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Full Length Research Paper

NGOs, urban community gardening and sustainable development: Case study of Wards 3 and 7, Masvingo District, Zimbabwe

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Unprecedented levels of poverty across the globe have culminated in people venturing into different economic activities to augment available livelihood resources. The role of NGOs has also come into play in fighting poverty among communities. This article assesses the viability of community gardens in meeting basic household requirements in Masvingo urban and the role of selected NGOs herein. The article assesses the effectiveness of community gardens in meeting basic household requirements and identifies the attendant challenges faced by the beneficiaries. This study therefore assessed the effectiveness of these community gardens in meeting the basic household requirements of the beneficiaries. A case study approach involving Runyararo West and Rujeko community gardens was used. Questionnaires, key informant interviews, focus group discussions and direct observations were used to collect data. Findings indicated that most people who are engaged in urban gardening are unemployed. Results revealed that income raised from the urban community gardens was very low and could hardly meet the basic household requirements.

Key words: Urban community gardening, household requirements, viability, food security, poverty, sustainability

INTRODUCTION

This article examines the sustainability of NGO projects aimed at boosting food security in Zimbabwe and assesses the impact of urban gardens spearheaded by NGOs in Masvingo urban. The question of their viability in ensuring household food security is central to this paper as it addresses whether urban community gardens are able to raise sufficient income to meet basic requirements for identified vulnerable households. In an attempt to meet household requirements, a French Non-Governmental Organisation Action Faim, established 16 urban gardens in Masvingo in January 2011. The drive was to assist vulnerable households earn some income

and ensure food security. According to Ratta and Nasr (1996) food insecurity and unemployment are major problems in most urban areas in Sub-Saharan Africa. Economic studies (Taru, 2013; PRP, 2012; PASS, 1995) have shown that ever since the late 1990s the Zimbabwean economy has continued to crumble. Thousands of urban dwellers were left without employment as a result of retrenchment and closure of industries due to poor economic performance. PRP, (2012) quoted by Taru (2013) points out that the economic performance of Zimbabwe has been on a downward spiral for the past two and half decades. In

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1995 a nationwide Poverty Assessment Study Survey (PASS), (1995), established that 61% of Zimbabweans lived in poverty, with 72% in rural areas and 46% in urban areas. This economic down turn forced many people to find alternative economic means of survival, with urban agriculture having emerged as one of the strategies adopted in African countries including Zimbabwe to address food insecurity problems and alleviate poverty. Zezza and Tasciatti (2010) estimates that 40% of urban dwellers in Africa are involved in agriculture and related sectors. Arku et al (2012) have noted that people engage in urban agriculture to supplement their diets and others engage in urban agriculture with a primary goal of making profit.

According to Taru (2013), the economic down turn in Zimbabwe coincided with an unfortunate period of recurring droughts and poor harvests that negatively affected agricultural output in most provinces across the country. The situation was worse mostly in semi-arid region 4 and 5 in areas such as Masvingo, Gwanda, Gwai and Shangai where erratic rainfall is experienced. This had the impact of forcing most people in rural areas to abandon agriculture and migrate into urban areas in search of employment. Tshuma and Mashoko (2010) have noted that there has been a tremendous expansion of the area under cultivation in urban areas from the year 2008. This was attributed to continued high rate of ruralurban migration, a growing number of dependence per household, burgeoning unemployment, and inflation resulting in a lowering of income in real terms. Chingarande (2009) notes that with increased ruralurban migration and economic meltdown, flourishing of the informal sector was witnessed since many people were forced out of employment as firms either closed or down sized workers. Mapuva (2015) has attributed most of the economic challenges to skewed policy implementation on the backdrop of adverse natural weather patterns and a shrinking formal economic base and the unprecedented growth of the informal sector. However, Tallerman (2012) concluded that the informal sector has inherent problems such as police harassment, lack of security, more working hours and unpredictability. As a result institutionalised community gardens have emerged as a new form of agriculture in Zimbabwe's urban areas.

Purpose of the Study

The purpose of this study was to evaluate the viability of community gardens in urban areas. It aimed at understanding the impact made by NGOs in boosting household incomes for vulnerable families in urban areas. It is important to note that in Zimbabwe a number of NGOs have come with developmental programmes aimed at alleviating poverty and strengthening food security for urban dwellers that are unemployed. However most of those projects have failed to make a lasting solution. The assumption was that though a noble

move, most of these programmes are unsustainable. They either fail to bring significant change on the lives of the beneficiaries as less profit is realised or beneficiaries fail to run the project after the withdrawal of the supporting NGO. This study offers a basis for self-study for implementing organisations creating room for improvement in the manner in which they run their programmes. The article attempts to contribute to an understanding of some of the challenges experienced by beneficiaries of some of their programmes in the process strengthening their interventions. According to Marongwe (2003) there is no clearly laid down policy on urban agriculture. Thus, the information obtained in this research should stimulate NGOs and urban development policy formulation and practices aimed at ensuring sustainable urban agriculture as well as stimulating further research on capacity building of the urban poor. This could be of value especially with the view that in most cases city planning systems do not cater for urban agriculture.

RESEARCH METHOD AND DESIGN

Study Setting

The study was carried out in two selected urban gardens in Masvingo urban. Focus was on Runyararo West and Rujeko community gardens in wards 3 and ward 7 respectively. These gardens are found in the high density residential area of Masvingo urban. This study area lies in Masvingo province, natural farming region 4. This is a drought-prone area with average annual rainfall of 600mm, (Scoones, 2009). As a result Action Faim NGO sunk boreholes around Masvingo urban to enable irrigation. Rujeko and Runyararo West community gardens are located close to a stream which could be used as a water source to irrigate crops. Figure 1 below shows a map of the study area.

The two gardens are found close to the Masvingo green market near the CBD as indicated on figure 1 above. Produce from the gardens are sold to the Masvingo green market, located closer to the CBD. This makes buying of inputs and selling of outputs easier and cheaper

Sampling

Purposive sampling was used in this study. Selection of the study area was influenced by the existence of urban community garden programmes initiated by Action Faim, a NGO which was of interest to the researchers. Runyararo West and Rujeko plots were chosen for the study. These two were picked for being the biggest among the sixteen gardens. The research was based on both secondary and primary data collected through key informant interviews, observations and a household questionnaire survey. Simple random sampling was used

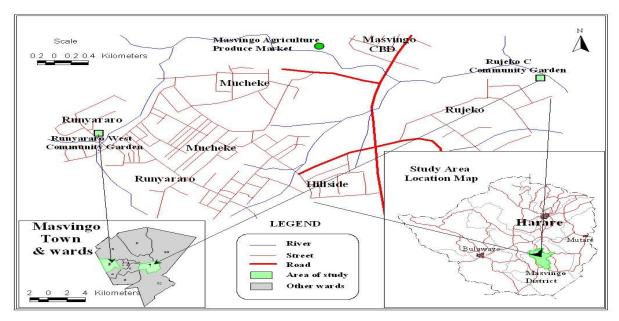


Figure 1: The location of Runyararo and Rujeko community gardens

to obtain 32 household heads from two gardens for semistructured questionnaire interviews. An average of 20% representation was obtained from the two gardens. According to Robinson (2002), a sample size of 20% of the whole population gives reliable results. Thus from two gardens, a sample of 20% of 160 beneficiaries was selected to respond to questionnaires. Simple random sampling was chosen since it is a highly representative probability sampling method in which each prospective participant stands an equal chance of being selected; hence it had a high probability of producing unbiased results. A semi-structured questionnaire was employed for individual household heads and elicited both qualitative and quantitative information. Purposive sampling was employed on the selection of key informants. Basing on the researchers' judgement irrespective of the desired characteristics of the representative sample five key informants were selected for interviews. This means that in purposive sampling, a researcher relies on his/her experience, ingenuity and previous research findings to deliberately obtain participants in such a manner that the sample obtained might be regarded as a representative of the relevant population (Welman and Kruger, 2001). The key informants that were interviewed in this study included. the community garden chairperson, treasurer and secretary who are the custodians of the project and are aware of the project's day to day operations, its achievements and challenges, the AGRITEX officer who works with them as adviser of project operations and a representative of Action Faim which designed the project hence aware of expected targets as per its design. Personal observation was used to fill in gaps left by other tools used.

Conceptual Framework

The framework for participation in urban agriculture by Onyango (2012) was adopted in this study. This model portrays the decision to participate in urban agriculture as influenced by certain resultant benefits. The core participants of urban agriculture are limited to the poor urban households. Low incomes, lack of food and unemployment are some of the drivers behind farming to meet household basic needs. Involvement of other key stakeholders such as NGOs was seen to be crucial so as to stimulate the process. Benefits from this process will include food self-sufficiency, employment and income generation among the participants. People participating in urban agriculture may have a background of farming from their initial area of origin or may gain the knowledge from organizations promoting urban agriculture as a poverty alleviation strategy, (Onyango, 2012). The decision to participate can be influenced by a number of causal factors as illustrated in the model, Figure 2.

Ethical Considerations

The research centred on people, hence respondents' confidentiality was assured and they were not coerced to participate in the study. It was also spelt out clearly on the research questionnaires that information gathered would strictly be used for academic purposes only. Permission to carry out the research was sought from local governance structures that are the city council and the local councillors. The Ministry of Agriculture, Mechanisation and Irrigation, currently running this development project and the university were also consulted

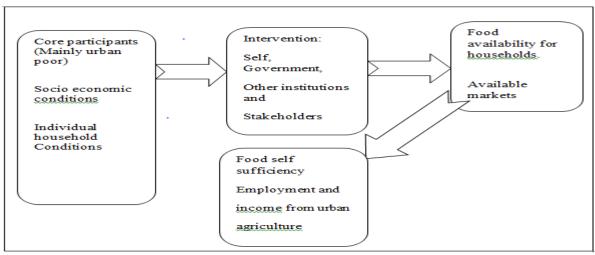


Figure 2: A framework for the participation in urban agriculture (Adapted from Onyango 2012: 86)

Table 1: Income of plot holders after selling garden produce per month

Range (\$)	Frequency (<i>f</i>)	Mid interval (X)	(f <i>X</i>)
0 – 100	10	50	500
101 -200	17	150.5	2558.5
201 -300	2	250.5	501
301- 400.	3	350.5	1051.5
401 – 500	0	450.5	0
	$\sum (f)=32$		500 2558.5 501 1051.5

and permission was granted to carry out the research.

FINDINGS AND DISCUSSION

This section presents descriptive analysis and discusses the income attained from the gardens in comparison to basic household requirements. It analyses whether incomes generated from gardens is able to meet expenditure on household needs, school fees water and electricity bills. Respondents cited some challenges like theft, low market prices, water shortages and poor funding to be responsible for crippling the success of urban community gardens rendering them unviable.

Effectiveness of Garden Incomes in Meeting Basic Household Needs

Incomes attained from selling garden produce by plot holders

It emerged from the study that urban poverty was the main driving force to urban gardening. As a result involvement into urban gardens by the majority was to generate income to meet some household requirements. However, this study indicated that incomes raised from Masvingo urban gardens could not satisfy all the household needs. Table 1, shows the income attained by plot holders after selling their garden produce.

On average, Table 1 indicate that plot holders were getting an income of US\$144.10, far below the poverty datum line. This finding is contrary to the finding of Sithole et al (2012) which shows that in Bulawayo urban community gardeners were able to get a monthly income of about US\$425 from selling garden produce. The income attained by Bulawayo urban community gardeners was above the poverty datum line which according to Sithole et al (2012) was just above US\$400. As a result the income from Bulawayo urban community gardens was able to meet basic household requirements. The low incomes in Masvingo were attributed to poor market prices for vegetables as a result of lack of competitiveness of the products.

Households expenditure on school fees

Researchers also sought to come out with the average household expenditureon primary school fees for two pupils and at most one secondary school child. The majority of plot holders had primary school going children who needed school fees. Out of 32 plot holders only one had no primary school child, 17 plot holders had one primary school child each. This gave a total of 17 children. The other 14 plot holders had at most two children going to primary school. This gives a total of 28 children. Hence the total number of children going to primary school is 45 among 32 plot holders. The information attained from the focus group discussion showed

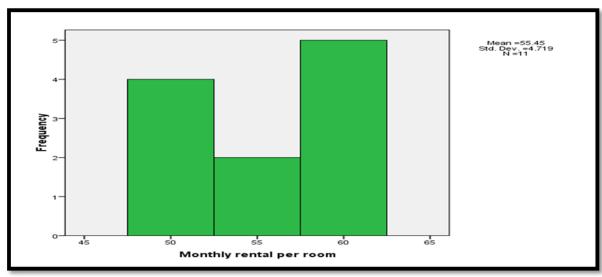


Figure 3: Monthly rentals per room by gardeners (Source: Primary Data)

that the cheapest primary school fees for both study sites were US\$35.

Concerning the secondary school going children, the research revealed that out of 32 plot holders, 15 had no children going to secondary school and 17 plot holders had at most one secondary school child. Therefore there were only 17 children amongst 32 plot holders who were going to secondary school, At most one secondary child was considered per plot holder even if he/she had more than one. Information attained from the focus group discussion shows that the cheapest secondary school fees for both study sites was Mucheke high school which costs US\$ 75 per term.

The average school fees for at most two primary school children and at least one secondary school child was US\$89.10. This is paid per term hence each plot holder had to save US\$22.30 per month since a term has 4 months. However the issue of saving was difficult, especially with the view that income attained from selling garden produce came in small amounts. The chairperson of Runyararo West community garden at a focus group discussion said:"Zvakaoma kuti tione kuti mari yationowana mukutengesa zvirimwa zvedu inokwana chii nokuti tinongoti yatawana totopfuudza matambudziko atinenge tinawo panguva iyoyo". This literally means it is very difficult for gardeners to know the value of the money they get from selling their produce per month because the money they get is usually used to buy day to day basic needs.

Average expenditure on water bills

Water was another item viewed as the basic household requirements. As a result water bills for plot holders were assessed. All the 32 respondents paid their water bills. The average monthly water bill of garden plot holders was \$19.38. The plot holders that paid the least water bill paid \$12 and highest was \$34. The most paid water bill

was \$16. The total monthly water bill for all garden plot holders was \$620. Of greater importance to the researcher was the average monthly water bill for plot holder which was calculated to be US\$ 19.38. It was found that income raised from urban gardens (US\$144.44) was above average monthly water bill.

Average expenditure on housing rentals among the plot holders

Shelter is one of the basic household needs. The histogram illustrated the monthly household expenditures per room as given by the plot holders.

Figure 3 denotes that there are only 11 plot holders who rented accommodation. Among these 4 plot holders were paying US\$50 per room, 2 were paying US\$55 per room and 5 were paying US\$60 per room per month. The average monthly rental among the respondents was calculated to be US\$55.45. Hence the average monthly rental for two rooms was \$110.90 given by multiplying average monthly rental per room by two.

Average monthly expenditure on food by plot holders

One of the major aims of Masvingo urban community gardens was to ensure food security. The histogram below shows the household's expenditure on food per month and calculated average household expenditure per month.

Figure 4 below shows that there was a variation in monthly expenditures on food by plot holders ranging from US\$50 to US\$150. However, as illustrated by the normal curve most of the plot holders spent incomes within the range of US\$50 to US\$100. The calculated average expenditure on food by garden plot holders was US\$77.50. The average expenditure on food among plot holders took over half of the average monthly income attained by plot holders from selling garden produce.

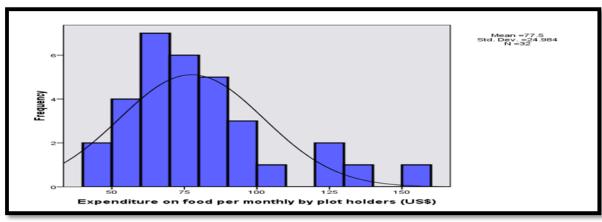


Figure 4: Monthly household expenditure on food by gardeners (Source: Primary data)

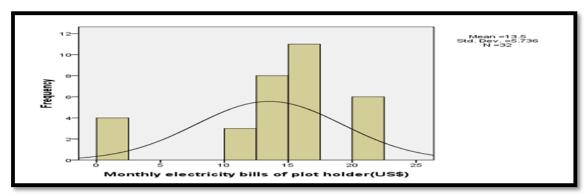


Figure 5: Monthly electricity bills of plot holders. (Source: primary data)

Table 5: Garden income versus expected household expenditure (primary data)

Average Community income.	ommunity garden		Income US\$ month/household	per
		The average monthly expenditure on food of households was calculated to be.	\$77.50	
\$144.10		Average monthly expenditure on rental for at most two rooms was calculated to be.	\$110.90.	
		Average School fees for at most two primary children and at most one secondary school child per plot holder per month was calculated to be.	\$22.30	
		The average monthly water bill for garden plot holders was calculated to be	\$19.38	
Total	The average electricity bill for urban gardeners was calculated to be		\$13.50 US\$243.58	

This shows that the income raised from selling garden produce was very low to be able to cover basic household requirements.

Average monthly expenditure on electricity bills by plot holders

Figure 5 shows the monthly electricity bills of garden plot holders. The histogram was generated with the intention

of finding monthly average expenditure on electricity among gardeners.

Figure 5 shows that monthly electricity bill of garden plot holders varied from zero to US\$20. The majority of plot holders were paying monthly electricity bills of around US\$15. These were followed by six plot holders who paid US\$20 each and three plot holders who paid monthly electricity bill around US\$10 each per month.

There were also four plot holders who were not paying electricity. These were plot holders whose houses are not connected to electricity. As shown in figure 4 the calculated average monthly electricity bill for garden plot holders was US\$13.50.

Garden income versus expected household expenditure

The monthly average monetary value from selling garden produce by 32 plot holders was calculated to be US\$144.10. According to this research for the gardens to be considered viable, the income raised from selling of garden produce was supposed to meet or exceed basic household requirements. Table 5 below shows the income from selling garden produce and expected expenditure on basic household requirements.

Table 5 above shows that monthly average income raised from selling garden produce was US\$144.10 while the expected monthly average household expenditure was US\$243.58. The income raised from selling garden produce by plot holders was far below the expected target as defined by the researchers. These findings contradicted with the finding by Sithole *et al* (2012) who found that in Bulawayo urban community gardeners were able to get a monthly income of about US\$425 from selling of garden produce. This income was above the country's poverty datum line which according to (Sithole *et al* 2012) was just above US\$400 at the time of the research. As a result their income was likely to meet household basic requirements since it was found to be above the national poverty datum line.

However, results show that the income raised from selling garden produce in Masvingo was higher than income raised by urban community gardeners in Orange Farm in South Africa. Onyango (2010) argues that most urban community gardeners in Orange farm in South Africa earned less than 500 rand per month. This income was far below average monthly expenditure by households which was 1200 rand. The results showed that both community gardens were not able to raise income that could meet basic household requirements.

Information from the three committee members of the two urban community gardens showed that urban community gardens are an important source of food. The chairperson of Rujeko indicated that "...our garden does not have the capacity to raise money sufficient enough to pay for housing rental, school fees, and all monthly bills". The major reason given was that the plot holders had small pieces of land which could only produce for household consumption. The little money attained from selling garden produce was also used to supplement household food. More so, the water source which is borehole water could not support crops that could meet all the expenses needed in the urban area.

The treasurer of Runyararo west community garden said that some of the community members sold their produce and got about \$250 a monthly but it was

however, difficult to save the money because life in the urban area is quite demanding. She said in most cases the money attained from selling garden produce was normally used to buy food, school uniforms, and exercise books for the children and in some cases payment of school fees. The key informants seem to agree that it was difficult to save the money because normally their incomes from selling garden produce came in small amounts. This shows that even though urban community gardens can raise income most of it was used to supplement people's diets and other small things that demand money urgently unlike saving to meet other basic household requirements. The secretary for Runyararo west argued that in some cases the income raised from garden produce was used to purchase inputs that are used in the garden

Urban Community Gardens and Food Security

The main drive behind urban community gardens in Masvingo was to ensure food security. A survey carried out concerning the monetary value of the food consumed from the garden by households of plot holders per day presented interesting results. Results indicated that out of 32 respondents 16 ate food worth US\$0.5 to US\$ 1.50 from the garden per day. The other 16 ate food worth US\$1.5 to US\$2.50 from the garden per day. The average monetary value of the food eaten by households of plot holders per day was US\$1. 50 given as the average income value of food consumed from the garden per day. As a result, if the household was eating food worth US\$1.50 per day from the garden, which would mean US\$45 spent on food per month. This represents the expense that the plot holders could have incurred if they were not members of the urban community gardens. The information attained from the questionnaire about crops grown in the garden and purposes of crops grown showed that all the crops grown were for both subsistence and commercial purposes. Among the crops given by plot holders were tomatoes, rape, sweet cabbage, tsunga, carrots, sweet potatoes, onion, green maize, potatoes, butternuts, beans and okra. This is in line with Arku et al (2012), who asserted that urban agriculture has great potential to enhance the wellbeing of urban residents, including meeting the food needs of a burgeoning Africa's urban population. Instead of purchasing market garden produce in shops, urban community gardeners are producing for themselves. Thus urban community gardens are playing an important role in ensuring food security.

Challenges Faced by Beneficiaries of Urban Community Gardeners

The challenges faced by garden beneficiaries were established based on the information provided by the twenty gardeners who participated in focus group discussions. These included 6 committee members of the

garden and 14 ordinary garden members. Challenges faced by garden beneficiaries were also established basing on the observations done by the researcher.

Water Shortages

It emerged through focus group discussions that the plot holders faced the problem of water scarcity to irrigate their crops. Beneficiaries of both gardens concurred that one borehole per garden was not enough to sustain the whole garden. The researcher observed that there was pressure among gardeners in fetching water to irrigate their crops. The chairperson of Rujeko C community garden indicated that there was need for constant watering of crops due to high temperature which cause high evaporation. The challenge of water scarcity in Masvingo urban community gardens is in agreement with the finding of Sithole et al (2012) who indicated that in time of water crisis, the water table goes down forcing farmers in Bulawayo urban community gardens to abandon their work. As a result the farmers would not be able to get desired outputs from irrigation farming.

Low Market Prices

The garden beneficiaries who took part in a focus group discussion complained of low market prices. Twenty garden members who took part in focus group discussions agreed that there was stiff competition on the market. One of the participants of the focus group discussion, a member of Runyararo west said that there are some business people who purchased cabbages and potatoes from areas as far as Beatrice, Mushandike and sell in Masvingo vegetable market. The situation of Masvingo urban community gardens was different from that of rural community gardens. According Chazovachii (2012) farmers in rural areas complained about distance and nature of the roads which forces bus operators and private vehicles to look for other routes. This negatively affected them for their products needed a ready market. Normally rural community gardens suffer from inaccessible markets that are found in urban areas. However, Masvingo urban community gardeners' access to the market place was not a major challenge. The major challenge was low market prices since there was stiff competition from outsiders who sell their produce in Masvingo vegetable market area. These findings correspond to those of of ZimVac (2011) which states that shortage of markets was a major challenge.

Shortage of Financial Resources

As informed by the results from focus group discussion, the urban community gardens are facing financial crisis to buy inputs and buy tanks that were stolen. The secretary of Rujeko C community garden said as gardeners they lacked income to purchase inputs. She also indicated the need to buy tanks in order to replace the once that were

stolen but they lacked the financial resources. As far as financial assistance was concerned, Taru (2013) argued that the NGOs provided beneficiaries with starter packages needed. The basic idea is normally that after selling garden produce beneficiaries would continue farming and sustaining their production. Hence the challenge was a result of the fact that the plot holders were failing to produce enough to sustain their project.

Problem of Thefts

All the garden beneficiaries who participated in a focus group discussion complained that the thieves were a major challenge as they stole irrigation equipment and garden produce. This was also supported by the interviewed AGRITEX officer who alluded that the thieves had stolen the tanks and pipes that were installed to promote drip irrigation in the garden. The gardeners were saying in most cases the youths were the ones who stole their crops. The challenge of thieves is not only the problem of Masvingo urban community gardens. This same problem was faced by urban community gardens in Bulawayo. Sithole et al (2012) revealed that in Bulawayo in Magwegwe north and Nkulumane some community garden beneficiaries had cultivated good relationships with neighbours and law enforcement agents for the protection of their crops since the "human face" offers the best protection. To add on to that the "Farming in God's way" group in Nketa suburb hired a night security guard at a cost of US\$200 per month to guard the vegetable garden. However, the problem with Masvingo urban community gardens was that they had no night security guard. As a result chances of having their crops stolen were high.

CONCLUSION AND RECOMMENDATIONS

A number of conclusions have been made from this study and recommendations provided. Findings on Masvingo community gardens seemed to be in tandem with the framework for participation in urban agriculture proposed by Onyongo (2012). Action Faim, with the approval of the city council initiated community gardens to curb food shortages and create an avenue for income generation among the poor vulnerable households. It was observed that Masvingo urban gardens were not viable. Venturing into Masvingo urban gardens with the expectation of raising money, enough to sustain urban life was difficult to achieve. This was because of low profits realised and operational problems. Average monthly income from selling garden produce could not match household expenditure. An expected average monthly household expenditure of US\$243.58 far exceeded the average monthly income of \$144.10 from garden sells. Beneficiaries of the programme are fraught with a number of challenges making it difficult to run the project at full capacity. Scarcity of water, low market prizes, poor

financial assistance and thieving are some of the problems crippling the operations. The highly labour intensive nature of irrigation practised was another challenge as it took much effort to collect enough to be able to complete on the public market that has already been flooded with external goods coming in from different areas to compete at the market areas in Masvingo. Rukuni et al (2006) concurs that most programmes implemented by NGOs on poor communities though meaningful, fail to meet their intended objective. However despite low incomes Masvingo urban gardens play important roles in supplementing incomes. Proceeds generated from these gardens were used to meet minor household demands.

However, water shortages, stiff competition on the market, loss of produce and production assets through theft, financial constraints and the labour intensive nature of watering the gardens are the prevalent challenges that have dogged the gardening project. It is the authors' conviction that water sources and irrigation methods would help to ameliorate the challenges faced by owners of the projects. Additionally, the local authority and other stakeholders should give a hand to reduce the financial burden.

On the basis of these findings it is recommended that there is need to boost production and improve quality of produce to meet market standards. This can be achieved by adopting capital intensive irrigation whereby water is extracted from the nearby stream that carries sewage waste all year round using engines to irrigate crops. The NGOs, Ministry of Agriculture, Mechanisation and Irrigation together with ZINWA should collaborate in drilling boreholes to improve water supply. There is also need to install an engine to extract water from the ground and to put in tanks so that irrigation becomes less labour intensive. New hybrid varieties and fertilizers could be used to improve the quality of crops.

To alleviate or overcome financial challenges, the plot holders should apply for loans using collective bargaining from the Ministry of Small and Medium Enterprises. This could encourage the gardeners to work hard so as to pay back the loans. More over such a move can render the project sustainable since it would be people driven unlike depending on donor assistance which often leads to dependence syndrome. Finally, to deal with thieves in the gardens there is need to employ night security guards or alternatively form neighbourhood watch committees which can take turns in policing the gardens. Creation of youth empowerment programmes by the government through the Ministry of Youth Development, Indigenisation and Empowerment and NGOs can go a long way in reducing risks of thieving.

REFERENCES

- Arku, G., Mkandawire, P, Aguda, N. and Kuuire, V. (2012). "Africa's quest for food security: What is the role of urban agriculture?" The African Capacity Building Foundation, Harare, Zimbabwe.
- Chazovachii, B (2012). "The impact of small scale irrigation schemes on rural livelihoods: the case of Panganai irrigation scheme Bikita District Zimbabwe." Journal of Sustainable Development in Africa (Volume 14, No.4, 217-231,).
- Chingarande, S. D (2009). "Livelihood strategies: Contemporary urban and peri urban agriculture in Harare" Unpublished thesis (PhD), University of Zimbabwe, Harare.
- Human Development Reports (2010). "The Real Wealth of Nations: Pathways to Human Development". http://hdr.undp.org/en/media/HDR_2010_EN_omplete_ reprint.pdf. [Retrieved 2014-02-30]. Poverty Assessment Study Survey (1995).
- Mapuva, J (2015). "Skewed Rural Development Policies and Economic Malaise in Zimbabwe" African Journal of History and Culture, Vol. 7 (7) 142-151, July 2015.
- Marongwe, N. (2003). "The Fast Track Resettlement and Urban Development Nexus: A case of Harare" Paper presented at the symposium on Delivery Land and Securing Rural Livelihoods: Post Independence Land Reform and Resettlement in Zimbabwe. *Harare*, 26-28, March, 2003. http://www. s a r p n .o rg.za/documents/do000617/ index.php> (Retrieved on 24 February 2014).
- Onyango, C. L. (2012). "Urban and Peri-Urban Agriculture as a
- Poverty Alleviation Strategy among Low Income Households: The Case of Orange Farm, South Johannesburg". University of South Africa, Capetown.
- Poverty Assessment Study Survey Preliminary Report, Government Printer, Harare.
- Ratta, A., Nasr, J (1996). "Urban Agriculture and the African Urban Food Supply System." <u>African Urban Quarterly</u> Vol 11, No. 2, 154-161.
- Robinson. C. (2002). "Real Word Research", 2nd Edition, Blackwell Publishing, United Kingdom.
- Rukuni, M., Tawonezvi, P., Eicher, C.K, Munyuki-Hungwe, M, Matondi, P.B. (2006). Zimbabwe's Agricultural Revolution Revisited, UZ Publications, Harare.
- Scoones, I. (2009). "Livelihoods Perspectives and Rural Development". Routledge, London.
- Taru, J. (2013). NGO projects and urban livelihood activities: Lessons from institutionalized urban gardens in Masvingo, Great Zimbabwe University, Masvingo.
- Tshuma, D.T. and Mashoko, D. (2010). "Urban farming its Relevance, Sustainability and Policy implications. A case of Gweru and Masvingo urban areas" *Journal of sustainable development in Africa*. Vol 12, No. 3 361-372.
- Welman J.C. and Kruger S.J, (2001). "Research Methodology for the Business and Administrative Sciences", 2nd Edition, Oxford University Press Southern Africa, Cape Town.
- Zezza, A., & Tasciotti, L., (2010). "Urban agriculture, poverty, and food security: Empirical evidence from a sample of developing countries." *Food Policy*, Vol 35, No. 4, 265-273.
- Zimbabwe Vulnerability assessment Committee (ZimVAC), (2011). "Rural Livelihoods assessment", July 2011 report, Governments Printers, Harare.