The Role of Agricultural Cooperatives in Poverty Reduction: A Case Study of Selected Cooperatives in the Four Local Municipalities of Vhembe District Municipality, Limpopo Province, South Africa

By

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DECLARATION

I, Tshimangadzo Ashley Nefale (11590331), hereby declare that the Dissertation for Masters of Science in Agriculture (Agricultural Economics) at the University of Venda hereby submitted by me, has not been submitted previously for a degree at this or any other university, that it is my own work in design and in execution, and that all reference material contained therein has been duly acknowledged.

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[Signature]
Poverty and unemployment are the main problems facing many people in the Vhembe District Municipality. Due to these main problems, most people turn into farming as a tool to reduce poverty, ensure food security and create employment in their rural communities. Because of high production and marketing costs, farmers often find it difficult to pool their resources together in order to raise farm income and substantially improve their living conditions. In order to deal with this problem, farmers form cooperatives to pool their resources for increased agricultural productivity, employment creation and poverty reduction. The study assessed the role of agricultural cooperatives in poverty reduction within the rural communities of the Vhembe District Municipality. The research study was a combination of both qualitative and quantitative research method. There are 70 agricultural cooperatives producing field crops and vegetables in Vhembe District. A clustered random sample of the 4 Local Municipalities within Vhembe District Municipality was employed. It involved the selection of 9 cooperatives from Thulamela, 3 cooperatives each from Makhado and Mutale respectively and 1 cooperative from Musina. Relevant data was collected from both primary and secondary sources. Descriptive and Binary logistic regression modelling was used to analyse data.

The study revealed that socio-economic characteristics of respondents have an impact on the role agricultural cooperatives play in reducing poverty. The study further showed that agricultural cooperatives play a significant role in reducing poverty and ensuring food security to members' households. The respondents showed a positive response in the effectiveness of cooperatives in poverty reduction. The study also showed that cooperatives have a significant role in creating employment opportunities. Cooperatives were also faced with various challenges which hinder their success in poverty reduction. Some of the challenges include; market access, lack of funding, conflicts within cooperatives and high electricity costs. The study concludes by recommending different strategies which will enhance the success of cooperatives in poverty reduction. Further studies concentrating on poverty reduction, food security and employment creation need to be carried-out which will help cooperatives respondents to eradicate poverty in their households and communities.

Key words: Agricultural cooperative, poverty reduction, unemployment, food security
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ACRONYMS

ACC: Artic Cooperative Limited
BCO: Brazilian Cooperatives Organisation
CAP: Common Agricultural Policy
CCA: Canadian Cooperatives Associations
CDP: Cooperate Development Program
CODAS: Cooperative Data Analysis System
COPA-COGECa: Comité Général dé la Coopération (General Committee for Agricultural Cooperation)
CPI: Climate Policy Initiative
DAFF: Department of Agriculture, Forestry and Fisheries
DRDLR: Department of Rural Development and Land Reform
DTI: Department of Trade and Industry
FAO: Food and Agriculture Organisation
FCA: The Federal Cooperative Agency
FCPs: Farmer Professional Cooperatives
GDP: Gross Domestic Product
GIP: Gross Internal Product
ICA: International Cooperative Alliance
IFAD: International Fund for Agricultural Development
LIBSA: Limpopo Business Support Agency
MOA: Ministry of Agriculture
NCFC: National Council of Farmers Cooperatives
SEDA: Small Enterprise Development Agency
TFC: Tanzanian Federation of Cooperatives
UCA: Uganda Cooperative Alliance
UN: United Nations
CHAPTER 1
INTRODUCTION

Poverty is still a crucial issue amongst South African citizens, despite the 20 years of democracy, the most affected are black people living in rural areas. It is believed that most rural communities are relatively living in poverty and they rely on farming for their daily food and income generation (Grewal, Grunfeld and Sheehan, 2012). Poverty and unemployment are the main problems facing many people in the Vhembe District Municipality. The areas of study within the district were the four Local Municipalities, namely; Thulamela, Makhado, Musina and Mutale. Most people in those areas experience poverty and turn to farming as a tool to reduce poverty, ensure food security and create employment in their rural communities. Because of high production and marketing costs, farmers often find it difficult to pool their resources together in order to raise farm income and substantially improve their living conditions. One of the most celebrated approaches to fight poverty, recognized by the United Nation (International Cooperative Alliance, 2012) is the use of cooperatives in development. Although there has been a number of studies documented in South Africa about cooperative there has been few studies that were focused in Vhembe (Chauke 2012, Makhuvha, 2012). Since the topic of the research focus on the role of extension in cooperative, there are not many studies, for example Zwane and Kekana (2014). The next section discusses the background of the study, problem statement and research objectives.

1.1 Background

There has been a proliferation of definitions of cooperatives, for example, Izekor and Alufohai (2010), Sharifi, (2013), Ortmann and King (2007) and FAO, (2012). Some of these definitions are briefly reviewed in order to lay a foundation for understanding this study. The most recognised one has been given by the International Cooperative Alliance (ICA). Accordingly ‘a cooperative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise’. However experience of the researcher has shown that one finds leaders of cooperatives who never called for election suggesting that once elected they cling to the chair for life. Other definitions of cooperatives are as follows:

(a) Izekor and Alufohai (2010) described a cooperative as a medium through which services like provision of farm input, farm implements, farm mechanisation, agricultural loans, agricultural extension, members’ education, marketing of members farm produce and other economic activities and services rendered to members.
(b) In Kentucky, an agricultural cooperative is a business with five or more producers, voluntarily owned and controlled by its member-patrons and operated for them on a non-profit or cost basis (Sharifi, 2013). Apart from the above definitions it is important to indicate that there is confusion arising from the understanding of what a cooperative is, therefore the discussion about their classification follows.

According to Ortmann and King (2007), agricultural cooperatives can be classified into three broad categories according to their main activity. These categories are as follows:

(a) Marketing cooperatives which may bargain for better prices, handle, process or manufacture, and sell farm products;
(b) Farm supply cooperatives which may purchase in volume, manufacture, process or formulate, and distribute farm supplies and inputs such as seed, fertilizer, feed, chemicals, petroleum products, farm equipment, hardware, and building supplies; and
(c) Service cooperatives which provide services such as trucking, grinding, storage, drying, artificial insemination, irrigation, credit, utilities, and insurance.

The question often asked is whether cooperatives have some importance or not. Judged by the interest in this area authors for example FAO (2012); Garnevska et al (2011); and Sizya (2001); have agreed that they play an important role. Cooperatives are organized to provide economic benefits for their members. They play a crucial role in reducing poverty, improving food security and generating employment opportunities (FAO, 2012). Agriculture remains the major source of income and employment in rural areas and majority of cooperatives are found in the agricultural sector. Cooperatives are significant in providing jobs to rural communities. In recent years, agricultural cooperatives have played an important role in rural development and poverty reduction through the development of agriculture (Garnevska et al, 2011).

Agricultural cooperatives are described as a medium through which services like provision of farm inputs, implements, mechanization, loans, agricultural extension, marketing of farm products and other economic activities and services are rendered to members (Sizya, 2001). Agricultural cooperative is considered to be the most important organisation that pays attention and tries to support rural development so as to reduce poverty. Cooperatives are also considered to be pillars of agricultural development and food security (Sizya, 2001).

The incidence of both absolute and relative poverty in South Africa has declined since the arrival of democracy, not only in aggregate but also for the largest population group, namely Africans (Grewal et al, 2012). The gains in terms of income have been modest, however,
and by 2005 almost half of South Africans were still living in poverty, according to the national Cost of Basic Needs poverty line.

The South African economy is going through a difficult period. While employment in commercial agriculture has fallen, growth of the non-agriculture sectors has not been rapid enough to absorb the growth in the labour force. As a result of the employment shortage, growth has been concentrated in two main sectors- wholesale and retail trade, and financial and business services, which are together responsible for two-thirds of total employment growth since 1994 (Grewal and Ahmed, 2011). Despite the attention given by the South African Government on the role of agriculture cooperatives in contributing to economic growth and job creation, the scope for this might be limited unless several issues are resolved (Bhorat, 2011). The most critical issues include support for emerging farmers, in terms of skills development, improved support and extension services, improved access to financial services, and further progress with the land redistribution process. This will enhance the role agricultural cooperatives play in poverty reduction (Bhorat, 2011).

Agricultural growth generally has a higher return in terms of poverty reduction than an equal amount of growth in other sectors, because the majority of poor people in the developing world directly depend on agriculture for their livelihood. Making employment opportunities available is just as important as increasing income and access to basic needs, thus reducing poverty.

Vhembe District Municipality is one of the five Districts of Limpopo Government and it is located in the far North of Polokwane, the provincial seat of Government. Vhembe District Municipality is structured as a district Municipality consisting of four Local Municipalities, and has different government departments. The District Municipality experiences poverty, inequality and unemployment. According to South Africa Local Government (2009-2011) unemployment and poverty rate stands at 53% and 32% respectively, hence efforts are tried to find a solution to resolve this problem. The Department of Rural Development and Land Reform (DRDLR) which provide public extension services among small holders, land reform farmers and commercial farmers, and rural households spread in the district, is also having an offices in the District as well as in the Local Municipalities and further provide extension services in the wards and rural villages. It is important to indicate this because in cooperation with other relevant departments, the DRDLR provides cooperative services to support different cooperatives. Extension advisors only provide extension advisory services to agricultural oriented cooperatives which in turn are expected to reduce poverty. It must be noted that there are many agricultural cooperatives in Vhembe District Municipality.
According to CODAS (2014) they amount to 123. The study assessed the role of cooperatives in poverty reduction within Vhembe District Municipality.

1.2 Problem statement

Cooperatives are known for their role in creating productive employment, raise farm income and help reduce poverty (ASFG, 2013). Therefore, smallholder farmers are able to increase their productivity and income by collectively negotiating better prices for input like seeds, fertiliser and transport through cooperatives. Vhembe District Municipality is faced by high rate of unemployment (53%) and poverty (32%). In this Municipality, people living in poverty tend to turn into farming as the tool to reduce poverty and create employment in their communities (Vhembe District Municipality IDP review, 2013). The study assesses the role of agricultural cooperatives in poverty reduction within the Vhembe District Municipality. It furthermore seeks answers on whether agricultural cooperatives are managing to reduce poverty in Vhembe District Municipality.

1.3 Significance of the study

The main contribution of this study is to help cooperative leaders, members, community, government officials and non-governmental organisation to gain better understanding of the role which agricultural cooperatives play in reducing poverty in rural areas. It will also help to inform people on the needs and importance of reducing poverty within the community. This study will benefit the people who are mostly affected by poverty on how to reduce the level of poverty in their communities using cooperatives. The study will also contribute in achieving one of the millennium development goals-eradication of extreme poverty and hunger.

1.4 Objectives of the study

1.4.1 Main objective

The main objective of this study is to assess the role of agricultural cooperatives in poverty reduction within the rural communities of Vhembe District Municipality.

1.4.2 Specific objectives

There are four specific objectives of the study namely to:

i. Identify socio-economic characteristics of farmers within agricultural cooperatives.
ii. Assess the role of agricultural cooperative in poverty reduction.
iii. Investigate the role of agricultural cooperatives in ensuring food security.
iv. Identify challenges faced by agricultural cooperatives in poverty reduction.

1.4.3 Research hypotheses

i. Socio-economic characteristics of farmers have effect on the role agricultural cooperatives play in reducing poverty.
ii. Agricultural cooperatives play a significant role in poverty reduction.
iii. Agricultural cooperatives have effect in ensuring food security to members of households.
iv. Challenges faced by agricultural cooperative have an impact on the role agricultural cooperatives play in poverty reduction.

1.4.4 Research questions

i. To what extent do socio-economic characteristics of farmers affect the role of agricultural cooperatives in poverty reduction?
ii. Do agricultural cooperatives play significant role in poverty reduction?
iii. Do agricultural cooperatives ensure food security to its member’s households?
iv. What kind of challenges are agricultural cooperatives facing?

1.5 Explaining the concepts

1.5.1 Cooperative

A cooperative is an ‘autonomous association of women and men, who unite voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise’ (FAO, 2012). It is a business enterprise that seeks to strike a balance between pursuing profit and meeting the needs and interests of members and their communities. Cooperatives not only provide members with economic opportunities, but also offer them a wide range of services and opportunities. The cooperative enterprise model exists in many sectors, including agriculture, consumer issues, marketing and financial services, and housing. Cooperatives provide 100 million jobs worldwide and count more than 1 billion members (FAO, 2012).

1.5.2 Agricultural cooperative

According to Lopez and Marcuello (2006) agricultural cooperatives are ‘wealth and employment generators being able to keep traditions and local culture, thus articulating at the same time a voluntary association characterised by solidarity and a democratic membership control in the decision making process’.
The concept of agricultural cooperatives has been documented by many authors (Lopez and Marcuello, 2006; Zwane and Kekana, 2014; Chauke, 2012; Makhuvha, 2012, and International Cooperative Alliance, 2012). However for the purpose of this study the most relevant definition adopted by this study is the one suggested by Lopez and Marcuello (2006), because it has captured three critical issues namely wealth and employment articulating voluntary association, and promoting democratic processes in decision making. This definition is important because it has attempted to cover four out of the seven known international principles of cooperatives in the world (International Year of Cooperative in the USA, 2012). In support of this definition other scholars have identified other elements that are not always taken serious in strengthening their members for instance, Meadi (2012), described it differently by seeing a cooperative as a conduit to meet the objectives of farmers and in his own words he says it is a “medium through which services like provision of farm input, farm implements, farm mechanisation, agricultural loans, agricultural extension, members’ education, marketing of farm products and other economic activities and services are rendered to members”. The researcher agrees with the author’s sentiments.

1.5.3 Poverty

Vera-Sanso and Sweetman (2002) described poverty as lack of income and productive resources sufficient to ensure a sustainable livelihood without hunger and malnutrition, ill-health, limited or lack of access to education and other basic services, increased morbidity and mortality from illness, homelessness and inadequate housing, unsafe environment and social discrimination and exclusion. It is also characterised by lack of participation in decision-making and in civil, social and cultural life. The situation is critical and it is the researcher’s experience that he observed that some families go to bed hungry and can’t afford three meals a day.

1.5.4 Food security

Food security exists when ‘all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life’ (IFAD, 2012). The concept of food security is defined as including both physical and economic access to food that meets people’s dietary needs as well as their food preferences. Food security is built on three pillars:

(a) Food availability: sufficient quantities of food available on a consistent basis.
(b) Food access: having sufficient resources to obtain appropriate foods for a nutritious diet.
(c) Food use: appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation.
1.5.5 Cluster random sampling

Cluster random sampling is a sampling method in which the population is first divided into clusters. Then a simple random sample of clusters is taken. All the members of the selected clusters together constitute the sample (Koether, 2012).

1.6 Limitations and Delimitations of the study

This study was constrained mostly by finances. The diversity of the cooperative limited the amount of time the researcher spent on each cooperative. Sample size was also kept small for management purpose due to limited financial resources. Lack of transport to rural areas where cooperatives are based was also a challenge. Poor record keeping and lack of cooperation and willingness on the part of respondents to participate in the study was also encountered as a critical challenge. The study only concentrated around Vhembe District Municipality and only on Agricultural cooperatives due to financial constraints. This study only focused on crop and vegetables producers within agricultural cooperatives which are situated in rural part of Vhembe District Municipality.

1.7 Structure of the study

This study is divided into five chapters as discussed below: The first chapter introduces the research topic and articulates the problem statement. A brief summary on significance of the study, objectives of the study, explaining the concepts and the delimitation of the study are also explained. Chapter two covers literature review which contains the general perspective on agricultural cooperatives and also a review on status, role and challenges on agricultural cooperative globally, regional and local. Chapter three discusses research methodology adopted for the study that includes data collection both primary and secondary data and ethical considerations. Chapter four discusses and interpret results obtained from respondents and chapter five draws summary, conclusions and recommendations.
CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter provides a review on findings from 8 countries, of which 4 represent the developed areas of the world and the other 4 represent the developing world. Furthermore the discussion is divided into three levels namely Global, covering Brazil, Canada, China and Spain; regional covering, Ethiopia, Nigeria, Tanzania and Uganda; and nationally meaning South Africa. A short synthesis is also provided at the end of each level. A number of criteria have been crafted in order to guide and channel the discussion towards the objective of the study. The criteria are the following: status of agricultural cooperatives, role of agricultural cooperatives in poverty reduction and challenges faced by agricultural cooperatives. The general perspective on agricultural cooperatives is discussed first.

2.2 General perspective on agricultural cooperatives

The first modern cooperative originated in Europe and thereafter spread to other industrialising countries during the late 19th century as a self-help method to counter extreme conditions of poverty (Hoyt, 1989). The one cooperative that probably had the greatest singular impact on determining agricultural cooperative unique principles was formed in 1844 in Rochdale, England and was known as Rochdale Society of Equitable Pioneers' Ltd. It was a consumer cooperative by a group of workers representing various trades who formulated a set of basic operating rules based on a two year study cooperative, including some that were not successful. Rochdale Society of Equitable Pioneers Ltd objectives were to address members' needs for better housing, employment, food, education and other social requirements.

Cooperatives around the world generally operate according to the same core principles and values, adopted by the International Cooperative Alliance in 1995. Cooperatives trace the roots of these principles to the first modern cooperative founded in Rochdale, England in 1844. The principles are as follows;

(a) Voluntary and Open Membership; Cooperatives are voluntary organizations, open to all people able to use its services and willing to accept the responsibilities of membership, without gender, social, racial, political or religious discrimination.
(b) Democratic Member Control; Cooperatives are democratic organisations controlled by their members those who buy the goods or use the services of the cooperative who actively participate in setting policies and making decisions.

(c) Members’ Economic Participation; Members contribute equally to, and democratically control, the capital of the cooperative. This benefits members in proportion to the business they conduct with the cooperative rather than on the capital invested.

(d) Autonomy and Independence; Cooperatives are autonomous, self-help organisations controlled by their members. If the co-op enters into agreements with other organisations or raises capital from external sources, it is done so based on terms that ensure democratic control by the members and maintains the cooperative’s autonomy.

(e) Education, Training and Information; Cooperatives provide education and training for members, elected representatives, managers and employees so they can contribute effectively to the development of their cooperative. Members also inform the general public about the nature and benefits of cooperatives.

(f) Cooperation among Cooperatives; Cooperatives serve their members most effectively and strengthen the cooperative movement by working together through local, national, regional and international structures.

(g) Concern for Community; while focusing on member needs, cooperatives work for the sustainable development of communities through policies and programs accepted by the members.

Cooperatives empower people to improve their quality of life and enhance their economic opportunities through self-help. The NCFC echoes these sentiments by providing the following reasons why cooperatives were or are being formed: to strengthen bargaining power, maintain access to competitive markets, capitalise on new markets opportunities, obtain needed products and services on a competitive basis, improve income opportunities, reduce costs and manage risks (Ortmann and King, 2006). Farmers form cooperative with the objective to generate greater profits, by obtaining inputs and services at lower costs than they could obtain elsewhere or that were not available and by marketing their products at better prices or in markets that were previously not accessible (Barton, 2000). It is essential for farmers to look and learn from other countries on what they are experiencing and how they overcome their challenges. The study discusses the role and experience of cooperatives in other global countries next.
2.3 Agricultural cooperatives: global context (Brazil, Canada, China and Spain)

These cooperatives are discussed under three criteria in order to compare lessons from each one of them. The criteria are: status of agricultural cooperatives, role of agricultural cooperatives in poverty reduction and challenges faced by agricultural cooperatives. The first country is Brazil.

2.3.1 Brazil

2.3.1.1 The status of agricultural cooperatives in Brazil

Agricultural cooperatives have played an important role on technological change in Brazilian agribusiness, primarily, on cases in which these farmers owned organisations contract with public research and development institutes (Fronzaglia et al, 2008). Most agricultural cooperatives concentrated on gross products stage of the value chain and entering into the higher value-added stages of processing is very knowledge demanding. Nevertheless, origination of agricultural products is a very complex and high technology content operation. Therefore, innovation is a crucial matter for farm cooperatives to keep their member producers competitive and to survive. Two critical success factors are highlighted for agricultural cooperatives to interact in an innovation process.

Agriculture represents an essential component of Brazil’s economy, amounting to 10% of its GDP, 40% of exports and 30% of employment. A full 40% of Brazil’s agricultural output is produced by its 1,406 agricultural cooperatives (Pozzobon, 2007). Member-owned and operated, cooperatives empower small and medium-sized producers by providing training and other forms of technical assistance while introducing democratic principles through regular one member-one vote elections (CDP, 2007). Brazilian agricultural cooperatives have an increasingly share of agricultural markets in the last decade after a market oriented restructuring process. Records from the Brazilian Cooperatives Organisation (BOC), indicates that in 2009 there were 7.261 active agricultural cooperatives, accounting to 8.252.410 farmer members, employing 274.190 employees directly. The economic status of these organisations is perceived by its share of 38.4% in the Brazilian agricultural Gross Internal Product–GIP, and 47.5% in the total Brazilian cooperative sector GIP. Direct exports from agricultural cooperatives generated revenue of USD 3.3 billion in 2007. These records indicated that there is rapid growth in agricultural cooperatives so as to eradicate poverty in rural areas.
2.3.1.2 The role of agricultural cooperatives in poverty reduction in Brazil

Brazil suffers from the persistence of two historically related problems: a high percentage of the population lives in poverty, approximately 23% in 2007, or around 42 million people and the level of social inequality is high; the level of income concentration as measured by the Gini index was 0.553 in 2007. Inequality and poverty are the causes, not the consequences, of the underdevelopment in Brazil (De Souza, 2009). Experience has shown that because past economic growth in Brazil did not redistribute income, it was insufficient to create solid domestic markets and to promote the basis for sustainable development.

The current Cooperate Development Program (CDP) continues to help local producers move toward greater profitability in an atmosphere that promotes sustainable farming and business operations while conserving Brazil’s immense and vulnerable natural resource base (CDP, 2007). Brazil’s government scored success in reducing poverty in the last two decades however, rural poverty is still spreading. With about 67% of its rural population living in poverty, Brazil’s Northeast is considered as one of the poorest in the country and least developed regions in Latin America (CDP, 2007). As a consequence, many smallholders and livestock owners live in poverty. Agricultural cooperatives are considered to be a key factor to improve food security and to guarantee a safe income for smallholders. Especially by increasing smallholders’ market power, cooperatives can improve their living conditions (Hagel et al, 2013). This affirms that in Brazil they value agricultural cooperatives as a way out of poverty, thus agricultural cooperatives play a crucial role in reducing rural poverty in Brazil.

2.3.1.3 Challenges faced by agricultural cooperatives in Brazil

Agricultural cooperatives are faced with several challenges in Brazil. Some of the challenges facing agricultural cooperatives are; governance problems such as mismanagement, unethical behaviour, financial scandals or a failure of democracy (Pozzobon, 2007). Subsequently, a number of corporate problems around the world have reinforced the perception that managers are unwatched. Most observers are now seriously concerned that the best managers may not be selected, and that managers, once selected, are not accountable.

In Brazil, lack of infrastructure is one of the main challenges facing agricultural cooperatives and also hinders agricultural productivity. According to Climate Policy Initiative (CPI) (2013) Agricultural producers depend on infrastructure to reach both upstream and downstream markets. In determining producers’ access to inputs and consumers, infrastructure alters the return on agricultural production and affects productivity. In-farm infrastructure particularly
storage capacity is also relevant to ensure the agricultural product meets requirements concerning quality and timing of delivery. Transportation bottlenecks also burden agricultural production. Poor and inefficient roads make transportation costly (CPI, 2013).

Other challenges such as concentration and specialisation of agricultural production limit cooperatives in an environment in which members have higher heterogeneity: few producers of large scale focused on commodities, and a great majority of farmers producing specialties. As a consequence, cooperatives consolidate to play on commodity markets, or start to attend a great number of heterogeneous producers, looking for markets of differentiated products (Fronzaglia et al, 2008).

2.3.2 Canada

2.3.2.1 The status of agricultural cooperatives in Canada

In Canada, Cooperatives have become very important to the Agricultural Sector. They have a long and fruitful history as drivers of rural economies and mainstays of many communities across the country. They have established a strong presence among farm supply, marketing and processing industries generating a combined business value of over $19.0 billion. They are also dominant players among dairy, grain/oilseed and poultry commodities and represent some 654,047 producers (Macpherson, 2003).

According to Cameron and Hanavan (2014) ‘Agricultural cooperatives have been a major component of the Canadian cooperative movement since the 19th century’. Currently, agricultural cooperatives are the largest sector among non-financial cooperatives in Canada, representing a greater share of employees (37.4% of the total) and a larger share of revenues (46.1%) than any other cooperative sector. Of the 5,679 nonfinancial cooperatives in Canada, there are 1,309 agricultural cooperatives. In 2007, agricultural cooperatives had over $8.9 billion in sales, across a range of different sectors. Based on the facts about Canada it shows that its cooperatives are doing well. The next section discusses the role of agricultural cooperatives in poverty reduction.

2.3.2.2 The role of agricultural cooperatives in poverty reduction in Canada

According to Indian and Northern Affairs Canada (2001) ‘Cooperatives have significant positive economic impacts on the community. Employment of community members has been a positive impact from the formation of the cooperative. Cooperatives also play a major role in recycling capital within the community’. Profits that are generated by the cooperative are
reinvested into the business and paid out in the form of patronage. Businesses not owned by the community do not provide the same economic benefits.

In Canada, cooperatives play an important role in many sectors of economy. Although they are traditionally leading players in the agricultural and financial sectors, they have also been involved for some time in a number of other sectors, such as retail, housing, child care, telecommunications, funeral services and, in the past few years, health, and arts and culture. More recently, they have entered new areas such as renewable energy and fair trade (Richards, 2012). Cooperatives also play a major role in the agricultural economy as well as in the development of areas suffering certain economic difficulties, and that their structure is ‘ideal to increase employment and social cohesion’. Agricultural cooperatives are entrenched in their community and contribute to maintaining jobs in the area, while providing local services within a context of economic globalization (Richards, 2012).

Canadian Cooperatives Association (CCA) uses the cooperative model to help poor people and communities in developing countries build sustainable livelihoods, thereby reducing poverty and vulnerability. The cooperative model offers a multidimensional, holistic approach to poverty reduction and recognises the importance of non-economic factors in determining quality of life and standard of living (Ferguson, 2012).

2.3.2.3 Challenges faced by agricultural cooperatives in Canada

Canadian cooperatives have been in operation for over 30 years, yet they had faced some difficulties in their early stages. The major hindrance of the cooperative was the availability of funds to finance operations. Government institutions were not forthcoming with funds that were requested. To overcome this challenge, cooperatives gained access to large existing northern cooperative network. This system is made up of numerous cooperatives and is called Artic Cooperative limited (ACL) (Indian and Northern Affairs Canada, 2001).

Zhu and Apedaile (1998) identified six main problems facing cooperatives in Canada. These problems were also common in China. The problems are as follows;

(a) The shifting ground resulting from the rapid globalisation of the rural economy.
(b) Both members and leaders are having difficulty understanding the function of cooperatives in this new rural economy.
(c) Conflicts are arising between members’ individual and collective interests, especially as society evolves to accord greater merit and legitimacy to individual enterprise than to collective pursuits.
 Growing competition between corporate and cooperative companies' demands greater and greater strategic and management skill from members.

Conflicting signals rooted in the disequilibrium in the rural Canadian economy. While some regions and communities flourish, rural Canada also has dying villages and towns, substandard social services and chronic shortage of money for private and public investment. Unemployment rates are particularly high among rural youth, seasonal workers and in the eastern rural areas.

The gradually widening gap among members’ equity, needs for liquidity and public liability.

2.3.3 China

2.3.3.1 The status of agricultural cooperatives in China

According to Garnevska et al (2011) Agricultural cooperatives in Northwest China first appeared in the 1920s. Their development has been strongly influenced by the external environment and political approaches to cooperative promotion. Agricultural cooperatives have developed rapidly in China in the past years; progress has not been uniform across the provinces, due to differences in farmer education levels and varying economic and social situations (Prakash, 2002). Realising the importance of agricultural cooperatives in rural development in China, the government established a Farmer Specialised Cooperative Law which came into force in 2007. The law was to promote and guide agricultural cooperative development. According to this law, agricultural cooperative should be set up by following the principles:

(a) Farmers play the dominant role amongst their members;
(b) The key purpose is to serve members and act in the common interests of all members;
(c) The members shall join and exit voluntarily;
(d) All members are equal and cooperatives are democratically controlled;
(e) Surplus should be redistributed, based on the volume of members’ patronage (Garnevska et al, 2011).

After 2007, with the release of the agricultural Specialised Cooperatives Law and various governmental support polices, agricultural cooperatives developed very rapidly in rural China. According to the data from the Ministry of Agriculture (MOA), there were 310,000 registered farmer cooperatives with 26,000,000 households’ members in June 2010. These farmer cooperatives have shown remarkable results in the acceleration of the agricultural development and an increase in farmers’ revenue (Yuan, 2008). Therefore, the development
of farmer cooperatives has become a highlight in the innovation of China’s agricultural management organisations and systems (MOA, 2011).

The present day concept of agricultural cooperatives in China is the outcome of a long drawn process of development. In order to give boost and to ensure food security for the people, the government had experimented with the commune system, which, after some experimentation, was converted to a collective system where farmer-members were expected to produce food for the state.

2.3.3.2 The role of agricultural cooperatives in poverty reduction in China

In China Agricultural cooperatives are believed to function as a tool for the government in promoting economic and social development, in particular, by creating employment, generating income, eradicating poverty and strengthening farmers’ market power within the modern value chain (Zuhui, 2013). Chinese government played an important primary role in agricultural cooperatives development. The government attempted to restructure the agro-food system to a modernised and industrialised one by supporting farmer cooperatives and producer organisations. Since the first ‘Law of Farmer Professional Cooperatives’ (FPCs) was enacted in 2007, FPCs could enter into complex contracts and the development of cooperatives entered a new era (Sultan et al, 2010).

In China, an agricultural cooperative is an important way to organise scattered farmers, improve agricultural production, and help farmers get access to the markets. According to the data from ‘Report on the Development of China Farmer Cooperatives (2006-2010)’ the average income of farmer cooperative members was 20 per cent higher than non-members (Fan, 2011). Cooperatives provide a means by which disadvantaged groups can work together, sharing risks, to solve their common problems. Their role in agriculture has long been recognised as offering stability and security to small farmers, who alone struggle to cope in competitive and fluctuating markets. Through cooperation, farmers may realise economies of scale in acquiring farm inputs, improve their standards of production and marketing and jointly organise credit, transport, professional services and processing, creating off farm employment as well as funds to help improve rural social services (Ling, 2006).

2.3.3.3 Challenges faced by agricultural cooperatives in China

Agricultural cooperatives in China are facing rigorous challenges and problems, such as complex property rights, vague positioning, shrinking functions, poor links to farmers, and weak performance of the organisation (Huang et al, 2006). Other problems facing
cooperatives in China include: horizon problem, free rider problem, portfolio problem, control problem and influence on cost problems (Garnevska et al, 2011). Cooperatives have gradually lost their traditional superiority due to the dramatic development of the country’s market economy. The most fundamental problem of the cooperatives is the absence of the ultimate owners, which leads to a less effective governance structure and can result in insiders’ domination over the residual claims (Huang et al, 2006). As such, a key element of successful transformation will be in identifying the proper ultimate owners and in establishing a scientific governance and management structure.

Some of the challenges in cooperatives are educating cooperative managers, members, farmer-leaders and policy makers on the cooperative business model. The principles and practices of member oriented cooperative enterprises can be misunderstood and misinterpreted which can result in creating a negative image for cooperatives (Anderson and Henehan, 2005). This negative image can discourage farmers from joining or remaining loyal to cooperatives as well as undermine confidence among policy makers in the cooperative business model (Xiangyu et al, 2007).

2.3.4 Spain

2.3.4.1 The status of agricultural cooperatives in Spain

According to Bellostas et al (2002) in Spain, agricultural cooperatives are wealth and employment generators being able to keep traditions and local culture, thus articulating at the same time a voluntary association characterised by solidarity and a democratic membership control in the decision making process. It is worthy to note that in the last decade, cooperative movement in general and particularly cooperative movement in Spain have experienced deep changes related to the agricultural sector. The agricultural cooperatives represent in the European Union about 30,000 cooperative enterprises, almost 9 million members, over 600,000 employees, about 210 billion EURO turnover, over 50% of agricultural inputs supply and over 60% of the collection, processing and marketing of agricultural products. These records were from years ago between the periods of 1998/1999 by COPA COGECA. In Spain, agricultural cooperatives are generally small and numerous relative to the European average cooperative size and number (COGECA, 2005).

In spite of the fact that the average turnover increased from 2.7 million Euros in 2000 to 4.4 million Euros in 2007, they are still behind the European average turnover of above 10 million. Only 39% have more than 1,000 members and only 1.7% of these cooperatives have a turnover above 30 million Euros (OSCAE, 2009). 77% have less than 5 million Euros and 39% less than a million (OSCAE, 2009). Although the number of cooperatives is declining, in
2011, there were still 3,918 agricultural cooperatives (3,659 in 2005 and 4,118 in 2000). In 2011 total turnover increased to 17,405 million Euros, with 1,160,337 members and 93,733 employees. This demonstrates a 6.63% increase from 2005, in which year turnover was 16,323 million Euros (OSCAE, 2011).

Spanish agricultural cooperatives have been experiencing substantial business development. This process is a consequence of the latest changes in the regulations governing Spanish cooperatives. Major cooperative groups with high turnovers have developed in this positive environment. Although there are differences between countries, the European cooperative movement is a good example of the prominence that cooperatives have achieved in many sectors. Their traditional goals are changing and one of their current priorities is to meet the requirements of the Common Agricultural Policy (CAP) as regards agricultural multi-functionality. Nevertheless, the principles of this concept were already present in their own belief.

2.3.4.2 The role of agricultural cooperatives in poverty reduction in Spain

Agricultural cooperatives in Spain have played a very important role in the development of rural economies. In most cases, agricultural initiatives and other cooperatives are located in areas where, at least originally, no investor owned firm would have chosen to operate (Julia and Mari, 2002). These were rural areas where poverty was much higher than other rural areas in Europe. Spanish research has focused on the link between cooperatives and rural economic development suggesting that the ‘social’ component and value of cooperatives, although not necessarily established by legislative authority, has continued and flourished due to the cooperative form put into practice (Giagnocavo et al, 2010).

The agricultural cooperatives sector provides direct employment to more than 40,000 workers annually. It is currently the only sector in the region which is generating employment and, given the cooperative structure of the agricultural sector, the economic benefits of such development are widely distributed (Giagnocavo and Vargas-Vasserot, 2012).

The role of agricultural cooperatives as employment generators in Spain is more related to poverty reduction. Employment creation may mostly lead to poverty reduction in the country by creating job opportunities for poor people in the rural areas. The creation of more job opportunities will result in rural development. Julia and Mari (2002) proposed that ‘agriculture cooperatives in Spain could contribute to rural development because: (a) they are stable organisations in the local economy; (b) they have developed new support functions and new sustainable production methods; (c) they are protagonist of agro-industrial development and
new local services; (d) finally, the cooperative sector could be an active actor in the definition of rural development policy’.

In 2010 there were 3,487 agricultural cooperatives, which employed 67,013 workers. In the last few years there has been a decline in the number of cooperatives, which was 3,659 in 2005 and 4,118 in 2000. The number of employees has grown from 48,437 in 2003 (OSCAE, 2010). These records indicate the changes in the number of employment within the region, from worse to better in past years created by Spanish agricultural cooperatives. They also emphasise the role agricultural cooperatives are playing in poverty reduction within the country due to high number of employment created.

2.3.4.3 Challenges faced by agricultural cooperatives in Spain

In Spain, most agricultural cooperatives are traditionally organised (Nilsson et al, 2009). However, in order to be competitive, cooperatives have been growing in size. This increase in size also leads to obvious challenges. Corporate governance and trust are main challenges identified in Spanish agricultural cooperatives.

Corporate governance control mechanisms are designed to align the interests of owners and managers of firms. Problems associated to the governance of cooperatives have been tackled with less intensity and a certain delay relative to capitalist firms. Most studies agree that problems on cooperatives are more complicated due to the fact that there are more players relative to capitalist firms and, in addition, some of them assume more of a role. In fact, although some studies suggest that in the cooperatives there is no separation between ownership and control and, therefore, conflict does not exist, other studies put the emphasis in the limitations of the cooperative members to influence the behaviour of managers, to the point of concluding that in such companies the discretion of the managers is larger than in capitalist firms (Minguez-Vera et al, 2010).

Trust is another mechanism identified on agricultural cooperatives that mitigates agency problems (Borgens, 2001). Many studies confirm that trust is essential in a cooperative (James and Sycuta 2005; Nilsson et al, 2009; Osterberg and Nilsson 2009; Nilsson et al, 2012) by reducing behavioural uncertainty (Theuvsen and Franz 2007) to the extent that it can act as a control mechanism that reduces the opportunistic behaviour of managers (Arcas-Lario and Hernández-Espallardo, 2003). Thus, in agricultural cooperatives, the trust of members in their cooperative may be defined as the members’ belief that their cooperative will take decisions and adopt behaviour that will allow them to reach their goals.
2.3.5 Synthesis of agricultural cooperatives from the global perspectives

Literature suggests that agricultural cooperatives around the world play a significant role in poverty reduction and rural development. More specifically, the acknowledgement that agricultural cooperatives play an important role in food production and distribution and in supporting long-term food security cannot go unnoticed. It was noticed that cooperatives in Brazil are playing an important role on technology change in agribusiness, more especially through contract with public research and development institutes. Furthermore, Canadian cooperatives are more important to the agricultural sectors. This is due to that they have fruitful history as drivers of rural economies. It was also documented that agricultural cooperative are wealth and employment generators in Spain, thus cooperatives plays a significant role in poverty reduction and food security globally.

Literature emphasised that agricultural cooperatives are considered to be key factor in improving food security, living conditions and ensure safe income to farmers. This can be achieved by increasing farmers marketing power. Cooperatives are also used as a model to help poor people and communities in developing countries to build sustainable livelihoods, thus reduce poverty and vulnerability. In China, cooperatives are used as a tool by government to promote economic and social development by creating employment, generating income, eradicating poverty and strengthening farmers’ market power. Based on the globally facts, it shows that their cooperatives are doing well. The next section discusses the status of agricultural cooperatives, role of agricultural cooperatives in poverty reduction and their challenges with respect to regional perspective.

2.4 Agricultural cooperatives: Regional context (Ethiopia, Nigeria, Tanzania and Uganda)

These cooperatives are discussed under three criteria in order to compare lessons from each of them. The criteria are: status of agricultural cooperatives, role of agricultural cooperatives in poverty reduction and challenges faced by agricultural cooperatives. The first country is Ethiopia.

2.4.1 Ethiopia

2.4.1.1 The status of agricultural cooperatives in Ethiopia

According to Ethiopian Agricultural Transformation Agency (2014) ‘The Federal Cooperative Agency (FCA) recognises approximately 40,000 cooperatives in Ethiopia, in which about 10000 are agricultural cooperatives. Out of these 10,000 cooperatives, approximately 3,000 focus on a single agricultural commodity or irrigation, while the majority of the remaining
7,000 multipurpose cooperatives concentrate primarily on agriculture. In total, it is estimated that about 7 million Ethiopians are members of cooperatives’.

The Ethiopian government set a five-year (2006-2010) development plan in an attempt to realise the benefits of collective action, to provide cooperatives services up to 70% of the population that can supply 90% of production inputs and market 60% of surplus output. However, the participation rate in the modern forms of agricultural cooperatives reported to be 9%, despite 39% of smallholders had access to a cooperative organisation (Bernard and Spielman, 2009).

Currently, agricultural cooperatives are the pillar of agricultural development in Ethiopia. However, cooperatives still appear to be dependent on public support and in most of the cases they lack managerial practices. Although, the government has promoted the involvement of cooperatives in the established commodity exchange, cooperative membership has had an insignificant impact on agricultural commodity commercialisation. In fact, only the minority of cooperatives engage activities of output marketing (Rodrigo, 2012).

2.4.1.2 The role of agricultural cooperatives in poverty reduction in Ethiopia

In Ethiopia, Cooperatives play a meaningful role in uplifting the socio-economic conditions of their members and their local communities. The Government of Ethiopia has identified the cooperative form of business organisations as instrumental to socio-economic development and has supported cooperatives for decades to improve agricultural production and productivity. Agricultural cooperatives also enable farmers to sell their crops at higher prices. Additionally, many primary cooperatives and unions actively provide their members with key services, such as fertilizer and seed distribution, aggregation and adding value to outputs, credit provision, and distribution of consumable goods.

According to Woldu et al (2013) 85% of the population depends on agriculture for livelihood. Many are smallholder farmers who lack modern inputs and market access. Agricultural cooperatives hold much potential to enable these economically weak farmers to increase their collective bargaining power and individual capacities and so enhance their incomes and reduce poverty. They provide input services, create market opportunities, and help sell their members’ products.

2.4.1.3 Challenges faced by agricultural cooperatives in Ethiopia

The main challenge facing agricultural cooperatives in Ethiopia is women participation. Women’s participation in agricultural cooperatives is generally very low. Those women who
are members face problems and constraints that adversely affect the benefits that their membership in such groups should bring. Land ownership is a requirement for cooperative membership. Most women, married or as female heads, have limited access to and ownership of land due to customary practices that assume male headship and ownership, despite new land certification policies in Ethiopia that define both women and men as equal owners (Woldu et al, 2013).

Veerakumaran (2007) identify some other common challenges in Ethiopian cooperatives. Such challenges include; organisational and structural, resources, political and legal, monitoring and evaluation problems.

2.4.2 Nigeria

2.4.2.1 The status of agricultural cooperatives in Nigeria

In Nigeria, one of the major problems of agricultural development is that of developing suitable organisation and institution to mobilise and induce members of the rural sector to a greater productive effort (ICA, 2010). As such rural farmers who are characterised by low income, low resource utilisation, small farm holdings and scattered nature of farmland, finds it difficult to pool their resources together in order to raise their farm income and substantially improve their living conditions (Jimoh, 2012). In such situation, agricultural cooperatives represent a strong and viable economic alternative.

After more than seventy years of introduction of this very important socioeconomic institution in Nigeria, cooperatives remain very misunderstood. This misconception may be traced to the circumstances under which cooperatives were introduced into Nigeria by the colonialists as tools to enhance further exploitation of abundant agricultural raw materials in the colony (Agbo, 2009). According to Onuoha (2002) there are traditional and modern cooperatives societies in Nigeria. The modern cooperative societies started in the country as a result of the Nigerian cooperative society law enacted in 1935 following the report submitted by C. F. Strickland in 1934 to the then British colonial administration on the possibility of introducing cooperatives into Nigeria (Jimoh, 2012).

2.4.2.2 The role of agricultural cooperatives in poverty reduction in Nigeria

In Nigeria agricultural cooperative provide locally needed services, employment and input to farmers, cooperatives also provide opportunities to farmers to organise themselves into groups for the purpose of providing services which will facilitate output of members (Jimoh, 2012). Rural farmers in Kogi state like their counterparts in other parts of Nigeria are trapped in continual poverty, malnutrition, unemployment and mass drift from rural to urban area.
Therefore, there is need for farmers to form cooperative societies to allow them pool their resources together for increased agricultural productivity and also reduce poverty. It can be pointed out that agricultural cooperatives in Nigeria play an important role in increasing agricultural productivity, hence poverty reduction. Bhuyan (2007) stressed that rural cooperatives played an important role in mobilising and distributing credit to the farmers. He further stressed that cooperatives provide members with a wide range of services such as credit, health, recreational and housing facilities. Agricultural cooperatives are also useful in the dissemination of information about modern practice in agriculture.

Hermida (2008) reported that agricultural cooperatives provide functional education to members in the areas of production, processing and marketing of agricultural produce. The education of cooperative members could be formal where members are trained in courses like accounting and farm management. They could also be trained informally through the attendance of national and international conference and seminars. Training of agricultural cooperatives members helps in a successful daily running of cooperatives so as to make them profitable. Profitability of cooperatives plays a part on poverty reduction within its members and community.

### 2.4.2.3 Challenges faced by agricultural cooperatives in Nigeria

In Nigeria, the most important reasons for cooperative failure include; the shortage of trained managers, lack of understanding of the principle and approaches of cooperatives and inability of cooperative members to cope with the modern methods and tools of production (Borgens, 2001). Some of the problems facing cooperatives in Nigeria include; shortage of skilled personnel, inadequate financing, excessive government control and lack of trust among members (Jimoh, 2012). Onje (2003) added that the problem of dishonesty among cooperative leaders is another factor slowing down the growth of cooperative in Nigeria. According to Borgens (2001) ‘the participation of cooperatives in marketing of agricultural produce is low as result of poor organisational structure, inadequate infrastructural facilities and administrative bottlenecks’.

Other major problems identified by Agbo (2009) include poor cooperative education, mismanagement of existing cooperative societies, illiteracy, political instability, overdue loans, lack of patronage of existing cooperative societies, bad projects, diversion of farm inputs meant for all by a few and unfulfilled promises by government. Poor cooperative education, illiteracy of the general public and overdue loans were the most generally cited hindrances to cooperative growth accounting for 65.32%, 60.48% and 20.16%, respectively.
Previous authors, like Onuoha (1986) also agreed that cooperative education is central to agricultural cooperative development.

2.4.3 Tanzania

2.4.3.1 The status of agricultural cooperatives in Tanzania

In Tanzania, Cooperatives increased rapidly with firm support from the government. Agricultural marketing cooperatives were dominant, but different types of cooperatives were encouraged by the government. Traditionally, the type of cooperative that has been dominant in Tanzania mainland is the one that has focused on marketing of peasant’s agricultural crops (Bibby, 2006). This kind of cooperative has been dominant in terms of members and volume of trade since the birth of cooperatives in the 1920s.

Cooperatives have struggled to compete with the private sector and many have not been able to provide their members with services they need. The Government has responded to this problem by introducing a new Cooperative Development Policy (2002) to help cooperatives to regain their importance in the economic lives of the people. The free market policies forced the cooperatives to undergo structural changes. By this situation, the Government formulated new progressive Cooperative Development Policy of 2002 and also passed the 2003 Cooperative Societies Act in order to accommodate inevitable changes in the cooperative movement (Banturaki, 2012).

2.4.3.2 The role of agricultural cooperatives in poverty reduction in Tanzania

According to Tanzanian Federation of Cooperatives (TFC) in Collaboration with the Cooperative Development Department (2006), Government of Tanzania has been implementing the Poverty Reduction Strategy for a few years now. This process recognises the importance of organisations that bring poor people together, like cooperatives. As part of the programme to reduce poverty, the government wants to encourage people to form cooperatives in order to improve their economic prospects. The government would like to see the expansion of cooperatives into sectors other than agriculture, such as finance, housing, industry, minerals, livestock, fishing, bee keeping and transport.

In Tanzania, agricultural cooperatives play a crucial role in poverty reduction. Sizya (2001) indicated some of the agricultural cooperatives roles in poverty reduction as follows;

(a) Marketing services for small holder farmers

It is well known that the small holder farmers who comprise the majority of the rural poor need effective production support and marketing services to facilitate production and
sales of their produce. Produce sales comprise the major source of income for the rural poor. It therefore constitutes a major means for poverty reduction for the majority of the rural poor.

(b) Providing a voice to the poor in the policy making structures
Government has given Cooperatives a place in the Policy making machinery. The Apex organisations are represented on the Crop Industry Councils which have been established to bring in all stakeholders in the policy making process. Given the weak status of the Cooperatives and particularly the Apex Cooperatives, this representation is yet to be effectively utilised to bring up the voice of the rural poor whom the cooperative structures are indeed to represent.

(c) Innovations to improve member incomes and benefits
Cooperative Unions have attempted to innovate mechanisms for linking coffee producers to the consumers to realise better prices for the producer. These innovations are indicative of the poverty reduction motives of cooperative enterprise.

(d) Employment Creation Potential of Cooperatives
The employment potential of cooperatives has been little acknowledged in the long history of the Tanzanian Cooperative Movement. Obscured by the dominant poor performance the cooperatives have nevertheless contributed significantly in employment creation. The large numbers of agricultural cooperatives, the savings and credit cooperatives and other types of cooperatives have provided employment to many people across the country. The Cooperative Support Institutions, whose existence is mainly on account of cooperatives, have equally employed many people.

(e) Education support to children of the poor
Cooperatives in Kagera and Kilimanjaro are reputed for the support they have provided for education to the poor in their regions.

2.4.3.3 Challenges faced by agricultural cooperatives in Tanzania

In Tanzania, agricultural cooperatives are faced with several challenges. These challenges hinder agricultural productivity within cooperatives. The Cooperative Reform and Modernisation Program (2005) cited some of the challenges. The challenges are as follows; (a) Weak cooperative leadership and management, (b) Having an indifferent, submissive and small membership, (c) Weak economic base and lack of strategic planning, (d) Lack of adequate capital and sustainable financing, and (e) Weaknesses in Cooperatives Support Institutions.
Ministry of Agriculture, Food security and Cooperatives, Tanzania (2011) cited some other challenges that need to be addressed to enable them improve on governance, outreach, product diversity and portfolio management. The following are challenges encountered:

(a) Low capital base leading to limited development of cooperatives due to increasing Capital inadequacy;
(b) Inadequate knowledge of banking Services and investment opportunities resulting to inappropriate investment of financial resources;
(c) Limited range and variety of financial products and services;
(d) Political interference and uninformed members and Leaders;
(e) Weak and inadequate internal controls and financial systems thus creating opportunities for mismanagement of resources; and
(f) Inability to maintain adequate liquidity to meet savings withdrawals.

2.4.4 Uganda

2.4.4.1 The status of agricultural cooperatives in Uganda

In Uganda, agriculture is hugely important: it employs 68 per cent of the population, underpins millions of livelihoods and contributes to the economy. Agricultural cooperative sector has since the early 1990s gone through a process of restructuring shifting from the inefficient parastatal cooperatives to more spontaneous, autonomous, business-oriented cooperatives. This restructuring process has been led by the Uganda Cooperative Alliance (UCA), an umbrella organisation of cooperatives. Its focus has mainly been on uniting and strengthening grassroots farmer organisations to maximise membership, build commitment among members and remain financially viable (Kwapong, 2013).

In recent years, the Uganda government has shown commitment and interest in reviving the cooperative sector. The government has strengthened surviving cooperatives and promoted the establishment of new marketing and financial cooperatives to reach farmers with services that contribute to improving rural livelihoods and reducing poverty. The agricultural cooperative structure in Uganda needed reforms to help farmers adjust to the changing business environment of a liberalised market economy and to revive the fallen cooperative movement (Kwapong and Korugyendo, 2010).

In recognition of the role of cooperatives in poverty reduction, the government has sought to create an enabling environment for cooperatives to develop and thrive. Currently, the cooperative movement is composed of 13,202 cooperative societies (of which about 90 % are involved in agriculture marketing and production, and savings and credit) (92.5% of the
total cooperatives) with a membership of about 4 million people. There are 13,064 primary societies, 129 secondary societies of which 70 are Area Cooperative Enterprises, 8 tertiary societies and 1 apex, the Uganda Cooperative Alliance Ltd which is responsible for lobbying, advocacy and resource mobilisation for the cooperative movement, capacity building and advisory services to the movement, and promotion of relationships and alliances between bodies and institutions involved in the development of cooperatives (Nannyonjo, 2013).

2.4.4.2 The role of agricultural cooperatives in poverty reduction in Uganda

According to Nannyonjo (2013) cooperatives in Uganda play a major role in financial resources mobilisation, agro-processing and marketing of agricultural produce. They also contribute in significant ways to eradicating poverty, improving food security, providing employment, mitigating the problem of financial leakages like repatriation of funds and other remittances abroad, ensuring environmental sustainability, tackling the HIV/AIDS and malaria pandemic, and mainstreaming gender. Cooperatives therefore offer enormous potential for delivering growth by providing opportunities and empowering the vulnerable to participate in the development process.

According to Kwapong and Korugyendo (2010) the revived cooperatives are contributing to poverty reduction. Over 90% of surveyed members reported changes in their income after joining and marketing their produce through the cooperative, with 92% of these reporting an increase in income over the past five years. Cooperatives assisted the less privileged to improve their living conditions. Despite the current lukewarm performance, they continue to offer employment opportunities to many people, especially women and the youth. They have contributed to poverty reduction through the establishment of income generating activities and the offering of employment opportunities (Kyazze, 2010).

2.4.4.3 Challenges faced by agricultural cooperatives in Uganda

According to Nannyonjo (2013) cooperatives face some common internal challenges such as governance and leadership, poor capitalisation, inadequate knowledge, management information systems and expertise in managing cooperatives.

Kwapong (2013) identified other challenges inherited from the traditional nature of cooperatives such as lack of capital; vaguely defined property rights; inability of member patrons to adjust their cooperative portfolio to match their personal risk preference; control problem which arises from cost of trying to prevent the divergence of interests between the membership and the board; and influence cost resulting from organisational decisions affecting the distribution of wealth or other benefits among members.
2.4.5 Synthesis of agricultural cooperatives from the regional perspectives

According to the regional literature reviewed, agricultural cooperatives show some challenges in poverty reduction as compared to global cooperatives. In Ethiopia, agricultural cooperatives are regarded as the pillar of agricultural development even though they still appear to be dependent on public support and in most cases they lack managerial practices. The Ethiopian government has promoted the involvement of cooperatives in the established commodity exchange; cooperative membership has had an insignificant impact on agricultural commodity commercialisation. In Nigeria, even after 70 years of introduction of this very important socio-economic institution, cooperatives remain misunderstood. This might be due to fact that cooperatives were introduced into Nigeria by the colonialists as tools to enhance further exploitation of abundant agricultural raw materials in the colony. In Tanzania, cooperatives have struggled to compete with the private sector and many have not been able to provide their member with service they need. In Uganda, the fallen cooperative movement need to be revived and reformed in order to help farmers to adjust to the changing business environment of liberalised market economy. The regional status of cooperatives shows that they are not really doing so well as compared to global status. This might be because global perspective looked on developed countries and regional perspective focused on developing countries.

Even though cooperatives are not doing well regionally, they are managing to play a meaningful role in uplifting the socio-economic conditions of their members and their local communities. In Ethiopia, cooperatives enable farmers to sell their crops at higher prices, thus increase income. In addition, primary cooperatives and unions provide actively their members with key services such as fertilizer and seed distribution, aggregation and adding value to outputs, credit provision, and distribution of consumable goods. In Nigeria, cooperative provide services, employment and input to farmers. Furthermore, provide opportunities to farmers to organise themselves into groups in order to provide service which will facilitate output of members. Despite the lukewarm performance, they continue to offer employment opportunities to many people, especially women and the youth. The next section will discuss South Africa cooperatives with respect to their status, role and challenges in poverty reduction.

2.5 Agricultural Cooperatives: Local Context (South Africa)

2.5.1 The status of agricultural cooperatives in South Africa

In South Africa, Agricultural cooperatives are still the dominant sector comprising 25% of all cooperatives, cooperatives are now active in not less than 20 sectors of which 17% is in the
services sector, 12% in trading, 6% each in Textiles and Clothing as well as construction and 5% in manufacturing (Munjezi, 2011). According to Van der Walt (2006) the total number of agricultural cooperatives registered remains insignificant when compared to the total number of commercial farming units in South Africa, which can be attributed to the significant conversion of cooperatives to companies.

The South African history indicates that white cooperatives played a significant role in the South African economy. In 1993 there were about 250 cooperatives with total assets of R12, 7 billion and a total turnover of R22, 5 billion. These were achieved as a result of some government interventions at the time (DAFF, 2011). By 2005 just 78 (rather than 250 in the early 1990s) white farming and agricultural processing cooperatives (i.e. fruit and vegetables, livestock, grain and oil seeds, meat, timber, tobacco and wine) were responsible for producing a turnover of R6.7 billion, had assets valued at R5.4 billion and membership of 203,207 (Satgar, 2010). However, black farmers did receive the same form of support, and this has led to them not being able to meaningfully participate in the mainstream economy.

According to DAFF (2012), there are 836 agricultural cooperatives in the Cooperative Data Analysis System. Of the 836 cooperatives on Codas, 306 are found in the province of KwaZulu-Natal, which makes 36% of the total cooperatives. In terms of commodities the bulk of cooperatives are into the so called ‘multipurpose’ or mixed farming. In terms of financial performance cooperatives have an average turnover of around R43 million. Sixty five (65) cooperatives have received grants from the DAFF totalling R35 million. A total of 2 389 job opportunities were created by cooperatives in the sector. About 65% of this (1 858) is made up of permanent jobs while (33%) 981, was jobs of a temporary in nature. This is not surprising owing to the financial support and political drive in support of cooperatives in the province. Limpopo follows KwaZulu-Natal with 127 cooperatives translating into 15% of the total cooperatives on Codas. This could also be attributed to the financial support by Limpopo Business Support Agency (LIBSA) in the province.

July 2012 statistics report states that there are currently 49 716 active cooperatives in South Africa, of which 12 670 were registered in 2012 alone (Gouws and Lamprecht, 2013). A recent study by the DTI indicate that about 25% of all registered cooperatives function as agricultural cooperatives and that agricultural cooperatives contribute as much as 80% of the total amount contributed by cooperatives to GDP (Gouws and Lamprecht, 2013).
2.5.2 The role of agricultural cooperatives in poverty reduction in South Africa

In South Africa, Cooperatives particularly those in the agricultural sector, have long been recognised to play an important role in society that translates into the improvement of living conditions of their members (DAFF, 2012). Cooperatives empower people to improve their quality of life and enhance their economic opportunities through self-help and reduce poverty. Cooperatives are widely regarded to have a potential impact on development and poverty reduction. According to the United Nations (UN) these organisations have a wide-reaching direct and indirect impact on socio-economic development (Philip, 2003).

South African agricultural cooperatives play an important role in food production and distribution, and in supporting long-term food security in order to reduce poverty. Cooperatives can create productive employment, raise incomes and help to reduce poverty (SEDA, 2013). Some agricultural cooperatives improve farm productivity by obtaining inputs at low cost; encourage sustainable farming techniques and developing member’s management and organisational skills (DTI, 2011).

According to Satgar (2007) the Limpopo Province has vast rural areas, with communities living in areas where conditions are not always satisfactorily. By stimulating economic conditions, this problem can be alleviated. The need for this study stems from the importance of cooperatives in addressing unemployment issues, as well from the need for the development of institutional structures which can support small medium and micro-sized enterprises development in the province. Communities must become self-sufficient and the cooperative can play an important role in increasing rural income and also reduce rural poverty.

2.5.3 Challenges faced by agricultural cooperatives in South Africa

The Development of Cooperatives has been identified by the government as one of the critical and viable means to alleviate poverty. In South Africa, one of the biggest issues facing cooperatives is the new Cooperatives Act no 14 of 2005. Responsibility for cooperatives in government has been transferred from the Department of Agriculture, where these responsibilities were based in the past, to the Department of Trade and Industry, where a Cooperative Enterprise Development Division has now been established. The new cooperatives Act was passed into law in 2005 (Van der Walt, 2006).

South African Department of Agriculture, Forestry and Fisheries (DAFF) (2010) identified several common challenges faced by agricultural cooperatives within the country. Some of those challenges encountered include the following:
(a) Lack of access to finance has been identified as one of the key constraints limiting the ability of cooperatives to reduce poverty and create jobs. Members of cooperatives, particularly in the rural areas, have the business ideas but lack the funds to implement their ideas;

(b) Lack of capacity in cooperatives is also a limiting factor in cooperatives. Many cooperatives suffer from weak management, poor governance and business skills. The low literacy levels of members of cooperatives compound this problem, resulting in cooperatives being unable to effectively and efficiently manage their business enterprises;

(c) Elite capture and male domination are also common challenges facing agricultural cooperatives. Although the report indicates that in comparison, female members are in the majority, males still dominate when it comes to managerial and leadership roles;

(d) Inability by cooperatives to scale up their business activities and expand market access. Most of agricultural cooperatives are unable to create economies of scale owing to weak capacity, poor access to finance and lack of information and linkages; and

(e) Lack of access to markets and agro-processing opportunities by smallholder farmer cooperatives has also been found to be a limiting factor.

2.6 Conclusion

As observed from the literature review, the study draws the following conclusion; the global cooperatives play a significant role in poverty reduction within the communities they are based in. Governments use cooperatives as a tool to reduce poverty, ensure food security and create employment. There are significant results that show cooperatives as wealth and employment generators. Judging from global countries like Canada and Spain, literature reviewed that they contribute at least quarter of total employment in the country. Regional cooperatives were found not to be doing so well in the role of poverty reduction. It was emphasised by Ethiopian cooperatives which were found to depend on public support and in most cases lack managerial practices. In Nigeria it was found that they misunderstood cooperative due to colonisation. Even though regional cooperatives didn’t perform according to expected standards, it was observed that they still play a crucial role in ensuring food security with the communities. Twenty five (25%) of agricultural cooperatives in South Africa were found to be dominant across all cooperatives. It was also observed that South African cooperatives play an important role in food production and distribution and in supporting long-term food security in order to reduce poverty. Cooperatives were all affected by similar challenges; that is governance problems, mismanagement, conflicts arising between members and lack of finance to finance farming operations.
CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research process of this study. It includes the following sections: study area, research strategy, method and design, data collection, data analysis and ethical considerations.

3.2 Study area

The study was conducted in Vhembe District Municipality. Vhembe District Municipality is located in the North of Limpopo Province. The province shares a border with Zimbabwe and Botswana and the district capital is Thohoyandou. Vhembe District Municipality consists of four Local Municipalities namely; Makhado, Mutale, Musina, and Thulamela. Vhembe District Municipality covers about 21 407 square Km of land with total population of 1 199 884 million people.

![Map showing South African provinces.](http://www.mapofworld.com) 
(Source: www.mapofworld.com) accessed on 11 June 2014.
According to Cooperative Data Analysis System (CODAS) (2014) there were 123 agricultural cooperatives in Vhembe District Municipality. The main activities ranges from vegetables, flowers, fruit, livestock, poultry, crops, wool, bee (honey), agro-processing, input supply, herbs, and mixed farming. Table 3.1 below shows the total number of agricultural cooperatives in each local municipality.

Table 3.1: Cooperatives in Vhembe District Municipality by Local Municipality

<table>
<thead>
<tr>
<th>Name of Local Municipality</th>
<th>Number of Cooperatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makhado</td>
<td>26</td>
</tr>
<tr>
<td>Musina</td>
<td>10</td>
</tr>
<tr>
<td>Mutale</td>
<td>18</td>
</tr>
<tr>
<td>Thulamela</td>
<td>69</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>123</strong></td>
</tr>
</tbody>
</table>
3.3 Research strategy, method and design

The descriptive survey design and the case study type of design were employed in the conduction of this research. The descriptive survey design was chosen because it helps to describe record, analyse and interpret the conclusions that exist in the study. The case study type of design was also appropriate for the study as it allows the researcher to concentrate on a specific instance or situation and to identify, or attempt to identify, the various interactive processes at work.

The research study was a combination of both qualitative and quantitative research methods. Qualitative data was utilised in the course of this research, it involves structured questionnaire complemented by personal interviews. The quantitative research technique using questionnaire was also adopted because the use of numbers allows greater precision in reporting results.

3.4 Data collection

3.4.1 Sampling technique

According to Cooperative Data Analysis System (CODAS) (2014) there were 123 registered agricultural cooperatives in Vhembe District Municipality. The study concentrated on crops and vegetables producers who were members of cooperatives only found in the rural part of Vhembe District Municipality. There were 70 agricultural cooperatives producing crops and vegetables in Vhembe District Municipality (see Table 3.2 below).

Table 3.2: Number of Crops and Vegetables Cooperatives per Local Municipality

<table>
<thead>
<tr>
<th>Name of Local Municipality</th>
<th>Number of Cooperatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makhado</td>
<td>14</td>
</tr>
<tr>
<td>Musina</td>
<td>6</td>
</tr>
<tr>
<td>Mutale</td>
<td>10</td>
</tr>
<tr>
<td>Thulamela</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>70</strong></td>
</tr>
</tbody>
</table>
The study employed a clustered random sampling technique in 4 Local Municipalities within Vhembe District Municipality. It involved selection of 9 cooperatives from Thulamela, 3 cooperatives each from Makhado and Mutale respectively and 1 cooperative from Musina Local Municipality. The sample size of agricultural cooperatives selected was 16. The required data was collected from all senior management members and general members of each cooperative. The sample size of members within 16 cooperatives was 120.

3.4.2 Information and data sources

Relevant data was collected from both primary and secondary sources. Primary data was collected with the aid of a structured questionnaire and complemented by personal interviews. Secondary data was collected from textbooks, journals, internet and other relevant literature.

3.4.3 Questionnaire design and construction

For the purpose of this study, semi-structured questionnaire was designed to guide the interviews. The questionnaire consisted of two parts: the background of the respondents and both open-ended and close-ended questions relating to the role of agricultural cooperatives in poverty reduction. The background of the respondents included socio-economic characteristics of farmers (sex, age, marital status, occupation, educational level, farm size, total farm size used, monthly farm income, monthly non-farm income and total income). Other data that was collected include financial performance of cooperatives, employment opportunities created by cooperatives, villages benefiting from cooperatives and challenges faced by cooperatives. Once prepared, the questionnaires were discussed with extension officers and relevant personnel; then pre-tested to ensure that they collect valid and authentic data. After approval of the questionnaire, face to face interviews were conducted by the researcher to generate all required data from cooperatives.

3.4.4 Key informant interviews

These are interviews conducted with key individuals within the community. They provide researcher with detailed qualitative information about impressions, experiences and opinions. Unlike structured survey methods which require strict adherence to a set procedure to ensure the scientific accuracy of the results, key informants interviews are less rigid and concentrate more on revealing issues and underlying reasoning rather than on quantifying public attitude and behaviour.
The more face to face nature of key informants interviews enable the researcher not only to ask respondents 'what' are the issues, opinions, needs and so forth regarding the role of agricultural cooperatives in poverty reduction, but also to probe 'why' they feel such issues, opinions and needs exist. They key informants' interview has a very specific purpose. It involves identifying different members of the community who are especially knowledgeable about the role agricultural cooperatives are playing in poverty reduction and asking them questions about their experience working or living within a community benefiting from such. Cooperatives members, local leaders responsible with farming practices, ordinary members of the community and other members who fall under agricultural committee were the main targets for the key informant's interviews. They were interviewed to give their opinions, experiences and knowledge concerning the role agricultural cooperatives play in poverty reduction.

3.5 Data analysis

Data capturing was done using Microsoft Excel and analysed using Statistical Package for Social Scientists (SPSS) version 20. The study employed two methods of data analysis, namely Descriptive and Binary logistic regression modelling using Statistical Package for Social Scientists. The qualitative data was subjected to a largely descriptive analysis, using simple statistical analysis of each characteristic such as tables, frequencies, percentages, means, and standard deviations for analysis. Descriptive statistics was used to describe the socio-economic characteristics of farmers, financial performance, employment opportunities, villages’ benefits and challenges faced by cooperatives. Binary logistic regression model was used to determine if the success of cooperatives has any statistical significant in reducing poverty within members of households.

3.5.1 Model specification

The results were modelled in the form of a logistic function as follows;

\[
\log \left( \frac{P}{1-P} \right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8
\]

Where: 

- \(P_i\) = probability of cooperative to reduce poverty (1)
- \(1-P_i\) = probability of cooperative failing to reduce poverty (0)
- \(\beta_0\) is the constant
- \(\beta_1 - \beta_8\) are the coefficients
- \(X_1 = \text{AGE}\)
- \(X_2 = \text{GEN}\)
- \(X_3 = \text{HHS}\)
\[ X_4 = \text{ToFsize} \]
\[ X_5 = \text{ToInc} \]
\[ X_6 = \text{CIC} \]
\[ X_7 = \text{FUNDING} \]
\[ X_8 = \text{MC} \]

The regression equation from the above function becomes;

\[
\log\left(\frac{P}{1-P}\right) = \beta_0 + \beta_1 \text{AGE} + \beta_2 \text{GEN} + \beta_3 \text{HHS} + \beta_4 \text{ToFsize} + \beta_5 \text{ToInc} + \beta_6 \text{CIC} + \beta_7 \text{FUNDING} + \beta_8 \text{MC}
\]

### 3.5.2 Description of variables

**Table 3.3: Description of variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(X_1) AGE</td>
<td>Age</td>
</tr>
<tr>
<td>(X_2) GEN</td>
<td>Gender</td>
</tr>
<tr>
<td>(X_3) HHS</td>
<td>Household size</td>
</tr>
<tr>
<td>(X_4) ToFsize</td>
<td>Total farm size used</td>
</tr>
<tr>
<td>(X_5) ToInc</td>
<td>Total income</td>
</tr>
<tr>
<td>(X_6) CIC</td>
<td>Cooperatives involvement in charities</td>
</tr>
<tr>
<td>(X_7) FUNDING</td>
<td>Cooperatives access to funding</td>
</tr>
<tr>
<td>(X_8) MC</td>
<td>Members contribution</td>
</tr>
</tbody>
</table>

### 3.6 Ethical considerations

Ethical issues were of high concern in this study, particularly relating to the participants’ privacy and confidentiality and therefore, the participants remained anonymous. The culture and respect for each participant in the community were upheld to the maximum. It was made clear that the collected information will only be for this research purpose and that individuals’ details would not be revealed at any time in the future.

Voluntary participation – participants were provided with consent forms before participating in the study. Consent forms were provided in writing and orally for illiterate persons. Participants were advised that they are not obliged to participate and that they can pull out if they wish to do so.

No harm to the participants – the researcher made sure that the questions asked are not in a position to cause any form of physical, emotional and psychological harm.
Involvement of Limpopo Department of Agriculture – formal letter was sent to Department of Agriculture seeking assistance in identifying cooperatives within the district and also accessing some of the information regarding identified cooperatives.

Community entry – prior data collection, local leaders were consulted through extension officers asking permission to collect data. The purpose of the study was clearly outlined and confidentiality was granted to all participants.
<table>
<thead>
<tr>
<th>Research objectives</th>
<th>Research hypothesis</th>
<th>Research questions</th>
<th>Data requirements</th>
<th>Data analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify socio-economic characteristics of farmers within agricultural cooperatives.</td>
<td>Socio-economic characteristics of farmers have a positive influence on the role agricultural cooperatives play in reducing poverty.</td>
<td>To what extent do socio-economic characteristics of farmers affect the role of agricultural cooperatives in poverty reduction?</td>
<td>Age, gender, marital status, level of education, employment status, household number and household income.</td>
<td>Descriptive and logistic regression model.</td>
</tr>
<tr>
<td>Assess the role of agricultural cooperative in poverty reduction.</td>
<td>Agricultural cooperatives play a significant role in poverty reduction.</td>
<td>Does agricultural cooperatives play significant role in poverty reduction?</td>
<td>Employment opportunities created, number of villages benefiting from cooperatives activities, and financial Performances of cooperatives.</td>
<td>Descriptive and logistic regression model</td>
</tr>
<tr>
<td>Investigate the role of agricultural cooperatives in ensuring food security.</td>
<td>Agricultural cooperatives ensure food security to members of households.</td>
<td>Do agricultural cooperatives ensure food security to its member’s households?</td>
<td>Production per hectare and views on how they ensure food security within households.</td>
<td>Descriptive statistics analysis.</td>
</tr>
<tr>
<td>Identify challenges faced by agricultural cooperatives in poverty reduction.</td>
<td>There are some challenges faced by agricultural cooperative.</td>
<td>What kind of challenges are agricultural cooperatives facing?</td>
<td>Views on challenges facing cooperatives.</td>
<td>Descriptive statistics analysis.</td>
</tr>
</tbody>
</table>

Table 3.4: Summary of Research Objectives, Hypothesis, Questions, Data Requirements and Data Analysis
CHAPTER 4
RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents and interprets the results of the study pertaining to the role of agricultural cooperatives in poverty reduction within Vhembe District Municipality. It gives a presentation of findings that were found by the study in respect to the objectives set and also shows the appropriate tests carried-out.

4.2 Descriptive results

4.2.1 Socio-economic characteristics of farmers within agricultural cooperatives

The socio-economic characteristics of the study are presented in variables and the characteristics include; gender, age, marital status, household size, level of education, farm size in hectares, total planted farm size in hectares, employment status, monthly farm income, monthly non-farm income and total income within agricultural cooperatives.

4.2.1.1 Gender and age

Gender and age of respondents can influence the productivity of cooperatives and the role they play in poverty reduction. Age of respondents is critical part to be considered when applying for credits and also in taking risk. Table 4.1 below discusses the gender and age of cooperatives respondents.

<table>
<thead>
<tr>
<th>GENDER</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Male</td>
<td>53</td>
<td>44.2</td>
<td>44.2</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>67</td>
<td>55.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AGE</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>18 - 25</td>
<td>4</td>
<td>3.3</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>26 - 34</td>
<td>24</td>
<td>20.0</td>
<td>23.3</td>
</tr>
<tr>
<td></td>
<td>35 - 42</td>
<td>16</td>
<td>13.3</td>
<td>36.7</td>
</tr>
<tr>
<td></td>
<td>43 - 51</td>
<td>14</td>
<td>11.7</td>
<td>48.3</td>
</tr>
<tr>
<td></td>
<td>52 - 59</td>
<td>28</td>
<td>23.3</td>
<td>71.7</td>
</tr>
<tr>
<td></td>
<td>Above 60</td>
<td>34</td>
<td>28.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>120</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
The females constitute about 55.8% of cooperatives respondents, while the remaining 44.2% are males. This findings reflects the participation of most women encouraging, more especially in South Africa where women empowerment is considered a priority. Jimoh (2012) emphasised that the high percentage of female members may also be due to the fact that cooperative membership is free from gender, political and religious consideration. It was discovered that 28.3% of cooperative respondents were above the age of 60 followed by 23.3% between the ages of 52 – 59. The youth age group of 18 -25 and 26 - 34 comprised of 3.3% and 20.0% respectively. This findings show that the majority of respondents within the cooperatives were old, which can hinder the productivity of cooperative. The vital age group which is more productive and responsible for supporting their families were between the age 35 – 42 and 43 – 51 scoring 13.3% and 11.7% respectively. Simelane (2011) indicated that younger farmers are known to be risk takers which may influence the productivity of cooperatives.

4.2.1.2 Marital status and level of education

Marital status of respondents determines the role of cooperatives in ensuring food security within the member’s households. The level of education plays a crucial role in the adoption and operations of new technology, methods and equipment. Table 4.2 below discusses the marital status and level of education of cooperatives respondents.

Table 4.2: Marital Status and Level of Education of Agricultural Cooperatives Respondents

<table>
<thead>
<tr>
<th>MARITAL STATUS</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>28</td>
<td>23.3</td>
<td>23.3</td>
<td>23.3</td>
</tr>
<tr>
<td>Married</td>
<td>83</td>
<td>69.2</td>
<td>69.2</td>
<td>92.5</td>
</tr>
<tr>
<td>Divorced</td>
<td>5</td>
<td>4.2</td>
<td>4.2</td>
<td>96.7</td>
</tr>
<tr>
<td>Widow/Widower</td>
<td>4</td>
<td>3.3</td>
<td>3.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LEVEL OF EDUCATION</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Educated</td>
<td>11</td>
<td>9.2</td>
<td>9.2</td>
<td>9.2</td>
</tr>
<tr>
<td>Abet</td>
<td>2</td>
<td>1.7</td>
<td>1.7</td>
<td>10.8</td>
</tr>
<tr>
<td>Primary</td>
<td>32</td>
<td>26.7</td>
<td>26.7</td>
<td>37.5</td>
</tr>
<tr>
<td>Secondary</td>
<td>47</td>
<td>39.2</td>
<td>39.2</td>
<td>76.7</td>
</tr>
<tr>
<td>Tertiary</td>
<td>28</td>
<td>23.3</td>
<td>23.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
The marital status of cooperatives respondents showed that 69.2% were married. About 23.3% were single, 4.2% and 3.3% were divorced and widow/widower respectively. The high number of married respondents implies that they have to fend for their families so as to ensure food security and poverty reduction within their households. The statistics of single cooperative members indicate that those who are not married have one challenge or the other that made them join a cooperative. The educational level plays a vital role in adoption of new technology which will increase productivity and have a positive influence in ensuring food security and poverty reduction within cooperative members household. The results shows that majority of cooperatives respondents had secondary education scoring 39.2%. The number of cooperative respondents with tertiary education scored 23.3%. The high level of education improves the probability of the respondents being trainable and ability to live above the poverty line (Oluwakemi et al, 2012).

4.2.1.3 Employment status, monthly non-farm income and monthly farm income

Employment status of farmers determines the time spent in farming activities which may result to the productivity of the cooperatives. Full-time farmers are more likely to achieve high production, thus high income. Table 4.3 below discusses employment status, monthly non-farm income and monthly farm income of cooperatives respondents

Table 4.3: Employment Status, Monthly Non-Farm Income and Monthly Farm Income of Agricultural Cooperatives Respondents

<table>
<thead>
<tr>
<th>EMPLOYMENT STATUS</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed (Full Time Farmer)</td>
<td>61</td>
<td>50.8</td>
<td>50.8</td>
<td>50.8</td>
</tr>
<tr>
<td>Employed</td>
<td>24</td>
<td>20.0</td>
<td>20.0</td>
<td>70.8</td>
</tr>
<tr>
<td>Self-Employed</td>
<td>1</td>
<td>.8</td>
<td>.8</td>
<td>71.7</td>
</tr>
<tr>
<td>Pensioner</td>
<td>34</td>
<td>28.3</td>
<td>28.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MONTHLY NON-FARM INCOME</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>46</td>
<td>38.3</td>
<td>38.3</td>
<td>38.3</td>
</tr>
<tr>
<td>Less than R1000</td>
<td>6</td>
<td>5.0</td>
<td>5.0</td>
<td>43.3</td>
</tr>
<tr>
<td>R1000 - R3000</td>
<td>53</td>
<td>44.2</td>
<td>44.2</td>
<td>87.5</td>
</tr>
<tr>
<td>R4000 - R6000</td>
<td>3</td>
<td>2.5</td>
<td>2.5</td>
<td>90.0</td>
</tr>
<tr>
<td>R7000 - R9000</td>
<td>4</td>
<td>3.3</td>
<td>3.3</td>
<td>93.3</td>
</tr>
<tr>
<td>Greater than R10 000</td>
<td>8</td>
<td>6.7</td>
<td>6.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
MONTHLY FARM INCOME

<table>
<thead>
<tr>
<th>Valid</th>
<th>Less than R1000</th>
<th>53</th>
<th>44.2</th>
<th>44.2</th>
<th>44.2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R1000 - R3000</td>
<td>52</td>
<td>43.3</td>
<td>43.3</td>
<td>87.5</td>
</tr>
<tr>
<td></td>
<td>R4000 - R6000</td>
<td>10</td>
<td>8.3</td>
<td>8.3</td>
<td>95.8</td>
</tr>
<tr>
<td></td>
<td>Greater than R10 000</td>
<td>5</td>
<td>4.2</td>
<td>4.2</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The study also revealed that the majority of cooperative farmers were full time farmers and unemployed scoring 50.8%. 28.3% and 20% were pensioner and employed respectively. High unemployment status of full time farmers implies that the respondents dedicate their time to farming which may result in high productivity of a cooperative, thus ensuring food security within members of the household and community. Cooperative respondents who are employed and also farm may have a positive influence in ensuring food security and poverty reduction within their households because they rely in two things; farming and other activities which may increase their total income.

Cervantes and Dewbre (2010) supported that farmers are increasingly diversifying their income sources with increasing share coming from off-farm sources. The results further shows that the majority of cooperative respondents which fall on monthly non-farm income group of R1000 – R3000 scored 44.2% followed by 38.3% with zero income. This result implies that the majority of respondents do not rely only on farming income; rather they have other activities that bring income. Monthly farm income group of less than R1000 scored 44.2% followed by farm income group of R1000 – R3000 scoring 43.3%.

4.2.1.4 Household size, farm size, total planted farm size and total income

Household size, farm size, total planted farm size and total income are presented in Table 4.4 below. Farm size and total planted farm size may significantly affect the total income within the cooperatives. Mendola (2005) indicated that the income effect of technology adoption increases with higher farm-size ownership.

Table 4.4: Descriptive Statistics of Household Size, Farm Size, Total Planted Farm Size and Total Income

<table>
<thead>
<tr>
<th>DESCRIPTIVE STATISTICS</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household Size</td>
<td>120</td>
<td>3</td>
<td>10</td>
<td>6.27</td>
<td>2.020</td>
</tr>
<tr>
<td>Farm Size</td>
<td>120</td>
<td>4</td>
<td>54</td>
<td>13.51</td>
<td>13.547</td>
</tr>
<tr>
<td>Total planted farm size</td>
<td>120</td>
<td>4</td>
<td>22</td>
<td>7.92</td>
<td>5.371</td>
</tr>
<tr>
<td>Total Income</td>
<td>120</td>
<td>450.00</td>
<td>15000.00</td>
<td>3391.6667</td>
<td>3885.81958</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>120</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The average household size was found to be 6 with a minimum of 3 and maximum of 10. Household size can have an impact in poverty reduction and food security within cooperative member’s households. With the maximum number of 10 members per household, it can imply that the family with high number of members is faced with a challenge of ensuring food security within the household and also pose a threat of poverty. Farm size may have a positive impact on farm income. The average farm size was found to be 14 hectares with the minimum of 4 hectares and maximum of 54 hectares per cooperative member. Small farm size are considered to be the most important factors that hinder the application of modern technology and affects negatively the quantity and quality of agricultural production (Mohamed, 2004).

Total planted farm size differs significantly with total farm size; with average of 8 hectares, minimum and maximum of 4 and 22 hectares respectively. This implies that most of cooperatives farmers utilise half of the land they occupy. The study revealed that the average total monthly income of respondents is R3392 with the minimum total income being R450 and maximum total income of R15000. Cooperative respondents with high income are considered food secure and free from poverty than those with lower income.

4.2.2 Assessment of Agricultural cooperatives role in poverty reduction

4.2.2.1 Services received from agricultural cooperatives

Agricultural cooperatives offer its member with variety of services, ranging from farm inputs, farm implements, mechanisation, agricultural loans, agricultural extension, members education, marketing of members farm produce to skills development. Cooperatives respondents agreed with all the services mentioned above as the ones they receive. This emphasised that the respondents fall under multi service cooperatives.

4.2.2.2 Effectiveness of agricultural cooperatives in poverty reduction

Agricultural cooperative can produce desirable results in poverty reduction and also in ensuring food security within member’s households and community. It is of high importance to understand the effectiveness of cooperatives respondents in poverty reduction in order to measure the degree of success within their cooperatives. Number of statement regarding effectiveness of agricultural cooperatives were given to respondents with five ordered options to choose from Strongly agree, Agree, No option, Disagree to Strongly disagree (see Table 4.5 below).
Table 4.5: Effectiveness of Agricultural Cooperatives in Poverty Reduction

<table>
<thead>
<tr>
<th>Description</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>No Option</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperatives Contribute to Economic Growth and Job Creation.</td>
<td>69.2%</td>
<td>30.8%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Cooperatives have a Role in Poverty Reduction.</td>
<td>59.2%</td>
<td>40.8%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Cooperatives are the pillars of agricultural development and food security.</td>
<td>39.2%</td>
<td>60.8%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Cooperatives provide education and training for members.</td>
<td>59.2%</td>
<td>40.8%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Cooperatives have a significant positive economic impact on the country.</td>
<td>55.0%</td>
<td>45.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Cooperatives empower people to improve quality of life and enhance their economic opportunities through self-help.</td>
<td>58.3%</td>
<td>41.7%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Cooperatives reduce operating costs.</td>
<td>55.0%</td>
<td>45.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Cooperatives generate greater profits.</td>
<td>55.0%</td>
<td>45.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Cooperatives generate income.</td>
<td>44.2%</td>
<td>55.8%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Cooperatives eradicate poverty.</td>
<td>49.2%</td>
<td>50.8%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Cooperatives improve agricultural production.</td>
<td>60.8%</td>
<td>39.2%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Cooperatives organise scattered farmers.</td>
<td>60.8%</td>
<td>39.2%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Cooperatives help farmers access to markets.</td>
<td>9.2%</td>
<td>42.5%</td>
<td>0.0%</td>
<td>48.3%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

The majority of cooperatives respondents (69.2%) strongly agreed that cooperatives contribute to economic growth and job creation followed by 30.8% of respondents who
agreed to the same statement. About 59.2% strongly agreed and 40.8% agreed respectively to that cooperative have a role in poverty reduction. The study also revealed that cooperatives are the pillars of agricultural development and food security with 60.8% and 39.2% agreeing and strongly agreed respectively. It was also observed that the majority (59.2%) of cooperatives respondents strongly agreed and 40.8% agreed to that cooperative provide education and training for its members.

Cooperatives have a significant positive economic impact on the country. This statement was supported by majority of cooperative respondents scoring 55.0% and 45.0% strongly agreed and agreed respectively. Majority of respondents supported that cooperatives empower people to improve quality of life and enhance their economic opportunities through self-help. 58.3% strongly agreed and 41.7% agreed. Cooperative respondents were also in favour of that cooperatives reduce operating costs scoring 55.0% and 45.0% strongly agreed and agreed respectively. Reducing operating costs may lead to high profits. Respondents supported that cooperatives generate greater profits scoring 55.0% and 45.0% strongly agreed and agreed. Just like profits, cooperatives also generate high income. About 55.8% agreed and 44.5% strongly agreed to high income. Where there is high income, it is also obvious that poverty status will be alleviated. Respondents emphasised that by scoring 50.8% and 49.2% agreed and strongly agreed in favour of cooperatives eradication of poverty.

Majority of respondents (60.8%) strongly agreed and agreed (39.2%) respectively to that cooperative improves agricultural production and organise scattered farmers. It was also interesting to observe that 48.3% of respondents disagreed to that cooperatives help them access to markets. This poses a challenge that cooperatives are still facing difficulties in accessing markets. About 42.5% and 9.2% agreed and strongly agreed respectively to that cooperatives help them access markets. Only 5.0% of respondents disagree with that cooperatives strengthen farmers marketing power. About 51.7% agreed and 43.3% strongly agreed to cooperatives strengthening farmers marketing power.

Majority of respondents (57.5%) disagree to the statement of cooperatives enabling farmers to sell their crops in high prices. This may imply that cooperatives set their prices like any other farmers to ensure that they stay competitive in the markets. High prices of their produce may lead their consumers to buy from other cheap farmers. Over 57.5% and 42.5% agreed and strongly agreed respectively to that cooperative provide members with key services. It was also observed that cooperatives create employment within the community. It was supported by 77.5% strongly agreed and 22.5% agreed.
4.2.2.3 Employment opportunities created by agricultural cooperatives

Agricultural cooperatives are believed to be employment creators (FAO, 2012). Employment opportunities vary from permanent, temporary to seasonal in agricultural industries. The main benefits of community members from agricultural cooperative are food security and employment. Creation of employment opportunities ensures a well-being of society and also contributes to economic growth. Cooperatives employing more than one member of the community may have a positive impact on poverty reduction and also contribute towards a well-being of one household. Table 4.6 below discusses the employment opportunities created by agricultural cooperatives.

**Table 4.6: Employment Opportunities created by Agricultural Cooperatives**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Employees</td>
<td>120</td>
<td>0</td>
<td>25</td>
<td>4.97</td>
<td>7.005</td>
</tr>
<tr>
<td>Number of Permanent Employees</td>
<td>120</td>
<td>0</td>
<td>5</td>
<td>1.05</td>
<td>1.659</td>
</tr>
<tr>
<td>Permanent Employees Income Per Month</td>
<td>120</td>
<td>0</td>
<td>1900</td>
<td>507.50</td>
<td>670.778</td>
</tr>
<tr>
<td>Number of Current Temporary Employees</td>
<td>120</td>
<td>0</td>
<td>20</td>
<td>3.92</td>
<td>5.538</td>
</tr>
<tr>
<td>Temporary Employee Income Per Day</td>
<td>120</td>
<td>0</td>
<td>100</td>
<td>43.63</td>
<td>38.874</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>120</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The average total number of employment opportunities created is 5 employees across all 16 cooperatives with the minimum total employment of zero and maximum total employment of 25. The study further elaborated that the average permanent employment created is 1; with minimum number of employees being zero and maximum being 5. The average monthly income of permanent employees is R508 and the maximum income payable being R1900. The average number of temporary employees is 4; with the maximum number of 20. The average income of temporary employees was R44 per day; with maximum of R100 per day. These results imply that other cooperatives had zero employment opportunities, which mean they didn’t create or employ anyone. Only members of the cooperatives were managing and working the land. Other cooperatives created employment with the average of 5 employees per cooperative. Kwatiwada (2014) emphasised that cooperatives are better suited to
respond to the challenges of increasing rates of unemployment, thus they contribute significantly to creating employment and ensuring food security within the community.

4.2.2.4 Villages benefiting from agricultural cooperatives

According to the study conducted by Mohamed (2004), results indicated that the vast majority of the agricultural cooperatives provide their services and activities to one village and only a few of them provide their services and activities to more than one village. Agricultural cooperatives in one way or the other should benefit the community they are located in (Mohamed, 2004). Its either they provide the community with food security, employment or both. The study revealed that there are number of villages which rely on services of agricultural cooperatives. All cooperatives agreed that there are villages which are benefiting from cooperatives activities. The maximum number of villages benefiting was 5 and the minimum of 1 village in the cooperative. The average number of villages benefiting from cooperative services was found to be 3. This implies that agricultural cooperatives play a major role within the village and neighbouring villages they are located in. Cooperatives respondents were also asked to support their response with the benefits they offer to the community. Across all agricultural cooperatives, their responses were more or less the same. Some of the main benefits outlined by respondents are the following;

I) Discounted prices – cooperatives respondents mention that they offer price discounts to the member of community. They also offer discounts to local hawkers buying in bulk. This means that if you are a community member you would buy vegetables cheaper than when you are an outsider. By doing so, cooperative within that certain community ensure food security and poverty reduction to its residents.

II) Creation of employment opportunities – one of the major and vital parts of poverty reduction was employment. Cooperatives respondents outlined that they employ local members of the community. By employing local members of the community ensure the well-being of their society and ensure that at least a member of their community is better off and can live above poverty line.

III) Credits for locals – cooperatives respondents also mention credits purchase for locals more especially pensioners. They offer credits purchase to pensioner mostly for daily vegetables household consumption. It ensures food security to household that can’t afford other substitute foods.

IV) Donations - other parts of poverty reduction and ensuring food security with the community is donating to the needy ones. Cooperatives respondents mentioned
that they donate vegetables to poor families. Most of the donated vegetables are the ones which do not meet market standards but healthy to consume.

V) Reduced travelling costs for both members and local hawkers – cooperatives respondents emphasised that other benefits the community receive is less travelling distance and ease of access to their produce for locals. Local hawkers don’t travel long distance to get vegetables for their markets instead they get them locally.

Cooperatives respondents were also asked if they are involved in charity cases within their community or anywhere else. The researcher was trying to get deep inside the cooperatives operations; whether they operate only for profits or they also give back to the community. The study found out that the majority of respondents (55.0%) said yes; which mean that their cooperatives were involved in charity cases. About 45.0% said otherwise; which means that they are either not involved in charity cases due to other reasons or they never thought about engaging in charities. The researcher further asked respondents to mention the number of charities and type of charity they are involved within. The average number of charities was found to be 1; with maximum of 7 charities per cooperative and minimum of zero charity per cooperative. Most dominant types of charities were found to be orphanage centres, drop-in feeding schemes, funerals and old age homes. This can support that agricultural cooperatives do not operate for profit only, rather they consider other alternative way of ensuring food security and poverty reduction within the community.

4.2.2.5 Financial performance of agricultural cooperatives

I) Funding of agricultural cooperatives

Funding is essential for cooperatives to finance their operation and ensures sustainable growth. Lack of funding is one challenge that is considered to hinder the success and economic growth of cooperatives at large. If a cooperative receives funding, it may lead to a sustainable growth of a cooperative and also ensure that the cooperative being able to acquire important resource and increase their productivity. Respondents were asked if they did receive funding/donation/sponsorships or not. Funding/donation/sponsorship may be in form cash, resources, mechanisation, etc. The majority of respondents (56.7%) said yes, they did receive funding and 43.3% said otherwise. Funding was in the form of farm inputs, money, mechanisation and implements. Two cooperatives received an amount of 1.2 million from Social development. Cooperatives funded by Social development were found to have people with disabilities in them. Cooperatives are recognised as a major factor of economic and social development which promotes the participation in the development process of
women and all population groups, including youth, older people, and people with disability (Kwatiwada, 2014).

Nine from sixteen cooperatives received farm inputs, tractors and irrigation system which are shared amongst cooperative members. About 56.7% of cooperatives being funded showed the dedication and engagement of the local government in enhancing the well-being of cooperative. There is still a challenge of funding on non-funded cooperatives as it hinders their growth and productivity. DAFF (2010) identified lack of funding as one of the constraints limiting the ability of cooperatives to reduce poverty and create jobs.

II) Access to credit

The majority of cooperatives respondents (95.8%) said otherwise; they didn’t have access to credit and only 4.2% said yes; they had access to credit. These results may imply that either cooperatives respondents are afraid to apply for credit or they were denied access to credit. Only 4.2% respondents were willing to take risk and access credit. This may negatively have impact in the productivity and growth of cooperatives especially the ones that failed to receive funding. According to Guozhong (2010) Farm credit may help members of cooperatives to be able to cope with crop failures and other emergencies.

III) Members contribution

The majority of cooperatives respondents (83.3%) said yes; they have member’s contribution fee and only 16.7% said otherwise. About 50.8% of cooperatives said otherwise to joining fee and 49.2% said yes; they do charge joining fee. The average monthly members contribution fee was found to be R108.42; with maximum monthly contribution of R400 and minimum of 0 for those who said otherwise. The average joining fee of new members was found to be R514.17; with maximum amount of R2500 per member payable when joining cooperative and minimum of 0 for those who said otherwise. Member’s contributions fees is essential in financing small operations of cooperatives and keeping cooperatives accounts running. Their also used to pay monthly expenses of cooperative like electricity and temporary workers.

IV) Profit

The average profit of cooperatives respondents was found to be R34233; with minimum of R1000 and maximum of R100000. Profit is the money cooperative respondents receive for selling their produce after paying all expense and financing all their farming operation. Cooperative respondents said they use this money to support their family and pay other personal expenses. Other cooperatives have different perspectives on their profits i.e. profits
that are generated by cooperatives are reinvested into the business and paid out in form of patronage in Canada (Indian and Northern Affairs Canada (2001)).

4.2.2.6 Role of cooperative in poverty reduction

The researcher asked cooperative respondents the underlying question. Respondents were asked if whether they think their cooperative is reducing the level of poverty within the community looking at the data they provided paying more attention to total employment opportunities, villages benefiting from their activities, charity case involvement, members contribution and profit. The study yield very interesting response; 63.3% of cooperative respondents said yes, their cooperatives are reducing the level of poverty with the community and 36.7% said otherwise. Chambo (2009) emphasised that agricultural cooperatives maintain higher levels of income which make small farmers able to construct decent houses, send their children to school and provide health insurance to sustain rural livelihoods and also have the advantage of accessing cooperative education and business development capacity building.

4.2.3 Investigate the role of agricultural cooperatives in ensuring food security

Food security exists when ‘all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life. Agricultural cooperatives respondents were asked if they think their cooperatives are ensuring food security within the community. This question was meant to dig deeper in cooperatives operations and productivity. Agricultural cooperatives are believed to ensure food security amongst household’s members and the community. This may vary according to farm size, technology adoption and mechanisation used on the farm. The researcher further asked respondents to elaborate the answer by mentioning the role their cooperatives are playing in ensuring food security.

The study found out that all cooperatives respondents agreed to that their cooperatives are ensuring food security with the households and community. This was very interesting because none of the respondents said otherwise, which emphasised the role of cooperatives in food insecurity. The study further showed that all respondents agreed to adoption of new technology if it is introduced as long as it increases their productivity and also maintaining the sustainability of natural resources. According to the study conducted by Mandelo (2005), it was mentioned that the technology adoption results statistically significant in reducing the probability of being poor for small and medium farmers by more than 20%.

Agricultural cooperatives respondents outlined some of major and vital roles they are playing in ensuring food security. In ensuring food security within the community, Lopez and
Marcuello (2006) emphasized that cooperatives should provide consumers with secure and stable supplies of healthy, quality food and non-food products as according to COPA and COGECA objectives.

The roles cooperatives are playing in study areas are as follows:

I) Increase production – cooperatives respondents mentioned that they try to increase their production where possible. They believe that by increasing production of their produce ensures food security to the community, thus high food supply;

II) Set lower and affordable prices – they also mentioned that they try to set low prices for their produce; by doing so it means that everyone in the community can afford to buy their vegetables e.g. they sell one cabbage for as low as R3;

III) Sell their produce on credit to locals – selling the produce with credit ensure that everyone within the community, whether you have money or not; you can still get their produce. By doing so, they ensure that majority of people in the community never go to bed hungry;

IV) Produce indigenous vegetables – most of these agricultural cooperatives added indigenous vegetables as one of their produce which ensures food security within the community. Indigenous vegetables are cheaper and have high health benefits; and

V) Create employment – cooperative respondents believed that employment creation is the key of ensuring food security with one’s household. Chambo (2009) outlined that cooperatives had an impact in the general development of rural community in terms of availability and access to amenities that improve the basic conditions of life. These include employment creation, rural market development, enhancements of rural incomes and the improvement of access to social services.

4.2.4 Identify challenges faced by agricultural cooperatives in poverty reduction

Agricultural cooperatives are faced with number of challenges which may hinder their role in poverty reduction within the community. These challenges were common in Canada and China. Zhu and Apedaile (1998); Garnevska et al (2011) and Veerakumaran (2007) identified similar challenges to the ones discussed on Table 4.7. Cooperatives respondents were given a number of statements regarding challenges which are mostly found with cooperatives. They were asked to indicate to what extent they agree or disagree with each of statement. They were given five options ranging from Strongly agree, Agree, No option, Disagree to Strongly disagree. The situation is reflected in Table 4.7.
Table 4.7: Challenges faced by Agricultural Cooperatives in Poverty Reduction

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>No Option</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance problems</td>
<td>27.5%</td>
<td>19.2%</td>
<td>0.0%</td>
<td>40.8%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Financial scandals</td>
<td>27.5%</td>
<td>19.2%</td>
<td>0.0%</td>
<td>40.8%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>80.0%</td>
<td>20.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Poor and inefficient roads</td>
<td>75.8%</td>
<td>24.2%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Members and leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not understanding functions of co-op</td>
<td>8.3%</td>
<td>18.3%</td>
<td>0.0%</td>
<td>65.0%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Unavailability of funds to finance operations</td>
<td>59.2%</td>
<td>40.8%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Conflicts arising between members</td>
<td>25.8%</td>
<td>20.8%</td>
<td>0.0%</td>
<td>45.0%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Control problems</td>
<td>25.8%</td>
<td>20.8%</td>
<td>0.0%</td>
<td>45.0%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Lack of trust amongst members</td>
<td>24.2%</td>
<td>14.2%</td>
<td>0.0%</td>
<td>49.2%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Lack of resources</td>
<td>73.3%</td>
<td>26.7%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Male dominance</td>
<td>4.2%</td>
<td>11.7%</td>
<td>4.2%</td>
<td>71.7%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Lack of access to markets</td>
<td>71.7%</td>
<td>24.2%</td>
<td>0.0%</td>
<td>4.2%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Lack of agro-processing opportunities</td>
<td>59.2%</td>
<td>36.7%</td>
<td>4.2%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Lack of understanding cooperatives principles</td>
<td>4.2%</td>
<td>19.2%</td>
<td>0.0%</td>
<td>68.3%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Shortage of skilled personnel</td>
<td>26.7%</td>
<td>69.2%</td>
<td>0.0%</td>
<td>4.2%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Mismanagement</td>
<td>13.3%</td>
<td>20.8%</td>
<td>0.0%</td>
<td>50.0%</td>
<td>15.8%</td>
</tr>
<tr>
<td>Small membership</td>
<td>30.8%</td>
<td>47.5%</td>
<td>0.0%</td>
<td>21.7%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

- Governance problems – about 40.8% cooperatives respondents disagreed with this challenge followed by 27.5% strongly agreeing, 19.2% agreed and 12.5% strongly disagreed. This result implies that the majority of cooperatives respondents disagreed to have governance problems within their cooperatives. Governance problems can affect the operations of cooperatives hindering productivity and growth, thus poverty reduction and food security.

- Financial scandals – 40.8% disagreed to this challenge followed by 27.5% strongly agreeing, 19.2% agreed and 12.5% strongly disagreeing. This implies that the majority of cooperatives respondents disagreed in encountering any financial scandals within their cooperatives. Other cooperatives respondents encountering
such challenge may result to dropping number of cooperatives members, thus falling out and non-functional of cooperative.

- Poor and inefficient roads – 75.8% and 24.2% strongly agreed and agreed respectively to poor and inefficient roads to their cooperative which affects their operations. Poor and inefficient roads affects daily operations of cooperative because it makes travelling impossible to consumers, buyers and hawkers who are using their cars to reach cooperatives. It can also lead to loss of customers to other cooperatives with more efficient roads, thus loss of income.

- Members and leadership not understanding functions of cooperative – 65.0% disagreed, 18.3% agreed, 8.3% strongly agreed and 8.3% strongly disagreed. These results show that the majority of respondents disagreed with the issue of members and leadership not understanding functions of cooperative. It means that the majority of respondents known what it is expected of them within the cooperatives which is a good thing as it will ensure smooth running of their business.

- Unavailability of funds to finance operations – 59.2% strongly agreed and 40.8% agreed that they lack funds to finance their operation. Lack of funds is a major challenge to any business as it hinders it to flourish and grow.

- Conflicts arsing between members – 45.0% disagreed, 25.8% strongly agreed, 20.8% agreed and 8.3% strongly disagreed. These results show that the majority of cooperatives are faced with a challenge of conflicts between members. These conflicts may affect critical decision making with the cooperatives and may also affect other members living the cooperatives.

- Control problems – 45.0% disagreed, 25.8% strongly agreed, 20.8% agreed and 8.3 strongly disagreed with control problems. The study shows that the majority of cooperatives respondents do not face control problems within their cooperatives.

- Lack of trust amongst members – trust is vital in cooperatives because one decision taken by someone may affect other person. About 49.2% respondents disagreed with lack of trust amongst other members followed 24.2% strongly agreeing, 14.2% agreeing and 12.5% strongly disagreeing.

- Lack of resources – lack of resources may negatively affect cooperatives productivity. Resources are essential part of any business as they keep it operational and smoothly functioning. About 73.3% and 26.6% strongly agreed and agreed respectively to lack of resource which pose a threat to operational of cooperatives.
- Male dominance – majority of respondents (71.7%) disagreed to male dominance within cooperatives as a challenge, this may imply that there is normal distribution of gender equality with cooperatives. Only 11.7% agreed to male dominance within their cooperatives followed by 4.2% strongly agreeing, 8.3% strongly disagreeing and 4.2% on option.

- Lack of access to markets – market is also an essential part of a business, without market access it is difficult to raise high income. The study found out that the majority of respondents (71.7%) are without market access which poses a major threat to profitability of cooperatives. Only 4.2% disagree to lack of market access which implies that they have access to market.

- Lack of agro-processing opportunities – 59.2% strongly agreed, 36.7% agreed and 4.2% no option. These results imply that the majority of cooperatives respondents lack agro-processing opportunities were they can take their produce.

- Lack of understanding cooperatives principles – majority of respondents (68.3%) disagreed, 8.3% strongly disagreed to lack of understanding cooperative principles. It was interesting to observe that there are members with cooperative who do not understand cooperative principles. With 19.2% agreeing and 4.2% strongly agreeing to lack of understanding cooperatives principles creating awareness that there is still need to educate members with principles and functions of cooperatives.

- Shortage of skilled personnel – 69.2% agreed and 26.7% strongly agreeing to shortage of skilled personnel within their cooperatives. Only 4.2% disagreed to shortage of skilled personnel. Skilled personnel may increase cooperation production and income.

- Mismanagement – mismanagement of cooperatives may lead to unprofitability, less income and it can hinder cooperatives growth. About 50.0% disagreed and 15.8% strongly disagreed to their cooperatives being mismanaged. Only 20.8% and 13.3% agreed and strongly agreed respectively to their cooperatives being mismanaged.

- Small membership – 47.5 and 30.8% agreed and strongly agreed respectively to a challenge of small memberships. Only 21.7% disagreed to small membership as a challenge.

- Other challenges found to be common in cooperatives were the issue of electricity and lack of information, education and training. Cooperatives respondents complained that the electricity is too expensive for the operations and they can’t
afford it. They all wanted their current electricity to be replaced with prepaid electricity because prepaid electricity can tell you when to buy and how much is left for you use. They also said that it is easy to maintain prepaid electricity because if you don’t buy, you don’t use it. Cooperatives respondents also outlined that they lack information, education and training.

4.3 Econometric analysis results

4.3.1 Binary logistic regression results

The output of binary logistic regression model is presented in Table 4.8 below; Including the Hosmer & Lemeshow test, Cox & Snell R² and Nagelkerke R². Binary logistic regression model was run to access the relationship between cooperative poverty reduction status as the dependent variable and eight predictor variables that is; age, gender, household size, total planted area, total income, cooperative involvement in charity, access to funding and members monthly contributions.

<table>
<thead>
<tr>
<th>Step 1*</th>
<th>AGE</th>
<th>.066</th>
<th>.247</th>
<th>.071</th>
<th>1</th>
<th>.790</th>
<th>.937</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GEN</td>
<td>2.323</td>
<td>.710</td>
<td>10.690</td>
<td>1</td>
<td>.001****</td>
<td>10.206</td>
</tr>
<tr>
<td></td>
<td>HHS</td>
<td>.536</td>
<td>.202</td>
<td>7.055</td>
<td>1</td>
<td>.008****</td>
<td>.585</td>
</tr>
<tr>
<td></td>
<td>ToFsize</td>
<td>1.201</td>
<td>.405</td>
<td>8.819</td>
<td>1</td>
<td>.003****</td>
<td>3.325</td>
</tr>
<tr>
<td></td>
<td>Tolnc</td>
<td>.001</td>
<td>.000</td>
<td>5.038</td>
<td>1</td>
<td>.025***</td>
<td>1.001</td>
</tr>
<tr>
<td></td>
<td>CIC</td>
<td>-.238</td>
<td>.705</td>
<td>.114</td>
<td>1</td>
<td>.736</td>
<td>.788</td>
</tr>
<tr>
<td></td>
<td>FUNDING</td>
<td>-1.439</td>
<td>.841</td>
<td>2.927</td>
<td>1</td>
<td>.087*</td>
<td>.237</td>
</tr>
<tr>
<td></td>
<td>MC</td>
<td>-23.925</td>
<td>6126.084</td>
<td>.000</td>
<td>1</td>
<td>.997</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>19.851</td>
<td>6126.085</td>
<td>.000</td>
<td>1</td>
<td>.997</td>
<td>417964503.463</td>
</tr>
</tbody>
</table>

Hosmer & Lemeshow test: Χ²=5.78; df=8; p=0.67; Nagelkerke R²=0.74; Cox & Snell R²=0.54; n=120; Dependent variable=Poverty reduction success.

The researcher ran the Hosmer and Lemeshow test; the Hosmer-Lemeshow statistic indicates a poor fit if the significance value is less than 0.05. Goodness-of-fit statistics helps to determine whether the model adequately describes the data. It was found that the Hosmer-Lemeshow significance level is 0.7, which is above 0.05. This implies that the model adequately fits the data. The study further indicated the Cox & Snell R² and Nagelkerke R²; the larger the R² is the more of the variation is explained by the model. The Cox & Snell R² and Nagelkerke were found to be 0.54 and 0.74 respectively. This implies that the Cox &
Snell $R^2$ and Nagelkerke $R^2$ explained 54% and 74% of the variables in the model respectively.

The study revealed that the age of cooperatives respondents is statistically insignificant at 0.05 (5%) and 0.1 (10%) levels, henceforth have a negative impact in the probability of a cooperative to reduce poverty. The study furthermore revealed that the gender of cooperatives respondents is statistically significant at 0.05 level ($P<0.05$) and positively contribute to the success of a cooperative to reduce poverty within members household and community. This might have been influenced by the fact that there were more females than males; females are considered to have more impact on well-being of the family. Household size of cooperatives respondents was found to be statistically significant but with a negative impact on the success of a cooperative to reduce poverty.

The study also found that the total planted area is statistically significant at 0.05 ($P<0.05$) and have a positive impact on the success of a cooperative to reduce poverty. This can imply that the more total area planted lead to increased production, high income and high chances of employment opportunities, thus ensuring food security and poverty reduction. Total income received by farming activities and other non-farming activities was found to be statistically significant at 0.05 level ($P<0.05$) and also affect the success of cooperative poverty reduction status positively.

The increase in total planted area result to an increase in total income of cooperatives members. It was found that whether a cooperative is involved in charity cases or not; it does not contribute to a success of cooperative poverty reduction. Cooperatives charity involvement have a negative impact in poverty reduction and statistically not significant. Whether cooperative have access to funding or not, it negatively affects the success of a cooperative in poverty reduction. Access to funding by a cooperative is statistical significant at 0.1 level ($0.05>P<0.1$). The study further showed that members monthly contributions is statistical insignificant at 0.05 and 0.1 levels. It was also observed that member’s contributions have a negative impact on success of a cooperative to reduce poverty.

**4.3.2 Observed versus predicted probabilities**

Table 4.9 discusses the observed versus predicted probabilities of agricultural cooperatives success in reducing poverty. The classification table classify observation and prediction of two cases scenarios were cooperatives either said yes; their cooperatives are successful in reducing poverty or otherwise.
Table 4.9: Observed versus Predicted Probabilities for Agricultural Cooperatives Success in Poverty Reduction

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Observed</th>
<th>Predicted</th>
<th>Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Is your Cooperative Reducing Poverty?</td>
<td>Otherwise</td>
<td>Yes</td>
</tr>
<tr>
<td>Otherwise</td>
<td>39</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>8</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>Overall Percentage</td>
<td></td>
<td></td>
<td>89.2</td>
</tr>
</tbody>
</table>

The classification table correctly classified \( \frac{68}{60} = 89.5\% \) of the cases where the predicted event (success of cooperative in poverty reduction) was observed. This is known as the sensitivity of prediction, the \( P(\text{correct | event did occur}) \), that is the percentage of occurrences correctly predicted. It was also noted that the classification correctly classified \( \frac{39}{44} = 88.6\% \) of the cases where the predicted event was not observed. This is known as the specificity of prediction, the \( P(\text{correct | event did not occur}) \), that is the percentage of non-occurrences correctly predicted. Overall prediction was correct 107 out of 104 times for an overall success rate of 89.2\% (Wuensch, 2015).
CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides summary, conclusion and recommendations. It summarises and briefly discusses the results with respect to objectives, research questions and hypothesis of the study. It furthermore gives suggestion on future research opportunities.

5.2 Summary

Agricultural cooperatives are known for their role in creating employment, raise farm income and help reduce poverty. Farmers form agricultural cooperatives to pool their resources together for increased agricultural productivity, employment creation and poverty reduction. The main objective of this study is to assess the role of agricultural cooperatives in poverty reduction within the rural communities of Vhembe district municipality. The study set four specific objectives which are to: 1) Identify socio-economic characteristics of farmers within agricultural cooperatives. 2) Assess the role of agricultural cooperatives in poverty reduction. 3) Investigate the role of agricultural cooperatives in ensuring food security. 4) Identify challenges faced by agricultural cooperatives in poverty reduction.

The study reviewed literature from 8 counties, of which 4 represent the developed areas of the world and the other 4 represent the developing world. Literature review focused on the general perspective of agricultural cooperatives, status of agricultural cooperatives, role of agricultural cooperatives in poverty reduction, and the challenges faced by agricultural cooperatives globally, regionally and local. Clustered random sampling technique was used in the selection of 14 agricultural cooperatives within the 4 Local Municipalities. The total number of respondents within the 14 cooperatives was 120. The study employed descriptive statistics and binary logistic regression model to analyse the data.

The study found out that the socio-economic characteristics such as age, gender, household size, farm size and total income of the respondents have an effect on the role agricultural cooperatives play in reducing poverty, thus proving the hypothesis of the study true. The study further emphasized that agricultural cooperatives play a significant role in poverty reduction proving the second hypothesis true. Effectiveness of cooperatives, employment opportunities created by cooperatives, villages benefit from cooperatives and financial performances of cooperatives supported the trueness on the hypothesis. Respondents
further indicated that their cooperatives are playing an important role in ensuring food security within their households and community. The study also highlighted some major challenges faced by agricultural cooperatives. Some of the challenges which hinder agricultural cooperatives success in reducing poverty include; poor and inefficient roads, unavailability of funds to finance operations, lack of resources and lack of agro-processing opportunities.

5.3 Conclusions

The study findings explored the contributions of agricultural cooperatives success in poverty reduction and ensuring food security with member’s households and community. The results are evidence that agricultural cooperatives significantly contribute towards poverty reduction and food security of its members and community. The study brought into light that females are more involved in farming than males which may indicate that females are more concerned about their family welfare. The majority of respondents were married with the average household size of 6, which meant that they were responsible for feeding more than three people per household. The household size showed a negative impact in the success or failure of a cooperative to reduce poverty within its member’s household and the community.

The study further explored that the majority of respondents were literate. Literate people are known to take wise decisions and risks in farming which contribute towards the productivity of cooperatives. Majority of farmers who have high level of education are also well known to have access to information than illiterate farmers which may lead to success of their cooperatives towards poverty reduction and food security within their households and community. The total farm size utilised and total income of respondents were found to be statistical significant with a positive impact in poverty reduction. The study supported that when more land is used result in high income. It can be concluded that the socio-economic characteristics of cooperatives respondents have an impact in ensuring food security and poverty reduction within member’s households and community.

The study also revealed that all cooperatives respondents have more than one reason to join a cooperative. This was found when they were asked to choose the service they receive from their cooperative; they choose more than three services. Henceforth they can be classified as multi-services cooperative. The only dominant service was funding; the respondents emphasised that they join cooperatives because it was the easy way of getting funded (with a reason of two is better than one). The respondents also outlined that agricultural cooperatives are very effective in reducing poverty. It was supported by the majority of respondents agreeing with the number of statements outlining the effectiveness of cooperatives in poverty reduction. The study observed that agricultural cooperatives are
employment generators, with the majority of cooperatives employing more than two members of the community, thus ensures food security and poverty reduction.

Agricultural cooperatives ensure food security within the community; the study supported the idea by investigating the villages benefiting from cooperatives and the benefits they are getting. It was found that cooperatives are key players in supporting the community with high food supply. Funding of cooperatives was found to be significantly average across the district with 9/16 agricultural cooperatives being funded by the DTI and only 7/16 did not receive any funding. It was also found that access to funding have a negative impact in poverty reduction. Whether a cooperative have access to funding or not, it can still reduce the level of poverty within the community through its activities. The study concluded that agricultural cooperatives play a major role in poverty reduction and ensuring food security by looking at some major factors like; employment, benefits, charity cases involvement, and financial performances.

The study also revealed some major challenges facing agricultural cooperatives in general. Some of the major challenges were access to information, education and training to enhance their production and operation skills. The other critical challenge was that the electricity is too expensive and they prefer prepaid electricity. Market access was also a major challenge as it prevents them from selling the produce to high value markets in order to increase their income, thus ensure food security and poverty reduction.

5.4 Recommendations

For the purpose of growth, development and improvement in performance of agricultural cooperatives, the study recommends the following:

- The government should invest more in training cooperative farmers which have more vision and knowledge of production, marketing and management. This will increase the success rate of cooperatives in reducing poverty and ensuring food security within their communities.
- Non-government organisation should be used to provide professional services for cooperatives. This strategy can be more efficient in reducing some work-load on the local government assistance to cooperatives.
- Cooperatives should deviate from government dependency as this hinders their growth. Cooperatives improvement in independency and self-development capacity is essential for long term survival.
- It is highly recommended that cooperatives maintain their principle of self-help and independence in order to avoid other external interference.
- Financial management must be of high concerns to the cooperatives thus must be carefully monitored by qualified members and management.
- It is recommended that cooperatives members should be provided with training before they are given new technology. The researcher came across some cooperatives with modern technology which they can’t operate.
- For efficient production, cooperatives must cooperate with research institute in order to determine and develop suitable agricultural practices and machines.
- It is recommended that cooperatives participate in charity cases, feeding schemes and donation in order to reduce poverty and ensures food security.

5.5 Future research opportunities

- The researcher felt that there is a need for more research on: The role of commercial farms and other agricultural businesses in poverty reduction within rural communities. This will explore other agricultural business such as commercial farms engagement in poverty reduction and also raise awareness that there is more need for agricultural businesses to support the poor and ensures food security within the country besides operating for profit only.
- While the researcher was conducting this study, it came to light that agricultural cooperatives have more issues regarding governances which led to other members leaving cooperatives. Therefore there is a need to research on the issues which hinders agricultural cooperatives growth.
- There is also a need to investigate financial performances of agricultural cooperatives. This will help agricultural cooperatives manage their finance more efficiently.
- The study partially found out that agricultural cooperatives ensure food security within members household. Therefore there is a need to carry out a study on the role of agricultural cooperatives in ensuring food security within the rural communities.
REFERENCES


APPENDICES

Appendix A: Farmers Questionnaire and Consent Form

Title: The Role of Agricultural Cooperatives in Poverty Reduction: A Case Study of Selected Cooperatives in the Four Local Municipalities of Vhembe District Municipality, Limpopo Province, South Africa.

Dear respondent

My name is Nefale Tshimangadzo Ashley from University of Venda under Department of Agricultural Economics and Agribusiness, School of Agriculture. I am here to conduct a research on the role of agricultural cooperatives in poverty reduction within Vhembe district.

Any information that you will provide will be treated with outmost confidentiality. Please fill free to answer all the questions with honesty.

Thank you

Instruction

Please answer the following questions by marking with an (X) on the relevant box corresponding with your answer to each question.
CONSENT FORM TO BE COMPLETED BY ALL THE RESPONDENTS.

### CONSENT FORM

**University of Venda**

**Topic:** The Role of Agricultural Cooperatives in Poverty Reduction: A Case Study of Selected Cooperatives in the Four Local Municipalities of Vhembe District Municipality, Limpopo Province, South Africa.

The consent form is designed to check that you understand the purposes of the study and that you are aware of your rights as a participant and to confirm that you are willing to take part.

Please tick as appropriate

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The nature of the study has been described to me.</td>
<td></td>
</tr>
<tr>
<td>2. I have received sufficient information about the study for me to decide whether to take part.</td>
<td></td>
</tr>
<tr>
<td>3. I understand that I am free to refuse to take part if I wish</td>
<td></td>
</tr>
<tr>
<td>4. I understand that I may withdraw from the study at any time without having to provide a reason</td>
<td></td>
</tr>
<tr>
<td>5. I know that I can ask for further information about the study from the research team.</td>
<td></td>
</tr>
<tr>
<td>6. I understand that all information arising from the study will be treated as confidential.</td>
<td></td>
</tr>
<tr>
<td>7. I know that it will not be possible to identify any individual respondent in the study report, including myself.</td>
<td></td>
</tr>
<tr>
<td>8. I agree to take part in the study</td>
<td></td>
</tr>
</tbody>
</table>

**Signature:** [Signature]

**Date:** [Date]

**Name in block letters, please:**

I confirm that quotations from the interview can be used in the final research report and other publications. I understand that these will be used anonymously and that no individual respondent will be identified in such report.

**Signature:** [Signature]

**Date:** [Date]

**Name in block letters, please:**
SECTION A

1. GENERAL INFORMATION

1.1 Name of the farmer: .................................................................
1.2 Name of Local Municipality: ......................................................
1.3 Name of cooperative: .................................................................
1.4 Date of interview: ..................................................................

2. DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS OF RESPONDENT

2.1 Gender of respondent

<table>
<thead>
<tr>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
</table>

2.2 Age of respondent

<table>
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<th>&lt; 18</th>
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<th>26-34</th>
<th>35-42</th>
<th>43-51</th>
<th>52-59</th>
<th>&gt; 60</th>
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</thead>
</table>

2.3 Marital status of respondent

<table>
<thead>
<tr>
<th>Single</th>
<th>married</th>
<th>divorced</th>
<th>Widow/Widower</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.4 Household size


2.5 Level of education

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Not educated</td>
<td></td>
</tr>
<tr>
<td>Primary level</td>
<td></td>
</tr>
<tr>
<td>Secondary level</td>
<td></td>
</tr>
<tr>
<td>Tertiary level</td>
<td></td>
</tr>
<tr>
<td>Abet</td>
<td></td>
</tr>
</tbody>
</table>

2.6 Farm size (hectares): .................................................................

2.7 Total planted farm size (hectares): .................................................

2.8 Type of field crops grown: ..............................................................

2.9 Monthly farm income.

<p>| | |</p>
<table>
<thead>
<tr>
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<th></th>
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<tbody>
<tr>
<td>&lt; - R1000</td>
<td></td>
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<tr>
<td>R1000 - R3000</td>
<td></td>
</tr>
<tr>
<td>R4000 - R6000</td>
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</tr>
<tr>
<td>R7000 - R9000</td>
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</tr>
<tr>
<td>R10000 - &gt;</td>
<td></td>
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</table>

2.10 Are you employed?

<p>| | |</p>
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<th></th>
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<tbody>
<tr>
<td>Yes</td>
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<td>No</td>
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2.11 Monthly non-farm income.

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<td>&lt; - R1000</td>
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<td>R1000 - R3000</td>
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<td>R4000 - R6000</td>
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<td>R7000 - R9000</td>
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<td>R10000 - &gt;</td>
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</tbody>
</table>
SECTION B

1. THE ROLE OF AGRICULTURAL COOPERATIVE IN POVERTY REDUCTION

1.1 What services do you receive from cooperative?

| 1) Farm inputs                        |   |
| 2) Farm implements                   |   |
| 3) Mechanisation                      |   |
| 4) Agricultural loans                 |   |
| 5) Agricultural extension             |   |
| 6) Members education                  |   |
| 7) Marketing of members farm produce  |   |
| 8) Skills development                 |   |
| 9) Others; specify:                   |   |

1.2 Below are numbers of statements regarding effectiveness of Agricultural Cooperatives in poverty reduction, Please read each one and indicate to what extent you agree or disagree with each statement.

<table>
<thead>
<tr>
<th>STATEMENTS</th>
<th>STRONGLY AGREE (1)</th>
<th>AGREE (2)</th>
<th>NO OPTION (3)</th>
<th>DISAGREE (4)</th>
<th>STRONGLY DISAGREE (5)</th>
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</thead>
<tbody>
<tr>
<td>1) Cooperatives contribute to economic growth and job creation</td>
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<td>2) Cooperatives have a role in poverty reduction</td>
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<td>3) Cooperatives are the pillars of agricultural development and food security</td>
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<td>4) Cooperatives provide education and training for members</td>
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<td>5) Cooperatives have a significant positive economic impact on the country</td>
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<td>6) Cooperatives empower people to improve quality of life and enhance their economic opportunities through self-help</td>
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<td>7) Cooperatives reduce operating costs</td>
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<td>8) Cooperatives generate greater profits</td>
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<td>9) Cooperative create employment</td>
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<td>10) Cooperative generate income</td>
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<td>11) Cooperatives eradicate poverty</td>
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<td>12) Cooperative improve agricultural production</td>
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<td>13) Cooperatives organise scattered farmers</td>
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<td>14) Cooperatives help farmers access to markets</td>
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<td>15) Cooperatives uplifts the socio-economic conditions of the members and local communities</td>
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<td>16) Cooperatives strengthen farmers marketing power</td>
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<td>17) Cooperatives enable farmers to sell their crops in high prices</td>
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<tr>
<td>18) Cooperatives provide members with key services</td>
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</table>
1.3 Employment opportunities

a. How many employees do you have?

b. How many are permanently employed?

c. How much do you pay your seasonal employees per hour?

d. How much do you pay your permanent employees per hour?

1.4 Villages benefiting from cooperative

a. Do you have any village benefiting from your cooperative?

If yes! What are the benefits they are getting? E.g. discounted prices

……………………………………………………………………………………………………
b. Is your cooperative involved in any charity work?

If yes! What kind of charity and how many charities annually?

1.5 Financial performance (2014 financial year)

a. What was your total turnover during 2014 financial year?

b. Did you receive any kind of sponsors/donations?

If yes! What kind of sponsor did you receive? And how much was it?

c. Do you have any loan financing?

If yes! When did you receive it? Where did you get and how much was it?
How much have you paid so far?

And how much do you pay monthly?

d. Do you have members’ contribution?

If yes! How much does each member contribute and how often? E.g. Weekly/Monthly /annually.

e. Do you have any membership fee?

If yes! How much is membership fee? And when do you pay it? E.g. when you join

f. How much profit did you make and what do you do with the profit?

1.6 Role of cooperative

a. Do you think your cooperative is doing enough to reduce the level of poverty within the community?
b. How can you successfully reduce the level of poverty within your community?
SECTION C

1. THE ROLE OF AGRICULTURAL COOPERATIVES IN ENSURING FOOD SECURITY.

1.1 What are your views towards cooperative and food security?

1.2 Do you think your cooperative is doing enough in ensuring food security within your community?

If yes! What role is your cooperative playing in ensuring food security within the community?

1.3 Do you produce enough food for selling and also for households?

If yes! How much do you produce per hectare?
## SECTION D

### 1. CHALLENGES FACED BY AGRICULTURAL COOPERATIVES.

Below are numbers of statements regarding challenges faced by Agricultural Cooperatives, please read each one and indicate to what extent you agree or disagree with each statement.

<table>
<thead>
<tr>
<th>CHALLENGES</th>
<th>STRONGLY AGREE (1)</th>
<th>AGREE (2)</th>
<th>NO OPTION (3)</th>
<th>DISAGREE (4)</th>
<th>STRONGLY DISAGREE (5)</th>
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<tbody>
<tr>
<td>1) Governance problems</td>
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<td>2) Financial scandals</td>
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<td>3) A failure to democracy</td>
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<td>4) Infrastructure</td>
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<td>5) Transport bottlenecks</td>
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<td>6) Poor and inefficient roads</td>
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<td>7) Members and leadership not understanding functions of cooperatives</td>
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<td>8) Availability of funds to finance operations</td>
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<td>9) Conflicts arising between members</td>
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<td>10) Control problems</td>
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<td>11) Lack of trust amongst members</td>
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<td>12) Monitoring and evaluation problems</td>
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<td>13) Lack of resources</td>
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<td>14) Lack of capacity</td>
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<td>15) Male dominance</td>
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<td>16) Lack of access to markets</td>
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<td>17) Lack of access to agro-processing opportunities</td>
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<td>18) Shortage of trained managers</td>
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<td>19) Lack of understanding of the cooperatives principles</td>
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<td>20) Shortage of skilled personnel</td>
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<td>21) Dishonesty amongst cooperative leaders</td>
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<td>22) mismanagement</td>
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<td>23) Small memberships</td>
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<td>24) Administration bottlenecks</td>
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<td>25) Political interference</td>
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</table>

**Others; specify:**
Appendix B: Key Informant Questionnaire and Consent Form

Title: The Role of Agricultural Cooperatives in Poverty Reduction: A Case Study of Selected Cooperatives in the Four Local Municipalities of Vhembe District Municipality, Limpopo Province, South Africa.

Dear respondent

My name is Nefale Tshimangadzo Ashley from University of Venda under Department of Agricultural Economics and Agribusiness, School of Agriculture. I am here to conduct a research on the role of agricultural cooperatives in poverty reduction within Vhembe district.

Any information that you will provide will be treated with outmost confidentiality. Please fill free to answer all the questions with honesty.

Thank you

Instruction

Please answer the following questions by marking with an (X) on the relevant box corresponding with your answer to each question.
CONSENT FORM TO BE COMPLETED BY ALL THE RESPONDENTS.

**CONSENT FORM**

**University of Venda**

**Topic:** The Role of Agricultural Cooperatives in Poverty Reduction: A Case Study of Selected Cooperatives in the Four Local Municipalities of Vhembe District Municipality, Limpopo Province, South Africa.

The consent form is designed to check that you understand the purposes of the study, that you are aware of your rights as a participant and to confirm that you are willing to take part.

Please tick as appropriate

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
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<tbody>
<tr>
<td>9.</td>
<td>The nature of the study has been described to me.</td>
<td></td>
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<tr>
<td>10.</td>
<td>I have received sufficient information about the study for me to decide whether to take part.</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>I understand that I am free to refuse to take part if I wish</td>
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<tr>
<td>12.</td>
<td>I understand that I may withdraw from the study at any time without having to provide a reason</td>
<td></td>
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<tr>
<td>13.</td>
<td>I know that I can ask for further information about the study from the research team.</td>
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<tr>
<td>14.</td>
<td>I understand that all information arising from the study will be treated as confidential.</td>
<td></td>
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<tr>
<td>15.</td>
<td>I know that it will not be possible to identify any individual respondent in the study report, including myself.</td>
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<tr>
<td>16.</td>
<td>I agree to take part in the study</td>
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</table>

**Signature:** [ ]  **Date:** [ ]

Name in block letters, please:

I confirm that quotations from the interview can be used in the final research report and other publications. I understand that these will be used anonymously and that no individual respondent will be identified in such report.

**Signature:** [ ]  **Date:** [ ]

Name in block letters, please:
SECTION A

1. GENERAL INFORMATION

1.1. Name of cooperative: …………………………………………………………………………………

1.2. Name of Local Municipality: ………………………………………………………………………

1.3. Date of interview: ……………………………………………………………………………………

2. DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS

2.1. Age of respondent

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2.2. Gender

<table>
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<tr>
<th>Gender</th>
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<tr>
<td>Female</td>
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<td>Male</td>
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</table>

2.3. Level of education

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<thead>
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<th>Education Level</th>
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<tbody>
<tr>
<td>Not educated</td>
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<tr>
<td>Primary level</td>
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<tr>
<td>Secondary level</td>
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<tr>
<td>Tertiary level</td>
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<td>Abet</td>
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</table>
2.4. Occupation: .................................................................

2.5. Farming experience: ......................................................

2.6. Management position: ....................................................

2.7. Management experience: ..............................................

2.8. Do you receive any income for your management duties? If yes! Tick one of the following.

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Selection</th>
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<tbody>
<tr>
<td>&lt; R1000</td>
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<td>R1000 - R3000</td>
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<td>R7000 - R9000</td>
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<td>R10000 - &gt;</td>
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If No! What benefits do you receive for your management duties?

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SECTION B

1. THE ROLE OF AGRICULTURAL COOPERATIVE IN POVERTY REDUCTION

1.1. Do you think your cooperative is contributing anything toward poverty reduction within members’ households? .................................................................
If yes! What are the indicators that your cooperative is fighting poverty?
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If No! What do you lack to fight poverty amongst members households?
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1.2. Do you think your cooperative is contributing anything toward poverty reduction within the community? .................................................................
If yes! What are the indicators that shows your cooperative is fighting poverty within the community?
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If No! What do you lack to fight poverty within the community?
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1.3. What kind of assistance do you need in order for your cooperative to fight against poverty within members households and the community?
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1.4. Is your cooperative providing enough employment within the community?
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1.5. What can be done to ensure employment opportunities within the community?
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SECTION C

1. THE ROLE OF AGRICULTURAL COOPERATIVES IN ENSURING FOOD SECURITY

1.1. How do you ensure food security among members households?

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1.2. How do you ensure food security within the community?

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1.3. What kind of assistance do you need to ensure food security within members’ households and the community?

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SECTION D

1. CHALLENGES WITHIN AGRICULTURAL COOPERATIVES

1.1. What are the challenges facing your cooperative?
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1.2. How are you addressing the above mentioned challenges?
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1.3. What are the challenges facing management of cooperatives
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1.4. How are you addressing the above mentioned challenges?
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