



***Coping With Food Poverty in Cities. The Case of Urban Agriculture in Glen
Norah Township in Harare.***

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A thesis submitted in fulfilment of the requirements for the degree of

Master of Social Science

School of Community Development

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2013

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I **Steven Masvaure** declare that:

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Abstract

Urban agriculture is a common and permanent phenomenon across most African cities. The general trend in urban agriculture is that it is more pronounced among the poor urban households. Poor households often spend more than 60% of their income on food alone. It acts as coping mechanisms to urban poverty. The traditional view of urban agriculture is that it is a temporal activity which has no place in cities. These traditional views emerge from development policies which tried to tailor African countries' economic development to follow western economic development models. The fact that urban agriculture has been prevalent in African cities before the advent of colonialism shows that instead of viewing it as temporal activity a socio-historical and socio-economic analysis of urban agriculture is necessary to understand the socio-economic mechanisms behind it. The major thrust of this research was to understand the logic behind practising farming in cities.

Urban agriculture in this thesis is presented from urban farmers' perspective. Using data collected and the literature review for this thesis I developed the Urban Livelihoods Coping Model (ULCM). This model acknowledges the fact that the socio-economic conditions and the socio-historical context of Zimbabwe was as a result of the influence of 'western leaning' development policies influenced by theoretical framework of modernisation and associated theories. A combination of these theories with cultural factors and the impact of Structural Adjustment Policies resulted in the present situation where urban agriculture plays a critical in the survival of the urban poor as a coping mechanism. The ULCM ascribes the emergence of urban agriculture to necessity, ability and opportunity. Necessity for food emanates from insufficient incomes to purchase food in cities. The ability comes in the form of farming skills transferred from the rural areas to urban areas as households migrate. Opportunity comes in the form of availability of land for cultivation. Increase in poverty in cities will subsequently result in an increase in urban agriculture. It is apparent that without urban agriculture in Glen Norah most of the families will find it difficult to survive. The significance of this study is that it will help in the socio-economic understanding of urban agriculture and how it can be factored into urban planning systems.

Dedication

This thesis is dedicated to my mother and my late father for their unfailing belief and effort in educating their children.

Acknowledgements

I wish to express my sincere thanks to my Supervisor Professor M. P. Sithole for her support, dedication and encouragement. This thesis would not have been a success without your valuable contribution. It was a privilege to be supervised by you.

Special thanks to Tatenda Chitsora. I appreciate your moral support and encouragement. Thank you for your understanding and end-less love.

I fully acknowledge and appreciate the support of Anton Chibwe. I wish to thank you for your valuable suggestions and support during fieldwork. Thank you for making my fieldwork a success.

I wish to express my love and appreciation to my family for their support throughout the duration of this thesis.

Steven Masvaure

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List of Abbreviations

AFC: Agricultural Finance Co-operation

CSO: Central Statistical Office

EMA: Environmental Management Act

ESAP: Economic Structural Adjustment Programs

FAO: Food and Agricultural Organisation

GNP: Gross National Product

IMF: International Monetary Fund

MDC: Movement for Democratic Change

PDL: Poverty Datum Line

SAPs: Structural Adjustment Programs

ULCM: Urban Livelihoods Coping Model

WB: World Bank

ZANU (PF): Zimbabwe African National Union Patriotic Front

ZAPU: Zimbabwe African Peoples Union

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Chapter 1: Introduction

1.1. Introduction

The focus of this study is on urban agriculture which is a common informal sector activity across most sub-Saharan African cities. Urban agriculture forms a critical survival strategy among urban residents in developing countries. It plays a critical role in food access and supply amongst most urban residents. Urban agriculture is classified as an informal sector activity as it is not controlled or monitored by government or included in the gross national product (GNP) calculations. In sub-Saharan African context, the perpetual droughts and low rural agricultural production in the rural areas causes difficulties to urban families when trying to access a cheap and affordable supply of food. This situation is compounded by the dependence of urban households on cash to access most of their daily food requirements. Meikles, (2002: 38) describes the plight of urban household in the following statement; “In urban areas, cash transactions are more common, poor urban people are more dependent on cash income and often they lack access to the common property resources, such as water and fuel that are available in rural areas” thus in as much as lack of cash is seen as problematic in most rural contexts; lack of access to food production mechanisms is seen as problematic in urban contexts.

African cities have been plagued with high urbanization and high population growth. High urbanization is as a result of the absence of rural development which pushes families to urban areas and high urban population birth rate. Rural-urban migration results in low food production in the rural areas leading to low food supply in urban

areas as capable hands are absorbed in urban formal sector employment. The consequence of low food production in the rural areas is that food prices in urban areas rises. A notable aspect of urbanization in developing countries is that there is no link between economic growth and urbanization, unlike in industrial countries, economic growth and structural transformation accompanied urbanization (Rakodi 2002: 27). In most African countries urbanization is a process of transferring rural poverty to urban areas (Smit et al 2001: 20) because of limited employment opportunities which in turn affects the income levels of urban households.

Proletarianization of labour in most sub-Saharan African cities means that rural farm workers and households discard food production in favour of formal employment. Proletarianization changes households from being dependent on agriculture to cash dependent households. Formal employment does not mean that workers get a survival wage. Poor wages being offered by most employers in cities cause the growth of extensive poverty among urban households as families find it difficult to access basic services and goods because of insufficient income. The insufficiency of income pushes many urban households into informal sectors as a way of survival. Employment in the informal sector does not guarantee sufficient income despite the long hours they spend in informal activities¹ (Stevens et al 2008: 57).

Policies behind the structural adjustment programs (SAPs)² also played a part in perpetuating the level of poverty in most African cities. Many of the structural adjustment programs had the objective of reducing the impact of previous policies

¹ Employment and economic activities which fall outside the formal economy. It not regulated or taxed. (LEWIS 1955)

² In Zimbabwe SAPs are known as Economic Structural Adjustment Programs (ESAP).

which had an urban bias in terms of development (Mlambo 1997). This resulted in increased job losses as companies readjusted to cut losses and the freezing of public sector jobs meant that the private sector could not absorb all the surplus labour. Lower wages were also encouraged by surplus labour from rural areas. With limited employment opportunities in the formal sector most urban residents found themselves involved in informal activities as a way of survival.

Urban agriculture among the urban households, who practise it, plays a critical role in improving the livelihoods of urban households. Various studies on urban livelihoods attested to the fact that most of the poor urban households spend between 30-80% of their household income on food alone (Mougeot 2006). Poor households are left with very little income to spare after factoring in the cost of food. This leaves poor households drowning in poverty. Urban agriculture is acting as a way of reducing the amount of income being spent on food by poor households. By practising urban agriculture residents are coping in the harsh economic climate of cities.

In spite of the significance of urban agriculture to most sub Saharan African cities there is no clear policy framework to support it as a form of livelihood. In countries such as Zimbabwe there is no official recognition of the contribution of urban agriculture to urban food supplies. Most sub-Saharan African countries view urban agriculture as a rural activity, which should be confined to rural areas. Despite urban agriculture being practised for a long period in most African cities, most city administrators and national governments fail to acknowledge it. This has caused a haphazard development of farming in cities without any form of control. With

increasing economic decline and poverty in African countries, urban agriculture has become an alternative to cash payments for rising cost of food in urban areas (Chimhowu & Gumbo 1993: 11). The increasing importance of urban agriculture and non-recognition of it by authorities motivated me to do this research. The research is focused on urban agriculture in a Harare township (Glen Norah) in Zimbabwe.

1.2. Urban agriculture in Harare, definitions and contextual meaning.

Urban agriculture is defined as any form of farming (crop/ livestock) within the city boundaries (Mbiba: 2000: 286). There are mainly two forms of urban agriculture in Harare. “On-plot” farming is the production of crops/ livestock within official residential plots. This form of crop cultivation is legal while livestock production is illegal. The second form of urban agriculture is called off-plot cultivation. Modimu (1996: 182) defined off-plot cultivation as cultivation that takes place in areas reserved for other purposes like industrial development, rail and road extensions, wetlands and catchment areas for city’s water supplies.

The official position in Harare is that off-plot cultivation is illegal unless approved by city authorities. There has been a history of slashing down of crops on land which is not designated for agriculture in the city. The two main pieces of legislation used to control off-plot cultivation are, the Environmental Management Act (2002: Chapter 20:27)³ and the city council by-laws. The Environmental Management Act (2002: chapter 20:27 section 140) prohibits cultivation of land within 30m distance from water sources (rivers and wetlands). Recently there has been a laxity in application of

³ Previously known as Natural Resources Act (Chapter 150)

laws regarding urban agriculture. The main reason might be the economic decay and the impact of fast tracked land reform in Zimbabwe. Banning urban agriculture in the midst of food shortage is not politically correct. These developments motivated this research. The relaxation of the application of the laws prohibiting urban agriculture might indicate the change in the perception of urban agriculture by city authorities.

1.3. Location of the study area

The township⁴ of Glen Norah is located in Harare the largest city in Zimbabwe. The city of Harare was established by colonial settlers in 1890. The colonial name of the city of Harare was Salisbury. During the colonial period, Harare was divided according to racial lines. The south-western part of the city was mainly characterized by black townships with small stands (plots) and a high population density of houses per square kilometre. The African townships were only populated by blacks. Because of stricter laws controlling migration during colonial period, most of the inhabitants in those areas were migrant workers working in the industries located between the city's central business district and the townships. It is in this township location that Glen Norah is found.

The suburbs north of the central business district were reserved for whites. These suburbs had very low population and housing densities coupled with big spacious houses. After independence in 1980, the racial barriers were broken down and a new dispensation emerged. At the present moment the city is divided into the affluent north

⁴ Townships in Zimbabwe are known as high density suburbs

and the poor south-western. The major change after independence was the movement of the affluent blacks from the south-western townships to the northern suburbs.

Glen Norah was established in response to high urbanization in 1971 (Potts & Mutambirwa 1991: 8). High rural to urban migration was mainly caused by the intensive liberation war which was raging in the rural areas and migrants seeking employment. The township of Glen Norah was established as site and service scheme where the government provided the basic two roomed core houses which were supposed to be completed by the owner within a stipulated period (Potts & Mutambirwa 1991: 8). Some of the houses were employer-tied to their married employees. The majority of the inhabitants were mainly poor urban working class people who augment their salaries by renting out extra rooms from their houses. Glen Norah is divided into three sections A, B and C. Section A is the oldest and C the latest.

The major reason for choosing Glen Norah township for research in urban agriculture is that it covers the two most important aspects of urban agriculture which are; “on plot” and “off plot” cultivation. The township also reflects most of the characteristics of Harare’s townships.

1.4. Livelihoods in Harare.

Harare, as the largest city in Zimbabwe, was not immune to the economic decay which Zimbabwe is facing as a country. The deterioration of living conditions started in the 1990s after the adoption of the Structural adjustment policies (SAP) crafted by the International Monetary Fund (IMF) (Drakakis-Smith et al 1995: 183). The major

goal of the SAPs was to reduce government expenditure and create a market economy. These reforms were prescribed by the IMF as a prerequisite for accessing loans from the institution. Subsidies which were put in place in the 1980s to cushion the poor from high cost of living were scrapped as a measure to reduce government expenditure. Overnight the cost of basic goods and services (shelter, food, transport, education and health) increased considerably. This caused difficulties in the townships as people's salaries remained unchanged. It caused some food protests in Harare in 1997 and 1998.

The food supply system in Zimbabwean cities was further affected by the implementation of the fast tracked land reform programme in Zimbabwe's rural areas. The fast track land reform was used to expropriate productive farms from white owners. The farms were redistributed to the peasant farmers in the rural areas. This caused a huge drop in farm production which affected the availability of basic food stuffs in the cities. A drop in agricultural production in Zimbabwe resulted in economic decline as agriculture was the main source of the country's exports. Economic decline continued throughout the first decade of the 21st century. In 2008 official inflation figures reached 231 million percent (CSO 2008: 2). It is against this background that this research seeks to have an insight into the coping mechanism of Glen Norah residents in relation to food poverty and urban agriculture.

1.5. Objectives for this research

Research in urban agriculture has mainly concentrated on exploring and describing the extent of urban agriculture in African cities. The bulk of research done was mainly

concerned with quantifying the extent and productivity of urban agriculture (Mbiba 1995: 1). Most of the researchers adopted the positivist/modernistic theoretical framework. Positivist scholars argue that laws can be deduced from accurate and objective data collection on social phenomena and that the laws can be used to predict human behaviour in terms of cause and effect (Unwin 1992:32). This assumption has proved a challenge in urban agriculture where there is no universally accepted explanation for the emergence of urban agriculture in different African cities.

According to Mougeot (2005: 267) urban agriculture is different across cities and regions creating challenges when generalizing research findings. The main cause for the differences is that in some cities urban agriculture is legal, whilst in some it is illegal. The gender dynamics also differ from city to city. In Accra males dominate urban agriculture whilst in cities like Harare and Nairobi the majority of urban farmers are females. In some of the cities, urban farmers concentrate on subsistence urban agriculture as compared to commercial. Given the above challenges this research will adopt the critical realism theoretical approach.

Critical realists want to find out what makes things happen the way they do and what allows or forces changes (Kitchen and Tate 2000: 5). The main objectives of this research are to try to get an in-depth understanding of the unexamined and unanswered questions in urban agriculture. Critical realism stresses the fact that for scientific investigation to be authentic the object of investigation must be examined for real, internal mechanisms and multiple factors that influence each other to produce particular outcomes (Graham 2005: 20). Thus the factors that make meaning

to the residents of Glen Norah for their practise of urban agriculture are as important to investigate as the objective observable factors.

This research seeks to achieve the following objectives:

- Understand the relationship between urban food systems (accessibility, supply and affordability) and urban agriculture.
- Explore the relationship (if any) between urban agriculture and urban food poverty.
- Understand the socio-economic status of urban farmers
- Understand the logic behind practicing agriculture in urban areas from the perspective of social actors.
- Explore the strategies of regularizing urban agriculture in Harare.

1.5.1. Key research questions

This research seeks to answer the following questions.

- What is the relationship between urban food poverty and urban agriculture?
- What are the normal food sources in the city of Harare?
- Why are urban inhabitants involved in urban agriculture?
- What is the socio-economic profile of people practicing urban agriculture?
- What strategies should be put in place to regularize urban agriculture?

1.6. Significance of the study

The significance of this study is that it offers to look beyond the extent and magnitude of urban agriculture in Glen Norah. It examines the factors and reasons why people

engage in agriculture in cities. An understanding of the underlining reasons on why urban households practise farming will help in policy formulation for urban agriculture in Harare. In the case of Harare the authorities have shown leniency by stopping slashing of crops in the previous few years. This shows a probable change of policy concerning urban agriculture in Harare. In the city of Harare the political leadership has shown leniency but the professional city administrators of the city still view urban agriculture as illegal. Since the city administrators take their cue from policy formulators (political leadership), it is imperative that this research help in understanding the local discourse and mechanisms which control urban agriculture in Harare.

This research also presents a new approach to urban agriculture research in Harare. Research on urban agriculture has been done by geographers, town planners and economists who had their objectives tailored towards their disciplines. This research takes a sociological approach, whereby urban agriculture is presented from the perspective of the farmers and their socio economic context.

1.7. Research chapter overview

The present chapter introduces the study as centred on urban agriculture, the main objectives and research questions of this study. It also describes the background of the research area, pinpointing the significance of investigating local perspectives on urban agriculture. Chapter 2 deals with literature review and it discusses the theoretical framework of urban agriculture in Africa. It also explains the theoretical framework adopted for this research. It traces how socio economic development policies in Africa

have influenced the development of urban agriculture in most cities. Chapter 3 deals with the methodological approach of the research. It mainly explains how the data was collected and it also explains the benefits of a mixed method inquiry in urban agriculture. It also explains how the data was analysed. Chapter 4 discusses and analysis the development of urban agriculture in Zimbabwe from pre-colonial times to the present day. It places the current research in its socio economic context. It also explains how urban agriculture was and still affected by the economic developments throughout the decades.

From chapter 5 the thesis begins to deal more directly with empirical findings of this research in the way that is promised in previous chapters and seeking to investigate local situation and local discourse. Chapter 5 deals with a description and an analysis of the practical manifestation of urban agriculture in Glen Norah. It explains the nature of farming and characteristics of urban farmers in Glen Norah. Chapter 6 explains the socioeconomic context of urban agriculture in Glen Norah. It also presents farmers' perspectives on why they are involved in urban agriculture and analyses the impact of urban agriculture on the socio economic status of Glen Norah. Chapter 7 is dedicated to concluding remarks. It discusses the possible recommendations of the research and it also explains the way forward for the urban agriculture.

Chapter 2: Review of literature

2.1. Introduction

Urban agriculture in sub-Saharan Africa is defined as a form of farming taking place within the boundaries of urban areas (Mbiba 2000: 286). Mougeot 2006:4 defined urban agriculture as “growing, processing and distribution of food and non-food plants and tree crops and the raising of livestock, directly for the urban market both within and on the fringe of urban areas”. It has to be noted that in some cases urban agriculture manifests itself in the form of crop farming and livestock production within the official boundaries of the cities. In some cases in African cities, urban agriculture takes the form of peri-urban agriculture, which is a form of farming which takes place on the edges where the city meets the rural areas. This research will adopt the general definition that urban agriculture is a form of farming (crop or livestock) taking place within city boundaries. It is important to qualify Mougeot’s definition by stating that “for the urban market” does not mean only the formal market or the market place as such. Urban agriculture for subsistence constitutes a major part of this study.

It has to be understood that urban agriculture does not only involve the production of food crops and livestock but also non-food items. There are two forms of urban agriculture in most African cities, on-plot cultivation and off-plot cultivation. As has been mentioned in Chapter 1, Mudimu (1996: 182) defines on-plot cultivation as the production of crops and livestock within official residential plots. Off-plot cultivation

is cultivation that takes place in areas reserved for other purposes like industrial development, rail and road extension, wetlands and catchment areas for city water supplies (Mudimu 1996: 182).

This chapter explores the literature on urban agriculture particularly within the African context. It also explores the theoretical frameworks that can be used in the analysis of the phenomenon of urban agriculture. Even though such theoretical frameworks are first described in their substance in their own right, it must be emphasized that their application can be conflated with to varied degrees in different contexts. By the end of the thesis it should be possible to return to these frameworks to see to what extent do they talk to the data presented after this chapter.

2.2. Urban agriculture in sub-Saharan Africa

Most cities in sub-Saharan Africa share a history of colonization. The history of colonial city planning methods excluded agriculture in cities. City planners simply did not recognize urban agriculture as a legal land use (Mougeot 2005: 34). Urban agriculture is frowned upon in most of the cities in Africa because it is regarded as a rural activity. The research on urban agriculture in sub-Saharan Africa has been very low because it was viewed as a temporary activity (Boateng 2002: 603). Urban agriculture is not popular among the city authorities because of the assumed environmental impacts (Smit 1996: 13), despite the fact that the same impacts are also experienced in the rural areas where it is legal. In the 1980s and early 1990s, research in urban agriculture was mainly concentrated in the francophone countries in West

Africa. In the 1990s, the research concentrated in central and eastern Africa (Mougeot 2006: 4). In southern Africa urban agriculture, research is starting to gain momentum.

Various issues have positively affected the development of urban agriculture in Africa. In Ghana, it was encouraged during the economic crisis. It was encouraged through “Operation feed yourself” (Boateng 2002: 593). In Cameroon, it was used as a way to cushion the masses during retrenchment. In Kenya, it was used for political expedience (Mougeot 2005). Research shows that each African city has a different approach and perspective to urban agriculture. The reasons for engaging in urban agriculture in Kenya are different from those in Zimbabwe, Togo, Cameroon and Ghana. Mougeot (2010: 267) admitted that there seems to be different reasons for engaging in urban agriculture in different urban contexts. In some cities urban agriculture has become an important source of food whilst in some cities this is not the main reason. In sub Saharan Africa, one would expect urban agriculture to show similar traits. Differences in the practise of urban agriculture in the same regions are difficult to explain, but it seems the differences range from cultural conditions, residents producing the main staple foods, economic factors and political expedience.

2.3. Urban agriculture; the past and the present

Urban agriculture in relation to other urban disciplines has very little published literature in Africa. As a new topic, urban agriculture has focused on exploratory and descriptive ways of research. Researchers are mainly concerned with quantifying the extent and benefits of urban agriculture to the urban residents. There is little research, which tries to explain the social logic and mechanisms governing the development of

urban agriculture in cities. Donor communities, who documented the benefits of urban agriculture, as a way of enticing and encouraging local authorities to embrace urban agriculture in their urban planning policies, pioneered the bulk of the research. The result of this research was the official acceptance of urban agriculture in some of the Western, Central and Eastern African cities.

Literature on urban agriculture shows that urban agriculture plays a critical role in accessibility and supply of food to urban residents. Mougeot (2006:1) attests to the fact that urban agriculture plays a significant role in providing a measure of food security and income for the urban poor. In Kampala, research by Maxwell (1995) shows that without urban agriculture, most of the urban poor families will find it difficult to survive. In Uganda, research done by Lee-Smith (2010) shows that urban agriculture plays a critical role in improving the diet and nutrition of the urban residents.

Benefits of urban agriculture such as environmental positives have been hardly explored (Mbiba 2000:292). The belief that urban agriculture causes environmental problems in urban areas should be viewed against the context of benefits, which are derived from urban agriculture. Since most African cities have challenges in providing services to the urban residents, urban agriculture can reduce the costs of maintaining land within city boundaries during the rainy season as farmers maintain it. It has to be stated that this researcher has seen very little literature condemning urban agriculture. However many authors do not miss the chance to highlight the environmental challenges posed by farming in cities.

What is missing from research done so far is literature that explains the mechanisms, which drive urban agriculture. An explanation on why urban agriculture is being practiced so intensely in sub-Saharan African cities is needed. Suggestions have been made to associate urban agriculture to urbanization, but without substantive research, this will be difficult to prove (Drakakis-Smith et al 1995: 183). Urban agriculture in Harare, Nairobi, and Kampala and other African cities has been associated with the urban poor. (Mbiba, 1995, Maxwell 1995 and Lee-Smith 2010).

The dynamics of urban agriculture in Harare show that it is not only the poorest of the poor who are involved in urban agriculture but mainly urban residents who own houses. This perception is not the situation in some cities like in Durban South Africa where it is associated with middle-income urban people (Neergaard et al 2009: 51). Recent research trend is showing a focus on gender dynamics. The issues of gender in Harare's urban agriculture should be viewed in the context of household social dynamics.

Research in urban agriculture in Harare has concentrated on quantifying and describing the extent of urban agriculture (Mudimu 1996, Mazambani 1982 and Mbiba 1995). The quantitative approach to urban agriculture can be ascribed to the fact that this is a relevantly new topic for research in sub-Saharan Africa. The bulk of the data has been collected and analysed through quantitative techniques. What is missing is the explanation on why urban agriculture is being practiced in urban areas. An in-depth study of urban agriculture will bring to light the reasons why urban agriculture is being practised in sub Saharan cities.

2.3.1 Urban agriculture and poverty.

Low-income earners in developing world cities spend between 30-80% of their income on food alone (Zimvac 2004, Mougeot 2006 and Drakakis-Smith 1995). The urban people spend a big portion of their earnings on food because of the cash economy of the cities and very low wages earned. Although multiple ways of accessing food in urban areas are not the main subject of study here, issues of income and affordability affect household access to food. No matter how efficient urban food supply systems can be, if there is no direct access of better income the urban poor will find it difficult to tap into that supply because of the cash economy (Mougeot 2010: 3). In the case of Zimbabwe's urban areas during the height of economic decay from 2006-2009, access to food from traditional sources was completely disrupted to the extent that even if households have access to better income they found it difficult to access food because of critical food shortages in the money market. In such situations, regular supply of home-grown food can make a considerable difference to the lives of the urban poor. Literature on urban agriculture also shows it has an impact on urban poverty by improving food access, contributing to better health and releasing the much-needed financial resources for other expenses like education and shelter (Maxwell 1995: 1670).

2.4. Theoretical framework on urban agriculture research.

Most of the research on urban agriculture is devoid of theoretical framework to base it on. This observation was also echoed by Mbiba (1995: 1). The major models or theories, which have been applied by researchers in urban agriculture, are

development theories (modernization theory, dependency theory, labour surplus model and the cultural lag model). Development studies theories play a critical role in understanding urban agriculture in developing countries. The colonial history of most African countries not only resulted in the importation of political philosophy but it also resulted in the importation and implementation of economic development policies crafted by western countries. Theoretical philosophies of modernization, dependency, and sustainable development have been tried in almost all developing countries yielding differential results. The notable major impact of these development policies is the high urbanization of the developing countries. Yet urbanization in the developing countries is not reciprocated by high industrialization thereby there is high unemployment in cities.

Lack of employment subsequently leads to high levels of poverty. High urbanization of the developing world cities is described by Drakakis-Smith (1995: 184) as the exportation of poverty from the rural areas to the cities. High levels of urbanization put pressure on jobs in the city leading to high unemployment and subsequent poverty. According to Drakakis-Smith et al (1995:184), the cash economy of cities forces urban residents to spend more on food. The ability to access food in urban areas is directly related to one's income. To low income earners it becomes apparent that a significant proportion of their food is produced from within cities (Choguill 1995: 149).

Urbanization in developed world does not correlate with poverty to the same level as in developing countries. In developing countries, urbanization causes a decrease in

food production as the farm labourers move to the cities. Unlike in developed world where there is a relationship between farm mechanization and rural to urban migration. All excess labour from the rural areas was absorbed into the booming industries. In the United Kingdom only 1.5% of the rural population feeds the whole population (Girardet 2008: 40). Understanding the role being played by urbanization will help in understanding the mechanisms and reasons why people engage in urban agriculture. The bottom line about urbanization in developing countries is that economic growth did not match up with urbanization leading to high levels of poverty in cities.

This is the context within which the following theories of development are outlined, namely the context of broad imbalances within the global industrial economy of which urbanisation and cash economy is a part. It is also the context in which to read the coping strategies of the local citizenry such as was closely studied at Glen Norah.

2.4.1 Modernization theory

Modernization policies adopted by developing countries have their basis on Rostow's work; *The five stages of development*. Rostow (1998) emphasised that for development of poor countries to occur there is need for a country to go through five stages which will lead it development. The stages are as follows: traditional society, preconditions for take-off, the take off stage, the drive to maturity and the age of high consumption. The underlying assumption of Rostow's work was that poor countries will become developed if they can follow the path taken by developed countries. To Rostow, underdevelopment was viewed as a temporal phenomenon which can be

corrected through imitating the path taken by developed countries. Modernization has its roots in this theoretical perspective.

The theory of modernization dictates that for economic development to take place four major processes should precede it. The processes should be in this sequence, modernization of technology, commercialization of agriculture, industrialization and finally urbanization (Long 1977: 10). Modernization theory also dictates that for developing countries to achieve development they should follow the path that was taken by developed countries.

Modernization theories played a key role in the 1970s as developing countries adopted policies, which were aimed at pushing most African developing countries through the four stages of development. The policies constructed using modernistic perspective failed to achieve their objectives as commercialization and mechanization of agriculture happened before industrialization. This led excess labour from rural areas to flock to the cities leading to high urbanization before industrialization. Subsistence agriculture was discouraged and received little support in the rural areas. Most of the farmers were encouraged to grow cash crops as a way of commercializing agriculture. Cash crops were encouraged as they were exported mainly to developed countries. Cash crop production in the rural areas increased food insecurity as food crops were relegated to secondary crops. The failure of developing countries to invest in peasant subsistence agriculture meant that their farm production dropped down each year. Poor farm production is a push factor, which forced rural inhabitants to move from rural to urban areas. Urbanisation of developed countries was based on pull factors of

cities whereby cities were offering better life through availability of high paying employment whilst in developing countries urbanisation is because of push factors (difficult conditions) in rural areas that forced them to move to urban areas.

The adoption of structural adjustment policies by most African countries in the 1980s and 1990s led to the removal of agricultural inputs subsidies and higher price guarantees offered by governments on food harvests. Most farmers neglected food crop production to focus on cash crops (Havnevik et al 2007, 17). Developed countries controlled the development policies being implemented in developing countries through international lending like International Monetary Fund (IMF) and World Bank (WB). Critical issues such as land reform were not encouraged on the pretext that as a country develops rural to urban migration will increase leading to depopulation of the rural areas. Even countries that have recently delved into such issues, such as South Africa are falling into the same trap (Bernstein 2009: 5) The problem with this belief in most African countries is that high urbanization did not result in depopulation of rural areas as most of the people who moved to urban areas still maintain their rural homes. Even in Glen Norah the empirical results of this research shows that 60% of the participants, still maintain a rural home if not a farm. Understanding urban agriculture in most African cities will require an understanding of the economic development policies adopted by these countries.

High urbanization resulted in high poverty levels in developing cities. Most developing countries failed to address the problem of unemployment and shortage of basic needs caused by high urbanization. As survival strategy, urban residents

engaged in informal activities, one of which is urban agriculture. According to Drakakis-Smith, (2000:129) the informal sector is mainly focused on subsistence. In cities like Accra, Nairobi, Harare, Lome` and other African cities, urban agriculture emerged as a subsistence way of cushioning urban residents against food poverty.

The major challenge faced by urban farmers in these cities is that urban agriculture was frowned upon by city authorities. There is no place for agriculture in cities, since under modernization; the view is that agriculture should be confined to rural areas (Choguill 1995: 49). The view that agriculture belongs to the rural areas led to the militant view and policies, which barred urban residents from practising agriculture. In the case of Harare, the authorities slashed maize crop even during years of drought (Drakakis-Smith 1995: 185). Restrictive policies on agriculture led to little investment in urban agriculture (Mougeot 2006: 8) as farmers could not take risk of losing their meagre income if authorities destroy their crops. Modernization theoretical perspective viewed agriculture as a temporary phenomenon and backward activity with no place in cities (Mbiba 1995: 1). These views led to the omission of agriculture as a form of land use during urban planning in the cities. Research has shown that urban agriculture is not a temporal phenomenon and has notable benefits in poverty alleviation and improving food security of urban farmers.

2.4.2. Dependency theoretical perspective.

Dependency theory was developed as a critique of modernization theory (Obosu-Mensah 1999:18). Sunkel (1969:23) defined dependency as an explanation of the economic development of a state in terms of the external influences, political,

economic and cultural on national development policies. Dependency theory developed because of the observation by Prebisch⁵ that economic growth in the advanced industrialised countries did not necessarily lead to growth in the poor countries (Ferraro 2008:58). The theory views development as a historical process. It blames capitalist systems for poor economic development. Frank (1972:3) explains explicitly the influence of capitalism on underdevelopment of poor countries by saying "...historical research demonstrates that contemporary underdevelopment is in large part the historical product of past and continuing economic and other relations between the satellite underdeveloped and the now developed metropolitan countries".

Dependency model divides the economic situation in urban areas into two, the capitalists (who own all means of production) and the workers (proletariat). Marxist scholars (one of the prominent scholars is Andre Gunder Frank) are the main proponents of this theory; they argued that the developed countries depended on resources from third world countries. Developing countries become 'dependent satellites' for developed countries thereby losing effective control over their own economic development (Long 1977: 4). According to Frank (1978: 11) developing countries' development was hampered by the colonial systems which established autonomous capitalist which defend the economic interests of the Western world.

Dependency model brings to the fore two issues, which are important in urban agriculture: the first is that it describes urban farmers as people who are employed but earning below living wages (semi-proletariat) which means that they have to augment

⁵ Prebisch evaluated Rostow's approach to development

their income by involving themselves in urban agriculture. This view can be supported by the data from Kenya where a higher percentage of those who are formally employed are urban farmers. In Zimbabwe, civil servants salary could hardly take them home (Lynch 2005: 36); given such a situation, urban residents will embark on urban agriculture as a way of cushioning themselves against starvation. Dependency theory is thus constituted by the income augmentation view of informal activities such as urban agriculture as well as surplus labour views which is explained below.

In terms of income augmentation, urban farmers are viewed as semi-proletariat because of the wage economy (Obosu-Mensah 1999: 18). Urban agriculture is viewed as a peasant mode of production (Chambua 1994: 39). The major critique of dependency theory on urban agriculture is that it fails to explain the involvement of middle-income earners in urban agriculture. It has to be stated that urban agriculture is only a part of a host of other economic activities being carried out by urban farmers. Other informal activities, which bring in income to the urban farmers, are rental income, vending, home industry jobs etc. A deeper understanding of urban agriculture will not be achieved without understanding the rural-urban linkages, which have a direct effect on urbanization and urban poverty. Concentrating on urban employment dynamics when trying to explain urban agriculture will not result in a clear understanding of the reasons behind practising urban agriculture.

2.4.3. Labour surplus model

Labour surplus model is a complimentary explanation of urban agriculture to the dependency model as hinted above. It bases its explanation on the relationship

between unemployment and urbanization in developing countries. High urbanization results in high supply of labour to the cities leading to high unemployment. Lack of employment causes recent migrants to engage in subsistence urban agriculture. Urban agriculture is viewed as a short-term “stop gap measure” adjustment to urban socio-economic problems (Freeman 1993: 2). The ‘stop gap measure description’ of urban agriculture implies that urban agriculture is a temporary livelihood survival strategy, which will be discontinued in the event of gaining full employment. Such description perpetuates the ‘impermanence syndrome’ - the belief that urban agriculture is not permanent (Boateng, 2002: 603).

What the labour surplus model fails to explain is that evidence from research on urban agriculture (such as demonstrated in this study) shows that the majority of urban farmers are not recent migrants from the rural areas. The other challenge of labour surplus model is that research in Zimbabwe, Kenya, Ghana, Cameroon and other sub-Saharan countries reveals that urban agriculture is not temporal but permanent (Mbiba 1995, Obosu-Mensah 1999). It also fails to explain why the prevalence of urban agriculture among employed urban residents.

2.4. 4. The Cultural lag model

The cultural lag model views urban agriculture as a cultural practice imported to the cities from the rural areas (Mbiba 1995: 2). It draws mainly from the labour surplus model; suggesting that unemployed migrants take up agriculture, as it is the only activity, which they are skilled in (Obosu-Mensah 1999: 21). The cultural lag model encompasses all socioeconomic groups in the urban areas, from the vulnerable to

middle-income earners. Mbiba (2000: 293) further explained the reason why women form the largest percentage of urban farmers, by saying “women in cities are responsible for food production to the same extent as women in the rural areas”. Grossman (1996: 258) explained that most of the urban migrants have a perception that cities are their ‘hunting ground’ and their rural home remains “home” despite their living in the city.

The major critique of this model is that it assumes that all urban farmers have a rural background, which is not true in some cases. Even if they have a rural background, it does not mean that they were involved in farming in the rural areas. The other critique of this model is that urban residents do not share the same culture. Most city residents have diverse cultural background. In Harare research done by Mbiba (1995) shows that not all urban farmers come from rural areas. Cultural lag model cannot solely explain the prevalence of urban agriculture in developing world cities. The notion of ‘cultural lag’ also connects with insinuations that agriculture is backward. People may have different cultural orientations to subsistence, including the division of labour between formal and informal economies, as well as men and women. However these need not necessarily be viewed as lag.

2.5. Theoretical framework of this research

Several factors affect the development of urban agriculture in developing countries’ cities. No single current model fully explains how urban agriculture manifests itself in cities. Other livelihood models like the Capability approach (Sen 1984) and Sustainable livelihood approach (Conway and Chambers 1992) play a critical role in

understanding the broader context of livelihoods in community. In this research the challenge was to explain the localised intimate relationships of sustainability in urban context with special reference to urban agriculture. As for this research, I have developed a model to explain why agriculture is being practised in cities. The model is termed the Urban Livelihood Coping Model (ULCM). The model explains preconditions, which will result in urban agriculture being adopted as a survival strategy or coping mechanism.

Urban livelihood coping model is based on the principles that were used to explain the existence of urban agriculture by Choguill (1995:149) the principles of necessity, ability and opportunity. This model combines some aspects of modernisation, dependency, labour surplus and cultural lag models. The key term in the model is livelihood. Rakodi (2002:2) defined livelihood as “comprising the capabilities, assets (including both materials and social resources) and activities required for a means of living”. This model views urban agriculture as a household activity, which is a critical form of livelihood for urban households.

Necessity can be defined as a state of unfulfilled requirements and the pursuit of filling that void. Most of the urban household's necessity is created by the conditions precipitated by modernisation and dependency economic policies. As alluded earlier, modernisation and dependency models explain the high urbanisation in developing countries. Stuttering industrialisation in developing countries failed to provide employment to rural citizens migrating to urban areas. The few who are employed in cities failed to make ends meet because of meagre earnings. Unemployment and lower

wages lead to poverty in cities as city livelihoods depend on the availability of cash income (Rakodi 2002). Poverty is the first initiator of urban agriculture whereby families are trying to reduce their expenditure on food (which is around 50%-80% of their total household income in most developing world cities). The status of poverty is “characterized not only by lack of assets and inability to accumulate a portfolio of them, but also by a lack of choice with alternative to coping strategies. The poorest in urban areas and the most vulnerable households are forced to adopt strategies which enable them to survive but not to improve their welfare” (Rakodi 2002: 6).

The first survival strategy of families is to cut the cost on food as this will definitely free up extra cash for other living expenses. Cutting costs on food can be done via two ways, either by relying on food from rural plots and homes or by practising urban agriculture. The key issue highlighted by Obosu-Mensah (1999: 20) is that the question which urban families ask themselves is “why should they buy food if they can produce it themselves?” Necessity can also be caused by economic crisis. In Zimbabwe, Ghana and Cameroon increased economic decline resulted in increased urban agriculture (Obosu-Mensah 1999, Boateng 2002). Economic crisis affects negatively the access and affordability of food in urban areas in two ways: rising food costs and declining wages. This situation affects both the employed and the unemployed. It has to be stressed that necessity alone cannot result in high levels of urban agriculture in cities. Urban agriculture is not the only informal activity households employ to cope. Other factors like the ability and opportunities if they are favourable households will normally find themselves in urban agriculture.

Ability is the capacity to practise urban agriculture. Sen (1984) describes ability as being able to perform certain basic functions. Ability of families to be involved is based on factors such as availability of labour, rural background, skills, education and cultural factors. Historically and culturally African households are patriarchal in nature. This social structure means that the husband is normally expected to be working formally and the wife should stay at home and cater for the upbringing of the children. Once rural families migrate to urban, it means that the wife is released from subsistence agriculture duties. This creates the availability of labour, which might explain why the majority of urban farmers are women. It has to be stressed that not all the women who are involved in urban agriculture have failed to gain employment. In some cases they have never been on the job market or entertained the idea of being formally employed because of cultural and other reasons. Thus the normative division of labour within household has a bearing on who dominates agriculture. Livestock and crop production can also be associated with gendered preferences.

Rural background plays a critical role in the sense that in most African rural areas agriculture is the main livelihood strategy. The absence of rural development means that most of rural populations have low levels of education therefore their only skill in most cases is subsistence agriculture. This situation makes it difficult for them to diversify into other forms of informal activities. According to Rakodi (2002: 29) as numbers of income-generating opportunities in the informal sector have increased, the incomes have fallen. Urban residents will combine or opt for urban agriculture since it has low capital input and assured access to food.

Opportunity can be defined as a set of circumstances that makes it possible to practise urban agriculture. Opportunity comes in the form of access to land in cities. Access to land comes in two forms, ownership of official residential plots and fallow land around residential areas or on the outskirts of cities. The favourable climate of Harare also encourages urban agriculture as wet summers reduce the need for watering the crops. Opportunity is very essential for urban agriculture because without access to land even if the necessity and ability is there it will be difficult to practise urban agriculture.

The academic buzz around sustainable livelihoods approach is relevant in this analysis. The sustainable livelihoods approach tends to look at development at a localised level in terms of capabilities (and ‘capitals’) at a local level. The urban livelihood coping model seeks to acknowledge the importance of ability and opportunity at a local level but also acknowledge the prescriptive conditions of urbanity that make urban agriculture a necessity. Thus elements of socio cultural and material capacity are combined with broader economic trends in explaining the form and extent of urban agriculture.

2.6. Conclusion

Urban agriculture in developing countries is a permanent feature. Modernization and dependency theories play a critical role in understanding the dynamics of urban poverty in most developing world cities. Research, which ignores these theories, fails to do justice to urban agriculture when explaining the origins and the emergence of urban agriculture in developing world cities.

Cultural lag model and the labour surplus models as indicated above partially explain why urban agriculture is prevalent in urban areas. Their major problem is their failure to explain urban agriculture in the context of socio-economic development of developing countries. This researcher is of the view that an examination of the relationship between urban agriculture and economic development policies adopted by developing countries will provide a background when explaining the occurrence of urban agriculture under the Urban Livelihood Coping Model. Explanation of prevalence, intensity and form that urban agriculture takes can be reached through examination of circumstances closer to those affected or studied.

Chapter 3: Research methodology

3.1. Introduction

My interest in urban agriculture emanates from my background. I grew up in the rural areas from birth up to late teenage years. My migration to the city of Harare had its own expectations. I had a preconceived idea of the city as a place, which is completely different from rural areas. My views of the city were changed as the first similarity of city with rural areas was farming which was being carried out in the city. After staying in different townships and middle income suburbs in Harare, I discovered that most of the households were involved in agriculture either in the city or in the rural areas.

My initial view of urban agriculture was that it was a backward activity. The tangible benefits of agriculture in townships encouraged me to do this research with the sole objective of trying to understand the factors and mechanisms driving agriculture in cities. After studying various sources of literature in urban agriculture using the inductive reasoning method I managed to make inferences that the majority of farmers benefited from urban agriculture and that it is a survival livelihood in most sub-Saharan cities. Unravelling the forces and mechanisms driving urban agriculture in Glen Norah was the major objective of this research.

This chapter is mainly dedicated to the discussion of the methodology which was adopted in this research. Most of the studies done on urban agriculture in African cities focused on exploring the extent and quantifying the benefits of urban

agriculture. In the case of Harare the extent of urban agriculture was mainly done through aerial photograph interpretation to gauge the extent and the increase in urban agriculture. What is obvious from the literature present is that quantitative methods dominate most of the research. The major methodological challenge which is evident from past research is that there is no known sample of urban farmers in most African cities which makes it a challenge to researchers. Past sampling methods focused on sampling farmers on their fields. This research will deviate from past methodological approaches which had been used in urban agriculture. In an effort to achieve the objectives of this research, I adopted the mixed methods approach. The approach reaped benefits from both qualitative and quantitative approaches. The following section describes and discusses the methods used in this research.

3.2. Research design

The research design of this research was mainly dictated by the literature available in urban agriculture. Research in urban agriculture in African cities concentrated on describing the prevalence of urban agriculture. It is imperative to explore factors affecting the practice of urban agriculture in cities. This research is both descriptive and exploratory in nature. The descriptive component of the research was mainly done to gauge the prevalence of urban agriculture and the socio economic status of the residents in Glen Norah. The exploratory methods were used to answer the question: why do Glen Norah residents practice agriculture in Harare? The design of the research did not split the data into separate entities but it combined both sets of data to answer the research questions. Since the main objective of the research was to

understand/ explore the mechanisms of urban agriculture amongst the poor in cities, it used both quantitative and qualitative methods.

The nature of the research dictated that this study adopt the mixed methods approach. The mixed methods approach was used to collect qualitative and quantitative data on urban agriculture. The use of quantitative and qualitative methods in a single study of urban agriculture helped in the correlation of quantitative (structured inquiry) data like demographic data and socio-economic data with the in-depth data on urban agriculture data collected through qualitative (semi-structured inquiry) techniques.

The justification for collecting quantitative data is that Zimbabwe as a country has experienced economic decay in the past decade. The economic decay resulted in high unemployment rates which might have affected the household food access and supply chain system for the residents of Harare. The socio economic status of the farmers needs to be reviewed in order to understand the demographic and income and expenditure patterns of residents of Glen Norah. Without quantitative data it will be difficult to get a clear picture of the levels of poverty in Glen Norah. According to Mbiba (1995: 1) most researchers in urban agriculture in Harare aimed at providing figures on productivity of urban agriculture. In general there is very little research which tries to explain why urban agriculture is prevalent in Harare. Semi-structured inquiry provided in-depth information from Glen Norah residents' perspective on why do they participate in urban agriculture and their perspective on the provision of an official framework to support urban agriculture.

The mixed method approach provided “opportunities to use multiple sources of information from multiple approaches to gain new insights” into urban agriculture (Axin and Pearce 2006: 1). As stated earlier, urban agriculture has been studied using quantitative techniques. The use of mixed methods was suitable as the strength of one method will counter balance the weakness of the other vice-versa. The general principle of this research was to get in-depth information on the reason behind the practice and the mechanisms of urban agriculture in Harare townships from social actors. Based on the premise that all research methods have strengths and weaknesses and the fact that no method is superior over the other I applied mixed methods techniques.

The main objective of this study was to reveal the mechanisms which control the development of urban agriculture in African cities. Mixed methods played a critical role as it created a balance between highly structured data collection methods and unstructured interviewing and observations. Highly structured data collection methods such as surveys provided an opportunity to document overall associations of urban agriculture in Glen Norah, but unstructured methods like semi-structured interviews and observations enabled the exposure of the mechanisms responsible of overall urban agriculture associations. According to Axin and Pearce (2006: 27) “by using mixed methods approaches that integrate different types of data collection methods, investigators have a greater opportunity to both discover and document the mechanism responsible for (urban agriculture)⁶ causal relationships”.

⁶ Own phrase added to original quote.

Mixed methods approach offers the following advantages. It provided information which was not identified by quantitative methods which are widely used in urban agriculture research. Such kind of information- like the context of urban agriculture, how did urban agriculture start and the major reasons for practicing urban agriculture was identified by an alternative approach. Mixed methods ensure that a potential bias coming from particular approach is not replicated in alternative approach (Axin and Pearce 2006: 2).

3.3. Samples and sampling methods.

The status of urban agriculture in Harare as stated earlier is that on-plot cultivation is legal and off-plot cultivation is illegal. Previous researchers have encountered a challenge whereby there is no period during which one can find all households or cultivators on the plots (Mbiba 1995: 102). Researchers have battled to get a representative sample of urban farmers. A large number of studies were done through the snowballing sampling techniques to get a sample despite its problem of recruiting a sample which might be like-minded (Valentine 2005: 116). In Harare evidence shows that in some cases, the people who work in the fields were labourers or children. This creates the problem of the validity of the sample data collection.

In terms of design the sampling of this study turned out to be different from all the other sampling techniques done in urban agriculture research in Harare. The major factors which shaped sampling methods for this study was the use of mixed methods techniques. There was need for balance between the quantitative and qualitative data collection methods. Previous research in urban agriculture in Harare has been done

mainly by sampling farmers on their field and snowball sampling. Sampling farmers on their field and snowball sampling causes challenges when trying to get a representative sample of the area under research. It also becomes difficult to ascertain the extent of prevalence of urban agriculture in Harare. By using the above mentioned sampling techniques it becomes difficult to observe and measure the living conditions of farmers in urban areas. The state of illegality of urban agriculture in most urban areas might negatively influence the quality of data which the researcher gets from farmers when interviewing them on their plots as there is fear of being arrested thereby leading to compromising the quality of data produced. The objectives of this research are to determine the extent of urban agriculture in Glen Norah and understand the factors which drive the practise of urban agriculture in Harare. This dictates that this research take a different approach.

The sampling methods adopted in this research targeted households not individuals as samples. Targeting of households was done because of the conviction that urban agriculture is a household survival strategy not an individual one. Targeting households revealed advantages that during data collection it was easier as at most households there was someone to interview and that households' socio economic dynamics were also observed. Households were not interviewed on their fields but at their homes. Interviewing households at their homes produced some advantages. Off-plot urban cultivation is illegal so interviewing farmers on their field was going to be a challenge as interviewees would view the researcher as a disturbance thereby compromising their responses. There was also the advantage that interviewing households at their homes provided a valuable opportunity for the researcher to make

valuable observation of the living conditions of respondents thereby putting the research into context.

In some cases farmers were asked whether they were farming locally by they responded by saying no despite the evidence of farming on their residential plots. It brought to the fore what is viewed as farming by the urban residents. The sizes of the plots according to the farmers are too small to be regarded as farming. This view raises the question that “is urban farming a phenomenon created by researchers?” The view that the plots are too small to be classified as farming was prominent among farmers but the issue of plot size was irrelevant when farmers were asked about the importance of farming to their urban food supply.

Interviewing farmers at their homes also circumvented the problem which was encountered by those researchers who sampled farmers on their fields. The situation of encountering workers and children instead of plot owners is a major challenge of past research, in this research this was not a problem as farmers were interviewed in their homes. This improved the validity of the research as family members who are knowledgeable answered the questions. The seasonality of agriculture in Harare also encouraged this research to sample households on their homes because sampling farmers on their fields would have required this field work to be carried out during the farming season only. The interviewees were not only asked about the visible on-plot cultivation but also about the off-plot cultivation.

3.3.1 Sampling methods.

The fact that this research uses the mixed approach means that it adopted qualitative and quantitative sampling techniques. Probability and purposive sampling techniques were used to sample households as units of analysis. Multistage cluster sampling technique was applied first to get a representative sample and sequential sampling was later applied to select cases based on their relevance to the research questions.

The initial sampling strategy of this research was to divide Glen Norah into sections A, B and C. The division was done in order to get a representative sample from the earliest sections and the latest sections of Glen Norah. Glen Norah A was the first section to be established in 1973. Glen Norah C is the latest with some houses still under construction. The target was 35 households for each section. In Glen Norah B and C one household each did not return the questionnaires. After splitting the area into sections they were further divided into transects where households were picked up at a count of 10. The selection of households was aided by the grid iron pattern of the streets. The first instrument of data collection was then distributed to those households which were selected.

Selecting households at a count of ten faced its own challenges as un-sampled next door neighbours were also interested in being interviewed. After explaining the sampling procedure of the research to those who wanted to be also included in the research, I took it as an opportunity to collect qualitative data and to gauge the extent of urban agriculture and verify some of the issues raised by those households who were sampled. The difference of this sampling technique was that it selected

households randomly without taking into account whether they are farmers or not. It also afforded seasonal farmers a chance to be sampled. In the process two types of households were produced, those who are practicing urban agriculture and those who are not. The situation provided an opportunity to compare households' socio economic status according to whether they were farmers or not. This sampling method also managed to show the magnitude and extent of urban agriculture in Glen Norah.

Households for semi structured inquiry were selected from those 105 households who were interviewed for structured study. A question on whether households were interested in a follow up interview was inserted into the questionnaire. Those households who responded positively were selected for in-depth semi structured inquiry. A minimum of 20 households were targeted for semi structured interviews. In addition to 20 households one non farmer was interviewed and one group interview was conducted in Glen Norah B. The topic of group interview was mainly about the conflict between farmers and non-farmers over housing and farming land use in Glen Norah. Some of the respondents preferred the researcher to carry on with in-depth interviews immediately after administering questionnaire. Table 3.1 shows the age of the characteristics of the heads of household sampled.

Table 3.1 Age range of head of households

Age in years	urban agriculture		Total
	farmers	Non farmers	
21-30	14	11	25
31-40	19	11	30
41-50	17	4	21
51-60	9	0	9
over 60	17	1	18
Total	76	27	103

3.4. Data collection methods

The major challenge for mixed method approach is to select appropriate data collection instruments. Right instruments will do the job if used properly. Mixed methods approach is strengthened when the right instruments are used to collect the data. Primary data came from two major sources, the highly structured questionnaires and semi structured interviews. Questionnaires were used to collect both quantitative and qualitative data. Quantitative data which includes demographic and socio economic profile of the respondents was collected using the questionnaire. The questionnaire was also be used to collect the general qualitative data on why urban residents practice urban agriculture and their views on urban agriculture.

As stated earlier the quantitative methods in this research were used to augment the qualitative methods in this research. To address the research questions adequately

there was need for the collection of data on demographic and socio economic status of the respondents. This was done so that qualitative data can be understood in its context of prevailing socio economic conditions. Collecting demographic data from semi structured interviews was not going to reveal the full extent of urban agriculture and the context on which urban agriculture is found in Glen Norah. Distributions and administering of questionnaires also provided a valuable opportunity to make crucial observations on the status of urban agriculture in Glen Norah.

As pointed out earlier interviewees were selected after questionnaires administration. Semi structured interviews with local ward councillors, Member of Parliament and Harare city authorities also provided primary data. Semi structured interviews provided the researcher the opportunity to dig deeper into the major issues regarding the practice of urban agriculture in Harare. Interviews provided the researcher with an opportunity to have an insight into the context of the responses from structured inquiry; the insight was valuable in understanding and analysing the results from the research.

The third major instrument for data collection was observations. Observations are very important in understanding the nature and scope of urban agriculture in Glen Norah. Observations provided the researcher with the background information for interviews. Observations proved to be the source of the much needed background information and the context on which urban agriculture is being practiced. By just observing the living conditions of the farmers and the process of farming in Glen Norah, I managed to put

urban agriculture into perspective regarding the reasons why households are involved in urban agriculture.

As has been discussed, the data collection procedure was to administer questionnaires first and then make a follow up on semi structured interviews from those selected. The questionnaire had 36 questions. The semi structured interview guide had 10 questions which were related to some of the structured questions in the questionnaire. A challenge arose during questionnaire administration. On the first day questionnaires were distributed to the respondents with the promise from the respondents that they were to be filled in by the following day. Out of 27 questionnaires only 5 were fully completed as the respondents said that they preferred the researcher to help them administer questionnaire. As a researcher I made the decision to help or administer the questionnaires. Respondents were given the options whether to complete the questionnaires at their own time or be assisted by the researcher to complete it.

My involvement in administering the questionnaires brought about some advantages as in mixed methods research the main target is to collect both qualitative and quantitative data. By adopting this strategy I benefited through various ways. It provided me with the opportunity to gain an understanding beyond the closed question answers like 'yes or no'. As a first time researcher it afforded me the opportunity to learn valuable interviewing skills thereby building my confidence levels and it also afforded an opportunity to collect qualitative data which was insightful when quantitative data was being analysed and interpreted. It also afforded me the

opportunity to travel around the township of Glen Norah thereby making valuable observations.

As the principal researcher I was responsible for administering 87 questionnaires myself. The remaining 16 were administered by a research assistant who I trained. The assistant was also involved as a sounding board for some of the issues I managed to raise during the conceptualization of this research. The assistant was only involved in administering questionnaires. During the administration of questionnaires a challenge arose whereby prospective candidates for semi structured inquiry were more comfortable in having the semi structured interview immediately after the filling in the questionnaire. Some respondents felt that it was difficult for them to fix an appointment as they had other things to do. In some cases I took up the option of having the in-depth interview immediately after completing the questionnaire. This option ensured continuity and it boosted my performance as a good rapport had already been made during questionnaire administration. It also saved time of easing the respondent and building trust of the respondent.

Semi structured interviews were all conducted by myself. Respondents were asked for their consent regarding the recording of the interviews. Sixteen respondents agreed to being recorded and the other four turned down the opportunity but agreed to be interviewed. All respondents preferred to be interviewed in their mother tongue which is Shona⁷. The type of Shona used by most of the respondents was mixed with English. Disturbances during the interviews were also experienced from neighbours

⁷ Shona is an official language and is spoken by more than 80% of Zimbabweans

and visitors. Only in a few households was I invited inside the homes of respondents, so most of the interviews were conducted outside.

Interviewing officials of organizations like the city of Harare, political leadership (local government councillors) and Environmental Management Agency of Zimbabwe was done concurrently with fieldwork. Local councillors were very willing to help. The city of Harare principal town planner was very helpful in articulating the legal status of urban agriculture in Harare. Getting an interview from the Environmental Management Agency of Zimbabwe proved difficult as I was referred to different offices. When I was finally accorded the opportunity for an interview the officials refused to answer questions related to policy issues.

3.5. Data analysis

The challenge of mixed methods approach to research is that, how does the researcher balance data analysis methods? Data analysis involves breaking up the data into manageable themes and patterns, trends and relationships in order to understand it (Mouton 2001: 105). Qualitative data and quantitative were analysed separately. After analysing the data separately, the results were then combined at interpretive level of the research but each data set remains analytically separate from each other. Quantitative data in this research was analysed through the use of statistical analysis. Descriptive statistics were used to analyse the data. Descriptive statistics are mainly concerned with summarizing and organizing data.

Data from structured questionnaire was coded and entered into SPSS statistical analysis software program. Frequencies were then created using the data. Frequencies

were produced using different themes like the characteristics of urban farmers, incomes, place of origin and the practice of farming etc. This made it possible to have an understanding of urban agriculture in Glen Norah. Responses to open ended questions from the structured survey were analysed by creating frequencies for similar responses. Descriptive statistics were applied to determine averages of incomes and household sizes.

Interpretive analysis was employed to analyse qualitative data. The main objective of interpretive analysis is to understand the data in its context and setting and construct theories or models which will help understand and explain the phenomenon being investigated (Mouton 1996: 168). After analysis of qualitative and quantitative data, a summative analysis of the two was done. The summative analysis produced relationships between the two data types. This helped in understanding some of the grey areas in urban agriculture research.

Chapter 4: Emergence of urban agriculture- the context of Harare

“Urban agriculture has been as old as urbanisation” (Brazier 2010)

4.1. Introduction

This chapter focuses on describing and explaining the emergence of contemporary urban agriculture in Zimbabwe. Urban agriculture was present even before the advent of colonialism. The main objective is to chronicle the emergence of urban agriculture before the advent of colonialism, colonial era 1890-1980, 1980- 1990 and 1991 to the present moment. Focus will be on describing and explaining the policies and politics behind the development of urban agriculture in Harare. A focus on historical development of urban agriculture in Glen Norah cannot be complete without examining the historical and economic development of Zimbabwe as a whole. There is a strong link between urban agriculture and rural agriculture in Zimbabwe. This chapter will explain the link between rural agriculture, urbanisation and urban agriculture.

4.2. Colonial era; the advent of cash economy and subsistence survival in Zimbabwe.

Before the arrival of white settlers in Zimbabwe, the Shona were farmers. Most of the Shona farmers were located on good agricultural soils with high rainfall (Auret 1990:68). Urbanisation in Zimbabwe did not start because of the arrival of whites in Zimbabwe. Most of the Africans were living in thriving pre-colonial cities that were

mainly supported by agriculture and traditional hunting and gathering activities (Munzwa & Wellington 2010: 1). The economy was not a cash economy. Trade was mainly done in the form of barter trade. According to Auret (1990), the agricultural production among the Shona increased rapidly after colonisation to meet the demands of the settlers for crops such as maize, beans and groundnuts. The most important factor about the Shona agriculture was that it gave them economic independence and it was self-sufficient (Arrighi 1973, 183).

Socially and culturally, the Shona households were operating on a system of division of labour whereby the women were involved in food production with men involved in hunting, pastoral farming and other craft industries (Auret 1990:100). The allocation of household chores among family members shows that the role of food production was the responsibility of female members of the household. The same division of labour among family members is still visible in rural and urban agriculture communities in Zimbabwe with high percentages of females being involved in food production for the household at home whilst males are involved in activities, which takes them far away from home. The importance of the role of food production among pre-colonial households and present day households disputes Kambarami's (2006: 2) view that Shona males were socialized to view themselves as bread winners whilst females are taught to be obedient and submissive. It seems the contribution of females to household survival has been underestimated even in literature. In terms, of contributing to household livelihood females played a critical role.

4.2.1. Advent of Cash economy and subsistence economy 1890-1980.

The prime objective of colonization in Zimbabwe was the desire of the settlers to exploit the mineral resources of the country. After discovering that Zimbabwe was not rich in resources as South Africa, most of the settlers settled on agriculture as an economic activity (Auret 1990, Karumbidza 2009, Zinyama 1991, Herbst 1990 and Arrighi 1973). The focus on agriculture resulted in the enactment of legislation that dispossesses Africans their prime land. Laws and Acts like Land Apportionment Act 1930, Land Husbandry Act 1951 and Land Tenure Act 1969 (Arrighi 1973:195). All these laws entrenched division of land along racial lines in Zimbabwe. The significance of land apportionment laws was that it forced black Africans to move from agriculturally productive land to land that was not suitable for agriculture. The laws also forced black Africans to change from shifting cultivating to permanent and continuous plot cultivation (Arrighi 1996:31)

The impact of Land Tenure Act was that all blacks were moved to communal areas, which were called Tribal Trust Lands, which were not suitable for agriculture. This disrupted the normal way of the black Africans. All productive land was allocated to less than 4% of the population (white population). The movement to unproductive land caused the transformation of the black African economic way of life. The self-sufficiency and economic independence that was enjoyed before independence was replaced by subsistence economy where households struggled to produce food for their household. Arrighi (1973) described this condition as a period of 'unlearning process' whereby the African peasants gradually lost their ability to produce more agricultural goods, a tendency that also contributed to increasing their dependence

upon the sale of agricultural produce or labour. The case of selling agricultural produce was mainly minimal because environmental conditions were not suitable for agriculture. Most African households opted to sell their labour for survival.

The demand of labour in the mines, farms and other white industries influenced the beginning of the cash economy among black Africans. Taxes were introduced among Africans like the hut tax, dog tax and poll tax; these taxes were used as a way of soliciting labour from Africans who were not willing to work in mining, farming and other manufacturing sectors in Zimbabwe (Patel 1988:20). Those who could not afford taxes found themselves looking for employment far away from home. Given this situation, it can be said that communal areas were nurtured to supply labour to settler agriculture, mining and industries (Moyo, 1995:132). The situation marked the beginning of colonial urbanisation in Zimbabwe.

Black Africans who moved to the cities faced a major challenge of poor wages. White employers were disregarding market forces in determining the wages for Africans. Africans were paid a subsistence wage for a single worker and a small surplus to send back home (Arrighi 1973: 184). The gender composition of the migrants who moved to the cities was mainly males. Females remained in the rural areas. The dominance of male migration caused most Shona families to emphasize and prioritize on male education as compared to female education as males were likely to gain better employment when they migrate to cities as compared to females who remained grounded in rural areas. This created an inequality between genders. Despite the inequality it created, it was strategy that was designed to help in household survival.

Females who remained in the rural areas assumed the responsibility of feeding their households. With males having a better head start in the cities because of better education, an economic and social inequality was created giving males a better chance of being employed in the city as compared to females. Migration of poorly educated women in the 1970s and after independence (Drakakis-Smith 1987:350) to join other family's members or spouses caused the increase of urban agriculture as they carried on with their role of food production for the family since their employment chances were low.

4.2.2. Influence of colonial era housing on urban agriculture.

The Rhodesian⁸ government policy towards African urbanisation was largely characterised by control and segregation along racial lines (Potts & Mutambirwa 1991:3). Racial lines divided colonial cities in Zimbabwe. There was no mixing of races. Types of employment, housing and areas were all divided according to racial lines. Africans had three options for housing. Those who were working as domestics were staying with their employers; hostels were designed for single males and married quarters, which were designed for married Africans. The housing of blacks in hostels was following the colonial mentality that Africans were not in the cities permanently. Freehold of land in cities was not permitted until the 1970s; this was a way of controlling the volume of migrants coming to the cities (Patel 1988:21). The political system was mainly to control African urbanisation. The system favoured single African males. The system encouraged males to migrate to cities leaving other family members in the rural areas. This trend of high number of males migrating to the cities

⁸ Rhodesia was the colonial name of the State of Zimbabwe.

is still prevalent in Zimbabwe's rural areas. Low wages limited the frequency of return to the rural areas. In an effort to save their meagre incomes males in the cities started practising urban agriculture to save on the cost of food. Workers were expected to stay in the city during their economic active years and retire to the rural areas (Patel 1988:2). This trend is still being practised by many households in Zimbabwe.

Housing for black Africans in Harare was created under the Native Accommodation and Registration Act of 1946 (Patel 1988:21). The Act compelled the municipalities to create housing for natives. Housing was created in the form of hostel and married quarters. The housing was located far away from the city and areas with African housing were called townships. Provision of accommodation increased the rate of urbanisation, as there was improved security in accommodation for those who were married under colonial laws. The other factor, which increased urbanisation in the 1970s, was the political instability in the rural areas caused by liberation war (Drakakis-Smith 1984:1284). Women who were married according to the colonial laws had a better opportunity of living in the cities than those who were married under customary law (not recognised by colonial laws) because their husbands had married quarters housing. The major challenge for women who were living in the cities during the colonial era was that the employment system favoured males so most of them had to stay at home and take care of their urban families. The situation of being unemployed and in urban areas caused these women to engage in urban agriculture as a way of occupying themselves and as a source of food.

4.3. The Mugabe era- first decade of independence

The year 1980 ushered in a new regime in Zimbabwe; the regime was led by Robert Mugabe as the Prime Minister⁹ and Canaan Banana as the ceremonial President. The country's name changed from Rhodesia to Zimbabwe. Independence to black Africans ushered a new dispensation whereby laws on racial segregation and movement were annulled. Rural Africans took it as an opportunity to look for employment in the city. This led to high levels of urbanisation in Zimbabwean cities. High urbanisation was being propelled by several factors in the rural areas. Factors like unproductive land, dismantling of colonial influx control laws and households joining the other members in the city (Zinyama 1994: 178).

Understanding the character of urbanisation, which happened during the colonial era and still happening in Zimbabwe now, needs a clear understanding of the rural agricultural system. After the enactment of Land Tenure Act 1969 in Zimbabwe, a dual agricultural system emerged. The system favoured the white commercial farmers because early white settlements were based on commercial agriculture (Drakakis-Smith 1987:349). The colonial government offered white farmers subsidies and loans, which gave them a competitive advantage over black farmers. The inequality created saw black farmers struggling to produce food in overcrowded areas, which were not suitable for crop production. With the lifting of influx control laws at independence, black Africans flocked to the cities. Those who managed to get employment in the city faced the problem of poor wages, shortage of housing and unemployment, as

⁹ After amendments to the constitution of Zimbabwe in 1987 the post of Prime minister was abolished and Robert Mugabe assumed the post of Executive President.

urbanization was not in tandem with industrial job creation. Urban areas became an appendage of rural poverty.

The Mugabe government was caught in a dilemma after independence of whether to change the dual agricultural system or not. According to Karumbidza (2004:12), white commercial farming was like a golden goose laying golden eggs. Commercial white farmers were contributing more than 40% of Zimbabwe's total exports and contributed 15% to the country's gross domestic product (Bratton 1987:175). Commercial farmers produced 95% of all agricultural exports. The land reform settlement program which was crafted under the Lancaster house agreement which was an agreement signed by ZANU, ZAPU, Zimbabwe Rhodesia government and the British government prior to independence on 21 December 1979 did not allow wholesale land reform or changes to land tenure systems after independence. Only a few households were resettled using the land acquisition policy of 'willing buyer, willing seller policy' despite the fact that land was the major reason why Zimbabweans participated in the liberation war. The British government funded land reform. The maintenance of the agricultural status quo in terms of land tenure ensured that the country continued to produce food and was able to feed itself. The major challenge was the impact of the status quo on rural communal farmers who were farming on unproductive land. The government tried to improve rural farming by improving rural farmers' access to finance through the Agricultural finance cooperation (AFC). Prior to independence Africans had no access to loans for farming. According to Auret (1990) agricultural production among the communal farmers increased when communal farmers were offered loans after independence.

4.3.1. Urban agriculture conflict in Harare

In the early 1980s, most of the townships were involved in urban agriculture but the city bylaws were against it. Slashing was continued from the colonial era and the majority of the farmers protested against it. Most of the farmers felt that the incumbent government of Mugabe was insensitive to the needs of black urban residents. Fearing political fallout the city political administration (councillors) organised residents into cooperatives so that they can be allocated land for farming in the city of Harare. The legal framework designed for cooperatives only allowed farming on land, which was leased to cooperatives by the city council (Mbiba 1994:195). Glen Norah was one of the townships where cooperatives were formed to allow farmers to practise urban agriculture. The allocation of land created a situation whereby those not allocated land started farming on land, which was not designated for farming by the city council. This caused continuous slashing of crops and in Mabvuku, the government even slashed crops belonging to cooperatives. In 1991 during severe drought, the city council slashed maturing crops (Mbiba 1994:195) showing insensitivity to urban population's economic innovation. The creation of cooperatives was political admission that urban agriculture is important to urban survival. The question which cannot be answered is whether this was done for political expedience or genuine concerns for the urban poor

4.3.2. Intensity of urban agriculture

A study done by Gumbo (2000) shows that the hectarage under cultivation in Harare increased drastically from the 1980s up to present. Table 4.1 shows increase in land under cultivation in Harare.

Table 4.1 Area under urban agriculture in Harare 1955-1994

Year of aerial photograph and interpretation	Area of public land (hectares)	% of open spaces
1955	270	1.0
1965	1070	4.0
1972	1400	5.5
1978	3700	14.0
1980	4760	18.5
1990	4820	18.0
1994	9290	36.0

Adapted from Bowyer et al (1996)

The increase in land under urban agriculture can be attributed to increased unemployment, increased cost of survival, dwindling wages and high urbanisation. Increased poverty was evidenced by the mushrooming squatter settlements in the city of Harare. The government dealt harshly with the issue of squatter settlements some were sent back home after 're-education' to stay in the rural areas (Potts & Mutambirwa 1991). Urbanisation played a critical role in the increasing urban agriculture in Harare. With the increase in rural to urban migration, most of the males took it as an opportunity to bring their wives and other household members to the

cities. As alluded earlier because of poor education most of the females found it difficult to get employment in the city. This forced women to take up informal activities (Drakakis-Smith 1984:1283) like distributive trading (vending). Urban agriculture was factored in because of women trying to carry on with their traditional role of food production for the household. Factors like increasing poverty, traditional role of women of food production and unemployment resulted in families adopting urban agriculture as a coping strategy.

4.3.3. Urban agriculture, rural influence and urbanisation

It has to be admitted that in the early 1980s and 1990s most of the households were involved in seasonal migration into Harare. The entrenched view that urban areas are not permanent residential places for black Africans forced the blacks not to negate their rural homes for urban homes. Most of the households practised seasonal migration whereby during the rainy season most members of the household especially females and male members without permanent jobs in the city would stay in the rural areas to practise farming. During the dry winter period the unemployed men and women will move to the cities to look for employment and join their spouses respectively. This form of migration resulted in high urbanisation not having a reduction on overcrowding in the rural areas. Even at the present moment (2012) rural areas are still overcrowded as urban households still maintain their homes for various reasons. Rural influence on urban areas was exacerbated by government policies, which favoured urban areas as compared rural areas (Bratton 1987:193). The over concentration of the economic development on urban areas perpetuated the colonial dual economy (urban and rural economies) instead of a single economy.

4.3.4. Economic policy of 1980s-1990

Mugabe regime inherited a diversified economy. The economy was propped up by agriculture and manufacturing sector (Bratton 1987: 175). The fact that colonial laws prohibited the ownership of businesses and land by Africans meant that most of the means of production were in the hands of the whites who followed capitalist philosophy. Industries were mainly owned by multinational companies (Unilever, Delta beverages, Rio Tinto, Lonrho, and British American Tobacco etc.). Mugabe regime prided itself as a socialist government. After independence Mugabe regime did not change the ownership structure of the means of production. Failure to change the economic situation led to blacks having political power without economic muscle to steer their socialist economic development policy and ideas of the country.

The fact that forms of production was in the hands of capitalist sector meant that the government could not steer the country's economic path. To cushion the 'masses' (poverty-stricken urban and rural populations) the government subsidised basic foodstuff and services. Services like education, transport, health and communication were subsidized by the government. Subsidies in developing countries played a critical role in ensuring affordability of necessities to the poor. It is significant that these efforts to correct colonial inequalities were "directed at transferring income rather than restructuring wealth ownership" (Davies & Rattso 1999:14). The problem of subsidies in developing countries is that they perpetuate capitalistic system since capitalist own the means of production. In the case of Zimbabwe, white farmers benefited a lot as they had a guaranteed market for their products through government companies. Most commercial farmers negotiated the producer price of their crops at

the beginning of the season. By these negotiations, the farmers were assured of a profit before even they plant their crops. This did not benefit the majority of the poor peasant farmers in the rural areas whose surplus was little and could not achieve any profitability. Subsidies in Zimbabwe also postponed the doomsday of absolute poverty in Zimbabwe. Despite making strides in others sectors like education and access to health, housing problems increased because of high urbanisation.

4.3.5. Housing during the post-independence era

Housing started to be a problem in Harare in the 1960s. The demand for housing was increasing. In the 1970s, the Smith regime started housing Africans in the townships south-western parts of the city. The oldest township was Mbare, followed by High Field. In 1973, Glen Norah was developed by the city of Harare (then Salisbury). It was developed on a peri-urban farm called Baxter farm that was located 15km from the city centre. The conditions of accessing housing at Baxter farm were that recipients were supposed to be employed and the length of period of employment was used in screening home seekers. The longer one was employed the better the chances of being offered a house (Patel 1988). The housing developments in Glen Norah continued into the 1980s with the government expanding the development into Glen Norah C. The houses that were allocated after independence were not free. They were funded by loans obtained from building societies (Potts & Mutambirwa 1991:10). Shortage of housing stifled complete family migration as there was no accommodation for family members. Those with houses started subletting rooms, causing overcrowding in the town. In Glen Norah the average persons per house was 8.7 persons in 1987 (Colquh 1993:33). Subletting created a source of income for

house owners. According to Potts & Mutambirwa (1991), the rent for one room was enough to pay for all municipal bills and for two rooms it was enough paying monthly loan instalment for the house. The impact of expensive accommodation in Harare resulted in hardships for those without access to housing and it created an opportunity for those with houses to raise incomes. Those with houses engaged in urban agriculture simply because they had access to land and space to accommodate members of the household from rural areas who might not be unemployed resulting in extra pair of hands to work on the urban plots.

4.4. From socialist rhetoric to full blown capitalism 1990-present

Like most former colonial states, Zimbabwe turned to multi-lateral lending institutions because they found themselves facing balance of payments problems (Mlambo, 1997: 1). In the case of Zimbabwe increased government expenditure on civil services, subsidies and other external factors forced the government to seek budgetary support from multilateral lending institutions in the form of World Bank and International Monetary Fund. Access to funding in the form of loans from these institutions was based on the conditions that the country agree on an economic reform package “designed and supervised” by the two multi-lateral institutions. African countries like Ghana, Zambia, Kenya, Zimbabwe etc. agreed on these structural adjustment policies (SAPs) because they had no other option of funding their budgetary requirements. The SAPs were adopted because conventional economic theory predicts that trade liberalization will increase productivity and wages, especially for tradable goods, thus expanding jobs and opportunities for people (Rakodi 1997). Acceptance was total

surrender of the country's economic policy. For Zimbabwe the socialist rhetoric was transformed into full-blown capitalism.

4.4.1 Effects of (SAPs) on Zimbabwean urban and rural populations.

Mlambo (1997: 4) summed up the adoption of SAPs in Zimbabwe in the following statement; “reform package requires the borrowing country to restructure its economy through demand management, currency devaluation, trade liberalisation, elimination of government controls, reduction of budget deficit, removal of subsidies on goods and services and increasing interests to their natural market levels to discourage capital flight”. These were the conditions, which were adopted by the government of Zimbabwe.

Trade liberalisation dealt a major blow to local enterprises that were not in a position to compete with global companies. In private sector trade liberalisation made many previously protected enterprises uncompetitive. This was compounded by reduction in demand as poverty increased (Potts 1997:478). Multinational companies had a better competitive advantage and this forced locally owned businesses to close shop. The major argument which was put forward by IMF on trade liberalization was that, removal of price controls and adoption of a free market economy was going to determine the ‘right price’ for inputs and thereby resulting in higher prices of commodities on the market leading to high production of goods creating large profit margins (Havenvik et al 2007: 21). In Zimbabwe, trade liberalization increased the prices of basic foodstuffs and services went up resulting in increased poverty among the urban and rural households.

The increase in cost of living increased drastically in urban areas. In an attempt to be globally competitive most companies started retrenching their workers. Retrenchment was coupled with falling purchasing power of the Zimbabwean dollar because of devaluation of the currency. Cost of transport in urban areas which was also privatised increased and this was exacerbated by the fact that colonial systems had located townships far away from city centres and transport was now more expensive (Chikowore 1993:4). Increasing unemployment and cost of living resulted in households employing mechanisms like informal activities as alternative forms of livelihoods. Households started acquiring food from their rural homes to save their meagre wages some households started growing their own food within the urban areas to allow them to remain “urban residents” (Potts 1997:477).

4.4.2. Impact of SAPs on rural agriculture.

Rural communities were also not spared the impact of SAPs. The removal of subsidies resulted in smallholder farmers failing to produce enough harvest to compete with large-scale farmers. Commercial farmers increased their production but the fact is that increased food supply does not mean increased food security (Pretty et al 2003:18). In terms of pricing crops, it was economically unproductive to produce staple crops by small-scale farmers because they were not profitable without subsidies. Some of the black farmers tried to produce cash crops at the expense of staple crops thereby compromising household food security. This meant that yields for rural farmers were negatively affected and most of the farmers moved to urban areas looking for employment.

4.4.3. SAPs and the increase in poverty

The rhetoric about SAPs was that during the years Zimbabwe was under the policy, the country recorded a marked increase in economic growth. The economic growth figures disregarded the social impacts of SAPs on the population of Zimbabwe. According to Havenvik et al (2007: 60), SAPs caused depeasantization; this caused peasant households to disintegrate as coherent economic social and cultural units. In rural areas depeasantization occurred in the form of migration of household members to cities. In urban areas specifically in Glen Norah hardships resulted in family members migrating to other countries. Research that was done in Glen Norah showed that 67% of the households receive support from household members outside the country through remittances (Mukwedeya 2012). The high living costs in urban areas resulted in poor households in Harare using more than 80% of their income on food (Prain et al 2010:3). Given such a huge budget on food, most households reverted to their rural way of life of producing food themselves through urban agriculture thereby creating semi-proletariat households whereby normal jobs are being subsidized by urban agriculture and other economic activities. This situation was the same as the one in Dar es Salaam where Binns and Lynch (1998:778) said that if urban agriculture was to stop not only will it raise the prices of certain products but also it will result in complete unavailability of some crops. Urban agriculture emerges as a crucial part of urban livelihood not only in Glen Norah but also in other parts of Harare and other urban areas in Zimbabwe. Even middle-income earners are involved in urban agriculture (Mbiba 1995). A clear understanding of urban agriculture in Harare will be

achieved by a thorough research on the link between urban livelihoods, rural community institutional setting, gender, migration and rural urban linkages.

4.4.4. Urban poverty, land reform and increase of urban agriculture in Harare.

“Resources can be used for political expedience- attract support, nullify opposition and remain in control” (Bratton 1987:175). This statement was said some 13 years before the Zimbabwean fast tracked land reform. There are several factors, which encouraged the process of fast track land reform in Zimbabwe, these factors were summed up by Brett (2005:95) when he said, “It is clear that the major changes in rules, incentives, and power relations induced by the policy changes in Zimbabwe generated a major threat to the security of the ZANU-based political regime and to the viability of the state apparatus that sustained it”. One factor, which pushed the whole land reform programme in Zimbabwe in the year 2000, was Mugabe regime’s failure to win the new constitutional referendum (Kinsey 2004:1669). It was not coincidental that the Land Acquisition Act (2000) was amended a month after the referendum. The Act entailed compulsory acquisition of land from white farmers; the government was not paying for the compensation. The responsibility of compensation was put on the hands of the former coloniser the British government. The land reform targeted productive commercial farms. It was a deviation from past agrarian policies, which targeted the commercialisation of peasant agriculture in rural Zimbabwe. Peasant farmers were allocated small plots of land in commercial farms. This affected the export revenue of Zimbabwe and production of staple crops. With dwindling export revenues and rising inflation the population sector that affected the most was the urban poor who faced dwindling wages and savings because of inflation. Urban poor

also faced food shortages as most of them had depended on retail shops for food. For those who were employed, salaries were worthless unless negotiated on payday because inflation was reaching two hundred and thirty four million in 2008 (Zimvac 2008). Given such high inflationary environment the question which has to be asked is: how were the urban residents surviving? This research is focused on revealing the intricate mechanisms on which urban residents survive with specific focus on urban agriculture in Glen Norah.

4.5. Institutional response to urban agriculture in Harare

Urban agriculture has been a permanent feature of pre-colonial African cities. The economic mainstay of pre-colonial Zimbabwean cities was based on agriculture. Colonial settlers created new cities, which they tried to distinguish from pre-colonial cities by introducing western planning city planning models. Under the western model of city, planning agriculture was relegated to rural areas as the colonial cities depended on processing the raw materials from rural areas. The colonial view was that Africans were temporal urban residents so their practice of urban agriculture was tolerated and regarded as temporary.

In Harare, urban agriculture was mainly used to supply the European settler populace with fresh vegetables and Africans with food. Mbiba (1994:195) explained that urban agriculture was used as an excuse not to pay decent wages to Africans, as the general belief was that Africans did not want more money as they were growing their own food. The colonial government benefited from urban agriculture as labour costs were subsidized by urban agriculture hence the decision to tolerate it (Potts 1990).

The division of cities according to racial lines during the colonial period aided the tolerance of urban agriculture in Harare. The colonial administration in Harare focused on preferential development of certain areas in the city of Harare. White areas were highly developed and were devoid of urban agriculture and African areas were neglected. Urban agriculture in African areas was tolerated as long as it was not interfering with white areas. Repressive insensitive laws that prescribed slashing of crops mainly did the control urban agriculture in African areas.

After independence, the increase in urbanisation and removal of repressive laws saw an increase in urban agriculture. The fact that most of the urban farmers after independence identified themselves with the new black regime gave them hope that the government will be sensitive to their needs. In Harare, the authorities responded to urban agriculture by slashing their crops. The irony was that most of the crops were slashed at a time when they were left with a few weeks to mature and during times of drought (Drakakis-Smith et al 1995). The new black government was following the concept of colonial rulers who had a concept of 'grandeur precepts of city cleanliness and intent to distinguish cities from the rural areas (Smit et al 2001:15). Continual slashing of maize and prohibitive policies on urban agriculture in Harare showed that, instead of urban policies being tailor-made to the socio-economic situation it is vice versa whereby the urban residents have to adapt to the policies.

The glaring absence of non-governmental organisation involvement in urban agriculture in Harare from colonial period to after independence is difficult to explain. In Harare most of nongovernmental organisations are involved in housing, transport

and other services. The inference that can be drawn from the absence of non-governmental organisation from urban agriculture is that most of them are western funded. The fact that they are western funded meant that they also adopt the view that agriculture belongs to the rural areas so practically it is not on their agenda. The absence of non-governmental organisations on urban agriculture deprived urban agriculture research development and lobbying of city authorities to factor it in urban planning policies.

The present day urban agriculture policy in Harare is vague and difficult to understand. Urban agriculture is administered through two organisations in Harare, the Environmental Management Agency and the city of Harare department of housing and community services. Written permission from the city authorities is required before embarking on cultivation. The Environmental Management Agency only deals with cultivation on sensitive areas like wetlands and stream banks. The city of Harare deals with cultivation on all the other spaces. During the past few years evidence shows that slashing of crops stopped but what is not clear is whether it stopped because of political or socioeconomic consideration or lack of resources to slash the crops.

4.6. Conclusion

This chapter has demonstrated the historical emergence and significance of urban agriculture in Zimbabwe. It shows how the bigger process of proletarianization and capital economic mode has converted people from self-sufficiency to a coping mode of urban agriculture.

Residents of Glen Norah are in a poverty trap caused by various factors discussed above. The historical factors and the current political dispensation affected the levels of poverty in Glen Norah. Urban areas in Zimbabwe act as the source of much needed cash income for survival. Living in urban areas in Zimbabwe requires a sustainable source of income. The income can be accessed through formal employment and informal activities. Low levels of income drives most urban residents to informal activities of which one of them is urban agriculture.

The socioeconomic situation in Glen Norah is not different from all the other urban townships in Zimbabwe. The inter-linkages between urban and rural areas play a significant role in shaping the urban livelihood strategies in Zimbabwe, as most urban households are semi-proletariat. Findings of this research should not be analysed in isolation of the overall socioeconomic and political system in Zimbabwe.

Chapter 5: Urban agriculture- the practical manifestation

5.1. Introduction

Whilst the previous chapter sought to locate urban agriculture within its socio-historical context, this chapter deals with urban agriculture in its current manifestation through discussion of fieldwork done in Glen Norah. The results of this research should be understood in the context of the prevailing economic conditions in Zimbabwe. The main issues in present times are that levels of unemployment are high, with current studies putting unemployment at more than 60% (Zimstats, 2011: 35). During field research in Glen Norah there was visible evidence indicating that most of the residents were living in poverty. Throughout the fieldwork, the researcher encountered large numbers of unemployed economically active people milling around the streets of Glen Norah with nothing to do. The presence of economically active people at home during working hours supports the data on high unemployment. It is against this backdrop of broader colonial and neo-liberal power issues discussed in the previous chapter that the harsh realities of current are discussed in this chapter with urban agriculture being the main issue.

Even the physical status of most of the houses in Glen Norah shows the prevalence of poverty. Most of the houses show that construction stopped some years back; houses are unfinished, unplastered and unpainted. The condition of the houses resembles the high levels of poverty in the township of Glen Norah. The few houses, which I

entered, are mainly furnished with threadbare furniture, which was bought some years back. In Glen Norah A, most of the houses are semidetached with outside toilets; however, this scenario is different from the newer section of Glen Norah C where the houses are freestanding with at least three bedrooms. Street vendors are a common sight around the streets, selling a variety of products from vegetables to bread. It has to be pointed out that the situation in Glen Norah is not different from all the other townships in Harare.

A sample of 103 households was randomly selected for the distribution of questionnaires. The sample was for households in Glen Norah. As has been pointed in chapter 3 the total number of households in Glen Norah according to CSO (2005) was 25276 and the total population of Glen Norah is 95 836. A sample of 103 is 0.4% of the total households of which for this study is sufficient for analysis since this study also collected data through in depth interviews and observations. The reason why households were chosen for analysis was mainly that from the conceptualization of this research I view urban agriculture as a household activity not an individual one.

The major objective of this chapter is to outline the practical manifestation of urban agriculture in Glen Norah. The manifestation of urban agriculture is described and explained focusing on what is cultivated, the type of farming and the characteristics of households involved in urban agriculture. The characteristics of households are described in terms of demographic characteristics and socio economic profiles. While this chapter is largely descriptive, the following chapter examines the social logic, the structure and the qualitative aspects of the household issues.

5.2. Typologies of urban agriculture in Glen Norah.

Urban agriculture in Glen Norah is mainly in the form of ‘on-plot’ and ‘off plot’ cultivation. Mbiba described on-plot cultivation as a form of farming taking place on the residential plot. Off-plot cultivation is a form of farming which takes place on land far away from residential areas. General observations in Glen Norah show that most of the houses have on-plot cultivation. The front part of the houses and the road verges are all cultivated with green vegetables. Off-plot cultivation is mainly done in areas far away from the residential plot. Most of the open spaces are covered with dried maize stalks, which show that farming is being carried out seasonally. There is also a stretch of green sugar cane along the stream between Glen Norah A and B. Table 5.1 displays the sample distribution of on-plot and off-plot cultivation.

Table 5.1 Agricultural plot location in Glen Norah

	Frequency	Percent	Valid Percent	Cumulative Percent
On plot cultivation only	19	25.0	25.0	25.0
Off plot cultivation only	17	22.4	22.4	47.4
Both	40	52.6	52.6	100.0
Total	76	100.0	100.0	

NB: 76 out of 103 respondents were farmers: this will be discussed in detail later in this chapter.

The off-plot cultivation being represented on the table is done in within urban areas not rural. As the data on the table above shows, 53% of the farmers in Glen Norah are

involved in both on-plot and off-plot cultivation. This shows that they have access to both residential plots and open spaces around Glen Norah. Access to on-plot and off-plot land encourages the practice of agriculture in cities. Without access to land, it becomes difficult for urban residents to practice urban agriculture.

5.2.1 On-Plot cultivation in Glen Norah

On-plot cultivation is characterized by farming on the official residential plot where the household live. The space for cultivation is very small since residential plots are also small. Observations made show that on-plot cultivation is mainly for the production of leafy vegetables. These vegetables are grown all year round. The main reason why they are cultivating these vegetables on the residential plot is that most of the vegetables need constant care so they save travelling time by cultivating very close to home. Vegetables also do not need a lot of land but they need to be watered on a daily basis. Most of the farmers use tap water to irrigate their vegetables so it is reasonable to plant them very close to the water source. Vegetables are not only cultivated inside the boundaries of residential plot but also on land immediately surrounding residential plots. Most of the road verges are cultivated with vegetables. Livestock is also part of the on-plot cultivation.

On-plot farming does not only result in crop production. Livestock production is also taking place on residential plots in Glen Norah. The production of livestock is in the form of chicken rearing. Most of the chicken rearing is in the form of free-range traditional chickens. I witnessed chickens roaming the streets of Glen Norah. Some of the farmers are involved in commercial chicken rearing with cages around their

residential plots. Most of the farmers cited theft as a major drawback in chicken rearing.

The legality of on plot cultivation is clearly explained by city by laws. Most of the farmers interviewed do not actually understand the status of urban agriculture in relation to city by laws. The City of Harare principal town planner explained that the city by laws allows 25 chickens for household consumption. Anything more than 25 the household will need to seek a permit from the city council. What is not clear is whether free range chicken rearing is permitted in the city of Harare.

5.2.2 Off-plot cultivation

Off-plot cultivation is a form of cultivation which is done outside the official residential plot where the household lives. Off-plot cultivation is done on land, which does not belong to the farmer; the land belongs to the city council. Often it is land that is reserved for road and rail expansion, pavements, wetlands and land earmarked for future developments. Since land belongs to the city council, farming on this land without permission is illegal and threats of prosecution and slashing of crops is always there. Those households who are closest to this type of land claim temporary ownership of the land in most cases. In Glen Norah, early residents own the use of these plots through self-allocation. It is difficult for new residents to get land for cultivation if they do not have connections with the older farmers. Most of the older farmers have been farming for more than 15 years if they stop farming they will normally pass the land on to their relatives and friends. The major challenge for off plot, cultivation is the rapid expansion of housing and most of the cultivated land is

now being allocated for housing developments. This leaves these farmers with no land for cultivation. New house owners will also claim farming rights to land around their residential plots this creates conflict with older farmers who feel that their livelihoods are being threatened. One urban farmer said

“Our agricultural land is being allocated to housing. We used to farm at Hopely (peri-urban farm) but now it has been allocated for housing stands and we had to leave”.

The main crops, which are being cultivated on off-plot land, are maize, sweet potatoes, sugar cane and groundnuts. The farmers cultivate these crops far away from their residential areas because they need little care and they can only work on their plot once a week. These crops, except for sugar cane, are seasonal crops. During the winter most of the land is left fallow. Since fieldwork was done during the dry season, evidence of dried maize stalks was witnessed on all open spaces around Glen Norah. There was also evidence of sugar cane growing on the wetlands. In cases where sugar cane is not planted on wetlands, most of the farmers said that they produce two crops in a season by cultivating early around August and harvest in December and replant another crop after, which will mature around April and May.

According to City of Harare by-laws off-plot, cultivation is illegal if it is practiced on the following areas; green belts, stream banks, wetlands and some open spaces. I saw signs written ‘**No Cultivation**’ on several open spaces around Glen Norah. Open space cultivation can only be on areas, which are designated for agriculture. When I asked the principal town planner, which areas are designated for urban agriculture in

the city of Harare, she identified areas in middle density suburbs of Tynwald and Waterfalls and a township of Mabvuku. In these areas, horticulture and animal husbandry is being carried out. She also explained that cultivation on any other open spaces was temporal and illegal. Her view was that all the urban agriculture cooperatives, which are practicing off-plot cultivation, were doing so out of political expedience, and this is in conflict with Harare town planning principles.

5.3. Urban farmers

The sampling procedure of this research was different from other studies done on urban agriculture in Harare and other African countries. Instead of sampling urban farmers on their farming plots, this research sampled households at their homes. The sampling procedure targeted resident households of Glen Norah not urban farmers only. The major reason for using this sampling procedure was to get the general extent and prevalence of urban agriculture in Glen Norah. A total sample of 103 households was randomly selected, 76 (73, 8%) confirmed that they are practising urban agriculture in Glen Norah. The table below shows the percentages of urban farmers and non-farmers.

Table 5.2 Urban agriculture: Frequency for farmers and non-farmers

	Frequency	Percent	Valid Percent	Cumulative Percent
Urban farmers	76	73.8	73.8	73.8
non farmers	27	26.2	26.2	100.0
Total	103	100.0	100.0	

The percentage of urban farmers needs to be viewed in the context that previous research sampling techniques and procedures focused on sampling farmers on their field thereby producing no data to show the extent of urban agriculture in Harare. The absence of such data from previous research poses challenges when trying to gauge the extent of the increase of urban agriculture over a period in Harare. Additional data collected during fieldwork also shows that urban agriculture did not start because of the prevailing economic crisis. With more than 52 % of households in this research, having been involved in urban agriculture for more than 15 years it means that urban agriculture has been a permanent feature of the city of Harare.

The fact that 74% of respondents in Glen Norah confirmed that they are urban farmers, shows that farming is widely practiced in Glen Norah. The high number of farmers with more than years of farming dispels the notion that urban agriculture is a temporal phenomenon that will vanish with improvements in incomes. In Accra, Nairobi, Kampala and other western, central and eastern African cities, urban agriculture has been recognized as a permanent activity (Obosu-Mensah 1999,

Mougeot 2005). It has to be accepted that in Glen Norah, urban agriculture is widely practiced and is a permanent feature of economic livelihood strategies.

The table below shows the number of years of which households have been farming in Harare.

Table 5.3 Number of years practicing urban farming

Years of farming	Frequency	Percent	Valid Percent	Cumulative Percent
less than 1 year	7	9.2	9.2	9.2
1-5 years	10	13.2	13.2	22.4
6-10 years	5	6.6	6.6	28.9
11-15 years	14	18.4	18.4	47.4
above 15 years	40	52.6	52.6	100.0
Total	76	100.0	100.0	

With more than 70% of households having been involved in urban agriculture for more than 10 years, this is in line with research done by Freeman (1993: 5) in Nairobi where 60 % of the farmers have been residing in the city for more than 10 years. This dispels the notion that urban agriculture is mainly done by recent migrants from rural areas. This point is reinforced by the fact that only 9% of the farmers had only been practicing urban agriculture for less than one year.

5.4. Non-farmers

What came out from non-urban farmers is that out of 103 respondents, only 27 are not practicing urban agriculture. However most gave the reason why they are not practising urban agriculture as lack of space to practice urban agriculture. The zeal to be urban farmers is there but the challenge is access to land.

Table 5.4 Reasons for not practicing urban agriculture.

Reason for not practicing urban agriculture	Frequency	Percentage
1. Not enough time	3	11%
2. Depend on rural food	1	3.7%
3. Do not want to farm	1	3.7%
4. No space	21	77.9%
5. Land repossessed	1	3.7%
Total	27	100%

Space or land for farming is mainly determined by access to housing in urban areas. Most non-farmers are willing to practice farming but the limiting factor is lack of land. Access to land is an opportunity for urban residents to practice farming. Without access to land, no farming will take place in the cities. In Harare, access to land is

encouraged by the city planning model that is the open space model. There are acres of space of land between clusters of houses in Harare. The open spaces are mainly reserved for future developments in some cases these developments are taking too long to materialize. Most of the off-plot cultivation is done on the open spaces. The way urban residents access these open spaces is through self-allocation where the house owners around the open spaces claim ownership to the land. Residents who do not own houses find it difficult to gain access to these open spaces, which denies them the opportunity to practice urban agriculture.

5.5. Types of crops and livestock produced in Glen Norah

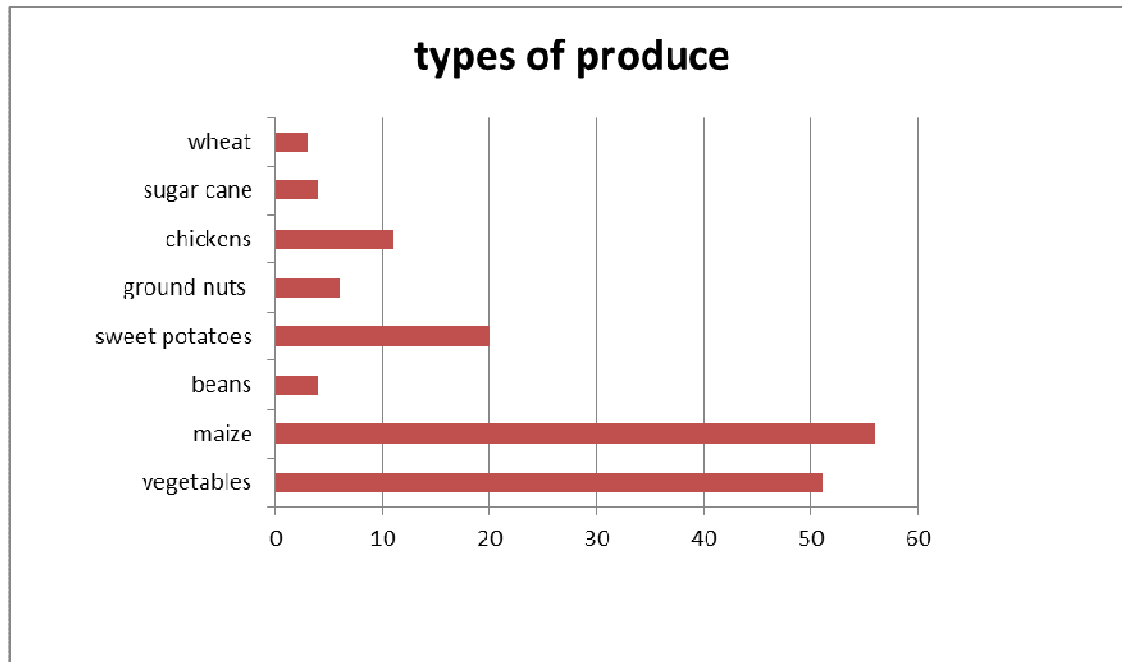
The type of crops being produced in urban areas sheds light on the purpose of farming in Harare. In different sub-Saharan African cities (Harare, Nairobi, Kampala, Lome, Accra etc.) urban agriculture has been for subsistence with mainly crop farming and livestock production. Subsistence agriculture is mainly a form of farming for family consumption with the little of the produce being sold. Subsistence agriculture improves family food security in most African countries. Without subsistence agriculture, most of the families will find it difficult to access food in both urban and rural areas. In the case of rural areas, subsistence farming not only benefits the rural population but also the urban residents as food is distributed to extended family and friends in urban areas.

The main characteristics of subsistence agriculture across Africa are the production of staple food crops and a high number of farmers on small pieces of land. The fact that subsistence crops are not for sale makes it difficult to ascertain its economic value.

The focus of most of the governments in developing countries is on the development of commercial farming. Focus on commercial farming leaves subsistence farming poorly developed and poorly measured. In cases where there were attempts to transform subsistence farming into commercial agriculture or small-scale commercial production most of the farmers end up in debt resulting in poor food security. The influence of subsistence agriculture cannot be underestimated since most of the urban and rural farmers are involved in the practice. Crops and livestock produced through subsistence agriculture are normally basic foodstuffs that are consumed by households on a daily basis but little commercial value. The low economic value and low magnitude of production leads to low focus on the development of subsistence agriculture.

The subsistence situation in Glen Norah is not different from the research done in Nigeria. Staple crops like cassava, banana, maize, yams and plantain produced in Nigerian cities did not appear on the urban market due to competition from rural produce (Neergaard 2009, 15). In Glen Norah, maize is not on the market because most of the farmers produce less than their yearly maize requirements forcing them to preserve whatever they produce. Low production is mainly because of skewed land tenure that results in small plots that do not produce enough yields to carry over to the next season.

Figure 5.1 Agricultural produce in Glen Norah



Maize and vegetables are the most popular crops being produced by urban farmers in Glen Norah. Maize is produced seasonally (summer season) and leafy vegetables are produced throughout the year. The staple food for Zimbabwe is maize. Once harvested maize is dried and grinded into maize meal which is used to cook a thick porridge called *sadza*. *Sadza* is eaten daily by most of households as lunch and dinner. It is eaten with an accompaniment of relish. *Sadza* is the main source of carbohydrates. In most cases, the quality of relish depends on cash or domestic livestock. Households with access to cash income will normally have a better relish. The poor households can go for weeks eating *sadza* and green leafy vegetables. In most households of five, a 20 kg of maize will not last for more than a week. It becomes imperative that families produce maize on their own so that they save costs of maize meal. Most

farmers have to cultivate a combination of maize and leaf vegetables. One farmer Mr. Zimbudzi¹⁰ explained why the maize and vegetables are popular.

“As an urban farmer at the moment I have my maize harvest and vegetables from the garden, so I just cook *sadza* and vegetables and my children won’t have to go to bed hungry. My only change in diet comes in situations when I get some extra cash that is when I can buy some meat. If you are an urban farmer it won’t be that difficult because I got somewhere to start from”

As the farmer stated above maize and vegetables are crucial for family food survival in times of poor cash inflows. These are used as a coping mechanism during times of difficulties. The extra cash saved from not buying maize meal can be used to improve the diet of the families by buying meat. The importance of producing maize in urban areas cannot be under estimated. One farmer attested to the fact that since she started farming she has never bought maize meal in shops.

“Since I started farming in the 1970s I have never bought maize meal from the shops”

Other crops being produced are sugar cane. Farmers who produce sugar cane confirmed that they sell it to vendors. As for sweet potatoes, most of the farmers keep on producing it despite the challenges of theft. Sweet potatoes are mainly consumed at breakfast as a substitute for bread. Most of the older farmers said that they preferred

¹⁰ Not real name. All names in this research are pseudonyms. This was done to protect the real identities of people who provided information and data for this research.

sweet potatoes than bread for their breakfast because it stays in the stomach for a longer period, thereby implying that it has high carbohydrate content. It can be concluded that most of the crops grown in Glen Norah are mainly for food provision to the household. Household food security is improved by producing critical foodstuffs.

5.6. Characteristics of urban farmers in Glen Norah.

It has to be emphasized that in this study households were the prime target of sampling. The characteristics and information in this case refers to the households as a whole. A household is defined as “a person or a group of people who contribute to and/ or benefit from a joint economy in either cash or domestic labour or simply a group who eats and live together” (Rakodi 2002: 7). The demographic information collected was not about the farmer but the head of the household who might not be the principal person responsible for farming. However, the demographic information will be useful in trying to understand the household dynamics of urban farmers.

5.8.1 Gender

Redwood (2009: 13) alluded to the fact that gender analysis requires asking questions that relate to social and cultural norms and behaviours. The case of gender dynamics is analysed in the context of cultural background of Zimbabwean cultures. It is my belief that the issue of gender in urban agriculture should be viewed in the context of socially constructed roles that are assigned to different household members in Zimbabwean households. Previous research shows that the majority of farmers are females where urban agriculture is mainly for subsistence purposes (Mbiba 1995,

Maxwell 1995). In Ghana where urban agriculture is mainly for commercial purposes, the majority are males (Boateng 2002, Obosu-Mensah, 1999). Generalizations of the gender of farmers would not be accurate because as discovered during fieldwork that working on the farm can alternate between household members depending on who has time to be at the field. Table 5.5 shows the gender of household members responsible for urban agriculture.

Table 5.5 Gender of Person Responsible For Urban Agriculture In A Household

	Frequency	Percent	Valid Percent	Cumulative Percent
parent male	23	30.3	30.3	30.3
parent female	39	51.3	51.3	81.6
Both(male &female)	14	18.4	18.4	100.0
Total	76	100.0	100.0	

The head of the household gender data of the urban farmers was also collected and it is reflected in Table 5.6.

Table 5.6 Head of household gender

	Frequency	Percent	Valid Percent	Cumulative Percent
males	46	60.5	60.5	60.5
females	30	39.5	39.5	100.0
Total	76	100.0	100.0	

The figures from Table 5.6 show that in Glen Norah of the households surveyed 51.3% of females were the principal farmers, 30, 3% was males and 18, 4% of the respondents share the farming responsibility between male and female members of the family. The figures portrayed above can be compared on the data on gender collected by Mbiba (1995) in Harare in 1995. In 1995, the percentages of principal household heads practising urban agriculture were as follows: 68.4% females, 10.5% males and 21.8% both males and females. The drop in the number of females as principal decision makers in urban agriculture can be explained by the increase in unemployment. As more male members of the family find themselves without employment they involve themselves in urban agriculture, this view is supported by views of Mr Janure who is an unemployed head of the household.

“I am the father so I have to be responsible because if I just sit; nothing will come out right”

The gender dynamics on the table above can be explained by the fact that most of the males in male-headed households are employed which gives them little time to be involved in urban agriculture. The socially constructed roles in the Shona culture disadvantages females as preference for education is accorded to male offspring as compared to females. Low levels of education reduces the chances of being employed thereby leading to women to stay at home and focus on child rearing and other chores. Since most of the females, are unemployed they tend to have more time to practice urban agriculture therefore dominating the number of people involved in urban agriculture? Mrs. Nhamo alluded to the fact that since she is not employed, it is imperative that she focuses on urban agriculture whilst her husband focuses on his formal job.

“I am responsible for farming because I am the one who is at home.

My husband works so he doesn’t have time to do farming, even over the weekend he is not around”

In cases, where the head of the household is not formally employed evidence shows that the responsibility of farming is delegated to the male member of the household or shared between the husband and the wife. This scenario brings to the fore the ability to practice urban agriculture. Being unemployed does not mean that they work on the field on their own, in most cases family members help during their free period and weekends. The data implies that for urban agriculture to occur there is need for the households to have at least one member of the household who can put an effort and

practice urban agriculture. Without such a member, it might be difficult to practice urban agriculture. With high unemployment, the ability is there.

5.8.2 Age

The age of the head of household can be used to determine if a household is a young household or an older one. Most African males follow the tradition of marrying women who are younger and of lower socio-economic status than them. Marriages where the wife is older than the husband are frowned upon. In this research the assumption is that the age of the head of household can be used to determine the age range of that particular household.

The age ranges of the head of households involved in urban agriculture indicate that most of the urban farmers are still economically active households, 77.9% of the sampled households are still economically active households, 22, 4% are nearing retirement or pension. Such a significant percentage of pensioners in Glen Norah can be explained by two factors, this age group is part of the original people to settle in Glen Norah in the 1970s. A large number of pensioners have been practicing urban agriculture for more than 15 years, 15 out of 17 of the over 60-age group have been practicing urban agriculture for more than 15 years. This shows that urban agriculture is not only a coping mechanism during hardships but it is also practiced during times when even economic situation is better. From that scenario, it can be said that urban agriculture in Glen Norah cannot just vanish because of improvement in economic situation of households. The fact that urban agriculture is spread across all age groups

shows that it is a phenomenon of the older residents but is also transferred across all age groups.

Table 5.7 Age of head of household

Age group	Frequency	Percent	Valid Percent	Cumulative Percent
21-30	14	18.4	18.4	18.4
31-40	19	25.0	25.0	43.4
41-50	17	22.4	22.4	65.8
51-60	9	11.8	11.8	77.6
over 60	17	22.4	22.4	100.0
Total	76	100.0	100.0	

The other important aspect concerning high numbers of pensioner urban farmers is that in Zimbabwe, there is no old age grant and pensions are meagre. One respondent Mr Pam said that her pension is not even enough to last a few days.

“Now still as a pensioner the money is insufficient to pay for other bills”

The absence of social safety nets such as better pensions and old age grants drives pensioners to urban agriculture. With the value of pensions and savings in some cases wiped off by the demise of the Zimbabwean dollar (conversion of the Zimbabwean Dollar to US\$ currency). Most of the pensioners found themselves with nothing in the bank after the conversion. The only assets with value were the homes they are living

in which they cannot afford to sell since they know they will never have another chance to get new houses. In most cases, pensioners wish to migrate to rural areas and most of them make their income from renting or subletting rooms and support from extended family. Given the predicament of pensioners where they have retired and no meaningful income to talk about it is imperative they engage in urban agriculture as a way of survival and coping in harsh economic condition.

5.8.3 Education.

Education seems to be the determinant factor for urban agriculture. Those with low levels of education are likely to be involved in urban agriculture since their employment prospects and income are too low. In the case of Glen Norah, it has to be noted that this is a township of an African city where mostly the economic lower end of the city live. Education statistics shows that 48 out 76 urban farmers have secondary education, 5 have college degrees and 2 university degrees.

Table 5.8 Levels of Education of urban farmers in Glen Norah

Level of education	Frequency	Percent	Valid Percent	Cumulative Percent
no formal education	7	9.2	9.2	9.2
primary school	14	18.4	18.4	27.6
Secondary certificate	48	63.2	63.2	90.8
College certificate	5	6.6	6.6	97.4
University degree	2	2.6	2.6	100.0
Total	76	100.0	100.0	

According to Meikle, (2002: 38) the higher the educational qualification, the better the salary. If Meikle's views are to be followed then it means that these farmers are earning income that is not enough for survival in cities. From the data collected, it is difficult to define a relationship between urban agriculture and level of education. The major challenge is that of the total 103 head of households only 11 have educational qualifications of college and university degree. The fact that the research was done in a township also has a bearing on educational qualifications of the residents.

5.7. Origins of urban farmers

In order to understand the dynamics of urban agriculture; it is relevant to also understand the background of urban farmers. Of the total 103 head of households, surveyed 38 of them originate from urban areas and 65 from rural areas. Rural urban linkage plays a critical role in understanding urban agriculture. As much as

urbanization is defined as the influence of urban areas on rural areas (Rakodi 2002, 28), rural areas also influence the socio economic activities of urban areas in several ways of which agriculture is one of them. In this case, it can be said the socio economic influence of rural areas on urban areas can be regarded as ‘ruralisation’ of urban areas. Given the fact that in Zimbabwe the major economic activity in rural areas is subsistence agriculture where families grow food for family consumption it is also expected that when these households move to urban areas they resort to urban agriculture as a survival strategy as they find it difficult to adjust to a situation where they have to buy food. Table 5.9 showing the origins of urban farmers.

Table 5.9 Origins of urban farmers

Origin of farmer	Frequency	Percent	Valid Percent	Cumulative Percent
urban	28	36.8	36.8	36.8
rural	48	63.2	63.2	100.0
Total	76	100.0	100.0	

Of the urban farmers surveyed, 48 have their origin from rural areas and 28 farmers originate from urban areas. An interesting observation made in this research is that those farmers who were born in urban areas were also exposed to farming, as their parents were also urban farmers. Most of the urban farmers agreed that the rural areas had an important contribution to urban agriculture as they learnt farming in the rural areas. Of the 76 urban farmers 54 attested to the fact that they learnt farming in the

rural areas. In addition, 22 learnt in the urban areas. This shows the importance of skill in urban agriculture. Another important aspect in learning agriculture in Zimbabwe is that it is a requirement to take a practical subject in high school like agriculture; sewing etc., and most of the schools because of lack of resources prefer to offer agriculture. From personal experience, the curriculum is comprehensive and goes beyond subsistence agriculture. In urban areas, it is likely that when households are faced with food shortage their port of call is to practice farming since most of them believe the statement: “why should they buy food if they can produce it”.

5.8. Household size

The concept of household is very critical in understanding agriculture in urban areas. as alluded earlier a household is loosely defined as a group of individuals living and eating together. Previous urban studies reveal that the larger the household the higher the demand for survival resources. Large households are likely to be involved in urban agriculture than smaller households (Obosu-Mensah 1999, 101). The households in Glen Norah range from 1 to 12 members per household. Table 5.10 below indicates the household sizes for Glen Norah

Table 5.10 Household Sizes For Urban Farmers

	Frequency	Percent	Valid Percent	Cumulative Percent
< 2 members	4	5.3	5.3	5.3
3 members	7	9.2	9.2	14.5
4 members	18	23.7	23.7	38.2
5 members	17	22.4	22.4	60.5
6 members	8	10.5	10.5	71.1
above 6	22	28.9	28.9	100.0
Total	76	100.0	100.0	

Past research done in urban areas denotes the trend that the larger the household the poorer the household (Rakodi, 1998). In Glen Norah, the average number of members in a household for both non-farmers and farmers is 3.82. Farming households have an average size of 4.11 members per household whilst non-farming households have an average of 3 members per household. Inferences from the averages show that the larger the household the higher the involvement of the household in urban agriculture. Large households spend more on food and other related expenses leading to a huge strain on their budgets. This creates the necessity to improve and secure the household's access to food in the urban areas through urban agriculture.

One observation made in the field is of urbanization dynamics in relation to urban agriculture. Smaller households are not smaller because they are just a young family;

most of the smaller households are in fact part of a larger household that is split into two. One part of the household is in the city and the remaining is in the rural areas. Urbanization in Glen Norah does not occur en masse. Initially only the member of the household who has the chance to get employment migrates first to the city whilst the other members of the family remain in the rural areas. With access to employment, houses and better income the other members of the household start to migrate so that they can join the other members in the city. At the beginning, the migration might be seasonal until there is security of housing and employment. There is no complete migration from rural in most situations; the rural home remains functional and thriving. Most of the households interviewed believe that urban areas are not their permanent homes but an economic hunting ground. The rural home is kept as a socio economic safety net after retirement or unemployment. Most pensioner farmers without rural homes wished for land in the rural areas where they can practice their farming until death. This phenomenon was described for the Eastern Cape in South Africa as ‘multiple homestead households’ by de Wet and Holbrook (1997: 255).

5.9. Organizational Support for urban farmers

Officials have not recognized the importance of urban agriculture to poor households. Most of the urban farmers do not receive any form of support from governmental and non-governmental organizations. The nature of urban agriculture in Harare inspires no hope for support amongst urban farmers. Table 5.11 below shows the level of support for urban agriculture in Glen Norah.

Table 5.11 Level support from organizations and government

	Frequency	Percent	Valid Percent	Cumulative Percent
yes	2	2.6	2.6	2.6
no	74	97.4	97.4	100.0
Total	76	100.0	100.0	

With 74 farmers out of 76 saying that they do not receive any form of support, it shows that the official position of authorities is that agriculture is a rural activity which has no place in cities. Lack of support from civic organizations, shows that it is not important to them. Most of the farmers view the city council as incapable of giving them any form of support. One of the farmers said that.

“How do you expect the city council to help us, when they can’t even provide clean water and electricity?”

Some of the respondents could not even figure out what form of support should be provided to them which means that maybe they do not need help or they can do without it. Most of them view the city council in a state of incapacity whereby the city is failing to provide basic services like refuse removal, clean water, housing, proper roads and electricity. The reason they are generally regarded hopeless is that if the city is failing to provide the essentials how will it support them? The issue of support needs to be explored further to ascertain what the form of help to be accorded to the

farmers. In fact given the socio-political issues of control of land, capital flows and markets, it seems that material support would be addressing only a symptom in a deeper socio-political syndrome inherited from the past.

Only two participants said that they receive organisational support. . The organization, which is providing them with support, is ZANU (PF) a political party. The two farmers explained that they only received seed only during the previous season (2011-2012). They said that the seed was not even enough for farming on their small plots. Given this form of support to farmers, it can be concluded that support for urban farmers in Glen Norah is non-existent. Most of the farmers said that if help were to be available they would appreciate it if it can come in the form of inputs (seed, fertilizers and proper allocation of farming land).

5.10. Conclusion

The practical manifestation of urban agriculture in Glen Norah reveals that urban agriculture is a way of life to most families. It seems that the term urban agriculture is a creation of authorities and researchers. To most urban farmers urban agriculture is not different from rural agriculture. Agriculture is about securing livelihoods and addressing food security in particular. It is clear that there is a seamless progression of inheritance of agriculture as a livelihood strategy in rural and urban context is of logistical uniqueness in a broader bid to survive.

The issue of support needs to be addressed as most farmers have problems in accessing inputs and land for cultivation. The neglect of urban agriculture by the city of Harare administrators has resulted in farmers giving up hope of receiving any

support from the city authorities. Given the extent and prevalence of urban agriculture in Glen Norah there is need for regulation of the practice so that there is a framework which enables and controls it. The next chapter places urban agriculture in its socio economic context. The socio economic context explains the relationship between urban agriculture and the socio economic situation of residents of Glen Norah.

Chapter 6: The socio-economic context of urban agriculture in Glen Norah

6.1 Introduction

The major objective of this chapter is to explain social and economic reality in Glen Norah to expose how it affects urban agriculture. Examination of social reality is adopted in this study instead of social stratification because Glen Norah is a township inhabited by the lower working class. Analysing social reality will present an opportunity to understand how urban agriculture has developed among the lower economic class in Harare.

In the literature review Chapter 2, I alluded to the fact that urban agriculture in the African context differs from city to city. The differences are three fold; typology, magnitude and significance. These differences mean that for a better understanding of urban agriculture in Glen Norah there is need to understand the socio-economic context so as to comprehend typology, magnitude and significance from the perspective of citizens. In Glen Norah, I identified several factors which relate together to give contextual meaning to urban agriculture. The factors identified are; supply and access to food, employment and income sources and cultural issues. Since urban agriculture varies from one city to another, these factors also vary. The major thrust of this chapter is to present urban agriculture from the perspective of the Glen Norah residents. I will also discuss the major reasons and mechanisms driving urban agriculture in Glen Norah.

6.2 Urban Agriculture, Food Access and Food Security in Glen Norah.

Access to food and food security are two related phenomena. Food security is defined by FAO (2002) as a situation where “all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and preferences for an active and healthy lifestyle”. Food security can be enhanced by increasing food production or improving access to food or improving food distribution (Smith 2010: 485). Food security in Glen Norah has been compromised by several factors that are related to economic decline and land reform program in the early 2000s. Issues of proper diet in Glen Norah are no longer prominent, what is prominent is access to food for minimal survival as affordability of food is a challenge. The best way to begin a discussion on food security is to look at food access by Glen Norah citizens.

Sources of food in cities are normally varied. According to Drakakis-Smith (1998: 213) urban areas heavily rely on retail shops for their food. In sub-Saharan Africa, sources of food in the city in developing countries are completely different from those in developed countries. In developed countries, there is a high dependence on food from retail shops. A high dependence on food from retail shops should be coupled with high cash incomes. Without access to income; most people will find it difficult to access the food. In Glen Norah, all the 103 respondents confirmed that they get some of their food from retail shops, which is expected because of the dominance of processed food among urban residents. Figure 6.1 shows sources of food in Glen Norah.

Figure 6.1 Sources of food in Glen Norah



Urban agriculture supplies 76 households with food in Glen Norah. This shows that urban agriculture is very important in supplies to the city. The issue of urban agriculture creates a socio-economic inequality whereby those with access to land fare much better than those without. The fact that the other urban farmers have a much cheaper source of food than non-farmers meant their food security is better than for the non-farmers. Access to food from urban agriculture releases the meagre resources for other expenses.

Rural networks/ linkages play a critical role in food access to urban areas. Rural linkages come in the form of urban residents owning agricultural plots in the rural areas. Other members of the family work on these plots. The nature of rural-urban migration in Zimbabwe, results in migrated households keeping their rural homes and plots. The situation was encouraged by colonial administrators who viewed black

Africans as temporary residents in cities (Seirlis 2004: 410). About 39 respondents said that they access some of their food requirements from their own rural farming plots. This highlights the importance of rural farms on food supply and access to urban residents. Inferences that can be derived from this situation are that rural farming is subsidizing low urban wages for most of the residents.

Social relations with people in rural areas also play a critical role in food supply in Glen Norah. A large proportion of households (44) admitted to receiving food parcels from rural relatives. It has to be understood that this is not a one-way link but a two-way link. Most of the households interviewed said that they maintain the relationship by sending groceries and other necessary goodies to their rural relatives. One farmer explained it this way:

“We always send them farming inputs, implements and groceries occasionally; they in return send us some maize meal and other farm produce”

This relationship can be viewed as a form of socially-linked barter exchange. Rural linkages and rural urban social networks play a critical role in the supply of food to households. Without these relations most households will find it difficult to access enough food from other sources as other depends on availability of cash

The role of urban agriculture in Glen Norah cannot be underestimated. Most of the farmers believe that urban agriculture plays a critical role in food provision to their households. When farmers were asked the reason why they were practicing urban agriculture they were shocked to hear such a question because they believe everyone

else understands that they are practicing urban agriculture to feed their families. Urban agriculture is so important to them to the extent that they cannot think of the future without farming.

Of the 76 urban farmers interviewed 39 farmers, do not sell their produce. Only six farmers said they sell more than 50% of their produce. Those who sell their produce expressly stated that they do not sell their maize crop but vegetables because they are perishables. The fact that households practising cultivation consume most of the farm produce in Glen Norah confirms that urban agriculture in Glen Norah is mainly for subsistence basis. The data on the Table 6.1 shows the amount of food which farmers get from urban agriculture.

Table 6.1 Amount of household food from urban agriculture in Glen Norah

	Frequency	Percent	Valid Percent	Cumulative Percent
0%	1	1.3	1.3	1.3
1-25%	30	39.5	39.5	40.8
26-50%	22	28.9	28.9	69.7
51-75%	20	26.3	26.3	96.1
76-100%	3	3.9	3.9	100.0
Total	76	100.0	100.0	

Like all statistical information, it has to be treated with caution since respondents were asked to give a probable percentage of food, which they get from farming. The type of

crops that the farmer produces also affects the data. Vegetables are difficult to quantify as they are grown and consumed throughout the year. In some cases, farmers interviewed did not regard the production of vegetables as urban agriculture. Difficulties in quantifying vegetables do not mean that they do not make an important contribution to household food. One farmer failed to quantify the contribution vegetables to his household on the table above it is shown under 0%. Most agreed that if they were to be buying vegetables on a daily basis it would be very difficult for them since they are expensive. Estimate figures were difficult to obtain with most respondents guessing the amount of food they get from urban agriculture. However, the problem of inaccuracies was addressed by analysing the length of period the food last.

6.3 Impact of incomes and employment on urban agriculture

Household income plays a critical role in urban livelihoods. Without income, it is difficult for families to make ends meet or have access to food. Urban livelihoods, unlike rural depend mainly on cash (Bryld 2003: 81). Basic services and necessities like water, energy, land and food that are free or cheaper in the rural areas, are purchased with cash in urban areas. Employment is a major source of income in urban areas. It has to be noted that urban households do not only depend on formal employment, but also on informal activities. The dependence on other informal activities makes urban residents to be semi-proletariat. In Glen Norah, the most notable form of informal economic activity is buying and selling (petty trading). Vendors vary from those who sell vegetables to groceries like bread washing soap etc.

these activities augment family incomes. In Zimbabwe the poverty datum line (PDL) measures the level of poverty among households. The PDL is calculated on a monthly basis by calculating the survival costs of a household of five. Households that fall below the poverty datum line are regarded as poor.

Table 6.2 Total monthly incomes for urban famers and non-farmers

	Total monthly income					Total
	below \$200	\$201-\$400	\$401-\$600	\$601-\$800	Above \$800	
Urban farmers	28 (36.8%)	38 (50%)	7 (9, 2%)	3 (3, 9%)	0 (0%)	76 (100%)
Non-farmers	11 (40.7%)	13 (48.1%)	1 (3.7%)	1 (3.7%)	1(3.7%)	27 (100%)

The trend being shown here is that most of the households sampled have an overall monthly income of US\$ 0-400. At the time of field research (July 2012), the official poverty datum line was \$567 (Zimstat 2012). If the poverty datum line was used as a determinant of poverty 86, 8% of urban farmers were living in poverty. Non-farmers also share the same trend but the issue with the non-farmers is that they have smaller households. Households involved in urban agriculture have an average household size of 4.11 members per household whilst no-farming average is 3. The fact that incomes fall below the PDL shows that households in Glen Norah are living in poverty according to the PDL interpretation.

The real link between low income and poverty needs to be interrogated with rigour. Farmers attested to the fact that if they do not produce their own food in urban areas they will starve. Farmers also explained how urban agriculture helps them make ends meet in cities. Farmers explained that the fact that they no longer have to buy maize

meal on a daily basis means that the money which was supposed to be used for purchasing those food stuffs which they produce will now be used for other expenses like transport, health, education and water and electricity. In this case, despite the fact that urban agriculture is not for commercial purposes, its commercial value is actually realized through releasing extra income to cover other urban expenses. Without urban agriculture, it is clear that residents will find it difficult to access and afford food. In the absence of money to buy food, farmers rely on their small farms as a coping mechanism. A study on the value of money and commodity remittances towards the rural area will complete the puzzle on rural urban inter-influences in terms of economic strategizing.

Employment status of the head of the household in the cities determines the amount of the income a family gets in a month in most cases. With unemployment being very high in Harare, official figures are hovering over 80%. This means that most of the households depend on other economic activities to get income for survival. In this case, urban agriculture comes in as an informal activity to provide food to the farmers. The households surveyed shows that most of the families depend on vending and urban agriculture and rentals as a way of survival. Those renting rooms view their houses as sources of income. The income realized from formal employment is very little even in the case where the head of the household is a civil servant their salaries are still below the poverty datum line which makes them live in poverty. The employment characteristics of Glen Norah as captured through this research are represented in Table 6.3 below.

TABLE 6.3 Types of employment in Glen Norah

Type of employment	Urban agriculture		Total
	farmer	Non-farmer	
formally employed	32 (42.1%)	13	45 (43.7%)
informally employed	15 (19.7%)	7	22 (21.4%)
unemployed	10 (13.2%)	6	16 (15.5%)
pensioner	19 (25%)	1	20 (19.4%)
TOTAL	76 (100%)	27	103 (100%)

The actual percentage of farmers who are formally employed is around 42%. The employment figures should not be used to determine the general employment/unemployment in Glen Norah or Harare because 42% represents the employment status of head of household. Head of households have a better chance of being employed as compared to other members of the household. Recent migrants might find it difficult to break into employment in cities. With most of the urban farmers owning houses, it shows that they have been in the city for quite some time.

25% of the urban farmers sampled are retired or pensioners. This dispels the notion that urban agriculture is for the younger migrants who are trying to cope in the city. Normal discussions with those above sixty years old revealed that they have been practicing urban agriculture since they started living in Glen Norah in 1970s. This scenario shows that urban agriculture has been part of their survival strategy during

their economically active years. Most of the retiree farmers expressed the fact that since they retired, urban agriculture is now very important to the extent that it now provides the bulk of their food, forming a critical survival component. In terms of cash incomes, retirees rely mainly on family hand outs mainly from their children and rental incomes. Urban agriculture among retirees is viewed as a social safety net whereby the pensioned off household head's main use for cash is food. This will mean that if they can produce food themselves then it will lessen the demand for cash. Some of them wish to migrate to rural areas where they want to practice full farming. What was discovered can be summarized in the following statement: With very low or non-existent pensions, urban agriculture becomes the main urban survival strategy for retirees.

6.4 Informal economic activities

The percentage of urban farmers who are informally employed is 19, 7%. However, the figures should be viewed in the context that the responses were only limited to one response per household with the opportunity of listing all other sources of income accorded to another question. Most of those who are formally employed also mentioned that informal activities are also a source of their income. This shows that households do not only depend on formal income generating activities but also on informal activities. This can explain urban agriculture as an activity, which is carried out by households who are finding it difficult to make ends meet. From observations made in the field most of the informal activities like vending do not yield much

income, which confirms the view that as more people are involved in informal activities the income earned from those activities drops (Rakodi 2002: 29).

The only major income generating activity with a guaranteed income is subletting rooms. Because of critical shortage of housing in Harare, the demand for cheap rooms outstrips the supply this leads to high prices for rooms thereby creating a guaranteed income for house owners. In a country with high unemployment informal sector although not controlled creates a livelihood and a survival strategy for the employed and unemployed urban residents. Informal activities in Glen Norah create social stratification by affording a better life to those with access to resources. Observations in the field reveal that households who own houses have a higher opportunity of being involved in informal activities as compared to those without. Owning a house will afford the household the required space and freedom to conduct informal activities like urban agriculture. Those who are tenants find it difficult to practise informal activities that require space.

6.5 Why farming in the city

Despite the intensity of urban agriculture across African cities the major question is why, would city dwellers involve themselves in agriculture instead of other informal activities? The main objective of this research was to explore and describe why people involve themselves in urban agriculture. In the case of Glen Norah, urban agriculture is a community initiative of which the authorities and other organizations are not involved. As a community initiative, there are underlying reasons on why urban households are involved in urban agriculture. The planners of the city of Harare did

not factor in agriculture as a form of land use. Like most former colonial cities in Africa, Harare was designed as an export centre which was used as a processing centre and to facilitate the exportation of rural produce to Western countries (Drakakis-Smith 1992: 4). The city planning model was similar to the European cities. Agriculture was frowned upon with slashing and destruction of crops taking place. The official position on urban agriculture was that farming belongs to the rural areas not cities. At the present moment slashing stopped but the legal framework for slashing is still intact.

Faced with such adversity from authorities most households in Harare found themselves involved in illegal urban agriculture. There are several reasons, which were collected from farmers on why they are involved in agriculture. The reasons are as follows: augmenting their income, cultural beliefs, need for fresh vegetables, copying other farmers and the influence of rural areas. Of the above reasons the underlining factor is that urban agriculture provides urban a families with a source of livelihood. The importance of urban agriculture increases with an increase in poverty in urban areas, with some of the farmers taking urban agriculture as their only remaining guarantee to access to food in the city.

In most cases where farmers started farming in the 1970s and 80s, they attested to the fact that urban agriculture was not as crucial as it is today, it was mainly to satisfy their nostalgic needs for green crops (*zhezha*) and green mealies, which are, consumed fresh. One farmer explained this scenario:

“..... I started farming because I wanted a supply of green maize, then we used to say we want maize meal from the shops because it was whiter than the maize, which we produce... now we are struggling to get maize meal. We are even limiting the amount of green mealies we eat so that we can have more maize meal”

The relationship, which can be derived from urban agriculture and economic decline, is that as economic decline increases informal activities also increase (in this case urban agriculture). Most African countries have been associated with a decrease in income (wages and salaries). A decrease in income will automatically reduce the household chances of accessing food. In the case of Zimbabwe, the adoption of Economic Structural Adjustment Program (ESAP) in the early 1990s resulted in the removal of subsidies from food and other basic services and goods (Mlambo 1997). This meant that most of the households were now spending more on all survival necessities. The situation did not end up there, because of the removal of subsidies, price controls and increased inflation; wages dropped leading to increased poverty. Households found themselves with high survival costs and depreciating incomes (Drakakis-Smith 1995: 84). Households turned to informal activities for generating income of which urban agriculture was one of them. Economic decline creates the necessity of households to practice urban agriculture.

6.5.1. Cultural influence on urban agriculture.

The influence of cultural factors on urban agriculture can be summarized by what one farmer said during an interview.

“There is no livelihood which doesn’t come from the soil; whatever you eat comes from the soil through hard work”

This was repeated during most of the interviews carried out in Glen Norah. This Shona cultural view was coined in the rural areas where there is emphasis on agriculture as a way of life. Most urban dwellers once stayed in the rural areas/ have been influenced by rural way of life where almost all foodstuffs come from farming. Urban dwellers are coming from a situation where they were producing food for themselves in the rural areas to a situation where they have to purchase whatever they eat in the city. In terms of shortages, this results in urban residents resorting to producing food themselves. The situation is like a transformation from cashless economy to a cash economy that has limits in formal capacity. Once residents are pushed into informal economy it becomes saturated to the point that it loses its profitability so the only option that is viable is agriculture.

6.5.2. Cost of food and food shortages.

As explained the cost of food influences the practice of urban agriculture with most poor households spending 30%-80% of their income on food (Mougeot 2006: 4). It is imperative for them to start practicing urban agriculture so that they save cash for other immediate expenses. Most believe that food shortages are responsible for the growth of urban agriculture in Harare. Food shortages in Harare started on the onset of land reform in Zimbabwe in 2000. Commercial farm disruptions resulted in low production on the farms this led to low supply of food to the retailers responsible for supplying food in urban areas. With low supply and high demand of food in cities, the

price of most foodstuffs went up because of the impact of SAPS. In an attempt to make food affordable to the urban and rural poor, the government introduced price controls on basic foodstuffs (Potts and Mutambirwa 1998: 57). This resulted in most producers stopping production of those basic foodstuffs. Where the production of these foodstuffs was still going on, whatever was produced was being sold in on the black market of which the price was more than double the gazetted price. Most of the urban residents with access to basic foodstuffs were involved in open air vending. Faced with such a situation where a household had access to income but not able to access food from normal sources like shops most households found themselves being urban farmers or intensifying their production of crops and livestock in urban areas. One farmer explained the situation.

“We used to stand in a queue for more than 5 to 7 hours so that we can purchase a packet of sugar or bread. We could not bring in maize from rural areas because the police were impounding it at roadblocks. The situation was so severe to the extent that even the hotels were selling boiled maize”.

Because of the food shortages, most of the families turned to rural areas for the supply of staple foods like maize, meat and other essential foodstuffs. Some of the households were getting the maize from rural areas so they can resale on the urban black market. In an attempt to prevent the black market the government reactivated a law, which gave sole responsibility of buying and selling grain crops to a government parastatal, the grain marketing board (Bratton 1987:83). Any grain crops found being

transported from rural to urban areas were to be impounded. This caused severe food shortages in cities and blocked off the normal food sources. The shortages created necessity for urban residents to produce their own food in urban areas. The cost of food and the shortages of it caused an increase in the importance of urban agriculture amongst urban households.

6.5.3. Housing inequality and urban agriculture.

The status of the house in which the household lives has a bearing on whether a family practices urban agriculture or not. Previous literature on urban agriculture tried to explain farming in the cities as being practised by recent migrants, who do not own houses in the city and that they are using urban agriculture as a way of gaining an economic foothold in urban areas. In Glen Norah, housing acts as the key to access land for agriculture in most cases. Housing schemes provided by the local municipality and government stopped some years ago leading to a backlog of more than 500 000 housing units (*The Zimbabwean*¹¹ 2011). This implies that now for an individual to own a house in Harare they will have to purchase land and build the house themselves. Because of housing shortages, most households with houses prefer subletting extra rooms. This brings in extra income that is guaranteed.

Of the 103 households, sampled sixty-nine of them owns a house twenty-six are tenants and eight are living in family houses. The relationship between owning a house and practicing urban agriculture is shown in Table 6.4 below

¹¹ A weekly newspaper published by Zimbabweans resident in the United Kingdom

Table 6.4 Housing and urban agriculture in Glen Norah

Status of the house	urban agriculture		Total
	Farmers	Non-farmers	
own house	58 (76.3%)	11 (40.7%)	69 (67%)
lodger/tenant	12 (15.8%)	14 (51.9%)	26 (25.2%)
Family house	6 (7.9%)	2 (7.4%)	8 (7.8%)
Total	76 (100%)	27 (100%)	103

Of the 69 house owners 58 are practicing urban agriculture, only 12 out of the 26 tenants practice urban agriculture. From the interviews conducted with non-farmers it shows that, they are not able to practice farming because they do not have access to land for urban agriculture. When asked how did those farming access land the response was that if you own a house you could practice farming on your own plot and land, which is immediately surrounding your house. The major wish of tenants is not to access land but to access houses, by accessing houses they will be able to practise on plot cultivation. Tenants who are interested in owning plots for farming are at the mercy of their property owners who can offer land. The trend, which is being depicted, is that households with houses are more likely to be involved in urban agriculture as they have access to land. As for tenants, it is difficult to practice urban agriculture because they lack access to land which brings affirms inequality.

6.6 Urban agriculture challenges in Glen Norah

Farmers in Glen Norah face a host of challenges in their practice of farming. Most of the challenges are mainly caused by failure or lack of acknowledgement from the city authorities and central government that urban agriculture provides livelihoods to urban families. The major challenge, which is faced by most urban farmers, is access to land for farming. In Glen Norah, there are two ways in which those who want to practice farming can access land; this can be done through owning a house or by self-allocation of land, which is immediately around their houses and residential plots. Open space plots belong to the city council and the land might be reserved for future use or wetlands, which are not suitable for building construction. The third way of accessing land is through city allocation, whereby the city officials allocate small pieces of land to cooperatives who want to practice farming. In Glen Norah, land has only been allocated to the residents in the early 1980s and 1990s because of protests and pressure from farmers (Modimu 1996: 183). From then onwards no land has been allocated to cooperatives.

The biggest challenge from farmers who self-allocated themselves land is that most of the land is now being used for urban housing developments and thereby taking up farming plots of those farmers. In Glen Norah B when farmers were asked about the future of urban agriculture in Glen Norah they confessed that it looks bleak as their plots are now being taken by new housing developments in Glen Norah C. farmers admitted that they will end up with no land for farming. Allocation of land for housing developments which is under cultivation is causing conflict. Older farmers in Glen

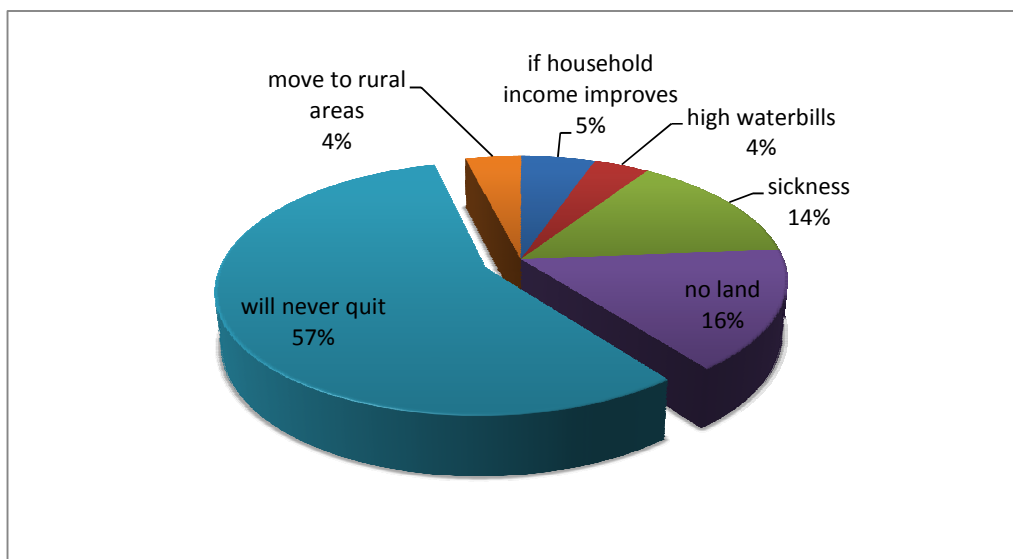
Norah feel that since they were allocated land by the previous city administrators (ZANU (PF)) the incumbent administration (MDC) is not concerned about their needs as farmers. Those without houses target to get access to houses in the cities, which is according to them much more important. Residents who were offered cooperative land have an understanding that when the city council wants the land back they should vacate the land. The major challenge for these farmers is where they would find other pieces of land for farming since urban agriculture is crucial to their survival. Most farmers believe that if the city farmers are to repossess the land they should be allocated alternatives pieces of land so that they can carry on farming.

Shortage of inputs also featured as a major problem from all the farmers interviewed. Because of economic situation in Zimbabwe farmers said that inputs like seed and fertilizers cannot be found in shops during the rainy season because of nationwide shortages of farming inputs. A situation whereby a farmer fails to access inputs despite the fact that they have cash is frustrating to farmers. Some of the farmers are not able to afford inputs. The nature of urban agriculture is that it is a form of intensive cultivation on small pieces of land, which means fertilizers, and seeds are crucial for high productivity. Without adequate inputs like seeds and fertilizers, production will be very low. Farmers who are cultivating on wetlands said that it is difficult to achieve production if they do not use fertilizers, since most of the nutrients are washed away because of high run off.

6.7 Quitting urban agriculture.

The question of quitting urban agriculture is an emotional one in Glen Norah. Most of the farmers interviewed viewed urban agriculture as their way of life; they are not even contemplating quitting urban agriculture. Figure 6.2 below shows the factors which might lead farmers to quit urban agriculture.

Figure 6.2 Conditions for quitting urban agriculture



In most cases, farmers could not find the reason why they will leave urban agriculture. When quizzed on what can actually make them stop farming farmers highlighted two major issues, which can make them stop farming, illness (status of incapacity), and improved income. Farmers who said that they are prepared to quit urban agriculture are only 11 out of 76 farmers. With 85.5% not prepared to quit urban agriculture, it shows that urban agriculture is a permanent feature in Glen Norah. When one farmer was asked whether he will ever quit urban agriculture he replied with a rhetoric question:

“If I quit farming how will I feed my family?”

To most urban residents quitting is not an option. The reluctance of farmers to quit farming underlines the importance of urban agriculture in Glen Norah. One would believe that with a new generation which is well versed in western way of life urban agriculture will disappear. In most cases as one farmer explained it by saying:

“There is no way people will quit farming in the cities, I got a daughter here but she doesn’t want to help me in the field saying it’s not cool to practise farming in the city. When she is married she will start experiencing income shortages, then that’s when she will discover that urban agriculture is important”.

Quitting urban agriculture completely is impossible given the typology of agriculture in Glen Norah. Farmers can be forced to quit off-plot cultivation through shortage of land caused by the city of Harare redeveloping open spaces into other land uses. On-plot, cultivation is difficult for farmers to quit since they own the land on which they are farming. If farmers were to depend on on-plot cultivation, the benefits of urban agriculture will be drastically reduced.

6.8 Official attitudes towards urban agriculture in Harare

Despite urban agriculture being practised in Harare for decades, there is no clear cut policy to regulate it. In Harare there are two organisations with some sort of control on urban agriculture. The Environmental Management Agency (EMA) and the city of

Harare are responsible for regulating urban agriculture in Harare. EMA is involved in urban agriculture through The Environmental Management Act chapter 20:27 section 140 prohibits cultivation of land within 30m distance from water sources (rivers and wetlands). This is a national legislation which focuses on monetary fining of those who are found damaging the environment. This piece of legislation applies both in urban and rural areas. EMA only becomes involved once urban agriculture is practised on sensitive urban environment. From a legal perspective there is no coordination between EMA and the city authorities of Harare in relation to how the two organisations monitor and control urban agriculture.

Enforcing fines through The Environmental Management Act is a problem. Officials identified the fact that urban agriculture is being practised on open spaces outside residential areas means that they cannot fine anyone since they do not know the farmer. As an environmental protection agency EMA should have designed a sustainable framework to deal with environmental threat emanating from urban agriculture as it has been practised for decades.

The administration of the city is twofold. The political leadership of the city is headed by the mayor who is elected by the councillors. Councillors are elected through local government elections. Due to the current political polarisation in Zimbabwe councillors are elected according to political affiliation not merit. A discussion with the older residents in Glen Norah shows that they believe the political

compromisation of the political leadership of the city of Harare has a negative impact service delivery. One farmer said the following concerning political leadership:

“During the time of Smith (before independence) councillors were retired professionals who have accumulated their assets in their working career. They used to understand issues affecting us and they worked for the betterment of the whole community. These days a 20 something old councillor is elected. What is he going to do to help us? What does he know about the city of Harare?”

The major issue raised by most residents is that political leadership is not responsive to their needs as a community. Residents regard benefits of urban agriculture as an open secret to the political authorities of the city and country, but their failure to support urban agriculture is causing challenges difficult amongst farmers.

The political leadership provide policy direction for the city professional administrators. Implementation of policy is done by the professional administrators of the city. From the professional administrators perspective urban agriculture is not on top of their priorities. There is no specific department or office which deals with urban agriculture. Most of the city officials interviewed confessed to the fact that they do not even know which office deals with urban agriculture. Under the city by-laws urban agriculture is under the department of housing and community services.

Slashing of maize was previously done through the department of housing and community services. The prevalence of urban agriculture in Harare should have encouraged the development of a policy and clear cut by-laws to address the issue of urban agriculture. The principal town planner of the city of Harare said that currently they are carrying out research on how they can include urban agriculture in city planning.

During data collection three farmers who are in urban agriculture cooperatives were sampled in Glen Norah B. The farmers were told by the political leadership to organise themselves into cooperatives so that they can be allocated plots for farming. They were allocated plots very close to their houses in the early 1980s. The three farmers interviewed were actually boasting about their harvests. One farmer said:

“...you are doing research about urban agriculture? Come inside and see for yourself that I am a master farmer...”

From my observations cooperative farming is more organised and the farmers understands all the environmental protection methods. One farmer said that they police each other so that they farm without harming the environment. Farmers in cooperatives fully understand that they are practising farming on land reserved for future developments thereby if the city wants the land back they will not resist. Their wish was that if the city is reclaiming the land then they should be given other alternative pieces of land. The issue of co-operatives as an organised way of

practising urban agriculture features in the conclusion as a possible to the to the land-agriculture management in Harare.

6.9 Conclusion

This chapter reinforces the view that urban agriculture is a permanent survival strategy of most urban families in Africa. It dispels the notion that it is a temporal activity which is practised by recent migrants from rural areas. The major issue is that the deterioration of incomes results in the increase in significance and importance of urban agriculture to most households practising it. Given the levels of poverty across African cities it means that urban agriculture is a crucial component for survival for a large portion of urban residents. The importance of urban agriculture among the urban poor calls for a relook on strategies of factoring urban agriculture into the main stream informal economic activities. In fact given the broader economic challenges and the inter-linkages with the rural areas a framework to reinstate agriculture into the formal economy with small-scale farmers also formalising their production might be feasible for Zimbabwe. Since there is no question about the permanence of urban agriculture the major challenge is to devise a framework which legalizes and regulates urban agriculture so that its benefits can be fully felt by the urban poor.

Chapter 7: Conclusions and recommendations

7.1. Urban agriculture: the crux of the matter

This thesis has dealt with urban agriculture, examining pertinent issues around the significance of urban agriculture in a changing socio-historical context. The importance of agriculture (whether urban or rural) to urban households cannot be underestimated. Urban agriculture has been important as a skill to urban households since pre-colonial times to the present moment. Urban agriculture inherits its characteristics from rural agriculture. Urban agriculture is a survival and economic coping strategy amidst capitalist economic systems which side-lines the masses from means of production.

Structural Adjustment Programs played a critical role in the development of agriculture in urban areas. With urban households having been forced to ‘unlearn’ their rural self-sufficiency strategies, most of the households found themselves suffocating as their cash incomes were not sufficient for their survival. This situation increased the importance of urban agriculture as it augmented meagre cash resources of urban households. Urban agriculture is acting a very important subsidy to the cash economy of the urban areas.

Theories of development have relevance in their combined strength but the uniqueness of Glen Norah situation is embodied in the typology, extent and significance of urban

agriculture. Typology of urban agriculture in Glen Norah shows that it is mainly the staple food crops produced; this reinforces the issue of urban agriculture as a survival strategy against food poverty caused by successive phases of modernistic and associated development policies. With 76 % of farmers being directly involved in urban agriculture in Glen Norah and some depending on rural agriculture, it shows that agriculture is of greater importance for urban survival. The significance of urban agriculture cannot be underestimated; most of the households do not contemplate quitting urban agriculture.

The Urban Livelihoods Coping Model fits perfectly with the socio-economic context in Glen Norah. Meagre cash incomes create the necessity for the households to be involved in urban agriculture. Farmers' rural background creates the ability as farming skills acquired from rural areas plays a critical role in urging farmers to take up farming as one of the economic survival strategies. Availability of land creates an opportunistic advantage to residents as residents use available land to practise farming.

Urban agriculture will keep on increasing in most African cities as long as poverty is not reduced in urban areas. High urbanization of migrants with farming background also causes continuous increase of urban agriculture. Farming background plays a critical role in the increase of urban agriculture. When the migrants fail to gain sufficient income from formal employment they revert to subsistence farming in the cities. Urban agriculture is facing major threats from housing developments and increasing number of households who want to be involved in urban agriculture

thereby reducing the land available. The underlying factor is that at the present moment urban agriculture is a source of livelihood for most of the poor households in African cities.

7.2. The future of urban agriculture.

Urban agriculture will continue to increase among the poor urban communities. However it will change its form as it adapts to changing land use in urban areas. The shortage of open spaces due to housing developments expansion will cause a reduction in readily available open spaces for farming. In the future on-plot farming is going to exceed off-plot farming because of land shortages. The increase in on-plot farming will generally change the characteristics of urban farmers as landlords will only be able to access land for farming.

Urban agriculture in Glen Norah is being practised on a small scale basis. If in the future urban agriculture shifts to on-plot cultivation it will mean that the benefits of urban agriculture will be reduced. Most farmers might opt for vegetable production or intercropping so that they maximize the yields per available piece of land. My observations around the Harare suburbs are that the city authorities have not yet changed their open space city planning model. New housing developments still leave tracts of land around them which are undeveloped. These open spaces can be utilized for urban agriculture by residents closest to it. Therefore it is possible to create urban setting planning with subsistence strategies formalised into the planning

The city authorities understand the benefits of urban agriculture among the urban poor but it seem there is no urgency or will to regularize it. The appreciation of urban

agriculture can act as starting point for developing a comprehensive policy to help future agricultural development in cities. In Harare the main recommendation is of adopting partnerships between communities and authorities through agricultural cooperatives. The cooperatives strategy is mainly for regulating and controlling off-plot cultivation. On-plot cultivation can easily be controlled and monitored through creation of city bylaws which provide guidelines for on-plot cultivation.

7.3. Urban agriculture which way to go: The cooperative route?

The prevalence of urban agriculture in Glen Norah and Harare demands that the city officials design a policy which specifically deals with regulation of farming in cities. If it is left unregulated and uncontrolled it will reach a point where challenges like environmental degradation and community conflicts will start to reduce the benefits of urban agriculture. The policies should answer the following questions; how can land be allocated to residents given the fact that some are house owners and some are tenants who might move from one suburb to another? Who will control the process of farming? What methods of control will be used? How can farming be accommodated in urban environments without causing environmental damage? Some of these questions require further research from other disciplines like urban planning and environmental science. This research provides recommendations from sociological perspectives. The recommendations are based on the socio-economic dynamics revealed in Glen Norah. The recommendations given below focus on the needs of the farmers and try to develop a policy framework which views urban agriculture as a community initiative.

7.3.1 The cooperative solution

The International Cooperative Alliance (ICA, 2012) defines a cooperative as “an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise”.

Cooperatives have their origins from concurrent labour and social movements (Peacock 2008:2). In this case I am recommending agricultural cooperatives. The major reason for advocating for cooperatives is that, cooperatives do not aim to maximize profits but aim to gain maximum benefits of urban agriculture for their members. The cooperative strategy which is being proposed here is structured as follows: farmers own the land temporarily (leased from city authorities) as a cooperative but there is no sharing of labour. Farmers themselves should be responsible for the membership of the cooperative so that there is minimal squabbles and friction from members. Membership of the cooperative should be inclusive so that it captures both the tenants and house owners. The city authority’s responsibility is to allocate suitable unused land temporarily. The cooperative members will then divide the land amongst themselves.

As a way of control the city authorities can attach certain conditions and requirements as a way of effecting good sustainable environmental practises and administering by-laws. The major important factor of this form of cooperatives is that farmers own the land as a cooperative but farm individually. Pulling labour in the case of urban areas is difficult because most off the farmers do not only focus on farming only, some of

them are formally employed or involved in other informal activities which makes it difficult to have a situation whereby all the cooperative members can be at the plot to work as a pool of labour.

The cooperative strategy reinforces community ownership of urban agriculture. It has to be stated that urban agriculture started from the urban community; therefore it is befitting to develop it as a community initiative with minimal involvement of officials. The urban community should take the leading role in regulating urban farming. In Glen Norah B where some of the farmers are in cooperatives there is an understanding of all good farming methods and city by-laws affecting urban agriculture. The way the farmers were articulating issues on good environmental and farming practises, show that they take pride in what they are doing. It gives them confidence and a sense of ownership of the whole project on urban agriculture. Any policy framework which disempowers urban residents from their farming is bound to fail.

Environmental issues concerning urban agriculture can be addressed through training and educating farmers through the cooperatives. Training of farmers will be much easier as farmers will be trained through their cooperatives making it possible to reach all the farmers unlike the current situation where the farmers are not organised. One major advantage of cooperatives on environmental protection was revealed during field work. Cooperative members in Glen Norah B monitor each other. One farmer explained how monitoring takes place by saying that any farmer who breaks the rules like stream bank and wetland cultivation is expelled and forfeit ownership to the land.

Because of fear of expulsion there is minimal stream bank and wetland cultivation. It is my conviction that this approach will reduce most of the environmental issues raised by EMA. The success of any urban agriculture environmental policies from EMA depends on how the policies will affect the livelihoods of urban residents. If the policies deny the farmers their right to livelihoods, then such policies are bound to fail. Environmental policies on urban agriculture should be tailored towards recognising urban agriculture as a crucial survival strategy of urban residents.

The conflict between farmers and those who genuinely want houses In Glen Norah can be resolved through cooperatives. The majority of the farmers in Glen Norah at the moment self-allocated themselves land without the consent of the city of Harare authorities. This creates conflict when the city allocates the same land which is being cultivated for new housing developments. When allocating land to farmers for cooperatives it should be conveyed to the farmers that they are only going to use it temporarily and can be reclaimed for future developments. Cooperative farmers in Glen Norah B understand this principle but their main issue is that the city should reallocate them alternative pieces of land. This will reduce conflicts as land allocation would be orderly and can be used as a way of regulating urban agriculture.

7.4. Recommendations for policy framework

As discussed above any policy framework which does not include the input of the farmers is bound to fail. The following recommendations for policy framework try to incorporate both on-plot and off-plot farming. The recommendations are as follows:

- City authorities should create a body which deals with urban agriculture. The body should include representatives from farmers and the authorities. The main responsibility of this body is to monitor, control and formulate policies which control urban agriculture.
- The city authorities need to create by-laws which control urban agriculture through guidelines which specifically deals with on-plot cultivation and off-plot cultivation.
- There is need to create environmental policy which specifically deals with farming in urban environments. The policy must focus on vulnerable and sensitive urban environments and recognize urban agriculture as an urban livelihood
- Guidelines for land allocation for farming must be created. Since most of the open spaces in Glen Norah and Harare as whole are owned by the city authorities, it is its responsibility to allocate farmers land for farming in a fair acceptable way.
- A broader agricultural framework should work toward possible entry of small-scale farmers into the formal economy. Allocate rural land for farming to those households who are willing to practise agriculture at a commercial scale in the rural areas. Most farmers want to practises farming in the rural areas but they do not have land.
- Extend agricultural extension services to urban areas. Farmers in urban areas need training on good farming methods and use of chemicals.

7.5. Revisiting the theoretical framework.

Urban agriculture in Glen Norah cannot be regarded as an activity done by recent migrants from rural areas who are trying to have a foothold in urban areas. Data from Glen Norah shows that very few farmers are recent migrants. Most of the farmers have been in urban areas for years. With the majority of farmers having been involved in agriculture in cities for more than 10 years it shows that the view that recent urban migrants and unemployed migrants are the only farmers is false.

Urban agriculture in Glen Norah is not related to employment or unemployment. Farmers in Glen Norah show that some of them are employed and some of them are not. What can be concluded from this research is that there is a direct relationship between the levels of household income and urban agriculture. Low household incomes encourage urban agriculture because of its inadequacy for survival purposes. Those who are employed augment their household income by engaging in urban agriculture. The unemployed also practise urban agriculture to augment their income from other informal sector activities.

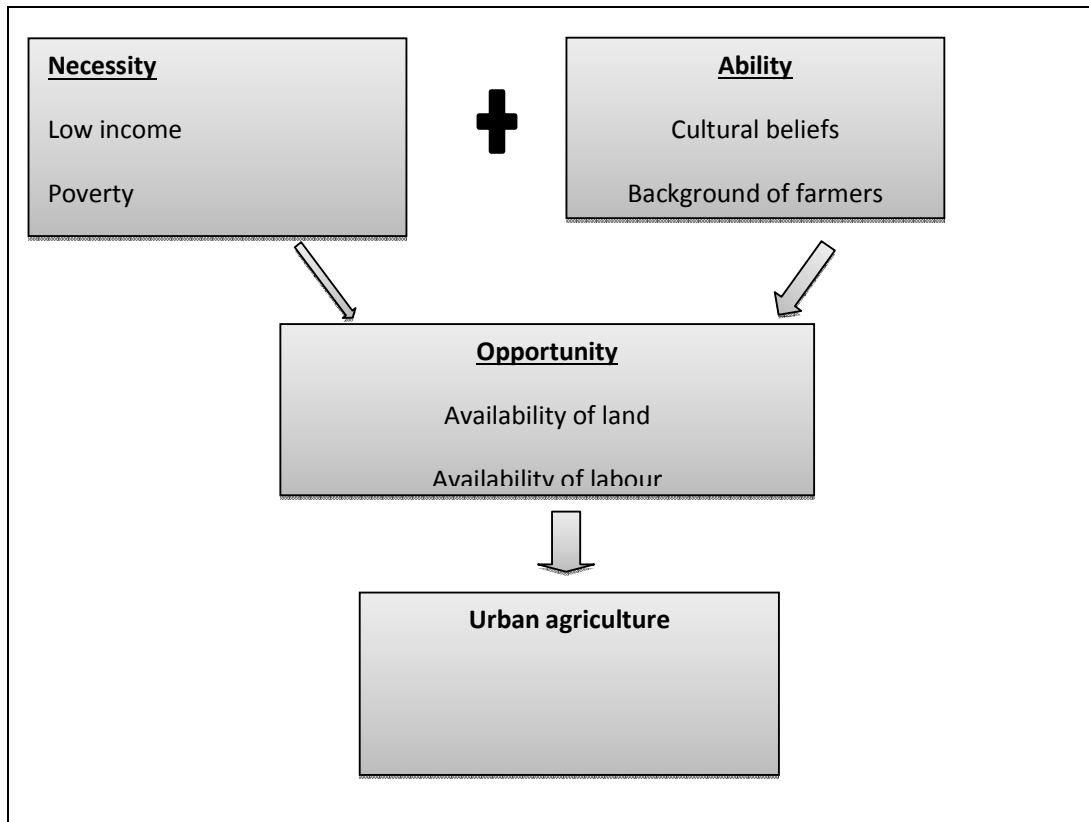
In the literature review I explained my proposed theoretical model. The Urban livelihood Coping Model describes the factors which causes urban agriculture. Application of the ULCM in Glen Norah shows that low income and poverty in the township creates the necessity to engage in agriculture. High levels of and increasing poverty creates the necessity for urban households to be involved to be involved in informal activities. The major question to be asked is how do they choose farming instead of other informal activities? In Glen Norah the farmers said that the cultural

belief that all livelihoods come from the soil and the background of farming from rural areas reinforces their ability to practise urban agriculture. Cultural beliefs and background of farmers streamlines them into opting for farming as an informal activity.

Necessity and ability alone cannot result in urban agriculture in Glen Norah, there is need to combine the two factors with opportunity. Opportunity presents itself in the form of availability of land and labour to work on the plot. In Glen Norah there are open spaces which households use as farming plots. Without these open spaces farming was going to be only limited to on-plot cultivation. The Shona socio cultural family dynamics discussed in the previous chapters and the high unemployment it means that most of the households have enough hands (labour) to work on the plots.

Figure 7.1 summarizes the ULCM

Figure 7.1. The Urban Livelihood Coping Model



7.6. Summary and key observations

The research confirmed many issues in urban agriculture. The major issues which become apparent in this research are that urban agriculture is a permanent informal activity among the urban poor. The second major important issue which came out of the research is that urban agriculture plays a significant role to urban families in their effort to access food in urban areas.

The confirmation that urban agriculture is a permanent activity in urban areas provides an opportunity for urban authorities to have a serious look on ways of including urban agriculture in city planning models. Assuming that urban agriculture is a temporary

phenomenon only brings in challenges both to the farmers and to the city authorities. It is not only that urban agriculture is a permanent but the number of households relying on urban agriculture is increasing. With 74% households practising urban agriculture it means that instead of relegating urban agriculture to those informal economic activities without any economic value, it should be included in city's policies as it helps poor urban families make ends meet. With the number of poor households increasing it shows that urban agriculture is there to stay.

The significance of urban agriculture among the poor increased with economic decline. Economic decline hits the poor the most. High unemployment and poor wages makes urban agriculture a profitable subsistence activity whereby the poor families rely on it for food and survival. It is apparent from farmers' perspective that urban agriculture contributes in an immense way to their survival. The link between the increase in urban agriculture with an increase in poverty shows that urban residents revert back to subsistence activities when income from formal activities are not enough for survival.

Urban agriculture has weathered adversity from authorities for decades. The resilience of farmers who carries on farming year after year even when their crops are being slashed shows that the farmers themselves put a significant importance to urban agriculture despite the challenges they face. The divergent views between farmers and authorities show that the two groups view urban agriculture differently. Authorities view the city as a cosmopolitan city which is completely different from rural areas. This view negates the fact that most of the urban residents originates from rural areas

therefore the rural socio economic context plays a significant role in influencing the socio economic issues of urban areas.

Most farmers view urban agriculture as their most important aspect of their survival. Affordability of food in urban areas is a major issue driving urban agriculture. To most farmers urban agriculture enables them to access cheap food thereby releasing extra income for other urban expenses. Most farmers cannot imagine themselves quitting farming because it is an integral part of their survival strategy in urban areas. With farmers attesting to the fact that if they stop farming they will be reduced to paupers. Despite difficulties in quantifying the influence of urban agriculture on the country's gross national product, it has improved as well as reduces the levels of poverty to some extent by affording farmers some sort of food security.

The characteristics of urban farmers show that larger households are more likely to be involved in urban agriculture than smaller ones. This scenario is explained by the fact that the larger the household the higher the expenses of survival. Migration dynamics play a role in household sizes. The fact that most of the households are split into two with family members divided between urban areas and rural areas. This explains why smaller households who are not involved in urban agriculture survive. For most of the poor families in urban areas and rural areas subsistence agriculture plays a significant role in their survival. Subsistence is being practised both in rural and urban areas. Increasing poverty pushed most of the urban residents into urban agriculture. Inadequate income affected households' ability to access food and other basics. The

question which is prominent among poor urban families is that why should they buy food if they can produce it themselves?

The non-existence of social support systems in Zimbabwe increases the importance of urban agriculture among the poor families. Those in old age (above 60 years) use urban agriculture as a social safety net. The unemployed households rely on urban agriculture for the bulk of their food requirements.

The case Harare's urban agriculture is exacerbated by the fact that Zimbabwe as a country is coming from a period of hyperinflation where all savings and pensions were wiped out. For most of the households the hyperinflationary environment caused them restart their lives again. The question however which needs to be asked is: how will they start again when they have already reached their retirement and unemployed? Most of the households are surviving on hand to mouth basis.

Several factors affect whether a household is going to be involved in urban agriculture or not. In Glen Norah owning a house guarantees both on-plot cultivation and off-plot cultivation. Households who do not own houses find it difficult to access land for agriculture. Factors like previous background of farming and availability of labour result in residents being involved in urban agriculture.

The major disturbing factor on urban agriculture despite its importance is lack of official recognition and support. Most of the urban authorities frown upon urban agriculture because they stick to rigid western city planning models. The lack of support shows that the city authorities are underestimating the impact of urban

agriculture on urban poor families. For the farmers to reap maximum benefits there is need for tolerance and support from authorities.

African cities with high levels of poverty show that there is prevalence of urban agriculture. Inferences can be drawn from this research that conditions of high poverty in most African cities force urban residents to find alternative sources of affordable food of which the most common source is urban agriculture. Without urban agriculture most of the residents of African cities would find it difficult to survive.

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APPENDIX 1 TOOLS

Questionnaire no _____

Urban Agriculture: Coping With Food Poverty In Cities. The Case of Glen Norah Township Harare.

All the questions below refer to the head of the household. In the case that the head of the household is not available any family member can answer the questions on his/her behalf.

Demographic information

1. Full Name (*only provide name if you are comfortable doing so*)

2. Gender (please tick)

Male	<input type="checkbox"/>	Female	<input type="checkbox"/>
------	--------------------------	--------	--------------------------

3. Marital status

Married	<input type="checkbox"/>
Single	<input type="checkbox"/>
Divorced	<input type="checkbox"/>
Widowed	<input type="checkbox"/>

4. What is your age group?

18-20 yrs	<input type="checkbox"/>
21-30 yrs	<input type="checkbox"/>
31-40 yrs	<input type="checkbox"/>
41-50 yrs	<input type="checkbox"/>
51-60 yrs	<input type="checkbox"/>
Over 60 yrs	<input type="checkbox"/>

5. What is your level of education?

No formal education	<input type="checkbox"/>
Primary school	<input type="checkbox"/>
Secondary	<input type="checkbox"/>
College	<input type="checkbox"/>
University	<input type="checkbox"/>

6. Is your birthplace urban or rural? (please tick)

Urban area	<input type="checkbox"/>	Rural area	<input type="checkbox"/>
------------	--------------------------	------------	--------------------------

7. If you answered rural on question 4, why did you move from rural area? (please tick)

Employment	<input type="checkbox"/>
Family	<input type="checkbox"/>
School	<input type="checkbox"/>
Other	<input type="checkbox"/>

If your answer is **other** specify.....

8. How long have you stayed in Harare?

0-5 years	<input type="checkbox"/>
6-10 years	<input type="checkbox"/>
11-15 years	<input type="checkbox"/>
16-20 years	<input type="checkbox"/>
21-25 years	<input type="checkbox"/>
Above 25 years	<input type="checkbox"/>

9. How many people are in your household?

Adults _____
Children _____

10. What is the status of the house you are living in?

Own house	<input type="checkbox"/>
Lodger /tenant	<input type="checkbox"/>
Other	<input type="checkbox"/>

If you ticked "**other**" explain

.....

11. Do you own a home/plot in the rural areas?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

12. Do you practice any form of farming in the rural areas?

Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

Income and expenditure

13. What is the employment status of the head of household?

Formally employed	
Informally employed	
Unemployed	
Pensioner	
Student	

14. List all your sources of your income (formal and informal)

.....
.....

15. Approximately how much is your total monthly income per month?

Below US\$200	
US\$ 201-400	
US\$ 401-600	
US\$ 601-800	
Above US\$ 800	

16. Approximately how much of your total monthly income do you spend on food?

US\$.....

Food sources

17. Where do you get your food from? (tick all your food sources)

Buy from retail shops	
Buy from food vendors (tuck shop, open air vendors)	
Grow own food in urban areas	
Grow own food in rural areas	
Buy from farms	
Receive food parcels from rural extended family	
Other	

If **other** please specify

.....

18. If you don't have income to buy food how do you normally cope in such situations?

.....
.....
.....

Urban agriculture

19. Do you practice agriculture locally?

Yes		No	
-----	--	----	--

20. If you answered **Yes** to question 19 what is the type of farming you are practicing?

Crop farming	
Livestock production	
Both	

21. If you answered **NO** to question 19, why are you not practicing agriculture?

.....

.....

.....

.....

(If you answered no to question 19 go straight to question 36)

22. Where do you practice your agriculture (tick the appropriate box)

On residential stand where I live	
On a site away from where I live	
Both	

23. Which year did you first practiced agriculture?

24. Where did you learn farming? (Please tick)

Rural area		Urban area	
------------	--	------------	--

25. How many years have you been practicing agriculture? (Please tick).

Less than 1 year	
1-5 years	
6-10 years	
11-15 years	
Above 15 years	

26. List the types of crops/livestock which you produce on your farm.

.....

.....

27. Approximately what percentage of your produce do you sell?

Nothing	0%	
Quarter	1-25%	
Half	26-50%	
3 quarters	51-75%	
All	76-100%	

28. Approximately what proportion of household food do you get from agriculture?

Nothing	0%	
Quarter	1-25%	
Half	26-50%	
3 quarters	51-75%	
All	76-100%	

29. How long does the food you produce locally last?

0-3 months	
4-6 months	
7-9 months	
10-12 months	

30. Do you hire any labourers'?

Yes		No	
-----	--	----	--

31. Do you plan to quit agriculture?

Yes		No	
-----	--	----	--

32. List the conditions which will make you quit agriculture.

.....

.....

.....

.....

33. In your family who has the responsibility for agriculture? (please tick)

Parent [male]	
Parent [female]	
Other	

34. Do you receive any support from Harare city authorities/ government or any other organization?

Yes		No	
-----	--	----	--

35. If you answered yes on question 34 what kind of support do you receive?

.....

.....

.....

36. Would you be kind to allow a follow up interview?

Yes		No	
-----	--	----	--

If you answered **Yes** may you please provide your contact details below

Telephone number

Street address

.....

.....

THANK YOU FOR YOUR TIME AND UNDERSTANDING.

In depth interview

Interview questions

1. In question 33 you said that the person responsible for agriculture is....., explain why that person is responsible for urban agriculture?
 - Does the person receive any help from anyone else? Explain (*pre-link with question 30 on questionnaire*)
2. How did you become involved in urban agriculture?
3. How did you learn farming or agriculture? (*link with question 23 & 25 for probing*)
4. Why are you practicing urban agriculture?
5. What role does agriculture play in food access and supply to your household?
6. As a household what strategies do you normally use to get food if there is no money to purchase food in the house? (*pre-link with question 17 & 18*)
7. In the past few years, Zimbabwe experienced critical food shortages to the extent that even if money was available there was no place to buy food. Can you please explain how you were coping as a household?
8. What are the problems/challenges which you encounter as farmer?
 - In your own opinion how can these problems be solved?
9. What can city authorities do to help the development of urban agriculture?
10. How do you foresee Harare's urban agriculture in the future?