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Backyard Poultry Farming as a Survival Strategy for Women in Urban Areas: A Case Study of Norton Town in Mashonaland West Province, Zimbabwe

A mini-thesis submitted in partial fulfillment of the requirements for the degree of Master of Development Studies

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DECLARATION

I declare that this thesis entitled *Backyard Poultry Farming as a Survival Strategy for Women in Urban Areas: A Case Study of Norton Town in Mashonaland West Province, Zimbabwe* is my own work. It has not been submitted for any degree or examination at any other university and that all the sources I have quoted have been indicated and acknowledged as complete references.

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Abstract

Early in this millennium, Zimbabwe faced economic collapses which led to a decline of formal sector employment and an increase in urban agriculture. Urban agriculture provides income and a food supply to poor, middle and higher income households. Studies throughout the world have shown that women predominate, providing the most labour and management inputs for urban agriculture. As a result, they can earn income, improve household diets, perform household duties and have increased control over decision-making within the household. One of the urban agricultural activities which has played an important role in the livelihoods of women and their households in urban areas, is backyard poultry farming. With backyard poultry farming the women can obtain income and food produce from this activity which helps them take care of themselves as well as their families in the harsh economy of Zimbabwe.

With the above in mind, this research, using Norton Town as a case study, investigated the role of backyard poultry farming with regards to improving women's well-being within urban areas in Zimbabwe. The study made use of both qualitative and quantitative methodologies to gather relevant data. The findings indicated that the women who engage in backyard poultry farming benefit from this activity as it generates income for them, and improves household meat and egg supplies. The results also suggest that these women are empowered economically and socially by this activity. However, the respondents also indicated that they need financial support from credit facilities as they desire to produce more and they also highlighted that they need more support from the government in formulating policies that favour backyard poultry farming.

In light of the findings, the study recommends that government should create new policies and credit finance institutions that support backyard poultry farming, as it helps to improve well-being, reduces poverty and creates employment for the people that practice it. Backyard poultry farming may transform societies as it provides a solution to some of the problems faced by people living in the urban areas in most countries.

KEYWORDS

- Zimbabwe
- Norton Town
- Backyard poultry farming
- Urban areas
- Urban agriculture
- Livelihoods
- Livelihood activity
- Survival strategy
- Sustainable development
- Sustainable Livelihoods Framework
- Women's empowerment
- Food Security



List of Abbreviations

CARE Cooperative for Assistance and Relief Everywhere

DFID Department for International Development

ECOSOC United Nations Economic and Social Council

FAO Food and Agriculture Organization

GDP Gross Domestic Product

GMB Grain Marketing Board

IFAD International Fund for Agricultural Development

LMAC Livestock and Meat Advisory Council

MDC Movement for Democratic Change

MDGs Millennium Development Goals

MDP-ESA Municipal Development Partnership for Eastern and Southern Africa

NGO Non-Governmental Organization

RUAF Resource Centre on Urban Agriculture and Food Security

SDGs Sustainable Development Goals

UN United Nations

UNDP United Nations Development Programme

ZANU PF Zimbabwe African National Union – Patriotic Front

ZESN Zimbabwe Election Support Network

ZIMSTAT Zimbabwe National Statistics Agency

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

Over the past decades of political independence, most African countries have witnessed serious socio-economic and environmental crises (Konings, 2011). African countries have experienced a fall in their gross domestic product (GDP), currency shortage, high inflation rates, price hikes and liquidation of companies. Zimbabwe is among these countries; it is facing many problems due to the socio-economic crisis that started in the late 1990s, which include increases in food shortages, poor infrastructure, outbreaks in diseases, an increase in HIV/AIDS cases and unemployment. The political and economic crises that characterized the economy of Zimbabwe between 2000 and 2008 contributed to a drop in the gross domestic product, an increase in the poverty rate, a collapse in education and increased unemployment (World Bank, 2016). People then resorted to survival strategies within the informal sector, for a better living. The challenges witnessed in the country resulted in people resorting to different survival strategies to make sure they could feed their families and that they would be resilient to poverty.

Rugalema (2000) and Gamhewage et al (2015) made an interesting suggestion that low income households are not passive victims of changing environments but adopt strategies to respond to hardships such as food insecurity and vulnerability. People relied on urban agriculture, vending, kiosks, flea markets, cross border trading, tailoring as well as other activities to obtain income and other important factors that are necessary for survival (Magunda, 2008). Although the government implemented different economic adjustment programmes that would help in addressing the problems within the country, these failed to benefit millions within Zimbabwe, forcing many households into multiple mode livelihoods for survival (Ndiweni et al, 2014).

Urban agriculture is among the popular livelihood activities that was implemented by many people within towns, to help them adapt to the changing economy within Zimbabwe. According to Bryld (2003) by the early 2000s agricultural production in urban areas had become a permanent part of the landscape and 70% of the populations in Africa's urban areas were engaged in it. In Zimbabwe during the early millennium, the economic collapse and decline of

formal sector employment contributed to an increase in urban agriculture with 60% of the produce consumed within the household and the rest sold at neighbourhood stalls (Mbiba, 2000). Mudzengerere (2012), Sithole et al (2014) and Mbiba (2000) suggest that women provide the bulk of the labour and management inputs for urban agriculture and in higher income areas women employ manual labour to work for them. Kutiwa et al (2010) highlight that many surveys indicate that women predominate in urban agriculture and this enables them to earn income, improve household diets, perform household duties and have greater control over resources within the household. Obuobie et al (2004) assert that women in African cities dominate urban agricultural activities because they continue to bear primary responsibility for household sustenance and well-being largely due to traditional, cultural values and societal expectations.

There are many activities that form part of urban agriculture and among them is backyard poultry farming. According to Mathialagan (2014) backyard poultry farming has a significant impact on socio-economic development and empowerment of women. With that in mind, the study focuses on women living in urban areas of Zimbabwe, who rely on urban agriculture for survival and how this activity contributes to their socio-economic development and empowerment. The study looks into the lives of the women who keep poultry for business and consumption purposes and how this urban agricultural activity has changed and improved their well-being and that of their families within the urban society of a country faced with many socio-economic challenges.

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1.2 Background of the Study

The United Nations (UN, 2008) asserts that by 2030 over half of Africa's population will be residing in urban areas. This urbanization will pose major challenges to the environment, as well as to the supply of adequate shelter, food, water and sanitation. Crush (2011) noted that urban agriculture is seen as a means to mitigate the growing food insecurity within urban areas caused by the rapid urbanization of citizens within developing countries. According to RUAF (2012) most developing countries are unable to cope with the rapid increase in unemployment, urban poverty and urban food security, therefore urban agriculture provides a complementary strategy for addressing these problems. Due to the problems that arise because of urbanization, many citizens see the need to participate in urban agricultural activities in order to improve their household well-being. Crush (2011) and Chimbwanda (2014) assert that urban agriculture is not

only a survival strategy for the poor but that middle to high income households also practice this activity. Chimbwanda (2014) asserts that the poor are more dependent on urban agriculture than the rich, as the rich carry out urban agriculture for improving their household diets and business purposes. Over the years, urban agriculture has contributed to local economic development, food security, poverty alleviation, and social inclusion of the urban poor and women (FAO/WFP, 2009).

According to Sithole et al (2014) urban agriculture is a concept that comprises a variety of livelihood systems which include subsistence production and processing at household level. Urban agriculture includes growing of vegetables, agricultural plants and livestock production within the towns and cities. Dongozi (2010) indicates that in Zimbabwe the rise of urban agriculture was influenced by drought within most rural areas as the rainfall pattern within the country had become inconsistent, causing most farmers to have less yields since the rains would come later on and they would have already planted their crops. During the planting season, most of the individuals in the urban areas in Zimbabwe would go to the rural areas and plant crops for their families. However, due to the inconsistent rain patterns and poor yields many people decided to stop going to the rural areas and instead looked for land within the towns where they could grow their crops and secure spaces for livestock production.

Poultry farming is a part of urban agriculture that is rapidly growing. It is driven by a combination of factors, which include the rise in urbanization, food insecurity, the need for increased income and the demand for protein in households. Backyard poultry farming is a common activity of urban agriculture and in Zimbabwe it is assuming an important role in the livelihood of households within the major towns and cities (Gororo et al, 2014). Like the other forms of urban agricultural methods, it provides food security and income to households living in urban areas. According to Gororo and Kashangura (2016), poultry producers have quite diverse livelihoods and poultry production is not only for the poor with no livelihood alternatives. Gororo et el (2014) highlight that 65% of the day-old chicks purchased from the major poultry company named Irvine's go to individuals residing in urban areas. A survey by Kutiwa et al (2010) revealed that in Harare, the capital city of Zimbabwe, low-income households revealed that chicken production was the only urban agricultural activity with a significant effect on household livelihoods.

Poultry production within urban areas stimulates local economic development through the development of micro-enterprises, which are responsible for the provision of inputs, processing, outputs and marketing of the end products (LMAC, 2013). Gororo and Kashangura (2016) suggest that poultry production may contribute to poverty alleviation and socio-economic inclusion of vulnerable groups such as the urban poor, the disabled, orphans, the unemployed and women. There has been little research done on how backyard poultry farming contributes to the well-being and empowerment of women within urban areas of Zimbabwe and with that in mind there is a need for more academic attention, government intervention and stake-holder participation in this area.

1.3 Significance of the Study

Chimbwanda (2014) outlined that the contribution of urban agriculture is well documented in the literature but most of these studies have not been carried out within Zimbabwe. In Zimbabwe, most research on urban agriculture and food security is done on the major cities with little research on small towns with regards to urban agriculture, food security and urban food systems This study therefore seeks to articulate the contribution of urban agriculture with reference to a small town within Zimbabwe. According to Chawatama et al (2005), the global role of animal agriculture in improving the quality of human life has always been emphasised since the 20th century and it is expected to play a major role concerning food supplies in the future. This study therefore provides information on how backyard poultry farming improves livelihoods and highlights the role of backyard poultry production in sustaining and improving the livelihoods of households. The study provides in-depth knowledge on this livelihood activity and its effect on women's empowerment, focusing on the day-to-day lives of women taking part in this livelihood activity. The research also provides information on how basic skills and knowledge with regards to a specific area in life can contribute towards an individual's means of survival. The information provided by the research will be of importance to feminists around the world who would like to assess the contribution of urban poultry farming on women's empowerment, development of societies and poverty alleviation. The data collected from this research provides information to stakeholders that have an interest in funding and assisting women's projects and community development. The research also provides the government with detailed information

on how urban agriculture provides aid to most families. The government should focus on formulating policies and regulations that promote urban agriculture, protect and sustain livelihoods strategies of the people living in urban areas.

1.4 Problem Statement

From the late 1990s, Zimbabwe went through a socio-economic crisis, which caused the formal economy to shrink, resulting in loss of jobs, shortage in commodities, hyper-inflation and the crumbling quality of social services. Bearing this in mind, Magunda (2008) shows how these problems resulted in the increase of poverty and food insecurity issues within Zimbabwe. Families in Zimbabwe resorted to multiple livelihood activities in order to obtain income and food for households. Among these livelihood activities, urban agriculture is one of the popular survival strategies that people in the urban areas practice. Women dominate urban agriculture and it acts as an empowerment function to them. Women in urban agriculture find it easy to keep livestock in their backyards as they can easily monitor them as compared to keeping them on a plot or farm. The women use their backyards, garage spaces and even empty rooms in their houses to keep the poultry. It is important to look at how urban agriculture activities such as backyard poultry farming improves the life of people taking part in it and how it can be enhanced to continue to benefit the people taking part in this livelihood activity. There needs to be more attention put on this topic by the government and interested stakeholders as this activity encourages people to earn a living through other means which exclude formal employment. Urban agriculture aims to improve the lives of the poor, unemployed and those who want to improve their quality of life, hence looking for solutions to address the highlighted problems within this research may lead to a better future for the citizens. If the problems and research findings are not addressed by the government and stakeholders this may lead to urban farmers staying in poverty traps.

In this regard, the main problem in this study is to determine the role of backyard poultry farming in improving women's livelihoods within urban areas in Zimbabwe. This is investigated with reference to a small town in Zimbabwe called Norton and the study focuses on how backyard poultry farming, a part of urban agriculture, contributes to food security, household income, employment, and women's empowerment for those women who practice it.

1.5 Research Question

The following question guides this study: What is the role of backyard poultry farming with regards to improving women's well-being within urban areas in Zimbabwe?

1.6 Research Aim and Objectives

The main aim of this research is to establish the relevance of backyard poultry farming in improving the well-being of women and their families within urban areas. In light of the research problem and research question, the research objectives are:

- To assess the impact of backyard poultry farming on improving the well-being of women and households, resilience to poverty, quality of life and to give recommendations on how to improve this livelihood activity.
- To identify the opportunities and constraints faced by women in urban areas who rely on backyard poultry farming as a survival strategy.
- To determine the extent to which backyard poultry farming contributes to supporting the livelihoods of women within urban areas of Zimbabwe using the sustainable livelihoods approach as an analytical framework.

1.7 Outline of the Thesis

The research is organized into five chapters. The structure of the five chapters is outlined below.

Chapter One introduces the research. This chapter begins with an introduction which discusses Zimbabwe's socio-economic challenges and how urban agriculture helps to address these challenges. The chapter then gives a background summary of urban agriculture. This is followed

by an elaboration of the significance of the study and the problem statement. Lastly, the chapter discusses the research aims, objectives and the research question.

Chapter Two presents the literature review and theoretical framework of the study. The chapter begins with a literature review of the concepts and policies which are relevant to the study. The relevant key areas discussed in the literature review include sustainable development, women's empowerment, urban agriculture and backyard poultry farming. Lastly, the chapter discusses the Sustainable Livelihoods Framework as an analysis tool for the research and the operationalization of concepts of the framework which are relevant to the research.

Chapter Three gives a detailed description of the case study area and its socio-economic characteristics. It discusses the research design, which illustrates the research plan that was followed. This chapter then discusses the research methodology used for the study, the research limitations and the ethical considerations.

Chapter Four focuses on the research findings and provides an analysis of the information collected. The research findings are based on the relevant information which was gathered during the research survey within the case study area. In this chapter, the researcher seeks to answer the research question as well as to achieve the aims and objectives stated in Chapter One.

Chapter Five contains the summary of the research findings, recommendations and the conclusion of the study. The chapter provides an important overall conclusion of the dissertation that may be useful to academics, policy makers and interested stakeholders.

CHAPTER TWO

THEORETICAL AND LITERATURE REVIEW

2.1 Introduction

This chapter focuses on the theoretical and conceptual underpinnings of the study. The chapter begins by reviewing the different concepts related to the research topic, which include: sustainable development, sustainable livelihoods and women's empowerment. Secondly, the chapter discusses some of the literature relevant to this study, which includes: studies on urban agriculture, backyard poultry farming and legislation of urban agriculture. Lastly, this chapter looks at the sustainable livelihoods framework and why it is a relevant framework to use in this research. In this last section of the research, the researcher operationalized relevant concepts within the sustainable livelihoods framework to show the contributions of livelihood sustainability made by backyard poultry farming.

2.2 Sustainable development

Africa has always been rich in natural resources but some of the development strategies that have been implemented over the years have not managed to ensure decent living conditions for the future population and maintenance of a high level of resources for equality (Boon, 2009). Sustainable development addresses the challenges of the past development strategies as it focuses on development of communities in a way that will also benefit the future generations. The concept of sustainable development focuses on development of the present populations without compromising the needs of future generations within the society. According to Baker (2015), sustainable development is a model that represents an example of the new environmental approach that seeks to reconcile the present and future ecological, social and economic dimensions of development. Ekins (2000) also addresses ecology, economy and society as the three pillars or dimensions of sustainable development. Baker (2015) asserts that sustainable development involves steering the change for allocation and distribution of resources to a new way, which allows future society to enjoy these resources. This concept involves coming up with new ideas that make resources accessible in the years to come and also making sure that the

present generation does not waste these resources. Sustainable development focuses on improving the lives of the poor people in communities and giving them solutions to addressing the problems of poverty and inequality while protecting the natural resources, and providing ways of not destroying their environment.

The basis of the sustainable development concept was developed further during the United Nations Conference on Environment and Development that took place in Rio de Janeiro in 1992 (Sustainable Development Commission, 2011). During that conference the UN, heads of state and civil society organizations discussed the strategies to be implemented that focused on sustainable development and focused on a further definition of sustainable development by using the findings gathered from the Brundtland Report of 1987 that highlighted the issues of environmental degradation. According to the Sustainable Development Commission (2011) the World Summit on Sustainable Development held in Johannesburg in 2002 managed to deliver three key outcomes, which were the political declaration for sustainable development, a plan of implementation and gathering a range of partnership initiative for the implementation.

In the year 2000, the United Nations together with heads of nations and civil society organizations formulated the Millennium Development Goals (MDGs) which were to be achieved by 2015. The main aim of these goals was to solve issues related to poverty, hunger, health, diseases and education within the World. According to the United Nations Development Programme (UNDP) in September 2015, the goals were revisited and the members of states, the UN and civil society organizations formulated a set of 17 Sustainable Development Goals (SDGs). These goals are to achieve the aims of the MDGs as well as to address the failures of the MDGs. According to the UNDP (2015) the Sustainable Development Goals are to focus on balancing the three pillars of sustainable development which are social progress, economic growth and environmental protection. The SDGs will be implemented up to the year 2030 and thereafter they will be re-evaluated to assess whether they have played an important role in improving well-being and resilience to poverty for the societies of the world and to examine the extent to which the desired targets for these goals have been met. The SDGs which address the improvement of gender equality and reducing inequality focus on improving the lives of previously disadvantaged groups such as women and children. By improving livelihoods through

urban agriculture, countries are able to achieve the following SDGs: reducing poverty and hunger, and increasing good health and well-being.

In Africa, the search for a viable development route has lead researchers, authors and development thinkers to formulate different ways to attain economic, social and political advancement. According to Ukaga and Afoaku (2005) Kenya, Zimbabwe and South Africa focused on sustainable development through land and agriculture, when they gained their independence from colonial rule. These countries regained their land that had been taken from them and they redistributed the land to their people, for them to use as a source of livelihood. After 1980 Zimbabwe focused on addressing the problems within the country through different adjustment programmes. These programmes put emphases on the sustainable development of the environment and people, with the aim to improve food security, employment and resilience to poverty. In the context of this research, sustainable development is seen through the strategies the women involved in backyard poultry use to ensure that this livelihood strategy does not destroy resources for the future generation and that it provides resources as well for these future generations.

2.3 Women's Empowerment

Due to criticism by feminists concerning the structural adjustment policies implemented in the early 1980s by countries, and which failed to recognize the women's role within the development of economies, this led to the growth of the concept of women's empowerment (Razavi, 2003). The concept of women's empowerment is a phenomenon that emphasizes the need to bring about equality among the genders in society. According to Kabeer (2001), empowerment involves the expansion of people's ability to make strategic life choices in an environment where this ability was previously denied to them. Women's empowerment thus involves giving the ability to make different strategic choices to women in a context that previously did not give them the power and choice. Razavi (2003) asserts that women's empowerment involves the building of a state that has gender equality and not just seeing women by their reproductive role but seeing them by their production role. The UNDP (2015) emphasizes the concept of women's empowerment through its SDGs. Goal five aims to improve gender equality among nations by 2030 and to provide an opportunity for growth to previously

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disadvantaged groups among communities. Women's empowerment puts the focus on providing education and skills to women so that they are able to sustain themselves and not depend on males to be the primary providers in the families at all times (Narayan-Parker, 2002). Empowering women is regarded as an essential part of the solutions to some of the challenges that societies are facing, which include food insecurity, poverty and inequality (United Nations Economic and Social Council, 2011).

In many societies, women are regarded as weak and inferior and are seen to be providers of love, care and support for the families. Oraegbunam (2006) explains that most societies still believe in patriarchal traditions that stereotype women through religion and beliefs. As a result, women feel inferior, suffer from low self-esteem and cannot take control of situations, hence through women's empowerment feminists encourage women to participate within society and not rely on the male figures in the households to provide a living. Kabeer (2001) asserts that women's empowerment requires a transformation in states, institutions and societies that support patriarchal structures. Razavi (2003) points out that there are inequalities concerning resources allocation within societies; one of the areas concerns women not having adequate access to land. Women's empowerment tries to address these inequalities by motivating women to have a say within the state. Women's empowerment focuses on empowering women to be able to work, to provide for their families and not to depend on male partners for survival. Through urban agriculture, women are empowered with capabilities that allow them to achieve well-being and to be able to avoid poverty (Barker et al, 2007).

Indicators of empowerment are measures and criteria against which changes can be assessed; these include numbers, facts, opinions and perceptions used to explain changes and progress (Demetriades, 2007). The United Nations, World Bank, governments and other civil society organizations have implemented many programmes that focus on women's empowerment. These institutions use indicators to assess the status of women, monitor and evaluate interventions and to give policy options for social development and economic growth of societies (Chung et al, 2013). Indicators that are used for measuring empowerment are not standardized but vary depending on the context, and this study looks at some of the indicators of women's empowerment. Yan (2014) indicated that indicators of empowerment include economic, social, cultural, legal, political and psychological measures. This research uses some of these indicators

to measure how backyard poultry farming has contributed to the empowerment of women practising this activity in the urban areas of Zimbabwe. The indicators highlight the outcomes and outputs of backyard poultry farming that contribute to improving the lives of the women and their households.

In Zimbabwe women who partake in urban agriculture are able to empower themselves. Through the crop and livestock production they are able to provide food for their families and sell some of their products to the people within the community. Sithole et al (2014) assert that urban agriculture in Zimbabwe contributes to the empowerment of women who engage in the practice. The women begin to take a major role in decision-making within the household, they gain respect and they have income to use on household expenses (Sithole et al, 2014). The government, through the Land Reform programmes that were implemented since 2000 gave women and all the previously disadvantaged groups a chance to attain ownership of land and plots within the country in which they were to use for agricultural production with the aim of improving their livelihoods. There still needs to be improvement in the allocation of land as men are still the majority holders of the land with only a few women within the population gaining access to the plots and farms (Scoones et al, 2011). In Zimbabwe the Ministry of Women Affairs, Gender and Community Development together with NGOs that include Musasa Projects, Zimbabwe Women Lawyers' Association and Girl Child Network are among the leading organizations fighting for the rights of women in Zimbabwe (Mutanana and Bukaliya, 2015).

2.4 Urban agriculture

Urban agriculture is comprised of growing of crops, gardening, tree planting and livestock keeping. The urban poor throughout parts of Africa have resorted to different survival strategies in order to obtain food and income (Ncube, 2012). As a result, urban agriculture has been one of these livelihood activities and a coping mechanism for the people residing in the urban areas in Zimbabwe. Agriculture in Zimbabwe is the backbone of the economy, for the majority of the citizens taking part in urban agriculture provides them with a survival strategy for poverty alleviation, food security and an increase in household incomes. Kutiwa et al (2010) suggest that in Zimbabwe, urban agriculture increased because political instability which resulted in the closing of companies and shortages of commodities leaving many jobless and resorting to urban

agriculture as a means of survival. Moyo (2013) also suggests that the socio-economic crisis faced by Zimbabwe in the early 2000s led most families within the urban areas to rely on urban agriculture as it contributed to food security, employment creation and income generation.

The populations in the cities increased as most people migrated from the rural areas to look for employment within the towns and cities. This caused an increase in people within urban areas without a corresponding increase in economic opportunities for employment, resulting in most people relying on activities like urban agriculture for survival. Chimbwanda (2014) also highlighted that apart from the major benefits mentioned above, urban agriculture puts marginal lands to good use and absorbs waste in the form of compost and fertilizer. Urban agriculture does not only provide a survival strategy to the poor but to many households that want to improve their diets and increase household incomes. Urban agriculture for high-income households is a strategy of further accumulation through production of high yield crops. As for the middle-income households, urban agriculture is a means of consolidation and securing the family's well-being (Bryld, 2003).

Urban agriculture takes place on vacant land within the towns, which in most cases is private land and backyards of houses. Urban agriculture can be classified into three categories, namely on-plot agriculture, off-plot agriculture and peri-urban (MDP-ESA, 2008). On-plot agriculture is agriculture that is practiced on land around the house and backyards; this is mainly crop production, vegetable growing and livestock production. Off-plot farming is conducted in public and open spaces. Some of the areas that people cultivate on are either illegal or on private property, but due to the circumstances of households, they find themselves using this land. The last category is peri-urban agriculture which takes place in areas outside the towns and cities. This type of agriculture takes place on plots and farms that fall within the radius of 90 kms from the town or cities (Mougeot, 2000).

Women play a dominant role in urban agriculture and they make up the majority of the urban farmers in many cities, especially those that involve small livestock and multiple food crops (Barker et al, 2007). Women in most societies have the key role of food management within the households, hence urban agriculture allows them to produce and provide food for their families. Women are predominantly subsistence farmers, as they tend to focus more on agricultural production with the aim of feeding their households. According to Horrell and Krishnan (2007),

urban agriculture is a livelihood activity utilized by women as a source of income, food and employment to improve family welfare.

2.4.1 Backyard poultry farming

Backyard poultry farming is an activity of urban agriculture, which is common among households within urban areas. According to Assefa et al (2015) this activity is widely practiced in Africa as it has an important socio-economic role in developing countries. Backyard poultry farming involves the rearing of poultry within the compound that a household resides in. Gabayi (2013) highlights that the importance of backyard poultry production is that it provides employment, not only to those that directly engage in it but also to feed producers, manufacturers of drugs, hatchery operations and poultry materials. Property ownership and entitlement of a specific space is a very important factor to consider for backyard poultry farming. Most of the backyard poultry farmers use any free space within their property for the production, such as extra rooms within the house, garages, backyard spaces, building movable or immovable cages and fowl runs for the production of the poultry.

The poultry industry in Zimbabwe has restructured from large high-tech operations to a diverse set of small production units within households (*The Zimbabwean*, 2015). According to research by Gororo and Kashangura (2016) the backyard poultry farmers in Zimbabwe have a number of livelihood activities and this survival strategy is not only for the poor with no livelihood alternatives but it is also common among the privileged as a source of more income for their households. Gororo and Kashangura (2016) also found that most units were small scale, informal, backyard businesses dominated by women with flock sizes ranging from 25 to 3500 birds per cycle with 79% of the producers keeping at most 200 birds. Hilmi et al (2011) assert that backyard poultry production provides a good opportunity for women to participate actively in a business opportunity as it is easily accessible and it does not require excessive labour.

2.4.2 Types of poultry

This research looks at three types of poultry common among the backyard poultry farmers within the area of the case study. The three breeds are broilers, layers and road runner birds.

The broilers are the most common among the three types of poultry. In 2013, the LMAC (2013) revealed that 70% of all commercial day-old chicks produced in Zimbabwe are broilers and that 73% of the producers stay in the urban areas of Zimbabwe. Emerging Farmers (2016) highlighted that day-old chicks are purchased from poultry companies and this is when the broiler production cycle begins. The broiler birds are raised for 6 weeks and if fed correctly, will be ready for sale at that point. According to Emerging Farmers (2016), at 5 to 6 weeks the broilers reach an average live weight of 2 kgs. A complete cycle for broiler production can add up to 8 weeks as some of the birds need more time to grow than others. The poultry farmers also make sure that after a production cycle ends, the fowl runs are cleaned and disinfected. According to Irvine's Zimbabwe (2016) the broiler production cycle is made up of 8-9 weeks (2-2 and a half months); therefore, there can be 7 complete cycles for broilers annually.

The layer birds are mainly kept for egg production and once the layers stop producing they are sold and a new batch is then bought. The layer bird's production cycle is longer than the broiler production cycle, hence most people who keep layers prefer to buy them when they are at the point of laying stage, as keeping them from the chick's stage can be expensive. The typical production cycle for the layers can last about 72 weeks (17 months). According to Ndavambi (2014) the layers start to lay eggs at around 20-21 weeks (5 months) of age and they continue to lay eggs for 52 weeks (12 months). Towards the end of the production cycle (towards 72 weeks) the layers tend to produce fewer eggs as some birds might hatch eggs after a day or two. At that stage, the birds must be sold and a new batch should be bought to avoid losses to the business.

The road runner birds are also a common type of poultry which are kept by backyard poultry keepers within the urban areas of Zimbabwe. In some households, the birds are left to roam around the yard and look for their own food; these birds are normally known as the free-range birds. The free-range poultry have constant access to the outdoors, with plenty of fresh vegetation, sunshine, space to roam around on and do not consume artificial or non-natural feed (Pritchard, 2012).

The free-range birds (road runners) however take a longer period to grow as compared to road runners that eat feed bought from poultry feed companies. StartupBiz Zimbabwe (2016) states that using rural indigenous chickens for a road runner project or business is not a good idea as it is difficult to tell their genetic identity at a young stage. Pure breeds are the best to use as they have known genetic characteristics. The production cycle for the road runner hens is longer than the other types of poultry listed above. According to Pedersen (2002) the road runner birds reach the point of laying at about 25- 27 weeks and at that stage the females weigh 1,7 kgs and the males weigh 2,7 kgs.

2.4.3 Laws and legislation on urban agriculture in Zimbabwe

Municipalities within the urban areas of Zimbabwe support urban agriculture only when it is done systematically, legally and is controlled. Makovere and Nyamutowa (2013) stated that over the previous years there has been a policy shift in local authorities' views with regards to urban agriculture and that they have drafted policies that support the implementation of urban agriculture by citizens. MDP-ESA (2008) together with municipalities in Zimbabwe drafted an urban agricultural policy to allow citizens within towns to practice urban agriculture in a manner that is legal. The vision of the urban agricultural policy of 2007 drafted by the towns and cities' municipalities was to make urban agriculture formal by formulating policies and guidelines, which focused on making it an activity that promotes the development of citizens and poverty alleviation. Municipalities also encouraged citizens to use the garden allotment areas and designated plots that they had established for the citizens to use for urban agriculture. However, the municipalities clearly stated that they would not allow urban agriculture to take place in prohibited areas, on private land, along road sides, water courses, stream banks, rubbish dumps, sewages and near servitudes for electricity (MDP-ESA, 2008).

According to the Urban Agriculture Policy of 2007, residents who wish to take part in backyard poultry farming within the urban areas of Zimbabwe, need a Council Special Consent permit. The permits are granted by the council and there are specific conditions that the farmers have to meet in order to maintain a healthy, clean and pollution-free environment. The policy stipulates that backyard poultry farmers who keep more than 25 chickens have to obtain the Council Special Consent permit. Once the permit is granted, the council assesses the property size and

informs the farmer of the number of poultry permitted depending on the size of the property. The fowl run should have a plan drawn out, it should be located where the smell from the poultry does not affect the neighbours, there must be a water supply on the property and it must be located where there is adequate aeration (MDP-ESA, 2008).

According to Nyamanhindi (2015), Zimbabwe has a number of policies that support urban agriculture, but there is still more work that needs to be done to institutionalize these policies. Urban agriculture is also regulated by various policies and legislation, which include the Urban Council Act, Country Planning Act, Environmental Management Act, Public Health Act, Forest Act and the Protection of Land Law. According to Chaminuka and Makaye (2015), the different laws and policies are meant to order and regulate urban agriculture, but there is misinterpretation and selective application of these policies. As a result, these laws and policies have been taken to imply that urban agriculture is an illegal activity.

2.5 Sustainable Livelihoods Approach

When a livelihood is sustainable, it can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets while not undermining the natural resource base (Chambers and Conway, 1992). The concept of sustainable livelihood encompasses the notion of economic development, reducing vulnerability and environmental sustainability while building on the strengths of the poor. Livelihoods are sustainable when they are able to aid a household continuously and to go a long way as to aid the next generation to be born within that household. Sustainability within a livelihood strategy is experienced if it is resistant to changes in the economy and climate. Scoones (1998) introduced five indicators that show how sustainable livelihoods are measured and defined within the field of development studies. The five indicators are discussed below.

Firstly, it refers to how livelihood strategies of different types create productive working days that result in income, products and social recognition. Secondly, livelihood strategies should contribute to poverty reduction. Thirdly, it entails how these strategies increase household well-being and capability. Fourthly, it focuses on how these strategies cope in the event of shocks and stress. Fifthly, it pertains to the effect that livelihood activities have on the resources within an

environment (De Satgé et al, 2002). The sustainable livelihoods approach should be people-centred, holistic, and dynamic, build on strengths, promote micro- macro links, encourage broad partnerships and aim for sustainability (IFAD, 2016).

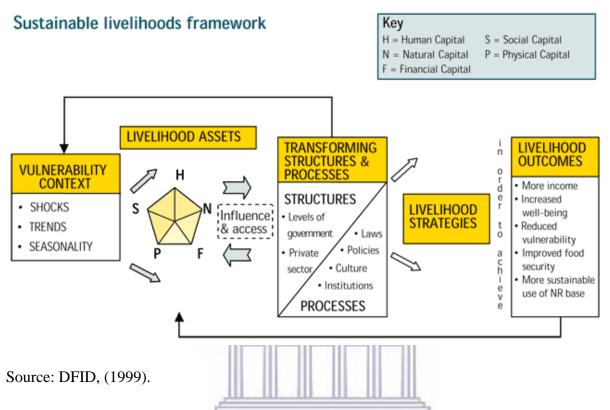
2.5.1 Sustainable Livelihoods Framework

The sustainable livelihoods framework forms the core of the sustainable livelihoods approach. According to Ncube (2012), the framework provides a guide for the analysis of livelihoods within a society and it is an instrument used to investigate the assets, capabilities and activates that contribute to the livelihoods of people. According to the IFAD (2016) and Krantz (2001) the sustainable livelihoods framework places people at the centre of a web, which has:

- inter-related influences that affect how people create a livelihood;
- resources and livelihoods assets that are close to the people at the centre of the web;
- a vulnerability context which takes note of the shocks, trends and seasonality changes;
- a social, institutional and political environment which affects the way in which people use the capabilities and assets to achieve their goals.

This research uses the DFID framework, as it is a more basic framework for analysis as compared to CARE and UNDP frameworks that focus more on procedures for programming (Krantz, 2001). According to the DFID (1999), this framework (see Figure 2) seeks to provide a way of thinking about the livelihoods of the poor people, the disabled and women, that will raise concerns and debates which result in addressing these issues, hence improving performance in poverty reduction.

Figure 1. Sustainable Livelihood Framework



The diagram (Figure 2) above indicates how the sustainable livelihood concepts can be interpreted through a web which results in livelihood outcomes of an increase in income, increased well-being, improved food security, improved use of natural resources and reduced vulnerability. The arrows in the framework below show how the different elements, all of which are interrelated, influence one another (DFID, 1999). The sustainable livelihoods framework (Figure 2) shows the assets that households can draw on for their livelihoods, how they are able to interrelate with policies, laws, institutions and processes to shape their livelihood strategies and outcomes. Government and private sector polices have implications on the lives of households. If authorities implement policies that are not in favour of urban agricultural activities, it affects households that depend on this survival strategy. The framework above recognizes that households exist in an environment in which they are exposed to shocks and stresses. The framework indicates that households draw on natural, physical, human, financial and social capital to earn a living, and it also acknowledges that households do not exist in isolation (Magunda, 2008).

2.5.2 Operationalizing of concepts relevant to the research

2.5.2.1 Livelihood strategies

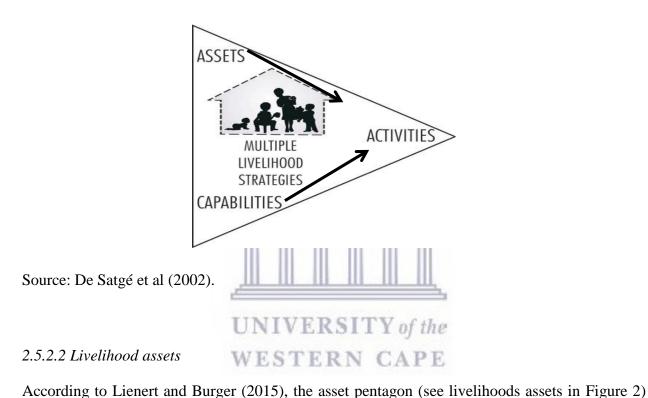
To understand the meaning of livelihood strategies, one should understand what the term livelihood entails. There are a number of definitions contributed by many authors and the most common of these definitions is one given by Chambers and Conway (1992). According to Chambers and Conway (1992, p. 92), "A livelihood comprises of the capabilities, assets and activities required for a means of living." Niehof and Price (2001) describe livelihood as a system that has inputs that are the assets and resources that contribute towards the performance of household activities and processes in order to generate livelihood security, while the result or outcomes of the household livelihood activities are referred to as the outputs of the system. According to De Satgé et al (2002) a livelihood strategy is composed of a variety of livelihood activities. For example, backyard poultry farming is a livelihood activity that households may decide to take up. Other activities within this household could include day-to-day jobs, gardening, and a small spaza1 shop which contribute to the generation of income and food substances. According to the UNDP (2010) one or many individuals can engage in livelihood activities that contribute to a collective livelihood strategy of a household. This research also looks at the other activities within the households of the women who make up the complex livelihood strategy. WESTERN CAPE

Livelihoods of people are usually determined by the constraints and the opportunities available in the society; these may be economical, environmental, social and political (Meikle, 2002). To have a clear understanding of livelihood strategies, De Satgé et al (2002) come up with a livelihood framework. The livelihood framework comprises of assets, which are resources necessary for a livelihood, capabilities which include knowledge, skills, ability to labour and good health and lastly the activities, which include production, processing and consumption. A livelihood framework is a way of understanding how households derive their livelihoods by drawing on capabilities and assets to develop livelihood strategies from a range of activities. The major influence on people's choices of the livelihood strategies adopted is their access to assets,

¹ 'Spaza' refers to a small convenient shop which sells day to day basic goods required by households within a specific area and these shops serve to supplement household income of the owner.

with factors such as policies, institutions and processes playing an important role on the final outcomes of the livelihood strategies implemented (Eldis, 2016). The diagram below (Figure 3) shows the livelihoods framework as described above.

Figure 2: Livelihoods Framework



shows the five types of assets which livelihoods are built on. The five assets within the pentagon are human capital, physical capital, natural capital, financial capital and social capital. Human capital is the available skills, knowledge and labour available to these women, for example the assistance from family members or hired help, knowledge on poultry keeping and health status. Social capital refers to the networks and connectedness, as well as relationships within the social environment. As for the women who rely on background poultry farming for survival, this research looks at the relationships they have with others in the community, their status within the community as well networks available to them that provide access to the other four capitals.

Natural capital refers to the natural resources available, such as water and land. Natural capital is

important for these women as they derive their livelihoods from resource-based activities, such

as farming (DFID, 1999). Physical capital includes the basic infrastructure and the producer goods needed to support livelihoods. Physical capital includes essential factors for sustainable livelihoods, which include affordable transport, shelter and electricity. According to Scoones (2009), physical capital is created by economic production processes. The last capital in the asset pentagon, is financial capital, which includes financial resources that people use to achieve their livelihood objectives, for example stock of money and inflows of cash for people to sustain their projects. The asset pentagon is a relevant concept for this research as it helped identify the livelihood assets available for the women involved in backyard poultry farming. For example, with regards to social capital, women were asked about their social relations within the society and positions they take up within the community (e.g. being a church member).

2.5.2.3 Livelihood outcomes

The livelihood outcomes include the achievements or the outputs obtained through the livelihood strategies (Scoones, 2009). According to the DFID (1999), livelihood outcomes help researchers, policymakers, and interested stakeholders to understand:

- the outputs of the configuration of factors within the livelihood framework;
- what motivates people to act and behave in a certain way;
- what are the priorities of individuals and groups within society;
- how people are likely to respond to new interventions;
- the performance indicators that should be used to access the support activities.

These achievements include results such as increase in household income, improved well-being, food security, resilience to poverty, reduced vulnerability and improved sustainability of resources. This research explores the final outcomes and contributions of this livelihood activity on the women as individuals and that of their households as a whole. Livelihood security is among the relevant concepts within this research as it describes the ability to maintain and improve the livelihood outcomes.

2.6 Conclusion

The chapter reviewed relevant theories, literature and concepts that are pertinent to this study. The concepts, literature, theory and framework discussed above make it easier for readers to understand the entire study within the context of the research conducted. The concepts discussed in this chapter included sustainable development and women's empowerment. The chapter also discussed the relevant literature on urban agriculture and backyard poultry farming, as well as the legalisation on urban agriculture within Zimbabwe. In this chapter, the sustainable livelihood approach was used to contextualize the study and develop an analysis framework. Despite the shortcomings of the sustainable livelihoods approach highlighted by different authors, the researcher saw it fit to use it for this study as it provides a framework for the analysis conducted in Chapter 4.



CHAPTER THREE

METHODOLOGY

3.1 Introduction

The chapter gives a description of the case study area and the methodology used to explore the research aims and objects. The chapter is divided into two sections; the first section gives a detailed overview of the case study area, with a summary of the demographic profile of the Mashonaland West province, Norton town and the case study location, Katanga suburbs. The section gives a brief history of the town and how it has developed over the years from a small farm to a town. This section then gives a summary of the socio-economic environment, political environment and agricultural environments of Norton town. The second section of this chapter provides a detailed description of the research design used, which is the mixed methods approach. This research design allows the use of both the qualitative and quantitative research methods. The chapter outlines the different data collection tools used which include sampling, questionnaires, semi-structured interviews and observations. Lastly, the second section focuses on the ethics statement, reliability and validity of the research and the limitations of conducting this research within the given case study area.

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3.2 Overview of case study area

3.2.1 Demographic profile

Norton town is located in one of the ten provinces of Zimbabwe known as Mashonaland West provinces. According to ZIMSTAT (2015) the 2012 census indicated that this province was among the provinces with the highest populations and it recorded a population of 1 501 656 people. Norton is a very small town, which is found within the Chegutu district of the province. Siampondo (2015) highlights that the district has a mixed population, which includes the urban component located in the suburbs, the peri-urban component located within the surrounding farming areas and lastly the rural component which includes the rural areas which are 45kms away from Norton. The diagram (Figure 4) below shows the location of Norton within the Mashonaland West Province.

MASHONALAND WEST **Districts** MAKONDE Males 777 492 Females /6 U48 Total 153 540 164 711 164 486 329 197 KARIBA URBAN Males 13 16 Females 13 2 Total 26 45 13 169 Kariba Hurungwe CHINHOYI 132 165 130 855 263 020 Karoi Kariba KAROI Males Females Total 13 189 15 417 28 606 KARIBA Males Females Total Chinhovi 20 549 NORTON Males 32 382 Makonde 35 209 67 591 Zvimba Total SANYATI Males Females Total Norton 57 326 55 571 Sanyati Chegutu CHEGUTU URBAN Males. 23 974. Females 26 616 Total 50 590 Kadoma KADOMA Males Females Total Mhondoro-Ngezi CHEGUTU 76 989 76 666 153 655 MHONDORO-NGEZI Males 54 284 Females 50 058 Total 104 342 Compiled and Drawn by ZimStat Cartography Section

Figure 3: Map showing the location of Norton in the Mashonaland West Province

Source: ZIMSTAT, (2015).

According to City Population (2012) the 2012 census showed that Norton is made up of a population of about 67 591 people which shows an increase in the population as compared to

44054 people recorded in the 2002 census. ZIMSTAT (2013) highlighted that the population of Norton forms 18% of the total population and contributed to the overall 25% of the total population that resides within urban areas. According to Figure 4, the census of 2012 also indicated that there were 35209 females as compared to 32382 males. The African ethnic origin makes up the majority of the entire population. According to ZIMSTAT (2013), the non-African group within the Mashonaland West provinces is at least 0.3 percent. The major ethnic group in the town is made up of the Shona people, followed by the Ndebele people, the largest religious denomination is made up of Christians mixed with local traditional beliefs. The languages that are spoken within the town include Shona, English, Manyika, Ndebele, Nyanja and Ndau (City Population, 2012). ZIMSTAT (2013) recorded that 88% of the population are permanent residents within the town, while 8% are from areas within the province and 3% are people from other districts. The other section of the population who are not permanent residents of the town, live in the town because they are employed in the town while the majority of those people stay in the town as it is close to Harare, the capital city. According to ZIMSTAT (2013), the literacy rate for the province is very high and the literacy percentage within Norton is 99%. The literacy percentage within the province was measured through counting the population that had 15 years and above that had completed grade 3 within the province.

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3.2.2 Socio- economic environment

The town has a paper and pulp industry, a beverage company and a grain marketing board. The town is surrounded by large commercial farms that have been sub-divided to expand the town into more residential suburbs. There are not many job opportunities within the small town and as a result most people commute every day to work in the capital city, Harare which is only 40kms away (ZIMSTAT, 2015). The socio-economic crisis within the country led to the closing of major industries in the town, namely Dandy Zimbabwe, Makwiro, Hast, Hunyani and Morton Jeffery Water Works, resulting in the loss of jobs for many citizens within the town who were employed by those companies (Siampondo, 2015). The study is based on data collected from one of the largest and oldest suburbs known as Katanga. The majority of the poor within Norton town reside in some parts of Katanga suburb. According to ZIMSTAT (2015), the council wards that fall within this suburb recorded the highest poverty prevalence in the town. The suburb is

divided into a number of sections and people who reside in that area range from low income households to middle income households. The researcher chose that part of the town as it is the highest populated suburb in the town and the fact that most of the informal activities in the town take place at the shopping centre that is in that suburb. The researcher chose the middle density housing area as it is made up of middle income households and low-income households who rely on different survival strategies within the informal sector for survival. In that area, the houses are much bigger than most of those in high-density areas and they also have more land and space in the back yards to take part in poultry keeping.

3.2.3 Political environment

The parties that have been in constant competition for power since the late 1990s are the Movement for Democratic Change (MDC) and the Zimbabwe African National Union – Patriotic Front (ZANU-PF). In the 2008 parliamentary elections the MDC party won the parliamentary seat for the town, while in 2013 the ZANU-PF won and in the 2016 elections the parliamentary seat for the town was won by an independent candidate. The election campaign periods within the town were marred by allegations of violence and intimidation, defacing of posters, politicization of food aid distribution and vote buying (ZESN, 2016). Laurie (2015) also indicated that during 2000-2008 a number of farmers within Norton were murdered due to political related issues with regards to their farms and farm ownership. The violence witnessed during the election periods damaged the social relations among the citizens within the town.

3.2.4 Agriculture in Norton

Norton town is surrounded by farmlands that grow tobacco, maize and wheat and its inhabitants focus on livestock production. Norton district's rural parts depend on rain-fed agriculture for their survival, while people from the urban and peri-urban parts of the town have access to a water supply from the dams that surround the area. One of the oldest agricultural colleges in the country is found within the Norton district, and Chibero College provides learners in the country with knowledge and information on agriculture. Norton town is well known for its fishing industry as it is surrounded by Hunyani, Manyame and Darwendale dams, which create another

avenue for survival and food security for people within the town. As a result, there are many people known as fishmongers within the informal sector of the town that rely on selling fish as a means of survival. Many fish sellers within the informal sector of Harare also travel to the small town to buy fish, as it is close. The number of fishery cooperatives within the town has increased over the years and many people from the town are either member of the cooperatives or buy the fish from the cooperatives for their own businesses. Norton is home to the second largest Grain Marketing Board (GMB) in Zimbabwe, which provides the local people with affordable food products (Alexander and Chitofiri, 2010). The farmers around the district also sell their produce to the local GMB and they do not have to travel long distances as compared to people from other districts, to access GMB depots. The researcher noted that along the roadsides, on former deserted land, housing stands and in backyards of households, there were signs that the land had been cultivated. During the time of the research the researcher noted that most people were clearing the areas that they were going to use for planting of crops as they were preparing for the rainy season.

3.3 Research Design

According to Mouton (2001) and Babbie (2008), a research design provides a blueprint on how the researcher will conduct the study. A research design is a plan that describes how, when and where data is to be collected and analysed (Creswell, 2013). For this study, the research design provides the details of how the research was carried out, by outlining the research methodology, focus area, data collection tools and analysis of the data. For this research, a case study approach was used to understand and analyse how backyard poultry farming contributes to the livelihoods of women in Zimbabwe. The study aims to provide an investigation of how the role of this survival strategy impacts on the households of these women and the community at large.

3.3.1 Research methodology

The research methodology focuses on a way to systematically solve the research problem, by studying the various steps that are generally adopted by a researcher in addressing the research problem (Kothari, 2004). The research methodology can also be defined as the procedures by which researchers go about their work of describing, explaining and predicting the phenomena

(Rajasekar et al, 2013). The research methodology looks at the different methods used to obtain information and data with regards to the topic of study. The research methodology guides the researcher on how the process of research should be carried out as it highlights the different methods that can be used. Kitchin and Tate (2000) described this concept as a coherent set of rules and procedures that can be used to investigate a phenomenon.

The researcher used the positivistic and the interpretive research philosophies for this research. Creswell (2014) asserts that the positivism approach is scientific, and reductionist in nature and mainly depends on empirical research, while the interpretive approach involves research based on the interpretation of social behaviours of participants in the research. There are two research methodologies that are used when doing research, namely the qualitative and quantitative research methods. According to Babbie and Mouton (2001), quantitative research is one that focuses on calculations, numbers and statistics to get information when conducting research, while qualitative research focuses on an individual's feelings, attitudes and perspectives with regards to particular social phenomena.

The researcher used a mixed approach which applied both qualitative and quantitative methods in order to get a better understanding of the research problem as compared to using either research approach alone. The mixed approach was chosen for this research as both the qualitative and quantitative approaches have different strengths and weaknesses. By using both methods, the weaknesses of one will be complemented by the strengths of the other. The used of mixed methods approach enhances the analytical power of the research as several research methods are combined, and they overlap each other, they are complimentary and contrary at times. According to Kennedy (2009) this has the effect of balancing each method out and giving richer and truthful interpretations. Mixed method approach also promotes reliability, credibility and validity through triangulation of the different evidence results. The advantages of using mixed method approach are that is provides a broader perspective as compared to just using one method, it reduces biasness of results and contributes to more data collection.

3.3.2 Data collection

According to Kothari (2004) data collection begins after the research problem has been defined and the research design has been outlined. In this research, primary data and secondary data methods were used to source the information required by the researcher. Data collection provided information that helped in answering the research question. This data will contribute towards the following themes: 1) socio-demographic variables of the respondent and case study area; 2) impact of backyard poultry farming on households' income status, self-empowerment of women, health and food security; 3) poverty alleviation and equality within communities; 4) challenges of implementing this survival strategy.

3.3.2.1 Sampling

Sampling is a method used to perform qualitative research, which involves using sub-sets, units or a specific part of a population for a specific study. According to Miles et al (2014) sampling involves two actions, first to set boundaries to define aspects of the case study that contribute to the research and secondly a framework should be created that will help to uncover, confirm and construct basic processes that undergird the study. This research used purposive sampling to source information for the research. Purposive sampling is used to collect information from a specific subset of people. According to Mack et al (2005, p.5) "purposive sampling is one of the most common sampling strategies and groups participate according to preselected criteria relevant to a specific research question. The sample sizes in purposive sampling is often determined on the basis of theoretical saturation." The researcher selected a sample size of 50 women who were involved in backyard poultry farming within the case study area through door-to-door inquiry within the area of the case study. The researcher used snowball sampling to gather more information and participants. In snowball sampling a respondent gives the researcher a name of another subject from whom they can get information and that subject will also refer them to another through their social networks (Patton, 2014).

3.3.2.2 Questionnaires

Questionnaires (see Appendix 1) are among the methods used for this research. According to Langdridge and Hagger-Johnson (2009) questionnaires are valuable methods of collecting data from a large number of respondents, as it is useful for providing statistical analysis.

Questionnaires focus on eliciting the feelings, beliefs, experiences, and attitudes of the sample being studied. The researcher used semi-structured questionnaires to collect information from the respondents. Semi-structured questionnaires are prepared in advance before the research is carried out. The questions within the questionnaires should be related to the research topic and be ethical. The researcher should ensure that the questions asked are not harmful to people within the community and that they do not violate the people's beliefs. It is important that researchers seek consent from the respondents before they give them the questionnaires to answer.

This research used semi-structured questionnaires, which had closed and open-ended questions. The questionnaires were typed out and distributed to the 50 women selected taking part in backyard poultry farming as an activity for their household livelihood strategy. The questionnaire (see Appendix 1) comprised of five sections. The first section focused on the profiles of the women and their households, while the second section focused on backyard poultry farming as a survival strategy. The third section was the longest and focused on questions centred on the activities associated with keeping poultry. The fourth section focused on enquiring about the assets needed for this activity, while the last section focused on the influence of the social environment.

3.3.2.3 Semi-structured interviews

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Kothari (2004) states that interviews are a method of collecting data, which involves the presentation of oral-verbal stimuli and replies in terms of oral-verbal responses. Interviews help the interviewer to get a better understanding of the interviewees regarding the topic. In instances of a one-on-one interview, the interviewer has a chance to observe the physical reactions and facial expressions of the respondents. Semi-structured interviews are a technique developed to optimize the knowledge, attitudes and practices of individuals. The semi-structured interviews used in this research (see Appendices 2,3,4,5 and 6) were made up of questions that drew indepth information from the respondents.

Proportional piling is a technique used to get people to express the importance of events and resources within a society. In this research, proportional piling was used to establish which activity contributed the most income towards the household livelihood strategy and to determine the percentage in total for the contribution of backyard poultry in terms of total household

income. The proportional piling method used beans (a total of 100 beans) to represent the income. Participants were required to arrange the beans, allocating to each activity the number of beans they estimated that represented the total income from it.

The researcher conducted seven interviews with the women taking part in backyard poultry keeping and five with household members of those women. The other interviews included one conducted with the local municipality manager who was in charge of land and agricultural activities, one with the local veterinary service representative and one with a manager from a local bank.

For the semi-structured interviews, there were different sets of questions for the key informants. The semi-structured interview questions for the women who took part in backyard poultry farming sought more detailed information as compared to the questionnaires related to backyard poultry farming and the other income-generating activities within the households. The interview with the bank manager focused on access to funding and why it was difficult for the women to get financial support from stakeholders within the country. The interview with the municipal manager focused on issues about policies on urban agriculture and the measures taken by the government to help those women. Lastly, the interview with the local vet discussed the diseases, risks and problems experienced by the poultry that those women kept. With the information obtained from the interviews, the researcher was able to gain a greater understanding of this survival strategy and what it contributed to households. More insight will be given on the role played by the municipality in helping to improve the livelihoods of individuals within the community.

3.3.2.4 Participant observation

Participant observation is a qualitative method, which has its roots in traditional ethnographic research (Mack et al, 2005) and that involves observation and taking part in the actual activities within the study area. This data collection method is unique, as the researcher approaches participants in their own environments rather than having participants go to researcher as they feel more comfortable in the surroundings they are familiar with, in order to express themselves. Through participant observation, the researcher was able to obtain some important information that participants might otherwise have omitted.

During interviews, some people are not comfortable talking about personal matters or disclosing information that reflects badly on them, hence participant observation helped the researcher to secure some of this information. The researcher was involved in the day-to-day activities of backyard poultry farming in order to get a better understanding of how those women kept the poultry and how they used that farming method for survival within the urban areas of Zimbabwe.

3.3.2.5 Data analysis

Data analysis focuses on editing and reducing the size of the collected data to manageable proportions while identifying different themes and patterns in the data, which help explain the research (Majesky, 2008). According to Leedy and Ormrod (2005), data analysis within a case study involves the following steps: a) organization of detail and facts about the case study; b) categorization and grouping the data; c) interpretation of data; d) identification of specific patterns and scrutiny of themes that characterize the research; e) synthesis and generalization of overall portrait of the case; and f) arrival at a conclusion that has implications beyond the case study. The qualitative data collected went through the following analysis procedures and processes. The researcher made sure she organized her data first; this involved transcribing of all the interviews and cleaning the data. The researcher then used the deductive approach to group the information. This meant that the researcher used the research questions to group the data and after looked for the similarities and differences. The researcher also made use of the inductive approach as she used a framework (Sustainable livelihood framework) to group the data and then look for relationships. For the quantitative data the researcher firstly looked at the questionnaire to check for consistency and completeness. This is also known as the editing phase, after this phase the researcher then entered the information from the 50 questionnaires onto an excel spread sheet. The researcher put each question number as a column heading and entered each respondent answers in one row. The researcher had to ask for someone to check her data spread sheet for accuracy and errors. Codes were also given to some of the variables to make it easy for the researcher to analyse the work. Once this was done the researcher then used the themes to set up tables, charts and graphs to display the data. The researcher also made sure she discussed what the data was showing to make is easier for readers to understand the tables, charts and graphs.

3.3.3 Validity and reliability

Reliability focuses on the consistency of the research, while validity encompasses the accuracy of the research information gathered (Creswell, 2014). During a research study, the researcher should make sure that the data and information collected is reliable and valid. Sithole (2015) suggests that, when conducting research, the researcher should ensure that content is valuable, beneficial, credible and useful in the future. To ensure the validity and reliability of this research the researcher made comparison of the research findings to those of other authors within the same research field. The research took note of texts on similar problems faced by backyard poultry farmers within the context of rural areas and compared to the finding discovered within this research in urban areas. The researcher managed to engage with other researchers in this field so as to reduce research biasness. The researcher also checked the consistency in the information collected and if the results were similar from questionnaires and interviews conducted for this research. Data triangulation was used for this research to achieve the depth of the research findings, this included the use of different methods and perspectives which helped produce a more comprehensive set of findings to prove the reliability of the study.

This researcher clearly explained the research aims and objectives to the participants and when they did not understand the purpose of the research, the researcher reiterated until it was clear to them. Once the participants understand the research and the questions, it allows them to give answers that are valid and reliable to the research as well. This researcher also ensured that interviews were conducted individually and that questionnaires were answered separately to avoid some participants influencing other participants' answers.

3.3.4 Ethics Statement

It is important for a researcher to address ethical issues concerning the intended research and the effects the research has on participants. Hall (2008) describes three ethical issues that should be considered by the researcher: a) the participants' voluntary informed consent should be obtained and participants should not be forced to participate; b) the information obtained from participants will be private and confidential; and c) the research should not cause any physical or psychological harm to participants. In light of the above statement, the study was undertaken only after approval was granted by the University of the Western Cape Senate, the Higher

Development. Once the permission to carry out the research was granted, the researcher went into the field to collect data. The local municipality as well as parties involved were clearly informed that the information they provided was for academic purposes only. The researcher emphasized to the participants that the research did not intend to cause any harm to parties involved, hence all participants were asked to participate willingly and if they did not feel comfortable with participating in the research, they could withdraw. Participants were also informed that anonymity and confidentiality would be ensured with regards to the information they submitted.

3.3.5 Limitations of the study

During this research study, the researcher encountered a number of challenges and limitations.

Firstly, some of the respondents felt reluctant to disclose information and participate in the semistructured interviews. The researcher was supposed to have ten interviews with women who took part in backyard poultry farming but only managed to record seven of the women. The others insisted that they should not be recorded, as they feared that their recordings might be used for political reasons instead. The interview questions involved discussing the economy and services provided by the government, which made them feel uncomfortable talking about that. Some of them said that they would compromise their jobs and status in the community by discussing such matters. The research was conducted during the time of the Norton by-elections and during a time when protests and civil mobilization had been banned, hence walking around with a book and conducting interviews seemed suspicious. The researcher therefore had to reiterate that the research was for academic purposes only and that their identity would remain anonymous.

Secondly, the busy schedules of key informants and some of the women respondents was a challenge for the researcher. The key informants kept rescheduling the interviews and as a result, the researcher had to conduct a telephonic interview with the vet, as she was not available at her office due to her busy schedule. Thirdly, the questionnaire and the interview questions were in English and the researcher had to translate them into Shona, as that is the local language within the area. Some respondents did not understand some of the questions and the researcher had to

constantly rephrase the questions using the simplest English or by interpreting the question using the local language. However, that was a challenge for the researcher because it was difficult to find the appropriate Shona meanings for certain English phrases. Fourthly, the researcher noted that there was limited information and literature on backyard poultry farming within the urban areas of Zimbabwe. Gororo et al (2014) agree with the researcher's views as they noted that most research on backyard poultry production tends to concentrate on rural areas and that less research has been done on the urban settings.

The researcher also noted that the sustainable livelihoods framework is used by most authors for studying livelihoods in rural settings, but despite this, the researcher used it in an urban setting context as it would help the investigation of this study. Lastly, the outcomes and results of the research do not represent the general perspectives. The study results should be taken as illustrative and not be generalized from this research for all backyard poultry farmers within the urban areas of Zimbabwe.

However, despite these limitations and challenges, the research provides an insight on how backyard poultry production improves the lives of women and their households, living in the prevailing harsh economic conditions within the urban areas of Zimbabwe. The researcher used a number of data collection tools for the research; each method provided different information while addressing the limitations of the other data collection tools.

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3.4 Conclusion

This chapter gave an overview of the research area by discussing the demographic profile of the study locations. It presented a summary of the context of the research in terms of the socio-economic environment, the political environment and the agricultural activities that take place within the case study area. The chapter also discussed the research design used, which was the mixed methods approach. The research design was discussed giving detailed information on how many respondents and key informants were used for the research. It also discussed the data collection tools used. It is important to note that there are certain procedures that researchers have to follow before conducting their research and these were also discussed in the last section of the chapter. Lastly, the chapter highlighted the limitations of the research and how the

researcher managed to address them to ensure that the study would be credible, valuable and reliable.



CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

This chapter provides a detailed presentation of the research findings and results from the study. The data collection tools used to obtain information from the participants of this research included semi-structured questionnaires, semi-structured interviews and observations. The chapter begins with quantitative analysis of the data collected using questionnaires, which included a) demographic characteristics and socio-economic factors of the women and their households; and b) the production process of backyard poultry. The second part of the chapter focuses more on qualitative analysis of the information solicited from the semi-structured interviews, which included a) livelihood outcomes achieved from taking part in backyard poultry farming; b) challenges of backyard poultry farming; and c) backyard poultry farming as a sustainable livelihood activity. All the above are described in detail and by themes below.

4.2 Demographic prolife of the respondents

As indicated in Chapter Three, 50 women answered the questionnaires. The information gathered through the questionnaires was used for the descriptive statistics in this section of the chapter. The respondents' ages for the questionnaires ranged from 19 years to 69 years. The age profile below (Figure 4) illustrates the distribution of the ages of these women. The section also discusses the marital status, educational background, employment status and the income generating activities of the women that practice backyard poultry farming.

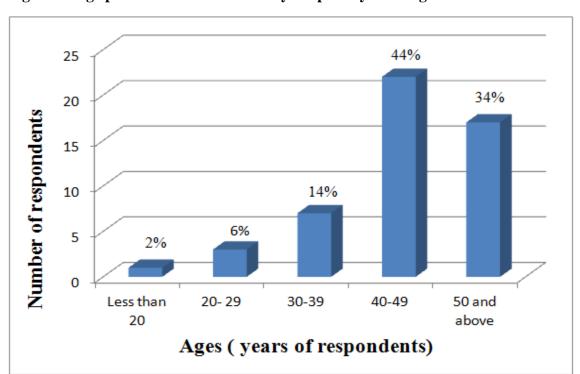


Figure 4: Age profiles of women in backyard poultry farming

The age profile in Figure 4 illustrates that 34% of these women fall in the age group of 50 years and above, 44% are in the age group of 40-49 years, 14% are in the age group of 30-39 years, 6% are in the age group of 20-29 years and 2% of the women are younger than 20 years. The last two age groups had the highest number of respondents, with the age group of 40-49 years being the highest. Kitiwa et al (2010) (cited in Mudzengerere 2012, p.5) assert that urban agriculture within Harare and areas that surround it, is mainly dominated by middle-aged women and the elderly. Figure 4 illustrated this as well; the graph shows that most women taking part in this urban agricultural activity are mostly in the last two age groups.

Figure 5: Marital status of the women

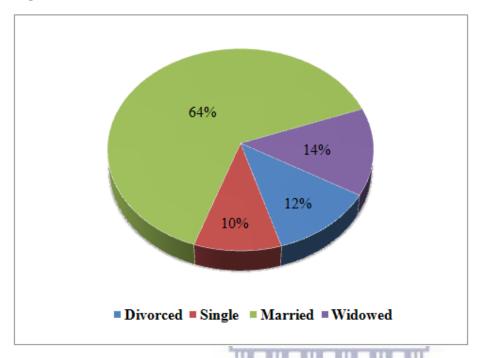
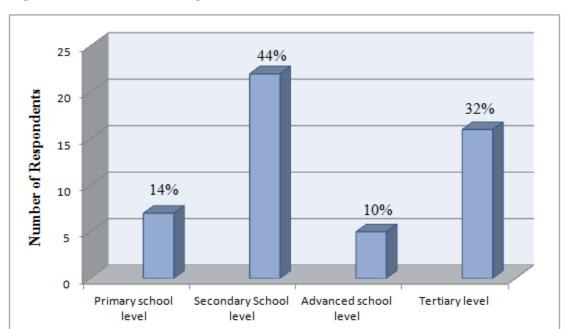


Figure 5 above shows the marital status of the women. As illustrated in Figure 5, the study shows that the majority of the women who take part in backyard farming are married and they formed a total percentage of 64% of the 50 respondents. The total number of the married women was 32 and 20 of those women said that they were self-employed because they did not have a formal job within the economy. The women highlighted that backyard poultry keeping, played an important role in providing income, as well as food for them and their families. Hence, they would not have to rely only on their spouse's income for survival of the household. The widowed women were the second largest group with only 14% and the divorced women followed by 12%. The single women had the lowest percentage, which was 10% of the total respondents.

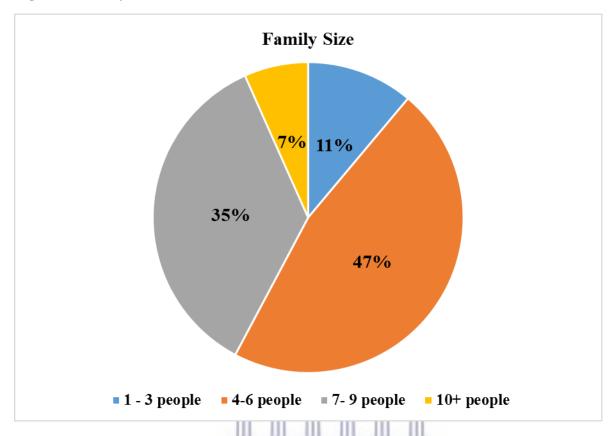


Educational Qualification

Figure 6: Educational background of the women

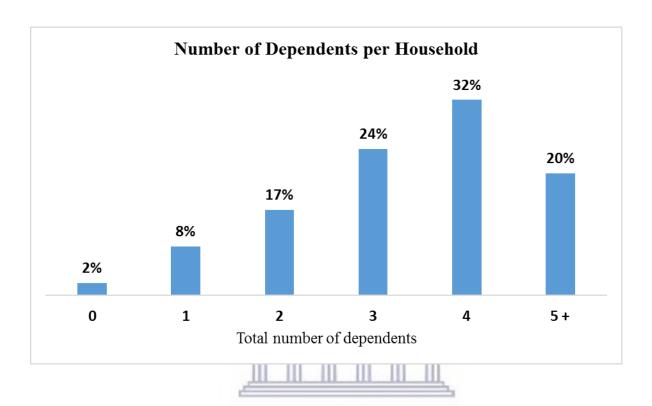
The diagram (Figure 6) above shows the educational background of the women interviewed for this study. Figure 6 shows that all the respondents in this survey had some form of education. Out of the 50 women, 44% (22) attended secondary school within Zimbabwe and only five stated that they did not manage to complete their secondary level. Women who attained tertiary education in the survey were 16 (32%) of the total respondents. Most of the women in this category highlighted that after secondary education they attended technical colleges, polytechnic colleges, teacher training colleges and vocational skills training colleges with only a few attending universities. In Zimbabwe after secondary school, one can skip advanced level and proceed to tertiary education. The education system in Zimbabwe allows learners that have five ordinary level subjects passed including English, Mathematics and Science, to proceed to technical colleges, polytechnic colleges and other training colleges (Kanyongo, 2005).

Figure 7. Family Size



The figure 7 above shows the family sizes for the women who took part in this survey. The results show that more than half of the women's families had 4-6 family members. 32% of the women interviewed highlighted that their families constituted of 7-9 family members. The results show that there were a few families with 10 or more household members. The researcher looked at the number of dependents within the families of the women interviewed. The figure 8 below shows the number of dependents with each of the households. The figure 8 shows that majority of the households had at least 4 dependents (32%), followed by households with 3 dependents (24%) and the households with 5 and above dependents (20%). The information in the figure 7 above shows that many households generally did not have a lot of household members hence there was not alot of dependents (more than 5 dependents) for majority of the households.

Figure 8. Number of Dependents per Household



| Employment status | Number of respondents | Percentage |
|--------------------------|-----------------------|------------|
| Formally employed | 21 | 42% |
| Self-employed | 29 | 58% |
| Unemployed | 0 | 0% |

Table 1 above shows the employment status of the women who participated in this survey. Table 1 above indicates that of the 50 respondents that answered the questionnaires, 58% of them did not have any formal employment within the formal sector of Zimbabwe, and hence they resorted to taking part in this activity for survival. The researcher asked one of the women who answered the questionnaire why she did not select the unemployed status as she did not have any formal employment within the economy of Zimbabwe. The woman's response was,

"Poultry keeping is my job and I get a monthly income from poultry keeping. I wake in the morning and begin my daily activities. With regards to this job, just like anyone else who wakes up in the morning and goes to their workplace, so I see myself as a self-employed individual".

The woman's response indicated that she saw poultry keeping being similar to having a job with a monthly salary. Table 1 also indicated that the employed women were 42% of the respondents interviewed. The researcher discovered that 16 of the employed women worked as civil servants and they took part in poultry farming because their salaries were not enough to provide for all the expenses of their households. The researcher noted that only 3 women had jobs in the private sector while 2 had jobs in NGOs.

Table 2: Income generating activities within the households

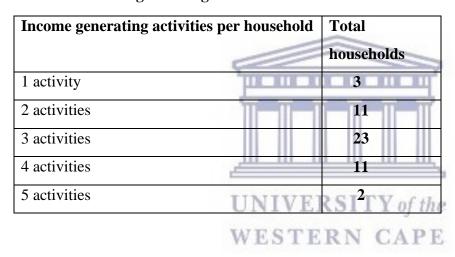


Table 3: Income generating activities per woman

| Income generation activities per woman | Total number of women |
|--|-----------------------|
| Backyard poultry farming only | 13 |
| | |
| Backyard poultry farming and other income | |
| generating activities (e.g. market garden, | 37 |
| farming, civil servant, shop owner) | |

De Satgé et al (2002) suggest that a livelihood strategy of a household is composed of a variety of livelihood activities. Table 2 above shows the number of activities in the 50 households that were used for this survey. The table illustrates that only 3 of these households rely only on backyard poultry farming. In the other 47 household's backyard poultry farming is part of the many livelihood activities that contribute to income. The survey shows that 23 households have 3 activities that generate income, with only 2 families having 5 activities that generate income, backyard poultry farming included. In the 47 households that had many income generating activities, the researcher noted that 37 (table 3) of the women who took part in backyard poultry farming had other income generating activities, such as a formal employment or a small business in the informal sector. During the research, 13 of the women did not have any other income generating activities besides backyard poultry farming while in 10 of the household's other family members had other sources of income.

This information showed that the majority of the women that took part in backyard poultry farming had other income generating activities. With this in mind, Gororo et al (2014), Roppa (2012), RUAF (2012) and Mkwambisi et al (2010) articulated that poultry producers have quite diverse livelihoods as they combine various income sources, including poultry keeping, in order to earn a living.

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4.3 Backyard poultry farming as a livelihood activity

The researcher learnt that a number of different places were used as shelter for the poultry. The majority of the women (78%) kept their poultry in a chicken run. There were cases where some women kept their poultry in odd, unhealthy places, for example 4% of the 50 respondents kept their chickens in a room in their houses. The researcher found this unhygienic as there was a strong smell in the houses and feathers could be seen lying all over the houses. The researcher noted that 4% of the respondents kept their poultry on empty spaces on the land, either in wired areas or in cages. A number of these women (10%) were very creative as they decided to use their outside garages to keep the chickens, due to lack of space on their land and also lack of capital to build the standard chicken run required by the municipality.

The survey showed that 26 of the women kept between 100-200 birds per cycle, 10 women kept between 50-100 birds per cycle, while 8 women kept birds ranging from 200-300 per cycle, 4 women kept between 300-500 birds per cycle and 2 of the women in this sample kept fewer than 50 birds per cycle. The data collected showed that the largest number of birds kept by the women was 500 and the researcher noticed that the women who kept more than 300 birds per cycle had larger spaces and backyards, which they used for the poultry keeping. The majority of the women that participated in this research kept fewer than 200 birds. Gororo and Kushungura's (2016) research indicated that more than 79% of poultry producers in urban areas keep at most an average of 200 birds per cycle. The researcher asked one of the women why she kept fewer than 200 birds and she replied,

"More finance, more space and more labour is required to keep more than 200 birds and these women that keep a lot of birds have jobs or rich husbands who support them financially".

The respondent said this, giving an example of her neighbour, who was interviewed at a later stage. This was found to be true as she had financial support from her husband.

The women in this research gave many reasons as to why they kept poultry which included a means of increasing their household income, a means of earning their own income, a source of employment, a supplementary source of food, to improve nutrients for their households, and as a hobby. Research conducted by Gororo et al (2014), Mutingwende (2015) and Mapiye et al (2008) suggest that people in Zimbabwe adopt poultry farming as a means of earning income and for food provision in the challenging economy of Zimbabwe.

4.3.1 Livelihood assets required for backyard poultry keeping

Chapter Two gave detailed information on the livelihood assets (resources), which are human capital, physical capital, financial capital, social capital and natural capital (Lienert and Burger (2015), Scoones (2009) and De Satgé et al (2002). During the research, the researcher identified the different assets that were required by the women who took part in backyard poultry farming. Table 4 below gives a summary of the different assets required for the inputs, process and output activities with regards to backyard poultry farming. The table 4 shows that the human capital

needed by these women included labour help from children, spouses, relatives and some managed to hire people to do the work, the women also indicated that they needed to be in good physical condition to be able to take part in this activity. Physical capital included the equipment to use during production, standard chicken runs or any shelter that would act as a chicken run. Financial capital was also one of the major assets required by the women as indicated in Table 4 below, they needed funds form banks and microfinance institutions. The women also highlighted that the business needed to produce some cash inflow for them as they needed the money for survival. For the social capital the women highlighted that they needed customers in order for the business to be successful, links, ties, friends and relatives were also important as they support the businesses. The natural capital need for the project as highlighted by the women included space and land to keep the chickens, aeration and adequate water supply.

Table 4: Livelihood assets

| Asset | Example of Resources | | |
|-----------|--|--|--|
| | | | |
| | - labour (children, spouse, relatives and hired help) | | |
| Human | - knowledge on poultry keeping | | |
| | - good physical condition so as to be able to feed, clean, and carry heavy | | |
| | goods (such as feed) | | |
| | - good health WESTERN CAPE | | |
| | - equipment to use during production | | |
| Physical | - standard chicken run | | |
| | - an alternative place to keep the chickens, in cases where there was no | | |
| | chicken run available | | |
| | - access to funds | | |
| Financial | - availability of credit from banks, lenders, microfinance | | |
| | - cash inflow from business | | |
| | - customers | | |
| Social | - market | | |
| | - friends | | |
| | - neighbours, church people | | |

| | - relatives |
|---------|----------------------------------|
| | - ties, links, connections |
| | |
| | |
| | - availability of aeration |
| Natural | - availability of space and land |
| | - adequate water supply |
| | |
| | |

4.3.2 Costs and income generated by this livelihood activity

In Chapter Two the researcher discussed the three common breeds of poultry that were kept by the respondents. The survey indicated that the majority of the women kept broilers, followed by layers and the least kept birds were the road runners. According to Mutingwende (2015), poultry production can be very profitable if it is done in the right way, using acceptable methods, having conducive conditions and good management methods. This section gives a detailed outline of the costs, income generated and profits associated with this livelihood activity, given that a shelter for the birds is readily available.

Figure 9: Cost of keeping poultry

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| Broilers | | |
|---------------------------------|----------|------------------------|
| •Expense | Cost USD | •Exp |
| •100 chicks | \$65 | •100 |
| •8 bags of feed | \$240 | •13 b |
| Vitamins | \$3 | Vita |
| Disinfection | \$2 | • Disir |
| Wood shavings | \$ 5 | •Woo |
| •Other expenses | \$20 | •Oth |
| •Total | \$335 | •Tota |
| | | |
| | | |
| | | |
| | | |
| | | |

| Road Runners | | |
|---------------------------------|----------|--|
| •Expense | Cost USD | |
| •100 chicks | \$95 | |
| •13 bags of feed | \$337 | |
| Vitamin pack | \$3 | |
| Disinfection | \$2 | |
| Wood shavings | \$5 | |
| •Other expenses | \$20 | |
| •Total | \$462 | |
| | | |

| Layers | | |
|---|--|--|
| •Expense •50 birds •3 bags of feed •Vitamins | \$600 \$90 \$3 | |
| DisinfectionWood shavingsOther expensesTotal | \$2 \$ 5 \$ \$20 \$720 | |
| | | |
| | | |

Figure 9 above shows the costs of the production process of the three different types of poultry that is kept by the women within the case study area. From the information gathered, the researcher concluded that the majority of the respondents kept broilers because they have lower production costs as compared to the other types of birds. The broilers under good conditions take 6 weeks to be ready for selling and if fed properly at that stage, they have a live weight of more than 2kgs. The broiler birds are sold for US\$6 per bird but at times when the market is flooded, the birds are sold for as little as US\$4.50.

The road runner birds are the most expensive ranging from US\$8 to US\$12 depending on the weight of the birds. Women that kept the road runner birds highlighted that at times they gave them maize meal, as a substitute for feed. The researcher observed that the road runner birds in some households were free rangers, and the owners left them to scavenge the compound and look for their own food. For those women who did not intend to buy feed for the road runners, production costs were low. The road runners feed on any food as they are scavengers, but if those birds are not confined, they destroy gardens and intrude into other compounds. However, this method of allowing the road runners to be free rangers is not a viable one if one wants to make that a business as the birds grow at a very slow rate and they take about 4-5 months to be ready for sale using that method. The layer hens are expensive to purchase as they are bought at the point of the laying stage and at that time, they are large hens that are producing eggs. The eggs are sold at US\$1 for 6 eggs and US\$4 for a crate of 30 eggs. Once the layers stop producing eggs, they are then sold for US\$8 or less so that the women do not run a loss and they can buy more layers if they desired, to continue with the business.

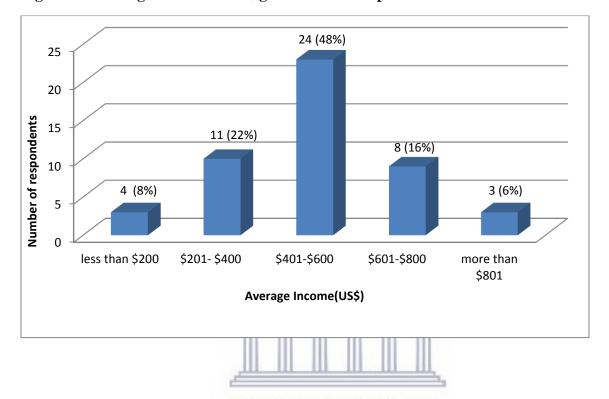


Figure 10: Average income in US\$ generated over a period of 6 to 8 weeks

Figure 10 illustrates the total average income the respondents generate from backyard poultry farming. The researcher asked the women to give estimates of the income they generated within a period of 6 weeks to 8 weeks from the selling of the birds and the eggs as some of the women kept layers. Out of the 50 respondents, 48% of the women generated income ranging from US\$401-600 from backyard poultry farming, 22% of those women earned income ranging from US\$210-400, while 16% of the women earned income ranging from US\$601-800, 8% of the respondents generated less than US\$200 from that activity and 6% of respondents earned more than US\$800 from that activity. These results suggest that the majority of the women within the research earned more than US\$400 from backyard poultry farming and with that income the ladies were able to contribute towards food, fees for children, their own upkeep and other day-to-day expenses in their homes. Gororo and Kashangura's (2016) study on backyard poultry production in urban areas of Zimbabwe had similar findings to this research as it revealed that the most important use of poultry income was payment for immediate household expenses which included food, bills, clothing, and school fees. The researcher also asked the women to indicate

how they spent the money they earned from backyard poultry farming. The Table 5 below show the responses of the women with regards to how they spent the income earned from this activity. Most of the women indicated that they spent the money on household expenses and personal expenses. The researcher noticed that a small number of the women (7) indicated that some of the money is kept for investments and savings.

Table 5: Responses on how the income from backyard poultry farming is spent

| How do you spend the income that you earn | Number of Respondents |
|---|-----------------------|
| from backyard poultry keeping | |
| Household expenses | 48 |
| 2. Children fees | 27 |
| 3. Personal expenses | 44 |
| 4. Investments and savings | 7 |

When asked about the reasons why they take part in this livelihood activity majority of the women managed to give at least four answers from the list of reasons that were provided by the researcher. The most common answers stated by these women were 1) a means to increase household income, 2) a source of employment and a food supplement and 3) a food supplement. The table 6 below shows us how many women answered each specific question form this section.

Table 6: Reasons for taking part in Backyard Poultry Farming

| Reason for taking part in Backyard Poultry | Number of Respondents |
|--|-----------------------|
| Farming | |
| A means to increase household income | 47 |
| 2. A source of employment | 32 |
| 3. A food supplement | 26 |
| 4. Nutritional purpose | 15 |
| 5. A hobby | 4 |

4.3.3 Profit from backyard poultry farming

A survey by Kutiwa et al (2010) on poultry farming within low-income households in urban areas revealed that this activity is the only urban agricultural activity with a positive effect on household cash income status. The researcher noticed that the profits from backyard poultry farming varied from household to household depending on the number of birds kept, the number of birds used for home consumption, the number of birds that die due to diseases and incidents such as theft. The researcher noted that some of the women kept records of this activity, and that made it easy for them to calculate their profits from the activity. The researcher asked three of the women interviewed during the semi-structured interviews to give a summary of the costs of production, total income generated from that activity and the profits they made.

The first woman indicated that she kept 200 broilers, and the cost of production of 200 broilers using the information from Figure 8 would be US\$670. She highlighted that during the production process she recorded that 7 broilers had died from Infectious Coryza, a common disease among broilers. When the broilers reached consumption stage, the woman decided to keep 8 broilers for her family to consume and to give 2 to her sister and 2 to her mother and she

was left with 181 birds to sell. The woman sold the 181 broilers at US\$6 per bird and made US\$1086.

Income - Cost of production = Profit made

US\$1086 - US\$670 = US\$416

The second woman indicated that she kept 100 road runner birds; the cost of production using information from Figure 8 would be US\$462 for those birds. She stated that 4 birds had died. The woman highlighted that she would take only 5 birds for home consumption as she did not want to take more birds as she feared it would make her run a loss. The woman sold the road runners at US\$8 per bird and made US\$728.

Income - Cost of production = Profit made

US\$728 - US\$462 = US\$266

The third woman kept 100 layers and she highlighted that she had had them for 4 months and had bought them at the laying stage. She stated that for a period of 6-8 weeks she needed at least US\$240 to buy feed and manage other expenses associated with keeping the birds. The woman also stated that she got about 94 eggs per day, as some layers do not hatch on a daily basis and that some eggs break. She sold a crate of 30 eggs at US\$4 and her total income for the eggs over 8 weeks was US\$700.

Income - Cost of production = Profit made

US\$700 - US\$240 = US\$470

4.4 Livelihood outcomes of backyard poultry keeping

Chapter Two outlined the concept of livelihood outcomes within a sustainable livelihood framework. This section discusses the livelihood outcomes achieved by the women who take part in backyard poultry farming. The livelihood outcomes discussed also highlight how backyard poultry farming as an urban agricultural activity contributes towards the following factors:

increase in household income, improved food security, and increased well-being for the women and their household members.

4.4.1 Source of increased household income

Researchers such as Ndiweni et al (2014), Mukwedeya (2009), Ncube (2012) and Murisa, (2010) articulated that the socio-economic crisis in Zimbabwe had resulted in many families adopting multiple livelihood activities in order to have different sources of income. Backyard poultry farming is a common activity within urban areas, which people partake in, to improve and increase the amount of disposable income available for the households (Gororo and Kashangura (2016), Sithole et al (2014). The researcher asked the 7 women interviewed on a one-on-one basis if backyard poultry farming contributed to the increase in their household income and they all responded 'yes' without hesitating or having to think twice with regards to the answer. There was also evidence that this activity resulted in more income available for the household to spend, as one respondent narrated on her life before poultry keeping and her life since she started keeping poultry. The respondent had this to say:

"As a single parent, I had to rely on my siblings to support me with finance for my three children's school fees but at times it was difficult for them to give me money as they also have their own families. After I decided to keep poultry, I can afford to save US\$100 every month from the poultry business that goes towards my children's school fees. Residing in urban areas is quite expensive, as we have to pay rent, council bills, water and electricity and with my salary from teaching I can only manage to pay the bills but we also need to eat and send my children to school. I can say that with this small business of mine I know I always have a little extra cash in my pocket."

One of the husbands of these women remarked that:

"I am happy to say that I do not need to give my wife money for the everyday expenses in this house, such as money for bread and other basic commodities required in the house, relieving me from so much pressure as I know I have to focus on dealing with the large expenses such as rent."

The responses given by the people interviewed, indicate that this activity does not only increase household incomes, but it also relieves relatives and spouses of those women from the pressures of having to give them money, since through this activity the women are able to generate their

own income. They do not have to rely on others for financial support and they also achieve economic independence through this small business. The findings of this research are in agreement with Ndiweni (2013) who also articulated that poultry farming is increasingly used to generate revenue for most households.

4.4.2 Improved food security

All the respondents in this research placed great emphasis on how backyard poultry farming has contributed to changes in their household diets and meals. Although the majority of the women kept the birds for business purposes, they also retained a small number of birds for their own household consumption. The women explained that although their aim was to make some profits from this activity, they also had to consider their families and to put food on their tables. During an interview, a respondent said that,

"Out of the 200 chickens, I keep 20 for my household and my relatives. Buying meat at the butchers and supermarkets is expensive in these hard times in Zimbabwe. With the chickens I know that every day I can go into the chicken run, take a bird, slaughter it and prepare it for my family, even towards the end of the month when salaries are not yet in, we know we have meat on the dinner table."

All the households visited by the researcher highlighted that since keeping poultry, they now eat meat on a regular basis. The women indicated that the meals within their households had changed in terms of quantity and they could now afford to include a protein item in all their meals. The women remarked that for breakfast they could now afford to add proteins (egg, gizzards, liver) to eat with bread, while for lunch they add the chicken feet, neck, head and offals to the carbohydrates and vegetables. Gororo et al (2014) also suggested that poultry farming improves food security as this business provides income and meat for the business owners and their families. A similar view is shared by Ndiweni (2013) who states that poultry is a source of protein for most households in Zimbabwe and that it has reduced food insecurity by providing meat and eggs.

4.4.3 Improved women's well-being

The study revealed that through backyard poultry farming the women see themselves as self-employed individuals who want to improve the lives of their families and at the same time focus on their own individual growth. During the interviews, the researcher realized that those women were happy about their social, economic and physiological state as a result of this livelihood activity. When the women were asked about what they have achieved because of this livelihood activity they stated, "economic independence, self-respect, affiliation, recognition, skills and knowledge." The women also loved to use the term 'empowerment' as they would constantly usethis word in the interviews to describe how they felt. Sithole et al (2014) suggest in their research that urban agricultural activities empower women to be independent and self-reliant. Chapter Two's literature on women's empowerment suggests that through urban agricultural activities, women are empowered with the capabilities that allow them to achieve well-being.

One of the respondents said that even the way her children treated her has changed because they acknowledge her efforts and her hard work. She remarked that,

"My children come to me and ask for money now, which never happened before. This makes me happy as I know my children rely on me to provide for them, all their needs now, and they do not only have to look up to their father for support."

From the above quote, the researcher noted that she felt a sense of belonging, respect and acknowledgement from her children as they knew that they could depend on her. This activity makes her become recognized by her family, as compared to her earlier situation. Sithole et al (2014) state that taking part in urban agricultural activities contributes towards women's well-being and women economic empowerment as they are given the capacity to contribute towards household food and revenue. However there have been some critics that women's economic empowerment sometimes leads to gender based violence by disturbing the gender order. Especially in patriarchal societies some men may feel that women have taken the roles that were previously allocated to them, this resulting in uncertainty, low self-esteem, insecurity and anxiety (Reid and Walker, 2005; Sigsworth, 2009; Bolis and Hughes 2015). As a result gender based violence becomes a mechanism which males use to reinforce male power and authority. Despite the critics it was really interesting to notice that the self-employed women regarded themselves

as being in a better position than some of the civil servants who go to work every day and receive very low salaries because the Zimbabwean government cannot afford to pay them more, due to the social and economic challenges it is facing. One respondent mentioned that she earned twice as much as a student teacher's salary, while another respondent suggested that, "some people laugh at us because we do not have jobs, yet they earn very little money from these jobs as compared to what we earn from backyard poultry keeping." Assessing these responses, the researcher realized that those women were indeed proud and felt that their livelihood strategy helped them to live better lives than before. Due to the economic challenges within Zimbabwe, the researcher noticed that those women were in a better position than some civil servants because at the time of the fieldwork, the country was facing cash shortages in the banks and the government and most of the salaries within the country had been cut.

4.4.4 Improved household well-being

During the interviews, the researcher noted that family members of those women supported their livelihood activity and they noticed changes brought about by that activity to the households. The study done by Mupawaenda et al (2009) suggest that income generated by women within the households is believed to have a greater social impact, because in most societies women are primarily responsible for household reproductive roles and this contributes to the quality of life of the household. One of the interesting effects of this livelihood activity was that it resulted in fewer conflicts and disputes among spouses.

A respondent's child interviewed by the researcher made a remark that, "my parents fight less about money issues and my mother does not complain about not having money any more". The researcher observed that the husbands interviewed also seemed to be in a state of relief that they were not only the source of income but that the wives were also helping through the income they get from backyard poultry keeping. One of the husbands interviewed said that,

"I feel at peace in these hard economic times because you can be retrenched as most companies are leaving Zimbabwe. With backyard poultry farming I know we have a back-up plan and if I am jobless, I know I will help my wife with and look for more ways to make this activity a big project."

That particular husband saw this activity as a viable project which could be invested in, to make more profits and that he could earn income in the event that he was retrenched. Bolis and Hughes (2015) highlight that in some cases as women become increasingly economically empowered, the risk of gender violence may increase because men may use violence as an instrument to disrupt women's market-oriented activity, seize women's income or exert authority over managing it. However for this study the participants highlighted that their husbands were supportive and helped them when possible as the income from the project also contributed to their well-being.

One of the women respondents highlighted that due to taking part in this activity, her family would not face the '2008 crisis' again because even though there were many challenges within the economy of Zimbabwe, it was a different scenario at that time, as they had backyard poultry farming to sustain them. According to Murisa (2010), the '2008 crisis' in Zimbabwe was characterized by an economic decline which resulted in unemployment, wages that were below the poverty datum line, hyperinflation of commodities, decline in services provision and an increase in food insecurity.

4.5 Challenges faced by women who take part in backyard poultry keeping

The different challenges and problems faced by the women who take part in backyard poultry farming, are discussed in detail below.

4.5.1 Lack of financial services

The women who were interviewed highlighted that they would have loved to keep more birds but their financial situations limited them. They stated that the financial institutions did not consider them at all as they focused on financing large-scale farmers. That is evidence that the women lacked access to financial capital, which is identified in Table 4, as a resource needed for this livelihood activity. A local bank manager interviewed said that,

"We do not give loans to these women unless they prove the uniqueness of their products and the competitive advantages that they have over other poultry keepers."

The second reason was that majority of those women do not have valuable assets that could be used for collateral. The bank manager also mentioned that small loans were once available to women in projects like those, but the loans were only given to them if they operated in a group of four people. The manager also highlighted that the interest rate ranged from 6% to 18% depending on the type of loan the women qualified for. The manager highlighted that those rates had been lowered by the Reserve Bank of Zimbabwe in an attempt to recover the economy. However, the manager stated that due to the current cash shortages in Zimbabwe, they had stopped issuing the small loans. Zamchiya and Joala's (2016) research on small scale poultry farming in Mozambique, indicated that there is also no state subsidized financial agency or loans from the banks that support those farmers. The women also seemed to have the view that even NGOs do not offer any microfinance to people within the urban areas as they occupy better positions as compared to the poor in rural areas. Research done by Mago (2013) highlighted that in 2008 a number of donors were banned by the government and that hindered the growth of microfinance. It therefore affected the availability of microfinance to many, as it was only available from a number of limited local banks, local NGOs and the government.

4.5.2 Outbreaks of diseases and harsh weather conditions

One of the common diseases that attack backyard poultry is Newcastle disease and fowl pox. The local vet interviewed, explained that "in 2014 the area had an outbreak of Newcastle and all the poultry within Norton had to be quarantined". The women usually ran a loss in times like those because when there is an outbreak, poultry keepers are not allowed to sell the birds as the local veterinary services fear the spread of the disease. The women whose poultry was affected at that time, incurred losses and it was hard for them to get back to their normal operations. Debnath et al (2011) and Mandal et al (2006) suggest that a main constraint to rearing chicken is the outbreak of diseases, which leads to high mortality of the birds. Another problem stated by the women is that extreme temperatures affect the birds. During the hot days, there is a need to constantly give the birds fresh clean water to cool them down; there is also the need for adequate aeration and ventilation. When it is too cold, the birds tend to die as they crowd together and that may lead to some birds being squashed to death; some of the birds also freeze to death. One of

the women also highlighted that if too many birds die, it results in losses as they will not be able to generate enough income to cover all the costs they incurred.

4.5.3 Air pollution

The people interviewed complained about the smell that was caused by the bird droppings. One of the municipal managers said,

"One of the challenges that comes with backyard poultry keeping, is the air pollution; hence we encourage the women to keep 50 birds only."

The smell also affects the neighbours, as the houses in the area are close to each other. The respondents said that they also heard complaints from the neighbours but they could not really do much about it except clean the chicken runs on a regular basis as that was their survival strategy. Mandal et al (2006) highlight that backyard poultry farmers receive complaints from their neighbours about the air pollution caused by the smell from the bird droppings and concerns about their health being in danger. There were many flies around the chicken runs and that also caused the compounds to have a lot of flies and if not controlled, would lead to cholera. The women had to take measures which included fly traps, spraying insecticides and constant disinfection to minimize the flies. The neighbours also complained about the flies and stated that that was an expense for them as they also needed to purchase sprays and traps to control the flies.

4.5.4 Flooding of product on the market

The large-scale poultry farmers sold the birds on the local market at US\$3 per kg for the broilers, US\$4 per kg for the road runner bird and for as little as US\$3.30 for a crate of 30 eggs (ZimMarkets, 2016). While respondents for this research had fixed selling prices for the poultry regardless of the weight of the birds and size of the eggs. This caused competition on the market as the large-scale farmers' prices were slightly lower than those of the respondents. Marketing of the poultry was a challenge for most of the women. Women who were employed had an advantage as they would market and sell their products at work, while some women gave their spouses the birds to sell for them. The researcher noted that there were at times two or three women living in the same street who were backyard poultry farmers, hence they needed to devise

a marketing strategy as they would be in competition among themselves to sell more birds. One of the women interviewed stated that, "backyard poultry farming is a viable activity and because of this, everyone seems to be keeping poultry, making it difficult to sell the birds."

The researcher noted that many households within the urban areas had adopted backyard poultry farming as a response to the economic crisis within Zimbabwe, causing a flood on the market. The unemployed are able to get monthly income and food. Those who have jobs within the public sector take part in this activity to supplement their income and provide a guaranteed source of food for their families, because their salaries are not enough for them to provide for their families.

4.5.5 Unfavourable legislation

The women interviewed in the survey highlighted that in 2015 the government unexpectedly stated that it had banned backyard poultry keeping in urban areas. The director of Health Services in Harare stated that backyard poultry farming was against the council by-laws of 1962 which stated that "no person shall keep poultry by reason of continued crowing, quacking, clucking or any noise that gives discomfort to neighbours" (Zimbabwe News, 2015). This law is a vestige of colonial legislation and was implemented by the colonial government before Zimbabwe got its independence as it was meant to stop the Black Zimbabweans from keeping chickens in the urban areas which at that time were dominated by the Whites. Times have changed and the archaic laws need to be repealed and replaced with new laws, as the economy of Zimbabwe has changed and this activity is a survival strategy for some people within urban areas as it contributes towards an increase in income and food supply. The local municipalities and government should consider the citizens who rely on backyard poultry farming for survival in the harsh economic conditions of Zimbabwe by formulating laws and regulations which are in favour of this activity.

Not many efforts were made by the government to destroy the chicken runs and business endeavours of the people and resultantly the citizens ignored that law. When asked about that incident, the local municipal manager replied, "local authorities do not ban poultry keeping but households are only supposed to keep 50 birds for home consumption". The response of the

municipal manager indicated that he did not have enough knowledge with regards to the poultry farming regulations. Instead he decided to give an estimate of the number of birds he thought were allowed per compound. The manager decided to interpret the law in his own way. However, the agricultural policy for cities in Zimbabwe highlighted that only 20 birds were allowed per compound and that persons who kept more than 20 birds required a special consent permit (MDP-ESA, 2008).

4.5.6 Limited spaces

The housing stands in the areas of the case study were very small, ranging from 200m² to 600m². The researcher noticed that the houses had many rooms ranging from 3-bedroom houses to 5-bedroom houses on the small properties. That left very little space on the land for building a chicken run, and as a result, there were some women who kept the birds in rooms inside the house and also in garage spaces. That restricted most of the women who had the desire to keep more birds as there was very limited space on their land. Some of the women stated that because all the free land that they had on their compound was taken up by the chicken run, they could not manage to do other urban agricultural activities that they desired to do, such as gardening.

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4.6 Backyard poultry farming as a sustainable activity

One of the aims of the research was to consider how backyard poultry farming benefits the community as a whole as well as the future generations. The researcher noted that the bird droppings made good manure for the gardens of these women. A respondent highlighted that her small garden's produce increased after she started adding manure to the soil every month. One of the women stated that, "I make compost from the droppings and I give away the manure to people with gardens and as a result at times the garden owners give me fresh vegetables as a token of appreciation". Using poultry droppings as manure helps to give nutrients to the soil while improving it and also improving the final products from the gardens as the soil is rich. Backyard poultry farming also provides employment for the poor within the urban communities. Some of the respondents interviewed highlighted that they employ the poor unemployed people within the area to help them with the slaughtering and the packing of the chickens and in return

the pay them for their services through cash or giving them chickens. One of the women interviewed said that she made sure she taught her children how to keep poultry so that they could also take part in this activity if they desired so when they are older. She highlighted that it was important to teach her children because they could decide to venture in that direction as a big business in the future.

4.7 Conclusion

This chapter provided the data analysis of the results and the research findings from the fieldwork obtained by the researcher. The chapter focused on addressing the aims and objectives of this research by presentation of a) the demographic characteristics of the women; b) the socioeconomic characteristics of the women and their households; c) operationalizing the sustainable livelihood framework concepts relevant to the research; d) discussing the contributions of backyard poultry farming to those women and their families; and e) discussing the challenges of backyard poultry farming. The evidence from the qualitative and quantitative data suggests that backyard poultry farming is a livelihood strategy that is helpful in improving the life-styles of many families living within the economy of Zimbabwe. The results also show that women who take part in this activity are socially and economically empowered through this activity. The findings from this chapter contribute towards the recommendations and conclusions discussed in Chapter Five.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This research focused on investigating how backyard poultry farming improves the well-being of women in urban areas of Zimbabwe as it is a survival strategy common among people within towns and cities. This chapter begins by providing the summary of the research findings. Secondly, it gives suggested recommendations to Government, NGOs and other interested stakeholders interested in improving the well-being of women through backyard poultry farming. This is followed by a discussion of areas of further research required within the field of backyard poultry farming. The chapter then gives the final concluding remarks to the research project.

5.2 Theoretical reflections

The sustainable livelihoods framework was a useful tool for this research as it looks at the livelihood assets required for different livelihoods. By using this framework, the researcher was able to identify the assets available to these women and the assets that the women need to acquire. Chapter Two highlighted that the sustainable livelihood framework shows that households draw on natural, physical, human, financial and social capital to earn a living. De Satgé et al (2002) articulates that these assets are important as they are exploited in order to achieve a livelihood and their absence can hinder progress. The findings in Table 4 indicated that there are a number of livelihood assets that are required by women that take part in backyard poultry farming. Chapter Four highlighted that there are constraints with regards to acquiring some of the assets listed in Table 4, for example the availability of funds and adequate space for the activity as the backyard spaces within the area of research are small. The DFID sustainable livelihood framework (1999) used in the study shows that livelihoods can be interpreted through a web which results in livelihood outcomes. The research shows the outcomes achieved by the women who take part in backyard poultry which includes an increase in household income, improvement in food security, improvement in the well-being of the women that take part in backyard poultry farming and improvement in well-being of the whole household.

According to De Wit and Verheye (2009), the sustainable development concept suggests that there should be equitable access to land resources and that the government should ensure that the relevant legislation addresses the needs of sustainable development. The respondents indicated that there were plots of land that surrounded the town but they did not have access to those plots and only a few people from the communities were given that land. The women highlighted that the local municipality should allocate those plots of land equally among the people of the town. The literature in Chapter Two suggests that sustainable development focuses on improving the lives of the present populations without compromising the needs of the future generations within the society. The findings show that through backyard poultry farming the women can take part in an activity that improves their lives and their households. The findings also suggest that the women use the bird droppings as a form of manure for their gardens and give other citizens in the community who are interested, the poultry droppings for their gardens. The respondents indicated that they also teach their children how to raise poultry so that they could also take part in this activity in the future and even expand it into a big business.

Women's empowerment focuses on the expansion of the women's ability to make strategic life choices in environments where this ability was previously denied to them. This means that society should not only see women by their reproductive role only but also see the productive roles they take part in. Women's empowerment is achieved when women within a society take part in activities that allow them to be independent, self-reliant and respected. Through backyard poultry farming most women can achieve this and look after their families. The theory asserts that women are empowered, when they begin to take up a major role in the decision-making within the household. The study's findings show that through backyard poultry farming, women are important decision-makers in their families as they contribute to income and provide food for their families.

The literature reviewed show that the socio-economic crisis that had started in the late 1990s within Zimbabwe had led to many households within Zimbabwe adopting survival strategies in the informal sector to enhance their lives and to strengthen their resilience to poverty. The research revealed that people within the towns and cities adopted urban agriculture as it provided income through the sale of produce and food supply from the produce as well. The research

findings discussed backyard poultry farming as part of the urban agricultural activity and its contributions to the women and their households.

The framework was flexible and provided a simpler way for the researcher to understand the adaptive responses of citizens living within the socio-economic crisis of Zimbabwe. Overall the framework was useful in making the researcher assess the contributions to livelihood sustainability made by existing activities. The framework provided a guide for assessing livelihood strategies, livelihood outcomes, livelihood assets of backyard poultry farming, the influence of the structures and processes and the vulnerability of these activities. One weakness noted by the researcher was that the sustainable livelihoods framework does not fully capture the other key concepts of this research, such as the influence of empowerment on the livelihoods of the women. However, social capital and financial capital, when unpacked, highlighted the influence they have on women as they contributed to social and economic empowerment.

5.3 Summary of findings

The investigation examined how backyard poultry farming, a part of urban agriculture contributed to the well-being of women and their families within urban areas of Zimbabwe. The analysis of the qualitative and quantitative data gathered during the research period points to a number of general findings.

From the analysis of the cost of production, income generated and the profits made from backyard poultry farming, the findings show that this activity generates income for women that take part in the activity. The information from the qualitative semi-structured interviews indicated that the women use the profits on food, school fees for children, their own up-keep and other day-to-day expenses in the house. Kutiwa et al's (2010) survey on poultry farming within middle and low income households in urban areas highlighted that this activity is the only urban agricultural activity with a positive effect on household cash income status. The overall responses from the respondents indicated that this activity also improved women's well-being as this activity empowered them economically, it improved the household's well-being because the majority of the profit from this activity was used on household expenses, and it contributed to food security as some women kept some of the poultry for household consumption.

The study reveals that the majority (74%) of the women backyard poultry farmers within the case study area were involved in other income generating activities. Backyard poultry farming is a livelihood activity that contributed towards an increase in the already existing household income. In the harsh economy of Zimbabwe this activity helped women to increase their household income, help their spouses provide for their families, become economically independent and provide food for their families. Gororo et al (2014), Roppa (2012), RUAF (2012) and Mkwambisi et al (2010) indicated that apart from backyard poultry farming, a lot of poultry keepers take part in other income generating activities. The research findings indicate that there is need for some start-up finance as there is a need to purchase goods for the production process hence it is done by the more privileged individuals who could find a source of finance.

The major challenges of backyard poultry farming have an effect on the production process resulting in little profits and at times losses from this livelihood activity. The research findings outlined the challenges faced by women that practice backyard poultry farming. These include the lack of financial services that support this livelihood activity, poultry diseases, extreme weather conditions, pollution, flooding of the product on the local markets and the lack of adequate space for poultry rearing. The women revealed that lack of access to credit from banks, lenders and macro-finance was a major challenge as they could not expand this livelihood activity as they desired for it to grow into bigger projects. The cash shortages within Zimbabwe at the time of the research also made it difficult for the women to continuously stock poultry. The participants indicated that they wished to keep more birds but their compounds were too small to accommodate more birds. The women wished that the local municipality would provide them with plots just outside the town so that they could keep more birds without causing any problems for the neighbours.

5.4 Recommendations

The research findings presented in Chapter Four show that backyard poultry farming plays an important role in improving the well-being of women who take part in it. The following recommendations are made for government, NGOs and interested stakeholders:

- The respondents indicated that they do not have support from the government and the local municipality with regards to legislation on backyard poultry farming. Zimbabwe is facing a socio-economic crisis which results in many problems arising for many households in terms of access to cash and food; hence the government should allow the women to keep more birds on their compounds as the policy on urban agriculture allows households to keep only 20 birds per compound.
- The government and the local municipality should come up with new policies that distribute plots surrounding towns and cities equally to citizens to use for urban agriculture. Landownership seems to be a major problem in Zimbabwe and most women within the urban towns have difficulties obtaining their own piece of land. The government should focus on equality in land distribution by allowing previously disadvantaged groups to gain access to plots where they could practice urban agriculture instead of using borrowed, illegal or prohibited land for urban agricultural activities.
- The respondents highlighted that they did not have access to credit from banking institutions and microfinance services. The government, NGOs and interested stakeholders should help and provide ways that allow women that take part in backyard poultry farming to gain access to credit as this activity contributes to the improvement of their lives and that of their families. With enough finances, women can also venture into developing this activity into a big business as it provides income if done in the correct way and with enough inputs for the production process.
- The government, NGOs and interested stakeholders should provide training and regular workshops for the women who take part in backyard poultry farming, to allow them to enhance the knowledge they already have with regards to this livelihood activity. The workshops should assist the women with new innovations within the poultry industry and how they could keep poultry, using different ways that allow them to save on different costs. Most of the women usually learn from other poultry keepers and books on poultry, which is not enough. The government should provide centres that provide training on how to rear chickens by using techniques that prevent the challenges discussed in Chapter Four. Providing more training on poultry keeping and other urban agricultural activities will also help many people within the harsh economy of Zimbabwe. Educating the people on ways of improving urban agricultural activities, will

- help address issues of unemployment, lack of income, food insecurity and poverty, as people are able to use this knowledge to develop themselves and their households.
- The government should also recognize urban agricultural activities as a very important tool within Zimbabwe as it helps improve the life of citizens within urban areas of the country. Forums, associations and unions for women in urban agriculture should be created, that recognize all the women who excel and their success should be celebrated to motivate them to do more, as this activity empowers women.
- The government and development agencies need to work towards building links and ties for the women who practice backyard poultry farming so that they could have a larger market for their products. Networking with poultry companies, supermarkets and agrodealers will provide the women with a bigger platform to sell their produce. The women will not only get help in accessing different markets to sell their produce but also get access to affordable inputs which enable them to farm effectively and profitably while improving their livelihoods.

5.5 Areas for further study

Further studies should compare poultry farming between women and men. This study revealed the different reasons why women take part in poultry keeping, however these reasons might not be the same for men. Hence, there is a need for a comparison of poultry farming done by women and that done by men to see the production levels, how the two groups distribute the income that they get from the activity and if they have different reasons for taking part in this activity.

The research revealed that backyard poultry farming contributed to the improvement of the food supply within the households. It would also be interesting to do further research on the contribution of poultry farming to urban protein supply and dietary diversity.

5.6 Concluding remarks

The importance of backyard poultry farming, an urban agricultural activity within the livelihoods of women in Zimbabwe is well documented within this research. The study begins by providing an overview of the topic under investigation, followed by the contextualization and background

information. The study methodology of this study highlighted the different methods and tools that were used by the researcher to collect data that would be used to address the aims, objectives and research question. The sustainable livelihoods framework was an analytical tool that was used by the researcher for a better understanding of the research topic. The theoretical framework also discussed concepts relevant to the research, such as sustainable development, women's empowerment and urban agriculture. The literature on backyard poultry farming was clearly defined and it highlights that it provides employment, income and food for many citizens within cities and towns. The study showed that poultry farming as an urban agricultural activity practiced by women addresses issues of unemployment, lack of income and food insecurity for many households within urban areas. The secondary data gathered by the researcher also showed that the women are empowered economically and socially through this activity but face a lot of constraints with regards to this livelihood activity. Despite these challenges, women who took part in this research were relatively happy that they take part in an activity that allows them to provide for their families from the comfort of their homes and did not need to travel or seek income where they were not able to see their family members every day as it would be difficult to manage the family and look after the children.

In conclusion, this study showed that backyard poultry farming within urban areas improves the well-being of the women who take part in it, as well as the well-being of their families. The research highlighted that this strategy helps the women cope within the economy of Zimbabwe as it provides the necessary resources that are required for people to survive.

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APPENDICES

Appendix 1: Questionnaire for the Backyard Poultry Keepers

Research Topic: Backyard Poultry Farming as a survival strategy for women in urban areas.

A case study of Norton Town in Mashonaland West Province Zimbabwe.

My name is Fadzai Noleen Munyanyi and I am a Master's student at the University of the Western Cape in South Africa. I am conducting a study to investigate the role of Backyard Poultry Farming with regards to improving the well-being of women within urban areas in Zimbabwe. With this in mind, you are invited to fill in this questionnaire. All the information collected during this research is anonymous and confidential. The information that you provide will be used only for academic purposes. The researcher hopes that this research will provide important information to academics, governments and development practitioners and analysts amongst many other stakeholders that are interested in improving the well-being of women through different urban agricultural activities. It will take you 30 minutes to 45 minutes to fill in this questionnaire. Your participation and input will be highly appreciated.

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Section A: Profile of the women and their households

1. How old are you?

| Younger than 20 | 20-29 | (2) | 30-39 (3) | 40-49 | (4) | 50 and above (5) |
|-----------------|-------|-----|-----------|-------|-----|------------------|
| (1) | | | | | | |

2. What is your marital status?

| Single (1) | Married (2) | Divorced (3) | Widowed (4) |
|------------|-------------|--------------|-------------|
| | | | |

3. Please indicate your highest educational level

| | Level | Please tick the appropriate level |
|-----|-----------------------------------|-----------------------------------|
| 1. | No formal education | |
| 2. | Primary school level incomplete | |
| 3. | Primary school level complete | |
| 4. | Secondary school level incomplete | |
| 5 | Secondary school level complete | |
| 6. | Advanced level incomplete | |
| 7. | Advanced level complete | |
| 8. | Tertiary level incomplete | |
| 9. | Tertiary level complete | |
| 10. | Other (Please specify) | RSITV of the |

WESTERN CAPE

4. Please indicate if you are employed or unemployed

| Employed | Unemployed | Self Employed |
|----------|------------|---------------|
| | | |

5. List of Livelihood Activities of respondent.

| 6. Number of people within the household. |
|---|

| | Age in (years) | Gender (F/M) |
|---------------|--|--------------|
| 1.Member 1 | | |
| 2.Member 2 | | |
| 3.Member 3 | | â |
| 4.Member 4 | THE OWNER OF THE OWNER O | |
| 5.Member 5 | | |
| 6.Member 6 | ساسس | |
| 7.Member 7 | UNIVER | SITY of the |
| 8.Member 8 | | RN CAPE |
| 9.Member 9 | | |
| 11. Other (s) | | |

7. Number of dependants within the household.

| | Age in (years) | Gender F/M |
|----------------|----------------|------------|
| 1.Dependant 1 | | |
| 2. Dependant 2 | | |
| 3. Dependant 3 | | |

| 4.Dependant 4 | |
|----------------|--|
| 5. Dependant 5 | |
| 6. Dependant 6 | |
| 7. Dependant 7 | |
| 8. Dependant 8 | |
| 9. Dependant 9 | |
| 10.Other (s) | |

8. List of livelihood activities of household members

| Member | Activities |
|----------|-------------------|
| Member 1 | |
| Member 2 | |
| Member 3 | UNIVERSITY of the |
| Member 4 | WESTERN CAPE |
| Member 5 | |
| Member 6 | |
| Member 7 | |
| Member 8 | |
| Member 9 | |

| Other | |
|-------------------------------------|--|
| | |
| | |
| | |
| Section B: Backyard poultry | farming as a survival strategy for women. |
| 1. What are your reasons for tak | ing part in this livelihood activity? Please tick all answers that |
| are relevant to you below. | |
| A means to increase household | income |
| A source of employment | |
| A food supplement | |
| Nutritional purpose | 112 212 212 213 214 |
| A hobby | |
| | |
| 2. If they are any other reasons of | other than those given above please explain below in detail. |
| | WESTERN CAPE |
| | |
| | |
| 3. Highlight any major changes | s that have occurred within your household because of keepin |
| poultry. | |
| | |
| | |
| | |
| | |
| | |
| 4. Have you experienced any ma | ajor changes in the household diet? Yes/ No |
| If yes, please explain further. | |

| Please explain further on your answer. 6. Do you think this livelihood activity has contributed to your personal well-being? Yes/no. Please explain further. WESTERN CAPE 7. Please tick what you feel you have achieved since you started backyard poultry farming. Self-respect Affiliation Recognition | | |
|--|-------------------------------------|---|
| No. Please explain further on your answer. 6. Do you think this livelihood activity has contributed to your personal well-being? Yes/no. Please explain further. WESTERN CAPE 7. Please tick what you feel you have achieved since you started backyard poultry farming. Self-respect Affiliation Recognition Knowledge | | |
| No. Please explain further on your answer. 6. Do you think this livelihood activity has contributed to your personal well-being? Yes/no. Please explain further. WESTERN CAPE 7. Please tick what you feel you have achieved since you started backyard poultry farming. Self-respect Affiliation Recognition Knowledge | | |
| No. Please explain further on your answer. 6. Do you think this livelihood activity has contributed to your personal well-being? Yes/no. Please explain further. WESTERN CAPE 7. Please tick what you feel you have achieved since you started backyard poultry farming. Self-respect Affiliation Recognition Knowledge | | |
| No. Please explain further on your answer. 6. Do you think this livelihood activity has contributed to your personal well-being? Yes/no. Please explain further. WESTERN CAPE 7. Please tick what you feel you have achieved since you started backyard poultry farming. Self-respect Affiliation Recognition Knowledge | | |
| 6. Do you think this livelihood activity has contributed to your personal well-being? Yes/no. Please explain further. WESTERN CAPE 7. Please tick what you feel you have achieved since you started backyard poultry farming. Self-respect Affiliation Recognition Knowledge | 5. Has this livelihood activity No. | contributed to an increase in your household's well-being? Yes/ |
| 6. Do you think this livelihood activity has contributed to your personal well-being? Yes/no. Please explain further. WESTERN CAPE 7. Please tick what you feel you have achieved since you started backyard poultry farming. Self-respect Affiliation Recognition Knowledge | Please explain further on your | answer. |
| Please explain further. WESTERN CAPE 7. Please tick what you feel you have achieved since you started backyard poultry farming. Self-respect Affiliation Recognition Knowledge | | |
| Please explain further. WESTERN CAPE 7. Please tick what you feel you have achieved since you started backyard poultry farming. Self-respect Affiliation Recognition Knowledge | | |
| 7. Please tick what you feel you have achieved since you started backyard poultry farming. Self-respect Affiliation Recognition Knowledge | 6. Do you think this livelihood | activity has contributed to your personal well-being? Yes/no. |
| 7. Please tick what you feel you have achieved since you started backyard poultry farming. Self-respect Affiliation Recognition Knowledge | Please explain further. | |
| Self-respect Affiliation Recognition Knowledge | | WESTERN CAPE |
| Affiliation Recognition Knowledge | 7. Please tick what you feel you | have achieved since you started backyard poultry farming. |
| Recognition Knowledge | Self-respect | |
| Knowledge | Affiliation | |
| | Recognition | |
| Skill | Knowledge | |
| | Skill | |

Section C: Activities of backyard poultry women farmers within the economic environment.

1. For how long have you practiced backyard poultry farming?

| less than a | 1 to 3 years | 4 to 6 years | 6 to 10 years | Above 10 |
|-------------|--------------|--------------|---------------|----------|
| year | | | | years |

| Why did you start? | UNIVERSITY of the WESTERN CAPE |
|--------------------|--------------------------------|
| | |
| | |

5. How many birds do you keep per interval?

Garage

Chicken run

Empty space on

land

Empty room

within house

Rented or

borrowed space

| Less than | 50- 100 | 100-200 | 200-300 | 300- 400 | 400-500 | More than |
|-----------|---------|---------|---------|----------|---------|-----------|
| 50 | | | | | | 500 |

6. Who helps you look after the poultry? Please tick on all that apply.

| Myself | |
|-------------------|--|
| Household members | |
| Hired help | |

| 7. Please give a description of | of the day-to-day activities of this activity. |
|---------------------------------|--|
| | |
| | |
| | |
| | |
| ••••• | |
| | |
| | |
| 8 What measures if any hay | ve you taken to make backyard poultry farming a sustainable activity |
| | District and the state of the |
| that protects the community, | environment and future generations? |
| | The state of the s |
| | |
| | |
| | |
| ••••• | |
| | |
| | |
| 9. Please highlight the probl | lems that you have come across concerning taking part in backyard |
| poultry farming. | |
| | |
| | |
| | |
| ••••• | |
| | |
| | |

| 10. What measures, if any, I diseases) of this activity? | have you implemented to reduce vulnerability (attacks, harm |
|--|---|
| | |
| | |
| | |
| | |
| 11. Please give a brief breakdov | wn of the expenses associated with this strategy. |
| Expense | Cost (in US\$) |
| | |
| | |
| | |
| | |
| | |
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| | |
| 12. Roughly, what are your mo | nthly earnings from backyard poultry farming? |
| | |
| 13. Do you sell your poultry pe | r individual bird or do you sell per kilogram? |
| | |
| | |
| 14. Please give the exact amoun | nt that you sell the birds for or the amount per kilogram. |
| | |

15. How do you spend the income from backyard poultry farming? Please tick from the options below.

| Household expenses | |
|-------------------------|--|
| Children fees | |
| Personal expenses | |
| Investments and savings | |

| 16. If there are any other | er ways besides the ones mentioned above concerning how you spend the |
|----------------------------|---|
| income, please describe | them. |
| | |
| | |
| | |
| | <u> </u> |
| •••• | |
| | |
| Section D: Backyard | Poultry Farming and Livelihood Assets (natural, physical, financial |
| human, social) | UNIVERSITY of the |
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1. Please list the assets that are needed to pursue this livelihood activity.

| Asset | Example of resources | | |
|-----------|----------------------|--|--|
| Human | | | |
| | | | |
| | | | |
| Physical | | | |
| | | | |
| | | | |
| Financial | | | |
| | | | |
| | | | |

| Social | | | | |
|---------------------------|--------------------|-------------------|---------------------|---------|
| | | | | |
| | | | | |
| Natural | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | 277 (27 | |
| 2. Are there any problem | ns with regards to | access to these | assets? Yes/ No | |
| If yes, please explain fu | rther below. | | | |
| | TITLE | | | |
| | | | | |
| | | | <u>ш</u> , | |
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| | wree | TERNY | APE | |
| | WES | I EKN C | ALL | |
| | | | | |
| Section E: Backyard p | oultry farming a | nd social envir | onment | |
| 1. Where do you get fin | ancial support, if | needed, for the b | oackyard poultry fa | arming? |
| Persons | | Tick | | |
| Spouse | | | | |
| Relative | | | | |
| Friends | | | | |
| Banks | | | | |
| NGOs | | | | |

| Government | | |
|--|-------------------------|-----------------------------|
| 2. Please explain your reasons further. | | |
| | | |
| | | |
| 3. Do you think there is enough support from Yes/no. | n the Municipality for | backyard poultry keeping? |
| Please explain your answer further. | | |
| | | |
| 4. Do you think there is enough support from the | | poultry keeping? Yes/no. |
| Please explain your answer further. | RSITY of the RN CAPE | |
| | | |
| 5. Do you think this survival strategy has impro | oved your position in s | ociety? Yes/ no. |
| Briefly explain your answer. | | |
| | | |
| 6. Is there anything else that you would like to and the research? | add on with regards t | to backyard poultry farming |

Thank you for your participation.



Appendix 2: Semi-structure interviews (Question for Women)

Semi-structured interviews - questions for the women who take part in Backyard Poultry Farming

Research Topic: Backyard Poultry Farming as a survival strategy for women in urban areas: A Case Study of Norton Town in Mashonaland West Province Zimbabwe.

My name is Fadzai Noleen Munyanyi and I am a Master's student at the University of the Western Cape in South Africa. I am conducting a study to investigate the role of Backyard Poultry Farming with regards to improving the well-being of women within urban areas in Zimbabwe. With this in mind, you are invited to fill in this questionnaire. All the information collected during this research is anonymous and confidential. The information that you provide will be used only for academic purposes. The researcher hopes that this research will provide important information to academics, governments, development practitioners and development analysts amongst many other stakeholders that are interested in improving the well-being of women through different urban agricultural activities. The interview will last about 30 minutes to 45 minutes. Your participation and input will be highly appreciated.

Questions:

- 1. How long have you been keeping poultry? (Draw out a specific Timeline).
- 2. Please describe all the activities within the household that make up the livelihood strategy. (Use of Proportional Piling will apply to this question).
- 3. Do you have any other sources of income besides poultry keeping?
- 4. What motivated you to take part in backyard poultry keeping?
- 5. Has this livelihood strategy improved your life and that of the people around you?
- 6. Please explain to me what life was like before and after you decided to partake in backyard poultry keeping.
- 7. Can you explain how you would say that social capital (networks and connections) within the community links you to the other resources within the community?
- 8. Do people see you in a different way now because of this survival strategy?
- 9. Has your role within your household changed, e.g. duties, position, decision-making?

- 10. What financial assistance, education, or training have you received with regards to this livelihood strategy?
- 11. Please explain the problems you have encountered concerning the poultry as well as the activities associated with this livelihood.
- 12. Is there anything else that you would like to add on with regards to backyard poultry farming?

Thank you for your participation.



Appendix 3: Semi-structured interviews (Questions for Household Members)

Semi-structured interviews – questions for household members of the women who take part in poultry keeping

Research Topic: Backyard Poultry Farming as a survival strategy for women in urban areas: A case study of Norton Town in Mashonaland West Province Zimbabwe.

My name is Fadzai Noleen Munyanyi and I am a Master's student at the University of the Western Cape in South Africa. I am conducting a study to investigate the role of Backyard Poultry Farming with regards to improving the well-being of women within urban areas in Zimbabwe. With this in mind, you are invited to fill in this questionnaire. All the information collected during this research is anonymous and confidential. The information that you provide will be used only for academic purposes. The researcher hopes that this research will provide important information to academics, governments, development practitioners and development analysts amongst many other stakeholders that are interested in improving the well-being of women through different urban agricultural activities. The interview will last about 30 minutes to 45 minutes. Your participation and input will be highly appreciated.

Questions:

- 1. How has this survival strategy benefited you?
- 2. Has this livelihood strategy contributed to the well-being of the household as a whole?
- 3. Do you help in any way?
- 4. Do you think that these women have become more independent and empowered because of this livelihood strategy?
- 5. Do you think the government and NGOs should put more effort into supporting these women?
- 6. Is there anything else that you would like to share with me pertaining backyard poultry farming?

Thank you for your participation.

Appendix 4: Semi-structured interviews (Questions for Municipal Manager)

Semi-structured interviews - questions for the Municipal Manager in Norton

Research Topic: Backyard Poultry Farming as a survival strategy for women in urban areas: A case study of Norton Town in Mashonaland West Province Zimbabwe.

My name is Fadzai Noleen Munyanyi and I am a Master's student at the University of the Western Cape in South Africa. I am conducting a study to investigate the role of Backyard Poultry Farming with regards to improving the well-being of women within urban areas in Zimbabwe. With this in mind, you are invited to fill in this questionnaire. All the information collected during this research is anonymous and confidential. The information that you provide will be used only for academic purposes. The researcher hopes that this research will provide important information to academics, governments, development practitioners and development analysts amongst many other stakeholders that are interested in improving the well-being of women through different urban agricultural activities. The interview will last about 30 minutes to 45 minutes. Your participation and input will be highly appreciated.

Questions:

- 1. How many years have you worked for the Municipality?
- 2. Briefly explain the urban agricultural activities that take place within the community?
- 3. What are the measures that have been put in place by the municipality to help aid people that take part in urban agriculture?

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- 4. Why do you think people turn to urban agriculture as a survival strategy within the urban areas?
- 5. Does the municipality permit residents to take part in backyard poultry farming?
- 6. What are the rules and regulations that backyard poultry farmers need to obey?
- 7. What are the problems caused by backyard poultry farming within the town?
- 8. What measures does the municipal take to address these problems?
- 9. Do you think urban agriculture has improved the resilience of women to poverty?

- 10. Do you feel that more should be done by the municipality to help improve the well-being of women through this survival strategy?
- 11. Is there anything else that you would like to add on with regards to backyard poultry farming in Norton?

Thank you for your participation.



Appendix 5: Semi-structured interview (Questions for Local Bank Manager)

Semi-structured interview - questions for the Local Bank Manager

Research Topic: Backyard Poultry Farming a survival strategy for women in urban areas: A case study of Norton Town in Mashonaland West Province Zimbabwe.

My name is Fadzai Noleen Munyanyi and I am a Master's student at the University of the Western Cape in South Africa. I am conducting a study to investigate the role of Backyard Poultry Farming with regards to improving the well-being of women within urban areas in Zimbabwe. With this in mind, you are invited to fill in this questionnaire. All information collected during this research is anonymous and confidential. The information that you provide will be used only for academic purposes. The researcher hopes that this research will provide important information to academics, governments, development practitioners and development analysts amongst many other stakeholders that are interested in improving the well-being of women through different urban agricultural activities. The interview will last about 30 minutes to 45 minutes. Your participation and input will be highly appreciated.

Ouestions:

- 1. How long have you worked within the community of Norton?
- 2. What is urban agriculture?
- 3. Please describe what you understand by backyard poultry farming?
- 4 What barriers do women face in getting loans to support them and their livelihood activities?

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- 5. As a financial institution, what help have you given to the women who require financial assistant for this survival strategy?
- 6. Can the bank give loans to these women if they decide they want to expand poultry keeping into a big business?
- 7. Can you say that financial institutions are doing the best they can to help these women?
- 8. Is there anything else that you would like to add on with regards to backyard poultry farming in Norton?

Thank you for your participation.

Appendix 6: Semi-structured interview (Questions for the Community Vet)

Semi-structured interview - questions for the Community Vet

Research Topic: Backyard Poultry Farming a survival strategy for women in urban areas:

A case study of Norton Town in Mashonaland West Province Zimbabwe.

My name is Fadzai Noleen Munyanyi and I am a Master's student at the University of the Western Cape in South Africa. I am conducting a study to investigate the role of Backyard Poultry Farming with regards to improving the well-being of women within urban areas in Zimbabwe. With this in mind, you are invited to fill in this questionnaire. All the information collected during this research is anonymous and confidential. The information that you provide will be used only for academic purposes. The researcher hopes that this research will provide important information to academics, governments, development practitioners and development analysts amongst many other stakeholders that are interested in improving the well-being of women through different urban agricultural activities. The interview will last about 30 minutes to 45 minutes. Your participation and input will be highly appreciated.

Questions:

- 1. How many years have you worked for the Norton Community?
- 2. Can you describe urban agriculture in Norton over the past years?
- 3. Do you think backyard poultry farming has improved the livelihoods of most women in this community?

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- 4. What are the diseases, risks and problems faced by the poultry that these women are keeping?
- 5. As the local vet, how have you addressed these issues?
- 6. As the local vet, what measures have you put in place to help these women and to improve their livelihoods?
- 7. Is there anything else that you would like to add on with regards to backyard poultry farming in Norton?

Thank you for your participation.

