decide to become a member? (tick appropriate)	Social reasons		1
		Economic reasons		2
		Health reasons		3
		Environmental reasons		4
	What are some of these reasons?			
16b	Can you explain the process of joining the garden_			
17	Are you aware of the aims of the garden?			
18	What do you do with produce you get from the garden?	Household consumption		1
		Sell		2
		Shared		3
		Other(specify)		4
19	Is the sustainability of your garden under threat?	Yes		1
		No		2
	If yes from what?			
SECTION THREE: RESOURCE UTILIZATION				
25	**Component**	**Style of Use**		
	Are you happy with how the infrastructure is collectively/individually used in the garden?	Yes		1
		No		2
	If not how do you think it can be improved?			
	Are you happy with how Land is collectively/individually used in the garden?	Yes		1
		No		2
	If not how do you think it can be improved?			
	Are you happy with how produce is collectively/individually used in the garden?	Yes		1
		No		2
	If not how do you think it can be improved?			
	Are you happy with how labour is collectively/individually used in the garden?	Yes		1
		No		2
	If not how do you think it can be improved?			
		Yes		1

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	Are you happy with how resource units (seeds, compost etc) is collectively/individually used in the garden?	No		2
	If not how do you think it can be improved?			
SECTION 4: ENGAGEMENT WITH STAKEHOLDERS				
26	Do you receive support from the DOA?	Yes		1
		No		2
26b	If yes, How would you describe your relationship with Provincial Government? Department of Agriculture/	Poor		1
		Average		2
		Good		3
27	Do you receive support from DSD?	Yes		1
		No		2
27b	If yes, How would you describe your relationship with Provincial Government - Department of Social Development	Poor		1
		Average		2
		Good		3
28	Do you receive support from City of Cape Town?			1
				2
28b	If yes, How would you describe your relationship with Local Government? City of Cape Town	Poor		1
		Average		2
		Good		3
29	Does your garden have any relationship with other stakeholder?	Yes		1
		No		2
30b	If yes which actor	Private sector		1
		Civil society- NPO		2
		Both		3
30c	How would you describe your relationship with the actor?	Poor		1
		Average		2
		Good		3
31	How do you mobilise for assistance?			

THANK YOU FOR YOUR PARTICIPATION

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Questionnaire Arikaans version

Dear Sir/Madam

Questionnaire for a study on urban community gardens and urban justice in the Cape Flats of Cape Town

My naam is Tinashe Kanosvamhira, en ek studeer tans vir 'n doktorsgraad in aardrykskunde aan die Universiteit van die Wes -Kaap, Kaapstad, Suid -Afrika. Ek is besig met 'n navorsingsprojek om te ondersoek hoe stedelike gemeenskapstuine stedelike geregtigheid in die Kaapse Vlakte van Kaapstad teenstaan. Ek sal dit baie waardeer as u aan hierdie studie sou deelneem deur die vrae in die aangehegte navorsingsvraelys te beantwoord. Wees verseker dat die bevindinge van hierdie studie slegs vir akademiese doeleindes gebruik sal word. Die inligting wat u gee, word vertroulik hanteer, en u hoef nie u naam te verskaf ter wille van die anonimiteit nie. Deelname aan hierdie studie is vrywillig en u kan onttrek as u in enige stadium van die studie ongemaklik voel.

U tyd en geduld om die vraelys te beantwoord word baie waardeer..

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Vraelys_ Vir die Gemeenskap tuinlede

Merk asseblief die toepaslike blokkie.

AFDELING EEN: AGTERGROND INLIGTING				
S/N	Vraag	Antwoorde: Kategorieë	√	Kodes
1	Migrasie Geskiedenis	Gebore in Kaapstad		1
		Uit 'n ander dorp migreer		2
		Uit 'n landelike gebied migreer		3
		Spesifiseer indien anders:		4
2	Hoe lank woon jy in the Cape Town?	Minder as 'n jaar		1
		1-3 jare		2
		4-6 jare		3
		7-9 jare		4
		10+Jare		5
3	Wat is jou geslag?	Manlik		1
		Vroulik		2
4	Hoe oud is jy?	Minder as 18 jaar		1
		18-24 jaar		2
		25-31 jaar		3
		32-38 jaar		4
		39-45 jaar		5
		46-52 jaar		6
		53-59 jaar		7
		60+Jaar		8
5	Wat is jou huwelikstatus?	Ongetroud		1
		Getroud		2
		Weduwee/Wewenaar		3
		Geskei		4
		Spesifiseer indien anders:		
6	Wat is U/jou hoogste vlak van onderwys?	Geen formele opvoeding		1
		Primêr vlak voltooi (Graad 1-7)		2
		Sekondêre vlak voltooi (Graad 8-12)		3
		Graad 12 voltooi/ na matriek		4
		Universiteit graad		5
		Ander (spesifiseer):		6
7	Wat is U/jou huidige werk status?	Werkloos		1
		Eie onderneming		2
		Werk		3
		Werk deeltyds		4
8	Wat is U/jou hoof bron van inkomste?	Tuinmaak		1
		Familielede		2
		Regeringstoelae		3
		NRO ondersteuning		4
		Spesifiseer ander:		5
9	Wat is U/jou huishouding se hoof voedselbron?	Koop by supermarkte/ snoepwinkel		1
		Vriende en familielede		2
		Tuindienste		3
		NRO's		4
		Spesifiseer anders:		5
10		1-2		1

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	Ingesluit met jou/U-self, uit hoeveel mense bestaan U/jou huishouding?	3-4		2
		5-6		3
		Meer as 6		4
11	Wat is die aard van U/jou verblyfstatus?	Eienaar		1
		Huur		2
AFDELING TWEE: TUINKENMERKE EN LIDMAATSKAPINLIGTING				
12	Plek van die tuin Tuin koördinate………………….. Tuin grootte…………………………..	Mitchells Plain		1
		Gugulethu		2
		Khayelitsha		3
		Ander		4
13	Naam van die tuin			
14	Wanneer het hierdie tuin begin?			
15	Wanneer het jy aangesluit by die tuin?			
16a	Wanneer het jy 'n lid geword?			
16b	Wat is die doelwitte van die tuin?			
16c	Rangskik dit asseblief in volgorde van belang			
16d	Het die doelwitte van die tuin oor die jare verander?			
17	Op watter maniere het die organisasie sy strukture en doel verander? Wat is die hoofdoel van U/jou organisasie vandag?			
18a	Kan jy asseblief verduidelik hoe iemand 'n lid word van die tuin organisasie?			
18b	Volg die tuin reëls?			
19	Hoe word lidmaatskap in die tuin beëindig?			
19	Wat word in die tuin gekweek?			
20	Wat doen jy met dit wat geproduseer word?	Huishoudelike gebruik		1
		Verkoop		2
		Deel		3
		Ander (spesifiseer):		4
21	Wie het toegang tot die tuin?	Slegs tuinlede		1
		Tuinlede en die gemeenskap		2
22	Wie sorg vir die tuin en vind baat daarby?	Slegs tuinlede		1
		Tuinlede en die gemeenskap		2
23	Die tuin is geleë op wie se eiendom?	Munisipaliteit grond		1
		Privaat grond		2
		Skool		3
		Ongemagtigde plek		4
		Ander (spesifiseer):		

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24	Word die volhoubaarheid van U/jou tuin bedreig?	Ja		1
		Nee		2
	Indien ja, wat bedreig dit?			

AFDELING DRIE: BENUTTING VAN HULPBRONNE

25	**Komponent**	**Gebruikstyl**		
	Infrastruktuur	Individueel		1
		Individuele/Gesamentlike		2
		Gesamentlik		3
	Land	Individueel		1
		Individuele/Gesamentlike		2
		Gesamentlik		3
	Produseer	Individueel		1
		Individuele/Gesamentlike		2
		Gesamentlik		3
	Arbeid	Individueel		1
		Individuele/Gesamentlike		2
		Gesamentlik		3
	Hulpbroneenhede	Individueel		1
		Individuele/Gesamentlike		2
		Gesamentlik		3

AFDELING VIER: BETROKKENHEID MET BELANGHEBBENDES

26a	Hoe sou jy jou verhouding beskryf met die volgende: Provinsiale Regering, Departement van Landbou en Departement van Maatskaplike Ontwikkeling?			
26b	Hoe sou jy jou verhouding met die Plaaslike Regering beskryf?			
27	Watter platvorms gebruik jy/U om met die bogenoemde outoriteit te kommunikeer?			
27b	Hoe effektief is hierdie platvorms?			
28	Hoe gereeld gebeur dit?			
28b	Wat is U/jou mening oor die vlak van betrokkenheid met die verskillende owerhede?			
28c	Hoe kan die interaksie tussen die verskillende owerhede verbeter word?			
29	Het U tuin 'n verhouding met ander belanghebbendes?	Ja		1
		Nee		2
30	Indien ja, watter belanghebbende?	Privaat sektor		1
		Burgerlike samelewing- NRO		2
		Albei		3
31	Watter soort hulp ontvang jy/U van die ondersteunende belanghebbendes?	Materiële ondersteuning - insette, infrastruktuur		1
		Nie-materiële ondersteuning- opleiding, monitering		2
		Al die bogenoemde		3

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32	Hoe ryk U/jy uit vir hulp?			

DANKIE VIR U DEELNAME

Dear Sir/Madam

Questionnaire for a study on urban community gardens and urban justice in the Cape Flats of Cape Town

My name is Tinashe Kanosvamhira, and I am currently studying for a Doctoral Degree in Geography at the University of the Western Cape, Cape Town, South Africa. I am conducting a research project which seeks to investigate how urban community gardens counter urban justice in the Cape Flats of Cape Town. I would greatly appreciate it if you would participate in this study by answering the questions in the attached research questionnaire. Please be assured that the findings of this study will be used for academic purposes only. The information you give will be treated with confidentiality and you are not required to provide your name for the sake of maintaining anonymity. Participation in this study is voluntary and you can withdraw if you feel uncomfortable at any stage of the study.

Your time and patience in answering the questionnaire are much appreciated.

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Questionnaire_ for Community Garden Members

Please tick the appropriate box.

SECTION ONE: BACKGROUND INFORMATION				
S/N	**Question**	**Reponses Categories**	**√**	**Codes**
1	Imvelaphi yakho?	Uzalelwe eKapa?		1
		Usuka kwenye idolophu?		2
		Ezinye ezicacisiweyo		3
2	Uhlale ixesha elingakanani e Cape Town	Ngaphantsi konyaka		1
		1-3 iminyaka		2
		4-6 iminyaka		3
		7-9 iminyaka		4
		10+ iminyaka		5
3	Ubuhlanga	Umnyama		1
		Ibala		2
		Obunye ubuhlanga		3
4	Isinini sakho??	Indoda		1
		Umfazi		2
5	Iminyaka yakho?	Ngaphantsi kweminyaka eyi 29		1
		30-39 iminyaka		2
		40-49 iminyaka		3
		50-59 iminyaka		4
		60+ iminyaka		5
6	Ubume bomtshato?	Umnye		1
		Utshatile		2
		Umhlolokazi		3
		Ahlula		4
		Ezinye ingcazelo		5
7	Imfundo ephakamileyo?	Imfundo esemgangathweni		1
		Ugqibe Primary (Grade 1-7)		2
		Ugqibe Secondary (grade 8-12)		3
		Ugqibe grade 12/post matric		4
		Iyunivesithi		5
		Ezinye ingcazelo		6
8	Indawo oxilonga kuyo ngoku?	Awuphangeli		1
		Uziqashile		2
		Uziqashile ngokomthetho		3
		Ezinye ingcazelo		4
9	Isimo sofumana imali?	Uqashiwe		1
		Imisebenzi yengadi		2
		Isibonelelo sikarhulumente		3
		Ezinye		4
10	Indawo ofumana kuyo isidlo semihla?	Uthenga ezivenkileni		1
		Abahlobo okanye usapho		2
		Imisebenzi yengadi		3
		Ezinye		5
11	Kunye nawe, nibabangaphi ekhaya?	1-2 iminyaka		1
		3-4 iminyaka		2
		5-6 iminyaka		3
		Ngaphezulu ko 6		4

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SECTION TWO: GARDEN CHARACTERISTICS & MEMBERSHIP INFORMATION				
12	Indawo yegadi?	Mitchells Plain		1
		Gugulethu		2
		Khayelitsha		3
		Ottery		4
		Other		5
13	Igama legadi?			
15	Wangena nini?			
16a	bekutheni ukuze ubelilungu le gadi?? (tick appropriate)	Izizathu zentlalo		1
		Izizathu zoqoqosho		2
		Izizathu zempilo		3
		Izizathu zendalo		4
	bekutheni ukuze ubelilungu le gadi??			
16b	Can you explain the process of joining the garden_			
17	Injongo zalegadi?			
18	Ingaba wenza njan ngemfuyo ephuma egadini?	Uyisebenzisa endlini		1
		Uyayithengisa		2
		Uyayohlula		3
		Ezinye		4
19	ngabe lengadi iphantsi kocinezeleko?	Ewe		1
		Hayi		2
	Ubangaba ewe, kwintoni?			
SECTION THREE: RESOURCE UTILIZATION				
25	**Component**	**Style of Use**		
	Ingaba uyavumelana nesakhelo esisetyenziswe ngokukodwa kulengadi?	Ewe		1
		Hayi		2
	Ukuba awuvumelani naso, ucinga ingaphuculwa njan?			
	Ingaba uyavumelana ngendlela ekusetyenziswe ngayo lomhlaba ngokukodwa kulengadi?	Ewe		1
		Hayi		2
	Ukuba akunjalo, ucinga ingaphuculwa njani?			
	Ingaba uyavumelana nemifuno esetyenziswe ngokukodwa kulengadi?	Ewe		1
		Hayi		2
	Ukuba akunjalo, ucinga ingaphuculwa njani?			
	Ingaba uyavumelana ngomsebenzi owenziwe ngayo kulengadi?	Ewe		1
		Hayi		2
	Ukuba akunjalo, ucinga ingaphuculwa njani?			
	Ingaba uyavumelana ngezixhobo nembotyi nemixube esetyenziswe kulengadi?	Ewe		1
		Hayi		2

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	Ukuba akunjalo, ucinga ingaphuculwa njani?			
SECTION 4: ENGAGEMENT WITH STAKEHOLDERS				
26	Uyalifumana uxhaso kurhulumente wezilimo? (DOA)?	Ewe		1
		Hayi		2
26b	Bunjani ubuhlobo bakho kunye no Government okanye umphathi we zelimo?	Abukho		1
		Buncinci		2
		Buhle		3
27	Uyalifumana uxhaso ku DSD?	Ewe		1
		Hayi		2
27b	Bunjani ubuhlobo bakho kunye no Provincial Government -Department of Social Development okanye umphathi we zelimo	Abukho		1
		Buncinci		2
		Buhle		3
28	Uyalifumana uxhaso kwisiXeko saseKapa?			1
				2
28b	Bunjani ubuhlobo bakho kunye nesiXeko saseKapa okanye umphathi we zelimo	Abukho		1
		Buncinci		2
		Buhle		3
29	Ingaba ingadi yakho inabo obunye ubuhlobo nabanye abaphathi?	Ewe		1
		Hayi		2
30b	Ukuba kunjalo ngeyiphi?	Ishishini elizimeleyo		1
		Imibutho yoluntu - NPO		2
		Zombini		3
30c	Ungayichaza njani ubudlelwano bakho nobunxalenye?	Abukho		1
		Buncinci		2
		Buhle		3
31	Uhambisa ngantoni uncedo olufumanayo kwabaxhasi?			

Enkosi

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Appendix ii: Semi-structured interview guide for urban gardeners

Faculty of Art, Department of Geography and Environmental Studies

Private Bag X17, Bellville 7535, Cape Town, South Africa

Telephone :(021) 959 3858/6 Fax: (021) 959 3865

Dear Sir/Madam

Interview guide for a study on urban community gardens and urban justice in the Cape Flats of Cape Town.

My name is Tinashe Kanosvamhira and I am currently studying for a Doctoral Degree in Geography at the University of the Western Cape, Cape Town, South Africa. I am conducting a research project which seeks to investigate how urban community gardens counter urban justice in the Cape Flats of Cape Town. I would greatly appreciate it if you would participate in this study by participating in this interview. Please be assured that the findings of this study will be used for academic purposes only. The information you give will be treated with confidentiality and you are not required to provide your name for the sake of maintaining anonymity. Participation in this study is voluntary and you can withdraw if you feel uncomfortable at any stage of the study.

Your time and patience in answering the questionnaire is much appreciated.

________________ ________________

Tinashe Kanosvamhira Prof. D. Tevera

Researcher Supervisor

http://etd.uwc.ac.za/

Interview guide: Community garden leader/representative

1. What is the aim/mission of the garden?
2. What has changed about the garden over the course you have been a member in terms of memberships, aims?
3. What do you grow in your garden, and why?
4. How are resources used in the garden and why in that particular way?
5. What are the good things about community gardening to your members and to the community?
6. How was this garden established?
7. What activities are conducted at the garden?
8. How is the garden structured? Is there any membership fee? Lease agreement?
9. Does it follow specific rules? How are these rules formulated and enforced? Is there a joining fee?
10. What challenges you about community gardening?
11. Who is touched by your gardening, and how?
12. How can gardeners, gardening organisations and researchers work together better?
13. How can people at risk (like people without a safe place to live, or troubled youth) take part?
14. Can you explain the membership procedure of your garden? Is it still open
15. How best can you describe your relationship with local authority, NPOs?
16. Has there been collaboration or cooperation to achieve your aims with above named actors?
17. Is the garden a part of any activist groups?
18. How do you think your garden and its activities transform the community?
19. Are there any issues your garden as a whole seeks to address/ and if so how?

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Appendix iii: Semi-structured interview guide for State officials

Faculty of Arts and Humanities, Department of Geography and Environmental Studies

Private Bag X17, Bellville 7535, Cape Town, South Africa

Telephone :(021) 959 3858/6 Fax: (021) 959 3865

Dear Sir/Madam

Interview guide for a study on urban community gardens and urban justice in the Cape Flats of Cape Town

My name is Tinashe Kanosvamhira and I am currently studying for a Doctoral Degree in Geography at the University of the Western Cape, Cape Town, South Africa. I am conducting a research project which seeks to investigate how urban community gardens counter urban justice in the Cape Flats of Cape Town. I would greatly appreciate it if you would participate in this study by participating in this interview. Please be assured that the findings of this study will be used for academic purposes only. The information you give will be treated with confidentiality and you are not required to provide your name for the sake of maintaining anonymity. Participation in this study is voluntary and you can withdraw if you feel uncomfortable at any stage of the study.

Your time and patience in answering the questionnaire is much appreciated.

_________________ _________________

Tinashe Kanosvamhira Prof. D. Tevera

Researcher Supervisor

http://etd.uwc.ac.za/

Interview guide: City of Cape Town official, Department of Agriculture Official, NPO officials

1. Please state your position within the organisation?
2. How best would you describe your relationship with community gardens in the Cape Flats?
3. What is the stance of your organisation in terms of community garden development?
4. Have you provided support for this garden in any way?
5. If so, please provide further information in terms of the type of support?
6. What are the main services you provide for community gardens?
7. Are there any services that are difficult to implement?
8. What are the biggest obstacles to the sustainability of community gardens?
9. Which of their activities do you promote in your work?
10. How does community garden develop clash with the vison of your institution?
11. What are the main challenges your organisation faces in supporting urban community gardens?

THANK YOU FOR YOUR PARTICIPATION

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Appendix iv: Semi-structured interview guide for non-state actors

Faculty of Arts and Humanities, Department of Geography and Environmental Studies

Private Bag X17, Bellville 7535, Cape Town, South Africa

Telephone :(021) 959 3858/6 Fax: (021) 959 3865

Dear Sir/Madam

Interview guide for a study on urban community gardens and urban justice in the Cape Flats of Cape Town

My name is Tinashe Kanosvamhira and I am currently studying for a Doctoral Degree in Geography at the University of the Western Cape, Cape Town, South Africa. I am conducting a research project which seeks to investigate how urban community gardens counter urban justice in the Cape Flats of Cape Town. I would greatly appreciate it if you would participate in this study by participating in this interview. Please be assured that the findings of this study will be used for academic purposes only. The information you give will be treated with confidentiality and you are not required to provide your name for the sake of maintaining anonymity. Participation in this study is voluntary and you can withdraw if you feel uncomfortable at any stage of the study.

Your time and patience in answering the questionnaire is much appreciated.

_________________ _________________

Tinashe Kanosvamhira Prof. D. Tevera

Researcher Supervisor

http://etd.uwc.ac.za/

Interview guide: Civil Society Actors

1. Please state your position within the organisation?
2. How best would you describe your relationship with community gardens in the Cape Flats?
3. What is the stance of your organisation in terms of community garden development?
4. Have you provided support for this garden in any way?
5. If so, please provide further information in terms of the type of support?
6. What are the main services you provide for community gardens?
7. Are there any services that are difficult to implement?
8. What are the biggest obstacles to the sustainability of community gardens?
9. Which of their activities do you promote in your work?
10. How does community garden develop clash with the vison of your institution?
11. What are the main challenges your organisation faces in supporting urban community gardens?
12. How is the ensuing COVID-19 pandemic impacting your activities
13. What is your relationship like with other NPOs, the State – City Of Cape Town – Department of Agriculture?
14. Are there any difficulties involved with working with the above mentioned stakeholders?
15. What do you think is the missing ingredient to ensure the success of community gardening projects in Cape Town?

THANK YOU FOR YOUR PARTICIPATION

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Appendix v: Urban gardener interviewee codes

1. F1/30-39: Female gardener between 30 and 39 years old.
2. F2/60+: Female gardener 60 years old and above.
3. F3/60+: Female gardener 60 years old and above.
4. F4/50-59: Female gardener between 50 and 59 years old.
5. F5/50-59: Female gardener between 50 and 59 years old.
6. F7/40-49: Female gardener between 40 and 49 years old.
7. F8/60+: Female gardener 60 years old and above.
8. F11/60+: Female gardener 60 years old and above.
9. F13/60+: Female gardener 60 years old and above.
10. M1/40-49: Male gardener between 40 and 49 years old.
11. M2/50-59: Male gardener between 50 and 59 years old.
12. M3/50-59: Male gardener between 50 and 59 years old.
13. M4/-29: Male gardener 29 years old and below.
14. M5/-29: Male gardener 29 years and below.

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Appendix vi: Garden elements style of use

Code	Garden Name	Use of garden produce			Use of labour			Use of resource units			Use of infrastructure			Use of garden plots		
		C	I	B	C	I	B	C	I	B	C	I	B	C	I	B
1	Abathethi Garden Project	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
2	Akhanya Garden Nyanga	0	1	0	0	1	0	1	0	0	1	0	0	0	1	0
3	GreenLight Project (Ottery)	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
4	Dragbreek Garden	1	0	0	1	0	0	1	0	0	1	0	0	0	0	1
5	Earth Food Garden	0	1	0	0	1	0	0	0	1	1	0	0	0	1	0
6	Ekasi Garden Project	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
7	Esami Esakho Informant	0	1	0	0	1	0	1	0	0	1	0	0	0	1	0
8	eZemvelo organic garden	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
9	Feed the Khaltsha	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
10	Fezeka	0	1	0	0	1	0	0	0	1	1	0	0	0	1	0
11	Galelo Labafazi	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
12	Kloping	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
13	Masibambane	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
14	Masibulele food garden project	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
15	Masithandane Garden Project	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
16	Masithobelane	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
17	MoyaWeKhaya	0	1	0	0	1	0	1	0	0	1	0	0	0	1	0
18	Noname garden	0	1	0	0	1	0	0	0	1	1	0	0	0	1	0
19	Nondyebo project	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
20	Nonkululeko Nutrition Garden Project	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
21	Ntinga	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
22	Peace Garden	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
23	Sakhisizwe garden	0	1	0	0	0	1	0	0	1	1	0	0	0	1	0
24	SCAGA 1	0	0	1	0	0	1	1	0	0	1	0	0	0	0	1
25	SCAGA 2	0	1	0	0	1	0	1	0	0	1	0	0	0	1	0
26	SCAGA 3	0	1	0	0	1	0	1	0	0	1	0	0	0	1	0
27	SCAGA 4	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
28	SCAGA 5	0	1	0	0	1	0	1	0	0	1	0	0	0	1	0
29	Sinoxolo	0	1	0	0	1	0	1	0	0	1	0	0	0	1	0
30	Sophakalo Garden	0	1	0	0	1	0	0	0	1	1	0	0	0	1	0
31	Thunasiso	0	1	0	0	1	0	0	1	0	1	0	0	0	1	0

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32 Umsinga garden	0	1	0	0	1	0	1	0	0	1	0	0	0	1	0
33 Vuyani	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
34 Zizinga garden	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
Total	19	14	1							3 4	0	0		1 8	1 4

*C = Collective use, I = Individual use, B= Collective and Individual use.

*1 = indicates the style of use

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Appendix vii: List of civil society actors identified

Organisation	Year of formation
1. Abalimi Bezekhaya*	1982
2. FoodFlow*	2020
3. Food for Trees Africa*	1990
4. Fresh Life Produce*	2016
5. Impilo Yabantu market*	2016
6. Local Wild*	2017
7. SAFSC	2014
8. SEED	2000
9. Soil For Life*	2002
10. Slow Food*	-
11. South African Urban Food & Farming Trust*	2014
12. Streetscapes	2015
13. Oribi Village*	-
14. OZCF- the Oranjezicht City Farmers Market	2015
15. PHM-SA	2003
16. Umthunzi Farming Community	2018
17. Urban Harvest	2006
18. VPUU	2005
19. SUN Development	-
20. Urban Co-research Farmer	2016
21. Heinrich Boell Foundation	2020
22. Solidaridad Southern Africa	2020
23. Cape Town Food Agency	2020
24. EthicalCoop	2012
25. TMG Research Thinktank	2021
26. Cape Town Together Grower Group	2020
27. CANs	2020
28. EMG	2021
29. Eategrity	2017
30. EDP Food Forum	2020

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WESTERN CAPE

08 September 2020

Mr TP Kanosvamhira
Geography, Environmental Studies and Tourism
Faculty of Arts

Ethics Reference Number:	HS19/9/2
Project Title:	Urban community gardens and urban justice in the Cape Flats of Cape Town.
Approval Period:	27 August 2020 – 27 August 2023

I hereby certify that the Humanities and Social Science Research Ethics Committee of the University of the Western Cape approved the methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

Please remember to submit a progress report by 30 November each year for the duration of the project.

The permission to conduct the study must be submitted to HSSREC for record keeping purposes.

The Committee must be informed of any serious adverse event and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

Director: Research Development
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NHREC Registration Number: HSSREC-130416-049

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26 February 2020

Mr TP Kanosvanhira
Geography and Environmental Studies
Faculty of Arts

Ethics Reference Number: HS19/9/2

Project Title: Urban community gardens and urban justice in the Cape Flats of Cape Town.

Approval Period: 25 October 2019 – 25 October 2020

I hereby certify that the Humanities and Social Science Research Ethics Committee of the University of the Western Cape approved the methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

Please remember to submit a progress report in good time for annual renewal.

The Committee must be informed of any serious adverse event and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

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