

FACTORS INFLUENCING FOOD SECURITY IN HOUSEHOLDS IN URBAN VILLAGES AND SHANTY COMPOUNDS IN ZAMBIA

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ABSTRACT

The number of people without enough food on a regular basis remains stubbornly high, at over 800 million, and is not falling significantly world over. Over 60% of the world's undernourished people live in Asia, and a quarter in Africa (WFP, 2010). The proportion of people hungry, however, is greater in Africa (33%) than Asia (16%). The latest FAO figures indicate that there are 22 countries, 16 of which are in Africa, in which the undernourishment prevalence rate is over 35%. And Zambia is among the top 10 of those countries (FAO, 2010). In the period beginning 1960 to 1973, Zambia experienced high urbanization as many people left rural areas to cities in search for employment and better conditions of living both those with skills and those without, educated and uneducated. Although the World Bank reclassified Zambia as a middle-income nation in 2011, 63 percent of Zambians live on less than US\$1.25 per day (U.S. Department of State 2011).

The purpose of this study was to find out the factors influencing food security situation in the households of shanty compounds and urban villages in Kasama district. The study focused on the critical analysis of the influence of the following independent variables on food security in households; the type of occupation of the head of the household, engagement in the cultivation of crops by a household, accessibility to loan facilities and farming inputs by a household. This study adopted an analytical research design and consisted of both qualitative and quantitative research. The target populations were a sample of all the households in urban villages or shanty compounds in Kasama District. A sample of seven (7) urban villages or shanty compounds were selected using simple random sampling method out all the twenty (20) compounds and urban villages around Kasama District. For quantitative data, a sample of 84 households, 12 households from each compound was randomly selected and for qualitative data seven village headmen or civic leaders were purposely selected as key informants. Structured questionnaires were administered on 84 household heads and a guided interview was conducted on the seven (7) key informants.

Quantitative data was analysed using STATA computer software package while qualitative data was analysed through comparison and contrasting. A multivariate logistic regression analysis was used to test for any relationship (association) between the independent and dependent variables.

The results showed contrary to the hypothesis which stated that household heads whose means of livelihood were in the informal sector were likely to suffer from food insecurity more than those in the formal employment, the results achieved revealed that those who were in formal employment suffered from food insecurity more than those whose means of livelihood were in the informal sector. Further findings revealed that involvement in food production did not really influence the food security of a household (51.85%) of those households who go grew crops and (63.33%) of those who did not grow food had stable levels of food security compared to 48.15% and 36.67% respectively suffered from food insecurity. The study also revealed that there was a seeming influence by accessibility to farming inputs on the levels of food security of a household. Finally, it also revealed that there was a slight relationship between accessibility to a loan facility and food security of a household. Therefore, the less the access to loan facilities by a household the lower the level of its food security. Generally, findings show that the quantitative findings generally indicated an overview of stable levels of foods security in households of the sampled villages and compounds which is contrary to the qualitative findings which showed that most households in these compound and villages were suffering from food insecurity. This implies that the identified independent variable may not have been the variables influencing food insecurity. There could have been other variables that had influenced the levels of food security in households.

CHAPTER ONE

INTRODUCTION

This paper is divided in four chapters. Chapter one presents a background to the research problem. It then situates and articulates the research problem. It then highlights the research objectives, hypothesis and the significance of the study. Chapter two highlights literature review on the food security, theoretical framework, personal critique and establishment of the gap. Chapter three outlines the research methodology, triangulation, and ethical consideration, scope of the study and limitation of the study. And finally, chapter four presents, data analysis under this it outlines presentation of findings, interpretation and discussion of findings, conclusion, implications and finally a recommendation.

BACKGROUND

This research was intended to investigate the factors that influence food security in households of shanty compounds and surrounding villages in Kasama District. Two commonly used definitions of food security come from the UN's Food and Agriculture Organization (F.A.O) and the United States Department of Agriculture (USDA).

Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (FAO).

Food security for a household means access by all members at all times to enough food for active, health life. Food security includes at a minimum; the ready availability of nutritionally adequate and safe foods, and an assured ability to acquire acceptable foods in socially acceptable ways that is, without resorting to emergency food supplies, scavenging, stealing, or other coping strategies (USDA).

The stages of food insecurity range from food secure situations to full-scale famine. "Famine and hunger are both rooted in food security. Food insecurity can be categorised as either chronic or transitory. Chronic food insecurity translates into a high degree of vulnerability to famine and hunger ensuring food security presupposes elimination of that vulnerability. (Chronic) hunger is not famine. It is similar to undernourishment and is related to poverty existing mainly in shanty compounds.

The Zambian government had committed itself to achieving the Millennium Development Goals (MDGs) and the Sixth National Development Plan for 2011 – 2015 giving reassuring priority to poverty reduction. The task will be formidable as Zambia has so far failed to make significant progress on the eradication of poverty and hunger. The majority of the population (76%) live on less than \$1 a day, and 94% have less than \$2 (World Bank, 2011). Although harvests have been good for the past two years, food security remains very sensitive and assistance from the World Food Programme remains in place. There is a growing gap between the rich and the poor. The elite (in the cities) have adopted a western standard of living and put great emphasis on material wealth while the poor mostly concentrated in shanty compounds are left to wallow in poverty and food insecurity (ibid: 98).

Food insecurity has been described as "a condition in which people lack basic food intake to provide them with the energy and nutrients for fully productive lives. "(Hunger Task Force in 2005) , 3.5 million Zambians, which includes 2.7 million adults and 1.2 million children, lived in households that are more likely to experience food insecurity such as female headed and those that reside either in principal cities especially in slum and shanty compounds or within rural areas (World Bank, World Development Report, 2006). The USDA report asks the question, "How often were people hungry in households that were food insecure?"

Around 24 percent of people reported going hungry at least once a year, while on any given day the figure is estimated to be between 9 percent and 15 percent. This profile of livelihoods rarely escapes poverty, lacks capital to invest, and is chronically, vulnerable to fluctuating prices or unfavourable weather, especially drought-factors which all contribute to food insecurity. Zambia has been further affected by the distortion of labour resources created by HIV/AIDS (World Bank, World Development Report, 2006). This research was intended to reveal factors that influence food security in these households in Zambia.

STATEMENT OF THE PROBLEM

The number of people without enough food to eat on a regular basis remains stubbornly high, at over 800 million, and is not falling significantly world over. Over 60% of the world's undernourished people live in Asia, and a quarter in Africa. The proportion of people who are hungry, however, is greater in Africa (33%) than Asia (16%). The latest FAO figures indicate that there are 22 countries, 16 of which are in Africa, in which the undernourishment prevalence rate is over 35%. And Zambia is among the top 10 of such countries. In the period beginning 1960 to 1973, Zambia experienced high urbanisation as many people left rural areas to cities in search for employment and better conditions of living both those with skills and those without, educated and uneducated. This led to overcrowding of cities and the eventual growth of shanty compounds (Sakala and Chanda, 1999). Not all the people who moved to the cities found employment in the formal sector many resorted to the informal sector. Chigunta et al, (2000:4) state that many people got employed as servants or maids, garden boys and watchmen while others went to trade in the markets and bars or taverns. And because in the cities or near industries or factories there was no any ready accommodation for these people, they started making makeshift

structures as places where to sleep especially near where they worked. This eventually bred today's shanty compounds like Kalingalinga, Kanyama, Msisi etc. in Lusaka and other similar compounds and urban villages in other towns in the country. These started as ungazetted compounds without proper sanitation and other important social amenities but today have been gazette and accepted without much improvement. These compounds are now found in all towns in Zambia near factories or industries to provide similar services to low density residential areas and also work as casual workers in some industries and factories. But still others like government employees now due to lack of accommodation live in these compounds. According to the World Food Program (WFP), "poverty and food insecurity are widespread" in both urban and rural Zambia (WFP, 2010). Despite having some of the world's most fertile soil, Zambia's subsistence farmers, 65 percent of whom are women (AfDB, 2006), depend on rainfall and hoe cultivation to produce crops that are highly vulnerable to flood and drought. Although the World Bank reclassified Zambia as a middle-income nation in 2011, 63 percent of Zambians live on less than US\$1.25 per day (U.S. Department of State 2011). International Financial Institutions (IFIs), including the World Bank, have contributed to Zambia's food insecurity. In the second half of the 1980s, they pushed the Zambian government to adopt neoliberal IFI structural adjustment policies including trade liberalization, the privatization of state enterprises, and the removal of government subsidies and price controls (Kodamaya, 2011). IFIs claimed these measures would "ultimately" reduce poverty, but Zambia's economic growth stagnated. Meanwhile, the Zambian government significantly reduced its role and budget for agriculture, leading to the "deterioration in public service delivery" that "hurt most smallholder farmers dependent on public services who were ill-prepared to face the challenges and exploit the emerging market

opportunities that come with market liberalization” (WB, 2006). The poor faced lower wages, higher rates of unemployment and higher food prices (Logie and Woodroffe, 1993) leading to widespread malnutrition. Due to political unrest, the Zambian government later abandoned these policies (Kodamaya, 2011). But the damage had already been done. While privatization dramatically increased agricultural exports (WB, 2006), Zambia’s neo-liberal policies were particularly devastating for both rural and urban people; as unemployment rose, the informal sector shifted labor into seasonal, low-paid agricultural wage work (Floro and Schaefer, 1998). Neo-liberal policies also led to an “increasing shift to individual [land] ownership resulting from the process of modernization and commercialization,” which marginalized women who did not have the right to land ownership, despite carrying out the majority of Zambia’s agricultural work (Kajoba, 2002). Employment opportunities rose in exploitative activities such as sex work and domestic service (Floro and Schaefer, 1998). Currently, increasing household food insecurity and rising food prices contribute to “an increased level of discontent and stress” and “more pressure” on Zambians to “provide good meals with less food, and often go without” (Green and Hossain, 2011). The typical Zambian diet relies heavily on cereals (which provide almost two-thirds of the dietary energy supply). Zambia’s strong dependence on maize makes it vulnerable to climatic shocks. According to the Food and Agriculture Organization, the prevalence of undernourishment reached 45 percent in 2003-2005 (FAO, 2010). Therefore, many households in these shanty compounds are still facing a risk of food insecurity. There is a great danger to many people especially children. This research was intended to investigate the factors influencing food security situation in the households of shanty compounds in Kasama district.

PURPOSE OF THE STUDY

This research was intended to bring out the factors that influence the levels of food security in households in shanty compounds and urban villages in Zambia. Households in Shanty compounds in Zambia face a lot of challenges some of which affect the food security of these households or they hamper the maintenance of food security in these households. It was just important that these factors were brought out and revealed to the stakeholders.

RESEARCH OBJECTIVES.

General Objective.

The general objective of this research was to find out the factors influencing food security in households of Shanty compounds and urban villages in Zambia (case study of Kasama district).

Specific Objective.

- i. To find out whether the type of occupation of the head of household influence its state of food security.
- ii. To investigate whether crop cultivation by a household has an influence on its food security.
- iii. To establish whether the level of accessibility to farming inputs affect the level of food security of a household.
- iv. To ascertain the level of accessibility to loan facilities by households.

STATEMENT OF THE HYPOTHESIS.

The following hypotheses were put across on the factors that influence food security in households in Shanty Compounds in Zambia (Kasama district);

- i. Does the occupation of the head of the household influence the household’s state of food security?
- ii. Are households which cultivate and own crop fields, are less likely to suffer from food insecurity than those, which do not?

- iii. Does accessibility to farming inputs by a household influence its level of its food security?
- iv. Does access to loan facilities influence a household's level of its food security?

Significance of the study

This research was important in that ascertaining the factors influencing food security in Households will help the government and other organisations in finding the best strategies to use in fighting poverty in these areas. Zambia like many other countries experience perpetual food shortages and distribution problems. These result in chronic and often widespread hunger amongst significant numbers of households. This research therefore will motivate stakeholders to call for large scale studies which will give a clearer picture on the study topic. It is hoped that the findings of this research will act as a background for bigger and detailed studies on the topic under study. It will also give a clear picture on issues that need to be targeted in the quest to fight poverty in Zambia as major factors affecting people's livelihoods will be known thereby designing programmes that have a specific focus on known problems.

CHAPTER TWO

LITERATURE REVIEW

Global perspective

According to a research by Baldauf (2011), Malawi's progress towards achieving the MDGs has been limited by the spread of HIV/AIDS, and the failure of structural adjustment programmes implemented in the 1980's and 1990's to create the conditions for broad-based economic growth. An estimated 22% of under-5 children were under-weight and 48% suffered from stunting, while the FAO (2012) estimated that 33% of the total population did not have an adequate calorific intake in their diet especially in shanty compounds and rural communities. According to Baldauf (2011), the under-5 mortality rate has declined in recent

years but life expectancy has fallen and maternal mortality is now higher than in any country apart from Sierra Leone. According to UNICEF (2012) in 2005 over 50% of the population lived below the poverty line in Malawi, this figure improving only fractionally in the years since 1998. Perhaps the only clear success is in the field of education, with substantial progress towards achieving universal primary education and removing gender imbalances.

However, such analyses fail to convey a true picture of poverty in Mexico where pressures of a population in excess of 100 million combine with the fault lines of a largely deregulated open market economy to create extremes of inequality. Bottlenecks of poverty are particularly found amongst rural indigenous groups and in the overcrowded shanty towns of the country's vast cities. According to a study by FAO (2011), in 2005, 35.1 million Americans, which include 22.7 million adults and 12.4 million children, lived in households that were unable to afford the food they need for the year. Households that are more likely to experience food insecurity are female-headed with children, those with incomes below the poverty line, and those that reside either in principal cities. The top three states ranking in prevalence of food insecure households between 2003- 2005 were New Mexico (16.8%), Mississippi (16.5%), and Texas (16.0%). A March 1, 2009 Associated Press article cited many examples of hungry children in the United States. The article talked about all of the children's mothers, but did not mention any of their fathers. The article also said that some of the mothers were feeding their children junk food such as potato chips and hot dogs, instead of nutritious foods such as fruits, vegetables, and milk.

The recent economic literature on growth theory has stressed the importance of cities for modern growth, emphasizing the agglomeration externalities that arise from the increased depth and variety of the markets for skills and complementary inputs and

services. Peng, Zucker and Darby (1997) studied the impact of urban spillovers on the productivity of rural industrial productivity in China and finds that 'there is a very large effect on productivity from being near cities (30 to 35 percent higher productivity for a county one standard deviation above average in nearness to population centers) due to embodied technology transfer from urban residents'. Shang-Jin Wei (1994) argues that managerial and technological spillovers across firms in the same city are an important cause of Chinese export success. According to Peng and Darby (1997) China still remains very rural. In 2003, China's rate of urbanization stood at about 40 per cent of the total population, compared to the 60 per cent that would be expected from international experience, given China's income level. Recent research on international experiences has stressed the importance of cities for modern growth, emphasizing the agglomeration externalities that arise from the increased depth and variety of the markets for skills and complementary inputs and services. The urbanization process is full of market failures as individuals can free ride on common resources leading to congestion, pollution and higher crime rates. Moreover, much of the growth of cities depends on government policies towards housing, urban transportation, public services and other policies. Some countries have been able to manage the urbanization process better than others and there is no single strategy for success. In some countries, there has been growth around few large cities. Paris, London, Mexico City, Buenos Aires, Bangkok and Santiago de Chile are such examples. In other countries, there has been a large dispersion of middle-sized cities. Germany, United States and Colombia are examples of more diffused urban growth (World Bank, 2010).

Zambian perspective

According to the Living Conditions Monitoring Survey (LCMS) IV of 2004, as much as 68 percent of the population fell below the national poverty line, earning less than K111, 747. This is in spite of the implementation of the PRSP and the positive growth trends during the last few years. According to this research poverty levels slightly fell in 2004 compared to 1998 when poverty stood at 73 percent. The depth and severity of poverty also remain high despite the slight decline since 1998. At the national level, the depth of poverty dropped to 36 percent from 40 percent in 1998, while the severity of poverty declined to 23 percent from 26 percent in 1998. Extreme poverty (covering people earning less than K78, 223 per month) fell from 58 percent in 1998 to 53 percent in 2004. The declining depth and severity of poverty was driven primarily by rising per capita consumption amongst the poorest non-farm households. This represents a deviation from the experiences of 1991-1998, during which time non-farm poverty rose rapidly. According to this survey changes in poverty during 1998 to 2004 were evenly distributed across rural and urban areas. In rural and urban areas poverty declined by 5 percent and 3 percent, respectively. The incidence of poverty in the rural areas fell from 83 percent in 1998 to 78 percent in 2004, while poverty in urban areas declined to 53 percent from 56 percent in 1998. Rural incidence of extreme poverty fell from 71 percent in 1998 to 65 percent in 2004. In urban areas, the incidence of extreme poverty declined by 2 percent from 36 percent to 34 percent. Although almost all provinces recorded some decline in poverty incidence, important gains were made in certain provinces like the Copperbelt and Eastern provinces. The incidence of poverty declined the most in Eastern province, where it fell by 11 percentage points to 70 percent in 2004 from 81 percent in 1998. This was followed by the Copperbelt, which recorded a 9 percentage points decline in poverty incidence to 56 percent in 2004 from 65 percent in 1998.

In terms of the incidence of poverty among various strata, the research revealed that the rural small-scale farmers had the highest incidence of poverty at 79 percent with 66 percent being extremely poor. This was followed by rural medium-scale farmers where poverty incidence was 73 percent. In the urban areas, the highest incidence was among the low-cost households at 58 percent. In terms of the current status of poverty, high levels of poverty continue to be associated with more remote provinces such as Western province (83 percent), Luapula (79 percent) and North-Western province (76 percent). The incidence of poverty was lowest in more urbanized regions like Lusaka (48 percent) and the Copperbelt provinces (56 percent). While the proportion of the population living in poverty did not vary much among the provinces, there were quite significant variations in terms of the proportion of the population living in extreme poverty across the provinces. The rate of extreme poverty varied from 29 percent in Lusaka province to 64 percent in Luapula province. Incidence of extreme poverty was also high in rural areas where two thirds of the population was extremely poor compared to only one third in the urban areas.

According to a survey by WFP (2011), the persistently high-income poverty observed in 2004, is in sharp contrast to the rapid acceleration in economic growth experienced since 1999. This implies that the country's improved economic performance over recent years has not translated into significant declines in poverty. There are several important factors that may explain the persistence of high poverty levels. They include the changing structure of growth, which during the period 1998 to 2004 was largely driven by the improved performance of the mining and construction sectors. Agriculture, upon which the majority of poor people depend, did not perform particularly well over this period, with wide fluctuations in production and a relatively low average growth rate. This reflected considerable

variation in weather patterns as well as inadequate infrastructure and generally poor market access. Much of the growth that has taken place has been driven by cash crops such as cotton and tobacco, which are concentrated in specific areas of the country.

The incidence of poverty was highest among female (69 percent) than male-headed households (66 percent). The LCMS surveys have shown that the majority of the female heads of the household attained household headship by way of loss of their spouses who in most cases were the breadwinners. These results clearly indicate how difficult it is for female-headed households to acquire adequate food that meets their minimum nutrition requirements. The issue of property grabbing may contribute to the high levels of poverty among female-headed households.

Analysis of poverty by age of household head in the same survey reveals high levels of poverty among households headed by elders. For instance, poverty rates ranged between 51 percent in the age group 12 to 24 to 75 percent in the age group 55 years and above. Head count poverty was equally high among persons headed by those aged 45 to 54 years. The high level of poverty among persons who are supposed to be living off their benefits is a clear indication of the poor social security system prevailing in the country. The delays in paying off terminal benefits have compounded the poverty situation in the country.

According to the LCMS IV survey report of 2004, the bottom 50 percent of the Zambian population claim a meager 15 percent of total income, while the top 10 percent claims 48 percent of the total income, which is more than three times the income share for the bottom 50 percent. The corresponding figures for November/January 1998 were bottom 50 percent with 10 percent and top 10 percent with 57 percent. Within rural areas, the bottom 50 percent of the rural population claims 22 percent of the total income, while the top 10 percent claims 33 percent,

or 1.5 times the income share for the bottom 50 percent. For urban areas, the bottom 50 percent of urban population received only 12.0 percent of total income, with the top 10 percent receiving total income of 51 percent. In terms of the Gini coefficient, which defines the level of income inequalities, Zambia had a coefficient of 0.57 in 2003. This contrasts with the ratio of 0.61 for 1996 and 0.66 for 1998. Coefficients of this magnitude manifest high poverty levels in society. They are indicative of uneven income distribution in Zambia. Income inequalities are more pronounced in the urban areas with a Gini coefficient of 0.61 than in rural areas with a coefficient of 0.42. Comparing the Gini coefficient from the household income distribution of 1993 (0.66), with that of 2003 (0.57), it can be observed that there is a slight improvement in the distribution of incomes in the Zambian society. However, using the per capita income distribution for 2003, it can be observed that 20 percent of the total income is shared by 70 percent of the population.

However, the study further revealed that the percentage of Zambian's living below the poverty line has shown some improvement in the last decade (73% in 1998 to 60% in 2010), even though it remains high despite Zambia's robust economic growth in that period. The concentration of growth in highly capital-intensive or urban-based sectors like mining, construction and services has not benefited the areas and sectors where the poor are more numerous. Poverty continues to be more of a rural than an urban phenomenon with a level of rural poverty (80%) close to three times larger than in urban areas (27.5%). Almost 90% of Zambians who live below the extreme poverty line are concentrated in rural areas. The absolute number of poor has increased from about 6 million in 1991 to 7.7 million in 2010 (32 per cent increase), primarily due to population growth (LCMS IV, 2004). People suffer immensely from inadequate access to economic and social resources.

In conclusion, according to the World Food Program (WFP), "poverty and food insecurity are widespread" in both urban and rural Zambia (WFP, 2010). Despite having some of the world's most fertile soil, Zambia's subsistence farmers, 65 percent of whom are women (AfDB, 2006), depend on rainfall and hoe cultivation to produce crops that are highly vulnerable to flood and drought. Although the World Bank reclassified Zambia as a middle-income nation in 2011, 63 percent of Zambians live on less than US\$1.25 per day (U.S. Department of State, 2011). There was indeed need to find out the factors behind this state of the food security levels in the country so as to assist the government and social planners to understand the challenges before many poverty reduction intended projects and programmes.

THEORETICAL FRAMEWORK.

Theoretically speaking, there are a number of alternative ways and means in which people living in Shanty compounds may earn a living in order to ensure food security. Faced with a range of alternative technologies, it will be up to them to decide which one is the most appropriate to their specific needs, wants and limitations. Obviously, the wider the range of technologies available, the more likely it will be that each household will be able to find a technology which is ideally suited for its particular circumstance.

The idea of widening the range of available technologies was basic to the thinking of the late Dr E.F Schumacher. He argued that modern, complex technologies are for the moment out of reach of most communities in the developing countries. At the same time, the traditional technologies, which are ideally suited in the context of a subsistence economy, are usually characterized by low capital and labour productivities, which do not generate the surplus needed for economic growth and hence creating food insecurity in most households. There is, however, a whole range of technologies, which

exist or can be developed to fill the technological “gap” between these two extremes. Rural and low-income urban communities could never jump from step one to step ten on the technological ladder- the human, technical and financial means are simply not available. They can, however, progress through the “intermediate technologies, which are appropriate to their needs if financial means are made available to them. It was to collect information about these “intermediate technologies” and to make their existence more widely known that Dr. Schumacher founded the Intermediate Technology Development Group (ITDG) in London. Since its formation in 1965, ITDG, and its counterparts in other developed countries and in developing countries have shown that a great deal of relevant information already exists; and that when it doesn’t, the technical knowledge required to fill the gap can be readily found in universities and polytechnics, in industries, in government research establishments, in the professions and among fieldworkers if their attention and expertise can be focused upon the real need.

In particular, there now appears to be a large and increasing range of technologies available for use in almost every income-generating venture in which men and women in low-income communities are involved. Many of these offer the chance of increasing the productivity of the low-income urban communities without requiring large financial outlays, imported materials or highly skilled labour of operating, maintaining and repairing equipment (Dauber and Cain, 1981:194).

Therefore, this intermediate technological development theory looks at ways of ensuring food security by providing means of income generation for each household in these low-income communities. It is argued that when these intermediate technologies are made available to these communities either by giving them access to credit facilities or by giving access to them by any means, their productivity would increase hence, an

increase in their income also and finally there will be food security in these households. In Zambia, it seems most women and men in these low income urban communities cannot acquire this intermediate technology because of lack of access to credit facilities and lack of knowledge on how to access them, if there are any irregularities then such must be addressed to open the way for them to have access to such facilities and eventually to the intermediate technology. This research then asks a question, “what are those factors influencing the food security in such communities?”

3.0 Personal critique summary

This research concentrated on the urban villages and shanty compounds in Kasama district only. In order to give a proper picture of the factors affecting food security in these areas in Zambia the study should have included many districts and should have sampled such areas from those districts in Zambia. The shortcoming of this study would be that since the scope of the study would be narrow, the generalization of the findings might be less valid compared to a larger scale research.

Establishment of the gap

This research focused on investigating the factors that were influencing food security in urban villages and shanty compounds in Zambia. It decided to focus on these areas because in these areas live a mixture of the most vulnerable households and households with middle and stable incomes. This group of households had always been left out in many previous studies whose concentration had been on finding out the different poverty levels in household in rural and urban areas and also among female and male headed households. For instance, in one study by LCMS (2010), established that poverty continues to be more of a rural than an urban phenomenon with rural poverty (80%) close to three times larger than in urban areas (27.5%). Almost 90% of Zambians who live below the extreme poverty line are concentrated in rural areas.

Other studies conducted so far also concentrated on establishing the gap in poverty levels between female headed households and male headed households in urban areas. For example, a study by the World Bank (2006) found that neo-liberal policies were particularly devastating for rural women; as unemployment rose, the informal sector shifted female labor into seasonal, low-paid agricultural wage work (Floro and Schaefer 1998). Neo-liberal policies also led to an “increasing shift to individual [land] ownership resulting from the process of modernization and commercialization,” which marginalized women who did not have the right to land ownership, despite carrying out the majority of Zambia’s agricultural work (Kajoba 2002). Employment opportunities rose in exploitative activities such as sex work and domestic service (Floro and Schaefer 1998). Gender-insensitive privatization compounded women’s massive burden of care-giving for children and persons living with HIV/AIDS, estimated at a national rate of 13.5 percent in 2009 (UNICEF 2009). Currently, increasing household food insecurity and rising food prices contribute to “an increased level of discontent and stress” and “more pressure” on Zambian women to “provide good meals with less food, and often go without” (Green and Hossain, 2011). In a nutshell, most if not all the research papers reviewed focused on comparing poverty levels in the urban and rural area and also among provinces. They have also concentrated on the impact of poverty and food security on women in relation to men. The causes of such food insecurity and poverty have rarely been the focus of most studies. Therefore, this research is focused on bridging the gap by establishing the factors influencing food security among households in urban villages and shanty compounds both male and female headed households who seem to have been forgotten by most researchers.

CHAPTER THREE

RESEARCH DESIGN OR METHODOLOGY.

Research design

This study adopted an analytical research design and consisted of both qualitative and quantitative research. An Analytical research is about establishing the causes or risk factors for certain problems. This reveals factors underlying that particular problem concerning the current status of the subjects in the study.

Population.

In this research the population of our interest constituted of all households in seven (7) urban villages or shanty compounds in Kasama district. These urban villages or shanty compounds had been selected randomly to represent all the urban villages or shanty compounds in Kasama district. In order to collect qualitative data key informants were interviewed. The key informants were chairpersons/councilor or village headmen in these stated compounds.

Time.

The research was carried out between September 2015 and May 2016.

Sample.

A fraction of all households from the seven (7) compounds mentioned above both male and female was selected. A fraction of households was selected as a representative sample of all the households in each compound.

Sample Units.

Individual households, 50 percent of the sample for each sex, i.e. 50 percent of the 12 households were male headed and the other 50 percent were female headed in each compound. Others were chairpersons and village headmen in the seven selected compounds.

Sample Size.

In this research a sample of 84 households, 12 households in each compound was taken. There were also five key informants.

Sampling Frame.

The sampling frame in this research was the households' register from all the selected compounds or villages obtainable from compound chairpersons or village headmen for the year 2015.

Sampling Criteria.

Random table numbers were used to select the sample. Here female-headed households were identified from the households register and listed separately and also this applied to male-headed households. Then select at random 6 women and 6 men at an interval of 10. This was done in all the compounds and villages to come up with 84 households in all compounds.

Sampling Procedure.

The criterion which was used in the sampling of households and compounds was the probability simple random sampling. For key informants were the chairpersons or village headmen from the seven (7) compounds who were purposefully selected who were reachable and willing to be part of the interview.

METHOD OF DATA COLLECTION.

When carrying out a research, quantitative data was collected using scheduled structured interviews from the respondents from the seven compounds. These scheduled structured interviews consisted mostly of closed-ended questions and a few open-ended questions. While qualitative data was collected using scheduled unstructured or semi-structured interviews to the key informants. These scheduled unstructured and semi structured interviews comprised open-ended questions.

DATA ANALYSIS

To test the magnitude of the variation between hypothesis and the actual observation, quantitative data was analyzed using computer packages, Excel and Stata while qualitative data was analysed through comparison and contrasting. Completed questionnaires were scrutinized to ensure that data was complete and accurate.

Triangulation

In order to ensure the validity of research two methods of data collection were used. In this study both qualitative and quantitative methods were used simultaneously. A qualitative study involving in-depth interviews of key informants served to obtain information on the factors which affected food security in households in Zambia. While quantitative data was collected using structured scheduled interviews consisting closed ended questions from the 84 respondents.

Ethical consideration

This study was approved before implementation by the Information and Communications University's Research Ethics Committee.

Informed consent and confidentiality

This surveys address issued of food security and diets in household, and means of livelihoods. Great care was taken to minimize any potential physical, psychological, or social harm that would befall to the participants as a result of participating in this survey. All consent forms and questionnaires were marked only with a study number and no names was recorded anywhere. Informed consent was obtained from all participants.

Distressed respondent protocol

The Researcher was well trained in the protocol of handling distressed respondents. The protocol dealt with actions taken in the event that a respondent became visibly upset: crying, shaking or speaking in a trembling voice during the course of the interview. If the respondent wanted to stop the interview, the researcher obliged and thanked the respondent for her time and told the respondent that

he would be in touch to schedule a time to complete the interview, if the respondent agreed.

Scope of study

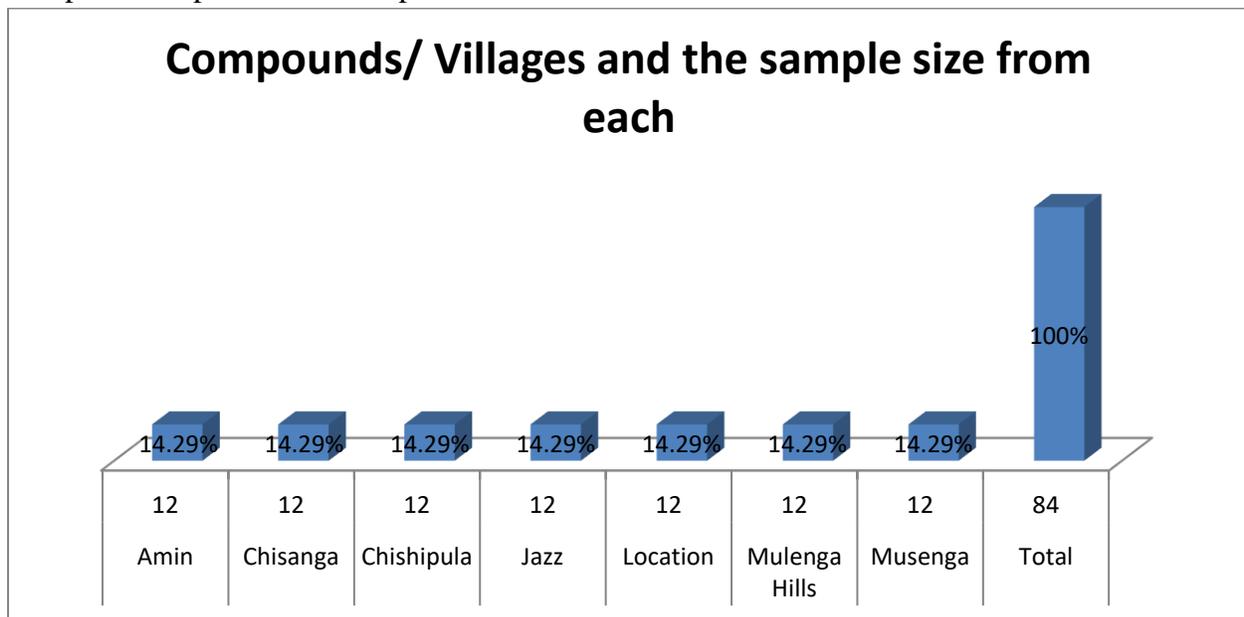
This research was a case study of Kasama district. Respondents (Sample units) were drawn from the Shanty compounds or villages around Kasama district.

Limitation of study

It should have been a large-scale study to give more confidence to the results a country representative but due to limited time, lack of financial resources, and other logistics a small-scale study was done. This only covered Kasama District instead of a good number of sampled Districts across the country.

Presentation of findings

1. Graph 1-Compounds and sample size



Graph 1: show that data was collected from seven (7) compounds in Kasama district as shown above which were randomly selected out of all the compounds surrounding the central town of Kasama district. An equal number of twelve (12)

CHAPTER FOUR

DATA ANALYSIS

After the collection of data, questionnaires were carefully checked to ensure completeness, accuracy and consistency. The 84 questionnaires making up the sample size were then coded accordingly. After coding, the data was entered into Microsoft excel. The information was later transferred to the computer software package called STATA which was used to analyse the data. Variables were identified on the software and then frequencies were run so that the most suitable variables matching the hypothesis were selected for analysis. While qualitative data was analysed by collaborating, comparing and contrasting information from the village headmen, section chairpersons and also from a councilor.

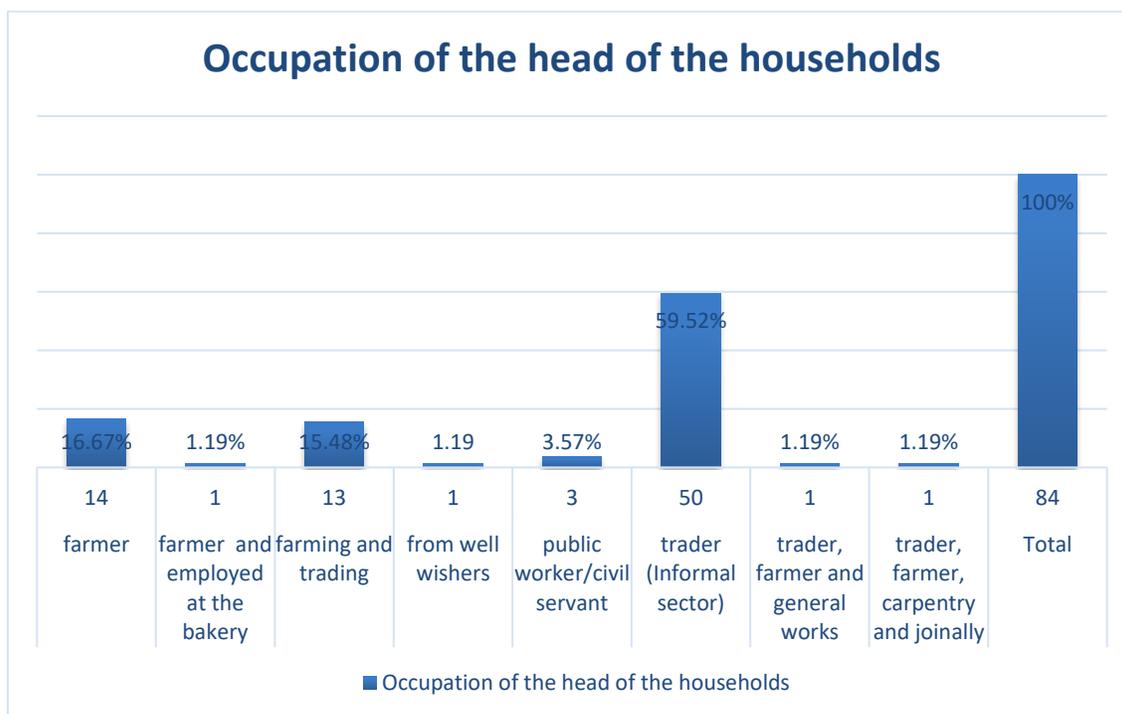
respondents were also selected randomly from each compound making a total of 84 respondents.

2. Source of income of the household

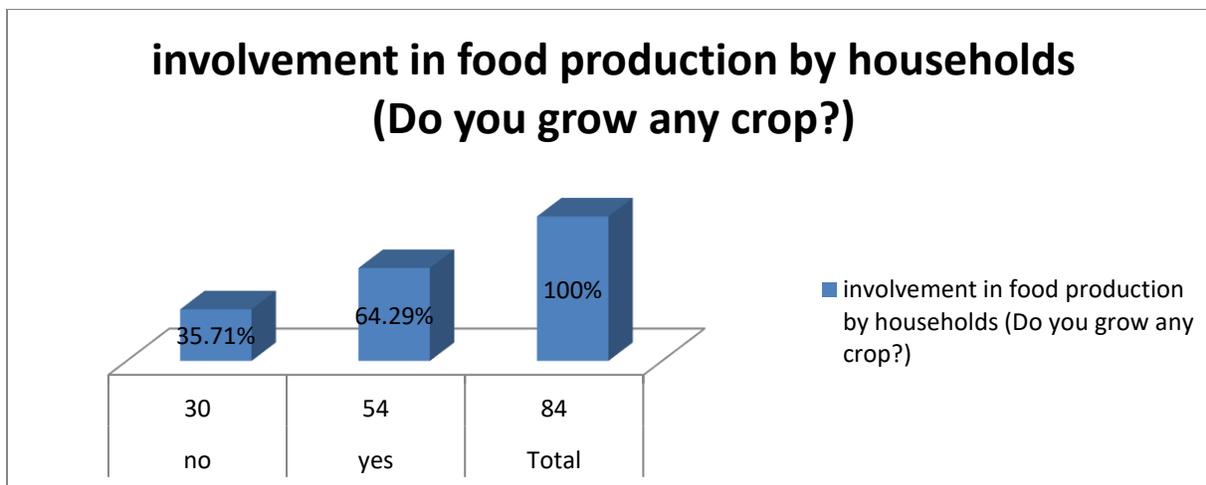
(occupation of the head of the household)

Graph 2: below shows that out of the 84 sampled households, the majority of the households 59.52% (40) found their source of income in trading (Informal sector), 16.67% (14) were farmers, and 15.48% (13) were both traders and farmers. While only 3.57% (3) were government workers. The rest

of the respondents found the source of income from well-wishers, bricklaying and plumbing, carpentry, piece works in addition to farming and trading at 1.9% (1) each category. This indicates that trading is the major occupation of the people in the compound and villages in Kasama. This is followed by farming and thirdly a good number are in both farming and trading.

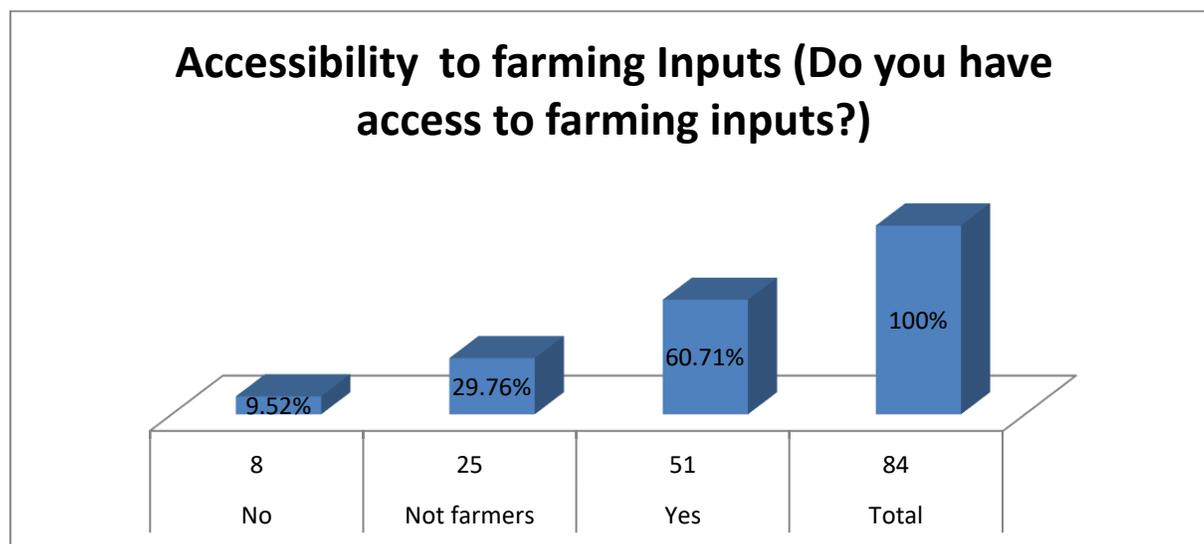


3. Graph 3-Households' involvement in food production (growing crops)



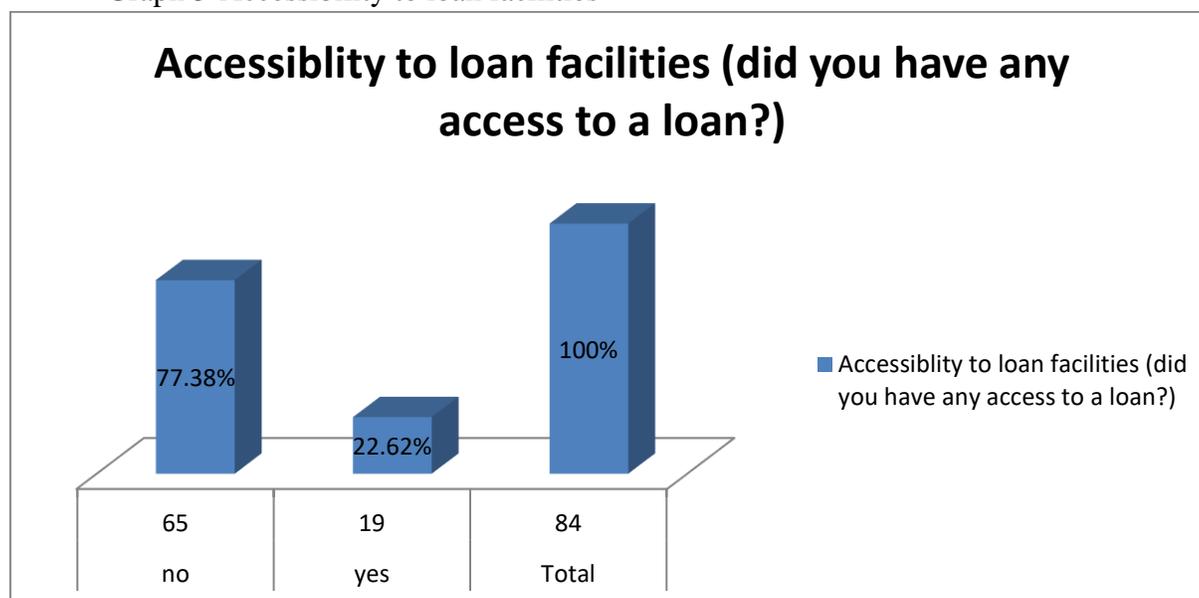
The graph above shows that 64.29% were involved in farming while only 35.71% of the sampled households were not involved in farming. This shows that the majority of the households in compounds and villages around Kasama district were involved in farming.

Graph 4 Accessibility to farming inputs



The above graph shows that 61% of the sampled households had access to farming inputs, 30% were not farmers and only 10% had not access. This means that the majority of the households had access to farming inputs.

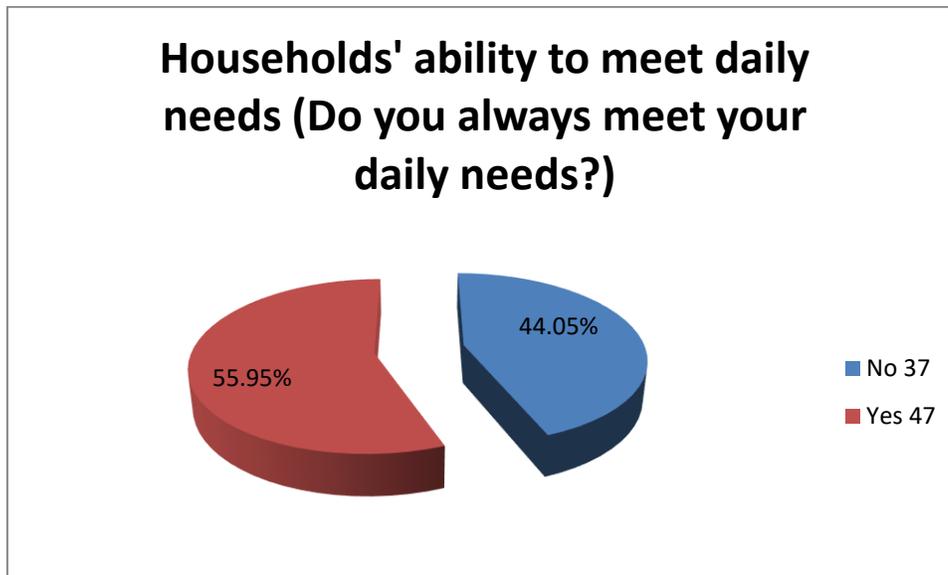
Graph 5-Accessibility to loan facilities



The above graph shows that 65% of the sampled households did not have access to loan facilities and only 22.62% had access. This means that the majority of the households did not have access to loan facilities.

Households' abilities to meet their daily food needs

Pie chart 3



The Pie chart 3 shows that out of the 84 respondents, 55.95% (47) managed to meet their daily needs (had food security) and only 44.05% (37) did not manage to meet their daily needs (had food insecurity). This shows that the majority of the households in Kasama District had food security (were able to meet their daily food needs)

Qualitative data

Qualitative data was collected from the five (5) key informants who were the village headmen/woman and civic leaders of the sampled villages and compounds. Structured guided interviews were conducted with each informant.

Mr. V (Village headman for Chisanga village)

In an interview he stated that most households in Chisanga village were headed by men. However, most breadwinners for these households were women. Most women were actively involved in farming, trading and tailoring than men did. Most households in this village were farmers and mostly grew maize. Mr. V said he was personally a farmer. On the issue of using farming inputs, he said like many farmers in the compound he used farming inputs. He said most people accessed their

farming inputs through cooperatives. Mr. V said that he was not a member of any cooperative and so just used to buy his farming inputs from the market. He said that he used four (4) bags of fertilizer during the last season and harvested only 25 by 50kg of maize. He said that most households in the village harvest barely enough for themselves which do not last long. He said that he manages to provide his household with at two (2) meals a day and sometimes three (3). He also said that most households managed at least two (2) meals a day. He added that the common food in most households were nshima (maize), vegetables, beans, sardines, sweet potatoes. He further said that most households did not keep or have food in store. He also said most people depended on trading for survival when they run out of the food they grow from the farms. He said he had about five (5) bags of maize which he believed was enough to take

them to the next harvest. Mr. V said that he barely managed and struggled to meet his household's food requirements. He said that he had never had access to any loan. However, he had heard others within the village access loans. He also said that the known loan offering institution to villagers in Chisanga village was Vision Fund. He said that most households in the village did not have enough food for their households. He said some households go without food even for a day. He said that hard times for the villagers are between November and April during this period most households lack food. During this period most people survived on trading especially for women and piece works for men. He concluded that all the households suffer from food insecurity regardless of the sex and age of the head of that household.

Mr. W (Village headman Amin Village)

Mr. W said that most households in Amin village were male headed households at an estimated percentage of 60% men and 40% women. He said that women were the majority of the breadwinners. Most men had taken to too much beer drinking and did that as early as possible in the morning. Most people were traders in the village and a few were farmers mostly growing maize, beans, sweet potatoes, soya beans and vegetable gardening. He said that he personally used farming inputs in his fields which he accessed through the cooperative. He said that the two (2) bags of fertilizer obtained through cooperatives were not enough. He supplemented his requirements by buying from the market. He said that very few people accessed farming inputs in the village because there were few cooperatives. There was only one cooperative and two women's clubs through which people access farming inputs in the entire village. He said that in the last season he managed to harvest 35 by 50kg bags of maize from his 1.5 hectares of land. He also said that he grew maize once a year but grew vegetables throughout the year which is his

extra source of income. Most people do gardening along the Kupumaula stream as an extra source of income for the households in the village. He further said that he managed to provide two (2) meals for his household and at times three (3). He said that most people managed to have two (2) meals a day but there were some households who were only managing one meal a day. He also said that the common foods eaten in the village were nshima (maize and cassava), sweet potatoes, dry fingerlings (popa), sardines (chisense) and vegetables. He said that most households did not have food in stores. He said most households did not grow enough to keep in store. He personally had only two bags of maize which he said was not enough to take him to the next harvest. He said that he had never had access to any loan facility. However, he said that some people in the village were accessing loans through Vision Fund and the Community Development department which was giving women's club loans of about K1000.00. He further stated that though some people have accessed the loans the majority have not mostly due to fear because of high interest rates. Some defaulters have had their houses sold to recover the loan. He said that the critical times are between January and April. During this period households were barely surviving by God's grace. He also said that from May to December households manage through struggling. He said that the aged and the female headed households are prone to food insecurity in the village. Most aged people do not have people to support them and the women headed households do not have any stable source of income to support their families.

Mr. X (Councilor Buseko Ward)

Talking about the state of food insecurity in the households in Location compound, Mr. Y said that most households were headed by men (75%) and only about 25% were headed by women. He also said that men were mostly breadwinners for most

households. He said that apart from being a councilor he was also a businessman. He further said that most people were traders in the compound with a few public workers. Those who were traders were also involved in farming. He said the common crops grown by the households were maize, sweet potatoes and vegetables. Those who were engaged in farming used farming inputs (seed and fertilizer). People accessed a little through cooperatives and supplemented the shortfall by buying for themselves. He said that most household did not afford all the three (3) meals a day. The common meals in the households in location were nshima, fish and vegetables. He further said that most household did not have any food in store. They mostly relied on trading to make their ends meet. He also said that there were few organisations available in the compound offering loans such as Vision Fund for small scale traders while medium scale traders accessed loans through banks such as NATSAVE, ZANACO and other banks in Kasama District. Most people did not access these loans due to the requirement to have collateral which most people did not have. He said that households that are mostly prone to food insecurity were female headed households. He further said that in order to survive and provide for their household they mostly engage in promiscuity. Other households who suffered from food insecurity were those which depended on farming and those headed by the aged.

Mrs. Y (Headwoman Chishipula Village)

Mrs. Y said that most households were headed by men. However, Chishipula has 50% men as breadwinners and 50% women. She said that most men were involved in pieceworks while women were involved in small scale trading of tomatoes, vegetables and other farm products as hawkers. Brick making was the other common occupation for men in the village. She said that most people or households did not cultivate but had a lot of land to

grow crop on; the challenge to them was accessing farming inputs. She said that these households did not have the capacity to buy farming inputs for themselves as fertilizer was expensive. She said that she grew maize on small scale due to the same challenge of accessing the farming inputs. She said she does not buy bays of fertilizer but only gallons and mostly harvested only about two (2) bags of maize. She said that most households did not have two (2) meals a day but only one. She said that some households hardly afforded a meal a day. The common food in the village was nshima, sweet potatoes, kapenta (dagga) and vegetables. She did not have any food in store and also there were very few households in the village which had food in reserve for future consumption. She said that very few households managed to provide for their daily food requirement, the majority struggled and most could not afford to provide. Most households have stable food security between April and July but as from August food insecurity hit most households in the village. She said she had never accessed a loan. She also said that that she did not know of any institutions that were offering loans in the village. She added that to her knowledge there was no any person or household that had an access to a loan facility. She conclusively said that the majority of families in the village suffered from food insecurity because most people had no access to farming inputs. The village had only three (3) cooperative but only a few were members of these cooperatives. She also said that households headed by the aged and those by single women and looking after orphans were mostly prone to food insecurity. The aged had no strengths and any other source of income.

Mr. Z (Section Chairman Jazz compound)

He said that most households in Jazz compound were headed by male and a few by female. He said both women and men provided for their households. The common occupations of the

people in the compound were farming, trading and public/civil servants. The majority were farmers who grew mostly the following maize and groundnuts. He said that he was also farming apart from working as a guard at Prefix hotel. He had a three (3) Lima of land where he grew maize. He said it was difficult to access farming inputs because of the limited number of 2 bags which cooperatives were giving. Most people in the compound could not enroll as members due to lack of funds which were required for one to be a member. He also said that he managed three (3) meals a day through struggling. He said that most households only managed two meals a day. The common foods in Jazz compound were nshima, kapenta, fish, beans and vegetables. There were very few households which had food in store or reserve. Most households struggled to provide for their household's daily needs. He said he had never had access to a loan. He further said that he was not aware of any organisations giving loans to people in Jazz compound but only heard of people accessing loans in other compounds like Mulenga, Chisanga and Location. He further said Jazz compound had a large number of the aged people as many landlords were retired people. These landlords depended on rentals from their houses and a bit from trading for their survival. Most households were prone to food insecurity were those headed by the elderly.

Analysis of qualitative data

Information collected from the key informant from the five (5) villages, Mr. X (Councilor) of Location compound, Mr. W (Headman) of Amin Village, Mrs. Y (Head woman) of Chishipula Village, Mr. Z (Section Chairperson) of Jazz compound and Mr. V (Village Secretary) of Chisanga on the research variables were as follows.

1. The occupation of the head of the household

Mr. V said that in Chisanga Village most breadwinners for these households were women. Most women were actively involved in farming, trading and tailoring than men did. Most households in this village were farmers and mostly grew maize. Mr. W said in Amin Village women were the majority of the breadwinners. Most people were traders in the village and a few were farmers mostly growing maize, beans, sweet potatoes, soya beans and vegetable gardening. Mr. X said that men were mostly breadwinners for most households. He also said that most people were traders in the compound with a few public workers. Those who were traders were also involved in farming. Mrs. Y said that most men were involved in pieceworks while women were involved in small scale trading of tomatoes, vegetables and other farm products as hawkers. Brick making was also a common occupation for men in the village. Mr. Z said that the common occupations of the people in the compound were farming, trading and public/civil servants. The majority were farmers who grew mostly maize and groundnuts. Therefore, it can be concluded here that the common occupations of the people in the sampled areas were farming and trading.

Involvement in crop growing by a household

Mr. V said that most households in Chisanga Village were farmers and mostly grew maize. Mr. W said that few people were farmers in Amin Village mostly growing maize, beans, sweet potatoes, soya beans and vegetable gardening. Mr. X also said that very few households in Location were involved in farming. Mrs. Y said that most people or households did not cultivate but had a lot of land to grow crop on. And Mr. Z said the majority the households in Jazz compound were farmers who grew mostly maize and groundnuts. It can be concluded here that many households were involved in food production apart from being

involved in trading with an exception of those from Amin village and Location compound.

2. Accessibility to farming inputs

Mr. V said that in Chisanga Village most people accessed their farming inputs through cooperatives and also supplemented by buying from the market. Mr. X said that those who were engaged in farming in Location compound used farming inputs (seed and fertilizer) which they accessed a little through cooperatives and supplemented the shortfall by buying for themselves. Mr. W. said that in Amin Village very few people accessed farming inputs in the village because there were few cooperatives. There was only one cooperative and two women's clubs through which people access farming inputs in the entire village. Mrs. Y said that in Amin Village most households did not cultivate due to lack of access to farming inputs. She said that most households did not have the capacity to buy farming inputs for themselves as fertilizer was expensive. Mr. Z said that most people in Jazz compound had difficulties in accessing farming inputs because of the limited number of 2 bags which cooperatives were giving. Most people in the compound could not enroll as members due to lack of funds which were required for one to be a member. It can be concluded that in all the sampled areas there was low accessibility to farming inputs due to lack of funds, nonexistence of cooperatives and the farming inputs were expensive.

Accessibility to loan facilities

Mr. V said that he had never had access to any loan. However, he had heard others within Chisanga village access loans. He also said that the known loan offering institution to villagers in Chisanga village was Vision Fund. Mr. W personally had never had access to any loan facility. However, he said that some people in Amin village were accessing loan through Vision Fund and the Community Development department

which was giving Women's Club loans of about K1000.00. He further stated that though some people have accessed the loans the majority did not mostly due to fear because of high interest rates. Some defaulters have had their houses sold to recover the loan. Mr. X said that in Location compound there were few organisations available in the compound offering loans such as Vision Fund for small scale traders while medium scale traders accessed loans through banks such as NATSAVE, ZANACO and other banks in Kasama District. Most people did not access these loans due to the requirement to have collateral which most people did not have. Mrs. Y of Chishipula village said that she did not know of any institutions that were offering loans in the village. She added that to her knowledge there was no any person or household that had an access to a loan facility in Chishipula village. Finally, Mr. Z also said he had never had access to a loan. He further said that he was not aware of any organisation giving loans to people in Jazz compound but only heard of people accessing loans in other compounds like Mulenga, Chisanga and Location. It can therefore be concluded here that many households in Kasama district did not have access to loan facility due to fear, lack of collateral and also non availability of these facilities in the District.

3. level of food security in households

Mr. V said that most households in Chisanga village did not have enough food. He said some households went without food even for day. He said that hard times for the villagers are between November and April during this period most households lack food. During this period most people survived on trading especially for women and piece works for men. He concluded that all the households suffer from food insecurity regardless of the sex and age of the head of that household. Mr. W said that most people in Amin Village managed to have two (2) meals a day but there

were some households who were only managing one meal a day. He said that most households did not have food in stores. He said most households did not grow enough to keep in store. He said that the critical times are between January and April. He said that the aged and the female headed households are prone to food insecurity in the village. Most aged people do not have people to support them and the women headed households do not have any stable source of income to support their families. Mr. X said that most household did not afford all the three (3) meals a day. He also said that most household did not have any food in store. They mostly relied on trading to make their ends meet. He said that households that were mostly prone to food insecurity were female headed households. Other households who suffered from food insecurity were those which depended on farming and those headed by the aged. Mrs. Bwalya said that in Chishipula Village most households did not have two (2) meals a day but only one. She said that some households hardly afforded a meal a day. She said that very few

households managed to provide for their daily food requirement, the majority struggled and most could not afford to provide. Most households suffer from food insecurity as from August to April in Chishipula village. She conclusively said that the majority of families in the village suffered from food insecurity because most people had no access to farming inputs. She also said that households headed by the aged and those by single women. Finally, Mr. Z said that in Jazz compound most households struggled to provide for their household's daily needs. Most households which were prone to food insecurity were those headed by the elderly. Generally, food security in the sampled areas were reported to be stable just after harvest and later began to deteriorate and most of the households suffered from food insecurity especially the female and aged headed households.

Discussion and Interpretation of findings

Interpretation and analysis of findings

Food security distribution in sampled compounds/villages

Table 1

Compound	Do you meet your daily needs?		
	No	Yes	Total
Amin	58% (7)	42% (5)	100% (12)
Chisanga	42% (5)	58% (7)	100% (12)
Chishipula	67% (8)	33% (4)	100% (12)
Jazz	50% (6)	50% (6)	100% (12)
Location	83% (2)	83% (10)	100% (12)
Mulenga Hills	17% (2)	83% (10)	100% (12)
Musenga	58% (7)	42% (5)	100% (12)
Total	44% (37)	54% (47)	100% (84)

Table 1 above shows the distribution of respondents in the sampled compounds and villages in terms of the households' ability to meet

their daily needs. When ordered in terms of the households' who did not manage to meet their daily needs Chishupla village had a large number

of households (67% (8) households) who did not meet their daily needs, followed by Amin and Musenga village with 58% (7) households each, then Jazz compound with 50% (6) households, next is Chisanga village with 42% (5) households while Mulenga and Location compounds had the least with 17% (2) each of the 12 sampled households in each compound.

Cross-tabulations also were used to establish whether any of the following; the occupation of the head of the household, involvement in crop growing by a household, accessibility to farming inputs and accessibility to loan facilities had influence on the level of food security of the households.

Below is the analysis of the influence of each independent variable on the level of food security of the household (dependent variable).

- i. Does the occupation of the head of the household influence the household's state of food security?

Table 1

Occupation	Do you always meet your daily food needs?		
	No	Yes	Total
farmer	7.14% (6)	4.76% (8)	16.66% (14)
farmer and employed	0% (0)	1.19% (1)	1.19% (1)
farming and trading	8.33% (7)	7.14% (6)	15.48% (13)
from well wishers	1.19% (1)	0% (0)	1.19% (1)
public worker/civil servant	2.38% (2)	1.19% (1)	3.57% (3)
Trader (informal sector)	26.19% (22)	33.33% (28)	59.52% (50)
trader, farmer and general works	0% (0)	1.19% (1)	1.19% (1)
trader, farmer, carpentry and joinery	0% (0)	1.19% (1)	1.19% (1)
Total	45.24% (38)	54.76% (46)	100% (84)

Out of the 84 households, findings show that the major distributions of the occupations were four (4) trading (informal sector) 59.52% (40), farming 16.66% (14), both trading and farming 15.48% (13) and Public/civil servants 3.57% (3). Out of the 84 households sampled, 54.76% (46) were able to meet their daily food needs while 45.24% (38) were unable to meet their daily food needs. Using proportionate ratio of distribution findings show that 44% (22) of the traders (informal sector), 42.85% (6) of the farmers, 53.85% (7) of those both in farming and trading, 66.67 % (2) of the public/civil servant did not have food security in their households (could not meet their daily food needs) while 56% (28) of the traders, 57.14% (8)

of the farmers, 46.15% (6) of those in both farming and trading and 33.33% (1) of the public/ civil servant had stable levels of food security (were able to meet their daily food needs). The findings show that the order of the occupation of the head of the households with the least levels of food security were public/civil servants, those who were both in farming and trading, informal sector (traders) and finally farmers. It can then be concluded that occupation of the head of the household did not show a clear influence on the levels of food security of households. Based on the research findings, the above hypothesis is rejected.

- ii. Are households which cultivate and own crop fields, are less likely to suffer from food insecurity than those, which do not?

Table 2

Do you grow any crop?	Do you always meet your daily needs?		
	No	Yes	Total
No	13.1% (11)	22.62% (19)	35.71% (30)
Yes	30.95% (26)	33.33% (28)	64.29% (54)
Total	44.05% (37)	55.95% (47)	100% (84)

The findings show that out of the 84 households (respondents) 35.71% (30) did not grow any food while 64.29% (54) grew food. Out of 54 who grew crops 51.85% (28) had stable levels of food security (met their daily food needs) and 48.15% (26) did not have stable levels of food security (did not meet their daily food needs). On the other hand, out the 30 who did not grow food 36.67% (11) did not have stable levels of food security while 63.33% (19) had stable levels of food security. Findings show that involvement in food production did not really influence the food security of a household (51.85%) of those households go grew crops and (63.33%) of those who did not grow food had stable levels of food security.

- iii. Does accessibility to farming inputs by a household influence its level of its food security?

Table 3

Do you use any farming inputs	Do you always meet your daily needs?		
	No	Yes	Total
Yes	26.19% (22)	33.33% (28)	59.52% (50)
No	4.76% (4)	0% (0)	4.76% (4)
Not farmers	14.29% (12)	21.43% (18)	35.71% (30)
Total	45.24% (38)	54.76% (46)	100% (84)

From the findings shown in the table above of the 84 household sampled 59.52% (50) had access to farming inputs and only 4.76% (4) did not have access to farming inputs. 35.71% (30) were not farmers. Of those who had access to farming inputs 26.19% (22) had no stable levels of food security while 33.33% (28) had stable levels of food security. Of those who did not have access to farming inputs 4.76% (4) had no stable levels of food security while none had stable levels of food security. Among those who did not grow food 21.43% (18) had stable levels of food security while 14.29% (12) did not have stable levels of food security. Proportionally 44% of those who had access to farming input did not have stable

levels of food security while 100% of those who had no access to farming inputs did not have stable levels of food security and 40% of those who did not grow food did not have stable levels of food security. Proportionally those who had no access to farming inputs were more prone to food insecurity than those who had access to food security. While those who were not involved in food production were the least in terms of food insecurity at 40%. Of those (15) who did not have access to farming inputs and had household food insecurity 53.33% (8) indicated that they did not have access to farming inputs because they could not afford to buy for themselves (farming inputs were expensive) and 6.67% (1) indicated that they were

not farmers. Therefore, lack of access to farming input had a slight influence to household food security.

iv. Does access to loan facilities influence a household's level of its food security?

Have you ever had access to a loan facility?	Do you always meet your daily needs?		
	No	Yes	Total
No	36.9% (31)	40% (34)	77.38% (65)
Yes	7.14% (6)	15.48% (13)	22.26% (19)
Total	44% (37)	55.95% (47)	100% (84)

The findings in the table above show that 77.38% (65) did not have access to a loan facility and only 22.26% (19). 36.9% (31) of those households who did not have access to loan facilities had poor food security (did not always meet their daily food needs) while 40% (34) had stable food security whereas 7.14% (6) of those who has access to a loan facility had food insecurity. However, the majority of those who had access to a loan facility (15.48% (13) had food security. A bigger number of those who did not have access to a loan facility (40% (34) had households with food security while the majority of the households who had access to a loan facility also had food security. Considering the distribution proportionally of the sampled household under each category, 52.3% of those who did not have access to loan facilities had food security while 68.4% of those had access to loan facilities had food security in their households. This shows a bigger number of those who had access to loan facilities than those who did not have access. Therefore, this indicates that there is a slight relationship between accessibility to a loan facility and food security of a household.

Discussion

Occupation

The study sought to investigate whether occupation of the head of household had an influence on a household's food security. The study particularly focused on whether household heads whose means of livelihood was in the informal sector were more likely to suffer from food insecurity than those who were in the formal employment. Findings in table 1 show that the major distributions (categories) of the occupations were four (4); trading (informal sector) 59.52% (50), farming 16.66% (14), both trading and farming 15.48% (13) and Public/civil servants 3.57% (3). Similarly, qualitative data showed that most households depended more on trading than farming in these communities. This is augmented by Chigunta et al (2000:4) who stated that not all the people who moved to the cities found employment in the formal sector many resorted to

the informal sector. Many people got employed as servants or maids, garden boys and watchmen while others went to trade in the markets and bars or taverns. Out of the 84 households sampled, 54.76% (46) were able to meet their daily food needs while 45.24% (38) were unable to meet their daily food needs. Using proportionate ratio of distribution, findings show that 44% (22) of the traders (informal sector), 42.85% (6) of the farmers, 53.85% (7) of those both in farming and trading, 66.67 % (2) of the public/civil servant did not have food security in their households (could not meet their daily food needs) while 56% (28) of the traders, 57.14% (8) of the farmers, 46.15% (6) of those in both farming and trading and 33.33% (1) of the public/ civil servant had stable levels of food security (were able to meet their daily food needs). The findings show that the order of the occupation of the head of the households with the

least levels of food security to those with stable levels were as follows public/civil servants, those who were both in farming and trading, informal sector (traders) and finally farmers. Contrary to the hypothesis those who were in formal employment suffered from food insecurity more than those whose means of livelihood were in the informal sector. Dr. E.F Schumacher argued that either by giving households in these communities access to credit facilities or by giving access to them by any means, their productivity would increase hence, an increase in their income also and finally there will be food security in these households (Dauber and Cain, 1981). Based on the research findings, the above hypothesis is rejected.

Cultivation (growing) of crops

Here this research sought to establish whether involvement in food production (growing crops) by a household had an impact on the household's level of food security. Its interest was on establishing whether households which grew crops (food) were less likely to suffer from food insecurity than those, which did not. The findings table 2 shows that out of the 84 households (respondents) 35.71% (30) did not grow any food while 64.29% (54) grew food. Out of 54 who grew crops 51.85% (28) had stable levels of food security (met their daily food needs) and 48.15% (26) did not have stable levels of food security (did not meet their daily food needs). On the other hand, out of the 30 who did not grow food 36.67% (11) did not have stable levels of food security while 63.33% (19) had stable levels of food security. Therefore, this shows that involvement in food production did not really influence the food security of a household (51.85%) of those households who go grew crops and (63.33%) of those who did not grow food had stable levels of food security compared to 48.15% and 36.67% respectively suffered from food insecurity. The World Food Programme (WFP) (2011) argue that agriculture, upon which the

majority of poor people depend, did not perform particularly well over this period, with wide fluctuations in production and a relatively low average growth rate. This reflected considerable variation in weather patterns as well as inadequate infrastructure and generally poor market access and access to farming inputs. Qualitative data from key informant show that most people did not just depended on growing crop they were also in trading which may have assisted them greatly to stabilize the levels of food security in their households. In fact, when considering the proportionate ratios of the two categories under study those who grew crops were more likely to suffer from food insecurity than those who did not. Dr. E.F Schumacher argued that intermediate technological development theory looks at ways of making these intermediate technologies available to these communities either by giving them access to credit facilities or by giving access to them by any means, their productivity would increase hence, an increase in their income also and finally there will be food security in these households (Dauber and Cain, 1981:194).

Accessibility to farming inputs

The study sought to establish whether accessibility to farming inputs by a household had an influence on a household's food security. The study particularly access to farming inputs by a household had influence on the level of its food security. From the findings shown in table 5 above out of the 84 household sampled 59.52% (50) had access to farming inputs and only 4.76% (4) did not have access to farming inputs. 35.71% (30) were not farmers. Qualitative data indicated that most households had access to farming input but the number of bags households accessed were very little only about two (2) bags per member of a cooperative. There were also few cooperatives through which households could access farming inputs. Dr. E.F Schumacher argued that

intermediate technological development theory looks at ways of making these intermediate technologies available to these communities either by giving them access to credit facilities or by giving access to them by any means, their productivity would increase hence, an increase in their income also and finally there will be food security in these households (Dauber and Cain, 1981:194). Of those who had access to farming inputs 26.19% (22) had no stable levels of food security while 33.33% (28) had stable levels of food security. Of those who did not have access to farming inputs 4.76% (4) had no stable levels of food security while none had stable levels of food security. Among those who did not grow food 21.43% (18) had stable levels of food security while 14.29% (12) did not have stable levels of food security. Proportionally 44% of those who had access to farming input did not have stable levels of food security while 100% of those who had no access to farming inputs did not have stable levels of food security and 40% of those who did not grow food did not have stable levels of food security. Proportionally those who had no access to farming inputs were more prone to food insecurity than those who had access to food security. While those who were not involved in food production were the least in terms of food insecurity at 40%. Therefore, there is a seeming influence of accessibility to farming inputs on the levels of food security of a household.

Accessibility to loan facilities

Here the study sought to find out whether accessibility to loan facilities by a household had an influence on a household's food security. The study particularly focused on whether access to loan facilities by a household had influence on the levels of its food security. The findings in the table 6 above show that 77.38% (65) did not have access to a loan facility and only 22.26% (19) had access. These findings are supported by responses given by

key informants who indicated that most households in the sampled compounds and villages did not have access to loan facilities except for Mr. X, the Councilor for Buseko ward who said that in Location compound loan facilities were available to residents. The World Bank (2006) states that the profile of livelihoods in shanty compounds and villages surrounding major cities rarely escapes poverty because they lack capital to invest. 36.9% (31) of those households who did not have access to loan facilities had poor food security (did not always meet their daily food needs) while 40% (34) had stable food security whereas 7.14% (6) of those who has access to a loan facility had food insecurity. Considering the distribution proportionally of the sampled household under each category, 52.3% of those who did not have access to loan facilities had food security while 68.4% of those that had access to loan facilities had food security in their households. This shows a bigger number of those who had access to loan facilities had stable levels of food security than those who did not have access. This indicates that there was a slight relationship between accessibility to a loan facility and food security of a household. Therefore, the less the access to loan facilities by a household the lower the levels of its food security. This confirms Dr. E.F Schumacher's argument that making these intermediate technologies available to these communities either by giving them access to credit facilities or by giving access to them by any means, their productivity would increase hence, an increase in their income also and finally there will be food security in these households (Dauber and Cain, 1981:194).

Conclusion and implications of findings

Conclusion

This study aimed at establishing the factors influencing the levels of food security in households in shanty compounds and urban villages in Zambia. This study focused on the compounds and urban villages around Kasama town. Households in Shanty compounds in Zambia face a lot of challenges some of which affect the food security of these households or they hamper the maintenance of food security in these households. The study used the level of food security in households as a dependent variable and the independent variables (factors influencing food security) were the type of occupation of the head of the household, accessibility to loan facilities and farming inputs and engagement in the cultivation of crops.

Findings showed that contrary to the hypothesis which stated that household heads whose means of livelihood were in the informal sector were likely to suffer from food insecurity more than those in the formal employment, the results achieved revealed that those who were in formal employment suffered from food insecurity more than those whose means of livelihood were in the informal sector. Secondly findings revealed that involvement in food production did not really influence the food security of a household (51.85%) of those households who go grew crops and (63.33%) of those who did not grow food had stable levels of food security compared to 48.15% and 36.67% respectively suffered from food insecurity. The study also revealed that there was a seeming influence by accessibility to farming inputs on the levels of food security of a household. Finally, it also revealed that there was a slight relationship between accessibility to a loan facility and food security of a household. Thus, the less the access to loan facilities by a household the lower the levels of its food security.

Implication

The above findings imply that the quantitative findings generally indicated an overview of stable levels of foods security in households of the sampled villages and compounds which is contrary to the qualitative findings which showed that most households in these compound and villages were suffering from food insecurity. This implies that the identified independent variable may not have been the variables influencing food insecurity in these compounds and villages. There could have been other variables that had influenced the levels of food security in households.

Recommendations

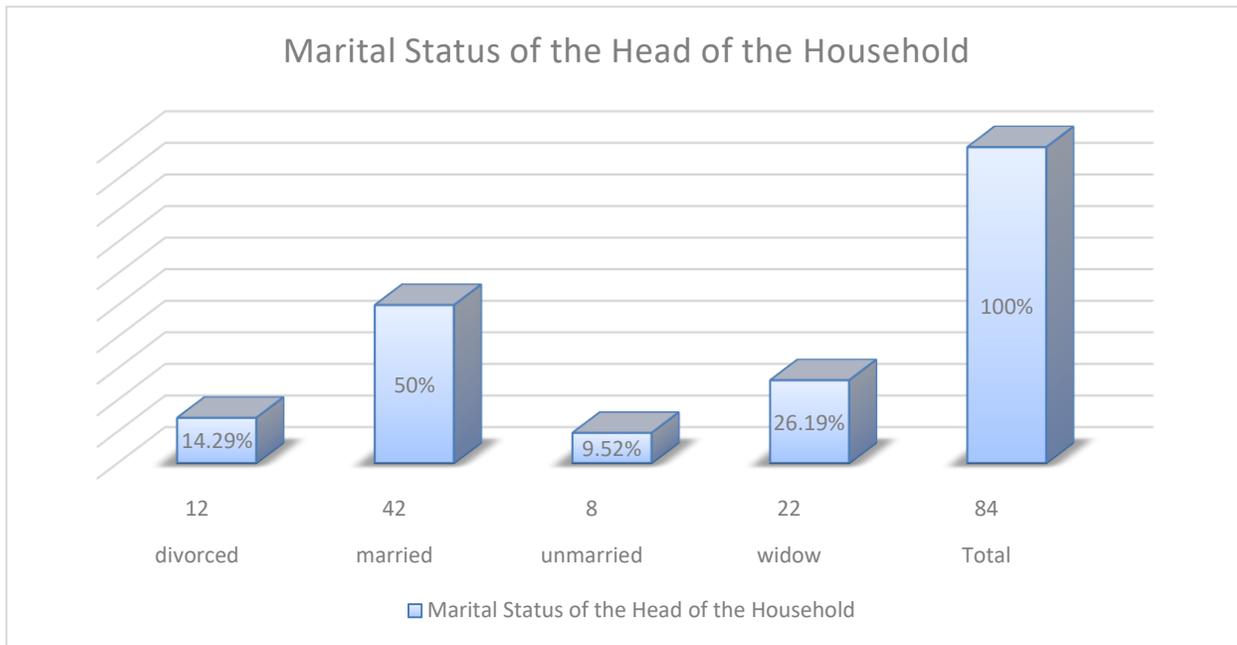
Based on the study results and on Dr. Schumacher's theory the following are the recommendations:

- i. Since most households are involved in trading and to some extent farming, there is need for the stakeholders to make available to these households cheaper and enough farming inputs.
- ii. There is also need to make available, cheaper and accessible loan facilities to these households.
- iii. There is also need to equip these household with the right information and skills in order for them to become active participants in both food production and viable entrepreneurs in the informal sector. This will greatly improve the level of food security in these households.
- iv. Further, studies will need to focus on other possible factors that may be influencing the food security levels in these compound and urban village which this research could not focus on.

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Graph 1 -Marital status of the heads of the household



The level of food security (quantity of food in store/ reserve of households)

Graph 2

