FACTORS AFFECTING ROADSIDE URBAN AGRICULTURE IN ZIMBABWE: A CASE STUDY OF HARARE HIGH DENSITY SUBURB OF MUFAKOSE

Wisdom Kurangwa*

Retseleng Karonga*

Kwayedza Muranda Kaseke*

Liliosa Pahwaringira*

ABSTRACT

The surge in urban population and rising poverty among low income households in major Zimbabwean cities has forced urban dwellers to practice roadside urban agriculture. This has resulted in open spaces running parallel to roadsides to be used by households in urban areas for farming. The purpose of this study was to investigate the factors influencing roadside urban agriculture in high density suburbs of Zimbabwe. The study was carried out in Mufakose high density suburb in Harare .A case study approach was employed for the study and respondents were selected using purposive sampling. Data was collected through the use of interviews, open ended questionnaires and document analysis. The study focused on the main areas that were under road side urban agriculture in Mufakose high density suburb. The study showed that the majority of the respondents were unemployed and aged between 41 and 60 years old and had a high number of dependents, and earned less than an average of $200 per month. This high level of poverty forced the respondents to practice roadside agriculture to supplement their diet and income and their home gardens were too small and had inadequate space to grow crops. Some of the recommendations included, There should a legal framework that allows roadside urban agriculture without affecting infrastructure, extension services should be made available to

* Zimbabwe Open University, P.O BOX 8306, Harare, Zimbabwe

capacitate these farmers so that the land becomes sustainable for future generations, the government should assist by providing larger pieces of land or plots on Peri-Urban land to those that are excelling and willing in roadside urban agriculture. The Ministry of Women Affairs, Gender and Community Development must empower women in agriculture since this research had identified most of its respondents as women.

Introduction

Economic growth is on the increase worldwide but food insecurity remains a challenge in many parts of Africa. Kutiwa *et al* (2010) cited in (Crush *et al* 2006) that Sub-Saharan African cities are experiencing exceptional annual growth rate of about 5%. The authors further notes that urban population in SSA is expected to rise from 30 to 47% of the total population during the period from 2005 to 2030. With this increase in population development of urban policy on ensuring food security especially in low income households becomes a challenge. Beall and Fox (2006) quoted in (Kutiwa *et al* 2010) noted that as the world's urban population grows so does the population of the poor. This becomes a challenge especially in food security in low income households. In urban areas most of the food is market dependant and most households obtain their food from the market and often at exorbitant prices. In contrast rural households obtain their food from agricultural production. Against this background Gumbo (2000) noted that food is one of the most basic needs and urban agriculture, both legal and illegal, has grown as a consequence of the difficult economic climate.

(UNDP, 1996) cited in Gumbo (2000) estimate that some 15% of food production in the world comes from urban agricultural activities such as farming, horticulture, animal husbandry, fish ponds, etc. The authors further notes that nearly 1 billion people are engaged in urban agriculture.

Background of study

Mbiba (1992-1994) identified three categories of urban agriculture namely:

1. On-plot: agriculture-farming practiced on plots around the house like backyard gardening involving maize in the wet season, fruit and vegetables all year round.

2. Off-plot: agriculture-which is conducted in public open spaces, utility service areas and agricultural allotments. All reports regarding off-plot agriculture are about public open spaces

where production is largely "uncontrolled", "illegal" or heavily "contested" (Mbiba 1995, Mudimu 1996, Boywer-Bower et al). The production is mainly for home consumption to supplement meager incomes and the little that is left over is sold on neighbourhood market stalls. Women, children and retired men provide the bulk of the labour force.

3. Peri-urban: agriculture-offers production of crops and livestock in areas of 150 kilometer radius. There is not much literature on this category but the sector offers immediate and viable options for enhanced food production to meet the employment and nutritional needs of people.

A case study of Eastern Cape Province by Counihan (2012) provides an overview of the most urban country in Africa, South Africa, and how for a long time politics impeded urban agriculture. It is widely understood that urban agriculture is an important strategy among the poor for food, security and income generation in developing countries. In South Africa, it is emerging as a strategy for poverty alleviation. Despite high unemployment in South Africa, urban agriculture appears less robust among South Africa's urban poor households when compared to other developing nations. The reason for this is the role of the social welfare grant system which provides the key source of income for poor households. Despite that safety net he urges policy makers to look closely at the role of urban agriculture is playing in other African countries and with proper institutional funding and political commitment it can make a difference.

Caleb Mireri et al(2006) concluded that urban agriculture in East Africa is an important form of urban land use. Since the colonial era the practice remains outside the urban land use system. Therefore the sector does not enjoy the much needed institutional support in needs. It is evident that urban agriculture makes important contributions to employment, income and food supply. They concluded that urban economies can greatly benefit from urban agriculture, if all East African governments can develop a policy and institutional framework on the sector.

Marongwe (2003) cited in Kutiwa *et al* (2010) notes that agriculture is not classified as an urban activity in Zimbabwe and as result city planning system does not cater for urban agriculture.UA is viewed as an illegal activity since it is not backed up by any statutory instrument and there is no clearly laid down policy on urban agriculture (Marongwe 2003).

Absence of a clear policy on urban agriculture in Zimbabwe results in limited loan facilities, subsidies, credit facilities or extension services. This is because it remains an "ad hoc" activity

shrouded in "illegality" and "uncertainty" (Mbiba 1994, Masoka1997). The legal and institutional voids that limit support for urban agriculture continue to prevail, on account of the absence of political commitment to change the status quo.

The surge in urban population and rising poverty among low income households in major Zimbabwean cities is forcing urban dwellers to practice roadside urban agriculture. Open spaces running parallel to roadsides are reserved for free passage of traffic and humans and also act as play grounds for children. This practice is a potential challenge in terms accidents due to poor visibility, road destruction, contaminated produce, cholera and malarial diseases. Therefore the purpose of this survey seeks to determine the factors influencing roadside urban agriculture in high density suburbs of Zimbabwe. The results of this research will benefit practitioners in terms of awareness of the implications of roadside UA practices. It will also benefit policy makers in coming up with a good policy implementation in terms of roadside urban agriculture in Zimbabwe.

Main objective: To determine the factors influencing roadside urban agriculture in high density suburbs of Harare in Zimbabwe.

Specific objectives

- To identify the people engaged in roadside urban agriculture
- To identify the plot size used by the people
- To identify the types of crops grown by people
- To determine the factors influencing roadside urban agriculture

Research Questions

- Who is practicing roadside urban agriculture?
- What is the size of the roadside plot?
- Why are you practicing roadside urban agriculture?
- What types of crops are grown by farmers?

Materials and Methodology

Site description

Mufakose constituency is found within greater Harare and is in the Metropolitan province. The constituency is made up of wards 34, 35, 36 and part of ward 37 (Crowborough North) Table 1. The constituency has 40000 registered voters out of a population of 100000 people (ZIMSTATS

2012). It is mainly made up of low income families and is situated 14 kilometers south west of the city of Harare. It shares its boundaries with constituencies such as Budiriro, Kambuzuma and Kuwadzana.

Table 1 Population Characteristics of Mufakose Constituency

Ward	Male	Female	Total	Household	Average
Ward 34	11858	11956	23814	5821	4.1
Ward 35	13433	14252	27685	6559	4.2
Ward 36	11030	11736	22766	5179	4.4
Ward 37	12137	13890	27027	6213	4.2
Total	48458	51834	100292	23772	4.2

Source: Parliament of Zimbabwe 2006

The constituency has an average house hold size of 4.2 persons per house hold which is higher than the city of Harare average of 3.9. From table 1 above the population seems evenly distributed across the wards. They are all above 22000 and below 28000. Most people are in ward 35 and the least in ward 36.

Research design and methodology

The study used descriptive research methodology. Data was collected through the use of interviews, open ended questionnaires and document analysis. The study used purposive sampling.

A sample of hundred urban dwellers was selected. They were purposively selected as they were considered to be practicing road side urban agriculture.

The study focused on the main areas that were under road side urban agriculture in Mufakose high density suburb. The study used the case study design, in which Mufakose high density suburb became the case to be studied.

Results and discussions

Demographic characteristics of the respondents

1. **Gender of respondents: Head of household**

Table 2: Gender of respondents

Male	Female	Total
30	70	100

The study showed that 70% of the respondents are women who practice roadside urban agriculture compared to 30% men. Women in all age groups are more active in this agricultural practice. FAO (2007) acknowledges that women contribute between 60 and 80 percent of the labour for food production for both household consumption and for sale. It further notes that agriculture is becoming more predominately a female sector that includes managing large parts of the farming activities on daily basis. There are many reasons why women constitute the majority in UA practices such as high rate of unemployment and low wages. Adedeji *at al* (2012) notes that men go out to look for jobs leaving their spouses at home in cities that have an influx of people and where there are no jobs available. Hence it is imperative that woman should be seen to be playing a role in economic development by being involved in farming activities.

2. **Age of respondents**

The majority of the respondents were between 41 and 60 years old as shown in Figure 1 below. They make 50% of those who are practicing road side urban agriculture. This age group usually has more responsibilities of looking after their families and would need to supplement food for their families because they are low income earners.

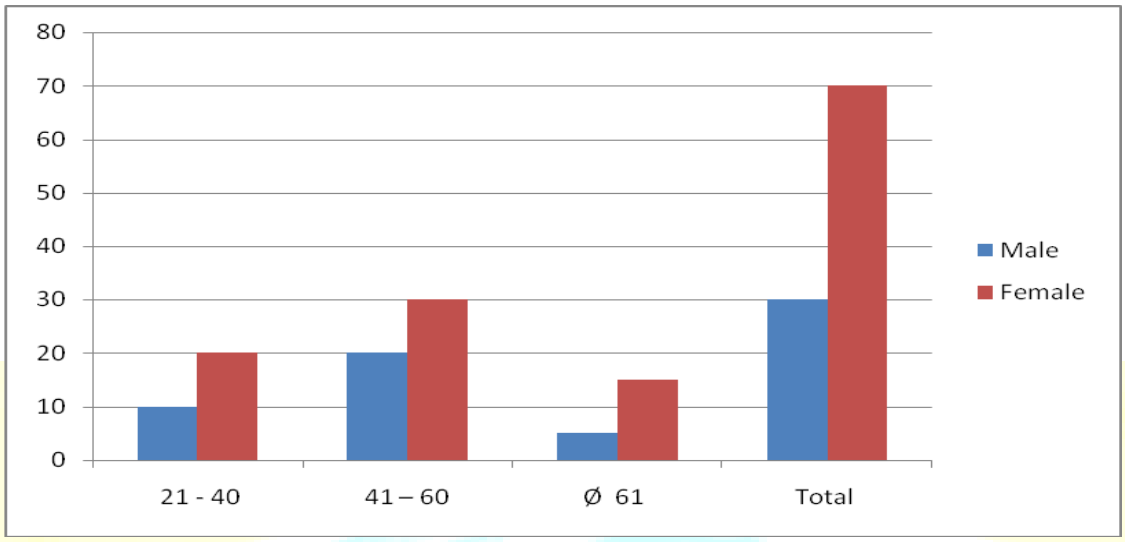

***Figure 1**: Age of respondents*

3. Education Level

Education level attained show 36% primary education and 64% secondary education for both females and males. Both farmers are literate and are able to identify available resources such as open land that can be useful to sustain their declining household food security. The high rate of literacy among the respondents motivate them into this practice and sound management agricultural practices can be employed as way of augmenting their food supplies. Adedeji *at al* (2012) acknowledges that education helps women farmers to respond positively to challenges, innovation and other farming technologies which results to high productivity. However most of them have no higher education hence this is a form of employment and sustainability for their households.

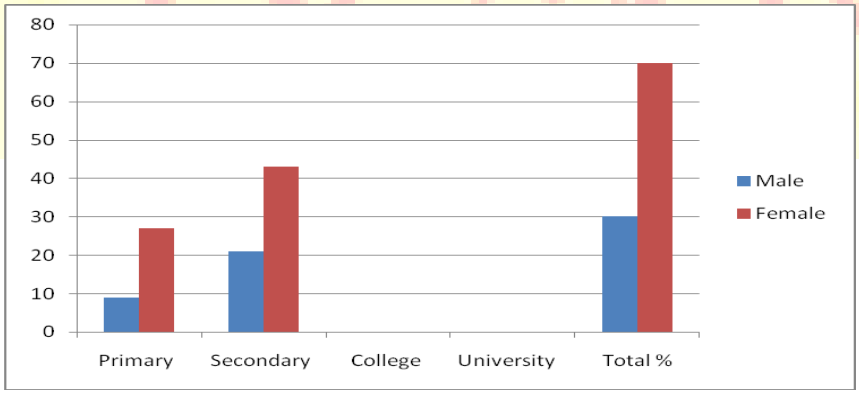

***Figure 2**: Education level*

4. Dependants per Household

The majority of the respondents have (8-11) dependants. This is a large number of dependants to cater for in terms of food, as a result respondents engage in road side urban agriculture to improve food security in their homes. The table below shows the dependants per household.

Table 3: No of dependants per respondent

No of dependants	Male	Female	Total
1 -3	2	10	12
4 -7	13	24	37
8 -11	15	36	51

5. Employment status

80% of the respondents are unemployed and maybe have no source of income to look after their families as a result they engage in road side urban agriculture to sustain their families. Although they are some who are employed and self-employed who practice this system of agriculture to improve food security in their homes because their incomes are low. It was found out that the majority of the employed and self-employed earned less an average of $200 a month.

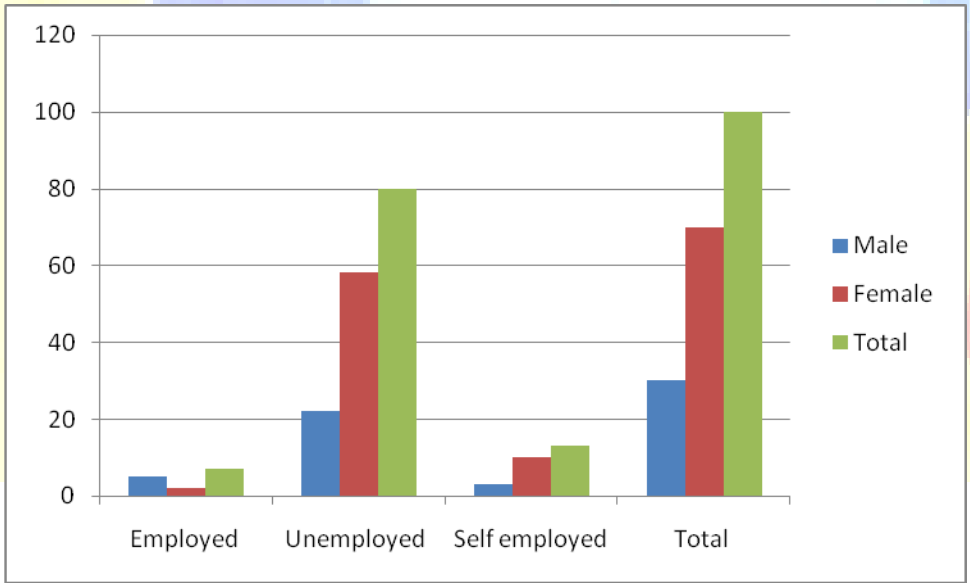

Figure 3: Employment status of respondents

It was found out that majority of the respondents were home owners. More than 70% of the respondents have less than 50m^2 for backyard gardens which is inadequate to grow enough crops to sustain their families hence they use any nearby open spaces parallel to roads despite the fact that the practice is illegal. Marongwe (2003) note that UA is viewed as an illegal activity since it is not backed up by any statutory instrument and there is no clearly laid down policy on urban agriculture. Most respondents have road side plots that range between 50-100m^2, which is enough for supplementing their household food security.

6. Years of practicing Roadside Urban Agriculture

Use of urban space for crop production increased during and after years of drought (1982/83, 1988/89 and 1991/92). The economic collapse and, in particular the decline in formal-sector employment and incomes since 1990 has contributed to the increase in off-plot urban agriculture (Mbiba 1993, 1995: ENDA-Zimbabwe 1996: Boywer-Bower et al 1996: Masoka 1997). Research has shown that most urban dwellers began to practice road side urban agriculture from the year 2000 onwards because of the economic meltdown. The majority of the respondents have more than 8 years practicing road sided urban agriculture. The figure below shows statistics of the number of years of practicing road side urban agriculture.

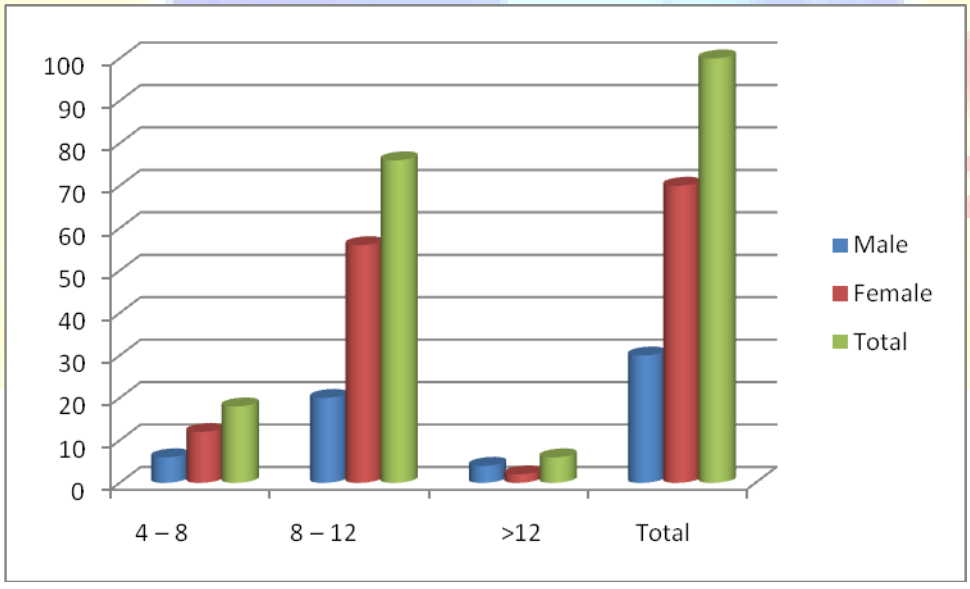

Figure 4: Years of practicing Roadside Urban Agriculture

Conclusion and Recommendations

The majority of the respondents was unemployed and aged between 41 and 60 years old and had a high number of dependents. The employed and self-employed earned less than an average of $200 per month. Women constituted the majority of respondents who practiced roadside urban agriculture. Literacy levels were high among the respondents and therefore were able to identify available resources such as open land for cultivating their crops. Home ownership was hundred percent among the respondents and had inadequate space for growing crops in their backyard gardens hence they engaged in growing on open spaces parallel to roads. This practice was an offspring of urban agriculture which sustained declining food security in low income households of Mufakose high density suburb.

Recommendations

Based on the findings in this research study, a number of recommendations have been highlighted below:

- There should a legal framework that allows roadside urban agriculture without affecting infrastructure such as roads, storm drains and electrical cables.
- Financial institution should provide loans to roadside farmers using their houses as collateral since most of them own the houses.
- Extension services should be made available to capacitate these farmers so that the land becomes sustainable for future generations.
- The government should assist by providing larger pieces of land or plots on Peri-Urban land to those that are excelling and willing in roadside urban agriculture.
- The Ministry of Women Affairs, Gender and Community Development must empower women in agriculture since this research had identified most of its respondents as women.

References

Aukunda, Drescher A, W., and Lacquinta D, L., (1998) *Defining Peri Urban-Towards guidelines For understanding rural urban linkages and their connection to institutional contexts and Reform.FAO* Rome, pp 1-25

Brickhill, Joan, "Investigating the Impact of Urban Agriculture in Harare, Zimbabwe," IDRC Archive. 1998. 3 December 2008.

Chagwiza, G., Zvinenge, E., Chivuraise, C., Munyati, V., and Musara, J., (2012) *an Assessment of Factors affecting urban vegetable production in Harare, Zimbabwe.* Global Advanced Research Journal of Agricultural Science, 1(8): pp 210-215

Drakakis-Smith, D., (2000) *Third World cities* 2nd Edition, Rutledge London, U.K.

Drakakis-Smith D, Bowyer-Bower T & Tevera D. 1995. Urban poverty and urban agriculture: an overview of linkages in Harare. Habitat International 19 (2):183-193.

Gumbo. (2001), University of Zimbabwe, Department of Civil Engineering, Harare, pp 1-12.

Kamete, A.Y. (2002) Governance for sustainability? Balancing social and environmental concerns in Harare. CMI Report R 2002: 12. Bergen: Christian Michelsen Institute.

Kutiwa,S.,Boon,E.,and Devuyst, D., (2011) *Urban Agriculture in Low Income Households of Harare: An Adaptive Response to Economic Crisis*, Human Ecology Department, Vrije Universities Brussels, Belgium,*pp 85-96.*

Mazuruse, I., Masiya (2008) *Urban Agriculture and land conflicts in Zimbabwe: The case of Glen Norah suburb in Harare. City Farmer, Canada's Office of Urban Agriculture, pp 1-12*

Mbiba B. 1998. Urban agriculture policy in Southern Africa: from theory to practice. Paper presented at International Conference on Productive Open Space Management with a Shared Focus on the Potential of Urban Agriculture, Techknikon, Pretoria, 3 -5 March 1998.

Mbiba, B., (1996) *urban agricultural policy in Southern Africa from theory to practice.* Town and Recreational Planning, University of Sheffield, pp 286-301

Mkwambisi. D., Dougill.F. Dougill.A,J.,(2007) *Urban Agriculture and poverty Reduction. Evaluating how food production in cities contributes to livelihood settlements in Malawi*. NO 04 SRI PAPERS, Sustainability Research Institute, School of Earth and Environment. The University of Leeds United Kingdom, pp 5-20

Mireri. C., Kyessi. A., Mushi.N. and Alekyereza.P., (2006) *Urban Agriculture in East Africa: Practice, Challenges and Opportunities.* City Farmer, Canada's Office of Urban Agriculture,

Obuodie.E. Streiffer.F and Kessler.A. (2004) *Women in Urban Agriculture in West Africa*, Urban Agricultural Magazine 12, pp 13-15

D.Simatele and T.Binns. (2008) *Motivation and Marginalization in African Urban Agriculture: The Case of Lusaka, Zambia*, Urban Forum 19.pp1-21

A.C.Thorton., 2012) *Urban Agriculture in South Africa: A study of the Eastern Cape Province* Edwin Mellen Press, 90-100.