Agricultural Urbanism and Urban Agriculture: Exploring possible role that can be played by University of Fort Hare and Buffalo City Metropolitan Municipality (BCMM) in support of small scale urban farmers in East London, South Africa

By

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DECLARATION

I, Siphamandla Rumsha declare that, ‘Agricultural Urbanism and Urban Agriculture: Exploring possible role that can be played by University of Fort Hare and Buffalo City Metropolitan Municipality (BCMM) in support of small scale urban farmers in East London, South Africa’, is my own work and that all the sources that have been used or quoted from have been acknowledged by means of complete references.

Signature ........................................................................

Date ................................................................................
DEDICATION
This mini-dissertation is dedicated to my daughter

Sinesipho Dlova
And my late two cousin brothers

Thembekile Siwela and Simlindile Dike,

may their souls rest in peace.
ACKNOWLEDGEMENTS

It pleases me to convey a word of thanks to a number of people without them this mini-dissertation would not have been completed. I wish to give special thanks to my supervisor Dr. O. Sibanda for guidance, moral support and valuable contribution from the onset of the mini-dissertation to the end.

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ABSTRACT

This study investigates the impact of urban agriculture in the city of East London as well as the possibility of adopting agricultural urbanism as an urban farming model to bolster food security. The study goes further to understand the role that could be played by University of Fort Hare and Buffalo City Metropolitan Municipality in capacitating small scale urban farmers in the city of East London. Unemployment and food insecurity are the key challenges that are affecting many families in South Africa, including urban dwellers. The main objective of this study therefore is to investigate the contributions of urban farming in securing food security and livelihoods in East London. This study adopted a mixed methods research approach, where both quantitative and qualitative methods were used to harvest data. Statistical analysis (descriptive) was then used to analyse quantitative data. Thematic approach used to analyse qualitative data. The study shows that urban farming plays an important role in the livelihoods of urban dwellers. However, the sector still faces various challenges such as lack of recognition by authorities. The study also revealed that the city of East London has potential to establish agricultural urbanism as it has most of the essential aspects that are necessary to establish it. The study recommends strengthening of the partnership between University of Fort Hare, Buffalo City Metropolitan Municipality and small scale urban farmers in East London.
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LIST OF ACRONYMS

BCMM- Buffalo City Metropolitan Municipality
UFH- University of Fort Hare
UPA- Urban Peri-Agriculture
IDP- Integrated Development Programme
HIV/AIDS- Human Immunodeficiency Infection/ Acquired Immunodeficiency Syndrome
DBSA- Development Bank of Southern Africa
DFID- Department for International Development
FAO- Food and Agriculture Organization
SA- South Africa
DAFF- Department of Agriculture Forestry & Fisheries
SIDA- Swedish International Development Cooperation Agency
SADC- Southern African Development Community
NCASA- National Cooperatives Association of South Africa
ECCBR- European Conference on Case Based Reasoning
CEDS- Centre for Development Support
USAID- United States Agency for International Development
SPCA- A Society for the Prevention Cruelty to Animals
BEE- Black Economic Empowerment
BBEE- Broad-Based Black Economic Empowerment
CHAPTER ONE
OVERVIEW OF THE STUDY

1.1 INTRODUCTION
This study investigates possible role that can be played by the University of Fort Hare (UFH) and Buffalo City Metropolitan Municipality (BCMM) in capacitating small scale urban farmers in the city of East London, with the possibility of establishing agricultural urbanism in the city. Contrary to old beliefs that poverty and food insecurity are rural issues, today there is a rising concern about food availability in the cities, particularly to people who live in low income areas. Therefore, it is vital for urban planners and policy makers to consider integration of food systems that will guard against food insecurity in cities. Currently, agricultural urbanism is considered as one of the most effective urban food systems to curb food insecurity as it is applied in North America and Europe. To define agricultural urbanism:

Agricultural urbanism is an approach to urban planning and development that foregrounds all elements of the food system across all parts of a city. Agricultural urbanism is about reconnecting those who live in cities to all elements in the system that grows, processes, packages, distributes, sells, delivers, cooks, celebrates and educates about the food they eat. By, integrating the food system visibly into every element of the city, and thereby creating a more vibrant and prosperous city as well as more resilient and culturally rich food system (Roshon, Nef,& Schell, 2012:45).

Agricultural urbanism is a new approach that has emerged from urban planners, designers, developers, policy makers, academics and others who are interested in many aspects of sustainable food issues, using their broad knowledge to address the planning and developments of the cities to address sustainable food system goals (Schimidt, 2013:40). So, this gives an impression that agricultural urbanism is driven by various stakeholders for as long they have motive to achieve sustainable food system, and have a zeal to create eco-friendly urban areas. However, it is important to note that drivers of this approach may be different from city to city, for example in other cities municipality is playing vital role in establishing agricultural urbanism. Whilst in other cities, it is driven by communities or non-profit organisations who rent land from municipality.

Even though it gets much attention in discussions on food systems, agriculture is actually a small part in South Africa. The current food systems that are in practice on
agriculture or urban agriculture are entirely unsatisfactory to address the actual concerns and opportunities in this industry (Roshon et al, 2012:47). Therefore, agricultural urbanism was created as a direct response to the previous little attention in the planning profession on urban agriculture and the issues of development near or on agricultural land. So, agricultural urbanism attempts to offer information and apparatuses for planners, designers and developers to improve the whole food system whilst planning and managing urban areas. Agricultural urbanism is also important in the sense that it helps structuring urban areas in a certain manner, and it is against urban sprawl and extreme density (Schimidt, 2013:47, Ward, 2013:21 and Clarke, 2014:16).

Agricultural urbanism requires different stakeholders to work together. In the case of East London, important stakeholders for realisation of agricultural urbanism include small scale urban farmers; the municipality which has financial capital and land to support small scale urban farmers and the university; which is important as the knowledge producer. Therefore, these two entities, which are university and municipality, are essential for capacitating small scale urban farmers. Hence, agricultural urbanism also can be seen as the strategy for grooming small scale urban farmers so that they can be able to produce according to their potential.

East London, like many cities in South Africa is facing challenge of migration of people from rural surroundings. As one of more developed cities in the Eastern Cape Province, BCMM attracts people from around the greater Amathole region and beyond in search of work and better access to urban services and facilities (Buffalo City IDP, 2012-13:19). Even though people still see BCMM, particularly East London as a better place to offer them employment opportunities. However, the metro itself is struggling to create enough employment opportunities, as it is stated in Buffalo City IDP (2012-13:27).

The City acknowledges that low economic growth and a high rate of unemployment are still prevalent and present a major challenge. This further translates to relatively high levels of poverty which is widespread within the City.

This implies that many people in the metro might find it difficult to sustain themselves as unemployment is high. In this case, agricultural urbanism could play major role in capacitating and in providing food access to those who lack it. Globally, the focus
now is on agricultural urbanism due to pressure of urbanisation that has put a strain on food resources. Therefore, this study recommends that to fight food insecurity and unemployment adversaries, BCMM should formalise urban agriculture.

It has been noticed that worldwide countries continue to experience urbanisation, especially emerging countries, which had a yearly urban growth rate of 3.6% between 1950 and 2005, versus 1.4% in industrialised countries (Ramamonjisoa et al, 2012:429). According to United Nations (2015:1) the world population is approximately at 7.3 billion. It further argues that globally, more people live in urban areas than in the rural areas, with 54% of the world population residing in urban areas in 2014, and it is estimated that by 2050, 66% of the world’s population will be living in urban areas. This population growth in urban areas puts pressure in urban systems such as infrastructure, employment and food. However, one of the most crucial aspects in this process of urban growth is food availability to the ever-growing urban population. Researchers, policy makers and planners are increasingly more concentrating on the role of agriculture in growing urban spaces (Ramamojisoa et al, 2012:1). However, it has been observed that in many developing countries people are no longer zealous to produce their own food; this is stimulated by an ability to import food from far countries (Schimidt, 2013:21). Moreover, small urban farms often disappear due to development of pressure or municipal regulations that restrict farming activities.

South Africa as one of the developing countries is also not immune to this challenge of urban growth. Since the democratic election in 1994, the country has seen a migration of people leaving rural areas to reside in urban areas with the hope of getting better employment opportunities. However, since the world economic recession of late 2007 and early 2008, in South Africa there has been an emergence of urban farming, particularly in the so called poor residences (Van de Merwe, 2011:2). In Africa, it has been argued that urban farming became a symbol of many cities in the 1980s as numerous countries accepted structural adjustment programme, which have had negative impact to several countries, as the currencies lost their value and employment opportunities declined (Maxwell, 1999:21). The main objective of this study is to assess the feasibility of establishing agricultural urbanism in East London through examining current state of urban farming in the city.
1.2 RESEARCH PROBLEM

South Africa, like many other emerging countries, is becoming more urbanised at a rate never been seen before (van der Merwe, 2015:1). According to United Nations Human Settlements Programme as cited by van der Merwe (2015:2), 61.7 per cent of South African population currently reside in urban areas. And it is predicted that this number will increase to 66.6 per cent by 2020, and 71.3 per cent by 2030. Urbanisation in South Africa is reinforced by significant rural-urban migration, both from rural areas to urban areas within South Africa and migration from across the African continent to South African cities. Van Der Merwe (2015:2) claims that this migration is prompted by South Africa’s status and image as the largest, most developed, and most stable economy in Africa. As the population increases in urban areas, this poses a challenge to infrastructure and particularly to food systems. Consequently, urban food security is an emerging area of development concern, and it is significantly different from questions of food security within the country and rural agricultural sectors (Van der Merwe 2015:5).

When the global economic recession began in, South Africa had asserted itself as a relatively strong economy as it was experienced period economic growth prior the recession. Therefore, economic meltdown allowed vulnerabilities of the country to surface, those include unemployment, inequality, poverty, crime and human immunodeficiency virus infection/ acquired immunodeficiency syndrome (HIV/AIDS) still persist to harass the country (Kalula, 2012:11243). On the other hand, agriculture, mining and manufacturing had declined and this left many people subjected to poverty as many lost jobs in the process. Kulula (2012:11244) further asserts that the global economic recession contributed to the impoverishment of many South Africans who had already been economically disadvantaged in the past. The Development Bank of Southern Africa (DBSA) (2009:6) claims that study that was conducted by Urban Food Baseline Survey which was conducted late 2008 showed that levels of food insecurity among the urban poor in three cities, which are Cape Town, Msunduzi and Johannesburg, and the levels were 70 per cent. Cape Town and Msunduzi were showing high levels of food insecurity among urban poor as it stands at 80% and 87% respectively. It has been noted that from year 2008, South Africa had an increase of community gardens, particularly among the so-called poor communities.
The rise of urban farming has been a response to poverty which has been triggered by the outbreak of global economic recession. However, these small scale urban farmers are facing other numerous challenges which include, municipality laws that prohibit farming in the cities, lack of resources and sometimes knowledge.

1.3 RESEARCH OBJECTIVES

1. To investigate the impact of urban farming on households in East London.
2. To investigate types of urban farming that exists in East London.
3. To explore challenges that are confronting urban farmers in East London.
4. To examine role that can be played by Buffalo City Metropolitan Municipality (BCMM) and University of Fort Hare to on urban farming.

1.4 RESEARCH QUESTIONS

1. What is the impact of urban farming to households in East London?
2. What types of urban farming exists in East London?
3. What are the challenges that are confronting urban farmers in East London?
4. What role can be played by Buffalo City Metropolitan Municipality (BCMM) and University of Fort Hare to support of urban farming?

1.5 SIGNIFICANCE OF THE STUDY

Firstly, it is essential to note that this study is not trying to change policies of Buffalo City Metropolitan Municipality (BCMM) but aims to add updated information to the field of urban studies. Secondly this study is important because it shows how urban farming helps people to sustain themselves particularly in the marginalized residential areas. This study also shows how urban farming can contribute to local economy if it can be formalised. Moreover, this study is bringing new approach of urban farming, which is agricultural urbanism. Furthermore, this study is vital because it is creating connection between different various stakeholders, such as university, municipality and community. This study also reveals how small scale urban farming can contribute in improving issue of unemployment and fighting food insecurity in the City of East London. Lastly, this study wants to identify gaps in the existing knowledge and weaknesses in earlier studies that have been done in this field, that is to determine what has been already done and what needs to be improved.
1.6 CHAPTER OUTLINE

Chapter One, of the study, comprises of introduction, research problem, research questions, research objectives and significance of the study. Introduction is used to do an overview of the entire study.

Chapter Two, forms large part of the study and its important function is to review all relevant studies that had been conducted in this area. In addition, to review previous studies, it also looks at gaps in the previous studies so that they can be addressed in the study. This chapter also looks at the theoretical framework of the study.

Chapter Three describes the methodology and research design, research methods, data collection and analysis, location of the study as well as ethical consideration.

Chapter Four presents and analyse empirical data which was collected during the field work. The research utilizes both statistical and narrative analysis to create a sense of what was gathered.

Chapter Five's role is to examine reasons for small scale urban farmer to engage on urban farming. It has been discovered that poverty and unemployment are the one of the major reasons for practicing urban farming in East London. Another motive for embarking on urban farming was the availability of open species inside residential areas of most small-scale urban farmers.

Chapter Six summaries the findings of the study, and makes some conclusions as well as recommendations.
CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1. INTRODUCTION

This chapter as it forms large part of the study and its important function is to review relevant studies that are conducted in this field. In addition, it reviews previous studies, also looks gaps in the previous studies so that they can be addressed in the study. Moreover, this chapter also looks at the framework of the study. So, this chapter comprises of two parts, which are theoretical framework and literature review.

2.2 THEORETICAL FRAMEWORK

2.2.1 SUSTAINABLE LIVELIHOODS FRAMEWORK

As the main objective of this study is to advocate the capacitation of small-scale urban farmers, so that they can be able to combat social adversities such as poverty, food insecurity and unemployment that mostly affect people in low income areas of East London. Thus, this study is more concerned about discovering ways of sustaining people’s livelihoods. As stated in the objectives of the study, the appropriate theoretical framework for this study is sustainable livelihoods framework. Before looking to sustainable Livelihoods Framework, it is essential to understand what sustainability is, and what sustainable livelihoods entail.

Sustainability is one of the most commonly used concepts of the 21st century. It seems that there is nothing that cannot be described as ‘sustainable’. Those things that do not really fit to the concept are paired with it (Scoones, 2007:589). Sustainability is one of the complex concepts and its definition is from Brundtland Commission of 1987. The Brundtland Commission (1987:47) defines sustainable development as follows “Sustainable development is development that meets needs of the present without compromising the ability of the future generations to meet their own needs”. It has been noted that sustainable development is not a fixed or harmony phenomenon, but rather a process of change in which the exploitation of resources, investments, the orientation of technological development and institutional changes are made consistent with the future as well as present needs.
The preceding account affirms the saying that sustainable development is a complex process, and in order to be achieved governments and institutions have to work together. Scoones (2007:589) calls it a boundary term where science meets politics, and politics meet with science. The sustainable development term came into being as the world countries were trying to tackle challenges of the post-second world war, which were poverty, economic stagnation, and environment detrimental, especially in the South of the hemisphere (Brundtland Commission, 1987:47).

In the 1990s, the term ‘sustainable livelihoods’ came into popularity as the signifier of what good development should be, and it was popular in United Kingdom but also globally (Scoones, 2007:591). The term originated from the committee working on agriculture and food for the Brundtland Commission in the 1980s, however, the word first appeared in the 1987 Food 2000 report (Scoones, 2007:591). Sustainable livelihoods got its definition from the work of Robert Chambers and Gordon in a discussion paper published by the Institute of Development Studies in 1992. However, for an extended time, sustainable livelihoods term had been in limelight, until it appeared in the United Kingdom government’s White Paper on international development in 1997, thereafter, it took centre stage as it was seen as the essential element of development (Scoones, 2007:591). Sustainable livelihoods, like sustainable development concept, is perplex as its definition understood to be unclear, inconsistent and relatively narrow by other scholars. Chambers & Conway (1991:6) define both livelihood and sustainable livelihood as following:

A livelihood comprises the capabilities, assets and activities required for a means of living. A livelihood is sustainable when can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term.

It can be noted that, the above definition touches so many aspects. As Scoones (1998:5) points it out that, this definition can be disaggregated to highlight different sub-components. This definition highlights aspects such as employment for those who are not working, poverty reduction, well-being and capabilities; and the concept of well-being and capability give a broad scope for the livelihoods, livelihood adaptation, vulnerability and resilience; this is about how people withstand against stressing circumstances that sometimes imposed by nature or economy and natural
resource base sustainability; this calls for access to natural resources and warns that natural resources should not be misused as that could pose challenge to people who are reliant to them. Scoones (1998:7) further points out that the key five indicators of sustainable livelihoods are quite different, some are broad whilst others are very precise, and the methods to assess them are quite different as others require use of quantitative and whereas others use qualitative methods. So the definition does not give one simple way of objectively measuring sustainable livelihoods. Hence, it is safe to argue that sustainable livelihoods are a composite of many ideas and interests from the different fields of development debate. In addition, sustainable livelihoods do also consider well-being of an environment. This is important because in order for people’s lives to be sustainable, they need access to natural resources. Below in figure 1 Scoones drew a sketch where five key element of sustainable livelihoods. Complex as it is, Scoones (1998:7) further observes that sustainable livelihoods is flexible to changes, this means that it is accommodative to new ideas, which intend to improve the state of it. Sustainable livelihoods are a holistic approach that employs different aspects that intend to improve people’s wellbeing.

Figure: 1. The five capitals of sustainable livelihood

Natural capital
Natural resources stocks (soil, water, air, genetic resources etc.) and Environmental services (hydrologic cycle, pollution sinks etc.)

Social capital
Social resources
(networks, social claims, social relations, affiliations, associations)

Human capital
Skills, knowledge, labour
(includes good health and physical Capability)

Physical capital
Infrastructure (building, roads), production equipment and technologies

Economic or financial capital
Capital base (cash, credit/debt, savings, and other eco-

Source: Scoones (1998:28)
Looking at the strengths of sustainable livelihoods, this creates a more holistic view on resources that are important to the poor, not only physical and natural but also their social and human capital. Another crucial aspect of sustainable livelihoods is that it facilitates an understanding of underlying causes of poverty by focusing on the various aspects, at different levels, that directly determine or fringes poor people’s access to resources (Sida, 2001:22). In addition, the sustainable livelihoods approach makes it possible to see how even the poorest of the poor are active decision-makers, not just passive victims in moulding their own livelihoods. Furthermore, sustainable livelihoods approach facilitates an understanding of the linkages between people’s livelihood strategies, their asset status and their methods of using present natural resources, and therefore is an appropriate approach for understanding both the problem and the scope for promoting sustainable development at the local level (Sida, 2001:22). Finally, the notion of livelihoods provides a more suitable basis for evaluating the socio-economic impact of programme which have poverty alleviation as at least one of their overall objectives, since it provides a more realistic framework for assessing the direct and indirect effect on people’s conditions than one dimensional productivity or income (Scoones, 1998:22, Swedish International Development Cooperation Agency (Sida), 2001:32).
The livelihoods framework is a tool to improve understanding of livelihoods, especially the livelihoods of the poor people. The sustainable livelihoods framework presents the main factors that affect people's livelihoods, and typical links between these (United Kingdom's Department for International Development (DFID), 1999:1). In addition, sustainable livelihoods framework can be used in both planning new development activities and assessing the contribution to livelihood sustainability made by existing activities. Sustainable framework as it is centred on people; it does not work in a linear manner and does not attempt to present a model of reality. Its objective is to help stakeholders with different perspectives to engage in structured and coherent debate about the various factors that affect livelihoods, their relative essentiality and the way in which interact. This in return, should assist in highlighting of appropriate entry points for support of livelihoods.
The entire discussion about sustainable livelihoods approach, informs us that policy makers and planners when they design or implement programs that intends to address issues such as poverty, and empowering poor people should not be narrow minded. As the study also tries to find ways of capacitating small-scale farmers in East London, this discussion gives clear direction what to look. For example, sustainable livelihoods have key five elements that can determine success of any programme that is being implemented. Therefore, it is vital for this study to examine how the relationship of small-scale farmers to the above mentioned elements is. This will assist the study in highlighting the points that need to be strengthened in order to capacitate small-scale urban farmers in East London.

2.3 LITERATURE REVIEW

2.3.1 FOOD INSECURITY IN AFRICAN CITIES

Grimm Bla (2009:7) argues that in the next two decades, the global population would hit 60% in urban centres and food is going to be the essential issue. He further asserts that in 2007 the world has become an urban society by surpassing the rural-urban threshold. The increase of urban population leads to a situation where food production becomes an imperative issue for both local and world. Due to the increase of population in urban centres, therefore, productive land in cities has been turned into residential places. Urban centres today have challenges such as lack of productive urban land, food insecurity, uncontrolled urban growth, the lack of stable local food markets, land use conflicts in the peri-urban areas. Access to proper and decent food resources is essential if household is to enjoy good quality of life. Through media we always hear that world leaders, development scientists, policy makers and others involved in betterment of human lives, poverty alleviation is always in their discussions. According to Food and Agriculture Organization (FAO) (2012:5) Africa’s city population is increasing faster than of any region. It is also mentioned that by the end of the current decade, 24 of the world’s 30 quickest growing cities will be in Africa. In addition, it is also asserted that less than a decade the population in the Sub-Saharan Africa will reach almost 600 million. This will pose a challenge to African cities as half of the population reside in urban areas. And this will increase the number of people live in slums. Also it has been mentioned that up to 200 million survive on less than US$2 a day and poor urban children are as likely to be chronically malnourished (FAO, 2012:5).
The preceding argument is supported by Onyango (2010:15) where he argues that reducing poverty in Africa appears to be impossible. Even though improving people’s lives has been on the lips of all African leaders since the dawn of independence. Fighting poverty and improving people’s lives has been the commitment for all development practitioners and all those who are part of economy and social welfare development planning. However, world financial crisis of 2008, which resulted to recession, humped the plans of several countries in fighting poverty. It has been proclaimed that the effects of the recent financial crisis will continue to be felt for an extended time as lot of people lost their jobs (Onyango, 2010:15). The financial crisis of 2007/2008 posed a challenge to numerous African countries, as the United Nations set the goal of zero hunger. FAO (2012:9) supports this proclamation by arguing that the challenge of achieving a zero hunger world, in which everyone is adequate nourished and all food systems are resilient is argent in African cities. This calls African policymakers to act swiftly to drive urbanisation from its current state and try to address issues that confront poor people. This can be achieved by creating sustainable greener cities that ensure food and nutrition security, decent work and income, and a clean environment for all citizens.

2.3.2 STATE OF POVERTY IN POST-APARtheid IN SOUTH AFRICA
In South Africa poverty reduction appears to be the fundamental objective in almost every social program of government ever since the democratic election of 1994. Poverty in South Africa is experience through different categories such as sex, age, location and so forth. The country is branded as one of the world’s countries that have high inequality among its people. However, according to Statistic South Africa (2014:36) there has been improvement in state of poverty in the country. It has been mentioned that levels of poverty have declined significantly from 57.2% in 2006 to 45.5% in 2011. Also it has been alluded that the poverty gap and severity of poverty measures have also improved from 2006, even though those improvements have overwhelmed by the increase of severity poverty in 2009, which might be influenced by recession of 2007/2008.
Inequality seems to be resilient as in 2006 to 2011, inequality remains relatively unchanged. Poverty tends to exist in the peripheral settlements in urban centres (Machethe, 2004:1). It has been revealed by Stats SA (2014:36) that Limpopo, Eastern Cape and KwaZulu Natal show high prevalence of poverty as it stands at 63.8%; 60.8%; 56.6% respectively. The high prevalence of poverty in these provinces might be influenced by the fact that these three provinces are more rural compared to the rest of the provinces.

Changes to South African government system resulted in high volume immigrants to urban centres and that has increased high rate of poverty in many cities. It was estimated that by 2010 in South Africa about 12 million people will be living in slums as the urbanisation persists (Onyango, 2010:19). Since the economic recession of late 2007 and early 2008 poverty became so intense in urban areas and it is likely that urban areas will experience persistent hunger than the hunger that can be found in rural areas. The reason behind this intense poverty is the fact that urban populations depend largely on income to access food, however, employment and income conditions seem not to be improving. As economy continues to perform badly, life in urban areas has become more expensive. Employment in the formal sector has declined and real wages have not kept up with price rises. Therefore, this led to the situation where majority of people become food insecure.

The matter of food insecurity has been critical in several countries including South Africa. It is stated that in the international and national law that people have a right to food (Onyango, 2010:19). For decades South Africa has been prohibited from international developments due its apartheid laws, therefore food security received much attention after 1994, when it became a democratic country. Thereafter, the right to access to sufficient food was embedded in Section 26 and 27 of the South African Constitutional Law of 1996 (Department of Agriculture Forestry & Fisheries,(DAFF) (2011:4). In defining food security, Viljoen (2005:3) defines food security as “giving populations both economic and physical access to a supply of food, sufficient in both quality and quantity at all times, regardless of the changes in environment and social factors”. According to DAFF (2011:4) 2010/11 financial year was reprioritised as one of the highest urgencies for South African government.
This was in line with South Africa’s millennium development goal which aims to have halved the population of people who go to bed hungry over the period of 1990 and 2015 and to halve poverty and unemployment by 2014.

However, these targets seemed to have failed because even today many South Africans are still unemployed and poverty continues to rumble among families. According to the Food and Agriculture Organisation (FAO) report for 2008 shows that international projects of people experiencing chronic hunger increased dramatically over the period of 1990 to 2007. This increase in number of chronically hungry people was due to increased food prices worldwide as result of lower production of staple food around the world such as cereals. The motive behind price increase of food staff was the increase in price of the oil in many parts of the world. Moreover, political instability, wars, and lack of agricultural inputs in many regions of African countries played a role in food insecurity as arable land lay uncultivated (DAFF, 2011:5).

Normally, when families are confronted by food shortage they react to improve their situation. To curb the situation families that are affected by food shortage engage in acquiring activities or modify their eating attitude. Due to the circumstances most families in South Africa have been compelled to resort and obtain different coping strategies. These strategies differ from one family to the other, however, it is a norm that when families do not have stable income they tend to buy cheap food. When, government’s aid available in form of food vouchers/parcels families would apply for that.

Due to the poverty and unemployment that have stricken many families in South Africa, a new development paradigm of sustainable use of resources and self-dependent has been developed. This new paradigm prompted by the realization that government institutions together with their policies have failed to combat poverty. This paradigm put emphasis on individual empowerment (Onyango, 2010:21). This one activity that families in urban areas have resorted to is Urban Agriculture. It is argued that numerous of the urban poor in cities around the world in developing countries are equipped with agricultural skills that be used to develop unutilized lands in their cities (Onyango, 2010:36). Therefore, urban Agriculture becomes a sustainable strategy to fight poverty and unemployment in many cities of developing world.
2.3.3 PRACTISE OF URBAN AGRICULTURE AT INTERNATIONAL LEVEL

Urban agriculture is defined as follows, “the growing, processing, and distribution of food and other products through plant cultivation and seldom rising livestock in and around cities for feeding local population (Game & Primus, 2015:1). Urban agriculture has its own history as it can be traced back to the previous decades. However, it revolved as the population grows and technology changes. Below the study will devote time and examine urban agriculture in different places of the world. This helps as it gives an understanding how other countries in the world practice urban farming.

Agriculture and urban normally are considered as vary phenomenon. For decades farming has been considered as a country thing and has been distanced from urban settings (Waldheim, 2014:3). However, lately there is a notable contrast from what has been the norm in the past years. Currently, there is growing interest in producing food in urban centres. The enthusiasm to produce food in urban centres is elicited by poverty and unemployment as well as the call for an environmental friendly economy (Korir et al, 2015:27). Agricultural revolution has also allowed for the farming industry to flourish in order to support the ever growing population, however, today due to the various issues such urbanisation, climate and expansion of built environment, land for agriculture has shrank (Schmidt, 2013:12). More than anything today there is high rate of poverty in urban habitants, and this calls for food production in cities. The high rate of poverty and food insecurity that is currently prevalent in cities can be linked with the fall in industrialization. When it comes to economic development virtually all countries follow a broadly similar pattern, this might be the fact that countries influence each other. For example development in every region of the world attempts to copy that of Europe. So, Western influence on world affairs commences to strive even after colonialism. It is believed that as development gets under way the share of agriculture in national employment falls and there is a rapid increase in the share of manufacturing (Rowthorn and Coutts, 2004:1). This process of moving away from agricultural production it is called industrialization. Industrialization, like any development it raises and at certain point it reaches point, where it does not grow any further, and then it starts to fall down.

In 1960s the world saw the fall of industrialization which had begun in North America and Europe. The decline of industrialization affected global economy, and cities such
as Detroit and Chicago which were heavily dependent on automotive industry experienced a record decline in their economies (Bluestone, 2013:1). Even though features of falling industrialization started to appear in the 1960s but became more pervasive in 1970s. Colasanti et al (2013:348) emphasise that community development discourse of the community garden movement resurrected in the 1970s as a means of combating urban plight and fostering stronger neighbourhood social ties. For the fall of industrialization in America, there are numerous issues that account for this. Imports from Germany and Japan, hostile of labour unions, negligence of management in advancing quality of the products that were produced in the plants. So it is safe to argue that American industrialization fell because of the decline in manufacturing. Whatever, the reason might be, but there is an undeniable fact that this left majority of people without jobs and poverty became one of the main issues, particularly among black community. Since there was scarcity of employment and access to food became a critical issue as well. Then people decided to go back to basics of acquiring food through starting up community gardens. It is at this point that urban agriculture was introduced in many cities.

2.3.3.1 URBAN AGRICULTURE IN ASIAN AND MIDDLE-EAST COUNTRIES
According to Smit et al, (2001:2) urban agriculture is a new phenomenon in few places. However throughout the world there is a history of farming intensively within and at the periphery of the cities. It is been alluded that Asia has the most varied and large number of modern intensive farming systems. Urban agriculture in Asian countries provides vegetables, poultry, mushrooms, fish seaweed, swine, fruits, medical herbs, and wood for furniture (Smit et al, 2001:1). Asian countries tend to have intense and widespread of urbanization, a long tradition of urban agriculture, and early recognition of the benefits waste for agricultural uses (Hoornweg & Munro-Faure, 2008:33). It is argued that in the 19th century China with thousands of large towns and small towns, excelled on urban agriculture.

In 1960s China did an overhaul of its land user regulation and developed a specific urban development policy and strategy that includes self-reliance in vegetables and protein for established large cities and growing towns (Smit et al, 2001:3). Smit et al, 2001:4) further argue that, today China is one of the countries that have achieved nutritional self-reliance in non-grain foods. In addition, women are the ones who are dominating the sector, and urban famines which were frequent have been avoided.
since Second World War. The preceding assertion gives the connotation that woman in China are the ones that are driving urban agriculture. This is not surprising because even in other region particularly in developing worlds, women tend to play vital role in this sector. An insight into other Asian big cities such as Hong Kong which is one of the densest large cities in the world; it has been indicated that in the 1980s it was producing two-thirds of poultry, one-sixth of the pigs and close to half the vegetables were eaten by its citizens and visitors (Smit et al, 2001:4). On the other hand, Pakistan has been appreciated for having a fairly advance system of urban agriculture. Vegetables are raised in intensive beds irrigated with fresh water pumped from a sub stream river and crabs are raised on the city waste for the non-Muslim population (Hoornweg & Munro-Fau, 2008:69). However, this ceased by new developments that were introduced in the post-World War II and urban administrators discourage urban farming (Smit et al, 2001:4).

The Middle East has some of the most ancient cities in the world, penetrated by productive gardens and surrounded by agricultural belts. In this region urban agriculture can be traced to various ranges such as from the revived system of quanat irrigation in some Iranian towns, to Istanbul’s horticulture along its ancient city walls, the market gardens of Syria’s central cities, to the massive oasis in Damascus, and to vegetables grown around Beirut (Smit et al, 2001:6). Like any other region Middle East has a long history of urban farming. In this region this model been supported by government as the irrigation scheme was established to support it.

### 2.3.3.2 URBAN AGRICULTURE IN EUROPE AND NORTH AMERICA

According to Smit et al (2001:18) urban agriculture in Europe can be traced back to the days of Charlamage, who as an emperor of the Holy Roman Empire, issued an edict that spelled out which crops were to be grown in towns and in cities, and that happened in the 8th century. It is further argued that in the 18th century, as much as half of the area within the city wall was likely to be devoted as the place to grow food. Even though industrial cities were far away to be environment friendly in cities, but there were green patches and small gardens (Smit et al, 2001:20). However in the late 18th century Europe experienced a huge decline in urban agriculture which accelerated after the Second World War. This decline in urban farming can be associated with the rise of industrialisation particularly in the cities, as this movement started in Europe. In Central and Eastern Europe, the central agricultural programme
produced bushels and barrels of food but it was unreliable in the delivering it to the consumers. Therefore people resorted to producing their own food on a more dependable basis closer to home. However, with the decline of socialism and the return of a free-market economy, urban agriculture has blossomed in central and Eastern Europe. Arguable the expansion was due to the economic hardships that have accompanied the change in the political system (Smit et al, 2001:18). Decades after Second World War, due to modernization urban agriculture lost its importance around the cities. In many instances it was only used to reserve land for the massive new housing areas. However, it has been noted that urban agriculture has recently increased significantly in Western Europe. In Italy, small-scale urban have organized into cooperative and associations to protect their interests. These small-scale urban farmers are linked to the green movements that emphasise the importance of locally grown food.

In France and Germany, the sustainable agriculture movement is growing and includes urban farmers. Among other causes, this movement promotes nutritionally self-reliant communities. On the other hand, Denmark has advance programmes of co-housing mostly that include community food production. In addition, Netherlands has well known history of intensive urban agricultural production. The above discussion shows that in Europe urban agriculture had its own challenges but people didn’t abandon it totally, as they would return to it during the times of hardships. For example since 1970 to 2000 there is some ample evidence which suggests that globally urban agriculture has had resurgence. Europe as well is not exceptionally in this situation as there is also noticeable growth of urban agriculture. This can be associated with the decline of industrialization in the 1970s (Smit, 2002:2). In North America, it is argued that urban agriculture was introduced by the European immigrants. Intensive crop and livestock production was practiced in European villages and towns (Smit et al, 2001:21). The emergent of massive industrialization accompanied by swiftly urbanization changed the old system of urban farming.
Another issue that enhanced establishment of urban farming was the economic crisis of 1882; it introduced community farming on vacant lots to major cities. As the programme yielding success many landlords would lease their land to urban farmers. However, in the 1900, urban agriculture was a symbol of European settlers, as it was mostly practiced by them in their different locations.

These European immigrants brought a specialization in the sector, as greenhouses cold frames were more prevalent in various places (Smit, 2002:2). World War one is believed as one of the causes to the boom of urban agriculture in North America. Municipalities supported the home growers and commercial growers to raise perishable foods. Again during the Second World War, urban agriculture was the norm in many cities of North America. Many authors are content that both urban household food production and peri-urban market gardening were significant supporters of the food and agriculture system in North America until the 1950s, when it shrunk vehemently. However, in the last years of the 20th century urban agriculture made comeback in North America. In 1970s community and home gardening resurrected, one of the main reasons for their comeback was the decline of manufacturing in many cities such as Detroit (Smit, 2002:5). Other than that quality of food was also a concern.

For example the 1994 national survey revealed that 30 per cent of United States families were gardeners with fully 80 per cent of them were urban dwellers (Smit, 2002:8).

As the programme was supported by communities, then universities as well were supporting the programme. For example Rutgers University in New Jersey, the University of California at Davis and Cornell University are among universities that supported the programme. Therefore in North America role of urban agriculture got much recognition from various states and local and regional planners developed policies that promote urban food system.
2.3.3.3 PRACTISE OF URBAN AGRICULTURE IN LATIN AMERICA AND CARIBBEAN COUNTRIES

History shows that before the arrival of Europeans, Latin America and Caribbean had their own sustainable agricultural system (Smit et al, 2001:24). However this ancient system was destroyed by the Europeans. As the region was ruled by Spaniards and Portuguese, farming was prohibited. The form of urban agriculture was only practised in the European residences and it was more of a European model and was not recognisable and not productive. However, arrival of Asian technology using intensive production changed the face of urban agriculture in this region. In the 1970s and 1980s, urban agriculture received support as a social welfare program from governments, churches and charities (Smit et al, 2001:25). Another big contributor to the establishment of the program was United States of America through its technology that increased production of some produced that were exported to foreign countries. In the 1980s Asian and European systems, especially fish farming were introduced on a larger scale.

2.4.3.4 STATE OF URBAN AGRICULTURE IN AFRICA

In Africa, urban agriculture has been a long tradition and is widely practiced. However, there are countries that still undervalue the prominent role that is played by this model. But lately there has been a changed attitude towards the program, some leaders realised the potential of urban agriculture to alleviate the growing hunger, economic and environmental crises in the persistently growing cities of Africa.

As many current cities in Africa, particularly in Sub-Saharan Africa were built in the 19th and early 20th centuries by colonial rulers who have been conscious about cleanness.

However, after independence these new states saw intensive urbanization, which increased informal settlements. The rapid urbanization resulted in urban poverty. Therefore, urban agriculture became a norm in many urban settlements. Maxwell, (1999:79) argues as follows:

In 1970s and 1980s urban economies in Africa decline sharply. At this period urban poverty appeared to be more growing in much of the continent cities. Unemployment and underemployment were serious problems accompanied by rapid rates of growth in population. Like other world countries, Africa was hit by world financial crisis,
which was triggered by the rise on oil prices. Other than this, most of the African countries had adopted structural adjustment programmes, which turned situation to worse, as many people lost their jobs. Consequences of that was the outbreak of poverty in many countries as the economy could not offer employment opportunities to inhabitants. Since people could not find employment from the under pressure economy, began to practise urban farming to mitigate poverty.

The preceding passage illustrates that poverty in Africa is not solely caused by limited resources but incapacitated leaders and sometimes international policies encourage spread of poverty in African countries. Considering, the role played by structural adjustment policy in African economies. Today half of Africa’s population already lives in cities, and it is projected that this percentage will continue to grow. A perfect analogy of this scenario is that one of Cameroon where 50 per cent of the population already resides in the cities and it is estimated that by 2030 this is likely to increase to 70 per cent (De Bon et al, 2010:11). As this intensive urbanisation persists in most African cities it triggers the rise of mega-cities, secondary towns and small urban settlements to expand into rural areas, increasing population densities even in the periphery areas. As people migrate from rural settlements to urban centres they migrate with the hope of acquiring employment. However, under many instances these people do not get employment due to various reasons. One of those is the lack or low educational qualifications (Jacobs and Xaba, 2008:4). So this puts people in awkward situation where they have to find other ways of securing food. Normally, there are two ways that a person can secure access to food; is either to buy it or produce it. However, as many people lack funds to buy food, therefore, producing food seems to be a better option.

According to CDS Policy Lekgotla (2010:2) urban agriculture is not limited to food crops and animal growing, it also includes aquaculture, agro-forestry and horticulture. In most instances urban agriculture is perceived as a vibrant concept that encompasses variety of farming systems, ranging from substance production and processing at household level to fully commercialized agriculture (Zeeuw et al, 1999:1). Urban agriculture exists under different conditions, for example, where there is a scarcity of resources such as land, water and capital. This situation sometimes hinders growth of this model, as it is tipped to contribute immensely in urban socio-economy if it is well supported. In terms of contribution to development, urban
agriculture enhances food security, provides additional income and employment for poor and middle-income urban residents and contributes to an ecologically sound urban environment.

Even though urban agriculture is perceived as one of the programmes that contribute in fighting food insecurity but policy on urban agriculture is rare to be integrated into mainstream development programmes at the local level. So this illustrates that urban agriculture exists under different policy environment that sometimes prohibits its existence and growth. CDS Policy Lekgotla (2010:5) further argues that urban agriculture does not fulfil its envisaged role because is not a permanent development model. In many instances urban farmers practice urban agriculture only when they could not find employment in the main economy. In addition, urban agriculture tends to exists in small spaces. Therefore urban agriculture contribution is not felt by everyone who lives in the society where it exists. In many cases urban agriculture for substances purposes is carried out on land that is not owned by the user such as roadsides, riverbanks, along railroads, vacant private lands and parks. The use of such areas in most cases is prohibited by many municipalities. So fear of eviction leads people to plant short duration seasonal crops and prevents them from making investments to improve soil quality. All these happen because many countries do not perceive urban areas as places for agriculture. So when they planned residential areas never thought that agriculture at one stage would be needed in urban areas.

2.5.3.5 EMERGENCE OF URBAN AGRICULTURE IN SOUTH AFRICA
Urban food insecurity is well acknowledged as the cardinal development challenge in Sub-Saharan Africa. It is argued that the world’s population now is predominantly resides in urban areas, and Sub-Saharan Africa is the most urbanising world region (Battherssby, 2012:1). The above propositions concur with Frayne et al, (2009:5) which projected rise of urbanisation in Southern African Development Community (SADC). This claim seems legit for South Africa, where 56.2 per cent of the national population reside in cities in 2001. And it was projected that the figure will reach 70 per cent by 15 years to come, which is 2016. Consequently, food insecurity become one challenge in the cities as number of people migrate from rural areas to cities, therefore, this shift extended poverty from rural areas to urban areas.
South Africa as part of Sub-Saharan and SADC countries is experiencing the same problems that are prevalent in the region. South Africa was hit by world economic recession of 2007/8 which resulted to loss of many jobs. This affected food availability for many families. It is mentioned that in South Africa at least half of all South African live in absolute poverty (Frayne et al, 2009:8). Thus, ordinary people resorted to urban agriculture.

Although, is difficult to approximately provide the figure of urban agriculturalists in South Africa. However, CDS Policy Lekgotla (2010:4) predicts that households that are participating in urban farming are between 300 000 and 500 000 across South Africa. The policy further highlights that this means that 3.5% of South African urban families are involved in some form of urban agriculture. People who reside in areas that have higher rainfall and at the coast have larger number of people who practise urban farming. Globally, there is handful evidence that urban agriculture is practiced by the so called impoverished section of population as a coping strategy. In South Africa urban farming tends to be practised by older members of the families and people who have very low skills base (CDS Policy Lekgotla, 2010:3). It is further argued that there is a link between agricultural activities and either social grants or another jobs. For instance only 5% of families engaged in urban farming agriculture are solely dependent on urban agriculture, and the other bulk of families have also have other sources of income (CDS Policy Lekgotla, 2010:3). However, it cannot be denied the fact that urban agriculture contributes immensely to food security of many families, particularly poor families.

It is mentioned that policy on urban agriculture often does not get enough credit, as a results is seldom integrated into mainstream development programmes at the city level. However, there are cities that realize essentiality of urban agriculture and they integrated it into their main stream policy development programs. Durban has designed sophisticated policy environment where a deliberate attempt has been made to avail public open space in some of the lower income suburbs for urban agriculture (CDS Policy Lekgotla, 2010:2).
2.3.3.6 PRACTICE OF URBAN AGRICULTURE IN EASTERN CAPE

This section is devoted to look at urban agriculture in Eastern Cape Province. Before going into detail, it is essential to draw out the province’s profile in relation to agriculture. The Eastern Cape is located in the South-East of South Africa, bordering to Free State and Lesotho in the North, KwaZulu-Natal in the Northeast along its south and south-eastern borders, and Western and Northern Cape in the west. According to Buffalo City Integrated Development Plan (2012/13:18) Eastern Cape is the second largest province in South Africa, and it covers 169,580 square kilometres, which is 13.19% of South Africa’s total land area. In addition, the province boasts itself by having third largest population in South Africa.

East London, Port Elizabeth and Uitenhage are dominating economic hub in the province, and these economies are based on manufacturing. This province also has agricultural potentialities that are sketched out by the produce of various agricultural produce such as fruit orchards in the LongKloof Valley, sheep and goats in the Karoo, pineapple, chicory and dairy production in Alexandria-Grahamstown area; and coffee and tea cultivation at Magwa. In the former Transkei people dependent on cattle farming, maize and sorghum farming. The province also boasts itself by being one of the ostrich exporters, and this industry contributes about R90 million per year in the foreign revenues. The Eastern Cape’s economy in general is branded by a series of challenges. This province unlike many South Africa provinces, there is no mining base, manufacturing levels are below national average and industries firms are concentrated in the primary base urban centres. Eastern Cape living conditions can be drew as follows:

About 23% of the population aged 20 years or older had no formal school education, and 55% of those in the age group 15-64 years were unemployed. In addition, a large proportion of the population, which is 68% lived below the national poverty line in 2002. Further, less than half of the population of the household, which is 47% lived in formal housing, and 11 and 38% respectively lived in informal and traditional structures. On average 4.1% persons shared a household. Piped water was available in 62% of households, either in the home, on site, or at a communal tap. In 31% of the households there was no toilet facility. In 36% of the households refuse was removed at least once a week. In the households, 28% had access to electricity for cooking purposes, 36% used wood and 29% paraffin (Makiwane & Chimere-Dan, 2010:43).
Eastern Cape as part of South Africa is characterised by challenge of unemployment and crowd of people leave rural areas to seek employment opportunities in urban centres. This situation puts pressure on the already fragile urban system and therefore, this increases informal settlements. Eastern Cape Province has a recognisable farming sector which contributes immensely to economy of the province, and it creates lot of job opportunities, as it is alluded above. However, there is nothing much has been written about urban agriculture in the province. Nonetheless, lack of documented information does not mean that there is no occurrence of urban farming in big cities of the province. Therefore it is in the interest of this study to dig up the state of the urban farming in the city of East London.

Even though the urban agriculture is being praised for fighting poverty and food insecurity there are other challenges about it. One of the challenges is that in many cases urban agriculturalists do not get support from local governments’ authorities. As mentioned above that sometimes urban farmers find it difficult to get land as sometimes cities prohibit use of land for agriculture. Some cities’ authorities prohibit urban farming because of the use of chemicals which they think that might be harmful to residents. This is emphasised by De Bon et al (2010:9) arguing that a cardinal obstacle to the development of agriculture in and around cities is the consumption of synthetic chemical pesticides and biological insecticide. It is also argued that numerous studies have revealed toxic city features due to pesticides in Dakar (De Bon et al, 2010:10). Another challenge for urban agriculture is the fact that some of the urban farmers have low agricultural skills. Some of urban farmers have low school qualifications sometimes they struggle to lobby for their produce to the markets. Therefore,a lot of authorities and marketers do not recognise positive contribution of urban farming, because produce from urban farms to not reach their markets. Urban agriculture sometimes is seen as informal and normal exists at a smaller scale. Therefore it leaves another social issue unaddressed, which is unemployment. So it would not be a crime to substitute it with the new approach of urban farming, which is agricultural urbanism. Hence the study below here will dwell on agricultural urbanism.
2.4 AGRICULTURAL URBANISM: BENEFITS OF ADOPTING AGRICULTURAL URBANISM TO THE CITY

Agricultural urbanism is defined as a way of constructing a place around food. It is an emerging planning, policy and design framework that integrates a wide array of sustainable food and agriculture system elements into a community (Roshon et al, 2012). In concurred with the preceding definition Clarke (2014:1) further describes agricultural urbanism as follows:

Agricultural urbanism is an emerging movement based around the idea of integrating sustainable food-systems and education with the design of the urban environment. A food system includes the infrastructure and processes of feeding a population, from growing to processing, distributing to consuming, and finally, from recycling back growing. This movement emphasizes that the integration of food-systems with daily city life will contribute to the development of sustainable communities.

For agricultural urbanism, food security, education and healthy urban environment are important for man’s survival. Without quality food, man’s body and brain would not work properly. Eating healthy food has a correlation with bringing brilliant innovations. In addition, uncontaminated environment has associated with living a long healthy life. Agricultural urbanism proponents perceive this system as different from traditional agriculture and urban agriculture. Some argued that agricultural urbanism is different from these two because it creates walk-able urban form surrounded by large scale of food production, whilst urban agriculture simple refers to growing food in empty slots or back yards. In addition, agricultural urbanism requires an extensive of planning, whereas urban agriculture does not. However, agricultural urbanism does not reject any other form of urban farming for as long they exit permanent and exist within the boundaries of urban area. For example, agricultural urbanism incorporates various forms of urban farming such as permaculture, hydroponics, vertical farming and lives stock keeping as well as aqua-agriculture. Nevertheless, it is essential to note that today many countries have urban agriculture but not agricultural urbanism, as it is still a new model.

Agricultural urbanism can exist in different settings such as rural and urban. In rural settings agricultural urbanism requires clustering buildings together. This allows farmers to have workable large of tracks of land but it enables farmers to pool together resources and interact socially with other farmers. When buildings are clustered together that may allow sharing of expensive equipment, and create a
farmer’s market. If buildings are scattered it is impossible to share equipment. Agricultural urbanism can also use as a model to guard against urban sprawl as it requires clustering. In urban settings, agricultural urbanism progresses along transects, which become progressively more and more dense. This density allows for complexity, which is necessary for urban settings. Since farmers under agricultural urbanism exist at a medium and large-scale level, therefore, different forms of equipment can be used including tractors.

Photo 1. A Sketch of Agricultural urbanism community

Normally, under agricultural urbanism food is sold locally and so it has reasonable shorter distances to travel and can be sold daily to avoid storing (Schimidt, 2013:45). Since, it is known that if vegetables stay long times without being used lose quality. Consequently, travelling long distances makes food lose quality and that could deteriorate health of those who will consume it. Thus agricultural urbanism emphasis local produced food than the one that travels long distances. In agricultural urbanism selling products happens at different levels such as wholesale and at smaller scale (Schimidt, 2013:47, Ward, 2013:21 and Clarke, 2014:16). This means that local restaurants, retail shops and schools can buy in bulk while local citizens can do their daily shopping in the local market area (Ward, 2013:17). Agricultural urbanism also recommends food production to be a culture. For instance farmers that produce food are also encouraged to have restaurants if possible or event space for food related celebrations (Clarke, 2014:19). Agricultural urbanism emphasises the importance of
teaching young people about producing their own food (Ward, 2013:21). Educating youth about agriculture that instils the culture of producing food and it keeps knowledge into society for generations to come (Mullinix et al, 2008:4).

2.5 A PARTNERSHIP BETWEEN MUNICIPAL, UNIVERSITY AND URBAN FARMERS’ COMMUNITY

In order to accomplish full establishment of agricultural urbanism; it is essential to have favourable partnership between various stakeholders such as municipality, university and farmers. Municipalities play enormous role in advancing agricultural urbanism, as a result, are expected to lead the way and comprehend their cardinal role (Mullinix et al, 2008:8). So, building partnership between community, municipality and university, focusing on the establishment of sustainable, urban agri-food systems is important in advancing agricultural urbanism. This partnership is the catalyst for building an urban focused agri-food system that directly contributes to the liveability of urban communities (Mullinix et al, 2008:9). In many cases there are people who wish to engage in urban farming but they have no access to land or knowledge of how to find it, whereas there is an abundance of land plots that are underutilized in cities (Ward, 2013:3). Therefore, a partnership between municipality and urban farmers’ groups would help to find smaller lands within and closer to the city for determined urban agriculturists. To make this result in mutual benefits, municipalities can rent out municipally owned lands for agriculture enterprises.

Moreover, it can be municipalities that secure lands to enable the development of an agri-food sector serving its citizens, and that would increase food safety and food security (Mullinix et al, 2008:11). Furthermore, Clarke (2014:14) asserts that the municipality can support agri-food system development efforts by the provision of incubator farm plots where small tracts, again from municipally owned lands could be leased to trainee producers so that they can gain essential knowledge and experience before investing significant capital and other resources in the development of agriculture enterprises. This would be very effective if a municipality would establish a municipal micro loan program to support start-up urban and interface agriculture entrepreneurs (Schimidt, 2014:22). It is argued that for those municipalities that embracing agricultural urbanism will yield benefits in various areas such as economic and environment (Ward, 2013:6).
When agricultural urbanism is fully established, good jobs will be available within the community, not only in primary food production, but also in such areas as value added processing and products, restaurants featuring local food, and culinary arts training using local food (Mullinix et al, 2008:13). The social fabric of a community that embraces agricultural urbanism is strengthened and fortified, as communities in the past were enriched by their common enterprise of producing and providing food (Waldheim, 2014:5).

The mission of the universities is to provide support on national development plans through the two missions; research and teaching. Academics were trying to win national and international approval for the quality of their research and teaching, and this sometimes has been at the expense of making greater contribution to local economies and communities (Atchoarena & Holmes, 2004:22). Only a small number of universities appeared to have developed strategies to contribute to the development of community education and to support local development. As universities generate knowledge, therefore they have an essential part to play in the development of agricultural urbanism.

Through research, education and outreach programs, universities can be main attribute to revolution of agriculture to suit the modern industrialized world. Universities have to address problems and challenges faced by urban agriculturists and residents, research ought not to be restricted to crop production (Mullinix et al, 2008:13), instead, researchers must attempt to address the wide range of challenges.

After universities have conducted researches, it is essential for them to share discoveries with the community and that technical information. For universities disseminating findings will work as outreach efforts, which are designed to foster broad public awareness, support and expertise to other stakeholders such as the traditional agriculture sector and non-agriculture sectors (Mullinix et al, 2008:14). Ward (2013:8) asserts that an on-going educational programme for those who are working in the urban agriculture sector should happen in the form of seminars, workshops, conferences, non-credit classes, demonstrations and field days.
2.6 POSSIBLE ROLE OF AGRICULTURAL COOPERATIVES IN ASSISTING SMALL-SCALE URBAN FARMERS

Another common approach when it comes to farming in South Africa is what is called cooperative. According to Oregon State University (2004:4), a cooperative is a special type of corporation that is owned by and controlled by those who use its services. Food and Agriculture Organization (FAO) (2012:2) further expands the definition of cooperative by arguing that, “a cooperative is an autonomous association of women and men, who unite voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise”. Since poverty seems to be more prevalent in numerous urban areas, therefore cooperatives can play essential role in addressing it. This can be done through capacitation of small-scale urban farmers. In addition, capacitation of small-scale urban farmers could make agriculture one of essential sectors in the cities. However, this can be successful if relevant stakeholders work together. It has been observed that some small-scale farmers are not producing according to their potential, particularly urban farmers, because they lack resources and equipment (DAFF, 2012:6). Then, forming cooperative could help in organising necessary resources, to support small-scale urban farmers who lack resources.

In South Africa some farmers belong to cooperatives and some are individual farmers. Nevertheless, it is a norm to find farmers who belong to certain cooperatives. Since some of small-scale farmers are part of cooperatives, it is imperative for this study to look at this approach and see how it can help in reducing poverty, stimulate job opportunities and in establishing agricultural urbanism to be a reckoned development programme in the city of East London. Satgar (2007:3) asserts that cooperatives occur under various guises in South Africa. Sometimes they are called as projects, self-help group, mutual societies, village banks, credit unions, consumer store and associations. Although, it is not known the exact number of existing cooperatives globally, but it is assumed that there about one billion people who are affiliated to cooperatives, and approximately there 100 million jobs worldwide that are offered by cooperatives (FAO, 2012:2). This shows that indeed cooperatives have enormous contribution to people lives. It is claimed that countries that have achieved economic advancement have a vibrant and a dynamic
cooperative sector which play critical role to growth of those countries (Department of Agriculture, Forestry and Fisheries (DAFF), 2012:8).

In countries such as Kenya cooperatives contribute 45% of the Gross Domestic Product (GDP) and 31% of the total national savings and deposits. In addition, it is also asserted that in New Zealand, 22% of the GDP is generated by cooperative enterprises (DAFF, 2012:9). It has been assured that the modern type of cooperatives have their roots in Europe and from the other industrializing countries in the 19th century as a self-help technique to reduce extreme circumstances of poverty (Ortmann & King 2007:43). The South African history of cooperatives is associated to and moulded by the colonial and apartheid planning and organisation in society and the economy. The first cooperative was established in 1892 and was called Pietermaritzburg Consumers Cooperative and was registered under the then companies Act (Ortmann & King, 2007:45). Thereafter, various cooperatives particularly agricultural cooperatives were registered under the Companies act until 1908 when the first Cooperatives act was passed (Ortmann & King, 2007:45). During apartheid, white farming cooperatives were used as vital tools of agricultural commercialisation and rural development. It has been said that during their peak in the 1980s, there were about 250 white agricultural cooperatives which had a membership of 142,000, with the total asserts of some R12.7billion, total turnover of some R22.5 billion, and an annual pre-tax profits of more than R500 million (DAFF, 2012:11). These agricultural cooperatives were state controlled entities and market were regulated, and there were subsidies and incentives which were companied by land grabs and the exploitation and social control over cheap black labour (ECCBR, 2009:23, DAFF, 2012:12). As the country under apartheid had various kinds of administrations such homelands and national government, therefore black people were not part of the white cooperatives. They were only working as cheap labour to agricultural farms. However, as mining and urbanization intensify organised modern cooperative began in the black communities as these people were trying to fight poverty in their communities (Ortmann & King, 2007:56, ECCBR, 2009:25). Urban and rural people have sustained several types of cooperative entities such as stokvels, burial societies and savings clubs (ECCBR, 2009:25). Further ECCBR (2009:27) mentioned that it is likely that their investments amount to
millions of rands each year, but the strategic control and use of these resources is not in the hands of the members of these cooperative initiatives.

The study that was conducted by a baseline survey reveals that there are approximately 684 South African cooperatives, and this information was published in 2001 by the National Cooperative Association of South Africa (NCASA), it estimates a total of 60 000 participants in South African cooperative enterprises (ECCBR, 2009:34). In South Africa the cooperative movement is projected to generate aggregate revenue of R1, 3 billion from the 684 cooperatives. However, if the largely white agricultural marketing and supply cooperatives are excluded, this figure falls to a R84 million. The preceding discussion suggests that indeed agricultural cooperative play critical role in fighting poverty and boasting economy as many farmers export their produce overseas. Therefore, this evidence gives assurance that if small-scale urban farmers as well can form cooperatives that would help them to generate reasonable amount of money and that would reduce poverty and create strong agricultural market in the City of East London.

2.7 CONCLUSION
In summing up, the core of this chapter was to outline the three urban farming models, which are urban agriculture, agricultural urbanism and Agricultural Cooperatives. The intentions of doing this, is to provide broader understanding of these models, and to show benefits of each model and weaknesses. The discussion reveals that urban agriculture and agricultural urbanism models are similar to each other, but the former is more informal and in most cases is practise during the times of desperation, particularly when economy is not providing employment opportunities for citizens. However, the latter is more formal and its aim is to integrate food production in urban systems. Agricultural urbanism aims to exist permanently and it encourages educating those who practise farming as well as young people, so that food production can be incorporated to a culture of the community. This means that under agricultural urbanism, producing food is not drive by lack of employment and economic crisis but producing food must be a culture, since food is a basic of life for living beings. Moreover, for agricultural urbanism producing food within cities is encouraged because it is essential to stabilise ecology as well. So, all in all agricultural urbanism offers a stratagem for sound urban growth and retrofit that can support a highly productive, ultra-efficient agri-food system to contribute significantly
to feeding the people of the city, reducing their footprint and achieving urban sustainability. On the other hand, agricultural cooperatives are agricultural producer-owned coops whose cardinal objective is to increase member producers’ production and incomes by helping better link with finance, agricultural inputs, information, and output markets.
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter outlines the research methodology that was used to collect data. This study used a mixed methods research approach, meaning that the study adopted both qualitative and quantitative paradigms. Johnson and Onwegbuzie (2004:17-18) defined below:

Mixed methods is formally defined as the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or languages into a single study. Mixed methods research is also an attempt to legitimate the use of multiple approaches in answering research questions, rather than restricting or constraining researchers’ choices. It is an expensive and creative form of research, not a limiting form of research. It is inductive, pluralistic, and complementary, and it suggests that researchers take an eclectic approach to method selection and the thinking about and conduct of research.

The above definition gives a connotation that mixed methods appreciates or value combining multiple elements of qualitative and quantitative methods.

In describing methodology, Williman (2011:1) states that methodology is the means or methods of doing something. Polit and Hungler (1999:648) refer to methodology as the process of following the steps, procedures and strategies for gathering and analysing the data in a research investigation. These methods describe in details how the study was conducted. According to Harambolos & Holborn (2008: 787), methodology includes the design, setting, sample, methodological limitations and the data collection and analysis techniques in a study. In other words, this is the know-how of the scientific methods and techniques employed to obtain valid knowledge.
3.2 RESEARCH APPROACHES

The approach for this study is a mixed methods approach. This means that the study used both qualitative and quantitative approach to collect data. In defining qualitative interview, Kvale (1996:157) states this “the qualitative research interview seeks to describe the meanings of central themes in the life world of the subjects. The main task of interviewing is to understand the meaning of what the interviewees say”. Barbie and Mouton (2001:269) mentioned three qualitative research designs, which are ethnography, case studies, and life histories. However, Creswell (2003:14-15) extended these into five which are ethnography, grounded theory, case study, phenomenological, and narrative research. Each design is useful when is used under specific circumstances. However, this study used case study design, as it is suitable for the study.

Case study design is defined as “an intensive investigation of a single unit” (Barbie & Mouton, 2001:281). It is further discussed that the interaction of the unit of study with its context is essential part of the investigation. So, case study thickly describes the phenomenon in multiple perspectives. In so doing, it attempts to understand the role of multilevel social systems on subjects’ perspectives and behaviours (Barbie & Mouton, 2001:281). So, case study is important for this study as it attempts to understand more the phenomenon of urban farming in East London. To collect data from the participants, semi-structured interviews were used. Semi-structured interviews are advantageous because allow participant to open up more and allow him or her to give an additional information that maybe important to the researcher.

Quantitative research is a systematic empirical investigation of observational phenomena through statistical, mathematical techniques (Barbie & Mouton, 2001:230). Most of the quantitative studies are survey designs. A quantitative approach is the one in which the researcher mainly applies post-positivist ideas for developing knowledge, employs strategies of inquiry such as experiments and survey, and it gathers data on predetermined tools that produce statistical data (Creswell, 2003:18). This study adopted survey design, whereby standardized questionnaire was used to collect data.
3.3 RESEARCH PARADIGM
As this study adopted mixed methods approach, this means that the study is pragmatic in nature. Pragmatism paradigm encourages researchers to use all approaches to understand the problem (Creswell, 2003:11). In addition, pragmatism challenges the belief that positivism and interpretivism cannot be combined in conducting research study. Therefore, pragmatism provides a basis for using mixed methods approaches as a third alternative. Pragmatism means that the researchers have a freedom to choose the methods, techniques, and procedures of research that best meet their needs and objectives. Since pragmatism is not committed to any philosophical theories, it allows the use of mixed methods to develop knowledge. Study to acquire information used both semi-structured interviews as well as standardized questionnaire. So, this shows that the study appreciates both methods as they help in bring credible results.

3.4 RESEARCH TOOLS OR INSTRUMENTS
When a researcher embarks on a journey of conducting a research study, usually is armoured with specific instruments which enable him or her obtain the right information. These tools are called research instruments. However, research instruments to be used depend to the kind of study that researcher embarks on. Quantitative researcher would use standardized research questionnaire, whereas qualitative research would use interviews. Having adopted mixed methods approach the study used both semi-structured interviews and standardized questionnaire to collect data. Semi-Structured interviews are not concern about representation, but to understand how people are affected by the problem in question. Advantage of using semi-structured interviews for this study, was that it allowed researcher to probe more. Another instrument that was used is recording machine, which was used to record the responses of the participants.

For quantitative part, the study used questionnaire to collect data. “A questionnaire is a data collection tool consists of a series of questions and other prompts for the purpose of gathering information from respondents” (Abawi, 2013:3). Advantage of using questionnaire is that it allows collection of both subjective and objective data in a large sample of the study population in order to obtain results that are statistically significant.
3.5 RESEARCH POPULATION AND SAMPLING
Population for this study was the urban farmers in three townships of East London, which are Duncan Village, Pefferville and Mdantsane NU12. Barbie and Mouton (2001:173) define research population as following, “A population is the theoretically specified aggregation of study elements”. The process of selecting participants to take part in the study is known as sampling. In further elaboration of the concept, “sample method involves taking a representative selection of the population and using the data collected as research information” (Latham, 2007:1). It has been mentioned that the sample should be representative in the sense that each sampled unit will represent the characteristics of a known number of units in the population (Babbie & Mouton, 2001:167). All research disciplines are required to apply certain kind of sampling method as it gives clear selection of participants. Latham (2007:2) argues that using correct sampling methods allows researchers the ability to reduce research cost, conduct research more efficiently, have greater flexibility, and provides for great accuracy.

Since the study adopted mixed methods approach, this means that both simple random sampling and purposive sampling has been applied. Simple random sampling is defined as following, “a sample random sample is a subset of a statistical population in which each member of the subset has an equal probability of being selected” (Barbie & Mouton, 2001:189). So, a total of thirty (30) participants were selected by using simple random sampling. In that total of thirty (30) participants selected, ten (10) were from Duncan Village, another from Mdantsane NU12, as well as in Pefferville.
Purposive sample is a non-probability sample that is selected based on characteristics of a population and the objective of the study (Barbie & Mouton, 2001:166). Since the study aimed at studying only urban farmers, therefore, purposive sampling seen necessary to achieve the objective of the study. Therefore, five (5) participants were selected to be interviewed. Three (3) participants were selected from the ten (10) participants that were chosen for survey. Another two are the representatives from BCMM in the office of agriculture, and at University of Fort Hare in the Department of Agricultural Economics and Extension. This takes the total number of participants in the study to thirty two (32).

3.6 LOCATION OF THE STUDY

This study is based in East London, but there are only three townships that have been studied which are Duncan Village, Perfferville and Mdantsane NU12. These townships are formerly known as the places for blacks and coloured respectively. However, today are mixed but still dominated by blacks and coloured. In addition, these townships are confronted by challenges of unemployment and poverty.

Duncan Village is a black township that was originated in 1941. It was named after the then Governor of East London, Patrick Duncan, who supervised the opening of what was called a ‘leasehold tenure area’ in the East Bank location and named the area after his name. Duncan Village is situated about five (5) kilometres away from the East London city business centre (CBD). The estimated population is approximate at 16 380 which is predominantly black (Ndlovu, 2015:7).

Duncan village is branded by an insufficient supply of basic public services, such as water, sanitation, streets, electricity, schools, health centres, also painted by poverty, low incomes, political and social exclusions, insecure tenure situations, inadequate and substandard buildings, high population density, cramped living quarters and unhealthy living conditions (Makhanya, 2011:10). Poverty, low incomes and unemployment are one of the reasons that drive people to urban farming. In Duncan Village as well low income earners are the one that have seen often practising urban farming. Mdantsane was established in the early 1960s as a relocation area where East London’s African residents living in Duncan Village and East Bank Location were moved in line with apartheid’s urban relocation policies.
In May 1962, the formerly white owned-farmland was rezoned for the sole occupation of Africans, houses were built in the following year and residents began to be moved in 1964. Mdantsane experienced rapid growth during the 1970s and 1980s as a direct consequence of the apartheid government policy of separate development. In addition, Mdantsane experienced a sharp increase in the demand for housing, which later led to the development and speedily growth of informal settlements. Mdantsane is situated in about 25 kilometres from East London on the road to King William’s town. Its population is estimated at between 170 000 and 200 000 people. Majority of its residents work in and around East London, King William’s Town/ Bhisho and Zwelitsha (Buffalo City Municipality of Life Study, 2007:6).

According to Buffalo City Municipality of Life Study (2007:12) employment levels in Mdantsane were generally higher than those of recorded for the whole of Buffalo City. About 27.3% of Madantsane residents surveyed between the ages of 15 and 65 were formerly employed, compared to 22.5% of Buffalo City residents.

Even though there is no clear information regarding Perfferville. One participant said that Perfferville was established in the late 1980s as the extension to Parkside which was established early 1970s as coloured area. However, currently Perfferville is a mixed community where there are black people who are mostly stay in the backyard. But this area is still dominated by coloured people. Like, Duncan Village, Perfferville faces many challenges such as high crime, poverty and shortage of houses and unemployment. So, to respond to poverty there are people who are practising urban farming alongside the roads. The reason behind choosing these sites it is because farmers in these areas are more active. So, was deemed necessary to choose these places as the focus areas of the study.

3.7 DATA ANALYSIS PROCEDURES

Data analysis is the process whereby a researcher is dissecting the information that he or she is gathered and tries to make sense of it. In social science there are various approaches that can be applied to analyse data. These include case approach, theory-based approaches, and collaborative and participatory forms of analysis. Since the study is a mixed method, therefore it employs two forms of data analysis, which are descriptive analysis and narrative analysis.
Descriptive statistics are brief coefficients that summarize a given data set, which can be either a representation of the entire population or a sample of it. Descriptive statistics are broken down into measures of central tendency and measures of variability, or spread. Measures of central tendency include the mean, median and mode, while measures of variability include the standard deviation or variance, the minimum and maximum variables, and the kurtosis and skewness (Investopedia, 2016:1).

Descriptive statistics analysis is appropriate for this study because one of the objectives of the study is to show trends of urban farming in East London. Therefore, this can help in understanding practices of urban farming in the city as there is no clear understand of the phenomenon currently.

Stage 1: To collect data, a draft of framework questionnaire was designed, containing multiple measurement items relating to all the demand and support constructs identified for measurement. A copy of this questionnaire is contained in APPENDIX1. The draft questionnaire was reviewed by supervisor of the study to ensure the necessary relevance, clarity and validity of the items.

Stage 2: Then the questionnaire was sent to participants in Duncan Village to check whether they would be able to answer it. It was found out that some of the items were not clear to participants. Then the questionnaire was corrected.

Stage 3: After being corrected the researcher went out to collect data, carrying questionnaire and pencil to record responses of the participants.

Stage 4: After completing data collection, the researcher began data entering on the computer.

Stage 5: Data preparation, this includes data editing, and coding. This helps to clean the information that was gathered as it removes all the errors that happened during data entering.

Stage 6: The actual analysis began, where items were analysed. Then the results were interpreted to make sense of what had been collected.

Stage 7: The final stage is the publication of the research study to the public.

Another form of analysis that is employed by the study is narrative analysis as this helps to analyse case studies. Riessman (2000:1) asserts that narrative analysis in human science refers to a family of approaches to diverse kinds of texts, which have
in common as storied form. All entities that exist have narratives, and these narratives are different from one another. What makes such difference in narrative is a sequence and consequence. This means that events are chosen, organised, connected, and evaluated as meaningful for particular spectators. Riessmman further argues that storytellers interpret the world and experience in it; they some instances create moral tales of how the world should be. Savage (2000:1497) says that, “narrative has been viewed as perhaps the primary mechanism by which human understanding of experience is registered”. In addition, narrative analysis may be understood as doing research with first person’s account of experience.

Frost (2009:9) asserts that narrative analysis recognizes that people do stories to make sense of their lives and to present themselves and their experiences to others. Narrative analysis is important for this study because, the small scale urban farmers are telling stories about their experiences about practicing farming in the urban inhabitants. This will help researcher to be able to make sensible conclusions about the phenomenon. Frost (2009:10) also adds that narrative analysis considers the content, form and context of narratives, while keeping the text as whole and unbreakable as possible. So, the way stories are told are as important as their content and allowance is made for stories and their endings to change with time.

To conduct this qualitative analysis the researcher had followed certain steps. Below are the steps taken from data collection to publication.

**Step 1:** Designed list of questions to be asked to participants.

**Step 2:** Sent that list of questions to supervisor to check their relevance to the topic.

**Step 3:** Went out to the field to conduct interviews carrying recording machine, booklet and pencil for notes.

**Step 4:** Scripting the interviews on the computer, listening from recording machine.

**Step 5:** Interpreting the result. This is to compare the data that was gathered during field with the information documented on the literature review.

**Step 6:** Publication; this will be done through presentations and made available for public by the University of Fort Hare in its library.
3.8 ETHICAL CONSIDERATION

The researcher has a moral obligation to strictly consider the rights of the informants who are expected to provide information. The researcher considers it very important to establish trust between the informants and him and to respect them as autonomous beings thus enabling them to make sound decisions (Polit & Hungler, 1999: 33).

PERMISSION TO CONDUCT THE STUDY

The researcher obtained permission to conduct the study from relevant authorities (University of Fort Hare’s Research Ethics Committee (UREC)), (Certificate Reference Number: SIB011SRUM01) and respects the informants’ rights to confidentiality, anonymity and privacy and to withdraw from the study at any time. In addition, written permission was also sought from informants for their interviews.

CONFIDENTIALITY AND ANONYMITY

Confidentiality is described as the mechanism that protects participants in a study that their individual identities cannot be associated to the information that they provided and will not be publicly divulged (Polit & Hungler, 1999:36). Confidentiality means that any information that the informants divulge is not made public or available to others. On the other hand, anonymity is the protection of the informants in a study so that even the researcher cannot link the subject with the information provided. Anonymity of a person is protected by making it impossible to link aspects of data to a specific person. In this study confidentiality and anonymity are guaranteed by ensuring that the data obtained used in such a way that no one other than the researcher knows the source of information. This means that the real names of the informants are not used to identify the data. In addition, a promise of confidentiality to informants is a guarantee that any information the informants provide will not be publicly reported or made accessible to parties other than those involved in the research. Moreover, to ensure confidentiality and anonymity, the false names are used to identify informants.
PRIVACY

Privacy refers to the right that all information collected in the course of the study will be kept in strictest confidence (Polit & Hungler, 1999:35). In this study privacy means that individuals cannot behave or think without interference nor may possible private behaviour be used to embarrass or demean them later.

RIGHT TO WITHDRAW

The research participants are permitted to withdraw from participating in the study if they wish so, without being prejudiced. Their rights are being explained to them prior to engagement in the study, before interview period. Research rules stipulate that participants must be informed throughout the study about the voluntary nature of participation in the research and about the possibility of withdrawing at any stage of the research.

DISSEMINATION OF RESULTS

A copy of the research report will be handed to the University of Fort Hare library. This is to allow those who wish to see the end results of the study to have access to it. Anonymity is assured because the results do not mention the participants’ real names.

3.9 CONCLUSION

This chapter described the methodology and research design, data collection and analysis, as well as ethical consideration.
CHAPTER FOUR
DATA PRESENTATION AND ANALYSIS

4.1 INTRODUCTION

This chapter deals with presenting and analysing the data that was collected during the field work. Simple random sampling and purposive sampling were carried out to determine the participants who would be included in study. Due to the fact that there are not much people who are doing urban farming in East London, a sample of 32 participants was selected. Since, the study adopted mixed method approach in carrying out the study; therefore, the research utilizes both statistical and narrative analysis to create a sense of what was gathered. Statistical part of the research carried out through using different apparatus such as graphs, pie charts and tables, whereas qualitative part addressed by using case studies.

4.2 DEMOGRAPHIC STATUS OF SMALL SCALE URBAN FARMERS IN EAST LONDON

This part looks to some of the aspects of urban farming in East London. This will assist in understanding better categories and kind of people who are practicing urban farming in the city. So, the first demographic variables to look at are gender, age, race and origins of small scale urban farmers in the city.
Figure 3 above shows that 56.7% of participants were males, whilst females make 43.3%. According to Jacobs & Xaba (2008:187) women tend to be subjected to poverty; therefore, women are more likely to be farming in cities than male counterparts. Moreover, women farmers in urban settings mainly come from low-income households. In the urban agriculture study which was conducted by Onyango (2010:119) in Orange Farm, woman were practicing farming were at 79%, whereas men were at 21%. Contrary to other studies, this study shows that men are the ones that are practicing urban farming more than women, as they stand above 50%, whilst women are just little above 40%. However, this might be caused by the fact that since 2007/2008 South Africa had experienced economic meltdown, therefore, many people lost their jobs. So, it is possible that a lot of men joined in urban farming as a way to sustain their families.
Figure 4. Age distribution of Small Scale Urban Farmers in East London

The pie chart above shows that the majority, which is 60%; of small scale urban farmers are over 51 years. Whilst 23.3% of respondents claimed that their age is between 31 and 40 years. Sadly, it is only 3 or 10% of participants stated that their age is between 20 and 30 years. This assertion concurs with the findings of Onyango (2010:127), where it was discovered that older people tend to practice urban agriculture more as compare to younger people. Then it can be concluded that older people are more interested in urban farming as it depicted by pie-chart above.
Figure 5. Race Distribution of Small Scale Urban Farmers in East London

Figure 5 above shows that 23 or 76.7% of respondents were black people. Whereas it is only seven (7) participants who make 23%, were coloured people. This may be caused with the fact that two of the research areas that were chosen for the study are black townships, which is Duncan Village and Mdantsane UN12. Whereas it is only Perfferville that for coloured people, which also has some few black people who are practicing urban farming that were included in the study.

Table 1. Place of origin for Small Scale Urban Farmers in East London

<table>
<thead>
<tr>
<th>Place of origin</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Former Ciskei</td>
<td>9</td>
<td>30.0</td>
</tr>
<tr>
<td>Former Transkei</td>
<td>10</td>
<td>33.3</td>
</tr>
<tr>
<td>East London</td>
<td>11</td>
<td>36.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

East London is situated in Buffalo City Metropolitan Municipality one of the two metropolitan in Eastern Cape. Due to its economic status, the municipality attracts people in various parts of the Eastern Cape. So, for this study it was important to look at the origin of the participants. The table 1 above depicts that most of urban
farmers, which make 36.7% are from East London. Followed, by 33.3% of people are from former Transkei. It is only 30 % of people who are from former Ciskei that are practising urban farming.

**4.3 SKILLS AND SOCIO-ECONOMIC OF HOUSEHOLDS**

One of the aims of this study was to understand that whether urban farming is the source of income to households that practice it.

**Figure 6. Urban Farming as the Source of Income to Households**

It is understood that urban farmers cut cross all levels of society, ranging from very poor people to well off working people (Onyango, 2010:129). Respondents were asked whether urban farming is the only source of income in their households. Figure 6 shows that 22 respondents or 73.3% responded that urban farming is not the only sources of income. As the researcher was collecting data found out that most of the urban farmers had other earnings from other sectors such as social grants, perment/temporal employments. It is only 8 farmers or 26.7% cited that urban farming is their solely source of income. Basically, it can be argued that most of the people who are farming, do this to supplement their households incomes.
CASE STUDY 1: MR PETERSEN A SMALL SCALE URBAN FARMER IN PERFFERVILLE

Mr Petersen is a 54 years old small-scale urban farmer, who born and bred in Perfferville. Other than being a farmer Mr Petersen is a taxi owner and he also has successful spaza shop. He says that he began his garden in 2016, after he realised how people are polluting their community by dumping unwanted objects in that site that he turned to a garden. “For me it was not the case of fighting poverty or unemployment because I do have businesses that are doing well, but I love clean environment and people were dumping everything in that place, and there was even a bad smell coming from that place”.

Mr Petersen says that even though he is not well acquainted when it comes to agriculture or farming, but believes that farming can play important role in his community. “Yeah I think farming can help in these two issues that you have mentioned there (Poverty and unemployment). But for me, I think it can also help in taking young people away from criminal activities”.

Mr Petersen, like many small-scale urban farmers in surrounding communities, he does not have any agricultural related skills. But he is doing this farming based on the traditional knowledge that he has about farming. The main challenge that Mr Petersen has mentioned is unavailability of water in his garden. “If I can have a tap in my garden, I would be happy because now I’m compelled to use water from my house and municipality does not allow that. And using water from my house I pay high rates”. For watering Mr Petersen uses water from his house, something that is prohibited by municipal laws. Moreover, this is expensive as this leads to high rates of a household.

Mr Petersen says that if he can get a support, he would like to have more land to do farming. However, since he does not have enough resources the space that he is farming is enough. that I have to choose one from the ones that you have listed there. For me water is the problem, therefore I would like to be assisted in that area”.
Since Mr Petersen started his garden late last year (2016), there are no good returns yet, however he is hopeful that the garden will produced quality vegetables because the soils of his garden is arable. Mr Petersen says that for as long he allowed to use the site by municipality, he will continue with his garden, and if there is support he would love to expand it. So that he can help young people who are not working. “Look now there is that young man that is assisting me in the garden, because I’m not always around. So I would love to have a much bigger garden to hire more young men to have something to do. And this garden to me is another way of keeping my community clean, since I love clean environment”.

Source: Author (11/03/2017)

Mr Petersen says that the most assistance he needs is a tap in his garden. “Yeah, there are various things that I would like to be assisted with. However, since you say

The study was zealous in finding out how knowledgeable are small-scale urban farmers when it comes to urban agriculture. There is a strong perception that most of urban farmers are the people who illiterate and have no skills in agriculture. So, it was imperative for this study to investigate such claim. Respondents were asked whether, they have any agricultural related skills. Figure 7 show that 90% of respondents cited that they do not have agricultural related skills. Respondents claimed that they learnt farming from their parents. Others claimed that they learnt farming from their previous employers who were farmers and they developed love for agriculture. This assertion confirms perceptions were revealed by Onyango (2010:122) that people who likely to practice urban agriculture are those who are illiterate and they exercise it without any formal training. It only 10% of respondents who claimed that have got formal training on agriculture.
CASE STUDY 2: MR MGODUKA A SMALL SCALE URBAN FARMER FROM DUNCAN VILLAGE

Mr Mgoduka is a 66 years old small-scale urban farmer in Duncan Village. He was born and bred in Debenek, King Williams Town. In the late 1960s he left Debenek Village to stay in Duncan Village, East London, with the purpose of getting an employment. In East London, Mr Mgoduka worked in various factories, but in the early 1980s, he got a job at Mercedes Benz South Africa (Nesh). However, he did not stay long in that company because the company was closed down in the early 1990s. Then this meant that Mr Mgoduka was unemployed. Therefore, he started farming using open spaces in his community. Mr Mgoduka said that one of the reasons for him to start farming it was because he was no longer employable as the age was catching up with him and most of the employers were not interested in hiring an old person. So, for all these years Mr Mgoduka has been surviving for selling produce from his garden. However, he also asserted that when there are little rainfalls, it becomes a disaster for his garden as he heavily relies on rainfall for irrigation. “Eyona nto indisokolisa kakhulu mna ekulimeni kukungabinamanzi, nje nga ngoku kuba kubalele”. “For me water is the main challenges, for example now there is a drought”.

Mr Mgoduka says that farming is important because food is from land, even the vegetables that are being sold by retailers and hawkers in town are bought from farms. However, he states that as small scale urban farmers are struggling as they do not have resources and equipment. For example they do not have taps in their gardens as they are quite far away from where they live. So they have to carry water from home, so that they can water their plants. Mr Mgoduka says that farming is the most precious thing for human being to live.

Mr Mgoduka says that he is not solely dependent on farming as he gets monthly old pension’s grant. However, that he says that old pension’s grant is not enough for his problems. So by doing farming is another way to subsides it.

Mr Mgoduka thinks that farming can help in boosting East London economy, and it
can also help to reduce unemployment. “Ewe ukuba singafumana inkxaso kurhulumente, ulimo lungalikhulisa uqoqosho lwalapha. Kodwa ke nabantu abatsha mababeyinxenye yolimo. Bona abafuni nolibona batya drugs qha”. “Yes, farming can help in boosting East London economy and it can also assist in reducing unemployment”. However, he says that young people do not want to play part in farming. Young people are more inclined in using drugs. He also adds that for numerous times he has called young people to join him in his garden but they declined.

Mr believes that he has enough land to do his farming as the age is not at his side. “Hayi wena lomhlaba undanele kuba ke neminyaka sele ihambile. Kodwa ke babe ndimtsha bendinofuna nongaphezulu kulona”. He says that since he is old, he can't manage to farm huge land and he does not have resources to do that.

Like, many young people who grew up in rural areas, he dropped out at school at a very young age. So, the knowledge that he has about farming learnt it from his parents as it was a family practice. Mr Mgoduka says that he is really struggling when it comes to global warming or climate change as he does not have knowledge of how to mitigate it.

Another thing that makes things worse is the fact that his garden does not have tap, and insects also have destroyed his plants. He further says that even this year (2016) didn't yield anything as there was no enough rain. Mr Mgoduka further argues that not even one person has yielded good produce this year.

Mr Mgoduka says that he would love to continue with his farming as this is the one that supports the family. “Le mali yendolola ayizoneli zonke izinto, ukulima kusixhasa kakhulu endlini”. The old pensions’ grant does not cover everything. So, farming it really supports my household.

Mr Mgoduka says that at one stage were invite to the local hall by people from Buffalo City Metropolitan Municipality (BCM). The officials told small scale urban farmers that municipality plans support farmers so that they can be able to produce
for big markets. However, says that the officials never came back to them again. And there is no assistance that is provided to them. So, as the farmers are still waiting municipal officials who promised to support them.

Source: Author (07/10/2016)

Case study 2 is the typical example of small-scale urban farmers that are found in most South African townships that are practicing urban agriculture. Firstly, the garden was started because the farmer was unemployed; therefore, farming was the way to sustain the family. Secondly, the farmer is an old man who is not educated, and does not have any formal agricultural skills. Thirdly, the small-scale urban farmer does not have enough resources to practice farming. One of the things that the farmer lacks off is land. Like many small-scale urban farmers, he farm along the river and his garden is not fenced. In addition, for irrigation relies mostly on rainfall. For periods where there is a drought, he struggle very much. Even though there small scale urban farmer has challenges, but he is optimistic about his faming and said that there is nothing can stop him in doing what he loves. Moreover, the farmer believes that farming can play important role in fighting poverty and unemployment. He is also confident that urban farming would boost East London economy if it can be supported.
4.4 MOTIVATION, PURPOSE, AND IMPORTANCE OF ENGAGING ON URBAN FARMING

People have different reasons of engaging on a particular activity. With this understanding, it is essential to look aspects that drive small-scale urban farmers to engage on urban farming. Another aspect that was examined is the importance of embarking on urban farming.

**Figure 7. Motivation for doing urban farming**

One of the aims of the study was to find out what motivates people to practice urban farming. In as much the study was conducted in places of not well off people. But it is difficult to assume that these people engaged on urban farming for same reason. Figure 8 depicts that 12 respondents or 40% stated that are engage on urban farming because were not employed. Another 36.7% reported that are engaged on urban farming because of poverty. Whilst, it is only 23.3% claimed that are farming for enthusiasm.
The graph above reveals that twelve (12) participants who make 40% reported unemployment motivated them to embark on urban farming. Whilst eleven (11) participants who make 36.7% reported that are drove by poverty to practise farming. It is only seven (7) participants who make 23.3% reported that they do farming for enthusiasm. This study shows that unemployment is the main reason for people to be engaged on urban farming.

Table 2. Purpose of Practising Urban Farming in East London

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Number of farmers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial purpose</td>
<td>6</td>
<td>20%</td>
</tr>
<tr>
<td>Family subsistence</td>
<td>11</td>
<td>36.7%</td>
</tr>
<tr>
<td>Both for commercial &amp; family subsistence</td>
<td>13</td>
<td>43.3%</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100%</td>
</tr>
</tbody>
</table>

When people engage on urban farming do that for different purposes. However, Mougeot (2005:2) has asserted that there are fundamentally two situations that motivate people to embark on urban farming, which are food security and income generation. Respondents gave different purposes of engaging on urban farming but the majority get involved on urban farming for commercial and family subsistence. In Onyango (2010:143) 78% of the respondents stated that they engage on urban farming to supplements their diets. Table 2 above illustrates that 43.3% of respondents reported that are farming for both commercial and subsistence farming. So, the illustration on the table above confirms the proposition made above by Mougeot (2005:3) and Onyango (2010:145) above. In addition, the table 2 reveals that 36.7% of respondents are farming to maintain their families. It is only 20% of respondents who reported that are farming for commercial purpose solely.
Most of the respondents stated that they are earning certain about other through social grants, old pension grants and temporal/permanent employment. So, for them urban farming was important because it subsidises their monthly incomes. It has been illustrated in figure 9 where 53.3% of respondents cited that are engaging in urban farming to supplement their households income. Whilst, a total number of ten (10) participants which make 33.3% reported that farming is important to them because it alleviates poverty. It is only four (4) participants which is 13.3% who reported that urban farming is important to them for income generation. This reveals that most of urban farmers are farming for subsistence purpose, it is only little surplus that is sold to market. However, it can be argued that the reason behind small number of people who practice urban farming for income generation is the fact that most people have little plots. So, the little produce they have is only enough for family consumption.

Most of the small scale urban farmers seem to have a confidence in urban farming. Respondents were asked whether they think that farming can play vital role in reducing poverty. The total number of 30 or 100% respondents stated that they think urban farming can help in reducing poverty and unemployment in East London.
4.5 FARMING DURATION, TYPES OF URBAN FARMERS, AND SITE OF FARMING

One of the goals of this study was to understand how long urban farming has been happening; what types of small scale urban farmers found in East London.

**Figure 9. Years of Practicing Farming in East London**

For this study it was pivotal to understand existence of the urban farming in the city. So, farmers were asked years of practicing urban farming. Figure 10 reveals that 13 respondents or 43.3% stated that they have been farming more than fivers. Whilst 16.7% of respondents reported that they have been farming for two years. This revelation gives a connotation that urban farming has been happening for quite long time in East London. And it also shows that there are new farmers that are joining. These new members maybe associated with the fact that since late 2007 and early 2008 South Africa experience economic meltdown. So industries are no longer hiring more employees. This resulted to the situation where people find other ways of sustaining their families. As it can be seen on the figure above that each and every year there are new members who join on urban farming.
For the study it was significant to find out what kinds of farmers that exist in East London. So, respondents were asked whether are crop, livestock, or both crop and livestock farmers. Graph figure 11 shows 19 respondents or 63.3% cited that are crop farmers. Whereas 26.7% stated that are livestock keepers. It is only 10% of farmers who reported that they practice both crop farming and livestock keeping. Looking to the high percentage of farmers that practice crop farming, then it can be concluded that most people prefer crop farming. The motive behind engaging on crop farming it maybe the fact that crop are easily grown, and BCMM laws are sort of slacked to those who practice crop farming. As the researcher was collecting data learnt that some of livestock keepers, their pigs were seized by ‘A Society for Prevention of Cruelty to Animals’ (SPCA), and BCMM claiming that city laws do not allow livestock keeping in the city.

Urban agriculture studies show that in other African cities, urban farmers are able to access unused land and utilize open spaces along roads, railways, electricity lines
and abandoned lots (Onyango, 2010:149). This also has been observed in the residential places that were visited. Finding out where do urban farmers carry out their practice was imperative for this study. Therefore, respondents were asked whether they do practice farming within their residential areas or not. A total of 29 participants or 96.7% cited that were farming within their residential areas. It was only one (1) or 3.3% of respondent reported that farm outside of residential area. Whilst it is only one respondent reported to farm outside of his or her residential place. However, it is important to note that most of these small scale urban farmers do not own the land they use. Most of the urban farmers are shack dwellers, they leave in informal settlements.

It was also observed that some urban farmers had agreements with schools to use their idle land in schools. For example Londolozani J.P School leased its land to Qonto Family Cop, which has a tunnel where it produces tomatoes.

CASE STUDY 3: NQONTO FAMILY CO-OPERATION IN MDANTSANE N.U12

Nqonto Family Co-op is a tomato producing cooperative which was established in 2009, after Mr Nqonto had received a sponsorship from Buffalo City Metropolitan Municipality (BCMM) and Department of Trade and Industry (DTI). Even though the business formally started in 2009, its history goes back to year 2000. Then Mr Nqonto was still farming at the back of his house in Mdantsane, NU 12. After he realised that there are good returns in his gardening, Mr Nqonto invited 11 other member of his community who were also had their own gardens to form cooperative. The purpose of forming cooperative was to get sponsorship from government. All members of the cooperative agreed that they will bring their children to the cooperative so that they can learn from parents and take over when they are ready to do that. However, due to difficulties of running and managing business, especially when it comes to getting funds, the eleven members despaired and left the business. Then Mr Nqonto continued with the cooperative but then he was doing it with his family.
In 2009 Mr Nqonto received a sponsorship from Buffalo City Metropolitan Municipality (BCMM), where he was assisted with training, equipment, structure of the hydroponics garden and seeds. Since the business was growing Mr Nqonto entered in agreement with local school (Londoloza JP School) to use the unused space of land at school.

Today Nqonto Family Co-op has employed 11 employees five of those are family members and six are community members. Sisi Zoleka who is the daughter of Mr Nqonto believes that farming can assist in reducing unemployment and poverty in East London. “I think farming inganceda ukulwa nendlala nokunqaba kwemisebenzi. Njengalapha ekhaya asisokoli kuba siyalima and kukho nabanye abantu abaqshiweyo”.

Unlike, other small scale urban farmers, Nqonto Family Co-op got training from Mr Frans Van Aardt who was employed by BCMM to train them. Moreover, Nqonto Family Co-op distributes its produce in various places such as East London Farmers’ Market and hawkers. However, like any business Nqonto Family Co-op has its own challenges. Ms Zoleka says that the most challenge is the tomato price which is not stable. For example in summer tomato price drops. And the Nqonto Family Co-op produces tomato only. She thinks that diversifying produce would help in mitigating the challenge that is faced by co-op. However, she says that diversification would need them to expand their business, but that would cost the business, because they do not have enough money in their savings. Therefore, she would be happy if they can get support on this. Ms Zoleka says that, she sees Nqonto Family co-op, expanding in the next five years. She says that in order to grow the business, they need to diversify their produce, such as producing other products like peppers and cucumbers.

Source: Author (15/03/2017)

Nqonto Family Co-op is the only urban farming claimed to be funded and got training from BCMM. As a result the Co-op is thriving as it produces multiple boxes of tomatoes which are supplied to East London Farmers Market in Beria and local supermarkets.
4.6 CHALLENGES, ASSISTANT ACQUIRED AND REQUIRED SUPPORT BY SMALL SCALE URBAN FARMERS IN EAST LONDON

For the study it was imperative to understand challenges that are confronting small scale urban farmers in East London. So, respondents were asked about struggles they get in practicing farming. Secondly, it was important also to find out whether small-scale urban farmers are getting any assistance. Lastly, it was vital as well to understand what auxiliary is needed so that the urban farming can thrive in the city. So, the sketches below (Figure 12, 13 & 14) indicate responses from respondents.

Figure 11. Challenges that are Facing Small Scale Urban Farmers in East London

In most cases people who are practicing farming are illiterate and they do not have formal employment. So they practice farming with limited resources. Thus it was essential for this study to understand challenges that are confronting urban farmers. Figure 12 shows challenges that are facing urban farmers in East London townships. The above structure reveals that 36.7% respondents reported that they do not have water for irrigation in their gardens. “If I can have a tap in my garden, I would be
happy because now I am compelled to use water from my house and municipality
does not allow that. And using water from my house I pay high rates”, said Mr
Peterson (case study 1). In concurring with Mr Petersen, Mr Mgoduka said that “For
me water is the main challenges, for example now there is a drought. So, I have to
carry water with buckets all the way from home to here”. (Case Study 2). In addition,
23.3% stated that their gardens are not fenced. Other things that were mentioned as
the challenges for urban farmers were enough land (16.7%), struggle to get food for
pigs/chickens (13.3%), and theft which constitutes 6.7% of respondents reported that
is the challenge for them.

Figure 12. Are you getting any assistance from the following

Many urban agricultural studies agree to each other that urban agriculture is getting
minimal support from governments and the cities that are practiced. One of the
reasons is the fact that urban laws which were passed by colonial regimes and
apartheid regime in South Africa do not allow farming in urban centres. However,
even though there are these limitations, some municipality seem slack their laws
when it come crop farming in the cities. CDS Policy Lekgotla (2010:2) asserts that
Cape Town ad Durban are exceptional in this regard because they have created sophisticated policy environment exists and where a deliberate attempt is made to avail open space in some of the lower income suburbs for urban agriculture. So this shows that some municipal authorities are beginning to realize the role that can be played by urban farming. To bring an argument at home and look kind of help is acquired by small-scale urban farmers in East London. Figure 13 above illustrates that 29 respondents or 96.7% stated that were not getting any support. There is only 1 respondent which make 3.3% claimed that was getting support from BCMM.

**Figure 13. Assistance needed most by East London Small Scale Urban farmers**
This pie chart above reveals that five (9) participants who make 30% reported that they would like to be assisted with fence for their gardens. In addition, seven (7) participants who make 23.3% reported that they need to be supported with enough land. Whilst, it is five (5) participants which make 16.7% reported that they need water taps more than anything. However, another five (5) participants which make 16.7% as well reported that need to be assisted with piglets and related resources. It is only four (4) participants which make 13.3% who said that they would like to be assisted with seeds.

4.7 MEMBER OF FARMERS’ ORGANIZATION AND FUTURE PLANS ON URBAN FARMING

In nowadays agricultural cooperatives have vital role to play in organising and helping farmers. This study was keen in finding out whether do small-scale urban farmers are the members of any farmers’ association. Secondly, it was essential for the study to understand future plans for the small scale urban farmers.

Figure 14. As a farmer do you belong to any farmers’ organisation

According to Ortmann & King (2007:40) the South African government is promoting the use of cooperatives as the organizations that could help enhance the development of small scale and other communities in South Africa. To show its
commitment on cooperatives, South African government in August 2005 a new Cooperatives Act (No.14 of 2005), based on international cooperatives principles was signed into law. It is stated that this Act sees a major role for cooperatives in promoting the economic and social development, particularly in creating employment, generating income, facilitating broad-based black economic empowerment and eradicating poverty. Figure 15 above reveals that 29 or 96.7% of participants reported that are not belonging in any sort of farmers association. It is only 3.3% of respondents claimed that belongs to an association. Since the majority of respondents cited that do not belong to farmers’ organizations. This means that are missing the said opportunities about cooperatives.

**Figure 15. Possibility of Continuing with Urban Farming in the Next Five Years**

The majority of respondents seemed to confident of persisting with their urban farming even though are experiencing challenges. Figure 16 depicts that 26 or 86.7% see themselves continuing with their farming. It is only 4 participants who make 13.3% that reported are not sure whether they will continue with their farming in the next five years. Some were uncertain because age was not on their side, as most of urban farmer are between the age of 51 and above.
4.8 RELATIONSHIP BETWEEN UNIVERSITY OF FORT HARE, BUFFALO CITY METROPOLITAN MUNICIPALITY AND SMALL SCALE URBAN FARMERS

Another goal of this study was to understand relationships between the entities that are supposed to play pivotal role in addressing poverty and unemployment. For university of Fort Hare its role in fighting poverty might not be clear but as part of society are expected to contribute in poverty alleviating strategies. To study relationship between these entities interviews were conducted to acquire in-depth understanding of the situation.

CASE STUDY 4: DEPARTMENT OF AGRICULTURAL ECONOMICS AND EXTENSION AT UNIVERSITY OF FORT HARE

Professor Mike is a head of department in the Department of Agricultural Economics and Extensions. “If you look at present literature urban farming became important, since people are moving from rural to urban. I am basing this one to the issue of food security because food security can be address by purchasing food. So, if someone does not have an ability to purchase, therefore, he/she must try farming. So by this I value urban farming very much”, said Professor Mike.

Professor Mike believes that small scale urban farmers can play important role in creating job opportunities, because being involved in farming it means that someone is working. Direct and indirect will earn some money by selling surplus. Professor says that University of Fort Hare does not have programs that support small scale urban farmers. However, he says that as the university are supposed to do more community engagement and research.

Professor Mike was not sure whether are there any urban farming related research project from the University of Fort Hare. However, he says there are students who do attend seminars that have to do with urban farming. In addition, Professor Mike says that as the department, they are helping Alice Farmers Association. The university has been mentoring the association and teaching them new ways of farming.

Regarding the relationship with the two municipalities that University of Fort Hare has campuses in, Professor Mike says that his department has ties and programmes
with the Nkonkobe Municipality. “With Nkonkobe Municipality we have engagements where we teach farmers in this municipality about agri-business. And as I have mentioned earlier on that we also assist Alice Farmers Association”. However, Professor Mike confesses that his department does not have any relationship or programs with Buffalo City Metropolitan Municipality and the Amathole District Municipality. “Here in Alice we don’t have any programs with BCMM, maybe East London Campus has, I am not sure”.

Professor Mike says that urban farming has a lot of potential to revive economy of many cities. However, leadership and assistance is needed to bring this in reality. Another thing these people who are practising it should be more entrepreneurs. He also adds that cities also need to slack their laws to allow people to practise farming.

Professor Mike says that, he would be happy if small scale urban farmers in East London can engage with them more often. To assist small scale urban farmers they can assign their post-graduate students to mentor small scale urban farmers.

Source: Author (12/04/2017)
CASE STUDY 5: OFFICE OF AGRICULTURE IN BUFFALO CITY METROPOLITAN MUNICIPALITY (BCMM)

Mr Diki is an agricultural officer in the office of agriculture in BCMM, believes that urban farming has an important role to play in East London community. “Since people are moving from rural to urban for the purpose of getting better employment opportunities, in that way they transfer poverty from rural to urban. Therefore, urban farming has a big role to play”. In addition, Mr Diki believes that it is appropriate to do crop farming in urban areas provided if there is a land. However, he says that for livestock keeping is not appropriate since city laws don’t allow that.

BCMM had a partnership with Italian government, and University of Fort Hare was part of that program, as it was assisting on capacity building. BCMM was implementing hydroponics programme in Mdantsane. However, currently there is no programme where BCMM works with Fort Hare.

Mr Diki says that small scale urban farmers they do come to them and request assistance. He mentioned various gardens in townships such as Mdantsane, Duncan Village, and in Cambridge. In Mdantsane, Mr Diki says that BCMM had introduced hydroponics farming, where they farm tomatoes.

Mr Diki believes that urban farming can be used as the strategy to fight poverty and unemployment in BCMM as there are not enough employment opportunities.

In addition, Mr Diki says that they do engage with small scale urban farmers almost monthly or quarterly, since they have schedule meeting and workshops.

Mr Diki says his office has a data base for small scale urban, but their data base is a bit out-dated. However, now they rely mostly on data base from Department of Agriculture which include all small scale urban farmers in the region of Amathole and the province.

Mr Diki says that even though BCMM municipality allows crop farming but lives stock keeping is against municipal by laws. In addition, he says that those small scale urban farmers who keep lives stock they cannot even supported by BCMM municipality. However, he advises that for those who want to keep livestock, they can apply farmers at Land Affairs office in the Department of Agriculture.

Source: Author (21/04/2017)
Looking the above two cases, both officials claim that their institutions do value urban farming as it helps in fighting poverty and unemployment. “If you look at present literature urban farming became important, since people are moving from rural to urban. I am basing this one to the issue of food security because food security can be address by purchasing food. So, if someone does not have an ability to purchase, therefore, he/she must try farming. So by this I value urban farming very much”, said Professor Mike. On the hand Mr Diki concurs with Prof Mike, “Since people are moving from rural to urban for the purpose of getting better employment opportunities, in that way they transfer poverty from rural to urban. Therefore, urban farming has a big role to play”.

Secondly both entities argued that they do have programmes that support small scale urban farmers (in the case of BCMM) and Department of Agricultural Economics and Extensions do assists small holder farmers in Alice and surrounding towns. However, it has been stated that DAEE does not have any engagements with the small scale urban farmers in East London. So, it can be argued that one of the reasons for the lack of engagements between the two stakeholders is the fact that their locations are far apart from each other. However this should not be the reason because community engagement does not have boundaries. In addition, University of Fort Hare is the only university that has strong department of agriculture in the region (Amathole District Municipality), therefore it is supposed to spread its engagement to other surroundings towns.

Department of Agricultural Economics and Extensions in Alice has some sort of relationship and programs with the Nkonkobe Municipality. However, these programs seem not be strong as Prof Mike could not tell how often they engage with Nkonkobe officials.

On the other hand, office of Agriculture in BCMM also says that they do not have agricultural programs with University of Fort Hare. However, it has been mentioned that at one stage University of Fort Hare, BCMM and Italian government had partnership where they were introducing hydroponics farming in Mdantsane. However, role of University of Fort Hare was capacity building. Since that programme was completed there are no other programs that BCMM and Fort Hare have.
Mullinix et al (2008:8) argue that municipal government governments must lead the way and understand their lynchpin role. Municipalities must also engage a breadth of public and private sector stakeholders to build interdisciplinary planning design, development and implementation capabilities, such as a public/municipal/private partnership focused on the creation of sustainable urban agri-food systems. The preceding assertion shows that kind of relationships between the stakeholders that are involved are not long-term partnerships and in most cases leave out other important stakeholders.

4.9 CONCLUSION

In concluding, the role of this passage was to analyse the data that was collected during the data collection. So, different apparatus have been employed, such as tables, graphs and pie-charts. All these instruments that are being used here were deemed necessary as they assist in understanding the urban farming in East London.
CHAPTER FIVE

THE POTENTIAL OF URBAN FARMING AS A LIVELIHOOD STRATEGY IN EAST LONDON TOWNSHIPS

5.1 INTRODUCTION

The previous chapter illustrated that most of small-scale urban farmers are confronted by many challenges, which repressed their potential. This chapter checks aspects that drive and inhibit practice of urban farming in East London. In addition, this chapter concentrates on what participants understand to be the key obstacles to their practice in urban farming. Moreover, this chapter inspects connections among various stakeholders involved in urban farming so as to acquire better understanding as to how the sector can be inspired and enhanced as a livelihood strategy.

5.2 REASONS FOR PRACTICING URBAN FARMING IN EAST LONDON TOWNSHIPS

During the economic meltdown of late 2007 and early 2008 majority of people lost their jobs. This has exposed families to poverty as people struggled to put food on the table. As a result most of the people who practice urban farming are not employed. Therefore, poverty also has been cited as a leading factor for partaking in urban farming (see figure 4.8). In addition, most of the respondents in this study were above of the age of fifty, therefore to earn money are dependent to old pension grant, which is not sufficient to cover all household expenses. Hence it can be argued that low incomes joined by recurring household expenditure inspired families to find other means to meet their household necessities. So by practicing urban farming means that the money was supposed to buy food would be used to other needs of the family.
Normally most cities have laws that prohibit farming in towns, even though there are vacant spaces of land. But loose of urban laws has allowed people to use the vacant spaces in their vicinities. In addition urban farmers use land in local institutions such as churches, schools, and clinics. For instance, Nqonto Co-op in Mdantsane at NU12 practice farming in Londolozani J.P. Primary school (see case study 3). Then it can be argued that accessibility to agriculturally cultivable land is a factor that drives urban farming. Haysom (2007:126) argues that, “access to land can be enhanced by offering vacant urban open spaces and semi-public spaces such as grounds of schools, hospitals and others, with medium-term leases”. This highlights the fact that land of public institutions is important in promoting urban farming.

Looking on land issue in East London, there is abundant of land available inside and around the city which can be changed for urban farming. If you drive on N2 pass by Hemingway’s Mall towards King Williams Town there is plenty of land that is lying idle. Those spaces can be leased to small-scale urban farmers, particularly those who wish to keep livestock.

Enthusiasm is another motive that drives people to practice urban farming (see figure 4.8). Most of the respondents for this study are old people who are no longer employable. So for them rather than just staying idle they prefer to work on the land to plant mostly vegetables that are needed in the family.

Urban farming other than being food system also plays critical role on balanced ecosystem. Some urban farmers embark on urban farming to keep their communities clean (see case study 1). Orsini et al (2013, 702) argue that pollution in speedily growing cities brings a serious risk to public health. It is a norm in developing countries solid wastes, if they are collected at all, are disposed in dump sites (Zeeuw et al, 2011:4). In ability to regulate waste is raising serious concern in most cities worldwide. Urban farming can help to keep urban environment clean and boost production of fresh food through recycling.
5.3 RESTRICTIONS FOR URBAN FARMING IN EAST LONDON TOWN SHIPS

Most of the urban farming practitioners complain of the lack of water irrigation for their gardens. Almost all garden that were visited there was no water tap, except of Nqonto family Co-op which has had been sponsored by BCMM. Urban farmers for watering use household taps, which sometimes are far from their gardens. So, this means that these people have to carry buckets of water. This somehow it discourages small scale urban farmers, because some are old to have energy to carry buckets daily.

Lack of fence is another constraint for small-scale urban farmers in the areas of study. Most of the gardens that have been visited were not fenced in exception of the Nqonto Co-op that was sponsored by BCMM. This situation is an obstacle to urban farming, because it means that produce for small scale farmers is not safe as it can be stolen. Moreover, these unfenced gardens also vulnerable to livestock as there are other people who keep livestock (mostly pigs).
In addition, those small-scale urban farmers who keep livestock (pigs) also have complained that their pig’s stables were not built by strong material. Therefore, pigs are able to trespass their stalls and destroy other people’s gardens. Therefore, this has created tensions among small-scale farmers who keep pigs and those who practice crop farming only.

Access to land is also a challenge for small-scale urban farmers, 16.3% of respondents stated that their challenge is the lack of access to land. Even though they have accessed other vacant spaces some urban farming practitioners felt that their land is not enough. So the lack of access to other open spaces limits their potential of producing vegetables in abundance. As mentioned earlier on that East London has plenty of open spaces of land inside and around, which some act as buffer zones that separate communities. To address the issue relevant stakeholders need to come up with proper plan and organization that can result to allocation of other land for urban farming activities.

Photo 3. A pig sty in Duncan Village, New Rest Location

Source: Author (23/08/2016)

In most instances city authorities have often been hesitant to approval of agriculture as an official land use because of perceived health threats (Zeeuw et al, 2011:5).
However, restrictive laws and regulations have been largely ineffective in ceasing people to practice urban farming. During data collection some of urban farmers who keep pigs in Duncan Village reported that in 2015 BCMM and SPCA seized their pigs claiming that keeping livestock in the city is prohibited by city laws. However, they were told to pay a fee of R100, 00 each to get their pigs back. Due to the treatment from municipality one responded decided to stop keeping pigs and just focus on crops only. Clearly city laws hinder the growth of urban farming.

Climate change plays critical role on urban farming. Eastern Cape normally receives rainfall in summer and spring seasons. However, recently this has changed, for example in the past two years (2015 and 2016) in summer the province was experiencing drought. This has affected mostly small-scale urban farmers as they are largely dependent on rainfall in order to cultivate the land. Zeeuw et al (2011:7) assert that the Asian cities are participating in the Asian Cities Climate Change Resilience Network aim at building capacity to undertake climate change resilience building activities for poor and vulnerable people. It is imperative that BCMM as well attempt to assist small scale urban farmers with strategies that could help them be resist on climate change which hinders potential of urban farm practitioners.

Limited agricultural skills among small-scale urban farmers; most of the small-scale urban farmers are old people some of them who never set their foot in school. The knowledge they have about farming was thought by their parents. Most of the small scale urban farmers in this study cited that they do not have agriculture skills (see figure 4.7).

The cost of inputs required to practice urban farming is a constraint to the growth of this field. Some participants stated that are struggling to have pesticides to chase away insects that kill crops, and food for pigs.

Lastly, technology is an issue for small-scale urban farmers. For, the fact that urban agriculture is not recognized by governments and private corporations. Therefore there are no new technologies that are designed to improve this sector. Most of small scale urban farmer use spades, fork spades and hoes to cultivate the land. Due to this small scale urban farmers only cultivate small spaces; somehow this hinders the thriving of this field. There is a need especial in the automotive industry
to produce small tractor like machines that could be used by small-scale urban farmers.

5.4 ROLE OF OTHER INSTITUTIONS IN SUPPORT OF URBAN FARMING IN EAST LONDON

It seems that there are institutions that understand and support urban farming in the townships that are being studied. Through observations, it has been discovered that institutions such as schools, clinics, and public halls are in support of the urban farming sector as they allowed those who do not have land to use their land. Onyango (2010:174) noted that in Orange Farm local institutions such as churches and welfare organizations have recognized the significance of small-scale urban farming as a strategy to mitigate food insecurity and poverty. In Duncan Village there are several public institutions that have allowed the use of their land. Duncan Village clinic, Gompo Hall, and Masakhe Primary and Baptizes Church are the other institutions that support urban farming. In addition in Ziphunzane, which is Duncan Village extension, Kusile High School, and Lumko High School also gave their land to be used by small scale urban farmers. Moreover, Perfferville Primary School in Perfferville and Londolozani J.P. School in Mdantsane NU 12 are the other local institutions that support urban farming.

When it comes to government institutions, there is also a little support, for instance Expanded Public Works Programme (EPWP) under the auspice of Environmental Affairs support urban farming. In the buffer zone between Duncan Village and Brelynn people turned a dumping site into a garden through the support EPWP. Onyango (2010:175) cited that there is an urgent need for government and other institutions to take front positions and play more active role in supporting urban farming. In as much the role of EPWP is appreciated but there are other urban farmers who are left behind who need support. As mentioned by Zeeuw et al (2011:3) that the national and provincial departments can play vital role in backing urban farming by setting policies that motivate growth of the urban agriculture field. In the interview with representative from the Office of Agriculture in BCMM, he stated that the local municipality has programs that support urban farming in the city such as the hydroponics projects in Mdantsane NU 6, NU 12, and NU 18. It is also mentioned that there is a Duncan Village agricultural program, which is called ‘Master Plan for Urban Agriculture Development in Duncan Village’, but this program
is still in the pipeline as the municipality still lobbying funds for the project. However, this seems contrary to actions of the municipality, because some small scale urban farmers during interviews complained that BCMM and SPCA seized their pigs telling them that livestock keeping is not allowed in the city. In addition, the representative from the Office of Agriculture also emphasized that livestock keeping is against municipality by laws and BCMM does not support such activities. He further argued that those people who keep livestock cannot even get support from BCMM; it is only crop farmers that can be supported. Then this seems confusing because it is not clear whether BCMM does support urban farming or not. Zeeuw et al (2011:1) argue that, “many national and local authorities, especial in developing countries view intra-urban agriculture mainly as a source of problems due to perceived health and environmental risks associated with it as well as being a nuisance to traffic and neighbours”. So, attitude of BCMM towards urban agriculture seems that municipality is just tolerating the practice of it but not really support it.

5.5 URBAN FARMING AS STRATEGY TO IMPROVE LIVING STANDARDS IN EAST LONDON
Urban farming has a potential of improving people’s lives in the studied areas and the greater East London. However, it is imperative that relevant stakeholders to work together to see realization of urban farming. Observations of standard of life in Duncan Village, Perfferville and in Mdantsane illustrate that life is characterized by adversities, such as poverty and unemployment, with limited options available for inhabitants to better their living conditions. So, for people who live in these areas, one of the available options is urban farming which is relatively easy to participate on it. People engage on urban farming by starting of cultivating small plot and put in few inexpensive inputs, and in most cases urban farming is practice on non-rental lands.

Even though there are claims from institutions such as BCMM that they value urban farming and encourage engagement on it. However, it seems that there are limited efforts made to assist majority of people, especially those who have many in the sector. In the interviews interaction some small scale urban farmers claimed that they have more than 25 years of involvement on urban farming, but it was only in 2014 where were consulted by BCMM representative promising them with support which they are still waiting up until today. On the other hand, 90 per cent of the participants cited that they do not have agricultural related skills. In this instance
University of Fort Hare could play essential role as the entity for knowledge production, it can offer training to those urban farmers lack it. This is where institutions such as University of Fort Hare come in, (as the entity for knowledge production) to of training those is expected to be involved in social engagements. Limited support on urban farming gives a connotation that here is a little recognition of urban farming by official authorities and development specialists.

Even though most of urban farmers stated that urban farming is not their primary source of income, however, they consider it as one of the most important sources of income especially during times of unemployment. This is confirmed with the fact that most of the respondents cited that they, 'see themselves continuing with farming in five years coming'. Even though these small scale urban farmers facing enamours challenges such as lack of resources and support, however, they show commitment on it.

Even though crop farming is so dominant in areas of study, but livestock keeping and poultry is also practice, this helps is essential for this sector as it is diversified. Onyango (2010:179) in Orange Farm found out that most people were practicing crop farming. Diversification is important in the sense that it means that household are able to generate money in various angles. For example if crops did not grow well or its price is down, an urban farmer can earn income by selling livestock and poultry in the form of meat. In addition, this helps the households as well as it balance diets.

In as much these small scale urban are trying to keep urban farming sector alive with limited resource, but assistance from local government authorities and development practitioners can go a long way in making this sector recognizable. Spies (1998:2) advocated that urban agriculture should be strengthened through sponsored activities. Onyango (2010:178) argues that to see realization of promises are made about urban farming, the sector should involve introduction of other food varieties, trainings, awareness campaigns, nutritional information and attempts at illustrating the dividends of urban farming. It is envisaged that this action would also lure those who seemed discourage to be involved in the sector.
5.6 APPLICABILITY OF AGRICULTURAL URBANISM IN EAST LONDON

As mentioned in chapter 1 that this study aims at findings ways of capacitating small scale urban farmers with the feasibility of establishing agricultural urbanism, a food system that is currently popular in Europe and North America. However, it should be noted that this study does not advocate adoption of agricultural urbanism just because it is popular in these two mentioned continents. But it has looked at the benefits of this food system as it has turned decomposed towns such as Detroit into green cities. Mnyaka & Bank (2014:59) summarised the progress development of the East London below:

In the 1950s, East London industrial economy was booming like cities such as Durban, which has currently flourished into a fundamental African coastal conurbation. It is further argued that after the Second World War, the industry economy of East London raised at more than 10 per cent per annum for constant period and this branded East London as a significant industrial city. In 1928 in East London there were only 146 factories that were economical active whereas employees were at 3,525. However, this number grew in 1954 to over 284 firms with 11,299 employees. By 1955, 29 per cent of East London’s economically active male population worked in industry, which was in line with the 32 per cent of national average for large metropolitan areas. Diversity of sectors was the strength of the city as there were processing, textile production, chemicals and the automotive industry. The city was growing so fast as in the late 1950s it was eight times the size of any of the urban centre in its hinterlands, including King Williams Town, which was former Eastern Cape colonial centre.

The above passage portrays East London as the city that was committed to its development. The city was among the fastest growing cities of the 20th century such as Durban. However, in the late 1970s to early 1980s there was a change of development focus from East London to the Former homelands such as Dimbaza. So, the apartheid government was trying to move black people away from the white people’s designated areas. This, however, affected economy of the city negatively as many small businesses took advantage of the incentives that were offered by the government in that time. In addition, political situation and rise of unions was not favouring investments in the city.

Fast forward, in the awakening of democratically elected government, lot of changes happened in the city. However, there was little zeal of development and investments into the city. This has set city of East London behind to other metropolis that was
compared with in the 1950s and 1960s. So, disinvestment in the past regime have had hampered development of the city. The outbreak of economic recession of the late 2007 and early 2008 exposed vulnerability of the city as lot of people lost their jobs. It has been argued that during the period of 2008 and 2009 there was only one sector that has managed to continue with employing people, which is the community service sector. Industrial sectors lost jobs in this period, as the number of people who were employed in Buffalo City shrank from 267,332 to 261,882 jobs, representing the loss of 5400 jobs (BCM IDP, 2013:25).

With these adversities in the city there is a need for a system that will address both food insecurity and issue of employment. In most cities urban farming is gaining momentum and is being incorporated to local municipality development policies. Durban and Cape are the other cities that have taken initiative in recognizing urban farming.

*Photo 4. Tomato hydroponic tunnel in Mdantsane NU12*

Source: Author (07/03/2017)

Looking to feasibility of establish agricultural urbanism in the city. City of East London has all necessities that agricultural urbanism can be established in the city. Firstly, the city has an already existing number of people who practicing the urban
farming. It is important for establishment of agricultural urbanism that there must be farmers who are very keen in practicing urban farming.

Secondly, inside the city and at the periphery, there are open spaces of land that can be turned into gardens for crop farming. For those who want to keep livestock, can be allocated on the outskirt of the city where there will practice farming without being a threat to urban operations. In other cities agricultural urbanism is incorporated into human settlements programs, where agricultural based communities are established.

Thirdly, BCMM has institutions that are necessary for establishment agricultural urbanism. BCMM has an office of agriculture which is important in assisting supporting small scale urban farmers. In addition, the city is also a host to the provincial Department of Agriculture, which could bring vital support to the programme. Moreover, the city again is the host of many institutions of higher learning, in those there are three universities, which are University of Fort Hare (UFH), Walter Sisulu University (WSU), and University of South Africa (Unisa). University of Fort Hare being one of the universities in the country that specialises in agriculture can play cardinal role in the establishment of the agricultural urbanism. However, is important to note that University of Fort Hare’s department of agriculture is not in East London. Furthermore, at least in the city there are two known farmers’ markets which are East London Farmers’ Market in Beria, and ProVeg in Highway Gardens. Both these farmers’ markets supply various retailers and restaurants in the city.

Fourthly, the city of East London as it is second metropolitan in the Eastern Cape Province has reasonable infrastructure. There is Nahoon dam that can play important part for establishment of agricultural urbanism as the farming needs intensive irrigation especial during times of drought. The city also has average good of roads that can connect the peri-urban farmers to the markers in the city.

With these all aspects mentioned above available in the city, this makes East London to be capable of establishing agricultural urbanism. However, there are other aspects that need to be installed among stakeholders. And if city of East London would wish to establish this kind of food system there would be a need of making major investments to small scale urban famers, addressing issue of land so that
those who do not have it can be allocated some open spaces. There would also the
need to invest on agro-processing infrastructure. Agricultural urbanism can never be
fully established if there is no agro-processing activities because lot of employment
opportunities are generate through this activity. In addition, agro-processing double
the value of the agricultural produce.

5.7 ADOPTATION OF AGRICULTURAL URBANISM IN RELATION TO BROAD
BASE ECONOMIC EMPOWEREMENT
As, it is well known that in South Africa during the apartheid epoch black people
were restricted to participate in the economy of the country. However, since the
dawn of democracy many changes have been happen to allow participation of the
previously disadvantage people. Black Economic Empowerment (BEE) (1997), a
policy that was developed to make sure that all those were excluded in the economy
previously are taking part in the current economy. However, the policy became more
active in the 2000s, as it was given legislative force with the enactment of the
Preferential Procurement Act in 2000. This policy was meant to ensure that
preferential is given to the businesses of the black people. But, this policy as well
had it shortfalls as it failed to benefit everyone as was envisaged by makers of this
policy.

Therefore it was deemed necessary to have a policy that is inclusive, it then the
Broad-Based Black Economic Empowerment policy (B-BBEE) came into being. In
2008, the then president Kgalema Motlante announced the adoption of the policy as
it was replacing BEE policy.

Agricultural urbanism advocates incorporation of urban farming programs into local
government development policies. In addition, this would mean that local
government supports those who practice urban farming in the city. Obviously, these
small scale urban farmers would be needed to be registered under the ‘small and
medium enterprises’ policy, which also attached to B-BEE strategy. Then this would
allow them to benefit to monetary incentives that are attached to this programme. By
benefiting to B-BBEE would mean that small scale urban farmers do not really rely to
local government for monetary support, therefore, this would lessen a burden from
local government coffers. So, establishment of agricultural urbanism in the city of
East London would allow the most disadvantaged people to benefit from B-BBEE. In
addition, this would allow the less educated people to directly participate in the economy of the city and possible to the region as well.

5.8 FINDINGS
Most urban agricultural studies concur that during times of difficulties such as recession where people could not find employment opportunities urban farming becomes a norm in low income areas. So, likewise with other urban agricultural studies, this study as well has discovered that people who stay in low income residences in East London also practice urban farming to mitigate poverty and unemployment. In addition, the study has found out that people who practice urban farming are from different parts of the Eastern Cape such as former Ciskei and Transkei homelands, however, majority of the small scale urban farmers originate from East London. So this take away the assumption that spread of urban farming is influenced by people who grew up or who are from rural areas.

Most of the small-scale urban farmers from the areas of study have learned farming from their parents or have observed others who practice urban farming in their communities. Most of the urban farmers have been staying in East London for more than five years, and have been doing urban farming on those open spaces, whereas some have been using their backyards. Then what is coming out is that the practice of urban farming is not a temporary option. In addition, it has been observed that each and every year there are new entrants in this sector. This makes urban farming be a sustainable venture in the area. Contrary to other studies in this field, this study revealed that most of the people who practice urban farming are males. This shows that interest on urban farming has grown even to males who have been known not to be interested on this. However, this can be associated with the fact that in the period of 2008 and 2009 there are more than 5000 jobs that had been lost in the industrial sectors such as construction. This is the sector that tends to absorb more unskilled or semi-skilled people. So, the fact that these sectors lost jobs meant that many people would be unemployed.

Another thing that has been discovered by the study is that, most of the small scale urban farmers in the studied areas do not belong to any farmers’ co-operations. Co-operations are known to be a good asset to those who are the members, as it helps
to organise necessary resources and sharing knowledge and other skills. Therefore, small-scale urban farmers should be encouraged to form their own cooperatives.

Likewise other studies, this study shows that most of the urban farmers are elderly people. There are very few people who seem to be keen on urban farming. This can be alluded as one of the reasons that the urban farming not recognised as the income generator strategy. Onyango (2010:192) stated that there is a necessity to bring young people into the practice of urban agriculture. Programs from the city that supports the urban farming can lure young people. So, it is essential for municipality to speedy up the programmes that are meant to support urban farming.

5.9 CONCLUSION

The mandate of this chapter was to examine reasons for small-scale urban farmer to engaging on urban farming. It has been discovered that poverty and unemployment are the one of the major reasons to practice urban farming in East London. Another motive for embarking on urban farming was the availability of open species inside residential areas of most scale small urban farmers.

The chapter also looked on the constraints of urban farming. Deficiency of inputs such as water taps in the community gardens, gardens not being fenced, and lack of access to other open spaces of land, limited agricultural skills as well as technology. It is also examine the role played by local institutions in support of urban farming. In all areas studied schools, churches, clinics and other local entities support urban farming as they allow small-scale urban farmers to use their lands.

Applicability of agricultural urbanism was examined as well, and it has been discovered that East London is capable of establishing this food system. Even though there are other measures need to be put in place.

Lastly, it is also argued that establishment of agricultural urbanism in the city, would contribute to accessibility of B-BBEE funds.
6.1 SUMMARY

South Africa, like many other emerging countries, is becoming more urbanised at a rate never been seen before. It is argued that 61.7 per cent of South African population currently reside in urban areas. And it is predicted that this number will increase to 66.6 per cent by 2020, and 71.3 per cent by 2030. Urbanisation in South Africa is reinforced by significant rural-urban migration, both from rural areas to urban areas within South Africa and migration from across the African countries. Population increase in urban areas poses challenges such as deficiency of infrastructure, unemployment and poverty. Urban food security is an emerging area of development concern, and it is significantly different from questions of food security within the country. It has been noted that from year 2008, South Africa had an increase of community gardens, particularly among the so-called poor communities. The rise of urban farming has been a response to poverty which has been triggered by the outbreak of global economic recession. However, these small scale urban farmers are facing other numerous challenges which include municipality laws that prohibit farming in the cities, lack of resources and sometimes knowledge. All these resulted in a situation where urban agriculture is not recognised as a development program.

The overall objective of the study was to understand the impact of the urban agriculture in East London. Most studies of this nature have showed that urban farmers are facing enormous challenges; therefore it was important for this study to investigate whether urban farmers in East London do as well as experience challenges in practicing urban farming. Moreover, it was improves for the study to find out what ways could be applied to improve the sector.

The study uses the survey technique for data collection and analysis. Descriptive and narrative methods are used to analyse and present the collected data. It has been gathered that urban farming is most used by people as the strategy to adapt during the times of desperation, especially when employment opportunities are limited.
Even though urban farming contribute largely to issues of employment, and nutritional stability in households it remains marginalized. Most local authorities regard it as the burden to urban services. In most cases it does not appear to local municipalities’ programmes.

6.2 CONCLUSIONS
Urban farming plays significant part in the lives of inhabitants who are practicing on it. Urban farming has a binary impact to those households that practice it. It provides food which would be unaffordable to many families, and then the money would be used to buy food, channelled to other necessities of the households. Then it is true that urban farming assists in fight against poverty and food insecurity. Another important role of urban farming is the employment provision. Urban farming has a huge potential to provide jobs to those who are not working. However, this can be achieved if there is a proper planning for urban farming. Where urban farming modernised and integrated to local government's development policies.

Most studies in this field agree that urban farming plays important role in the cleanliness of the city and on environment. In many cities urban farmers turned illegal dumping sites into community gardens. Sometimes people dump chemical objects which are very dangerous to other species. When urban farmers turn dumping sites into community gardens, this leads to environmentally balance city.

With such benefits but there are still authorities that hesitant in supporting urban farming as they claim that it is harmful to city environment as sometimes urban farmers use pesticides. On the other hand city authorities are reluctant to grant urban farmers open species. Most of the urban bylaws were set up by the past regimes which were preoccupied by the old theories that farming is a rural thing. So, this means that there is a need for municipality to review municipality bylaws regarding urban farming.

Most of the South African urban farmers have been stuck to old ways of urban farming and technology. It is essential that new urban food systems are introduced in the country. Onyango (2010:197) asserts that there is a need to research applicability of different urban farming systems that have been successful to other countries. In addition, there is a need to invest on new technology. Most of the
urban farmers still used instruments such as spades, fork spades, and hoes to tilt the land, these somehow lead to slow production. Thus it is imperative to find new automotive instruments to cultivate the land.

With economic conditions not conducive for most of the people in most developing countries. It is essential to build cities that can offer alternatives to people. Therefore urban farming could be that alternative economy.

6.3 RECOMMENDATIONS

There is a need for office of agriculture in BCMM to speed up its agricultural programs, because the city has programs but they take years to be implemented. In addition, most of the small scale urban farmers don’t know how to get support from municipality, some they do not even know that BCMM has the office of agriculture that can support their agricultural activities. Therefore, there is a need for office of agriculture to have community outreach programs that will advertise services are offered by the office.

Since there various types of small scale urban farmers in the city, there is a need to introduce and invest on other agricultural ventures, especial agro-processing business, such as dairy processing. As the city built along the Indian Ocean, there is a need to introduce aquaculture, which is gaining momentum in most cities that are built along the coasts. In addition, the city of East London is rich of natural vegetation, and it has natural forests, so, introduction of bee keeping is another agricultural related venture that can be introduced in the city to create diversified employments opportunities in the city.

There is a need to introduce new technology; most of the small scale urban farmers in the city use the old types of instruments to tilt the soil. So in order to intensify production, there is a need to introduce new technologies such as walking behind tractors. Therefore, the city needs to support small-scale urban farmers in acquiring these types of machines as they are little bit expensive.

Another matter that needs to be addressed is the issue of land use in urban centres. The current municipal bylaws prohibit practice of farming in the cities. However,
somehow authorise do endure farming of the crops. But livestock keeping is strictly not allowed. This has negative impact to those who are interested in piglet and poultry farming. These laws were introduced by old regimes of colonialism and apartheid which were more preoccupied with cleanliness. And in those days urban poverty was not pervasive as it is today. So, common ground has to be reached between livestock keepers and municipality. All in all there is a need to revisit the current city bylaws as they seem inhibit potential of small scale urban farmers in the city.

It is essential for local government to recognise role play by urban farming as the livelihood strategy for many households in low income areas. So, it is imperative for local municipalities to integrate urban farming in their development policies. In addition, the environmental offices in the city also should promote practice of urban farming as it plays significant part on eco-system.
References


Symposium of the International Association of Agricultural Economists, Badplaas, South Africa, August 10-16.


APPENDICES

APPENDIX 1: SMALL SCALE URBAN FARMERS

SMALL SCALE URBAN FARMERS SURVEY

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<th>Questionnaire No:</th>
<th>Date:</th>
<th>Name of Interviewer:</th>
<th>Place:</th>
</tr>
</thead>
</table>

**SECTION 1: DEMOGRAPHIC**

1.1. **GENDER**

<table>
<thead>
<tr>
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<th>2. Female</th>
<th>ENTER CODE</th>
</tr>
</thead>
</table>

1.2. **NATIONALITY**

|------------------|---------------------|------------|

1.3. **RACE**

|----------|------------|---------|----------|---------|------------|

1.4. **AGE**

<table>
<thead>
<tr>
<th>1. Less than 20</th>
<th>2. 20 to 30</th>
<th>3. 31 to 40</th>
<th>4. 41 to 50</th>
<th>5. 51+</th>
<th>ENTER CODE</th>
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</thead>
</table>

1.5. **WHERE DO YOU COME FROM ORIGINALLY?**
## SECTION 2: FARMING BASED INFORMATION

### 2.1. HOW MANY YEARS YOU HAVE BEEN DOING FARMING?

1. Less than one year
2. One year
3. Two years
4. Three years
5. Four years
6. More than five years

### 2.2. WHAT MOTIVATED YOU TO DO FARMING?

1. Poverty
2. Unemployment
3. Enthusiasm
4. To sell farming produce
5. Other

### 2.3. WHAT KIND OF FARMING ARE YOU DOING?

1. Crop farming
2. Livestock keeping
3. Crop farming & Livestock keeping
4. Other

### 2.4. WHY DO YOU THINK FARMING IS IMPORTANT?

1. Alleviate poverty
2. Income generation at home
3. Subsidises income
4. Other

### 2.5. ARE YOU DOING FARMING FOR?

1. Commercial purpose
2. Family subsistence
3. Both

### 2.6. ARE YOU FARMING WITHIN YOUR RESIDENTIAL PLACE?
### 2.7. WHAT IS THE MOST CHALLENGE ARE YOU FACING AS A SMALL SCALE FARMER?

<table>
<thead>
<tr>
<th>Option</th>
<th>ENTER CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Scarcity of enough land</td>
<td></td>
</tr>
<tr>
<td>2. Do not have water for irrigation</td>
<td></td>
</tr>
<tr>
<td>3. Farms/gardens not fenced</td>
<td></td>
</tr>
<tr>
<td>4. Theft</td>
<td></td>
</tr>
<tr>
<td>5. Do not have enough fields to graze livestock</td>
<td></td>
</tr>
<tr>
<td>6. Struggle to get food for pigs/chickens</td>
<td></td>
</tr>
<tr>
<td>7. Drought/Climate change</td>
<td></td>
</tr>
<tr>
<td>8. Other</td>
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</tbody>
</table>

### 2.8. DO YOU THINK THAT FARMING CAN HELP TO REDUCE POVERTY & UNEMPLOYMENT IN EAST LONDON?

<table>
<thead>
<tr>
<th>Option</th>
<th>ENTER CODE</th>
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<tbody>
<tr>
<td>1. Yes</td>
<td></td>
</tr>
<tr>
<td>2. No</td>
<td></td>
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</tbody>
</table>

### 2.9. TO EARN MONEY ARE SOLELY DEPENDENT ON FARMING OR YOU HAVE ANOTHER JOB WHICH IS NOT RELEVANT TO FARMING?

<table>
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<tr>
<th>Option</th>
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</thead>
<tbody>
<tr>
<td>1. Yes</td>
<td></td>
</tr>
<tr>
<td>2. No</td>
<td></td>
</tr>
</tbody>
</table>

### 2.10. AS A FARMER DO YOU BELONG TO A FARMERS' GROUP?

<table>
<thead>
<tr>
<th>Option</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. Yes</td>
<td></td>
</tr>
<tr>
<td>2. No</td>
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</tbody>
</table>

### 2.11. DO YOU THINK THAT FARMING CAN BOOST EAST LONDON ECONOMY?

<table>
<thead>
<tr>
<th>Option</th>
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<tbody>
<tr>
<td>1. Yes</td>
<td></td>
</tr>
<tr>
<td>2. No</td>
<td></td>
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</tbody>
</table>

### 2.12. ARE YOU GETTING ANY ASSISTANCE FROM THE FOLLOWING?
1. Buffalo City Metro Municipality
2. Amatole District Municipality
3. Department of agriculture
4. Non- Profit organisation
5. Private Business
6. University
7. Other
8. None

2.13. WHAT ASSISTANCE DO YOU NEED MOST?

1. Enough land
2. Water tap in farm
3. Fence
4. Seeds
5. Piglets and related resources
6. Chickens and related resources
7. Calves and related resources
8. Goats and related resources
9. Other

2.14. DO YOU HAVE ANY AGRICULTURAL RELATED SKILLS?

1. Yes
2. No

2.15. ARE THERE ANY GOOD RETURNS IN THIS FARMING?

1. Yes
2. No

2.16. DO YOU SEE YOUR SELF CONTINUING WITH FARMING IN THE NEXT FIVE YEARS COMING?

1. Yes
2. No
3. Unsure
Interview Guide for Small Scale Urban Farmers in East London

Name of interviewer: 

Name of organization: 

Number of interviewee: 

Place: 

Time: 

1. Where do you come from originally?
2. How many years you have been doing farming?
3. What motivated you to do farming?
4. What kind of farming are you doing?
5. Do you belong to any farmers organisation?
6. Why do you think farming is important?
7. Are you doing this farming for commercial purpose or for family consumption?
8. Do you think farming can help to reduce poverty and unemployment in East London, and why?
9. To earn money do you solely dependent on farming or you have another job which is not relevant to farming?
10. How many of your family members are involved in farming?
11. Are you farming outside the place that you live in or within your area?
12. As an urban farmer, what are challenges in doing farming?
13. Do you see farming reviving economy of the city of East London?
14. What assistance do you need as a farmer?
15. Do you have any agricultural related skills?
16. Are you getting any form of assistance from University of Fort Hare or Buffalo City Metropolitan Municipality?
17. How do you deal with challenges that are imposed by climate change?
18. Are there any good returns in this farming?
19. Where do you see your farming in the next five years?
APPENDIX 3: INTERVIEW GUIDE FOR DEPARTMENT OF AGRICULTURE AT UNIVERSITY OF FORT HARE

Interview Guide for Department of Agricultural Economics & Extension at University of Fort Hare

Name of interviewer: …………………………………………………………………………

Name of Department: ……………………………………………………………………….

Number of interview: ………………………………………………………………………

Place: …………………………………………………………………………………………

Time: …………………………………………………………………………………………

1. How much do you value urban farming?
2. As the university do you see small scale urban farmers play any critical in creating employment for urban dwellers?
3. Does your institution have programmes that support small scale farmers?
4. Are there any research projects that are being produced in relation to urban farming from this department?
5. Does this university have any program with BCMM on urban farming?
6. As the university how often do you engage with urban farmers in the region?
7. Do urban farmers come to your institution to seek help regarding farming?
8. In your view do you see urban farming play any essential role in reviving cities’ economy?
9. What role do you see this university playing in assisting urban farmers in East London?
APPENDIX 4: INTERVIEW GUIDE FOR OFFICE OF AGRICULTURE IN BUFFALO CITY METROPOLITAN MUNICIPALITY

Interview Guide for Office of Agriculture in BCMM in relation to urban farming

Name of interviewer: …………………………………………………………………………………………………

Name of Department: ……………………………………………………………………………………………

Number of interview: ……………………………………………………………………………………………

Place: …………………………………………………………………………………………………………………

Time: …………………………………………………………………………………………………………………

1. What value do you put on urban farming?
2. Do you think it is appropriate to practise farming in the city?
3. As the municipality do you see small scale urban farmers play any significant role in reducing unemployment?
4. In your view do you see small scale urban farmers play any vital role in reviving East London economy?
5. Does your department have any programme with University of Fort Hare on urban farming?
6. Are there any urban farmers had ever come to your department to seek assistance regarding farming?
7. Do you think urban farming can be used as the strategy to fight poverty in East London?
8. Does your municipality have programmes that are meant to support small scale urban farmers in the city?
9. How often BCM municipality do engagements with urban farmers?
10. Do BCM municipality have data base of small scale urban farmers?
APPENDIX 5: ETHICAL CLEARANCE CERTIFICATE

ETHICAL CLEARANCE CERTIFICATE
REC-270710-028-RA Level 01

Certificate Reference Number: SIB011SRUM01

Project title: Agricultural urbanism and Urban Agriculture: Exploring possible role that can be played by University of Fort Hare and Buffalo City Metropolitan Municipality (BCMM) to support small scale urban farmers in East London, South Africa.

Nature of Project: Masters in African Studies

Principal Researcher: Siphamandla Rumsa

Supervisor: Dr O Sibanda

Co-supervisor: N/A

On behalf of the University of Fort Hare’s Research Ethics Committee (UREC) I hereby give ethical approval in respect of the undertakings contained in the above-mentioned project and research instrument(s). Should any other instruments be used, these require separate authorization. The Researcher may therefore commence with the research as from the date of this certificate, using the reference number indicated above.

Please note that the UREC must be informed immediately of

- Any material change in the conditions or undertakings mentioned in the document
- Any material breaches of ethical undertakings or events that impact upon the ethical conduct of the research

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The Principal Researcher must report to the UREC in the prescribed format, where applicable, annually, and at the end of the project, in respect of ethical compliance.

Special conditions: Research that includes children as per the official regulations of the act must take the following into account:

Note: The UREC is aware of the provisions of s71 of the National Health Act 61 of 2003 and that matters pertaining to obtaining the Minister’s consent are under discussion and remain unresolved. Nonetheless, as was decided at a meeting between the National Health Research Ethics Committee and stakeholders on 6 June 2013, university ethics committees may continue to grant ethical clearance for research involving children without the Minister’s consent, provided that the prescripts of the previous rules have been met. This certificate is granted in terms of this agreement.

The UREC retains the right to

- Withdraw or amend this Ethical Clearance Certificate if
  - Any unethical principal or practices are revealed or suspected
  - Relevant information has been withheld or misrepresented
  - Regulatory changes of whatsoever nature so require
  - The conditions contained in the Certificate have not been adhered to

- Request access to any information or data at any time during the course or after completion of the project.

- In addition to the need to comply with the highest level of ethical conduct principle investigators must report back annually as an evaluation and monitoring mechanism on the progress being made by the research. Such a report must be sent to the Dean of Research's office.

The Ethics Committee wished you well in your research.

Yours sincerely

[Signature]
Professor Wilson Akpan
Acting Dean of Research

26 October 2016