

Do Urban Community Gardens Matter? The Case of Bulawayo Metropolitan Province in Zimbabwe

Mkhokheli Sithole
Peter Nkala
Nqobizitha Dube

*Institute of Development Studies (IDS),
National University of Science and Technology (NUST),
Bulawayo, Zimbabwe.
Email: mkhokhelisithole@gmail.com*

Abstract: *This paper discusses the role of urban agriculture with a special focus on community gardens in urban food security and poverty alleviation in the three high density suburbs of Magwegwe North, Nketa and Nkulumane in Bulawayo metropolitan province of Zimbabwe. Urban agriculture in Zimbabwe is in two forms; one that violates local authority by-laws whereby open pieces of land are haphazardly cultivated and the form comprising authorised cultivation of urban gardens close to residential areas or on allocated land though, with limited renewable user rights, by the local authority to farmers. The study focuses on the different beneficiaries, crops grown, output and their contributions to the household diet and income. The research is largely qualitative and uses primary data collected from 15 interviews, 5 focus group discussions and observations on beneficiaries of community gardens in Magwegwe North, Nketa and Nkulumane high density suburbs. The results indicate that community gardens have become a significant source of fresh produce but the shortage of resources inputs, and environmental health risks remain paramount obstacles to realising the full potential of these gardens. We conclude that community gardens do increase access and household food security, diversity of diet and contribute immensely to poverty alleviation among urban households.*

Keywords: *Urban agriculture, Community gardens, Food security, Poverty alleviation*

1. Background

Urban agriculture unlike community gardens is not a new phenomenon in all major cities in Zimbabwe including Harare and Bulawayo. Urban agriculture is defined as cultivating food crops within city boundaries by residents primarily for individual household consumption although the surplus may be sold. Community gardens are a form of urban agriculture whereby residents of a particular community participate jointly in growing different types of crops on a given piece of land. The land is demarcated and each farmer is allocated a small plot on which to grow crops, mainly vegetables for individual household consumption. Communal resources shared in community gardens include water, fences and possibly security services, assistance from non-governmental organizations and benefits from the local authority linked to community gardens. Many community gardens in Bulawayo started around the year 2000 with most facing viability challenges between 2007 and 2009 because of the country's economic challenges.

There is no legislation or by-laws targeting urban agriculture in Zimbabwe; let alone that are pro-urban agriculture. Several instruments including the Regional Town and Country Planning Act: (Chapter 29:12; the Environmental Management Act (Chapter 20:27), the Bulawayo Protection of Lands and Natural Resources By Laws, 1975 and the Bulawayo (Public Health) by-laws, 1966 view urban agriculture as responsible for environmental degradation and other negative biodiversity challenges. Almost all farmers involved in urban agriculture in high density areas have no title to the land hence they have no recourse through the courts when "their" agricultural land is acquired and put into other competing uses.

Most of the publicly and privately owned vacant land designated for residential, commercial and industrial urban expansion in real estate is temporarily converted into individual family plots either legally or illegally by farmers. According to the 2000-2015 City of Bulawayo Master Plan, the city owns 11 000 hectares of such vacant land (Bulawayo City Council (BCC), 2007). However, the municipal planning processes in Zimbabwe consider urban agriculture as incompatible with urban development hence as an impediment to urban growth (Chaipa, 2001). Construction of residential areas is the main threat to urban agriculture largely viewed as a secondary land use option compared to other urban land use activities.

This study sought to highlight the role of urban agriculture's contribution to livelihood by focusing on community gardens in 3 (Magwegwe north, Nketa, Nkulumane) out of 21 high density suburbs in Bulawayo metropolitan province.

The total population of Magwegwe North, Nketa, Nkulumane were 15 778, 21 227 and 10 471, respectively in 2007 (BCC, 2007).

This paper analyses the role of community gardens in contributing to livelihoods of households in above mentioned high density suburbs. We hypothesize that community gardens play a significant role in household food security among farmers participating in community household gardens. The study attempts to highlight socio-economic characteristics of farmers involved in community gardens, types of crops grown, role of community gardens and highlight different roles played by stakeholders including the Bulawayo City Council (BCC), Resource Centres on Urban Agriculture and Food Security (RUAF) and the Non-Governmental Organizations (NGOs). Variables of interest include types of farmers, crop varieties, output and income from agriculture, market challenges and limitations of urban community gardens.

2. Review of literature

Cities in Sub-Saharan Africa (SSA) are growing at an exceptional rate of about 5% annually (Crush et al., 2006). The UN-HABITAT (2006) further reports that the percentage of urban residents in SSA is expected to rise from 30 to 47 percent of the total population during the period lasting from 2005 to 2030. This will bring about new and critical challenges for urban development policy, especially in ensuring household food security. It is acknowledged that as the world's urban population grows, so does the numbers of the urban poor (Beall and Fox, 2007). Most of the urban poor receive incomes too low to adequately cover their basic needs. Mitlin (2005) argues that they spend most of their household budgets on food.

Food insecurity and unemployment are thus major problems in most urban areas in Sub-Saharan Africa (Mougeot, 2004; UN Habitat, 2007) where the Food and Agriculture Organisation of the United Nations (FAO) estimates that 33 % of the people are malnourished. Ensuring food security and appropriate nutrition of the urban population in the tropics where rural food production is limited by marginal soil fertility, low incomes and lack of access to necessary inputs is a big challenge (Cofie, 2003). Food production in urban backyards throughout the world is thus a response by the urban poor to inadequate and costly food supply. The related increase in urban food demand precipitated a litany of farming systems in the cities, growing mainly vegetables.

The concept of food security emphasises access and health rather than the mere availability of food although both are important to urban households. According to Maxwell (1995) as urban food insecurity changes its focus from "feeding the cities" to food access at household and individual level, urban agriculture becomes the only viable option towards food security (Cofie, 2003). Household food insecurity is proportionally related to the percentage contribution of food to the total household budget. That is the fewer the household's alternatives in buying food, the more serious the insecurity (Meugeot, 1994) and this is directly related to household's effective demand (Garrett, 2000). The primary motivation for involvement in urban agriculture is the failure of household per capita incomes in keeping pace with rising food prices (Flynn 2001). Producing own food implies less expenditure and greater opportunities of household realising income from agriculture (Mougeot, 2005).

Urban agriculture in Zimbabwe is driven by a combination of factors linked to severe food crisis including the failure of the structural adjustment (SAPs) and land reform programmes, worsening poverty, market failures and the political and economic decline since year 2000 (Kutiwa et al., 2010). The 2000 government Fast Track Land Reform Program (FTLRP) coupled with misaligned economic and food security policies caused near demise of the commercial agricultural sector, as the country plunged to being a net food importer. Subsequent ad-hoc food policy strategies failed to address the country's food security challenges leading to dietary and economic deficiencies especially among low-income urban minorities. On the other hand ensuing food shortages led to exorbitant food prices and the intensification of urban agriculture as strategy towards self-sufficiency and self-reliance (FEWS NET, 2009).

By 2011, the Zimbabwe National Vulnerability Assessment Committee (ZIMVAC) urban livelihood assessment estimated that 13 percent low income urban households in the high density and peri-urban areas were food insecure. With no significant socio-economic changes occurring since 2000 there is little doubt that the urban food security situation has not improved in 2012. Despite numerous studies on urban agriculture in Zimbabwe, most focus on farming in open spaces which is usually against local authority by-laws. Principal studies on urban agriculture in Zimbabwe include, Mbiba (1994) on "Urban Agriculture in Zimbabwe: Implication for Urban Management", Smith et al. (1995), "Poverty and Urban poverty and urban agriculture: An overview of linkages in Harare", Mubvami (2006), "The Policy Framework and Practice of Urban Agriculture in Bulawayo", Mubvami and Manyati (2007), "HIV/AIDS, Urban Agriculture and Community Mobilisation: cases from Zimbabwe" and Kutiwa et al. (2010), "Urban Agriculture in Low Income Households of Harare: An Adaptive Response to Economic Crisis". Our paper shifts the focus from illegal cultivation of crops to cropping tacitly

supported by the local authorities, international and local non-governmental organisations interested in the welfare of the poor.

3. Materials and Methods

The community gardens visited were Khulumsenza in Nkulumane, Farming God's Way in Nketa and Magwegwe North garden in Magwegwe North. Each household in high density areas comprises 6 people who survive on about US\$200 per month and the country's poverty line is US\$400 (Mpofo, 2011). Estimates show that 80% of households in high density areas are food insecure. The map in Figure 1 shows the location of Bulawayo in Zimbabwe as well as the study areas relative to other areas within the city. The map shows low density areas, high density areas and the central business district as illustrated in the key. The Magwegwe North, Nketa and Nkulumane community gardens are indicated by green arrows and labeled 1, 2 and 3 on the map.

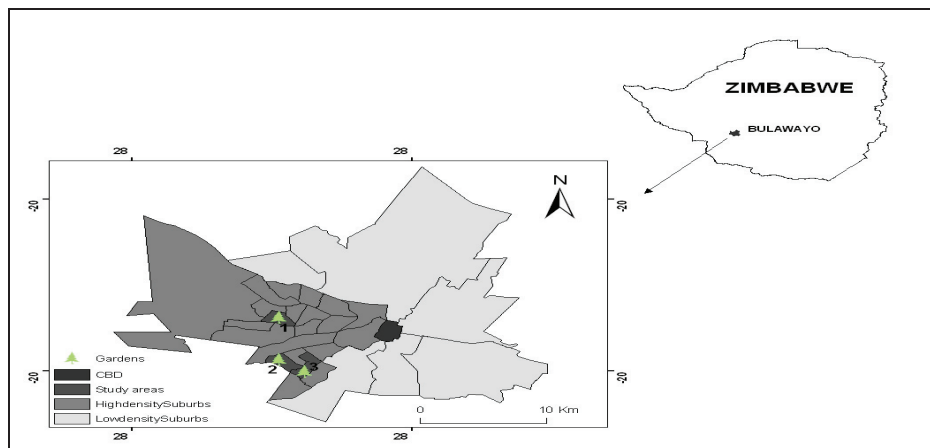


Figure 1: Map showing community gardens in different suburbs of Bulawayo

Primary data sources

Primary data were collected through 15 interviews (5 from each garden) using a structured questionnaire, 6 focus group discussions, 2 in each suburb, and 4 key informant interviews. The key informants were the former local councilor for ward 23, 3 chairpersons of community gardens and an official from the BCC in charge of community gardens. Respondents were purposively sampled by chairpersons of committees from members who had been involved in community gardens for 2 years or more. Ten out of 15 respondents were women as men are generally fewer in these gardens. The group discussion in Nkulumane included 7 women and 5 men. In order to avoid male dominance thereby negatively affecting the flow of information, (Dwyer, 2001) men and women were separated. Women in most communities in sub-Saharan Africa for cultural and social reasons have difficulties expressing themselves in the presence of men; quite often going along with views of men in fear of being labelled social misfits if they challenge men. However it is known that men and women have different life experiences due to their different roles often imbued differently across different societies (Helmore and Singh, 2002). Mikkelsen (1995) argues that 1 or 2 members in any group discussion will develop into informal leaders and dominate the discussion. In order to overcome this problem each group member was asked to give individual contribution. Data collected included socio-economic characteristics, agricultural output, quantity sold, and access to credit, extension services, distance to markets, food sufficiency and crop consumption patterns.

4. Results and Discussion

This section presents the results of the study starting with the background information on the development of community gardens and characteristics of beneficiaries, followed by the role of Bulawayo City Council and other stakeholders. Food security, economic benefits and challenges faced in community gardens are discussed just before the conclusion. The results are presented in the form of narrations, tables and figures. Investigations revealed that there are 12 community gardens throughout Bulawayo's high density areas whose primary objective is improving the livelihoods of the elderly, destitute, and widowed and other poorest members of society. There are over 1 000 members working on average plot

sizes of 130 m². Each garden is about 0.42 to 2 hectares and there are about 15 beneficiaries per garden. Beneficiaries are selected by social workers in the Department of Housing and Community Services (DHCS) however, where the DHCS does not have resources, local councillors are responsible for the selection of beneficiaries. Table 1 summarises activities of key stakeholders in community gardens.

Table 1: Different stakeholders and their roles

Name of Stakeholder	Role played in community gardens
Municipality of Bulawayo	<ol style="list-style-type: none"> 1. Provision of land and water in designated areas where community gardens are located 2. Promoting and supporting the establishment of a multi-stakeholder consultative forum for urban agriculture. 3. Formulating appropriate legislation, regulations, policies and strategies to ensure an enabling environment for urban agriculture.
World Vision (An international non-governmental organisation)	<ol style="list-style-type: none"> 1. Provision of seed money to purchase inputs 2. Technical assistance including raining on farming, provision of skills and knowledge, organization and other requirements
RCUAF	<ol style="list-style-type: none"> 1. Seed money for start-up inputs and research on low input techniques for urban gardens 2. Training of farmers
Beneficiaries	<ol style="list-style-type: none"> 1. Provision of labour for land preparation, weeding, harvesting and selling of crops. 2. Attending training sessions, meetings and other groupings organised by the BCC, RCUAF and World Vision 3. Attending brainstorming meetings and contributing to the general objectives through active participation and sharing of ideas 4. Decide on what crops to grow in line with individual household needs for diet and food security

4.1 Beneficiaries of community gardens

Results summarised in Table 2 show that most of the participants of urban gardens are vulnerable groups which include widows, orphans, People Living with HIV/AIDS (PLWHA) and the elderly (65 years and above). Widows constitute a significant percentage (40% and 67%) in Magwegwe North and Khulumsenza gardens respectively. The information obtained from the BCC indicates that these 2 gardens are an initiative of Women Support groups in these suburbs. Another notable distinction is the high percentage of orphans in Farming God's Way community garden. This garden is an initiative of Nketa residents, BCC and a Non-Governmental Organisation known as Loving Hand Orphanage. It was meant to cater for orphans around high density suburbs of Bulawayo. However the reality on the ground is that orphans would rather find other means of livelihood such as begging than farming (*sentiments of Farming God's Way beneficiaries*).

Table 2 Categories of beneficiaries in percentage of the total number per community garden.

Categories of beneficiaries	Magwegwe North Garden		Khulumsenza garden		Farming God's Way Garden	
	Total No.	%	Total No.	%	Total No.	%
Widows	6	40	8	67	2	12
Orphans	3	20	2	17	7	41
PLWHA	3	20	1	8	3	18
Elderly(65 years and above)	1	7	1	8	1	6
Other	2	13	0	0	4	24
Total	15	100	12	100	17	100

According to the key informants, the selection of beneficiaries is done by the community at ward level. Meetings to select beneficiaries are held where people considered as vulnerable within the community, mostly women and orphans are given the first priority to become members. Once selected, the obligation to participate in the project rests entirely with the individual. Sometimes for chauvinistic reasons some men who are selected usually decline the offer and refuse to be beneficiaries leading to a skewed gender distribution of beneficiaries. However this skewness can also be attributed to the fact that most men are employed hence male headed households do not meet the vulnerability criteria.

Not everyone who is eligible gets a chance because of the limited number of plots available in comparison with applicants. The number of vulnerable people has increased due to the economic meltdown in Zimbabwe since the late 1990s and the HIV& AIDS pandemic that has increased the number of widows, widowers, and orphans. Failure to be accommodated has created animosity between the beneficiaries and non-beneficiaries. The former councillor of ward 23 said that the selection of beneficiaries for new gardens had become a political issue. Group discussions revealed that non-beneficiaries of community gardens posed allegations of favouritism and corruption in the allocation mechanism.

Although food security entails adequate supply and access to staple foods like maize in southern Africa; most farmers in these gardens grow vegetables including rape, cabbage, spinach, tomatoes, onions, butternuts, peas and beans for both subsistence and sale. Vegetables were preferred to cereals because they grow fast and there is a ready market for them locally or in the city. Since most of farmers do not grow these on a large scale there are no challenges of storage because everything is sold mainly to vegetable vendors who sell vegetables in the city. On average beneficiaries produce 10-15 50 kg bags of green vegetables and about 100 kgs of tomatoes, onions, butternuts and other fruit vegetables per year in a country where the recommended cereal consumption is 153 kg per year (Kutiwa et al., 2010). While these gardens play an important role in supplementing household food requirement most households still face challenges in the supply of cereals mainly maize which is grown at a very small scale. As most of the respondents said, in most cases the income realised was not enough to purchase the non-vegetable basic food requirements given other competing households requirements.

4.2 Household Food Sufficiency from Own Production

The period of time during which the produce of garden farming is sufficient for beneficiaries is an indication of its food or consumption gap. Observations show more than 80 % of the respondents depended on harvested vegetables from their gardens throughout the year implying high levels of self-sufficiency in vitamins notwithstanding poor rainy seasons resulting in water shortage, lack of inputs, skills and knowledge among the beneficiaries. Despite having adequate vegetables, households still need cereals that are not commonly produced in these community gardens. This shows the cultural importance of the contribution of staple crops in improving food security in Zimbabwe.

4.3 Role of community gardens in HIV & AIDS mitigation

The respondents in the PLWHA category expressed that green produce from the community gardens are not only important to their own households but to support group members as well. The total number of PLHWAs interviewed was 7 and 60% of these pointed out that their diets are now diversified and healthy as recommended by health institutions they have visited. They now eat different fresh foods such as green vegetables, cabbage, beans, tomatoes, carrots, peas in addition to maize they purchase upon selling some of the vegetables produced from the gardens. The gardens are also now a very important part of their livelihoods as mentioned by one respondent in the quotation below *“I really do not know where I would be without this garden. I am a 60 year old man and have 6 children. My wife passed away soon after I was retrenched from my job. . Thereafter I got sick and had no money to start anything so this garden was a blessing to me because I was really desperate, with no food, money and yet had children that needed to go to school”* (interview with one respondent in Farming God’s Way Garden on 16/02/12).

4.4 Income Generated from Community Gardens

Table 3 Estimated periodic income from community gardens (US\$)

Crops grown	Estimated periodic income from the sale of vegetables in US\$			
	Daily	Weekly	Monthly	Annually

Green vegetables	13	60	150	1850
Tomatoes	13	100	200	2350
Onions	5	18	75	900
Other (maize, potatoes etc)	No data	No data	No data	350
Totals	33	178	425	5450

One of the most important objectives behind community garden projects was quick income generating facility for the vulnerable groups of people in society through generation of household income for the beneficiaries. This objective has been realised given the high demand for green vegetables in Bulawayo where protein from meat sold at US\$4 per kg is expensive and unaffordable for most households. On the other hand green vegetables cost about US\$ 1 per bundle, tomatoes US\$ 5 per 5 kg bucket, butternuts and onions US\$ 10 per. These farmers give priority to vegetable vendors who buy in bulk for resale in markets in the city centre. Table 3 summarises the estimated income earned on a regular basis from the gardens using prices and estimates of quantities sold by different respondents from the three community gardens.

The income estimates shown are relatively higher than earnings of civil servants in the same period. The lowest paid civil servants on average earn US\$300 a month or US\$3600 per year whereas the country's poverty datum line is just above US\$400. Comparatively small community gardens are even better off because their income is tax free with very little overheads.

4.5 The Market

The primary market for various products from community gardens is the surrounding households who buy for consumption and vendors who buy in bulk for resale outside nearby shops. The secondary market mainly constitutes buyers from outside these communities, mainly vendors selling in the city centre who come and buy at lower prices for resale in the city centre. Before the establishment of community gardens these vendors used to order their merchandise from peri-urban farmer residing about 20 – 50 kms outside the city thereby facing challenges of distance considering the perishable nature of the products. Garden farming thus improves access to fresh and nutritious close city markets thereby reducing various costs related to the product, transport, storage, processing and packaging. This re-affirms Moustier and Danso's (2006) argument that marketing chains in urban agriculture are much shorter and more varied than in rural agriculture, reducing the costs of wholesalers and retailers in the total chain; characterised by lower transport costs, more fresh products, reduced storage related costs as well as costs for packaging and cooling. Consequently, this substantial reduction in costs in these gardens lowers the price differential between producer and final consumer thereby generating more consumer surplus.

4.6 Risks and Challenges

One of the major challenges is associated with inadequate supplies of both surface and underground water as Bulawayo, being close to the Kalahari Desert, is vulnerable to droughts and receives low annual and erratic rainfall averaging 450mm – 600mm. Its water supply is mainly based on surface water accumulated in five reservoirs located in Upper Mzingwane catchment. There is therefore a chronic water shortage for domestic and industrial use resulting in frequent rationing of water. Use of hosepipes and any other form of watering/irrigation of gardens using municipal water is prohibited during critical water shortage periods. In order to overcome the water challenges the local authority drilled 220 boreholes throughout the city, mainly in high density areas. These boreholes are used for community gardens when water shortages are not serious although they frequently revert to supplying domestic water during critical times.

Since some cash crops require correspondingly high water inputs most community gardens resort to the use of waste water during critical periods mainly from open wells and ponds. Unfortunately untreated sewage water is associated with health risks although farmers have no alternative but to use polluted water as the local authority has on numerous occasions lamented about lack of money to purchase water and sewer treatment chemicals. In this regard, most vegetables produced from community gardens are likely to be contaminated with pathogens from the use of polluted stream/drain water for irrigation, and also with pesticides. Disused water ponds close to community gardens also provide breeding sites for the malaria vectors thereby compromising the health of urban farmers and their households (Afrane et al., 2003). Besides water related problems, some of the challenges that came out of the study include:

4.6.1 Vandalism and crime

Most farmers were concerned about vandalism and crime in urban gardens. Thieves invade gardens at night and steal green vegetables. Vandalism has also been reported in some gardens as fences and steel gates have either been vandalised or stolen. The unemployed youths are in most cases accused of being perpetrators of these crimes. In Magwegwe north and Nkulumane some community gardens beneficiaries argued that they have cultivated good relationships with neighbours and law enforcement agents for the protection for their crops since the “human face” offers the best protection. However the “Farming in God’s way” group in Nketa suburb has hired a night security guard at the cost of US\$200 per month to guard the vegetable garden.

The respondents also lamented incapacitation of the Bulawayo municipality with resources and manpower for pegging land identified for urban community gardening; as in recent years the local authority has been affected by high labour turnover in the engineering and planning departments. Like other local authorities in the country the Bulawayo City Council has been financially crippled by the economic meltdown since the mid-1990s. Consequently this problem is blamed for the shortage of community gardens discussed in the introductory section leading to various allegations by those denied the opportunity to participate in these gardening activities.

5. Conclusion

From the above discussion of results this study concludes that community gardens in Bulawayo metropolitan area provided food security and livelihoods safety nets for beneficiaries who have been affected by the negative impacts on the unstable socio-economic environment in Zimbabwe. Urban agriculture has the capacity to contribute to household dietary requirements, food security, income generation and general wellbeing despite associated environmental and human health challenges associated with use of pesticides and untreated sewage water. This paper concludes that giving urban agriculture more attention in urban development policies and planning process through relevant by-laws and ordinances will play a key role in reducing household food poverty.

Given the positive livelihood outcomes of urban agriculture the study recommends that the local authority should scale-up these benefits through the provision of more land to other urban households currently not benefiting from urban agriculture. Identification and provision of more land to farmers could increase social harmony by reducing complaints of favouritism and corruption in the selection of beneficiaries. Finally, we note that although urban agriculture plays a major role in improving livelihood diet and food security it should not be seen as a panacea to economic and poverty alleviation challenges related to unemployment and de-industrialisation affecting the city of Bulawayo. Urban agriculture stands to thrive even better if policy makers could integrate this concept in their search for solutions to macro-economic challenges linked to unemployment and industrial decline.

Acknowledgements

The authors would like to acknowledge contributions from various reviewers of various drafts of this paper particularly colleagues at the Institute of Development Studies of the National University of Science and Technology (NUST) in Bulawayo and at the Centre for Development Research at the University of Natural Resources and Life Sciences (BOKU) in Vienna. We are grateful to the support received from the various institutions and individuals during the conducting of this research particularly the councillors, council staff and the farmers. However the views expressed in this document are those of the authors and not of the various institutions mentioned in this document.

References

- Bulawayo City Council. (2007). Bulawayo Urban Agriculture Policy Narrative. *Resource Centres on Urban Agriculture and Food Security*. 1-51.
- Beall, J., & Fox, S. (2007). *Urban Poverty and Development in the 21st Century: Towards an Inclusive and Sustainable World*. Oxfam Paper, United Kingdom: Oxfam GB, P. 5.
- Chaipa, I. (2001). “Agriculture and the Urban Planning Dilemma in Harare”. *The RUAF Urban Agriculture Magazine*.
- Cofie, O., Veenhuizen, R., & Drechsel, P. (2003). Contribution of urban and peri-urban agriculture to food security in sub-Saharan Africa. *Paper presented at the Africa session of 3rd. WWF, Kyoto, and 17th March 2003*.
- Crush, J., Frayne B., & Grant, M. (2007). Linking Migration, HIV/AIDS and Urban Food Security in Southern and Eastern Africa. From <<http://www.ifpri.org/renewal/pdf/UrbanRural.pdf>> (25/02/2012).

- Deelstra, T., & Girardet, H. (2004). "Urban Agriculture and Sustainable Cities". News from the Field. The 26th Bienale De São Paulo 2004. Hong Kong Press No. 15.
- Drakakis-Smith, D., Boywer-Bower, T., & Tevera, D. (1995). "Urban poverty and urban agriculture: An overview of linkages in Harare." *Habitat International*, 19 (2). pp. 183-93.
- Famine Early Warning Systems Network (FEWS Net). (2009). Zimbabwe Food Security Outlook: October 2007-March 2008. Harare: FEWS NET Zimbabwe.
- Famine Early Warning Systems Network (FEWS Net). (2011). Zimbabwe Food Security Outlook: May 2011. Harare: FEWS NET Zimbabwe.
- Fanta-Aed. (2004). "HIV Aids a guide for nutritional support. *Nutrition policy paper*, volume 20.
- Flynn-Dapaah, K. (2001). Land Negotiations and Tenure Relationships: Accessing land for Urban and Periurban Agriculture in Sub-Saharan Africa. Cities Feeding Report Number 36.
- Food and Agricultural Organisation. (1997). *Food supply and distribution to cities*. Food and Agricultural Organisation Marketing and Rural finance services. From http://www.fao.org/ag/ags/AGSM/SADA/SADAE-1_.HTM. (09/02/12).
- Garnett, T. (2000). Urban agriculture in London: rethinking our food economy. In N. Bakker, M. Dubbeling, S. Guendel, U. Sabel Koschella & H. de Zeeuw eds. (2000). *Growing cities, growing food, urban agriculture on the policy agenda*, pp 477-500.
- Kutiwa, S., Emmanuel, B., & Dimitri, D. (2010). Urban Agriculture in Low Income Households of Harare: An Adaptive Response to Economic Crisis: Human Ecology Department, Vrije Universiteit Brussel, Belgium.
- Limb, M., & Dwyer, C. (2001). "Qualitative methodologies for geographers." *Issues and debates*, Arnold, Great Britain.
- Maxwell, D. G. (1995). "Alternative food security strategy: a household analysis of urban agriculture in Kampala." *World Development*, 23 (10). pp. 1669-1681.
- Mbiba, B. (1994). "Institutional responses to uncontrolled urban cultivation in Harare, Zimbabwe: prohibitive or accommodative?" *Environment and Urbanization*, 6 (1).
- Mbiba, B. (1999). "Urban agriculture in Harare: between suspicion and repression." *Resource Centre on Urban Agriculture and Forestry*. Leusden (Netherlands).
- Mikkelsen, B. (1995). "Methods for Development Work and Research." *A guide for practitioners*. Sage Publications, Thousand Oaks, London, New Delhi.
- Mireri C; Kyessi A; Mushi, N., & Atekyereza, P. (2006). "Urban Agriculture in East Africa: Practice, challenges and Opportunities." *City Farmer*. Canada's office of Urban Agriculture.
- Mitlin D. (2005). Chronic Poverty in Urban Areas. *Environment and Urbanization*, 17: 3-10.
- Mougeot, L. (1994). African City Farming from a World Perspective. In Egziabher *et al.*,() *Cities Feeding People; An examination of urban agriculture in East Africa*. pp1-24.
- Mougeot, L.J.A. (2005). Urban Agriculture and the Millennium Development Goals. In: Mougeot J. A. (Ed.): *Agropolis: The Social, Political and Environmental Dimensions of Urban Agriculture*. Ottawa: IDRC, pp. 2-13.
- Moustier, P. D., & ANSO, G. (2006). Local economic development and marketing of urban produced food. In R. van Veenhuizen. (2006). *Cities farming for the future: urban agriculture fo green and productive cities*. Leusden, RUA /IDRC/IIRR.
- Mpofu, B. (2011). 'Some Perceptions on the Poverty Question in Zimbabwe', 16 September, Solidarity Peace Trust. Online; <http://www.solidaritypeacetrust.org/1109/some-perceptions-on-the-poverty-question-in-zimbabwe/>. (13/03/2012).
- Mubvami, T., Manyati, M. (2007). "HIV/Aids, Urban Agriculture and Community Mobilisation: cases from Zimbabwe." *UA magazine* 18.
- Mushayavanhu, D., & Mushamba, S. (2003). Policy Brief on Legislative and Policy Issues on Urban Agriculture in Zimbabwe. Harare: Municipal Development Partnership Eastern and Southern Africa (MDP) and the Resource Centre on Urban Agriculture and Forestry (RUA), P. 2.
- Muzhingi, T., Langyintuo, A. S., Malaba, L.C., & Banziger, M. (2008). Consumer acceptability of yellow maize products in Zimbabwe. *Food Policy*, 33: 352-361.
- Rogerson, C. M. (1993). "Urban agriculture in South Africa: Policy issues from the international experience." *Development Southern Africa*, 10 (1), 33-44.
- United Nations-HABITAT. (2006). The State of the World's Cities: Urbanization: A Turning Point in History. Nairobi: United Nations Centre for Human Settlements, P. 1.
- United Nations-HABITAT. (2007). Habitat State of the World's Cities Report 2006/2007, Nairobi,
- United Nations Development Programme. (1996). *Human Development Report*. Oxford: Oxford University Press.
- United Nations Development Programme. (1996). *Urban Agriculture: Food, Jobs and Sustainable Cities. Vol I*. United Nations Development Program One UN Plaza, New York.
- United Nations Food and Agricultural Organisation. (2002). Trade and Food Security; Conceptualizing the linkages. Technical Consultation, , Rome.
- United Nations. (2007). Habitat State of the World's Cities Report 2006/2007, Nairobi,.
- Urban Agriculture Network. (1996). *Urban Agriculture; Food, Jobs and Sustainable Cities*. United Nations Development Programme.
- World Resources Institute. (1999). World Resources 1998-99; Environmental changes and Human Health. Oxford University Press, Oxford. Online; <http://www.wri.org/wri/wr-98-99/index.html>. (29/12/11).
- World Wildlife Fund. (2003). Kyoto, Japan, 17 March.