The Role of Gender in Urban Agriculture: A Case Study of Cape Town’s Urban and Peri-Urban Townships

by

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A Thesis presented to The University of Guelph

In partial fulfillment of requirements for the degree of Masters of Science in Capacity Development and Extension

Guelph, Ontario, Canada

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ABSTRACT

THE ROLE OF GENDER IN URBAN AGRICULTURE: A CASE STUDY OF CAPE TOWN’S URBAN AND PERI-URBAN TOWNSHIPS

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This study was conducted within the townships of the Cape Metropolitan Area where women began an urban agriculture (UA) movement in the early 1980s as a response to high levels of malnutrition. Currently, both women and men are engaged in the activity, with perceptions for men’s involvement and motivations differing significantly than women’s. A case study approach was used to explore how men and women are experiencing UA, how it is influencing them as individuals, as well as the impact it is having on their households and community. The study used multiple qualitative methods (key informant, semi structured interviews, focus groups and participant observation). Results found equality within the division of labour, and perceptions of men’s and women’s involvement to differ from reality. Additionally, the benefits received by both were largely similar. Tangible and intangible benefits were found at all levels explored—individuals, their households and communities.
Acknowledgments

I feel incredibly privileged to have had the opportunity to return to Cape Town once again and work with Abalimi Bezekhaya. The staff has always shown me love and support, and taken the time out of their already busy schedules to help me organize interviews. To the Nyanga staff, Lulekwa Mbobo and Vatiswa Dunjana, and the Khayelitsha staff, Liziwe Stofile, Zodidi Langa, Joyce Camagu, and my friend and translator, Nelisa Stofile. Thank you so much for your help, as none of this would have been possible without you. This thesis is dedicated in memory of Joyce Camagu, who sadly passed away in September, 2013.

I would like to thank my friends and family, both in Manitoba and Ontario for their support, both emotionally and financially. To my CDE family, who having around me made being away from home feel less distant and who understood what I was doing; I couldn’t ask for a better group of people to go through this journey with. Many thanks go out to my advisory committee, Glen Filson and Helen Hambly-Odame. You supported my research and assured me that I was doing something important, and allowed me the opportunity to push myself. This experience has allowed me to grow as a student and researcher, and ultimately has taught me to challenge myself in my abilities.
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Chapter One: Introduction

Background to the Study and Rationale

Since the end of apartheid 1994, South Africa has implemented an economic development and poverty alleviation strategy with urban agriculture (UA) being identified as one of many opportunities for sustainable urban development (Thornton, 2008). Long before the government recognized UA as a development strategy, Xhosa women in Cape Town overwhelmingly embraced the UA movement. Literature shows that the predominance of women can be found in many regions, including Kenya, Uganda, Tanzania, Mozambique, Zambia, Zimbabwe, Senegal, Poland and Thailand (Hovorka, 1998; Maxwell, 1995; Mougeot, 2000; UNDP, 1996 as cited in Wilbers, 2004). The fact that women tend to predominate in urban agriculture may have to do with a number of factors, however according to these sources, the predominance of women in this group can be ascribed to two factors. Hovorka (2001) states that the first factor is that women still endure the majority of the responsibility for household sustenance and well-being. Secondly, women tend to have lower educational status than men and therefore encounter greater difficulty finding formal wage employment (Hovorka, 2001, as cited in Wilbers, 2004).

Recent studies indicate that overall population ratios of men and women involved in UA vary significantly from city to city, depending on a variety of factors such as the cultural and religious context, economic circumstances and economic activity, the production system, scale, and areas involved (Mougeot, 2000). Despite these differences, Wilbers (2004) argues that regardless of which sex is
predominating in UA in a given area, as “it is important to shift the focus of research, policies, and action planning to both men and women” (2004:3).

While research has been conducted in Cape Town on the economic and social benefits of UA (Kirkland, 2008; Dunn, 2010; Slater, 2001; Slater, Holmes and Slater, 2008), this has predominantly been focused on women’s experiences rather than on ‘gender’ as a whole. For the purpose of this paper, gender is defined as “the socio-cultural construction of roles and relationships between men and women that change over time and are context-specific” (Hovorka, 2008:4). Gender roles are defined as, “the assigned activities and relative position in society of men and women that delineate access to opportunities and resources as based on local cultural perceptions of masculinity and femininity” (CCIC 1991, Feldstein and Poats 1989, FAO 1995, Overholt, et al. 1991, Thomas-Slayter, et al. 1995, Woroniuk, et al. 1997, as cited in Hovorka, 2001).

Men and women have differing views on reality based on the differentiation of tasks, roles, responsibilities, problems and constraints, interests and perspectives each face (Wilbers, 2004). It is for this reason that it is important to explore both women and men’s experiences in the context of Cape Town’s peri-urban townships in order to accurately explore and account for the possible influence this activity is having on the lives of individuals as well as on their households and communities.

This research contributes to both the general literature on urban agriculture and gender, and specifically, the experiences of men and women engaged in UA in Cape Town’s urban and peri-urban townships.
Research Goal and Objectives

The goal of the research is to better understand how men and women are experiencing UA, how it is influencing them as individuals, the impact it is having on their households, and how it is being perceived by the community. The thesis explores how participants are experiencing benefits at each level of the development chain: the survival, subsistence, livelihood, and the commercial phase.

Past studies on gender and UA from Cape Town are few and largely focus on women’s experiences—their improved positions as leaders in the community, and the popularity of women-led projects (Small, 2007). Formal data documenting men’s experiences is severely lacking. When the discussion turns to men, the sentiment is that while they are needed to carry out the more laborious tasks in the garden, they should run their own gardens separate from that of women (Small, 2007). This often stems from disagreements surrounding the percentage of garden produce to be sold. The general opinion is that men want to sell everything and women want to have fresh produce available for household consumption in addition to selling (Small, 2007). This viewpoint was taken into account when formulating the objectives for the study, to see if in fact these perceptions match with the reality of what men and women consider their priorities.

In order to achieve the above-mentioned goal, the researcher developed with four specific objectives. The first objective was to explore the roles of women and men in UA to determine what they do, what resources they have access to, and what their needs and priorities are. The second objective was to measure social and economic benefits at each level of the ‘development chain’ (gardens at the survival, livelihood and commercial levels). The third objective was to determine reason(s) for male and
female participation. This objective was formulated to test the general perceptions—that men are primarily involved to make money and women are mainly involved to feed their families—and see if it matches with reality. The fourth objective was to explore, in a preliminary manner, how UA has potentially influenced the participant’s family unit and the greater community.

Throughout this paper gender relations will be defined as “the continual (daily) interaction and (re)negotiation between men and women regarding their respective roles, responsibilities and obligations” (Hovorka, 1998:4).

**Significance of the Study**

In 2000, the South African Parliament adopted the National Gender Policy Framework (City of Cape Town, External City of Cape Town Women Empowerment and Gender Equality Policy). The policy states,

Local government is the sphere of government that is closest to communities. The services that are provided by municipalities to communities can make a significant change in not only the condition, but also position of women and men, as well as play a dynamic role in redressing past racial and gender imbalances in communities. It is Local Government’s moral and service delivery responsibility to engage in a gender equality approach in all its policies, programs, and projects in order to ensure fairness in the treatment of women and men (http://www.capetown.gov.za, City of Cape Town, 2010)

The City of Cape Town is striving to align its policies within this framework, and urban agriculture (UA) has been identified as one of the many opportunities for sustainable urban development, meaning research efforts focused in this area, like this study, are especially relevant. In addition, while many studies have looked into the economic benefits for individuals involved in UA, Shirley Dunn (2010) identified the need for further research documenting the extent to which UA has increased
social capital in the farmers’ communities and whether communities are benefiting from UA activities.

**Overview of the Thesis**

This thesis is divided into six chapters. Chapter One: Introduction, includes a brief background to the study and rationale in addition to presenting the thesis goal, objectives, and significance of the research. Chapter Two presents the literature on gender dealing with urban agriculture including past and present characteristics, benefits and constraints, as well as how governments have responded to UA both in South Africa and worldwide. It will conclude with the conceptual framework used in the study. Chapter Three: Methodology provides study context, epistemology and the methodological approach, along with the qualitative methods used. Chapter Four contains the findings of the thesis by presenting and analyzing data as collected using the research methods. This includes quotes from participants and the use of tables to illustrate information. Chapter Five: Discussion outlines the themes that emerged from the data, situated within the relevant literature and the conceptual framework. Last, Chapter Six uses the discussion to make conclusions and recommendations for the Gardeners, Abalimi Bezekhaya Staff, and the City of Cape Town government. The thesis concludes with recommendations for further research, and suggestions for Abalimi Bezekhaya, the gardeners, and the City of Cape Town.
Chapter Two: Literature Review and Conceptual Framework

Introduction
The literature revealed that the response to urban agriculture differs considerably within communities around the world. The nature and possible reasons for these differences are not necessarily agricultural or geographic, but are perhaps rooted in social, economic and cultural variations in the urban centers and the surrounding development (Lesher, 2006). This chapter highlights past and present characteristics of UA, the identity of the ‘urban farmer’, economic and social benefits, problems and constraints, and lastly, the use of UA as a poverty alleviation strategy. It concludes with a conceptual framework adapted from Hovorka’s eight tools for socio-economic and gender analysis, and how these tools were adapted for this study (Hovorka, 1998).

Urban Agriculture
For the purpose of this research, urban agriculture (UA) refers to any processes that produce traditional subsistence, nutritional, or commercially profitable food, or other grown or raised products, cultivated within an urban area or in its surrounding peri-urban regions (Lesher, 2006).

The 2001 United Nations Development Programme (UNDP) publication, “Urban Agriculture: Food, Jobs, and Sustainable Cities,” is a cornerstone reference for the discussion of urban agriculture worldwide. The original report was influential in recognizing the importance of UA within development agenda and identified a number of themes. For the purpose of this study, five themes have been adapted from various sources, including the UNDP report. As mentioned, these themes will include
past and present characteristics of UA, the identity of the ‘urban farmer’, economic and social benefits, problems and constraints, and UA as a poverty alleviation strategy.

The first theme, past and present characteristics of urban agriculture, will begin with observations made from Asia, Latin America, North America, South America, Europe and Africa to provide a brief background of how UA is practiced worldwide. This summary of practices will provide a backdrop from which to view South Africa’s approach towards UA and will provide a means to specifically compare Cape Town’s UA policy to that of other countries.

The second theme will explore the identity of the “urban farmer”. This section will discuss Maxwell’s (1995, as cited in Lesher, 2006) four categories of participants in UA and will include studies documenting how men and women experience UA differently.

The third theme will highlight the economic and social benefits participants receive from engaging in UA, with special attention made towards trends in how men and women benefit separately. This section will document common themes found worldwide and will conclude with studies conducted specifically in Cape Town.

The fourth theme will reveal problems and constraints urban farmers experience and what, if anything is being done to address them. This section will include a review of urban planning, environmental issues, policy, health issues, and will address some of the criticisms of urban agriculture. This will lead into the fifth theme of UA as a poverty alleviation strategy. This section will evaluate the arguments
supporting and criticizing UA as a possible tool for addressing poverty, with special focus on the position Cape Town has adopted.

Definitions for gender and gender relations are taken from Hovorka’s definitions of gender and gender relations; “the continual (daily) interaction and (re)negotiation between men and women regarding their respective roles, responsibilities and obligations” (1998:4) and “the socio-cultural construction of roles and relationships between men and women that change over time and are context-specific” (1998:4).

This review will in addition demonstrate how the case study method is key to understanding how policies must adapt and be shaped to best suit the urban farmers within their unique contexts, rather than taking a one-size-fits-all approach.

**Past and Present Characteristics of Urban Agriculture**

Lesher (2006) uses metaphors to describe his view of urban agriculture:

The practice has both chameleon and Phoenix-like characteristics. It adapts and modifies itself to the environment and demography where it finds a social or economic imperative and it rises periodically, out of necessity, from the refuse and ashes of civilization’s suppression of viable life in overburdened dense centers of our cultures - their cities. Urban agriculture is at times the reflexive response for survival of people with few options, and at other times the thoughtful long-term organization of resources to moderate the harshness of the urban environment. (Lesher, 2006)

Urban agriculture may be a relatively new concept in development policy and planning, but it is well established as a practice of agricultural production in urban centers (Ninez 1985; Vasey 1985, as cited in Rogerson, 1993). The United Nations Development Programme (UNDP) estimates that approximately 800 million urban residents were engaged in agricultural production—either commercial or subsistence—in the mid-1990s (Bryld, 2002). During the 1980s and 1990s there was
widespread and significant increases in the cultivation of food crops in both public and private open spaces in urban areas throughout the developing world. A variety of reasons may account for this rapid increase such as economic recession, structural adjustment programs and the crises of the 1980s and 1990s (Sanyal, 1985; Drakakis-Smith, 1991, as cited in Rogerson, 1993).

The history of urban agriculture in Africa emerges from the colonial era, when urban farming catered to the consumption needs of bureaucrats, settlers, and other elites. This contrasts significantly with present day UA that more often than not is becoming an increasingly significant source of household food security for vulnerable urban households as a result of neoliberal economic restructuring and rapid urbanization (Arku, et al., 2012).

A comparison of urban agriculture across the continents reveals Latin America is a leader in innovative farming techniques such as small-scale hydroponics and small livestock rearing. In Asia, where urban agriculture is practiced most extensively, there is less innovation, but governments are comparatively more supportive on a day-to-day basis than governments anywhere else in the world. Europe and North American governments provide substantial support for rural farming activities, but less for urban agriculture. Sub-Saharan Africa has the poorest government support yet it has shown the most dramatic increase in those practicing urban agriculture where government constraints are limited (Smit, et al., 2001:26). In much of urban Africa, subsistence gardening is seen as an essential component of urban survival (Rogerson, 1993), which may be one possible reason for the surge in participation.
However, with a few exceptions, the current state of urban agriculture in Africa is less efficient and productive than in Asia and Europe. For the most part it falls into the informal ‘quasi-legal’ sector, with a limited number of countries incorporating it into local policy. In most African countries, urban agriculture is split into farming systems of the wealthy and farming systems of the poor. The wealthy have better access to enhanced inputs, technical assistance, labour and credit, while the poor often lack access to basic resources such as land (Smit, et al., 2001).

Regardless of this, urban agriculture is well established in Africa as a vital, growing urban industry (Smit, et al., 2001). In Kenya and Tanzania, “two out of three urban families are engaged in farming” (Smit & Nasr, 1992:42 as cited in Rogerson, 1993:22). Research in East Africa has come to suggest that reasons for the increase in urban agriculture are symptomatic of the economic collapse in Uganda and Tanzania (Bibangambah 1992; Mlozi et al. 1992, as cited in Rogerson, 1993). However, the percentage of households engaged in UA across African countries varies. The largest percentage is found in Lusaka, Zambia, where nearly 60 percent of low-income households are engaged with UA activities, consequently gaining the description as “the world capital of urban cultivation” (Sanyal 1986:7, as cited in Rogerson, 1993:23).

Large-scale urban food production has largely been limited to East Asia, as Yeung (1992:80, as cited in Rogerson, 1993:22) points out “Chinese cities, the city-states of Hong Kong and Singapore, and other Asian cities with large Chinese populations have distinguished themselves by adopting a sound and ecologically balanced approach to efficient food production”. The Chinese have developed
ecologically complex recycling systems that make use of night soil (human waste)
and organic waste produced by the urban population for intensive livestock farming
and vegetable cultivation.

The Identity of the ‘Urban Farmer’

After reviewing the literature, one thing is clear—urban farmers are not
homogenous. Urban farmers are women and men, wealthy and poor, locals and
immigrants. While they are not a homogenous group, when looking across countries
for themes, some observations have been made. Dan Maxwell’s (1995, as cited in
Lesher, 2006) work on UA in Uganda resulted in the creation of four categories of
why individuals participate in UA. They are:

1. Producers for urban markets who farm either leased or owned land as part of
   the local cash market;
2. Households in peri-urban areas who retain their traditional land holdings and
   from these holdings are food self-sufficient;
3. Those who use UA to gain a measure of food self-sufficiency, using UA as a
   secondary form of employment and a source of food;
4. Low income women who are widowed or abandoned and therefore have no
   other means to acquire food.

This list mostly covers what the literature revealed—that anyone from every
background can and does participate in UA—but this list does not acknowledge or
include low-income men who use UA as their sole means of acquiring food. Mougeot
(2000) includes both genders, stating that the majority of urban farmers are low-
income men and women who grow food primarily for household consumption on
small plots of land that they do not own and have little, if any, support or protection.
The list also does not make reference to urban farmers who have migrated from rural
areas. Wilbers (2004) argues that urban households are engaged in urban agriculture
for one of two reasons. The first reason stems from previous practices—meaning
households are engaged in urban farming because they came from a rural area and brought along their agricultural practices. The second reason involves households that have an urban background but got involved in agriculture out of choice or by need.

Documenting where urban farmers originate from is useful when trying to understand motivations for participating in UA. Sanyal (1985, as cited in Rogerson, 1993) found that the majority of urban farmers in Nairobi (Kenya) and Lusaka (Zambia) originated from urban households. A profile of urban cultivators in Kenya shows that average length of urban farmers' residence was 20.4 years, with 85% having resided within the city for at least five years, 57.5% resided for 15 years or more, while 15% had lived there for more than 40 years (Rogerson, 1993). These findings illustrate that UA, at least in Nairobi and Lusaka, is not practiced exclusively or even primarily by recent rural immigrants (Sanyal 1985, as cited in Rogerson, 1993).

Nugent (2000) argues that reasons for participation can stem from long-standing traditions of urban food production, political or economic factors, or social reasons such as improved healthy or connecting with the community. For example, many Muslims in Cairo raise small livestock for traditional food preparation for celebrations and funerals. In Havana, the loss of economic support following the break-up of the Soviet Union forced policy-makers to develop incentives for community food production. In London, residents who seek a greater community involvement, greening and fresh healthy food, become involved in community gardening.
Nugent’s (2000) study of seventeen cities revealed that the behavioral and economic reasons for participating vary per household, even within the same city and culture. This means that the decision to engage in UA and the level of effort spent doing so is not clearly related to income, wages, prices or employment opportunities. Nugent (2000) argues that UA takes on a variety of forms at different levels of development, and is influenced by topographical features, climate and traditions. However, while certain conditions must be in place for UA to exist, having these factors present is not enough to bring it about.

The top three reasons for engaging in UA were as follows. Number three was because of economic crisis, number two was income enhancement, and the number one reason participants engaged in UA was for household consumption (Nugent, 2000). However, in Nugent’s study, she did not differentiate between why men and women participate in UA. Instead, both genders were concealed under the heading ‘the urban farmer’.

The ratio of women and men participating in UA varies from city to city and is largely dependent on factors such as culture/religion, economic context, economic activity, the production system, and scale (Mougeot, 2000). For example, men dominate in vegetable marketing in cities such as Brazzaville, Lome, Addis Ababa, and Dakar, while in Cagayan de Oro, in the Philippines, the opposite is found—women are more involved in vending enterprises and men make up the majority of the producers (Schnitzler et al. 1999, as cited in Mougeot, 2000). In addition to gender, ethnicity was found to be a determining factor in a study conducted in Harare, Mexico City by Lourenco-Lindell (1995, as cited in Mougeot, 2000). The
study found that during times of high employment, men are more attracted to 
production rather than marketing.

The 2004 IDRC report on gender mainstreaming in urban food production and 
food security outlines how men and women experience the impact of UA depending 
to which degree they were considered during the design and implementation of 
projects or policies. For example, in Dakar, Senegal, a gender study revealed that 
while men and women encountered similar issues, they ranked these issues 
differently. Men found the greatest constraint to their UA activities to be land 
insecurity, while women cited access to operational space in which to process 
arducultural products as their most important constraint (Sy, 2004, as cited in IDRC, 
2004).

While men and women both participate in UA to varying degrees, women, 
specifically women from low-income groups in low-income countries, still tend to 
predominate (Mougeot, 2000). A survey in three city zones of Kinshasa found almost 
70 percent of women practicing agriculture in the early 1980s (Smit, et al., 2001:16 
increase in UA activities by the urban poor in Africa as an innovative response to the 
decline of formal urban economies, as it reduced their vulnerability to external 
shocks.

In a variety of South African studies, findings show that the largest group of 
urban farmers are primarily women-headed households and are either remittance or 
welfare dependent (Rogerson, 1998). In one Soweto case study, the conclusion was 
that “urban agriculture is a successful strategy for the immediate relief of hunger and
malnutrition and is a way for women to gain a foothold in the urban economy” (Kelly 1992:17 as cited in Rogerson, 1998:181).

Nugent’s (2000) study found that UA was rarely the only or even primary source of household income, and effort devoted to it varied in response to potential earnings from other endeavors. In addition, she found that external forces or markets had a role in determining the extent to which UA was practiced throughout the year. For example, when participants secure a job they may put less effort into, or even abandon their UA activities. On the other hand, when unemployment is high, or when individuals experience seasonal unemployment, UA may be used as a buffer. Another example is during periods of high expenses, such as just before school opens or holidays. In these cases families might increase their efforts and sell surplus produce, or, they may reduce the money they put into the garden (buying seeds) to pay for fees (Nugent, 2000).

**Benefits of Urban Agriculture**

The benefits participants receive from engaging in UA are numerous, although some critics would argue that some of these benefits have, in some cases, been exaggerated. However, it cannot be denied that UA benefits both individuals and neighbourhoods, contributing to overall community health (Bellows, Brown & Smit, 2004). Some argue that the benefits transcend the physical, mental and emotional health of the individual and leave lasting change on others and on the physical and social space of the community (Bellows et al., 2004). Reports show that gardening is associated with satisfying labor, physical and mental relaxation, socializing, and acts as a way not only to produce food, but also to add an esthetic element to communities. In this way, gardening
can be a “key element in successful health intervention programs because it addresses simultaneously the physical, mental, spiritual, and social health of individuals and their communities” (Bellows et al., 2004: 6). It has also been documented that besides providing food, urban farming performed other important functions, including, social, cultural, developmental, aesthetic and environmental functions (van Averbeke, 2007). The following will examine the various benefits participants have reported as receiving from their UA activities.

**Economic**

The benefits of UA differ for men and women. In many cultures, women are responsible for food provision. In cases like this, women use UA as a primary strategy to maintain livelihoods and safeguard household incomes through subsistence production (Hovorka, 2001). The prime motivation for women urban farmers in these situations is to produce food for household consumption, which in addition to averting hunger means they are not spending money on buying food. This was echoed in Webb’s study, which looked at the value of crops consumed (1998). This measure ideally represents a saving, or negative expenditure, and the money saved is then used for other household items. In one example, a woman stated that the money she saved by having her own garden allowed her to pay for education fees for her children (Webb, 1998).

Studies have found that for every $1 invested in a community garden plot, approximately $6 worth of vegetables can be grown (Nugent, 2000). In households where small amounts of food make an important difference, UA is a significant contribution (Sachs & Silk, 1987, as cited in Hovorka, 2001). A survey of 11 Latin
American countries showed that in exchange for a day and a half of work cultivating an urban plot, up to 30 percent of a household’s food bill could be saved (Nugent, 1997, as cited in Hovorka, 2001). In Lusaka, it was estimated that approximately 33 percent of food consumed by poor households came from UA (Sanyal, 1987, as cited in Hovorka, 2001). In Harare, urban farmers each cultivated, on average, enough maize to last a household four to six months (Mudimu, 1996, as cited in Hovorka, 2001). Other studies show that profits from UA are equal to that of formal jobs. For example, low-income women in Bogotá, Colombia, earn profits from growing hydroponic vegetables that are equal to, or greater than, their husbands’ wages for semi-skilled jobs (Smit, et al., 2001).

Women urban farmers are also not limiting their activities to the subsistence level. UA requires an investment of household resources, such as land, labour, and capital that can motivate women to go beyond food production for household use only (Hovorka, 2001). UA represents a way for unskilled and uneducated men and women to gain access to the business realm. Individuals are doing this by selling fresh produce in local markets.

In several African cities, income earned by UA was found to produce an average of three months’ income at the average worker level in 1992 (15,000 Zambian Kwachas in 1992), but on the downside was only seasonal (Drescher 1999, as cited in Nugent 2000). In Accra, while farmers didn’t earn much cash, they were able to produce one to eight months’ supply of staple food (Nugent, 2000). However, studies have shown that profit is not usually the main motivator for UA participation.
Ecological

UA has been cited as being the largest and most efficient means to transform urban wastes into food and jobs, resulting in improved living environments, healthier people, and resource savings (Smit & Nasr, 1992, as cited in Rogerson, 1993). It has also been viewed as reducing the need for environmentally and economically expensive transportation of perishable food items (Deelstra 1987; Douglass 1989; Smit and Nasr 1992, as cited in Rogerson, 1993). Studies that look into the relationship between freshness and health are beginning to become more common in the literature. For example, it has been revealed that a 5-10 day transportation and storage lag between production and consumption leads to losses of 30-50% in some nutritional constituents (Bellows, et al. 2004).

Hsin (1996, as cited in Drescher, 2001) argues that urban agriculture contributes to three major concepts of sustainable development; self-reliance, support for the local economy, and reduced environmental harm. On the other hand, as Bryld (2002) points out, “urban cultivation is not very sustainable if steps are not taken to introduce recycling systems and create environmental awareness among agriculturist” (2002:83). One study found that outputs were significantly lower in the urban areas since farmers were unable to deliver appropriate amounts of purchased inputs to retain soil nutrients (Enete & Achike, 2008). In addition, Drechsel et al. (2003) argues that the only way for UA to provide a consistent food supply is through intense fertilizer imports and/or nutrient recycling (as cited in Enete & Achike, 2008).

However, Lee-Smith (2010) argues that the strength of urban farming systems is the fact that nutrient cycling is enhanced by small mixed crop–livestock farms.
Similarly, May and Rogerson (1995) argue that urban agriculture improves and conserves city environments by recycling organic wastes, building soil quality and ‘greening’ urban landscapes. Hovorka (2001) argues that women are careful to separate garbage and reuse organic matter, as it is useful for their farming and livestock activities. Assaad and Bruce (1997, as cited in Hovorka, 2001) illustrate how young women collect organic matter to feed their pigs in urban Egypt. In many ways, UA is an important contributing factor to the recycling of organic, and sometimes inorganic, waste by-product that would otherwise end up in landfills.

**Health and Nutrition**

Research has discovered that gardening is a preferred form of exercise across age, gender, and ethnicity. However, it was found that overall, older individuals engage in gardening more often than younger ones (Bellows et al., 2004). It must be noted that research may not always capture gardening as exercise, as some gardeners see it as part of a day’s leisure or labor activities therefore not separating it into an activity in the category of *exercise*. For example, in one study, men identified gardening as “exercise” more often than did women though women and men reported similar amounts of time gardening. Women may tend to associate gardening with gendered household food-related chores rather than exercise (Bellows et al., 2004).

In addition to gardening as an exercise, UA has been widely documented as providing an irreplaceable service to the urban poor, especially in regards to food security. Food security is defined as “access by all people at all times to enough food for an active, healthy life, and at a minimum includes the ready availability of
nutritionally adequate and safe foods and the assured ability to acquire personally acceptable foods in a socially acceptable way” (Campbell, 1991:408).

While extensive formal testing of the link between semi-subsistence urban food production and nutritional status is lacking, a few key studies have made strong, positive conclusions (Maxwell, et al., 1998b; Zezza & Tasciotti, 2010). Zezza and Tasciotti’s (2010) and Maxwell, et al.’s (1998) studies produce empirical examinations into a total of 15 developing or transitioning countries in Africa, Asia, Eastern Europe, and Latin America. The results from Zezza and Tasciotti’s study show that the percentage of household participating in UA activities ranged from 10-70%, and two thirds of the countries surveyed showed a correlation between UA involvement and greater dietary diversity and calorie intake—two measures of an improved diet.

Maxwell, et al.’s study (1998) measured stunting as an indicator of malnutrition, finding that UA has a significant, positive relation to higher nutritional status of children, particularly height-for-age. This is important considering a common household response to rising food prices is to supplement diets with cheaper, high-calorie low-nutritional alternatives. For children, and women of reproductive age, these affects can be detrimental and may result in long-term consequences (Maxwell et al., 1998).

**Improved Social Capacity**

Bellows et al. (2004) found that gardeners in North America reported one of the reasons that they grew food was to share with friends, families, neighbours, and/or needy members of their community. In this way, gardening was empowering
its participants by bringing people together, building community, and improving neighbourhoods. Many studies have looked into social engagement, and have found that it is positively correlated with personal attention to health care and wellness (Bellows et al., 2004). It has been argued that, “Participating in beautifying a neighbourhood builds a constructive, collective consciousness, and the presence of vegetable gardens in inner-city neighbourhoods is positively correlated with decreases in crime, trash dumping, juvenile delinquency, fires, violent deaths, and mental illness” (Bellows et al., 2004: no page numbers).

**Psychological**

Several studies illustrated that UA is not only a 'pleasant' or 'subsidiary' practice in the developing world (Rakodi 1985; Sanyal 1985, 1986, as cited in Rogerson, 1993), rather, it has been shown to be “a critical part of developing more productive and viable urban habitats” (Wade 1986, as cited in Rogerson, 1993:21). UA has traditionally been promoted for its potential to improve the socio-economic situation of the poor, however there are additional benefits "that may ultimately be the most significant in shaping a positive future for Third World cities" (Wade 1986, as cited in Rogerson, 1993:21). This is in reference to the deep, psychological impact of successful community-based efforts at food production (Wade, 1987, as cited in Rogerson, 1993).

Slater’s account of women’s life histories illustrated how after apartheid, people began to cultivate small gardens, many for whom this was their first time. “Women put down roots in the city – both literally as they began to till the soil and symbolically as their investment in gardening symbolized their sense of security in the city” (2001b: 17). These women were willing to invest in gardening only at a
time and place where they felt they at last had some security of tenure in the city (Slater, 2001b). In addition, many women find solace from personal trauma they’ve experienced as well as the daily stresses of township life through their gardens. Another one of Slater’s (2001) studies found that through gardening, women were becoming conscious of different domains of society over which they had power or control over. Their gardens provided an area where they had control—where they could be alone in a place that is their own. Slater’s study documented women’s lives in Khayelitsha, Langa, and Lower Crossroads—all areas in Cape Town where data was collected for this study on gender and UA.

Bellows et al. (2004) illustrates how this is seen in North America as well. Health professionals have discovered that plants and gardening help patients of different ages with mental illnesses improve social skills, self-esteem, and use of leisure time. It has been shown to encourage relaxation and to reduce stress, fear and anger, blood pressure, and muscle tension.

**Constraints to Urban Agriculture**

Worldwide, urban farmers are confronted by a number of problems and constraints involving contamination/pollution, climate, resource availability, as well as cultural and policy conditions. The combination of these factors is what determines the level of effort that individuals will generally give to UA in a given city (Nugent, 2000). The following will outline these issues, as well as what can be done to address them.
Contamination/pollution

Smit, et al., 2001 (chapter 3:13) states that one of the greatest criticisms of UA has been around food safety. While the converting of dumping areas into urban food gardens has been seen as a positive change in low-income communities, it also raises concerns around soil quality. Garbage such as glass and plastic can be removed manually, but industrial waste is not so easily removed from the soil. In Upper Silesia, Poland, garden soils tend to be contaminated with heavy metals—usually lead and cadmium (Smit, et al., 2001). The problem of garden contamination has been particularly recognized by women gardeners, generally associated with local chapters of the Polish Ecological Club. In addition to developing a food-testing program, they have also created awareness around the dangers of UA for this region, as well as alternative techniques for those who wish to continue gardening (Smit, et al., 2001).

Contamination happens in communities all over the world. An American study found that urban farmers must contend with soils containing toxic levels of heavy metals including lead, cadmium, mercury, nickel, and copper (Bellows et al., 2004). The type of heavy metal depends on the source: paint, gas or oil, waste incineration, lead pipes, specific industries, etc (Bellows et al., 2004). Hazards range from direct absorption of toxics through ingestion (breathing and swallowing) and indirectly from eating foods grown on the land that may have absorbed the toxics. It is important then, to find a way to test soils for heavy metals before deciding to cultivate a particular area (Bellows et al., 2004). Aside from soil contamination, air pollution may also pose a hazard. Polycyclic aromatic hydrocarbon (PAH) is a known carcinogen and has been detected in urban soils. PAHs are residues from
incomplete combustion, and may be found in gardens and other urban soils due to vehicle pollution from adjacent roads and railways, as well as past wood or coal burning on or near the plot (Bellows, et al., 2004).

Local government, legal constraints and land access

The literature found that in general, the greatest constraint to UA is the local government. For example, the research of Yeung (1985, 1986, 1987, as cited in Rogerson, 1993) examines the role and significance of agriculture in urban Asia and the Pacific. In this context, the decision-makers see UA as ruining the image of the “modernizing Westernized city” that the planners wish to convey to the outside world (Drakakis-Smith, 1991, as cited in Rogerson, 1993). However, in other parts of Asia, concerns surrounding urban food supply have influenced decision makers to reconsider the role of UA, resulting in its implementation as a basic part of the urban economy (Yeung, 1988, as cited in Rogerson, 1993).

UA is also thought to be of little importance to the urban economy (Maxwell, 1995) and is therefore not considered a legitimate form of urban land use. As such, urban planners or policy makers generally do not plan for UA or husbandry activities (Mudimu, 1996, as cited in Hovorka, 2001).

The next largest constraint for urban farmers is land access, and legality. When urban farmers do not have legal access to land, they are more likely to plant short-term seasonal crops. This may reduce soil quality as well the ecological diversity found in a given area (Bryld, 2002). This also affects the sustainability of UA. Where urban farmers face the threat of theft, slashing or eviction, the motivation to invest in technology or soil improvement is greatly diminished (Bryld, 2002). If the practice
were legalized, this would reduce the fear of slashing and theft and motivate high yield cultivation, reducing food shortages in the city (Bryld, 2002).

**Trends in Urban Agriculture**

When discussing trends in UA, a variety of approaches may be considered. The UNDP report (Smit, et al., 2001) focuses on the significance and possible causes for the resurgence of UA in cities all over the world. This section will outline some of those factors as well as trends in recent literature on women and urban agriculture that warrant recognition and further exploration.

The authors of the UNDP (Smit, et al., 2001) report argue that expansion of UA activities will occur in response to factors such as urbanization, information, and policies (to name a few); and declined participation may take place where there has been recent expansion in response to a disastrous economic or social situation (p. 1 of Chapter 10).

The literature produced on UA pays special attention to food security and health/nutrition, waste management and nutrient cycles, and special groups. Food security/health/nutrition as well as waste management and nutrient cycles was discussed earlier in the “benefits of urban agriculture” section, but for now the focus will be on special groups, specifically, women.

Hovorka (2001) provides extensive literature on women and urban agriculture, and argues four generally identifiable trends in recent literature on women and urban agriculture. The first trend is that women are now recognized as urban farmers. In the past, studies glossed over the substantial role that women play in urban food production by grouping them under the gender-neutral term “urban
farmer”. This lack of distinction obscures the reality of a particular food system and may obstruct the application of effective resources, resulting in inefficiencies. However, distinguishing between men and women urban farmers provides a more accurate view of a particular system and allows for the formation of policies that help rather than hinder.

Second, it has been widely documented that women benefit from urban agriculture activities because it fits well with their daily roles and responsibilities surrounding food production and environmental management (Hovorka, 2001).

Third, researchers are documenting constraints women face regarding participation in urban agriculture activities with results showing limitations at both the sectoral and household level. As was mentioned before, most resistance is from local governments, as the practice of urban farming is looked down on and is considered out of place in urban centers (Hovorka, 2001).

Fourth, studies are documenting women urban farmers’ survival strategies and social activism in response to structural constraints (for example, when UA is not legally recognized) and urban food issues (such as access to affordable food) (Hovorka, 2001).

Fifth, in contrast to the trend of poor land access, Mbiba’s (1995) study revealed that women act as landlords and gatekeepers to agricultural land in Harare. In this case, women control and manage plots, while men participate as contract labourers or assistants to their wives. This finding illustrates the possibility of alternative scenarios in different contexts that differ from trends revealed in recent literature on women and UA (Hovorka, 2001).
Urban Agriculture as a Poverty Alleviation Strategy

UA requires both financial and political power if it is to be considered a poverty alleviation strategy (Cabannes, 2012). UA is slowly gaining political support, but financial support remains restricted. Most urban producers lack access to credit and investment schemes, forcing them to develop their activities with little support.

It is important to understand that poverty alleviation programs throughout the world illustrate that urban poverty is not a fixed condition among individuals, households or communities (Moser, 1996, as cited in Rogerson, 1998). While some individuals and household are considered permanently poor, in some circumstances people become impoverished as a result of “general life-cycle changes, specific events such as the illness of a main income earner, or a deterioration in external economic conditions” (Rakodi, 1995, as cited in Rogerson, 1998:178). The potential for individuals or households in these circumstances to decrease their vulnerability, again, often lays in their access to assets (Moser, 1997, as cited in Rogerson, 1998).

In this sense, in order to assess whether UA can be specifically used as a poverty alleviation strategy in a given area, a number of factors including access to assets/resources, market availability, and government involvement must be taken into consideration. Scale is also a major consideration, as efforts must be distinguished between scaling up small-scale, well-established enterprises, or whether the focus will be aimed at moving urban farmers from subsistence (home consumption) to livelihood levels (selling extra produce for profit). The following will discuss these areas and suggest how UA may be used in combination with these factors and act as a poverty alleviation strategy.
Access to capital/resources

Access to natural, human, physical, financial and social resources is important for urban farmers at any income level, but acquiring access to these forms of capital is more difficult for those at the low-income level (Ngome & Foeken, 2012). Access to capital and resources will differ in each context, especially in regards to how men and women experience access, which is why it is important to collect information those engaging in UA and why. For example, in one case women may lack access to land whereas men have easy access. In another case men may lack access to social networks/resources whereas women have established access. These considerations are imperative when designing areas for intervention.

Regardless of gender, access to farming inputs is critical. Inputs include materials, labour, and equipment. UA is intensive—unlike rural agriculture, crops are continuously cultivated on the same plot with no fallow periods. This means that in order to keep the soil in good condition and avoid leaching it of all its nutrients, inputs such as fertilizer and compost are essential. Poor urban farmers often lack access to high quality fertilizer for reasons such as cost. When lower cost fertilizer is available (nearby farm) farmers may not be able to afford the cost of transporting the fertilizer.

A study of 17 cities of different sizes in Latin America, Asia and Africa found financing to be the issue when considering the scaling up of affordable, accessible food production in cities (Cabannes, 2012). Another study compared rural and urban agriculture in terms of inputs and found that even though farm sizes were larger in the rural areas, the use of all purchased inputs, aside from hired labour, were significantly higher in the urban areas than in the rural (Enete & Achike, 2008).
However, the same study found that outputs were significantly lower in the urban areas since farmers were unable to deliver appropriate amounts of purchased inputs to retain soil nutrients (Enete & Achike, 2008). This suggests that if UA is to be used as an option for addressing poverty, the urban poor should have access to the necessary financial resources, knowledge/training, and materials, not only to apply purchased inputs in the right quantities, but also to adopt innovations in their farming enterprises (Enete & Achike, 2008).

**Market availability**

Zezza and Tasciotti’s (2010) study examined the role that UA plays in proportion to total agricultural production and its degree of market orientation. Out of the 15 countries surveyed, in most countries UA accounted for 5–15% of total agricultural production with peaks above 20% in Madagascar and Nicaragua and a low of 3% in Malawi. However, for the most part UA was overwhelmingly aimed towards self-consumption, with only four out of the 15 countries surveyed in this sample (Madagascar, Bangladesh, Nepal and Nicaragua) declaring more than a third of agricultural production as being sold for profit (Zezza & Tasciotti, 2010).

Again, scale is an important consideration when contemplating UA as a poverty alleviation strategy. Understandings of formal intervention to link small scale urban food producers to urban markets is still limited (Mun Bbun, Thorton, 2013). For example, a free market economy may not provide equal benefit between large and small-scale urban producers since most urban farmers operate as individuals and use UA for household consumption rather than as a bulk food production system that can keep up with market demand (Thornton, 2008, as cited in Mun Bbun & Thorton,
In order to provide incentive for increased production, some governments have turned to promoting ‘communal cooperatives’ which help share the risk in meeting bulk consumer demands for quality produce (Mun Bbun & Thorton, 2013). However, the extent to which these cooperatives are beneficial to small-scale producers has yet to be seen. In South Africa, the rise in market share for obtaining fresh produce by supermarkets has increased the barriers to market access for small-scale urban producers. Most urban producers do not have the capacity to produce a consistent supply of quality produce to meet the supermarket’s demands (Weatherspoon & Reardon, 2003, as cited in Mun Bbun & Thorton, 2013). However, the farmer’s market is a concept that links informal UA producers to the formal market. Mun Bbun and Thorton (2013) argue that with careful planning and management, a farmer’s market can help reduce the inequalities associated with free market access by increasing the benefits to small-scale farmers (Nkosi, 2009, as cited in Mun Bbun & Thorton, 2013).

**Role of Government**

“In policy terms, the local and national state is not a neutral, passive ‘observer’ but an active ‘player’ or even ‘spoiler’ in urban food production” (Crush et al., 2011:301). Urban agriculture is often vulnerable due to the absence of an enabling and supportive national and local policy environment (Crush et al., 2011). In many cities, agricultural production is viewed negatively—seen as a rural activity that does not belong in town, a potential health threat, a nuisance to people living in cities, an environmental hazard, and an activity that has little impact on the economy (Thornton et al., 2010, as cited in Crush et al., 2011:301).
In many Southern African cities, UA is practiced informally without the support of government and often in direct official opposition. Even in cases where the government is supportive, the manner in which the policy will be implemented is left ambiguous. For example, the governments of Kenya, Malawi, Swaziland, Tanzania and Zimbabwe passed the Harare Declaration on Urban and Peri-Urban Agriculture (Crush et al., 2010). The declaration called for a “shared vision around urban and peri-urban agriculture and acknowledged the institutional and resource barriers to effectively integrating the activity into urban economies” (Crush et al., 2010:301). While it is a step in the right direction regarding legitimizing UA, there was no concrete understanding surrounding what the declaration meant in practice.

However, Schmidt (2012) argues that it is the national government’s responsibility for ensuring adequate food security for urban households, as it is able to influence/enable UA through the coordination of a number of ministries (providing they exist). In Tanzania, the national government sets the policies to be followed at the local level and manages and supervises local authorities, and through the donor-funded Agriculture Sectoral Development Programme (ASDP), makes funding available through the locally organized District Agriculture Development Project (Schmidt, 2012:135). Funding in this case consists of funds for investment and project implementation (for example, earthworks, waterworks, equipment, etc), capacity-building funds (training for staff and extension officers) and funds for facilitating group trainings and workshops (Schmidt, 2012).

Gockowski et al. (2003: 234, as cited in Ngome & Foeken, 2012) observed high levels of participation in UA in the production and marketing of traditional leafy
vegetables in Yaounde, Cameroon. Some of the reasons for high involvement were the low start up costs needed for entry, which allowed even the poorest households to participate. Even where government coordination is low, identifying areas where citizens are already organized would be one way of implementing support, especially, as seen in the above example, where the benefits are high and the cost is low. In addition, the strength of women’s social networks and cooperative efforts has been noticed as potential intervention areas for development strategies in the UA sector (Hovorka, 2001).

**Conceptual Framework**

For the purpose of this study, an adaptation of Hovorka’s (1998) work on “gender resources for Urban Agriculture Research: Methodology, Directory & Annotated Bibliography” is used in combination with Wilbers’ (2004) work with gender issues and UA and Moser’s (1993) methodology for gender planning. It is used to categorize a complex set of social processes that are linked with power relations, and involves the documentation of men’s and women’s roles, responsibilities, and access to opportunities and resources.

In order to fully understand the importance of UA for a household’s livelihood, it is important to look at the different gender-specific roles of its members. Hovorka et al. (2009, as cited in Ngome & Foeken, 2012) refers to six “key gender issues in urban agriculture”:

1. women’s involvement,
2. benefits and challenges,
3. division of labour,
4. knowledge and preferences,

5. access to land and control over resources, and

6. decision-making

For the purposes of this context, the researcher added two additional issues: men’s involvement and traditions/culture.

Gender cuts across all socio-economic characteristics, including class, race, ethnicity, head-of-household, age, religion, and so on (FAO, 1995:4, as cited in Hovorka, 1998). Conducting a gender analysis involves examining the productive, reproductive and community roles men and women have within a given context, and analyzing the level of involvement and responsibility each have within it (Moser, 1993). This is done in order to respond to the specific practical and strategic needs men and women have so that future policies may address these needs accordingly.

The questions for this study were adapted from Hovorka’s “eight tools for socio-economic and gender analysis” (1998), which focus on the collection, interpretation, and analysis of information needed to properly document gender roles and responsibilities within a particular UA system. Key questions relating to the study objectives were abstracted from the toolkit and applied. These include a gender and urban agriculture issues list, gender activity analysis, gender resource analysis, and gender benefits analysis (Hovorka, 1998). Figure 1.1 illustrates the conceptual framework based on Hovorka’s (1998) toolkit and incorporates Wilbers (2004) framework on gender in urban agriculture.
Figure 1.1: Conceptual Framework

The toolkit stresses “visibility” as the starting point for the integration of both women and men of all socio-economic groups into development research on UA. Achieving this comes through the collection of data on what men and women do, and how they do it (Hovorka, 1998). In addition, researchers must consider why men and women are assigned particular responsibilities and why that particular UA system functions the ways it does. This inevitably leads to an examination of social structures (Rathgeber, 1990:494, as cited in Hovorka, 1998).

Both Wilbers and Hovorka agree that an important key issue is the differentiation of access to and the control over resources within the household between the male and female members of the household (Wilbers, 2004). This is largely determined by the overall cultural context, as these relationships and
structures are constructed within a particular set of ideals specific to that society. According to Moser (1993: 23, as cited in Wilbers, 2004), “external factors like ideological, cultural and economic reasons underlie the symmetries and asymmetries in intra-household resource allocation. Often, traditions more than laws prevent women from inheriting and controlling land and animals on an equal basis with men” (Wilbers, 2004). This is an important consideration as Xhosa culture is traditionally patriarchal (Switzer, 1993).

**Access to and Control over Resources**

In regards to access to and control over resources, two related issues are distinguished: access to and control over *productive resources*, and control over the *benefits of production*. Productive resources are things such as land, water, inputs, credit, technical and market information, technology, contacts, interpersonal networks and organizations (Wilbers, 2004). Control over the *benefits of production* refers to things such as cash income, food and other products (for home consumption, sales or exchange) (Wilbers, 2004). Access to *productive resources* also determines certain rights/obligations over the benefits of these resources (Wilbers, 2004). According to Hovorka (1998: 29, as cited in Wilbers, 2004), women urban farmers who do not have landowner rights demand their share of the profits, as they are often the ones who are responsible for the care of children. If they are unsuccessful at receiving these profits (from their husbands) they will secretly keep some of the money they get from their produce sales without their husbands’ knowledge (Maxwell 1994, as cited in Wilbers, 2004).
Role in decision-making

Wilbers (2004) identifies how control over resources and decision-making power are closely related but distinguishable issues. She argues that the role and bargaining power of women in decision-making can be viewed at on two different levels, which the researcher has adapted for small-scale urban agriculture. The first level is within the garden where decisions have to be made regarding the sale of products, deciding what to produce, decisions regarding inputs such as infrastructure, decisions regarding labour, etc. The second level is within the community or a local organization. Contacts and influence at the community level and in local organizations are good indicators of access to and control over productive resources. According to Wilbers, the decision making power of women within communities can be highly influenced by the extent to which women's group activities exist (Wilbers, 2004). These group activities can be a place where women are able to pool resources, skills, information, time and energy (Wilbers, 2004). As previously mentioned, the strength of women's social networks and co-operative efforts are often identified as potential areas for successful development strategies (Hovorka, 2001). Female farmers may participate in governance, local politics, and community groups, linking social activism and urban food issues (Wilbers, 2004).

The problem with this view is that it focuses highly on women’s experiences and does not detail areas where men have developed social networks or groups, or how they interact within the community, with each other and with women. This view does not acknowledge mixed-sex groups who have come together and pooled resources, skills, information, time and energy. It does not acknowledge how men are benefitting from these social ties, or how women are responding to their involvement.
Summary

This above literature highlights past and present characteristics of UA, the identity of the ‘urban farmer’, economic and social benefits, problems and constraints, and lastly, the use of UA as a poverty alleviation strategy. It demonstrates the multidisciplinary components of urban agriculture by combining food security with environmental concerns, health issues (both physical and physiological), poverty alleviation, and economics. It has shown that urban agriculture is experienced differently around the world not necessarily for agricultural or geographic reasons alone but also due to social, economic and cultural variations. The conceptual framework demonstrates that in every UA system culture/traditions, ideologies, and the economy are influencing factors to the various facets of UA. It affects access to and control over resources, decision-making roles, as well as the benefits and challenges experienced by participants. The next chapter will discuss the methods used in collecting data.
Chapter Three: Methodology

Introduction

This chapter will first give a brief historical background to the study, and then discuss the theories and methodology used to construct the study and how these theories shaped the approaches taken during the collection of data in the field. Triangulation was an important aspect in the study, with the researcher using participant observation, semi structured interviews, focus group discussion (also referred to as feedback groups) and key informant interviews to obtain a variety of valuable information as well as providing validity to the study. Limitations of case study research, as well as the limitations of the researcher, will be discussed in length.

Study Context

The study was conducted with permission and under the guidance of Abalimi Bezekhaya, a local urban agriculture organization operating in the economically deprived townships of the Cape Metropolitan Area, also known as the Cape Flats. Abalimi Bezekhaya means ‘planters of the home’ in isiXhosa, and is the only non-profit organization focusing solely on direct poverty alleviation through micro-organic vegetable gardening within these low-income areas (Small, 2002). Abalimi Bezekhaya was first established in 1983 by the Catholic Welfare and Development organization as a strategy to alleviate malnutrition through the promotion of home gardening (Karaan & Mohamed, 1998). In 1985, the Nyanga garden center was established, offering affordable training courses and gardening resources such as manure, seeds, fertilizer, etc. In 1993, Abalimi hired an outreach coordinator who
identified unemployed women within the community and encouraged them to attend courses and form gardening groups. It was this initial concept that lead to the creation of group gardens within the townships. Today there are garden centers in both Nyanga and Khayelitsha, and according to the business year of April 2011 to March 2012, 2,532 micro-farmers (including home gardens) are on their register.

Interviews were focused mainly around community gardens supported by Abalimi Bezekhaya, although some gardens were referred to by Abalimi field staff and were not currently receiving support from the organization. This included smaller community gardens as well as some home gardens. While the research was focused mainly around two townships, Nyanga and Khayelitsha, gardens in the nearby surrounding areas (still within the Cape Metropolitan Area) such as Philippi, Langa, Crossroads, Browns Farm, and Gugulethu were also surveyed.

In order to understand the context in which this organization is situated, a brief history of South Africa’s sociopolitical past is necessary.

White Afrikaners were suffering from capitalist developments in the early twentieth century. As a response, in 1948, Afrikaner nationalists took political power when the National Party won the election and over the next decade developed the policy of apartheid that separated African, white, Indian and coloureds, with preference given to whites (Morrell, et al., 2012). The gold mining industry relied heavily on the exploitation of African male migrant workers, and wealth was concentrated in the hands of the white industrialists.
Apartheid made legal the forcible eviction of people from their land to geographical areas designated to them by the government (Morrell, et al., 2012). This produced a situation in which poverty and wealth were linked with race.

A limitation of this study is that it does not address issues of class and race in relation to the case study area aside from recognizing the economical depravity in which these areas are located due to the translation of apartheid ideology into planning practice. As a direct result, the townships within the study experience high levels of unemployment, illiteracy and poverty (Karaan & Mohamed, 1998). “Other than the ‘homelands’, the townships are probably one of apartheid’s most spectacular planning disasters” (Karaan & Mohamed, 1998:68). After the abolition of influx control in 1986 (the law that restricted black South Africans from entering urban towns unless they were serving white labour needs), black migrants from the Xhosa-speaking Eastern Cape province migrated to Cape Town. Over 5,000 new arrivals per month were recorded during the mid-1990s, although this was amended to 1,200 new arrivals per month (Small, 2002). Needless to say, the population of these townships has increased rapidly (Karaan & Mohamed, 1998). Currently, Cape Town is home to approximately four million people, of which about one-third are amaXhosa (Small, 2002). It is estimated that today, up to one million people live in these townships, which consists mostly of shack and matchbox housing (Small, 2007).

The environment in these areas is in sharp contrast to the wealthier suburbs. Khayelitsha, for example, is settled on coastal sand dunes and is exposed to the full force of the southeast gales (Karaan & Mohamed, 1998). In addition, these townships receive the least amount of investment and have the worst natural environment of any
of the Cape metropolitan areas. The soil quality is poor—literally sand—and social services are severely lacking (Karaan & Mohamed, 1998).

Post-apartheid South Africa has levels of poverty not often found in other upper middle-income countries (Adato et al., 2004, as cited in van Averbeke, 2007). At the start of the 21st century, an estimated 48% of the South African population (21.9 million people) lived below the national poverty line (UNDP, 2004, as cited in van Averbeke, 2007). The distribution of income in South Africa is also highly unequal and disparities between rich and poor are vast. Historically, poverty in South Africa has been associated with race, gender and rurality (van Averbeke, 2007). In 1999, 61% of black South Africans were poor compared to 1% of whites (May, 2000, as cited in van Averbeke, 2007), and female-headed households were more likely to be poor than male-headed households (Aliber, 2003, as cited in van Averbeke, 2007) and poverty was mostly located in the rural areas (van Averbeke, 2007).

South Africa as described in terms of the apartheid-era racial groups is 79% black, 9% white, 9% coloured, and 3% Indian. The official unemployment rate for black South Africans is 28% compared to 5% of white South Africans (Morrell, et al., 2012). Apartheid deeply affected the family structure of families who were forced to find employment in cities where their families were not legally allowed to live due to the Pass Laws, which prohibited free movement and residence of Africans. Forty percent of households are female headed, with fathers often having little or no role in the raising of their children (Morrell, et al., 2012).

This family structure has led to high levels of violence, with the majority of victims being men, killed by other men, and half of all female victims killed by their
male intimate partners (Abrahams et al., 2009 as cited in Morrell, et al., 2012). The African National Congress (ANC) took power in 1994 and introduced a highly liberal constitution that saw the introduction of laws protecting women against violence (including the recognition of marital rape). Yet statistics on violence in South Africa illustrate that there is still a long way to go. Many structures introduced to protect and promote women’s rights are weak, have low budgets and often no direct influence on services (Morrell, et al., 2012). As a result, many of the gendered achievements have largely been carried out by non-governmental organizations, community based organizations, and feminist activists in civil society working together with a few government supporters (Chisholm and September, 2005; Geisler, 2004; Gouws, 2006 as cited in Morrell, et al., 2012).

**Rural tradition and the impact on urban household gender relations**

As previously mentioned in the literature review, Wilbers (2004) argues that urban households are engaged in urban agriculture for one of two reasons; households originate from rural areas and bring their agricultural practices with them when they settle in an urban setting; and secondly, that have an urban background but get involved in agriculture out of choice or by need. These reasons are especially interesting when looking at gender relations between households with a rural background and how it may differ from those who grew up in an urban setting. Slater’s (2001) study conducted in Cape Town, South Africa argues that issues of food consumption, identity and power are key to understanding social transformations in societies. She argues that production and consumption of crops in urban food gardens are no exception. Control over food production, distribution and
consumption contribute to men and women’s power and social position. For example, there is an old cultural taboo among the amaXhosa that forbids men from eating *imifino*. *Imifino* is a Xhosa word given to a variety of green plants and is sometimes used to refer to the natural *imifino* that grows wild, such as pumpkin leaves, or plants similar to nettle (see Appendix 2 and 3 for photos). It is also used to refer to garden vegetables such as spinach. As a meal, it describes a dish that is a mixture of either mealie-meal or mealie-rice and a green vegetable (Slater, 2001). Traditional Xhosa culture prohibits men from consuming both natural and modern *imifino*, saying it will make them weak like Xhosa women. Problems occur when these traditions come into conflict with modern traditions. Slater’s (2001) study found that women who attempted to cook *imifino* for their boyfriends or husbands were often met with extreme hostility. One woman only cooked *imifino* during the day, when her boyfriend was at work, as he had previously beaten her for preparing it as an evening meal. Another woman’s story documented her attempt to change this taboo by cooking *imifino* for her husband. But when he would come home and see that his wife had prepared *imifino*, he would threaten her with divorce (Slater, 2001). However, this wasn’t always the case. In some households this taboo was ignored, and boys and men would eat *imifino*. These stories illustrate the power dynamics that occur within households, and highlights how food gardening is linked to social, cultural, and economic transformations (Slater, 2001).
Epistemology

Feminist perspective

This study operates from the feminist epistemological principle that gender relations enter into and are fundamental elements in every aspect of human experience (Flax, 1987; Moser, 1993; Blair, et al., 1995). While feminist perspectives are not homogenous, one fundamental goal of feminist theory is to analyze gender relations: how gender relations are negotiated and experienced and how we think or, equally important, do not think about them (Flax, 1987). The experience of gender relations and the structure of gender as a social category are formed by the interactions of gender relations and other social relations such as class and race (Flax, 1987). In order to explore gender roles it is necessary to acknowledge this and to recognize that gender relations are subjective and have no fixed core—they vary both within and over time (Flax, 1987). To illustrate this point, Parrot et al. (2008:250 as cited in Ngome & Foeken, 2010:105) noticed an important change between 1995 and 2004 among peri-urban farmers in Muea (Southwest Cameroon). In 1995, “the typical farmer in horticulture (…) was a woman, (…) sometimes the head of the household”, in 2004 “more men, head of the household, adopted horticulture”.

Feminist methodologies do not use or advise any single research method. Instead, they are linked through principles such as the effort to include women’s lives, concerns and accounts of society in their research, to minimize the harms of conducting research, and to support changes that will improve women’s status (DeVault, 1996). While this study is not specifically attempting to support changes that are improving women’s status, the organization with which this study was conducted under, Abalimi Bezekhaya, has been doing so for years.
Fawcett argues that the advantages of research informed by postmodern feminist theory is that it is capable of handling complex relationships and continues the commitment to social justice for women, men and children (2000:55).

In addition, feminist researchers should seek to work with, but not romanticize, the participant’s voice. Researchers should be challenging rather than reproducing fixed gender categories in the interests of social justice, but should be done so explicitly, honestly and fairly (Fawcett, 2000:56).

**Criticisms of feminist postmodern perspectives in the South African context**

Some of the harshest criticisms of postmodern feminist theory come from scholars from the South—particularly those concerned with issues of poverty. The following explains and defends the researcher’s feminist, postmodern perspective, and illustrates how it may be used within a South African context.

The researcher acknowledges that there are criticisms of postmodernism—especially those coming from the Global South. For some, it is a luxury or indulgence that only “Northern women with time and resources can afford to angst over” (Parpart and Marchand, 1995; Burman, 1998, as cited in Fawcett, 2000:189). In this same manner, Nancy Hartsock (1996) points out that postmodern perspectives have been produced by the same privileged group of people: those of Euro-American decent, masculine and economically privileged (Fawcett, 2000:190).

In the South African context, Lewis (1997) argues that postcolonial theory has been developed by white academics in disciplines such as English or history—not typically politicized disciplines—and that these academics are situated at the centre rather than at the margins, and that the language they use is obscure (Fawcett,
2000:190). On the other hand, Brooks argues that post-feminism expresses the
intersection of feminism with postmodernism, post-structuralism, and post-
colonialism—meaning it challenges modernist, patriarchal and imperialist
frameworks (1997, as cited in Fawcett, 2000:191). In this way, Bozalek argues that
‘this notion of post-feminism could be seen as a fruitful one in the South African
context as it could be used to challenge the colonizing dominance of Anglo-
American second wave feminism, with its implicit ethnocentrism and racism’ (as
cited in Fawcett, 2000:191). It is for this reason that the researcher found it
appropriate to come at the study with this perspective.

Feminist research that highlights the subjective experience of women farmers
finds social constructivism with its emphasis on meaning construction to be
theoretically compatible. Guba and Lincoln (1989) describe the constructivist model
as perceptions of reality that are “located in time and place, and are constructed by
the individual or individuals” (as cited in Brown Wilson & Clissett, 2011:678).

**Constructivist Research**

Constructivist research seeks to generate the most sophisticated description or
explanation of a particular setting as a result of an interactive process between the
researcher and participants, many of who are likely to hold differing perspectives
about individual situations (Guba & Lincoln, 1989, as cited in Brown Wilson &
Clissett, 2011). This theoretical perspective postulates that learning takes place in
specific contexts, between groups of people involved in particular activities over time
While the concept of authenticity has been described as potentially the most fundamental aspect of constructivism, there remains little guidance regarding its implementation (Rodwell 1998, as cited in Brown Wilson & Clissett, 2011). One of the key issues surrounding authenticity is around keeping language and terminology accessible to stakeholders. The general principal behind constructivist research is to enable previously marginalized stakeholders to take part in producing knowledge. Therefore, the language should be accessible so as to encourage the full participation of all stakeholders (Lincoln, 2001, as cited in Brown Wilson & Clissett, 2011). The researcher noticed immediately that the language in some of the semi-structured interviews was confusing the gardeners as well as the translator. In order to meet authenticity criteria, these questions were adapted to simpler language in order for all participants to comprehend what was being asked.

In order for a research study to be consistent with constructivist principles, certain criteria involving trustworthiness and authenticity must be met.

The following section presents how these principles were applied to the research by outlining the four criteria important in qualitative research as proposed by Lincoln and Guba (as cited in Shenton, 2004), as well as how the researcher met these criteria.

**Credibility**

According to Lincoln and Guba (as cited in Shenton, 2004) credibility is perhaps one of the most important factors when establishing trustworthiness. To ensure rigour and to demonstrate that an accurate depiction of the phenomenon in question is being portrayed, the researcher took the necessary steps to fulfill these requirements.
The researcher used research methods well established in qualitative investigation by following Hovorka’s background paper for the RUAF (2002) that outlined the steps a researcher must take to incorporate a gender framework into urban agriculture. Questions asked in this stage of the research are who, what, when, where, and how urban agriculture systems function with regards to gender dynamics.

Second, Hovorka (2002) challenges researchers to ask why such gender dynamics occur. She argues that in gender research there is a tendency for researchers to not go beyond the collection of gender-disaggregated data and in doing so overlook underlying power relations and structures that create imbalances and inequities between men and women. She encourages researchers to dig deeper and explore why there are differential opportunities and constraints for men and women at the local, regional, and global level.

The researcher acknowledged Hovorka’s (2002:3) statement that “investigations of power relations are central to understanding gender dynamics of urban agriculture systems”. Mbiba’s study (1993, as cited in Hovorka, 2002) discovered that even though women had control and decision-making power over the cultivation of their crops, they still relied on their husbands for financing or dealing with local authorities. Examples like this illustrate how important it is to understand who in the household has control over the produce or income generated from farming activities as well as understanding why they have this control. Following these established frameworks was important in order to add to the credibility of the research.

The researcher understood the importance of developing familiarity with the culture of participants before the first data collection dialogues took place. The
researcher was familiar with the organization, as she had previously completed a three-month internship with Abalimi Bezekhaya two years previous. This “prolonged engagement” (as recommended by Lincoln and Guba, cited in Shenton, 2004) between the investigator and the participants helped establish familiarity and an understanding of the researcher’s intentions.

The researcher originally used random sampling of individuals to serve as potential participants. This was done by printing off names of gardens and randomly selecting them from a bowl. However, complications arose concerning the number of gardens in the Nyanga and surrounding areas. The researcher was told that there were not enough gardens in the Nyanga area to fulfill the sample size. In response, the researcher had to adapt the original random sampling method to one of convenience and snowball sampling that relied on Abalimi Bezekhaya staff to provide access to gardeners willing to participate in the study. An interesting note should be made regarding this change. In a few instances, a staff member provided access to a garden even though she knew they were currently dissatisfied with Abalimi Bezekhaya’s services. The result was that all community gardens located in the Nyanga and surrounding areas were interviewed. One of the disadvantages to this type of sampling, and something the researcher experienced, is that selected participants—although they agreed to participate—were at times quiet or uninterested. In a few cases participants made it quite clear through their body language that they had lost interest in the questions.

Regarding tactics to help ensure honesty in informants when contributing data, participants approached for the study were given the opportunity to refuse
participation and were told about the reason for the study. The researcher made sure that participants understood that garden names and individual’s names would not be recorded or used in the study, and that this was a study independent from Abalimi Bezekhaya.

The researcher was aware of the possibility that negative case analysis might occur, and documented cases where this happened. In the case of this study, while not explicitly addressed as a hypothesis, some general perceptions surrounding men’s motivations for participating in urban agriculture were profit related. A good deal of the literature pointed to men’s involvement occurring only once the activity proved profitable, and that concern for profit outweighed concern for directly feeding the family unit with the produce. This will be further discussed in the Discussion Chapter.

**Transferability**

Results of qualitative research are often specific to a time, place and context, as is common in case study research. Transferability is concerned with “the extent to which the findings of one study can be applied to other situations” (Merriam, 1998, as cited in Shenton, 2004:69). Considering case study research looks into a phenomenon in detail, and is particular to a specific context, it is impossible to claim that findings are applicable to other situations and populations (Shenton, 2004). Arguably, subjectivity, interpretation, and context are inevitably interwoven into every research project—whether the research is qualitative or quantitative (Auerbach & Silverstein, 2003).
While the researcher noticed participants giving similar answers in the end, known as saturation, this is not to say that their responses are representative of all individuals engaged in UA in Cape Town. The researcher makes no claims that the findings or results are able to generalize the sample to the greater population urban farmers in Cape Town. That being said, the results and findings do add to the general discourse on the subject of gender and UA, and may be useful as a comparative study to other case studies involving the amaXhosa and UA.

**Dependability**

Dependability refers to the principle that if the work were repeated in the same areas, with the same methods and the same participants, similar results would be obtained (Shenton, 2004). While the research in the past done with Abalimi Bezekhaya has not necessarily focused on gender, questions about motivations have been asked. In addition, the participants were likely different, as not every member is present at the garden every day. That being said, many of the results from those studies match with the results found in this study.

**Confirmability**

The concept of confirmability is the qualitative investigator’s comparable concern to objectivity. Miles and Huberman consider that a key criterion for confirmability is the extent to which the researcher admits his or her own predispositions (1994, as cited in Shenton, 2004). This will be discussed in detail in the limitations section later on in this chapter.
**Study Design**

In order for a study to be dependable, the processes within the study should be reported in detail, thereby enabling a future researcher to repeat the work, if not necessarily to gain the same results. Lincoln and Guba “stress the close ties between credibility and dependability, arguing that, in practice, a demonstration of the former goes some distance in ensuring the latter. This may be achieved through the use of “overlapping methods”, such as the focus group and individual interview” (Shenton, 2004). “In order to address the dependability issue more directly, the processes within the study should be reported in detail, thereby enabling a future researcher to repeat the work, if not necessarily to gain the same results” (Shenton, 2004). This is further discussed in the section on Data Acquisition Methods.

A case study approach was used to explore the roles that men and women have in their gardens, their households, and communities. This approach was used as a means of identifying common themes within these communities, and to give an in-depth account of how UA is operating in these areas. The study used both qualitative and quantitative methods. For the majority of the data collection, qualitative methods were used. During the focus group discussions, participants were asked to rank themes identified from the interviews, providing the quantitative element to the study.

Qualitative research investigates subjective experiences, which has been argued to be unreliable and therefore invalid (Auerbach & Silverstein, 2003). However, in a study where the objective is to learn more about women and men’s subjective experiences in the context of urban agriculture, the goal may be considered too broad and unscientific for traditional quantitative researchers (Auerbach & Silverstein,
A quantitative researcher would have to formulate and test specific hypotheses. Without collecting the subjective experiences of the target group to the point of theoretical saturation, a strictly quantitative researcher would not have enough data to generate meaningful hypotheses that accurately captured participants’ lived experiences (Auerbach & Silverstein, 2003). It is for this reason that a combination of the two—qualitative and quantitative methods—were used for this study, in an attempt to provide a detailed understanding of the phenomena, and to produce baseline results.

**Data Acquisition Methods**

In qualitative research, the concept of confirmability is similar to objectivity in quantitative research. The focus is to ensure to the best of one’s ability, that the work’s findings are the result of the experiences and ideas of the respondents, rather than that of the researcher (Shenton, 2004). For this study, the researcher had access to results of past studies done in collaboration with Abalimi Bezekhaya and was able to identify categories and themes that had emerged from these studies that had come from past participants. While the focus of the studies was not on gender per se, reasons for motivation in urban agriculture and insights into Xhosa culture were apparent and useful for this study. One particular study by Rachel Slater (2001) explored issues of gender and food consumption. This will be further elaborated on in the Discussion Chapter, however in order to understand the methodology of the researcher it is important to understand the reasons behind the choice of questions asked during the semi-structured interviews with the gardeners.
As previously mentioned, the data for this research was collected using multiple sources. The data acquisition methods for the research are based on the use of four research instruments: key informant interviews, semi-structured interviews (with gardeners/participants and neighbours of participants and organizations identified by gardeners), focus/feedback groups, and participant observation. This multi-method approach was used in order to achieve triangulation, increasing the validity and reliability of the data.

**Participant Observation**

Arguably, there is a sense that all social research is a form of participant observation, as we are unable to study the social world without being part of it (Atkinson & Hammersley, 1983; as cited in Denzin, et al. 1998). This means that participant observation is not a particular research technique but a mode of being in the world characteristic of researchers (Atkinson & Hammersley, 1994: 249 as cited in Silverman, 1993: 45).

For the first four weeks, the researcher visited gardens with Abalimi Bezekhaya field staff and was introduced to potential participants. The researcher had prior experience with the field staff as well as with the participants, and in some cases gardeners recognized the researcher and quickly engaged in conversation. Information acquired during these catch-up sessions was valuable as gardeners updated the researcher on their gardens, their struggles, and their successes. It also gave the researcher opportunities to learn more Xhosa phrases and to pick up on local knowledge prior to the start of the interviews. During this time the researcher was also able to acquire information from the Abalimi Bezekhaya field staff about their
personal social experiences. These informal conversations were recorded in the researcher’s journal and were used as reference to understand the socio-cultural dynamics within Xhosa culture. In this case, the researcher being a foreigner was helpful as participants were often eager to discuss their culture and how it differed or was similar to Canadian culture.

Observations that do not fit within the scope of this research will be included in the final chapter discussing possible topics for future research.

**Semi-Structured Interviews**

Semi-structured interviews were used for interviews with the urban farmers, neighbours nearby the gardens, and organizations identified by urban farmers as receiving produce. Using semi-structured interviews allowed participants to provide both general and specific answers to their experiences. The researcher abandoned the “expert” stance, making sure that participants were aware of her student-status, and emphasizing her desire to learn from them. In this way, the researcher treated participants as experts of their own lives, as suggested by Auerbach and Silverstein (2003). By doing so, it encourages the researcher to focus on learning from the people they study. The qualitative researcher acknowledges that people who have direct life experience with a phenomenon know more about it than she does; that they rather than she are the experts (Auerbach & Silverstein, 2003:26). In this way the researcher can ask them directly about their experience, and learn from what they say (Auerbach & Silverstein, 2003:27).
Interviews with Gardeners/Urban Farmers

The interviews aimed to deliver insight using the participant’s perspective to illustrate their experiences. Although the interview consisted of 61 questions, the interview method was conversational, allowing for topics to emerge naturally in the dialogue between participant and researcher. Interviews with gardeners generally started out with demographic and “baseline” type close-ended questions about the garden and then emerged into open-ended questions about the participant’s experiences. An exception to this structure was demographic questions about age and education level. Those questions were left to the end, as the researcher decided it was more appropriate to ask once a dialogue had been established.

The researcher had previous experience with the target group and was aware that oral, rather than written, questionnaires were more appropriate due to low literacy rates as well as the language barrier. In addition, Xhosa culture is traditionally oral, meaning in-person interviews were most appropriate for this context. The researcher used an audio recorder to capture responses for all interviews ensuring accuracy of responses. In a handful of interviews the digital recorder stopped working so questions were recorded manually. The research assistant translated responses from participants who spoke Xhosa to English during the interview so that the researcher had both responses recorded.

Interviews with Neighbours

In order to explore how urban agriculture has potentially influenced the greater community, the researcher conducted short, 2-5 minute interviews with households living in close proximity to the gardens by going door to door. The questions focused on neighbour’s awareness of the gardens, their opinion of their existence, and
whether they ever bought produce from them. The researcher quickly noticed that not all gardens were located near residential housing, so sampling of houses was purposeful and was selected according to “first households available nearby gardens” until the sample size of n=10 (5 households in Nyanga 5 in Khayelitsha) was reached. No one younger than 18 years of age was interviewed.

**Key Informant Interviews: Abalimi Bezekhaya Staff**

Originally 7 staff members were going to be interviewed separately (n=7) however, the opportunity to present the questions to all the staff members occurred during a weekly staff meeting. The questions were presented and one lead staff member acted as the spokesperson for the group. Everyone had the opportunity to add to what had been said, and all were in agreement. A follow up at a later time was made with one staff member who had not been present at the meeting, and her responses echoed what had been said at the staff meeting. Therefore, the revised sample size was reduced to n=2.

**Key Informant Interviews: Organizations**

Based on previous experience, the researcher knew that gardeners sometimes donated their extra produce to local organizations such as old age homes, clinics, orphanages, soup kitchens and crèches (day cares). In order to add validity to these statements, the researcher was prepared to interview any organizations identified during interviews with the gardeners. The original sample size was a maximum of 8 (n=8), however, only one garden identified a specific organization (n=1) as receiving donated produce and that was an establishment outside of the organization of the
gardeners themselves. What this means is that it was the gardeners who were running initiatives such as soup kitchens or meals for the children at their crèches.

**Focus Group/Feedback Discussion**

Four focus group/feedback discussions were scheduled once the semi-structured interviews with the gardeners had been completed. The invitation to participate in a focus group discussion was made at the end of each semi-structured interview. Participants were then randomly selected by Abalimi field staff to include one group of men and one group of women per neighbourhood (Nyanga and Khayelitsha) to equal a total of four groups. The researcher hoped to attract a group of 6 people per session so that participants could be split evenly into two groups to discuss the questions and provide a ranking of “most important” benefits (n=22 with an attrition of two (?). Working around the gardener’s schedules resulted in 6 women and 4 men attending the Khayelitsha side (two men cancelled at the last minute), and 6 women, 6 men in Nyanga. Results will be presented in Chapter 4.

**Research Assistant**

Abalimi Bezekhaya staff recommended the research assistant as she had previous experience with assisting researchers who had worked with the organization. Her familiarity with the townships was invaluable, as the gardens were often located within a maze of streets, often unmarked. Because she was from the local area, this gave us access to areas otherwise inaccessible to foreigners. Her gentle yet confident manner noticeably meshed well with participants, and the researcher learned a lot regarding proper cultural etiquette for addressing elders. She also taught the researcher polite phrases by which to greet people to make them feel
at ease. This type of instruction was incredibly valuable and likely increased the manner by which participants viewed the researcher.

**Data Analysis**

Collection of data in the field was either recorded with a recording device or hand written in order to document responses as accurately as possible. The focus group/feedback discussions were organized as a means of relaying the collected information back to the participants in order to verify the main themes concerning the benefits of urban agriculture, the importance of these benefits overall according to gender, as well as their perceptions of why men and women participate in this activity. This was compared to responses given by gardeners as well as key informants (Abalimi staff members) as a method of achieving triangulation.

Data was transcribed from the raw data (most often a recording file, but in some cases were hand written responses) into word documents and then analyzed in an excel spreadsheet using open coding (Strauss & Corbin, 1998). The data was analyzed and coded according to the objectives relevant to the study, but also made note of other emerging themes not specified in the objectives (for example, cultural food restrictions). The conceptual framework provided the structure by which to analyze the data. Data was organized according to male and female experiences regarding resources (access to and control over) both in the garden and within their households; roles in decision-making (in the garden, in their household, and within the community); as well as the benefits and challenges of UA (social and economic benefits at the individual, household, and community level).
According to Danso, et al. (2004), gender analysis in urban agriculture is essential for policy formulation and program planning in order to ensure that resources are allocated in a manner that benefits both male and female urban farmers equally (as cited in Mavuso, n.d). Gender as an analytical category has the ability to capture complex sets of social processes that are linked with power relations (Hovorka, 2001). This type of analysis involves understanding men and women's roles and responsibilities, and their social status in relation to cultural perceptions of masculinity and femininity (CCIC 1991, Feldstein and Poats 1989, FAO 1995, Overholt, et al. 1991, Thomas-Slayter, et al. 1995, Woroniuk, et al. 1997, as cited in Hovorka, 2001). This allows the researcher to separate data on UA and to explore if or why certain processes and structures generate different opportunities and constraints for different people (Hovorka 1998, as cited in Hovorka, 2001). Bondi and Domosh argue that gender differences need to be studied as a complex phenomenon that occurs at a variety of interconnected levels (1992:201, as cited in Hovorka, 2001). Seeing gender as a abstract category and using it as an analytical tool allows researchers to be able to better explore the division of social experiences that men and women experience—the perceptions they have of themselves, their activities and beliefs, and the world around them (Harding 1986:31, as cited in Hovorka, 2001).

**Limitations**

The following section will address limitations within the chosen methodology as well as limitations relating to researcher bias. It is important to be open and forthcoming with possible restrictions encountered in order to present an accurate
account of the study. In doing so it allows the researcher the chance to state how these limitations were addressed and what steps were taken to have them reduced.

**Perceived Limitations of Case Study Research**

Bent Flyvbjerg (2006) identifies five “misunderstandings” of case study research. The first is that general, theoretical (context-independent) knowledge is more valuable than concrete, practical (context-dependent) knowledge. The second is that one cannot generalize on the basis of an individual case; therefore, the case study cannot contribute to scientific development. The third is that the case study is most useful for generating hypotheses; that is, in the first stage of a total research process, whereas other methods are more suitable for hypotheses testing and theory building. The fourth is that the case study contains a bias toward verification, that is, a tendency to confirm the researcher’s preconceived notions. Fifth, it is often difficult to summarize and develop general propositions and theories on the basis of specific case studies.

In addressing the first critique, Flyvbjerg argues that because predictive theories and universal truths cannot be found in the study of human relationships, concrete, context-dependent knowledge is more valuable than theoretical, context-independent knowledge. The second “misunderstanding” criticizes the inability for case study research to be generalized to the greater population. Stoecker (1991) emphasizes that there is no way to measure external validity, and therefore cautions against using case study research to test causal hypotheses. This, however, does not mean that generalizations can never be made from case study research. Statements such as, “men are only involved in UA to earn a living and women are only involved
to provide food for their family” have been made in relation to how men and women use UA. If just one case does not fit this assumption, it would mean that this perception would need to be rethought. Researchers engaged in intense observation have made many important discoveries, and saying that this type of knowledge—knowledge that is unable to be formally generalized—does not mean that it should be disregarded from the collective process of knowledge accumulation in a given field or in a society. Making generalizations is certainly useful, but it is not the be all and end all of scientific inquiry (Flyvbjerg, 2006).

The third critique states that the case study is only useful for generating hypotheses rather than being used to test hypothesis or theory building. Flyvbjerg (2006) argues that the case study is useful for both generating and testing hypotheses, but is not limited to these research activities alone. However, according to Yin, one must have three or more case studies of the same phenomena in order to generalize from case studies (2009).

The fourth critique is that case study research contains the researcher’s bias. Harling (2002) cautions that the researcher must always be careful to prevent existing theory from predetermining the results—meaning the researcher needs to be sensitive to paradoxes between the case situation and the theory and pursue them when they occur. Another way to contend with researcher bias is to be open and acknowledge your bias to your audience, and address alternative views. Researchers who have conducted intensive, in-depth case studies have experienced cases where their preconceived views, assumptions, concepts and hypotheses were wrong, and as a result needed to revise their hypotheses (Flyvbjerg, 2006).
The fifth critique states that it is difficult to summarize and develop general propositions and theories on the basis of specific case studies (Flyvbjerg, 2006). The goal of a case study is to give a holistic, well-rounded view of a particular social phenomenon so as to better understand it. This means that whatever the outcome, learning occurs and contributes to greater understanding and the collective development of knowledge.

**Limitations of the Researcher**

While English is spoken quite widely throughout South Africa, the local language of the population sample is *isiXhosa*, of which the researcher only has a very basic understanding. Due to this barrier, the researcher employed the use of a local female translator, hired because of her previous experience as well as her familiarity with the townships. Although participants were asked to keep in mind the need for breaks in their responses in order for her to interpret them, this was often ignored. As a result, in some cases the translator was forced to sum up the participant’s responses into a shorter summary, meaning important information may have been lost. In order to combat this, the researcher kept a record of common words and phrases that became familiar to certain questions as a means of referring back to what the participant said that the translator may have left out.

The sex of the interviewer has also been shown to slightly affect the respondent’s reaction (Benny et al., 1956; Hyman, 1954; Freeman and Butler, 1976; Groves and Magilavy, 1986, as cited in Bailey, 1994). These studies found that in terms of both interviewer accuracy and the openness and honesty of the respondents, there was
more variation for males than for females. However, in the end the studies concluded that the sex differences were not significant.

For the purposes of this study, the sex of the interviewer/translator proved to be less significant than anticipated. Originally, the researcher planned to hire a male and female translator, but due to circumstances was not able to secure the hiring of a male translator. A few interviews were tested out to see how men responded to the female translator and the results were favorable, meaning male participants appeared open and relaxed and discussed personal stories. For this reason, the researcher abandoned the search for a male translator and instead worked exclusively with the female translator.

South Africa has a very unique history in regards to race and social status relations, something the researcher took into great consideration. The question of how a researcher’s positionality—as an insider/outsider, their race, gender, class, and closeness to participants—influences the research is widely debated among scholars (Naples 84; Coloma 15; Smith 137, as cited in Al-Natour, 2011). Young (2004, as cited in Al-Natour, 2011) concluded that researchers who do not share these categories with their participants find it more difficult to gain their participant's trust.

From Young’s perspective, a "non-local” interviewing a “local” holds the outsider position of being a foreigner, a “white” person interviewing “black” or “coloured” person holds the outsider position of being a “white”, and a woman interviewing a man holds the outsider position as woman, and so on (Al-Natour, 2011). In order to minimize these limitations the researcher made a significant attempt to learn the local language and to remind participants that she was there to
learn and was genuinely interested in learning more about their story as well as their culture. The researcher also made it known to participants that this was her third time travelling to South Africa, the last visit of which had been two years previous. The researcher attempted to make participants feel more at ease by demonstrating knowledge of their culture as well as food preferences (for example, referring to “smilies”, a traditional meal using the head of the sheep, or “imifino” the mixing of naturally occurring or planted vegetables).

In relation to researcher bias, Jackson (2002) argues that researchers identities affect the research they choose to do and the manner of its execution. In relation to this study, researcher bias affected the questions that were asked, especially when it came to questions regarding household responsibilities. Some questions were biased towards “traditional” women’s work/activities (such as cooking and taking care of children) that highlighted a woman’s role in the household but not man’s.

**Limitations of the Research**

Previous experience had shown that some urban farmers in this context had difficulty answering questions that asked for approximate numbers or figures. For example, asking the participants to give an approximate percentage of how much of the garden was for home consumption, and how much was sold, or even supplying information about total sale profits from the previous year. This made it very difficult to obtain data that would help establish where gardens were on the ‘development chain’ (subsistence, livelihood or commercial level). After the first few interviews, the researcher adapted these types of questions to be broader, for example, asking the gardeners if they take home or sell more of their produce. Consequently, this resulted
in the inability to account accurately the social and economic benefits at each level of the development chain.

In addition, due to the conversational style that the semi-structured interviews took on, questions were sometimes missed/left out. When presenting the findings, the researcher will adjust the sample size to produce an accurate representation of answers to that particular question. All findings are calculated according to the number of participants who answered that particular question. If a significant number of participants did not answer the question, it will be noted.

**Sampling**

Sample size was based on documentation provided to the researcher prior to arrival. Originally, based on this documentation, 30 gardens from each community (Khayelitsha and Nyanga) were to be interviewed for a total of 60 gardens. However, upon arrival the researcher discovered that the number of active community gardens was less in the Nyanga community. Therefore, in order to keep sample sizes for each community equal, the sample size was brought down to 48 gardens total—24 from Khayelitsha, 24 from Nyanga. This sampling also included two home gardens, as the revised number of gardens on the Nyanga side was further lessened once interviews commenced. In this study, the definition of a home garden is a garden located on the property of the individual. A community garden will be defined as located outside the property of the home (within the community). The number of participants varies in community gardens, and can include just one person. The reason why a home garden and a community garden are defined as such is due to the later analysis of gardens located on public property and those located on property belonging to the individual.
Originally, as mentioned earlier, the researcher printed off a list of the current gardens in both communities and randomly selected gardens (they were cut up and put into a bowl) until the sample size had been met. Unfortunately, the list provided was outdated and an updated one was not yet available. Instead, the researcher had to revise the sampling method to a combination of convenience and snowball sampling. Convenience sampling refers to recruiting whomever you have access to, and snowball sampling refers to starting with a convenience sample and asking them to select others (Auerbach & Silverstein, 2003). The researcher gained access to the gardeners through the key informants—Abalimi Bezekhaya staff—who used their connections to the gardeners (those under Abalimi’s support as well as those not receiving support) to connect the researcher to the target group. Appointments were made in advance, although a few impromptu visits were made when participants were not available or did not show up. In cases where this occurred, potential participants were approached and asked if they would be willing to take part in the study or if we could set up an appointment for another day.
Chapter Four: Findings

Introduction

This chapter will present the findings extracted from the semi-structured interviews, key informant interviews, and focus group discussions. The results from the analysis assisted in identifying the roles and responsibilities that men and women have in UA, their reasons for participation, as well as tangible and intangible benefits to the individual, their households, and the greater community.

The first section presents demographic information on the participants who took part in the semi-structured interviews (gardeners) and includes age and education levels.

The second section presents findings pertaining to the study’s first objective, which is to explore the roles of women and men in UA to determine what they do,
what resources they have access to, and what their needs and priorities are within the UA environment. These sections will analyze any differences found between male-only, female-only, and mixed-sex gardens regarding their access to and knowledge of available resources relating to the improvement of their gardens.

The third section presents findings pertaining to the study’s second objective, which is to measure the social and economic benefits at each level of the ‘development chain’ (survival, subsistence, livelihood, and commercial). Issues the researcher experienced in attempting to measure this will be discussed. Data collected from semi-structured interviews, key informants, and focus group discussions regarding the theory that as production becomes more commercial, social benefits decrease will be presented by using key examples.

The fourth section presents findings pertaining to the third objective of the study, which is to determine reason(s) for participation. This section will break down responses of male and female gardener participants from the semi-structured interviews, as well as include data collected from the gardeners (semi-structured interviews), key informants (Abalimi Bezekhaya staff), and focus group discussions.

The fifth, and last, section will present findings pertaining to the last objective of the study, which is to explore, in a preliminary manner, how UA has potentially influenced participant’s family unit and the community. It will explore how communities are influenced by UA activities in their neighbourhoods. This section will include data collected from male and female gardeners, neighbours, organizations in the area (semi-structured interviews), as well as focus group discussions.
**Participant (Urban Gardener) Profile**

After visiting 48 gardens, a total of 146 participants were interviewed comprised of 101 women (69% of the total) and 45 men (30% of the total). For the majority of the interviews, not all members were present. Had all garden members been present at the time of the interview, the total number of participants would have increased to 272 individuals, comprised of 178 females and 94 males, however the ratio would have remained relatively unchanged at 65% and 35% respectively.

**Age**

Participants of different ages were not purposely selected, as the researcher was aware prior to conducting the study that the majority of participants would fall within an older demographic. This proved correct, as the majority of participants fell within the ages of 60 to 74, followed by the 46 to 59 age range. The average age for men was 53.8 years old, and 60.4 years old for women.

That being said, a small number of younger people were involved (less than 6% of participants who answered this question) with the youngest male being 20 years old, and the youngest female being 26 years old.

**Education**

Education levels in both Khayelitsha and Nyanga ranged from no schooling to individuals receiving higher educational certificates such as a university diploma or a professional certificate (although it was only women who reported receiving education beyond Standard 10 (Grade 12)). Those with no education varied in age, but fell within the age range of 50-59 and included both men and women. Women often stated family or cultural reasons for why they did not attend school or why they dropped out:
In the old days it’s only the boys that had to go to school. The girls stayed home. If you are a girl, you must get a boyfriend to marry you so that you get lobola (dowry). That’s why they don’t want the girls to go to school…[if] you become a teacher or a nurse, you are not going to stay at home, you will leave. They are jealous, our mothers and fathers. If you are independent you leave with that money. If you are married you do not need to give your parents money. If you didn’t go to school you’d stay home and your parents would become more wealthy (female, N.13.2).

Men usually stated not having access to a school or having other responsibilities as the reason why they did not attend:

“Before, in the olden days, we used to take the cows and sheep and take them to the mountains. You don’t go to school, or maybe you go just once or twice a week” (male, K.1.1).

The figure below illustrates the highest level of education indicated by male and female participants during the semi-structured interviews with gardeners. Almost 70% of females have an education of Standard 6 (Grade 8) or lower. Roughly 50% of males have an education of Standard 5 (Grade 7) or lower.

Figure 1.2: Highest level of Education indicated by male and female participants
Gender Roles & Activities within the Garden

The first objective of the study was to explore the roles of women and men in UA to determine what they do, what resources they have access to, and what their needs and priorities are. In order to do this, a gender analysis framework adapted from Hovorka (1998) was used to ask participants a series of questions pertaining to the various jobs that take place within the garden, as well as their ability to access resources for their garden.

Interestingly enough, while UA in Cape Town started as a women’s movement, the majority of gardens (75%) were comprised of both men and women\(^1\). Only nine gardens had female-only members, and only three had male-only members. The table below illustrates the breakdown of male-only, female-only, and mixed-sex gardens according to the study areas of Khayelitsha and Nyanga.

\(^1\) While the majority of gardens for this study were comprised of both male and female members, the ratios are not even. Total number of female members within mixed-sex gardens still outnumbers total number of male members.
Table 1: Distribution of Single-sex and Mixed-sex Gardens in Khayelitsha and Nyanga area.

<table>
<thead>
<tr>
<th></th>
<th>Male-only</th>
<th>Female-only</th>
<th>Mixed-sex</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Khayelitsha</td>
<td>3</td>
<td>100</td>
<td>4</td>
<td>44.4</td>
</tr>
<tr>
<td>Nyanga</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>55.5</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>19</td>
</tr>
</tbody>
</table>

**Responsibilities within the Garden**

Questions asked to participants in this section revolved around their roles and responsibilities within the garden setting. These tasks included preparing the land/soil (digging), watering, weeding/pest control, deciding what to plant, physically planting, cleaning tools, fixing broken tools, deciding the layout of the garden, harvesting, determining how produce is divided, determining how much to charge for vegetables and how profit is divided (for those who sell).

**Preparing land/soil**

In gardens with both male and female members, 61% of them identified men as being primarily responsible for the task of preparing the land/soil.

“Everybody does everything, but the men are doing more than us, even though we [also] do the men’s work” (female, N.17.1 respondent, mixed-sex garden).

While the majority of gardens identified males as responsible for this task, nearly 39% of mixed-sex gardens said both men and women are responsible.

All of them [men and women], but the younger members [both male and female] do the harder work, and the older members do the lighter work. When we need to dig a plot, we need to give it to those with power because our grannies cannot be doing such hard work (male, K.5.2 respondent, mixed-sex garden).
In the case of same-sex gardens (male-only, female-only) participants were asked if they hired or used anyone outside of the garden to perform any type of task. Of the male-only gardens, none indicated using women from outside the garden for help with any tasks. Of the nine female-only gardens, gardeners from five of them indicated using men (outside help) to assist with the harder, manual labour of digging or preparing the soil. In four of these cases the men identified were from the community. Both sexes mentioned using prisoners from the local correctional centre for assistance with more physical work. One woman explained,

“The prisoners come and they do the hard work, only for two hours. Each day or week? Sometimes everyday.” (N.5.1 female respondent).

An older male from a mixed-sex garden explained their reason for using outside labour,

The people working here are elderly people, sickly people, so we built up a good relationship with correctional services, prisoners department, to get some help, some volunteering work. So they come here every Saturday and sometimes Sunday. They do the hard work…they do the digging and the cleaning [of the land] (male, K.6.3 respondent, mixed-sex garden).

**Watering the Garden**

Sixty-seven percent of the mixed-sex gardens indicated that both males and females water the garden equally, although out of the 12 that indicated one sex as carrying out the activity, nine were men (25%) and 3 were women (8%).

**Weeding and Pest Control**

Out of the 36 mixed-sex gardens, gardeners from 34 of them answered this question. Gardeners from twenty-six gardens (76%) indicated that they share the responsibility of weeding and pest control. People in two gardens said that men are
mostly responsible for this task, and people in six gardens (18%) indicated that women most often carry out this task.

One young man commented,

I can say that women are more responsible for planting…we as men who are responsible for making those [garden] beds. You know, the women can’t dig the whole day so it is us men, because we have men power. What we do is the men dig the plots, and the women plant.

Deciding what to Plant

When asking participants “who is responsible for deciding what to plant?” answers expanded beyond “male/female”. The majority of gardeners from mixed-sex gardens said that both male and female members make the decisions when it comes to deciding what to plant (41%). Gardeners from the remaining 20 gardens (2 did not answer) cited those being responsible for this task as only female (17.6%), only male (17.6%), Abalimi Bezekhaya (11.7%) and making use of a seasonal calendar (11.7%). These findings show that there is relative equality between the sexes regarding the decisions surrounding what to plant.

A special note must be made regarding the gardeners that identified Abalimi Bezekhaya staff as being the ones who decide what is planted in their gardens. Many gardens have plots designated for selling to Harvest of Hope as well as their own plots. Gardeners decide what they plant themselves for their own plots, and Abalimi Bezekhaya advises them on what they should plant in the Harvest of Hope plots by bringing them particular seeds/seedlings.

It would be thought that the reason for Abalimi Bezekhaya becoming involved in deciding what is to be planted may stem from the fact that gardens sell produce to Harvest of Hope—a Community Supported Agriculture scheme (CSA) created by
Abalimi Bezekhaya that provides access to markets outside of the gardener’s neighbourhoods (more specifically, to the wealthier communities around Cape Town). At first glance, it appears that gardens selling to Harvest of Hope (Abalimi Bezekhaya) have less control over what they plant, because Abalimi Bezekhaya tells them what is desired. However, an analysis of selling practices showed that this was not the case.

Forty-five out of the total 48 gardens answered yes to selling their produce (94%). Out of the 45 gardens that answered ‘yes’ to selling their produce, 33 of them indicated that they sell to Harvest of Hope. The mixed-sex gardens were the only ones to indicate Abalimi Bezekhaya as deciding for them what they would plant. The female-only and male-only gardens, even though they also sold to Harvest of Hope, did not cite Abalimi Bezekhaya as deciding for them what they plant. This would strongly indicate that gardens selling to Abalimi Bezekhaya’s “Harvest of Hope” project still have control over what they decide to plant.

In addition, after analyzing the data in the mixed-sex gardens, it was found that a total of 27 gardens (out of a possible 36) said that they sell produce to Harvest of Hope. Out of those 27, 23 (85%) said that they decide what is planted, not Abalimi Bezekhaya.

**Physically Planting**

In some cases, gardeners cited both sexes as performing this activity but then identified one sex as doing it more often. In these cases, the sex identified as performing this activity most often was recorded.
Planting was found to be a job that women preferred to perform when it wasn’t both sexes performing this activity. As one woman explained, “Just the women. Men don’t unless they have nothing to do. Easy job for women!” (N.16.1, female respondent).

In the mixed-sex gardens, the majority said that both men and women plant (73%). The researcher arrived at a few appointments where mixed-sex garden members were in the midst of planting a tray of seedlings, and it would appear that sharing this duty was common. When gardens did cite one sex as performing this activity, only women were identified (27%). “[I am] the only one who makes the beds. [I do] the digging, but most of the seeds [planting] is being done by the women” (K.7.1, translated from male respondent)

It’s all of us [men and women]. What he’s doing is preparing the soil and the others plant. *What do you mean?* The digging is for the men, and the women do the tea manure and plant. But they also do the planting [men]. For the most part it’s the women doing the planting (N.4.1, translated from male respondent).

**Fixing Broken Tools**

The majority of respondents said that they are responsible for fixing their own tools (53%) while only 25% mentioned relying on outside help exclusively—whether it be paying someone to fix it (21.4%) or having it replaced for free by the Department of Agriculture (3.5%). Respondents from two gardens said that they fix it themselves and if they cannot fix it they pay someone (7.1%). The remaining respondents indicated that they pay to replace the tool (3.5%) or that they are unsure because they have not yet broken anything (10.7%). Respondents from eight out of the 28 gardens mixed-sex gardens that answered this question said that both male and female members fix broken tools (28.5%). Respondents from seven mixed-sex
gardens identified males as being the only ones responsible for repairing broken tools (25%).

My husband, he is the MacGyver (*laughs*) he can fix anything with everything! The rakes are the worst, we break those a lot. He is very handy (N.20.1, female respondent).

**Harvesting**

Eighty-three percent of gardeners from mixed-sex gardens said that both men and women are responsible for harvesting. As one female participant explained, “We’re working hand in hand” (N.19.1, female respondent).

A male respondent said,

“All of us. While some are picking, some are washing, others are tying up bunches [of vegetables]. Everyone has got the responsibility” (N.11.3 male respondent).

Interestingly enough, respondents from three gardens cited women as the main members responsible for harvesting, and respondents from two gardens cited men as being responsible. Some of the reasons given for why women are more involved included, “…because our hands are too rough” (K.6.3 male respondent), as well as laziness factors, “most of the time it’s me, because she’s always late. If it’s cold she doesn’t want to wake up” (N.6.1 male respondent). One man explained that it depends on who has the knowledge:

It’s only him. *He does all the harvesting?* Yes, because he is the only one who knows when to harvest. He is the only one who knows when the vegetables are ready to be harvested. *What about the others who went to training?* [They] don’t know. It’s only him, but he is teaching [them] (translated from K.23.4 male respondent).

**Responsibilities Regarding Division of Produce**

Each garden was asked a series of questions pertaining to their produce. These included inquiries about how produce is divided, who determines how much to
charge for the produce, and how they determine how profit is divided. Again, the responsibility surrounding the division of produce was equal, with both male and female members receiving equal shares when produce was divided. Individuals from some gardens explained how amounts are not kept track of but rather they all take home whatever they need for that day.

**Price Setting**

When asked ‘who determines how much to charge for produce?’ some gardeners answered this question by telling the researcher how much they charge rather than saying who is responsible for deciding this. Other respondents interpreted this question as asking how they determine how much to charge. Of those who understood that the question was asking who among them decides this, 40% said they do it together.

In one garden, a man was identified as being responsible for setting prices. He visits shops and compares the size and price of their vegetables in order to get an idea of how much to charge for his garden’s produce. In another garden, a woman was responsible for selling:

Yes, one of our ladies is responsible for selling stuff. But if one is not present, if one person is absent [they] will be replaced by another one. It’s everyone’s responsibility, but we do select someone for certain duties. For example, selling the vegetables—so that we can have somebody who is reliable. But if they are not there, someone else will replace them (male, mixed-sex garden).

The information gathered from this question indicated that the responsibility for price setting is generally equal between males and females.
**Division of Profit**

Participants were asked who in their garden determines how profit is divided (all mixed-sex gardens were selling). This question was often misunderstood, with respondents replying, “we split it equally” rather than identifying a person responsible for determining this. When respondents identified someone, 83% cited a female figure as being responsible for determining how profit was divided or being responsible for managing the money:

[I am] the manager. [I] decide according to the work you do. The more work you do, the bigger your share (translated from female, mixed-sex garden)

“They do not have a savings bank account, so when they do get money they give it to her (this mama) and she keeps it” (translated from male, mixed-sex garden).

A number of gardeners said that they don’t split profit but reinvest it back into the garden. One male member explained that they reinvest the profits back into the garden as well as buy food for the soup kitchen they run with whatever is left.

We’re not at the stage where we can split it [between] everyone; we just reinvest it in the garden. What [we] are doing is [we] are buying food and cooking it and [giving] the community that food…we also buy some other stuff, so we also buy groceries for this location (translated from K.21.1 male respondent).

**Access to Resources**

“… It’s easy to get resources when you are in a group. But if you are in the individual it’s very hard” (K.9.1. female respondent)

**Water**

Lack of access to water was identified as the number one issue affecting gardens. Forty-four percent of mixed-sex gardens complained about water issues (respondents from 16 out of the 36 gardens). Members from seven of
them reported broken equipment such as boreholes, sprinklers, well points, JoJo water containers, and pipes as contributing to their water problems.

We have a borehole but it’s broken. *(Where do you get your water from?)* The rain. *(That is your only source of water right now?)* That’s right. *(K.17.1, female respondent, mixed-sex garden).*

“There is a borehole but no electricity to run the pump. We applied for the electricity from Eskom they say we must wait for three months, I was there in March! It’s June now I’m still waiting for the electricity” *(K.18.1 female respondent, mixed-sex garden)*

Members from 13 of the 16 mixed-sex gardens identified as having access to school water. However, members from four of them reported running into problems or disputes with the school, or being unsure of whether they will continue to have access to school water.

“Not sure about the water situation, because right now the school provides it, but it’s on hold at the moment” *(N.18.1 female, mixed-sex garden).*

Gardeners in male-only gardens reported boreholes as their only source of water, with the equipment being donated by either Abalimi Bezekhaya or the City of Cape Town/City Council. They also reported paying for the electricity themselves. Gardeners in female-only gardens reported using boreholes most often, with members from five out of the nine gardens identifying boreholes as their main water source. However, out of those five gardens, only three of them had working equipment. Members from the remaining two gardens were forced to find alternatives, with one relying on their relationship with the crèche (daycare) where they were located to provide water, and the other resorting to municipality water. However, the members of the garden that relied on
municipality water found that the quality was much poorer than what they had previously received from the underground water supplied by the borehole.

In mixed-sex gardens, gardeners reported using boreholes more often than municipality water. Nineteen out of the 36 mixed-sex gardens (53%) identified boreholes as their main source of water, however, five indicated that the equipment was either broken, or they did not have the money to pay for electricity. These five gardens were forced to find alternative sources of water, with two of them using nearby school water, one using municipality water, one making use of their relationship with the nearby church, and another relying completely on the rain. The remaining gardens cited their sources of water as coming from schools, crèches, and their own homes, with some citing multiple sources (such as having a borehole on site but using a tap when they don’t have the money to pay for electricity).

The next highest source of water identified was municipality water, with 13 of the 36 gardens stating it as their main source, which includes those who have been forced to use it due to broken boreholes, or who can’t afford to pay for the electricity (Table 2: Water sources among gardeners).

<table>
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<tr>
<th>Water Sources</th>
<th>Male-only</th>
<th>Female-only</th>
<th>Mixed-sex</th>
<th>Total</th>
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Table 2: Water Sources among Gardeners in Semi-Structured interviews
In all the gardens, members tended to be aware of funding opportunities for water equipment and sources. However, this still resulted in one female-only garden paying for their own water equipment and water source, one mixed-sex garden paying for their own water equipment, and one mixed-sex garden paying for their own water equipment and water source.

The three male-only gardens used funding available from either the Department of Agriculture or City Council/City of Cape Town for their water equipment. Of the nine female-only gardens, two used the Department of Agriculture, but just as many gardens used free sources such as municipality taps, school taps, crèches or churches. These findings would indicate that access to funding for water equipment does not necessarily reduce costs to gardeners, as they continue to be responsible for funding the electricity to run the borehole. In addition, when the borehole breaks, they often lack the capacity to fix it themselves, and become reliant on others for repairs.

Only one garden cited having had access to an outside foreign donor, and this was a mixed-sex garden.
Manure

The second most difficult resource to attain was manure. It is by far the most expensive resource, and the most difficult to transport.

“Abalimi gives a bakki load twice a year. We are suffering because it’s not enough. We also go to local farmers, but it’s expensive because we must pay transport costs to deliver it to our garden from the farmer” (mixed-sex farm, female)

“Sometimes we’ve had to buy it ourselves in Crossroads, there were kraals of cows that we took a truck and bought it from them. We knew about it because he was a friend of this old man, and he was moving to another place and so he sold his manure. We have relations with other people, here next to us there is a goat kraal nearby, the time before Abalimi told us that goat manure is not right, so we were using it with our compost”. (mixed-sex, male)

“I pay full price for manure. I don’t know of any place that donates it”. (mixed-sex garden, female) but it’s just her and her brother. Mostly just her, and he comes off and on.

Abalimi Bezekhaya was the only source of manure identified by the male-only gardens, and all of them cited buying it at a discounted price of R1000 rather than the full price amount of R3000. Out of the nine female-only gardens, all but one garden cited Abalimi as a source of manure. The one garden that did not cite Abalimi as a source of manure makes her own compost and is a single female farmer using community land as a “home garden” because she does not have space at home for a garden. One garden identified the Department of Agriculture, and one used the City of Cape Town. Of the nine female-only gardens, two gardens cited multiple sources of manure.

The mixed-sex gardens had the most varied sources of manure. Out of the 36 mixed-sex gardens, 13 had two sources of manure, and one garden had three sources.
“Thursday morning it came from Abalimi, then afternoon it was City of Cape Town, then Friday it was Department of Agriculture! What happened is we pushed them, calling them, so from January till the first week of February is when they came. Because if you just call them once, they will not come. You must call a lot” (female, mixed-sex garden).

Abalimi Bezekhaya was the main source of manure in the mixed-sex gardens, with 29 out of the 36 gardens citing it as a source. 12 gardens cited the Department of Agriculture as a source, three gardens cited the City of Cape Town, three cited a local farmer (although in 2 of those gardens they no longer are using that source). One garden cited making their own manure (compost and worm farm), one garden cited Quaker Peace Centre, one Urban Foundation, and one SIDRA. One garden did not answer this question.

Out of the nine female-only gardens, two gardens reported paying full price for their manure. Six gardens reported buying manure at a discounted price, with two of those gardens also receiving donations of manure. One of the six gardens reporting buying manure at a discounted price also said they make their own compost. A total of three gardens reported receiving donated manure, with only one of them fully relying on donated manure.

Other resources include access to seeds/seedlings, tools/equipment, land, shelter (such as a container or building), and windbreaks/bushes. Gardeners cited a variety of sources for these resources. These included NGOs (non-government organizations) and CBOs (community based organizations) include Abalimi Bezekhaya, Urban Foundation, Quaker Peace Project, H.A.T., and SIDRA. Governmental departments include the City of Cape Town’s department of Agriculture (DoA), City of Cape Town, City Parks, Department
of Social Services, and VUPPA (Violence Prevention through Urban Upgrading). Foreign donor sources included “HEART” from Sweden, and local business donors included Adcorp, a South African specialist recruitment-advertising agency, who donates 1% of their annual profits back into society through schemes and projects they believe will provide the greatest benefit to the greatest number of people (http://www.adcorp.co.za).

Seeds/Seedlings
Participants were asked the source of their seeds/seedlings. One hundred percent of male-only gardens and female-only gardens, as well as 94% of mixed-sex gardens were accessing the government or a CBO for this resource.

Eighty-nine percent of female-only gardens relied entirely on either government or CBO support (not supplementing it with making their own or buying it themselves), compared to 65% percent of mixed-sex and 33% of male-only gardens.

Containers/Shelters
It was interesting once again (like the case of manure) how some gardens had nothing while other gardens had a lot. Nearly half of all gardens did not have a shelter (48%). However, of the 52% of gardens that did have a container, 6% (a total of three out of 48 gardens) had multiple containers. A container in this context refers to metal sea cans, and a shelter is any type of structure that provides shelter from the elements and can be used for storing tools.
Equipment and Tools

A total of 84% of all gardens reported using NGO/CBO or Government assistance. The majority of gardeners (62.5%) said that they received tools or equipment for their gardens exclusively from either NGO/CBOs or the Government. Only 14.5% of all gardens surveyed said that they provide their own tools exclusively (no outside support) with the majority of the responses coming from female-only gardens.

Land

Before gardeners may receive funding of any kind from the government, they must provide proof of a lease from the landowner (be it government or private land). This prerequisite helps gardeners gain security through written consent—with typical lease agreements ranging from one year to fifteen years. In some cases, gardeners paid a small annual fee for using the land while others gained access to the land free of charge.

While any open, unused area has the potential to become a gardening site, the majority of gardens (49%) were located on school grounds. The next highest category was government or “municipal” land (32%). When asked how they acquired the land, the majority of responses (71%) did not cite an outside source as helping them (such as a government or NGO/CBO worker). The majority of responses from members of female-only and mixed-sex gardens cited approaching the landowners themselves.

Funding opportunities

Seventy percent of all gardens had approached or been approached by a NGO/CBO or Government worker at some point regarding funding
opportunities, however, many gardeners explained how it’s getting harder to gain access to funding:

We hear about funding through networking, and through word of mouth…[we haven’t had funding since seven years back]. Now [the garden is] old, so we don’t get funding…because there are so many gardens. It was easy when it was first started, now there are so many, it’s hard to get funding (male, mixed-sex garden).

We [approached] our counselor, Brian Watkyns, who is responsible for this area…but he said there is no budget for the garden (female, mixed-sex garden).

Competition for resources was an issue that a few participants touched on. In one case, a female-only gardener said that she had trusted a neighbouring gardener to take her application form in for her, but then he kept all the tools that she had applied for.

“…He got these things and I said what about me? Because it was me first! He said, I don’t know…now they said no, you cannot apply again. I must buy it myself (female, female-only garden).

Even if gardens had access to funding in the past, it did not mean that they still had access. As one gardener put it,

“Social Development doesn’t help you for more than three years. They use the fishing rod. They don’t give you the fish. You must learn to fish. They cannot help us forever, they help us help ourselves” (male, mixed-sex garden).

One female gardener from a mixed-sex garden talked about what she thought was a very successful approach to educating farmers about opportunities:

We went to an Urban Farmers summit last year, in Bellville…they have to implement an urban farmers policy framework…that policy has all the details of funders and manures, and equipments, how to ask any, whatever resources you want from the City…Abalimi told us about the summit. It was very fruitful, very fruitful (female, mixed-sex garden).

While both male-only and female-only gardens have access to funding opportunities, it is the mixed-sex gardens that benefit the most by accessing the
greatest variety of sources. Wait times for receiving funding varied, with some gardens saying it took a long time to receive what they applied for, and other gardens praising the source as supplying the resource quickly.

**Social and Economic Benefits**

The second objective of the study is to measure social and economic benefits at each level of the ‘development chain’ (gardens at the survival, subsistence, livelihood and commercial phases). However, this proved to be difficult to determine considering the sometimes-unstable nature of the gardens. While the researcher came across gardens that could be considered survival, subsistence, livelihood and commercial level, classifying them as such may have been misleading and possibly inaccurate. For example, problems accessing water and fertilizer had enormous impact on the gardens and had the potential—within a short period of time—to change the status level of a garden. As one gardener explained,

“[We] do sell some of the vegetables to Harvest of Hope but [we] haven’t for a year, because there was no water” (translated from female, mixed-sex garden).

In addition, it was very difficult to find gardens that could answer questions about annual or even monthly profit, so this way of accessing information was abandoned. Instead, gardeners were asked if they took home or sold more of their produce. While this helped establish a general understanding of the status of the garden, it was not enough to distinguish between the various levels. For example, if a garden member said they sell more than they take home it could be personal choice rather than because they
are producing more than what they need at home and are therefore selling the surplus. For this reason the researcher was not able to accurately measure the benefits at each level of the development chain.

There were fewer than a handful of gardens that could be considered to be at the commercial level at the time of the interview. Their level of organization and the extent to which they were dividing their produce between home consumption and selling for profit was how they were characterized. According to the director of Abalimi Bezekhaya, Rob Small, the theory is that as gardens become more commercialized, the social benefits decrease, and that there is an optimal level at which the social benefits are greatest—and it is not at the commercial level. However, this was found to not necessarily be the case. One garden in particular stood out as being highly commercialized. Its members had access to a vast amount of land and had specialized equipment, ranging from taps, boreholes, water tanks, sprinklers, covered tunnels, a worm farm, and more. They quoted selling 90 percent of their produce and living off the 10 percent leftovers.

“We’ve become so commercialized that we live on the leftovers. Took us two or three years to be commercialized… We went to training on salesmanship, how to deal with people, conflict resolutions because you work with a group, there’s a lot of things you need to learn because this is now a business” (male, mixed-sex garden).

When questioned about whether his life has changed since starting a garden, the male respondent replied,

“When you work you are employed, you work for a wage. But when you’re not working you work for the community. Then you start seeing how people end up. Then you start being concerned for people, they’re starving, and you start seeing what you can do for the community. You don’t know while you’re working, when you’re working for a wage, it doesn’t affect you. But now you are there, seven days a week, you see what the people’s needs [are]. This inspires you, ‘what can you do?’
We are doing only agriculture. These are the needs of the group that we saw. It’s kind of our responsibility” (male, mixed-sex garden).

The average age for the gardeners in this particular garden is 67 years old and all are pensioners. Focusing on the status of a garden is perhaps misleading when trying to measure social and economic benefits. Other factors such as employment status, number of dependents, and life stage of the gardeners may be a more accurate place to focus.

**Benefits Gained from UA**

Open coding was used to uncover themes that emerged from the interviews regarding benefits. Using both the ranking exercises from the focus groups and the semi-structured interviews with participants, the general perception that men value monetary gain more than women is false. Within this sample size, women value monetary gain as a result of their gardening activities just as much as their male counterparts, and in some cases more.

A total of 101 females were interviewed, and 45 males (n=146). Some answered this question directly, while others mentioned benefits throughout the interview, and some did not answer at all. Of the 101 women asked this question, 23 did not give an answer directly or at all. Of the 45 males who were asked this question, 14 did not give and answer directly or at all.
**Most Mentioned Benefits of Urban Agriculture**

Throughout the semi-structured interviews with gardeners, participants often mentioned multiple benefits they received from engaging in urban agriculture. The top three *most mentioned* benefits by women were food security, personal support/friendship, and personal well-being. The top three *most mentioned* benefits by men were food security, helping the community, and personal well-being. Income source was the fourth most mentioned benefit by men, and was tied at fifth place along with knowledge sharing for women (in forth place was helping the community).

“Because the stomach (*pats stomach*) is the major problem in your life. You can’t stay hungry. So I’m glad, the most, that in times of hungriness, I can see in the garden ‘what can I take and put together with what I have’…what I can say, helping the families throughout the hardship that we are facing” (male, K.5.2 interview).

“We were not eating every day because there was no money. Every day we eat veggies now! (*laughs*) there is nothing keeping [me] from getting vegetables every day!” (female, K.8.2 interview).

Women mentioned personal support and friendship as being a major benefit to gardening as a group. Men also said that personal support is important, but did not mention it as often as women.

“When someone is in trouble, they do help each other. If he wants advise for something, personal advice, people need to help each other, *umunthu ubuntu gabantu*. It’s *ubuntu*” (Male, N.16.2).

“If she has a problem at home she knows that she is going to ask the others. She is someone who is struggling a lot at home, but she does not feel that struggle so much anymore, because they are helping her with anything she needs. What is important is that they are also helping her raise her children” (female, N.13.3).
I also come here when I am upset with something at the house and they talk to me and I feel better, so we support each other (female, N.15.6).

Personal well-being was mentioned by both men and women and came in third as the *most mentioned* benefit. Personal well-being included any mention of the garden making them feel happy, bringing them joy, making them feel at peace, relaxed or generally content.

“The garden makes him happy, even when he is home, he only thinks about the garden, and coming here” (male, N.3.6).

“She feels very happy, she does not want to sit at home. She always wants to be here because she is happy to work in the garden… [If she could no longer garden] she would not feel good; she would feel bad because it will be the end of her life. If you are staying at home doing nothing, it’s the end of your life. (female, N.13.3 interview)

“She feels happy because she is doing what she loves” (female, N.21.1).

**Most Important Benefits of Urban Agriculture**

Participants were asked directly what they believed to be the *most important* benefit of engaging in their gardening activities. Out of the 76 women (25 women did not answer directly or at all) who answered directly what they believed to be the *most important* benefit, 14 said income (18%), 12 said food security (15.7%) and in third place, a tie, with nine women citing stress relief and nine women citing knowledge sharing as the most important benefit (11.84% each).

“Today we’ve got what you called stress…from the children. When you are here you don’t think of anything. They’re not coming at you all day, you’re not picking up their things all the time, I mean you’ll come to the door and think oh my god” (*laughs*) (female, N.12.1 interview).

Out of the 32 men (13 did not answer directly or at all) who answered this question directly, nine said income (28%), five cited knowledge sharing (15.6%), and
four said food security (12.5%). Interestingly, the fourth most important benefit identified by men was a tie between helping the household (three men) and helping the community (three men), whereas these were ranked lower in the women’s responses.

It is also important to note that while women may have listed many social benefits throughout the interview, when asked what was most important about having the garden, the most popular response was the same as men—that the garden provided an income source.

“It's all important, but selling the vegetables is good” (female, K.3.1 interview)

“Money, food, and you get healthier. Exercise for illnesses—those three benefits. And the pleasure of just being here producing my own food!” (female, K.17.1 interview).

“The money he gets is helping him. He gives money to his children and visits them in the Eastern Cape” (male, N.6.1 interview).

It is interesting that while 56% of respondents answered, “yes” to either themselves or someone in their household struggling with an illness or disability, benefits surrounding health were not mentioned more often.

**Results from Focus Group Discussions**

During the focus group discussions, participants were divided into all women and all male sessions. They were asked to rank their top three benefits from most important to least important. Each group was split into two groups to increase participation (although for the men’s Khayelitsha side participants were put together due to a reduced number of attendees).
Women cited income source most often, with two groups ranking it in first place and one group ranking it in second. In the men’s groups, income source was ranked in first place once and in third place once. Income source was ranked higher among the women’s groups than in the men’s.

Using both the ranking exercises from the focus groups and the semi-structured interviews with participants, it appears that the general perception that men value monetary gain more than women is false. Within this sample size, women value monetary gain as a result of their gardening activities just as much as their male counterparts, and in some cases more. In the semi-structured interviews, 28% of men interviewed and 23% of the women interviewed ranked income as the most important benefit. In the focus group discussions, women ranked income number one more often than the men, and included it within their top three most important benefits more often than men.

In addition, the general perception that men are more focused on making money from the garden in order to support their families rather than supplying their households with vegetables directly from the garden also appears to be false, as 12.5% of the men interviewed cited food security as the most important benefit (ranked in third place among the semi-structured interviews) compared to 15.7% of women who ranked it in second place as the most important benefit.

Reasons for participation

The third objective is to determine reason(s) for male and female participation. This question was tested within the key informant interviews, semi-structured interviews, and focus group discussions.
During both key informant interviews, the female respondents were asked why they thought men were becoming more involved with urban agriculture in the area. The first respondent explained how factors such as unemployment and the need for an income factor into the motivations for men to become involved: “For them, they miss the money. Jobs are very scarce, so they need to make money” (key informant 1).

The second respondent reflected the need for income as well as the freedom of being self-employed:

“When the vegetables can be marketed and popular and make the money off the soil, it’s when the men come to join us, because they can be their own boss, have their own job” (female key informant 2).

These two responses add to the general perception that men are interested in gardening for mainly monetary reasons. This was reflected in the focus group discussions. During the focus group discussions, participants were asked what they thought were the main reason(s) women started the urban agriculture movement in Cape Town and secondly, why men are now more involved. Regarding why women were the ones to start the movement, the response from the two men’s groups explained that traditionally, women are at home looking after the children while the men are at work. They are the ones who run the household and are the first to see what is going on at the household level.

“Even if a child is sick, a woman is the first one to know to see that my child is sick. So always it’s the woman who sees everything” (Khayelitsha men’s group response)

“The women will run the affairs of the home” (Nyanga men’s group response).
When the women were asked this question, they also said that it was the woman’s job to manage the household, but also that women have been empowered to do something for themselves.

“…Because the women, they are the ones who stay behind with the kids while men are in the mines, and they know what they must cook at home, so they know what needs to be planted to produce good food for the kids (Nyanga women’s group response).

“…Women were empowered to do something for themselves” (Khayelitsha women’s group response).

The role that women play in running the affairs of the home was reflected in the household gender analysis. Married male and female respondents cited a woman as being responsible for looking after children (52%), cooking (47%), cleaning (44%; although children were also cited as cooking in 44% of the responses) as well as deciding how household income is spent (41%). When a woman was not named as the person responsible for this, the next most popular response was that both men and women shared these responsibilities, with 29%, 20%, 26%, and 26% respectively. While the majority of responses cited a woman as carrying out these duties, the gender roles within the house appeared flexible rather than steadfast. For example, when asked who does the cooking in his household, one male respondent answered, “[Me] and the children because [my] wife gets home late from work” (respondent N.7.6).

Something that was interesting was that while women are considered to be the ones who run the household, 79% of respondents named a male figure to be the “head of household”, even if they were not contributing to the household; “my husband technically, but he is 80, so mostly I'm doing things myself” (N.12.1).
While a male figure typically fulfilled this title, in some cases participants said this title was shared (12.5%) or even cited their wives as the head of household (8.5%). "I can say it is my wife because she is the only one who is working" (N.12.4 respondent). For these reasons it is believed that the title of “head of household” may be more of a cultural tradition than an accurate representation of who is in charge within the household.

The second question the focus groups were asked was, “why do you think men are now involved?” This was asked in order to understand general perceptions of what motivated men to join. The women cited a number of reasons. First, they said the main reason is because men were no longer working; secondly they said that in Xhosa culture men are expected to provide for their families; thirdly, that the men grew up in the Eastern Cape province and have an agricultural background, so they get back into farming; and lastly, that men saw an opportunity where they could be of use.

“Men came and joined because they saw what they [women] were doing in the garden, and the men could help do the hard work like digging and pushing the wheelbarrows” (Khayelitsha women’s group response).

“The reason men are in the garden is because they are unemployed and don’t want to sit at home doing nothing” (Khayelitsha women’s group response).

“In our culture, if man does not provide for the family, he is not man enough. They are meant to go and bring in the money. So now that men are home, they [see] that women are the ones that are taking care of the family and it’s not supposed to be like that because he is the head of the house. So they started to come and join women now in the garden” (Nyanga women’s group response).

This is a much different perception of possible motivations surrounding men’s involvement with UA than previously mentioned. These responses present men’s participation as driven by cultural expectations and the desire to fulfill their role
within the household rather than monetary gain alone. It speaks to the desire to fill the gap that unemployment has left—the need to feel important, to have something to put his energy towards, and to successfully carry out his role of providing for his family.

Men reflected similar responses, saying first that men are now involved because they are unemployed or no longer working; secondly that they see the benefits women are receiving from the garden (economically and physically); and third, they must provide for their families.

“And now, they [men] are in the garden because they were retrenched from their work and they did not have work now” (Khayelitsha men’s group response).

“And they just thought to come now and work in the garden because they see that women get something for working in the garden and help at home. What is something? Money. They save money and help with the children” (Khayelitsha men’s group response).

“…Men are the heads of the house. He must find work” (Nyanga men’s group response).

The objective of determining participation was formed to test perceptions that men are involved for mainly monetary reasons, and that women are involved for reasons relating to providing for their families, and see if it matches with reality. In the previous findings section, it was found that men and women value monetary gain equally. However, it is not to say that the motivation behind starting or joining a garden was financially driven.

**Most Mentioned Influencing Factors**

Throughout the semi-structured interviews, men and women often brought up the same influencing factors—which isn’t that surprising considering they share
similar backgrounds. Overall, 59% of all respondents (male and female) mentioned having a prior agricultural background. Forty-two percent of participants said their main reason for becoming involved was that they ‘did not want to stay at home and do nothing’, thirty-eight percent cited food security, 29% mentioned general health reasons, and 28% said it was because they retired, stopped working, or lost their job. If combining the responses from the categories relating to unemployment (‘didn’t want to sit and do nothing’, stopped working/retired/lost job, and ‘no jobs’) 51% of participants mentioned these factors at least once throughout the interview.

**Initial Reasons for Participation**

When male participants were asked specifically what their reason for starting or joining a garden, 24 out of the 43 men who answered this question cited unemployment—either they had retired, stopped working, lost their jobs, or were unable to find work and were sitting at home doing nothing (56%). The next initial reason for participation was for reasons relating to food security, (14%) with six men saying it was why they started gardening. After that, men cited having a background in farming to be the main reason why they decided to start or join a garden (12%). Only one man said that he initially started for income related purposes.

When female participants were asked specifically what their reason for starting or joining a garden, 48 out of the 97 women who answered this question cited unemployment—either they had retired, stopped working, lost their jobs, or were unable to find work and were sitting at home doing nothing (49%). The next initial reason for participation was due to food security or
having access to fresh food, with 13 women citing this reason (13%). Only two women (2%) said that they initially started for income related purposes.

**Additional/Secondary Reason for Participation**

The top categories that listed an additional reason within the men’s responses included ‘retired/stopped working/lost job’, ‘not being able to find a job’, and ‘because I was asked to’.

The top categories that listed an additional reason within the women’s responses included ‘retired/stopped working/lost job’, ‘didn’t want to sit at home and do nothing’, and ‘not being able to find a job’.

Of the sixteen males that initially cited the fact that they had either ‘stopped working, lost their job or retired’ as the motivation to join or start a garden, two did not give any additional reasons. Fourteen gave an additional reason, with 50% of them saying they ‘didn’t want to sit at home and do nothing’, 21% gave general health reasons, and two said income was a driving factor (14%).

For the women, of the 23 who first said their main reason for starting/joining a garden was because they had ‘stopped working, lost their job, or retired’, only one did not give an additional reason. Of the 22 who did give an additional reason, six said they did not ‘want to stay at home and do nothing’ (27%), five cited general health reasons (23%), and four cited food security (18%). Only one respondent said income was a driving factor (4.5%).

Of the six men who mentioned not being able to find a job as their initial response, only three gave an additional answer. One said it was because it he
had a background in agriculture, one said it saved him money from not having
to buy vegetables, and one said it was for general health.

“…A lot of times I struggle at home—I spend too much on vegetables, they
cost a lot. If I join the garden, I can bring down the burden of spending too
much in food” (K.5.2 respondent).

“Because of his old age he could not get a job, he did not want to get sick so he
came here. How does this place keep you healthy? He can exercise working
here and he also eats fresh vegetables” (translated from K.16.1 respondent).

Of the nine women who mentioned not being able to find a job as their
initial response, eight gave an additional answer. Four said they did not want to
sit at home and do nothing, two said it was for reasons relating to food security,
one said it was for the love of the garden, and one said it was to save money by
not buying vegetables.

“I was unemployed and struggling to feed my kids. And also, there was this
mama; she is my next-door neighbour. She was working in this garden and she
used to bring me some veggies. Then one day, I thought, I’ve had enough being
at home. I thought that if mama could make it, how could I do it? So I decided
to come and join the mamas in the garden” (N.5.1 respondent).

Of the two men who mentioned that they were asked to join, both gave
different responses when asked why they accepted the invitation. One male said
it kept him out of trouble, and the second man mentioned reasons relating to
food security.

“The other people came to him and tell him to come and work. What made you
say yes? He was hungry (translated from K.23.4 respondent)

“The lady who was the owner of this garden came to him and asked if he could
come and help them. What made you say yes? If you stay at home you get into
trouble with the community” (N.13.4 respondent).
Of the 16 women who mentioned not being able to find a job as their initial response, 10 gave an additional answer. Five said food security, three said general health reasons, one said income, and one said to save money.

“She did not want to stay at home so she came here and asked if she could join. *Why did you ask?* She felt her body was not feeling good, she thought of coming to the garden to do it as an exercise” (N.5.3 respondent).

The general perceptions from the key informant interviews and focus group discussions stated that women are responsible for the household, which is what influenced them to get involved in urban agriculture. Another reason stated was that women felt empowered to do something for themselves.

The findings from the semi-structured interviews found that women most often cited reasons relating to unemployment; retirement, having stopped working or having lost their job or being at home doing nothing as the main reason why they started gardening. In second place were reasons related to food security (11%), which often related back to the household. For those who mentioned retirement/stopped working as their main reason, 27% said it was also because they didn’t want to ‘stay at home doing nothing’, 18% mentioned reasons relating to food security and 14% said they are doing it because they love the garden. It would appear as though general perceptions were not entirely accurate, as it was expected that reasons related to food security would be cited in more than 25% of responses (including secondary reasons).

The general perceptions surrounding why men are now involved was that they are unemployed/retrenched and have to find a way to fulfill their head of household duties of providing for the family; that they have background
knowledge in agriculture; and that they saw women benefiting from the garden (receiving an income and saving money).

The findings from the semi-structured interviews found that men most often cited reasons relating to unemployment; retirement, having lost their jobs, not being able to find a job, or not wanting staying at home and do nothing as the main reason why they started gardening, which is in line with general perceptions. In second place were reasons relating to food security, either for themselves or their family. This was partially in line with what the focus group said about men providing for the family. In third place for the initial reason mentioned was that men had an agricultural background, usually due to growing up in the Eastern Cape province.

It would appear that the general perceptions for why men become involved with UA were retirement or not having a job as the initial reason why they started or joined a garden. However, providing for the family was not explicitly mentioned as much as would be expected, especially among men with dependents. When asking males who had dependents what their motivation was, the majority cited reasons relating to unemployment (29%), followed by reasons surrounding food security (23%), doing it for the love of it (15%), and having a background in farming (15%). That being said, reasons surrounding food security were for the most part directed at family; “He saw that he was struggling because he has a wife and children to feed so he started a garden” (translated from K.20.2 respondent) and “he was struggling at home with food, so he knew that if he’s starting at the garden he’ll get some things...
like vegetables, like spinach or carrots and bring it home” (translated from K.21.4 respondent). While reasons relating to providing for the family were not mentioned as often as anticipated, reasons relating to income were also unexpectedly low, with only 7% of men (3 out of the 43 that answered) citing it as either the first or second reason they decided to start gardening. It would be expected that the three men who cited income as their motivation would be from the male-only gardens, but in fact only one belongs to an all-male garden. The other two are members of a mixed-sex garden. This finding tests the perception that men are motivated by money to join the gardens.

**Influence on Individuals & Community**

The fourth objective is to explore, in a preliminary manner, how UA has potentially influenced the individual participants, their family units as well as the community they live in. Data collected from semi-structured interviews with gardeners, neighbours and an organization will be presented.

**Influence on Individuals**

During the semi-structured interviews with gardeners, questions were asked concerning their life before and after they started gardening in order to see if the garden has positively, negatively, or had no influence on their day to day lives. Participants were asked about their current vegetable consumption levels as well as their consumption levels prior to having a garden. Participants were also asked to describe their lives since gardening, making note
specifically of any changes that were a direct result of starting or joining a garden. The following section presents their responses.

**Vegetable Consumption**

Of the 29 men who answered this question (n=45), 70% said their vegetable consumption increased since having a garden. Of the 72 women who answered this question (n=101), 66% said their vegetable consumption increased since having a garden. The next highest category for both male and female responses was an “unchanged” level of consumption (22% and 29% respectively). In these cases, the most significant change they saw to their lives was that they saved money by no longer having to buy vegetables.

**Changes Brought on by UA**

Participants were asked to describe their lives since starting or joining a garden, and to comment on any changes that directly resulted from engaging in UA. Out of a possible 101 women, 77 answered this question. Out of a possible 45 men, 21 answered this question. Participants often mentioned more than one way their lives had changed since having a garden.

Women most often cited improvements to their health as the most significant change to their lives since engaging in UA, with 34% of the women who responded mentioning it at least once.

“It has changed, now that they have vegetables they can take them home and cook them. She also is in treatment [for HIV] so she cannot take her treatment without food, so the vegetables help her” (translated from female, K.23.2
“Her health is much better now because she is working as an exercise in the garden” (translated from female, N.8.4 respondent).

The second most often mentioned change was improvements to food security, with 23% of the women who responded mentioning it at least once.

“Whenver she [wants] to eat vegetables she can” (translated from female, N.15.6 respondent).

“Yes, they eat, her and her children can eat now because of the vegetables. She is stress free also when she is in the garden. And because she can take vegetables home to cook” (translated from female, N.12.2 respondent)

The third change most often mentioned was that the garden has helped them with lowering their stress levels, with 16% of the women who responded mentioning it at least once.

“Her life has changed because when she is working in the garden she is stress free” (translated from female, K.20.1 respondent)

“She does not suffer a lot now and her health has also changed. How so? Stress or high blood. She used to eat tablets for stress treatment, but now only for high blood not for stress. And also the children are much healthier now” (translated from female, K.19.1 respondent).

The first most often mentioned change in the men’s responses was improvements to their health, with 33% of the men who responded mentioning it at least once; “His doctor has noticed that he is also to move better” (translated from male, K.3.6 respondent); “My health is much better and I can also exercise” (male, K.6.1 respondent); “My life has changed. The people at the community are telling him he looks better” (translated from male, N.7.5 respondent).
The second most often mentioned change in the men’s responses was improvements to food security, with 26% of the men who responded mentioning it at least once.

“At least I’ve got something to put on the table” (male, N.9.1 respondent)

“He knows that by coming here he’s going to get something to cook at home” (male, K.22.2 respondent).

The third most often mentioned change was responses related to staying out of trouble, or staying away from something that was bad for them, such as drinking, with 19% of the men who responded citing it at least once.

“He’s saying that there is a difference from if you are staying at home…you struggle with food and a lot of things, and you want to do things like drinking. But if you are busy working in the garden, you know you’re going to get something…I used to drink before, alcohol. This is something that can hold me so that I have something to do so I have no reason to go back to alcohol” (male, K.21.2 respondent)

“I was drinking before, but now, I’m here” (male, N.12.4 respondent).

“Before, when he was staying at home, he could be doing a lot of bad things in the community, so it’s better to be here in the garden than in the community. What do you mean “bad things”? Like, robbing the others” (male, K.8.2 respondent).

**Influence on Community – Neighbours**

Short interviews were conducted with neighbours/houses in close proximity to the gardens. Neighbours were asked about their general perceptions regarding the gardens in the neighbourhood, as well as whether they bought produce from the gardens and why or why not. Five neighbouring households in Nyanga (three women and two men) and five households in Khayelitsha (three women and two men) were interviewed. In the Nyanga
neighbourhood, only one of the neighbours bought produce from the gardens (his mother used to work in the garden before she got sick), and one neighbour was receiving donations (a blind woman). The three who were not buying from the gardens said they were simply unaware that they were producing vegetables that were for sale.

“I don’t really pay much attention to them. From what I understand they help to sustain the people who work on them, they don’t really sell vegetables; they are more for people who need food than selling. I think old people usually work on them, for their families. If you want to buy veggies, you have to go to the store” (male, Nyanga neighbour interview).

“She thought they were just doing it as an exercise” (translated from female, Nyanga neighbour interview).

In Khayelitsha, all five households interviewed were buying from the gardens. When asked why they buy from gardens and not the store, the common response was because the vegetables from the gardens are fresh.

“When he has money he does, he buys spinach, maybe twice a week. He does not like the vegetables from the shop because these ones are better because they are fresh” (translated from male, Khayelitsha neighbour interview).

The general perception of the gardens from the Khayelitsha neighbourhood was positive, and that the gardens help people in the community.

“The community can see that there is a garden nearby so it helps them to go and buy fresh vegetables” (translated from male, Khayelitsha neighbour interview).

However, one neighbour complained about the gardens attracting rats, and that they were getting into the laundry left outside to hang dry. Another man said that at first people did not like the smell from the manure that they use
in the gardens, but eventually they got used to it. While both had criticisms of the gardens, their overall impression was positive.

The general perception of the gardens from the Nyanga neighbourhood was also positive, but there was less interaction between the neighbours and gardeners.

“I like having them in the neighbourhood, but I don’t think there are many” (female, Nyanga neighbour interview)

Influence on Community – Food Donations

Participants were also asked if they donate any of their produce to people within the community. Of the three all-male gardens, two did not answer and one said he does donate, but not very often.

“It’s not often, but at times they just give it to them, even if they have not asked. They also sometimes give the leftovers to the neighbours” (translated from male-only garden, K.22 interview).

Of the nine female-only gardens, two did not answer, five said they donate, and two said they do not.

“Yes, we give donations. Sometimes the people come for instance, there is a lady who comes often, she is keeping the children; we used to give her some of the veggies. We give the veggies to the elderly and the frail in the community. There are senior clubs, but who I’m talking about are those just at home” (female-only garden, N.5 interview)

Of the 36 mixed-sex gardens, people from five gardens did not answer this question. Of the individuals from the 31 gardens that answered this question, 26 gardens (84%) said they donate some of their produce. Recipients included elderly, sick people, school children, local soup kitchens, old age homes, neighbours and family members.
“Yes, to people from the clinic, people that are sick coming from the clinic. [We] are also giving it to the community… [we] go around the community, and [we] know who is sick (female, mixed-sex garden, K.15 interview).

People in five gardens said they do not or no longer are able to donate vegetables.

“Last year we donated some, but this year no. The problem is we don’t have enough vegetables this year” (female, mixed-sex garden, N.9 interview).

However, when following up with an organization identified as receiving donations from one mixed-sex garden, it was found that they were not receiving donations, and never had. Instead, they had their own vegetable garden from which they fed people belonging to the old-age home they ran. On the other hand, the researcher randomly ended up interviewing the blind neighbour mentioned in one of the garden interviews, and she confirmed that she was receiving free vegetables from the garden down the street.

Additional findings

Information gathered from the semi-structured interviews with gardeners, neighbours, and organizations indicate that the community benefits from the gardens in the neighbourhood. Individuals cite personal benefits such as improvements in health, food security, knowledge, social connections and self-esteem. For community members who are aware of their existence, they are able to gain access to fresh, organic vegetables at a reduced price. In addition, one gardener explained how their mere presence has helped deter criminal activity:
“Let me just tell you something. There was a corpse here, somebody cried, ‘oooo there’s a corpse here’! So I decided no, no, no, there must be something done in this ground… In the first place I wanted it because of the environment… instead of playing in the streets, the kids could come. At first they did, but they are very lazy the youth. As I say, there was a corpse, and I thought there must be something done to this land (female, mixed-sex garden, N.12.1 respondent).

Another unintended finding was the change in cultural beliefs and practices surrounding food in the urban versus rural areas. Many participants explained the cultural traditions behind some food restrictions. For females, eating eggs was said to make her ‘love men too much’, and drinking milk while on her period made it flow too quickly. As a newlywed, the wife is not allowed to eat the head of the cooked animal (be it sheep, pig, cow or goat) until her husband’s family decided it was allowed.

For males, the only cultural restrictions relating to food had to do with the consumption of imifino. Males were made to believe that eating imifino made you ‘weak like a woman’. When participants were asked if it was still taboo for men to eat imifino and if there were any foods that women were not allowed to eat, the overwhelming response was that men now eat imifino and women are also able to eat anything they want. The only traditions that still persist are for women. Many female participants explained how if they were to visit their in-laws back in the Eastern Cape they are still bound by some cultural traditions such as not eating smilies (sheep head).

When asking why they believe things have changed, a few men replied: The reason it changed was because of urbanization. There [in the Eastern Cape] you slaughter your own sheep… now you go into the shops and buy meat for everybody. Everybody eats it. Things change. You know how in WW1 there were no men around so women worked” (male, K.6.3 respondent).
Things have changed now, and the doctors are now telling us we can eat the vegetables, that it’s healthy. We can also see that the vegetables are making a difference in our lives (male, K.16.2 respondent).

One woman explained the beliefs surrounding certain foods for women:

At that time that if a girl is eating a lot of eggs, she will love men too much, *(laughing hard)*. And she still thinks this is true. But she does not see any difference now. Everyone is eating everything (female, K.9.1).

Back then as a woman, if you got married…you’re not supposed to eat the sheep head, goat head, you never eat it. NEVER! Until those in-laws…come together and …slaughter a goat and then it’s when you are allowed to eat a head in that family (K.9.1).

…If you go to rural areas, you are not allowed to eat [sheep head]. But here in urban, I go and buy and sheep head, bring it in my house and cook it and give my husband a piece, everyone, I eat! But in rural, nothing! (K.9.2).

If you have your period you don’t eat milk/eggs. Women also not to eat tripe, not because of the taste, they are not supposed to eat it (male, K.1.1 respondent).

They also explained how the types of *imifino* were different back then,

“Back then, they didn’t have these types of vegetables, most of the vegetables were not there. But now, men are eating vegetables like *imifino*, because they know that it is good for your body. Before they didn’t know this. Most of these types of vegetables were not grown in the Eastern Cape” (female, K.23.1 respondent).

“There are different types of *imifino*. There are the leaves and then there [are] the fresh vegetables” (female, N.2.1 respondent)

**Summary**

It was found that much of the work was shared between male and female members within the garden setting. Aside from one responsibility (preparing the soil) there was no area where one sex dominated in performing an activity over the other. Even in the case of preparing the soil, women were often sharing this task. Both sexes reported using outside labour—including the recruitment of prisoners from the local correctional offices.
While there was general equality regarding garden duties, it was interesting to see that women were usually the ones given the responsibility of handling any income received through gardening activities.

It was found that men expressed concern for household and community needs, even in all-male gardens. Motivations were not based on money, as initially hypothesized, with many expressing concern for helping their wives, children, and the community. It was found that women were overwhelmingly responsible for domestic duties, although many of their duties were shared with their husbands. In addition, men shared many of the financial duties with their wives. For example, women and men were both responsible for deciding how household income was spent.

An additional finding illustrated changes in cultural traditions surrounding food restrictions, with men eating *imifino* and women eating eggs, milk, and the heads of animals including sheep, cows, pigs and goats.
Chapter Five: Discussion

Introduction

This chapter discusses the research findings in relation to the conceptual framework on gender analysis tools as adapted from Hovorka (1998), Wilbers (2004), and Moser (1995). The chapter explores the themes based in the findings as they relate to the relevant literature to enhance understanding of gender in urban agriculture within the context of the Cape Flatts in Cape Town, South Africa.

The research objectives of this study were four-fold: to explore the roles of women and men in UA and to determine what they do, what resources they have access to, and what their needs and priorities are; to measure social and economic benefits at each level of the ‘development chain’ (survival, subsistence, livelihood and commercial); to determine reasons for male and female participation; and to explore, in a preliminary manner, how UA has potentially influenced individuals, their family unit, and the greater community.

While each of these objectives could be discussed individually, themes spanning across multiple objectives emerged during the analysis. Therefore, this chapter will focus on the themes that emerged across the four objectives, including misperceptions; life stage of participants versus the development chain; equality; cultural expectations; and changing cultural traditions.

Perception versus Reality

“The general conceptions that women are always at a disadvantage in terms of access to productive resources, extension services, marketing and credit and that they are not capable of doing similar farming activities need to be tested on case by case basis. Gender analysis in urban agriculture is essential for policy formulation and programme planning to ensure equity in resource allocation and a balanced development that benefits both male and female urban dwellers” (Danso et.al, 2004 as cited in Mavuso, n.d)
The findings indicate that both men and women experienced similar restrictions to resources, centering primarily on water and manure. At no point did any participants mention being denied access to garden resources based on their sex; rather they were turned away due to government budget constraints or dried up funds. Both men and women had equal access to extension services (Abalimi Bezekhaya) and took advantage of training courses at their own discretion.

Relating to perceptions surrounding reasons for participation, key informants from Abalimi Bezekhaya mentioned income as a main motivator for men to join a garden. It was found that this was not entirely accurate, as men cited numerous other motivations (such as reasons relating to food security) before citing income as an initial motivation. Reasons for this outcome are not entirely clear, although the misunderstanding may come from how men appear or present their need for income versus how the money is being used. For example, one man talked about how he was interested in getting money from selling the vegetables so that he could visit his children in the Eastern Cape as well as give them money (male, N.6.1). This perception may also be influenced by cultural expectations that men are to go out and bring in money rather than stay at home. Regardless, income as a motivator for participation in UA was not significantly noted in the interviews with men.

**Life Stage of Participants versus the Development Chain**

When analyzing the data regarding social and economic benefits at each level (survival, subsistence, livelihood and commercial) of what Abalimi Bezekhaya refers to as the ‘development chain’, it was clear that there were cases of what Lincoln and Guba (as cited in Shenton, 2004) refer to as a “negative-case”. The theory is that once gardens reach “commercial” level status, social benefits to others decrease. Social benefits are theorized by Rob Small of Abalimi Bezekhaya to be at their highest somewhere between the subsistence and livelihood
level. However, members from a commercial level garden stressed the importance of community involvement and the desire to take care of those who are struggling within the community. A male member was very clear in his reasoning for why he now cares, and it was related to his life stage (being a retiree) rather than the status of his garden.

The reason why this is important is because there is a push to involve more youth within UA projects. It would be interesting for future research to examine the preferences and priorities of the garden members at each life stage (youth, adult, pensioner) to see if benefits mentioned by youth are similar, different, or the same as adults and pensioners. It would be important as a means of testing whether benefits received are independent or dependent of an individual’s life stage.

**Equality & Cultural Expectations**

Development projects have sometimes been criticized for prolonging the ‘status quo’ of cultural expectations (often synonymous with hindrances) and UA is not exempt (Hovorka, 2006). The desire is often to change the status quo, and challenge gender roles. Interestingly enough, at least within the scope of this project, gender roles appear to be changing in many of the study areas. While women are still performing the majority of household duties, men were also cited as being responsible for cooking, cleaning, and taking care of the children.

Within the garden, all duties are shared, and as one woman put it, women are doing ‘men’s work’ and men are doing the same. The questions to ask are, “Why are such dynamics occurring?” or “why are relations this way?”

Not enough data was collected to concretely answer these questions, however, as participants from one focus group discussion had mentioned, one reason may be that men are seeing that they can be useful (for doing the hard labour) so they are joining to help. Participants from another focus group discussion explained how if a man is not providing for his family he is
not considered a man. This means is that cultural expectations are not being met when a man is unemployed. With the majority of respondents identifying as ‘unemployed’, urban agriculture perhaps has the potential to help fulfill a man’s duty within the household. This is important as emphasis in previous literature focuses largely on how women benefit from UA and does not go into any detail about how men benefit. In this case, we see an example of where men may benefit and use UA as a means of filling their role both within society and the household.

When attempting to answer why these relations are occurring, there is also the possibility, although often criticized, of the concept of functionality. The concept of functionality bases the division of labour on efficiency (Rueschemeyer, 1986). Rueschemeyer argues that any judgment of efficiency hinges on a ranking of goals and on an evaluation of the cost of alternative means to reach those goals. What is an efficient use of means by one preference structure informing such ranking and evaluation may clearly be wasteful in terms of another (Rueschemeyer, 1986). In this study, it would appear that the goals are similar, which may explain the equalities within the division of labour. The goal of a successful garden would take precedence over the allocation of specific duties to any one person (male or female). As many of the interviewees mentioned, even if there is one person responsible for a duty, if they are not there another person takes over. It is more efficient to have everyone involved than to rely on one person alone.

**Cultural Changes: Food Consumption & the Family Unit**

As the study conducted by Slater (2001) emphasized, issues of food consumption, identity and power are key to understanding social transformations in societies. In her study she noted control over food production, distribution and consumption contributed to men and women’s power and social position.
Participants in the semi-structured interviews explained that there are no longer food restrictions within the urban areas, and that those beliefs are from the “olden days”. However, some female participants noted that if returning to their relative’s homes in the Eastern Cape they would be expected to adhere once again to some of these cultural practices—mostly abstaining from eating the head of an animal such as a pig, cow, sheep or goat. The lack of food limitations on urban households indicates that learning and social transformation has occurred. Learning in this sense is related to the fact that men were previously made to think that imifino, or vegetables, would make you weak. Those who answered why this has changed noted either a doctor telling them they should eat it, or seeing first hand the health benefits in those who were eating it.

Additional cultural changes come in the form of the family unit. The migrant labor system in South Africa during apartheid put great strains on the traditional family by keeping them separated (Ramphela, 1993). The traditional Xhosa family was patriarchal, with men holding the title of “head of household”. In addition, the practice of polygamy is acceptable where the husband had the means to pay the lobolo (bride wealth) for each, and to maintain them properly (Ramphela, 1993).

Participants in this study never made mention of having more than one partner, and when they did name a partner it was only ever either “my husband” or “my wife”. In addition, the semi-structured interviews revealed a total of 83% of all women interviewed having dependents, and of that, 73% are single, divorced, or widowed. This means that the traditional family unit within this study has changed from having a male present in the household, to an absent male figure. Interestingly enough, the findings also illustrated that 22% of the men interviewed who had dependents are also single, divorced, or widowed. In one case, a man was married but his wife lives in the Eastern Cape, so he is responsible for the children in the household. While
significantly less than the percentage of female-headed households, it is still something to note as it may help to uncover why there are some misconceptions surrounding men’s motivation for their involvement in UA.

The conceptual frameworks adapted from Hovorka (1998), Wilbers (2004), and Moser (1995) excel in highlighting areas where women’s responsibilities are often overlooked, and make visible otherwise unnoticed and the often undervalued work that women do within the household. But what is a gender analysis? It is not the analysis of only one gender (women) but rather women and men. It is not only how women interact with and are influenced by men, it is vice versa. These current frameworks focus overwhelmingly on women and do not include questions about the roles that men provide within the household—tangible or intangible. It oversimplifies men’s role as “provider” and does not go into depth or provide guidance for researchers to consider when probing for more information surrounding their duties or responsibilities both within the household and the community.

Summary

This chapter discussed the research findings with reference to the conceptual framework, based on Hovorka’s (1998), Wilbers (2006), and Moser’s (1995) gender analysis tools and the literature discussed in Chapter Two. It also discusses the gaps in the tools, mainly around men’s cultural and familial expectations. This chapter provides answers to the research objectives: to explore the role of women and men in UA to determine what they do, what resources they have access to, and what their needs and priorities are; to measure social and economic benefits; to determine reason(s) male and female participation; and to explore, in a preliminary manner, how UA has potentially influenced the participant’s family unit and the greater community. This discussion highlights how UA contributes to men and women’s tangible and intangible practical
and strategic needs in vital ways by providing personal well-being, stress relief, support, and friendship in addition to improving both food security and health.

This chapter highlights unexpected results pertaining to the level of equality found between garden members and within the household. While the results cannot make the claim that UA contributes to gender equality, it was found that males and females working together in the gardens shared roles and responsibilities quite equally.
Chapter Six: Final Summary, Conclusions, and Recommendations

Introduction

This chapter provides a summary of the key findings relating to how men and women are experiencing UA, how it is influencing them as individuals, the impact it is having on their households, and how it is being perceived by the community. It will also provide recommendations for the organization working with the gardeners (Abalimi Bezekhaya), and general policy recommendations. To conclude, suggestions for future research will be made.

Final Summary

The study used a modified conceptual approach based on Hovorka (1998), Wilbers (2004), and Moser’s (1993) frameworks on gender analysis to identify the roles that men and women play within the UA setting, within their homes, and their communities. The objectives of the study were to explore the roles of women and men in UA to determine what they do, what resources they have access to, and what their needs and priorities are; measure social and economic benefits; determine reason(s) for male and female participation; and to explore, in a preliminary manner, how UA has potentially influenced the individual, their household, and their community. This research used a variety of qualitative analysis methods including semi-structured interviews, key informant interviews, focus group discussions, and participant observation. While the research was focused mainly around two townships, Nyanga and Khayelitsha, gardens in the nearby
surrounding areas (still within the Cape Metropolitan Area) such as Philippi, Langa, Crossroads, Browns Farm, and Gugulethu were also surveyed.

The key findings of the study were that men and women, contrary to common belief, are similar in their reasons for participation. Men and women value monetary gain equally, and neither cited it as their main motivation for engagement. Rather, the main motivators are due to lack of employment and food security. The research also discovered that there is equality regarding the division of labour within the garden—all members are responsible for all duties. The only area where one sex (males) dominated was in physically digging. The study also found that within the development chain (survival, subsistence, livelihood and commercial) there is not necessarily a decrease in social benefits as gardens progress to the commercial level. Lastly, the benefits experienced by men and women were very similar (regarding food security, health improvements, etc), with key differences for men being that they stay out of trouble, and for women, that the garden provides stress relief.

As previously mentioned, the conceptual frameworks were not able to identify significant tangible or intangible roles that men specifically have within the household or community, leading to a gap in the research. It is necessary to include men’s experiences and how they are influencing the household. This means that these frameworks must be modified to address these social experiences.

**Main Conclusions**

This study explored the potential of UA to contribute to the needs and priorities of low-income men and women at the individual level as well as within their households and greater community. Men and women engaging in UA within these communities face great economic and social constraints resulting in high unemployment rates and a lack of access
to fresh, affordable food. As stated in the literature, a common reason for low-income individuals to engage in UA relates to food security. That was confirmed in this study. The literature also stated multiple tangible and intangible benefits including economic, ecological, health and nutrition, improved social capacity, and psychological health. Again, this study confirmed these benefits, most notably with health, nutrition, personal well-being, and stress relief (psychological). This study also confirmed UA to be a source of social support at both the individual level and the community level.

While various studies have focused on this area in Cape Town, especially in relation to Abalimi Bezekhaya, none have provided an in-depth look at how men and women experience UA. Those studies that have explored the topic of gender have focused on women, mainly due to the high rate of female involvement. What was missing was a study that identified increased male participation and to explore gender stereotypes to see if perceptions matched reality.

This study confirmed that female participation is still predominant, especially among single, female-headed households. The study also uncovered the existence of single fathers bearing the role of primary caregiver. Most importantly, the study uncovered that the reasons for participation did not significantly differ between men and women. Men did not cite income as the main motivator, as was expected. Instead, both men and women cited unemployment, not having anything to do, or having retired as their main motivator. In second place, both men and women gave reasons relating to food security.

Regarding benefits, both men and women cited income as the most important benefit they receive. Within the top three most important benefits, both men and women listed food security and knowledge sharing. Women emphasized the benefit of stress relief more than men, citing the garden as a place to escape from the stresses of life and the home
(usually mentioning children). This would indicate that the gardens fulfill a specialized need for women with dependents in addition to addressing food security.

These findings indicate the needs and priorities of men and women involved in UA to be more similar than different, which adds significantly to the discussion around the motivations of men and women to engage in UA, as well as the benefits each receive from UA.

**Recommendations**

Recommendations will be shared with Abalimi Bezekhaya, as it is their continual work and support that encourages these gardens to grow and prosper.

**Recommendations for the Gardeners**

One area that was clearly identified by both men and women as a physical struggle was the hard labour involved in clearing, preparing, and working the soil. Some members mentioned recruiting community members with pay or compensation (free vegetables) for assistance in digging trench beds or tilling the soil, but indicated that they only did so when they had something to give—which was not often. On the other hand, members from two gardens mentioned their relationship with local correctional offices and how they were receiving free labour from prisoners. This is an area that should be further explored as low risk prisoners serving time for non-violent related crimes could provide significant assistance to older gardeners. In addition, unknown benefits may arise from building these relationships.

Another area where gardeners may use free labour is from the schools. An overwhelming number of gardens are located on or near public school grounds. Facilitating a relationship between the schools and gardeners has the potential for a number of benefits.
For example, students receive hands-on experience with seeing how food is produced. Second, students may take what they’ve learned home and decide to start their own garden, thus reducing household food costs. Third, involving students with gardening may help promote healthy food choices.

**Recommendations for Abalimi Bezekhaya**

The importance of the work the field staff carries out cannot be overemphasized. They are the link between providing information regarding trainings, resources, and knowledge. Some of the most fruitful results have come about because of their expertise and knowledge as well as their recommendation for events and conferences/summits (for example, one female gardener spoke very highly of an Urban Farmers summit that took place a year previous).

Continued trainings surrounding conflict resolution are encouraged. In addition, leadership training could also prove useful in giving participants confidence to expand their garden. As one member said, her garden is a business, and she wants to grow her business, but she faces constraints from the City of Cape Town due to the allocation of the land on which her garden rests. This brings me to my next section on recommendations for the City of Cape Town.

**Recommendations to the City of Cape Town: Urban Agriculture Policy**

The City of Cape Town has done an excellent job incorporating an urban agriculture policy stating,

The primary focus of this policy document is on agricultural activities by the poorest of the poor within the urban (built) areas. It does not include commercial farming and other agricultural activities outside the urban edge of the City. The policy covers the benefits, negative impacts, challenges and opportunities for the development of urban agriculture in the City. It introduces a
range of strategic imperatives and practical steps to achieve the vision for urban agriculture in the City.

However, in July of 2013 the City voted in favour of expanding Cape Town’s urban edge to allow for housing development in the Philippi Horticultural Area, which is 307ha of prime agricultural land, and has been serving as the city’s breadbasket since the 19th century (Petzer, 2013). This has caused outrage as the City goes directly against its Urban Agriculture Policy and threatens not only the livelihoods of Cape Town’s poor, but also their access to securing affordable food. The City of Cape Town must fulfill its commitment to protecting agricultural land and by extension, its poor.

**Areas for Future Research**

As men become increasingly involved in UA, further more specified research looking into the cultural roles of Xhosa men and the potential impact of UA would be an interesting area to pursue. Perhaps even more interesting would be a similar study done in cities located in the Eastern Cape Province, to see how or if some of the cultural taboos are still being observed or if it has changed as it has in the Western Cape province.

At the moment, Abalimi Bezekhaya uses what is referred to as, ‘the Development Chain’ as an indicator of social benefits according to the level of expertise a garden has achieved. It would be interesting if in addition to this model, a model based on the life stage of participants were explored. This study found multiple participants citing retirement as changing the way they viewed their responsibility to the community. Using a participant’s “life stage” rather than the level of their garden as an indicator to evaluate social benefits would not only be interesting, it would provide important information regarding the promotion of UA to youth—what are young adults interested in achieving by participating in UA? What sort of impact does UA have on the life of a young adult (for example, various participants said it keeps them out of trouble)? What
sort of skills could participation help foster? For example, does it contribute to skills relating to teamwork, coordination, knowledge sharing, community involvement, etc?

Lastly, UA as a crime deterrent would be a fascinating topic of study, especially as most of the gardens are located in higher crime areas. Similar studies have found that the presence of UA has helped lower crime, and it would be interesting to see if UA has potentially contributed to this in Cape Town.

**Concluding Remarks**

It is vital that both men and women are provided equal access to opportunities and resources relating to UA. Men and women are working hand in hand, pooling their resources, knowledge and social connections to improve their standard of living and provide for their families. In what is considered a traditionally patriarchal society, it is surprising to find an environment where men and women are cooperating and helping one another. On the other hand, both men and women in these environments rely on efficiency and cooperation to be successful. It is perhaps not surprising to see equality within the division of work as this directly affects their ability for efficiency, and therefore their ability to be successful. It appears that those involved in urban agriculture have discovered this, and are profiting from a structure of equality.
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Appendix One

Semi-Structured Survey Tool for Gardeners

Garden Activities

1. Who is responsible for watering the garden, and how often?
2. Who is responsible for weeding/pest control?
3. Who decides what to plant? (probe: what is your favorite vegetable to plant and why?)
4. Who is responsible for physically planting?
5. How is the land/soil prepared? Who is responsible for this?
6. Who is responsible for cleaning the tools?
7. Who fixes broken tools/equipment?
8. Who decided the layout of the garden? Ask to take a tour of the garden and to explain the layout
9. Who is responsible for harvesting?
10. Who determines how produce is divided among members?
11. If sold, who determines how much to charge for produce?
12. Who determines how profit is divided among members?

Garden Resources and Access to Resources

13. Source of water for garden: (borehole, sprinklers, drip irrigation, watering cans, etc)
14. Source of manure:
15. Source of seeds and seedlings:
16. How did they acquire their land? Are they required to pay for it?
17. Source of windbreaks/bushes/trees (if any):
18. Have they ever applied for a loan/credit/grant for anything relating to the garden, if so what?
19. Source of equipment & tools:
20. Source of container/shed:
21. Who taught you to garden? (probe: where did you first hear about it?)
22. Have you ever attended a gardening training course?
23. How do you hear about funding? (probe: how do you apply for this?)

Roles & Activities Outside the Garden

24. Who is responsible for managing the household income?
25. Who decides how money is spent?
26. Who is the head of household in your family?
27. Who contributes to the family income?
28. Who is currently responsible for providing food for your family? (Is this always the same or does it change?)
29. Who is responsible for looking after children?
30. Who is responsible for disciplining children?
31. Who is responsible for the cooking?
32. Who is responsible for the cleaning?
33. Who is responsible for shopping?

Reason(s) for participation

34. Tell me a little about your life before you decided to start/join a garden: (probe: what were you doing before becoming a gardener?)
35. What made you decide to start/join a garden? (probe: how did you become aware of gardening?)
36. How would you describe your life since starting/joining a garden? (probe: has anything changed since starting/joining the garden?) If so, could you elaborate?

Influence of UA on family unit and community

37. How do you feel about producing your own food?
38. How do you feel when you are in the garden?
39. What would you say are the most important benefits that you gain from your UA activities?
40. How would you feel if for some reason you were unable to continue your farming activity?
41. What are the benefits of belonging to a group?
42. How did you meet each other? (probe: did you know each other before?)
43. Can you tell me about a time when you felt supported by one or all of the garden members? What happened?
44. What do your neighbours think about your garden?
45. Prior to gardening, where did you buy your produce? (probe: what was the quality of the produce on a scale of 1-5, 1 being low, 5 being high?)
46. How much did you pay for produce in a given week?
47. On a scale of 1-5, 1 being hardly ever and 5 being always, prior to gardening, how often did your family eat fresh produce per week?
48. On a scale of 1-5, 1 being hardly ever and 5 being always, how often many times a week does your family eat fresh produce now?
49. Approximately what percentage how much of your garden’s produce is used for your own consumption?
50. Approximately what percentage is how much produce do you share with people outside of the garden? (probe: who do you share it with and why?)
51. Approximately what percentage how much is sold? (if any)
52. I read that traditionally, imifino was taboo for men to eat. Is this still the case?  
53. Are there any foods that women are traditionally not supposed to eat? Has this changed?

Quality of Life – how participants are situated within their community

54. When you or a member of your family is sick, where do you go for care?
55. How far must you travel for this? (probe: how do you get there?)
56. Do you or anyone in your family struggle with an impairment or disability? (probe: physical or mental, or chronic illness, etc). (probe: yes or no is fine, type of illness or disability is not needed).
57. Do you have another source(s) of income?

Demographics

58. Number of gardeners:
59. Date garden was established:
60. Number of years in garden (ask each member):
61. Age:
62. Sex:
63. Highest level of education obtained?
Appendix 2: Chart illustrating various types of natural *imifino*

Appendix 3: Close up of one type of traditional *imifino* (natural *imifino*)