THE IMPACT OF COMPREHENSIVE AGRICULTURAL SUPPORT PROGRAMME (CASP) ON SMALL-SCALE FARMERS IN KWAZULU-NATAL

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ABSTRACT

This research set out to examine the challenges faced by small-scale farmers in the Province of KwaZulu-Natal, analyse the nature of the Comprehensive Agricultural Support Program (CASP) grants extended to small-scale farmers in the province and the contribution of CASP towards enhancing access to markets by the farmers. The study was also motivated by the need to investigate the impact of CASP grants on small-scale farmers in KwaZulu-Natal in order to recommend effective strategies for enhancing the contribution of CASP towards improved production among small-scale farmers. The realisation of these objectives was made possible through adopting a qualitative phenomenological research methodology and an analytical explanatory descriptive research design which gave direction to how data were collected and analysed. Thus the chosen research methodology and design allowed for the collection of detailed information that made it possible to identify challenges faced by small-scale farmers in the province, analyse the nature of CASP grants extended to them and identify the contribution of CASP towards enhancing access to markets. Furthermore, the research methodology and design enabled the research to successfully determine the impact of CASP grants on small-scale farmers in KwaZulu-Natal. The research employed semi-structured interviewing of senior managerial staff in charge of CASP in the Department of Agriculture at KwaZulu-Natal province was employed as a data collection tool, together with the interview guide which comprised of open-ended questions. This allowed respondents the opportunity to explain themselves in detail. Purposive sampling was employed to select the research participants namely the senior managerial staff. Data for this research were analysed through thematic analysis and the findings presented using NVIVO style diagrams. The main findings from this research showed that small-scale farmers in KwaZulu-Natal were facing several challenges before the inception of CASP and that some of the challenges still persist today. The findings further revealed that small-scale farmers in KwaZulu-Natal were being assisted with both monetary and non-monetary interventions. Additionally, the findings confirmed that CASP was also actively involved with assisting small-scale farmers with access to markets in the form of provision of logistical and transport support, preferential procurement and other initiatives highlighted in chapter 4 of this research. Lastly it was concluded that CASP positively impacted on the welfare of small-scale farmers through improved yields, increased income, and gaining of farming expertise among others. However, the findings also revealed that, although CASP brought about some positive developments to small-scale farmers, there were some negatives – such as developing farmer over-dependence, over-indebtedness and

limited coverage in terms of the people who benefitted. The implications of these findings for the senior management in charge of CASP are that there is a need to continuously improve the CASP initiative so that the shortcomings identified in the study are eliminated.

DECLARATION

I, Zimele Rodney Wiseman Mahlobo declare that:

- The research reported in this thesis, except where otherwise indicated, is my original work.

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LIST OF ABBREVIATIONS

ANC	African National Congress
BATAT	Broadening Access to Agriculture Thrust
CASP	Comprehensive Agriculture Support Programme
DAFF	Department of Agriculture, Forestry and Fisheries
EBAPD	Evidence-Based Approach to Programme Design
FSP	Farmer Settlement Programme
GNP	Gross National Product
IFAD	International Fund for Agricultural Development
IFC	International Finance Cooperation
FAO	Food and Agricultural Organisation
NDA	National Department of Agriculture
NGO	Non-Governmental Organisation
TGSGFS	The Group on Sustainable Agriculture and Food Systems
UNIDO	United Nations Industrial Development Organization.

1. INTRODUCTION

1.1 Background to the study

This study was motivated by the need to examine the challenges faced by small-scale farmers in the KwaZulu-Natal Province of South Africa and to analyse the nature of the Comprehensive Agricultural Support Programme (CASP) grants extended to these farmers. Furthermore, the study endeavours to investigate the contribution of CASP towards enhancing access to markets for the small-scale farmers of KwaZulu-Natal and to further examine the impact of CASP grants on small-scale farmers in KwaZulu-Natal. The research further endeavours to identify and recommend effective strategies for enhancing the contribution of CASP towards improved production among small-scale farmers.

Historically, in most sub-Saharan countries, small-scale farmers and agricultural co-operatives have been excluded, while their white counterpart farmers were favourably supported by a range of legislations and subsidies (Ngqangweni, 2000; Makhura, 2001). This division created a highly dualistic agricultural industry, where African farmers are found operating on small lands, facing barriers in accessing finance or lacking institutional support while they become spectators of white famers continuing to receive subsidies to strengthen their productivity (Delgado,Holloway,Nicholson , Staal and Ehui (2010); Markelova ., Meinzen-Dick ., Hellin, and Dohrn, 2009) emphasises that agriculture as an industry is crucial, as it has the potential to create a number of job opportunities and economic growth.

The competition in African economies was triggered by government policies, which led to insufficiency and monopolistic tendencies. African farmers had to face inefficiencies and high costs under biased government controlled institutions and that resulted in low prices in farmers' produce; in most cases payments for goods sold was delayed for some reasons (Van Rooyen,. Singini & Kydd, 1987).That resulted in agriculture as an industry not yielding expected yields; instead, budget shortfalls resulted in countries where small-scale farmers were supported by government. Agricultural investment by small-scale farmers is costly, and farmers are not motivated to practice commercial farming because of financial constraints. Specifically, access to borrowed capital is restricted to those who can afford the required collateral (Jari, 2009).

That leads small-scale farmers to rely on cash crops and non-farm income to finance their operation and consumption (Reardon., Barrett ., Kelly ., and Savadogo (1999)

Despite the range of policies and programmes introduced to transform small-scale farmers, a huge majority is still confined to a negative farming atmosphere branded by unpleasant economic returns due to inferior development of infrastructure, non-availability of working capital and non-access to finance. The focus of this study is on the impact of CASP on small-scale farmers in KwaZulu-Natal.

1.2 Background

The International Finance Corporation [IFC] (2013) observes that while farming operates in a rapidly changing environment globally, the requirements for food, particularly agricultural products, are increasing as the world's population increases in leaps and bounds. In a study of the history of inequality in South Africa, Terreblanche (2002) observes that close to half of South Africa's population lives in food poverty. This figure is in agreement with the National Treasury (2003) which indicated that despite that South Africa is self-sufficient in food production; 14 million people are vulnerable to food insecurity. Coupled with simultaneously rising incomes and urbanisation that are driving increased consumption of agricultural products (Dalberg, 2012), 43% of households in South Africa suffer from food poverty.

IFC (2013) notes that while numerous insurmountable challenges are being faced for a variety of reasons in as far as increased food production is concerned, small-scale farmers are being presented with a beckoning opportunity to expand their market share and ensure sustainable supplies of agricultural commodities. In this regard, Dalberg (2012) asserts that sourcing directly from small-scale farmers has the potential to expand the food supply base, reduce margins of fees paid to collectors and middlemen, and facilitate quality and productivity improvements. Furthermore, Foley, Ramankutty and Brauman (2011) contend that small-scale farmers are potential customers of agricultural inputs and information and financial services.

However, FAO (2004) views rural areas and particularly former homelands where small-scale farmers are usually found, as areas where poverty is more pervasive. In the same vein, Ashley and Maxwell (2001) contend that poverty is rural because of a decline in resource flows to the

rural sector, when commenting on poverty in developing countries. Furthermore, Dorward, Kydd, Morrison, and Urey (2002), in a research project on Institutions and Economic Policies for Pro-poor Agricultural Growth, argue that, trusting pro-poor agricultural growth to mitigate rural poverty under current difficult conditions is not sustainable.

High population pressure has been associated with high agricultural intensification where land is intensively cultivated through the use of abundant labour in production (Boserup, 1965; Pingali., Bigot and Binswanger, 1987). The driving forces behind intensification include increases in prices and demand for food in developing countries (Schultz, 1964; IFAD, 2010) and development of markets and specialization in developed countries. However, there is still only limited empirical evidence linking rural market development and improvement in agricultural production (Kirsten & Van Zyl, 1998). Such empirical evidence would motivate appropriate policy formulation and intervention to stimulate investment and growth in agricultural production by small-scale farming in South Africa. The agricultural system that has developed over the years depends entirely on human capital as the major variable input, with no or insufficient use of purchased inputs (such as artificial fertilizer, machinery, advanced equipment and use of hybrid seed) (Reardon et al., 1999). In a situation where factor and credit markets are non-existent or partially exist, labour can hardly be substituted with capital inputs (Randela., Alemu and Groenewald,2008.). High transaction costs in both the labour and input factor markets might lead farmers to follow better methods (improved technology) that involve more use of family labour, hired labour and less capital. In cases where land is limited, usually farmers would opt to use labour intensively to get better produce instead of investing in capital inputs such as inorganic fertilizers and hybrid seeds (Schipper ., Pender., Jansen ., van den Berg ., Kruijssen ., Roebeling and Damon,2005). The seasonality of agricultural production in South Africa further constrains the use of purchased inputs (including hired labour) in times when output is out of season and purchases must be funded from savings and/or loans. Moreover, financial institutions require collateral in the form of land or other fixed assets as a condition for extending loans; this constrains small-scale farmers' access to credit (Binswanger & Rosenzweig, 1986; Lahiff, 2005). Agriculture in South Africa is dominated by small-scale farmers whose access to land is in marginal areas which are characterized by low use of

inorganic fertilizers, organic matter and hybrid seed. Most of these soils are poor (low nutrients) and crop yields are low as these farmers do not use sophisticated inputs to boost their production. Glaringly, post settlement support (after the democratic elections in 1994) failed to address small-scale farmers' access to resources such as credit and infrastructure for rural development (Umhlaba Rural Services, 2006). The fact that the majority of world's population live in rural areas, calls upon development aid to mainly go to the poorest countries and to support agricultural and rural activities (IFAD, 2001).

The World Development Report (2000/2001) emphasized trade and the role that the revenues from increased market participation could play in triggering development, economic growth and poverty reduction in rural areas (World Bank, 2001). A study by Delgado (1999) however, highlighted that increasing interest in the promotion of the marketing of high value products could be a solution to Africa's economic development problems (also advocated in Mellor (1999) and Jaffee and Morton (1995)). Nonetheless, most African agricultural systems remained at low levels of productivity (Kydd & Dorward, 2001), as small-scale agriculture in the rural areas was typically confronted by structural constraints (Delgado, 1999). Therefore, it remains to identify, within the South African context, which interventions or support programmes could reduce poverty and increase the welfare of the households in the former homelands and how the agricultural sector could play a role to trigger this process. In particular, there is a need for further empirical evidence of the effects of farmer support programmes on small-scale farming – how these programmes contribute to markets such as labour, credit and food in agricultural production and how such programmes change in factor use in response to market opportunities such credit, product and labour markets. These programmes are thought to be a panacea to rural development and welfare of small-scale farmers. There is a need to come up with appropriate policies, designs and strategies for achieving sustained development in rural areas.

In this study, the impact of Micro Agricultural Finance programs in South Africa is investigated, in particular, the impact of improvement in market access opportunities for small-scale farmers, infrastructural development and access to finance.

1.3 Problem statement

This research explicitly endeavours to examine the problem of lower productivity among the small-scale farmers in the KwaZulu-Natal Province, despite the assistance provided by the

Department of Agriculture through CASP. Agriculture in South Africa affords appropriate options for small-scale farmers in terms of income generation in the Province of KwaZulu-Natal (Louw, Jordaan, Ndanga & Kirsten, 2008). Small-scale farmers in the country have been experiencing serious difficulties in improving their production levels to the extent of failing to sustain their small scale farming operations (Dries & Swinnen, 2004; Jaffee & Henson, 2005). The problem that these farmers are confronted with is accessing rewarding markets and having access to resources that improve their agricultural productivity. Limitations in factor markets such as access to finance and product markets are assumed to be some of the main reasons behind the failure of small-scale production in South Africa (DAFF, 2010).Though previous studies covered extensively the effectiveness of government interventions in small holder farming in rural areas of the world, the studies have revealed that the success rate of these interventions like the CASP have been varied from province to province in South Africa and from country to country due mainly to poor planning, poor implementation and literacy and commitment related challenges.Despite previous academic research on CASP in particular and other government related intervention agricultural programs for small farmers in rural areas, there has yet been no study that was conducted on the impact of CASP in KwaZulu-Natal as a province. This study therefore endeavoured to cover the gap in literature on the impact of CASP on the rural farmers of KwaZulu-Natal

1.4 Justification for the study

This study derives its justification from the fact that South Africa is faced with the problem of growing poverty levels among its rural communities. Furthermore, South Africa is facing the challenge of growing unemployment among the able-bodied population. Thus one way of reducing poverty and unemployment is through the effective implementation of the comprehensive rural agriculture support programme. The programme is an empowerment tool that contributes to high levels of productivity among small-scale farmers so that they derive higher incomes which will uplift their living standards. Additionally, there is not yet a comprehensive study that has been undertaken recently to examine the impact that the CASP has had on small-scale farmers in the rural areas of KwaZulu-Natal from a supply side perspective (that is from a managerial perspective).

1.5 Purpose of the study

The purpose of this study is to investigate and analyze the impact of the Comprehensive Agricultural Support Programme in the Province of KwaZulu-Natal. The study focuses on small-scale farmers that are being supported through CASP by the KwaZulu-Natal Department of Agriculture and Rural Development. The study also aims to make recommendations to the senior management of the Department of Agriculture, Fisheries and Forestry, the Department of Agriculture and Rural Development KZN and/or interested parties on how to improve the provision of micro-finance to small-scale farmers.

1.6 Objectives of the study

The following were the objectives of this study:

- To examine the challenges faced by small-scale farmers in KwaZulu-Natal.
- To analyse the nature of CASP grants provided to small-scale farmers in KwaZulu-Natal.
- To investigate the contribution of CASP towards enhancing access to markets by the small-scale farmers of KwaZulu-Natal.
- The impact of CASP grants on the sustainability of small-scale farmers in KwaZulu-Natal.
- To recommend effective strategies for enhancing the contribution of CASP towards improved production among small-scale farmers.

1.7 Research questions

Based on the objectives stated, the research was designed to address the questions below: What are the characteristics of small-scale farmers' production systems, challenges faced by small-scale farmers; and their performance in reaching input and output markets?

- What are the challenges faced by small-scale farmers in KwaZulu-Natal province?
- What are the forms of support extended through CASP to small-scale farmers in KwaZulu-Natal?
- What is the contribution of CASP towards enhancing access to markets by small-scale farmers of KwaZulu-Natal?

- What is the impact of CASP grants on the sustainability of small-scale farmers in KwaZulu-Natal province?
- What recommendations can be made with regards to effective strategies for enhancing the contribution of CASP towards improved production among small-scale farmers?

1.8 Theoretical framework

Taylor and Adelman (2003) came up with models that describe the nature of small-scale farmers in developing countries. The models looked at agricultural production in rural households and mainly centered on consumption and production. These models have been used extensively to explain farm household production behaviour in the rural economies of developing countries (Taylor & Adelman, 2003).The models are divided into two classes i.e. the unitary and collective (or bargaining) household models (Hart, 2002).The unitary models represent a household as a single unit or an individual makes independent decisions on production and consumption. Critiques of the unitary models of the household initially focused on the failure of the models to take into account intra-household inequality and conflict. The problem essentially centers round how to aggregate preferences made by the households and what decisions to take in order to improve agricultural productivity in small-scale households.

A number of neoclassical household theories on small-scale farming have been developed and as such have contributed to the academic world on how small-scale farmers maximize utility through their limited resources. Neoclassical theory requires that preferences are exogenous and fixed, and hence the individual's preference orderings are consistent. Under these assumptions, economic behaviour is deduced as a set of responses to wages and prices, and infers the preferences from observed behaviour of the farmers. This convenient procedure breaks down if the basic unit of analysis is a group of individual household members with inconsistent preferences. The need to come up with a justification for equating the household to an individual with a consistent preference ordering has remained a central theme in the neoclassical literature (Hart, 1992).

Another category of neoclassical household theories draws from Chayanov's Theory of Peasant Economy (1966) and appeared about the same time as Becker's influential article. The Chayanov peasant model is a theory of household utility maximization, first proposed in the

1920s by the Russian agricultural economist, A.V. Chayanov (Thorner et al., 1966) and resurfaced in the 1960s (Mellor, 1963; Sen, 1966). The model focuses on the subjective decisions between farm work and income required to meet the consumption needs of the household (trade-off between drudgery and income from work). Small-scale farmers or farming households are assumed to maximize utility from income, subject to land and labour constraints. The labour market is assumed to be absent and allocation of time between leisure and work on the family farm is determined purely by preferences.

Subsequent development of the farm household model focused on the impact for the logic of the model of relaxing the key assumptions: absence of the labour market and flexible land access, key assumptions in the Chayanov farm household model (Singh et al., 1986).

The Barnum-Squire (1979) household model incorporates a perfectly competitive labour market in the Chayanov's peasant household model, providing a framework for generating predictions about the responses of the farm household to changes in domestic (family size and structure) and market (output prices, input prices, wage rates, and technology) variables (Ellis, 1993; Hart, 2002). The decisions made by the household can be modeled under two different model assumptions: separable and non-separable household models (Alderman et al., 1995). Under perfect market conditions, production and consumption decisions are assumed to be made separately (Janvry ., Fafchamps, and Sadoulet, 1992

On the production side, the household chooses the level of labour and other inputs that maximize farm profits, given the current configuration of capital and land. Optimal input choice depends on input prices, output prices, and wage rates, as well as the fifteen physical characteristics of the farm technology. Technology and sophisticated agricultural production methods benefit small-scale farmers by reducing their inability to access better markets and also increase their production.

On the consumption side, the household maximizes utility over consumption of goods and leisure time in the presence of a budget and time constraints. The budget includes profits from the farm. Farmers' optimal choice depends on the prices of the goods consumed by the household, wages received, total time available for production activities and the characteristics of the household members who are consumers and labourers, such as their age, gender, level of education and religion, ethnicity/cultural values and norms.

In developing countries, perfect market conditions rarely exist because of the institutional setup. Not all products and factors of production can be traded on markets because of the high cost of transactions, shallow markets, and risks and uncertainty about markets and weather conditions. Limited access to credit is a frequent cause of market failure, as the household cannot satisfy an annual cash income constraint, with expenditure greater than revenue at certain periods of the year (Sadoulet and Janvry, 1995). Family and hired labour may be imperfect substitutes in agricultural production while binding constraints in off-farm employment may prevent adjustment in the agricultural labour market (Singh et al., 1986). Farmers may have a preference towards working off-farm (Lopez, 1986). Under any of these circumstances, the production and consumption decisions cannot be treated as separable because farmer's decision-taking depends on the availability of resources or endowments.

Not only do production decisions affect consumption decisions, but consumption decisions (preferences) also affect production decisions (Janvry et al., 1991; Strauss, 1986). Production and consumption decisions are no longer taken in response to exogenous prices, which are taken to be the same for all households. In a nutshell, households in rural areas are prepared to allocate most of their labour to agricultural production depending on the household decisions that yield better incomes from their farms. Thus, households will only produce if the market offers them better prices which are over and above their labour supply.

So therefore the decision-taking by small-scale farmers follow two different assumptions, called separate and non-separate small-scale farming models (Alderman et al., 1995). Janvry et al., (1992) maintained that under perfect market conditions consumption and production decisions are assumed to be made separately. With regards to production, a small-scale farmer chooses the number of farm workers and other relevant inputs that enhance revenues and eventually increase profits given the current formation of capital and land. Ideal inputs choices heavily depend on input prices, and salary rates, as well as farm technology. High technology levels on small-scale farms benefit the farmers as it leads to reduced inability to access better markets and improved production. Limited credit access of small-scale farmers leads to market failure because they are unable to satisfy the yearly income constraints. A range of neoclassical small-scale farmers' theories have been developed, which have contributed to the academic world specifically on how small-scale famers maximize production and revenues through their limited resources.

1.9 Research methodology

This research adopted a qualitative research methodology. A qualitative research design allowed for the collection of detailed information about the impact of CASP on small-scale holder farmers through the use of semi-structured interviews. The rationale for adopting a qualitative phenomenological research methodology was necessitated by the need to acquire as much information as possible about the challenges faced by small-scale farmers in KwaZulu-Natal, forms of support extended through CASP to small-scale farmers in the province, the contribution of CASP towards enhancing access to markets by small-scale farmers and the impact of CASP grants on small-scale farmers in KwaZulu-Natal.

1.9.1 Interview guide design

The interview guide was constructed as follows: the upper part is made up of the research title and information on the research objectives, followed by the demographic section which requires information about gender, occupation, employee status and others. The next section of the interview guide included the instructions that respondents needed to follow to complete the interview. The last part of the interview guide comprised mainly open-ended questions with quite a few closed questions. Since the majority of questions were open-ended, the interview guide included open spaces for respondents to insert their answers in a detailed way.

1.9.2 Sampling of respondents

Purposive sampling was adopted for selecting research participants. Senior managerial staff at the Department of Agriculture was purposively targeted because of the knowledge and experience that they possess regarding the impact of CASP on small-scale farmers in KwaZulu-Natal.

1.10 Expected outcomes

Small-scale farmers have restricted access to factors of production, skills and information as well as to high paying markets which are usually prohibitive due to insufficient property rights and high transaction costs. Nonetheless, in spite of these constraints, most small-scale farmers still produce surpluses for the market. Therefore, the proposed study will reflect that

agricultural production support through CASP promotes agricultural production from Small-scale farmers. It is also believed that CASP will enable Small-scale farmers to access better paying markets. It is within the expectation that the Small-scale farmers who more received support from CASP will be able to generate revenues.

1.11 Scope of the study

This research is specifically focused on the Comprehensive Agricultural Support Programme in the Province of KwaZulu-Natal because of the availability of the required information. Furthermore, data collection is confined to the extension officers working in the province. The study is further confined to small-scale farmers over commercial farmers practicing farming in KwaZulu-Natal.

1.12 Expected limitations

The main limitation of the study is the time and generalizability. The study proposed is not focused on the specific financial performance of one agricultural commodity but instead it looks at all agricultural production or commodities supported through the CASP programme. The province of KwaZulu-Natal is feasible to a range of commodities which are still supported through the same programme, so to complete the study may take longer period required.

1.13 Assumptions made in the study

The assumptions made for this study are based on the neoclassical theory, which presumes that preferences are exogenous and fixed, while individuals' preference ordering is consistent. Therefore, under the said assumptions, financial behaviour can be realized as a set of salaries and prices, and preferences are inferred by observing farmers' behaviour. It is assumed that not all agricultural production by small-scale farmers is supported through CASP. It is also assumed that the budget allocation for CASP was equally distributed over the entire province of KwaZulu-Natal.

2. LITERATURE REVIEW

2.1 Introduction

This chapter provides an overview of small-scale farming including a detailed analysis of the various challenges being faced by small holder farmers in the rural areas not only of KwaZulu-Natal province. The challenges being faced by small holder farmers in the rural areas are discussed and analysed from both a South African perspective but from also from a continental and global perspective. Methods of crop cultivation being utilised by small holder farmers in the rural areas are discussed and analysed. The section further discusses the various intervention strategies for small-scale farmers globally, continentally and nationally. An analysis of the nature of CASP grants provided to small-scale farmers in KwaZulu-Natal is undertaken including a discussion of the contribution of CASP towards enhancing access to markets by the small-scale farmers of KwaZulu-Natal. The nature and impact of government initiated intervention strategies such as the Comprehensive Agricultural Support Programme (CASP) including the strengths and opportunities in CASP implementation are discussed in this chapter. Scholarly views on the effective strategies for enhancing the contribution of CASP towards improved production among small-scale farmers is undertaken in this study.

2.2 Overview of small-scale farming

Typically a family owned enterprise, a small-scale farm in developing countries produces crops or livestock on an area not more than two hectares, while in developed countries smallholdings may exceed ten hectares (IFAD, 2011). The families who are not farmers by choice but because they lack more lucrative opportunities, provide labour and derive a means of survival from their plots of land. In this regard the IFC (2013) note that the families earn their living within traditional support and power structures even though contemporary increases in access to information are positively affecting the way they interact with potential markets for their farm products.

Machethe (2004), in a paper presented at the Overcoming Underdevelopment Conference held in , indicates that rural development literature considers agriculture the best vehicle to reduce rural poverty and that such increasing agricultural growth can positively impact on poverty. Contrary to the views of Machethe (2004), Dorward et al., (2002) indicates that agricultural-led poverty-reducing growth in contemporary poor rural areas is impeded by limited productive

and risky agro-ecological conditions, a constrained variety of less productive and riskier technologies, heightened competition in product markets and a lack of access to inputs.

Traditionally, small-scale farmers sell their crops through conventional supply routes that include village collectors or producer cooperatives who may extend credit or provide agricultural inputs such as fertilizers on a loan basis and recover their moneys from the harvests (IFC, 2013). Additionally, farmers may sell their produce to passers-by on the road side. On a more positive note, Pretty (2010) indicates that the rapid spread of cell phones allows small-scale farmers to increase their knowledge of and interaction with markets. This is in agreement with Dorward et al., (2002) who posit that it is expensive for small-scale farmers to develop, deliver and access input or output markets, or research, extension, health or education services. Furthermore, IFC (2013) insist that household dynamics still affect farm decision-making, especially where cash crops are involved, and often it is the men who make the major decisions because small-scale farming is predominantly a family business.

Women often manage their own food crop plots and men take care of cash crop plots, but the number of female-headed families is increasing the world over, particularly in Asia and Africa (IFC, 2013). Hence, depending on the ability to invest in production, quality and productivity vary widely among small-scale farmers. For example, IFAD (2011) state that the production assets of smallholding farmers range from a basic hand hoe to an expensive tractor. In this regard, Baloyi (2010) posits that poor access to land, labour and capital prevents small-scale farmers from benefitting from opportunities availed by agricultural markets in terms of the volume traded and quality of farm products. Consequently, Baloyi (2010) argues that small-scale farmers fail to consistently produce for lucrative markets due to insufficient access to the means of production.

Additionally, IFAD (2011) opines that farmers may not have post harvesting knowledge, thus lacking the capacity to add value to their produce, or they may be capable of grading and processing their produce to enhance its market value. Furthermore, in some African countries fertilizer consumption is near zero while in China it exceeds 50kg per hectare. Apart from that, literacy rates among small-scale farmers vary considerably and are much lower in rural areas of developing countries (IFC, 2013).

2.3 Challenges faced by small holder farmers

Apart from other factors which contribute to the current state of small-scale farmers in KwaZulu-Natal, in the policy sphere the issue of access to finance by small-scale farmers has not been addressed adequately. In South Africa small-scale faming is looked upon as non-productive, backward, non-commercial, and just subsistence agriculture which is located in parts of former homelands (Kirsten & Van Zyl, 1998). Aliber and Hall (2010) view small-scale farmers as deriving benefits from primary agriculture, solely producing in order to generate income and for consumption. Makhura (2001) maintains that small-scale farmers are non-commercial, thus their contribution to the Gross National Product (GNP) is still very limited. Regarding the observation made on GNP, agriculture is a very important component in the South African trade, contributing an average of 4%.

A list of different efforts that seek to promote agriculture in South Africa have been set up but it remains clear that more is required to be done to make a significant contribution in terms of political objectives of an integrated agricultural industry. Dorward et al., (2002) espouses that policy development in South Africa seeks to produce important mechanisms for state actions to reduce transaction costs, i.e. the necessary mix of conditions for agricultural transformation for small-scale farmers in poor rural areas, and to effect changes needed to achieve their viability. In fact, the South African government led by the African National Congress (ANC) continues to empower small-scale farmers who were denied opportunities under the apartheid government, through giving disadvantaged communities and small-scale farmers more choices, and through the removal of barriers.

The main aim of the government is to shift from subsistence production to producing for markets. According to investigations done by Delgado et al. (1998) and Ngqangweni (2000) agriculture has a big role to play in fostering rural development and poverty alleviation among small-scale farmers in South Africa. Since these farmers contribute to GDP/GNP, household food security is very important in South Africa. However, Kirsten and Sartorius (2002) maintain that in South Africa agricultural yields produced by small-scale farmers are lost after harvest because of reduced quality, spoilage and as well lack of market access thereof. Mostly, small-scale famers are faced by a list of technical and institutional factors which heavily influence the market access. Literature submits that small-scale famers in South Africa have

not received the attention required. Despite well intended policies and programmes which meant to assist in addressing farmers' challenges, farmers are still faced by several challenges in entering better paying markets for their produce. In recent years we have seen some growth in budgets to provide financial assistance to African and previously disadvantaged farmers in the form of bank loans, government grants and production inputs among others, and lately through an extension service, i.e. a 'recovery programme for market access' (Bromberger & Antonie, 1993). Nevertheless, evidence suggests that most small-scale farmers receive little, if any, assistance, mostly because resource allocations are skewed towards selected farmers. Recently the Department of Agriculture has put in much effort to come up with policies that will re-address the imbalances concerning small-scale farmers. Government is of the view that in the long run the investment in support of small-scale farmers will provide a solution to the challenges of unemployment and rural abandonment. To correct all these imbalances and challenges confronting small-scale farmers, government set in place local government structures in line with that of Land Reform and Agriculture and the Marketing Acts as a way to support small-scale farmer development (NDA, 2009). As a result, commercial and non-governmental development organizations crafted different policies to improve access to markets by assisting farmers with finance, technical and management skills. According to Hall (2007) the lack access to land, markets, communication infrastructure, water, skills development facilities and flow of information and opportunities still exclude marginalized farmers from making substantial progress in farming across the value chain. Oettle and Koelle (2003) argued that another reason for failure is that most programmes targeting small-scale farmers fail because they are not properly designed to impact farmers at the scale necessary to make a difference at a socio- and micro-economic level.

Ray et al. (2012) espouse that reliance on small-scale farmers for food provision and supplies presents challenges associated with low productivity and poor crop quality, lack of knowledge on how to mitigate social and environmental impacts of farming activities as well as poor farm management skills among others. Hence the IFC (2013) suggests that costly investments with returns spread over the short and long term are required to address to these limitations. In the view of Baloyi (2010) poor quality leads to rejection of small-scale farmers' agricultural products by the markets. There is an increasing awareness of quality in the food value chain – a global trend among consumers who are becoming increasingly concerned about food safety.

This makes it relatively more difficult for small-scale farmers with poor quality products to enter high valued markets (Baloyi, 2010).

2.3.1 Methods of crop cultivation

According to IFAD (2011), small-scale farmers inherit agricultural techniques from their parents and they hardly use external sources of information on current and effective agricultural land management techniques, making their methods of crop cultivation a major challenge to productivity. To this end IFC (2013) observes that common practices including slash-and-burn agriculture with reduced fallow periods and ploughing downwards on sloping land surfaces are major causes of soil erosion that degrade soil fertility. Further, IFC (2013) notes that coupled with significantly declining government technical and input support, particularly in developing countries, small-scale farmers are left with few options and resources to improve their agricultural practices. Against this background, Dorward et al. (2002) emphasise the need to determine the costs and benefits and hence viability of agricultural growth strategies as a means of reducing poverty under these difficult circumstances associated with small-scale farmers in poor rural areas, and comparing them with other possible strategies for poverty reduction.

2.3.2 Limited access to markets

Worldwide, small-scale farmers encounter difficulties in accessing formal and lucrative agricultural markets for their products (Bienabe & Vermeulen, 2011). In agreement with Bienabe and Vermeulen, IFC (2013) indicate that small-scale farmers do not have either physical or economic access to profitable markets for their produce because of physical isolation caused by distance and poor road networks. Additionally, small-scale farmers suffer from lack of market information. For instance, they do not have effective communication, tools and support services from government and agricultural extension officers (Khapayi & Celliers, 2015). Consequently, farmers rely on word of mouth, family members, and self-research for information related to market prices which in most cases is not accurate or up to date. Mayo (2012) notes the following economic restraints for small-scale farmers: in addition to producing only small quantities of crops for sale, the farmers usually have no capacity to store crops safely and have limited knowledge of market prices or quality requirements beyond the farm gate. They usually also need immediate payment for their produce. To this end, the

farmers sell their farm produce on the roadside next to their farms, limiting their options for negotiation better prices.

Baloyi (2010) highlights that small-scale farmers may gather information about agricultural commodity markets through networking with other actors in the agricultural commodity chain. The accuracy of such information may be doubtful as the actors may exhibit opportunistic behaviour. In other words, small-scale farmers' ability to efficiently trade their produce and derive maximum benefit from it, is compromised by their lack of information about prices, quality requirements and the best timing for selling their produce (Baloyi, 2010).

2.3.3 Lack of organisation

Most small-scale farmers are not members of agricultural cooperatives. T Access to markets for their produce is therefore significantly constrained because they lack collective ownership of both trucks for transporting their products and storage facilities. For instance, IFC (2013) states only 14% of Asian farmers, 7% of African farmers, and 19% of Latin American farmers are members of agricultural cooperatives. In other words, being members of cooperatives can improve market access for farmers through collective ownership of trucks and storage facilities (Mayo, 2012). Furthermore, Baloyi (2010) insists that lack of access to post-harvest storage and processing facilities hinders entrance of small-scale farmers into profitable agricultural markets. Buyers of agricultural products place significant emphasis on quality, thus access to storage and processing facilities to preserve product quality will accord small-scale farmers with flexibility in selling their products and bargaining power during price negotiations.

2.3.4 Informal land holding

Land for small-scale farming is normally owned through traditional structures or farmers could be sharecroppers or renters. The IFC (2013) point out that, because land properties for small-scale farmers are allocated using traditional and cultural methods, the lack of formal land tenures hampers the capacity of the farmers to use the land as collateral for financing their operations. Additionally, Mayo (2012) posits that trading or consolidating land holdings that

are owned through traditional methods and structures is difficult. Hence, small-scale farmers who are sharecropping or renting their land are usually not willing to invest in inputs and activities that enhance the land's productivity.

In the view of Salami, Kamara, and Brixiova (2010), a critical challenge to small-scale farming, particularly in East Africa, is the uncertainties regarding land tenure that has resulted in inadequate access to land. For instance, insecurity of land tenure, unequal access to land, lack of effective means to transfer rights and secure plots are limitations associated with the tenure system. Consequently, poorly developed agriculture, high landlessness, food insecurity, and degraded natural resources have ensued (Salami et al. 2010). To this end, the available land is overly subdivided into small and uneconomic units, leading to disjointed production systems and low productivity

Salami et al., (2010) further notes that the land ownership issues go well beyond small sizes of plots as all land is state-owned in most African countries. Thus traditional land tenure arrangements prevail as an outcome of subsistence agriculture, with peasant associations responsible for allocating land to residents. Thus privatization of land as practised in developed countries could have been the most effective way to reduce insecurity associated with the tenure schemes, but is non-existent in some developing countries. Uncertainties created by state ownership exacerbate the problem.

2.3.5 Poor access to credit facilities

The Group on Sustainable Agriculture and Food Systems (TGSGFS) (2013) anticipates that lack access to markets and financial resources will continue to plague small-scale farmers, thus causing failure to beat the poverty traps related to small holdings and poor soils. In addition, IFC (2013) indicates that because they lack collateral and written records of their business operations, the farmers are not viewed as potential and attractive clients by financial institutions. Compounded by the fact that they lack collateral and credit history, small-scale farmers are avoided by financial institutions and formal micro-credit institutions.

Again, in as far as accessing credit is concerned the size of loans the farmers request from financial institutions is too small to warrant consideration. To this end, IFAD (2011) allude that

a further disincentive for financial institutions to give loans to small-scale farmers is the fact that the loans requested by the farmers are only recovered after the harvest and sale of their crops which could be after a period of a year. Hence, to invest in the enhancement of their farming activities, small-scale farmers depend on savings from their low incomes and this limits the farmers' opportunities for expansion (Salami et al, 2010).

IFC (2013) posit that in addition to their own sources, small-scale farmers rely on incomes of friends and relatives, remittances, and informal money lenders who charge highly prohibitive interest rates on borrowed funds. Furthermore, TGSGFS (2013) observe that spending on agriculture by most developing countries is very low. Given the shortage of adequate rural infrastructure (power, roads and water supply) and the need to develop efficient input and output markets as well as functional extension services, the low public spending on agricultural activities is a serious concern to the farmers.

Baloyi (2010) further underscores the fact that in the face of poor access to credit facilities, small-scale farmers are constrained in their operations by high transaction costs caused by poor infrastructure and communication services as well as information inefficiencies. This implies that, transaction costs related to costs of information, negotiation, monitoring, coordination and enforcement of contracts discourage small-scale farmers from commercialising their operations. Additionally, traders with higher social capital are better capable of participating in capital intensive marketing activities, unlike the small-scale farmers with poor social networks and who face barriers to entry into the more lucrative markets (Baloyi, 2010). Policymakers need to understand critical transaction cost problems inhibiting small-scale agricultural and market development and come up with possible mechanisms for addressing those (Dorward et al., 2002). Indeed, these authors call for a review of former state interventions to identify critical elements of success and failure and match these with more recent experience of private sector involvement to develop new institutional models that address the challenges of small-scale farmers.

2.3.6 Access to input and output markets

Small-scale farmers lack improved access to both input and output markets which are key prerequisites for the transformation of their operations from subsistence to commercial

production (Salami et al, 2012). Additionally, the farmers are unable to benefit from efficient markets and local level value-addition so that they are less exposed to competition. Furthermore, Salami et al, note that many small-scale farmers, particularly in developing countries such as Uganda, live in communities that do not have passable access roads, so that there are no bus or taxi connections while they are five hours or more from a market centre.

In as far as usage of farming inputs is concerned IFC (2013) posits that there are low application rates of fertilizers for arable crops among small-scale farmers (30 kg per hectare per year as compared to the world average of 100 kg per hectare per year) because the farmers lack the requisite knowledge on usage of chemical fertilisers. This has resulted in the farmers incurring high costs and waste of the key inputs, resulting in substantially reduced use of seed, fertiliser and pesticides.

With respect to the output side, most small-scale farmers who are also in subsistence production are constrained by underdeveloped and inefficient marketing, in addition to inadequate storage facilities for both marketing and food security (Salami et al., 2011). Furthermore farmers lack the technology for timely consumption and resultantly large quantities of their agricultural commodities rot away un-marketed. Hence, IFAD (2011) indicates that a critical limitation to raising productivity of small-scale farmers, particularly in Africa, is the incapability of the farmers to link up with supermarkets because they fail to meet high quality and safety standards and delivery schedules required by value chains. This prevents small-scale farmers from competing in profitable markets. Thus Dorward et al., (2002) suggest that there is a need to develop, try out, and evaluate different innovative institutional arrangements that address these problems

2.3.7 Poor soil fertility and limited water resources

Small-scale farms, particularly in developing countries, are located in tropical zones which are characterised by low soil fertility and high acidity (IFC, 2013). Additionally, due to the poor land management practised by these farmers, the soils on their farms have been stripped of nutrients over periods of more than a decade of crop production without the utilization of adequate chemical fertilizers (IFAD, 2011). In this regard, Salami et al, (2010) indicate that in

East Africa, continued gains to agricultural productivity are endangered by land degradation, especially land erosion and loss of fertility.

Furthermore, IFAD (2011) posits that small-scale farmers normally lack understanding of soil systems and thus have no idea of how they can improve their soil fertility through the use of adequate soil testing services. This implies that governments need to develop clear land-use and agricultural policies that provide a framework for researchers, extension workers and small-scale farmers on environmentally-sensitive practices (Salami et al., 2010). Most probably this will also address the lack of clarity of property rights and inequitable access to land that aggravates land degradation problems.

2.3.8 Changing weather patterns

It is difficult for small-scale farmers who traditionally relied on conventional cultivation methods to adapt to contemporary changing weather conditions. For instance, IFC (2013) reveals that unpredictable rainy seasons have drastically reduced small-scale farmers' confidence in planting crops at the traditional time. This is so because droughts or floods cause the farmers' traditional crop varieties to produce low yields while changes in temperature and humidity result in the prevalence of both crop and animal pests and diseases. Furthermore, Dalberg (2012) laments that the dropping of water tables beyond the reach of small-scale farmers who use ground water for irrigation is making it difficult for the farmers to earn a living from their farming activities.

2.3.9 Inefficient inter-cropping techniques

Small-scale farmers who typically own small pieces of land normally combine subsistence and cash crop cultivation on the same piece of land. The IFC (2013) notes that farmers intercrop cocoa and coffee or reduce marketable yields by consuming a part of the maize or rice harvested while the remainder is sent to the market for sale. This implies that small-scale farmers do not use agronomic principles, such as crop rotation, planting nitrogen fixing intercrops and creating wind breaks. Coupled with failure to incorporate integrated pest management techniques in farm planning, this leads to reduction in the profitability of small-scale farmers by reducing productivity and increasing costs. The IFC (2013) notes that off-takers have demonstrated that

assisting small-scale farmers with this type of land-use planning would benefit their suppliers, as well as their own businesses.

2.3.10 Low literacy and numeracy

Lack of formal education of most small-scale farmers limits their ability to keep sufficient records or educate themselves about improved agricultural practices (IFC, 2013). To this end, IFC further purports that most small-scale farmers do not know the actual size of their farms and worse still, the real costs of their farming operations. In addition, Baloyi (2010) elaborates that low literacy coupled with poor technological skills are serious obstacles that hinder small-scale farmers from accessing technological knowledge. Further, Baloyi indicates that small-scale farmers are not capacitated with either financial or marketing skills requisite for them to meet quality standards set by marketers in the production of food.

2.3.11 An aging population

Rural to urban migration has left small-scale farms with an aging population of farmers. Urban areas are offering the youth alternative economic opportunities that are more appealing than small-scale farming activities (IFC, 2013).

2.3.12 Infrastructure

Small-scale farmers' agricultural activities in developing countries, particularly in Africa, are incessantly being obstructed by poor infrastructure (Salami et al., 2010). Farmers' operations are constrained by poor conditions of market facilities, and road or rail transport systems and networks. IFAD (2011) shows that the road systems which are critical for the growth of markets in terms of delivery of both inputs and outputs to and from farms, are the most serious infrastructural bottleneck facing small-scale agricultural development. This is the result of previous infrastructural investments that were ineffective due to poor design and maintenance. Against this background, small-scale farmers rely on inefficient means of transportation that include the use of domestic animals.

Small-scale farmers are constrained by underdeveloped key physical infrastructure such as rural roads that lead to high input costs and transport costs that reduce the farmers' competitiveness (IFC, 2013). Furthermore, Baker (2011) points out that because electricity in rural areas is expensive and not always readily available, investment in cold storage facilities, irrigation and processing of farm produce is limited. Said differently, the lack of storage and processing facilities is a limitation to the marketability of perishable farm produce.

As far as infrastructure is concerned, an additional challenge for small-scale farmers who produce their agricultural output under irrigation is the poor state of irrigation facilities (IFC, 2013). In agreement with IFC, Salami et al. (2010) argue that in sub-Saharan Africa less than 4% of all agricultural output by small-scale farmers is produced under irrigation.

2.3.13 Agricultural extension and innovation

In most African countries, research and extension services which could have transformed traditional small-scale farmer's agricultural activities are disintegrated and ineffective because of limited budgets and expenditure on research by the African states (Salami et al., 2010). This has hampered initiatives like small-scale intensification through access to improved modern seeds and chemical fertilisers. For instance, in Kenya the extension service delivery system broke down as a result of inappropriate training and an inadequate visit extension model that was used. This resulted in significant decreases in operational budgets of sector ministries and delayed procurement and allocation of inputs to small-scale farmers.

Equally the IFC (2013) points out that in Tanzania, agricultural extension services focused on increasing productivity of small-scale farmers through short term technical packages. These packages failed to pay attention to the farmers' circumstances, markets and continuity because the linkages between research, extension and training were weak. This was exacerbated by poor alliances between public and private associates which ensued in weak diffusion of technology and innovation. Similarly, Salami et al. (2010) observes that small-scale farming is challenged with new institutional forms of private sector governance, like buyer-driven food chains. In this regard, supermarkets have high quality sanitary standards which make it difficult for small-scale farmers to compete in the market.

2.3.14 Climate change and related food security challenges

Climate change caused by global warming is a major challenge to small-scale farmers because it reduces agricultural production and productivity, as most of the farmers' crops and livestock are rain fed and therefore very susceptible to weather fluctuations. Increases in occurrences of droughts and floods result in crop failures and loss of livestock, making food security a critical issue for poverty reduction among small-scale farmers the (Loeper ., Musango ., Brent & Scott ,2016)

Mpandeli (2014) concurred with assertions by the Loeper et al.,(2016) by y pointing out that poor land management, deforestation, high levels of soil erosion has greatly affected the ability of the farmlands to become resilient to the effects of droughts and floods to the extent that millions of small-scale farmers are at risk of food shortages. Loeper et al.,(2016) pointed the recurring droughts and floods were responsible for food shortages force food prices to go up in most developing countries. To make matters worse, Kelly (2013) warns that small-scale farmers will continue to be affected by the effects of droughts and floods because early warning systems in most developing countries are inadequate. This is so because both ground and satellite based systems for anticipating weather and seasonal agricultural output practised in countries like India are rarely found most African countries.

2.4 Intervention strategies for small-scale farmers

2.4.1 Overview

Nel and Davies (2012) asserted that one of the major issues confronting the government is the issue of transforming rural agriculture and the culture of rural farmers in order to overcome the challenges of lower productivity and continuous food insecurity. Nel and Davies (2012) further insinuated that small-scale farming is imperative for sustainable food systems of the future, the farmers' lack of land resources, capital or access to markets and operational extension services need to be addressed and rectified as a matter of urgency (Van Averbeke and Mohamed, 2011). For example, most small-scale farmers do not have legal rights to the land they live on and this restrains them from obtaining credit and investing in productivity enhancing methods.

Matshe (2009) asserted that one of the daunting challenges affecting the productivity of rural farmers has the rural to urban migration which has robbed the rural areas of the much needed labour especially the young and energetic people who are critical in driving agricultural production. Nel and Davies (2012) concurred with the observations by Matshe (2009) that the growing trend of rapid urbanisation and diminishing rural labour sources is a clear indication that the future of small-scale farming which require abundant labour for field work, tending livestock and nutrient recycling, is gloomy. It is therefore imperative that new models for strengthening small-scale farming operations that allow for greater mechanisation be implemented to ensure continuity and productivity of their activities. Van Averbeke and Mohamed, (2011) pointed out that meaningful investments in rural development such as in rural infrastructure, the building of an entrepreneurial culture, and strengthening the capacity of rural farmers can go a long way in improving the productivity of rural farmers.

Facilitating small-scale farmers' participation in profitable markets requires supportive intervention strategies that are aimed at reducing the farmers' costs of doing business along value chains Mkhabela (2012); Stringfellow .,Coulter., Lucey., McKone and. Hussain,2015) .In this regard Stringfellow (2015) posited that policy guidelines should be set in place for the development of value chains that encompass strategic entry points, ranging from enhancing small-scale farmers' agricultural productivity to upgrading infrastructure and investing in research and development.

Strategic intervention model

Mkhabela (2012) pointed out that the South African government came up with several intervention strategies which were meant to help rural farmers to increase their agricultural production. Mkhabela (2012) pointed out that one of the agricultural intervention strategies was the Evidence Based Approach to Programme Design (EBAPD) which the South African government intended to improve small-scale farming activities and production. It allows for the detailed analysis of the commodities, origins, regions, small-scale producer groups, supply chain structures and the retail market dynamics that affect the feasibility and effectiveness of the farmers' operations (Mkhabela, 2012). Thus governments can increase the sustainability and productivity of small-scale farming through careful planning and programme design.

Mkhabela (2012) pointed out that EBAPD is composed of two steps, the collection of information and the analysis of the information to design effective intervention strategies. Fig. 2.1 below shows the first step of EBAPD while Fig. 2.2 shows the second step.

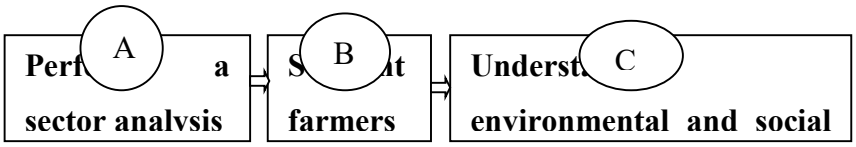

Figure 2.1 Collection of information (Step 1)

Step 1: Collection of information

2.4.2 Performing a thorough sector analysis

According to IFC (2013) performing a thorough sector analysis for small-scale farming supply chains should start with a detailed understanding of the supply chains and the crop sector. For instance, government needs to thoroughly understand the best way to respond to the small-scale farmers' requirements, such as the type of fertiliser the farmers use for a variety of crops or the multiple crops that they grow that require financing. Furthermore, Kelly (2013) posits that during this stage, it has to be ensured that staff members such as extension services officers are aware of available resources that may include improved crop varieties, new production techniques and pest control measures. This is necessary in order to ensure that both small-scale farmers and input manufacturers understand the changing quality requirements of crop buyers or the effects of climate change on the farmers' agricultural activities.

Interviews with participants at each point in the value chain produce information for a sector analysis. Kelly (2013) stresses that government statistics cross-checked in the field may also be useful in carrying out a sector analysis. In other words, the sub-sector examination helps in identifying potential interventions to determine whether the supply chain is tight with suppliers closely linked to off-takers or loose with considerable competition between buyers (Kelly (2013). Dorward ., Kydd ., Morrison and Urey (2012) pointed out that intervention strategies should take the form of training in cases where farmers are using out-dated crop varieties while new planting materials from research institutions could be an effective intervention that would not require extensive farmer training.

2.4.3 Segmenting farmers

Investments in supply chains can be reinforced by first analysing the requirements and preferences of the small-scale farmers before crafting and executing a plan. Grant., Vink., and Murray (2014) pointed out that getting to understanding the demographics of small-scale farmers and their families, including their demographics,challenges,literacy levels, attitudes towards risk, will go a long way in coming up with a proper intervention strategy. Christen and Anderson (2013) explained that perceptions regarding small-scale as a single group with identical characteristics must be corrected and segmentation must take place based on the particular characteristics of the farmers that could affect programme goals. This implies that there is a need to explore the mix of necessary conditions for agricultural transformations for small-scale farmers in poor rural areas, and to implement changes needed to achieve these programme goals (Dorward et al., 2012).

Dorward et al., (2012) supported the issue of segmenting farmers on the basis that it allows for the identification of the varying competence levels and limitations of the farmers that need to be taken into account in crafting an intervention strategy that best meets their needs. In this regard, factors to consider may include among others, literacy level, farming knowledge and age of the individual farmers concerned. Dalberg (2012) opined that field surveys are essential since the data collected will be instrumental in segmenting farmers according to farm size, soil type, income levels, farming preferences and other segmenting criteria. Furthermore, Baker (2011) suggests that small-scale farmers are more likely to accept new practices related to input use, crop production, and marketing if they are offered the right incentives and help to overcome the farmers' perceived constraints. Hence, as Dorward et al. (2012) agrees, state interventions need to be reviewed in order to identify critical elements of success and failure and match these with more small-scale farmer involvement to develop new institutional models.

2.4.4 Understanding environmental and social risk

In analysing investment potential of small-scale farmers, government must include an assessment of environmental and social risks as part of the analysis. Lopez (2011) asserted that government officials engaged in the provision of assistance to rural farmers needs to conduct

a risk assessment prior to the actual rendering of the assistance in order to allow for the effective implementation of the assistance and achievement of the objectives of the assistance program. For example, if sourcing from small-scale farmers in a particular area is associated with the risk of purchasing crops grown with child labour, government may mitigate the risk by supporting communities to construct schools close to the farms to enhance school attendance. Lopez (2011) further emphasised that the proper identification of risks related to the environment and other risk types will allow for the formulation of strategies that will help overcome the risk and enhance higher productivity among rural farmers.

Step 2: Using an evidence-based approach for programme design

Hall & Aliber (2013) identification of supply chain variables and logistical issues that needs to be addressed will allow for the successful marketing of produce belonging to small scale farmers. Jari (2009) further stressed that linkages between small scale farmers and the market chains must therefore incorporate the identification of priority intervention areas, estimation of the amount of time needed, evaluation of the costs and benefits, and identification of activities based on desired results. Furthermore, Dorwards et al. (2012) advises that when complemented by growth in the non-farming sector and policy support, pro-poor agricultural growth could generate significant poverty reduction gains.

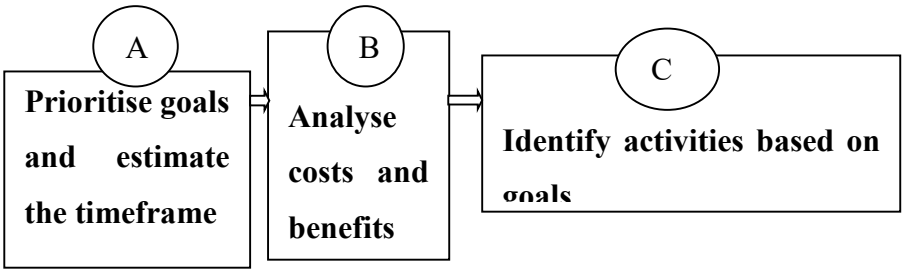

Figure 2.2 Analysing and designing programme

2.4.5 Identifying priority interventions and timeframe

Hall & Aliber (2013) pointed out that to be more successful, governments need to prioritise intervention strategies focused on addressing small-scale farmers' requirements. They identify farmer aggregation, training and communication, providing certification and standards, increasing access to inputs and improving farm management skills as effective intervention

strategies. Critical to the identification of priority interventions and time frames is a pilot phase that provides both the government and the small-scale farmers with an opportunity to field test and fine-tune cost and benefit assumptions made during the design phase (Kelly, 2013). Lessons learnt during the pilot phase are useful in segmenting the supply chain and creating well-trained and organised extension staff (Hall & Aliber,2013).However, a higher cost per farmer is incurred during this phase because approaches are not yet optimal and there is a greater need for resources.

2.5 Analysing the costs and benefits of small-scale engagement

It is imperative that the costs and benefits of small-scale engagement are analysed by the state or entity carrying out the intervention strategy, using start-up costs, pilot phase costs and expansion phase costs (Loeper., Musango ., Brent & Scott, 2013) .Start-up costs include collecting of data on the sector and supply chain, programme planning, training material development and training of trainers. Pilot phase costs are costs per farmer associated with inputs, demonstration plots, field staff, vehicles and other logistics, written training materials, information dissemination, third party certification costs, results measurement and management (Loeper et al., 2013).Expansion phase costs relate to the cost of continuing the most effective intervention identified during the pilot phase, using more efficient information delivery methods (Loeper et al., 2013).Dorwards et al. (2002) emphasise that determining the costs, benefits and viability of agricultural growth strategies is imperative in reducing poverty under the difficult circumstances facing small-scale farmers in poor rural areas.

Mpandeli, N.S., 2014. Coping with climate variability in Limpopo Province. Unpublished doctoral thesis. University of Witwatersrand.

Grant, B, Vink, N and Murray, M, 2014. “Subsector Analysis of the Beef Industry in the Eastern Cape: Perspectives for historically disadvantaged communal cattle herders to enter the commercial channels” Commissioned by ComMark Trust and Triple Trust Organisation. Pretoria, South Africa (September 2014).

Nel, E. and Davies, J. 2012. Farming against the odds: an examination of the challenges facing farming and rural development in the Eastern Cape province of South Africa. Department of Geography, Rhodes University, Grahams‟ Town.

Van Zyl, J., Vink, N. and Fenyes, T.I. 1992. 'Effects of a farmer support programme and changes in marketing policies on maize production in South Africa', *Journal of Agricultural Economics*, 43(3), 466-476.

Van Rooyen, C.J, Vink, N. and Christodoulou, N.T. 1987. Access to the agricultural market for small farmers in South Africa: The farmer support programme. *Agrekon*, 4(2): 207-223

.

Loeper,W,V., Musango ,J., Brent A & Scott D (2013) Analyzing challenges facing smallholder farmers and conservation agriculture in South Africa: A system dynamics approach, S. Afr. j. econ. manag. sci. vol.19 n.5 Pretoria 2016

Matshe, I. 2009. Boosting smallholder production for food security: some approaches and evidence from studies in sub-Saharan Africa. *Agrekon*. Vol. 48 issue 4. 2009.

Van Averbeke, W. and Mohamed, S.S. 2011. Smallholder farming styles and development policy in South Africa: the case of Dzindi Irrigation Scheme. Agrekon, 45(2): 136-157.

Thwala, W.D., Khosa, M., Amanor, K.S. and Moyo, S. 2014. Land and sustainable development in South Africa. Zed Books, London, UK, 33-54

Singin, I.R. and Van Rooyen, J. 1995. Serving small-scale farmers: An evaluation of the DBSA‟s farmer support programmes. Development Bank of Southern Africa Development,Paper44,Midrand.
Online:http//:www.freemarketfoundation.com/htmupload/.doc.[Accessed 17-04-2012].

Ortmann, G. F. and King, R. P. 2006. Small-scale farmers in South Africa: Can agricultural cooperatives facilitate access to input and product markets? *Staff Paper P06-4.* Department of Applied Economics, University of Minnesota.

Senyolo, G., Chaminuka, P., Makhura, M., and Belete, A. 2009. Patterns of access and utilization of output markets by emerging farmers in South Africa: Factor analysis approach. *African Journal of Agricultural Research*, 4(3), 208-214.

Stringfellow, R., Coulter, J. Lucey, T. McKone T. and. Hussain, A. (2015). Improving the access of smallholders to agricultural services in sub-Saharan Africa: farmer cooperation and the role of the donor community. Natural Resources Perspectives 20. London: Overseas Development Institute.

Mkhabela,T (2012) Linking Farmers with Markets in Rural South Africa: Rural Development and Poverty Alleviation through Supply Chain Management http://www.namc.co.za/upload/all%20reports/Linking%20farmers%20to%20markets%20in%20Rural%20SA.pdf,accessed 16 october 2013

2.5.1 Identifying activities based on goals

Government or the entity implementing an intervention strategy must consider using a logical framework to identify activities based on programme goals (Thwala ., Khosa ., Amanor and Moyo,2014).In fact, the logical framework acts as an effective tool for ensuring that an acceptable causal link exists between anticipated activities and desired outcomes of an intervention strategy. IFAD (2011) explains that the logical framework will recognise targets and build back to the activities needed to attain those targets. This finding concurs with Thwala et al.,(2014) objective setting and the setting up of contingent plans will help to spur the success of the objectives and goals of the intervention program.

2.5.2 Strategic intervention policy areas

Kelly (2012) identifies that easing the cost and risk of doing business with small-scale farmers and supporting the farmers' competitive advantage for agribusiness development, enhances small-scale farmers' productivity and resultantly their participation in profitable markets; it also contribute to the development of national economies. The use of small-scale organisation models for improved bargaining power and value chain governance, as well as institutional

innovations and strategic value addition for sustained value capture, enhances small-scale farmers' productivity (Kelly, 2012). Further, Dorward et al. (2002) suggest that success factors and policy guidance for strengthening small-scale buyer business models within value chains could be effectively capitalised to enhance small-scale farmers' productivity and resultantly their participation in profitable markets as well as contribute to the development of national economies.

2.5.3 Easing the cost and risk of doing business with small-scale farmers

According to Kelly (2012), by improving the integration of small-scale farmers into value chains, governments across nations ease costs and obstacles that impede doing business with the farmers. Baker (2011) is of the view that investment in the development of local infrastructure and support of small-scale farmers by putting government policies in place that cover institutional, legal and administrative factors, stimulates the ease of doing business with the farmers.

According to Ashley and Maxwell (2001) the South African government assistance program for rural agriculture needs to emulate the initiatives taken by some countries that have led to the improvement of small-scale farmers' productivity. For instance, Cameroon established a one-stop shop for setting up a business, abolishing requirements for business premises and fees; Cape Verde eliminated the needs for municipal inspection, while the Democratic Republic of Congo eliminated the need for a seal of a company Ashley and Maxwell (2011).Hence, governments can promote local institutional strengthening through the establishment of business information centres and support at the municipality level (Bannock Consulting Ltd. as cited in Kelly, 2012).

The information centres could act as an extremely useful mechanism that helps small-scale farmer organisations simplify tedious administrative processes. An example of this type of service is the award-winning work of Entebbe Municipal Council on improving licensing (Bannock Consulting Ltd. as cited in Kelly, 2012). Baker (2011) applauds this action as commendable proactive support to the farmers that encompasses a definite step forward from a macroeconomic management approach to poverty. Furthermore, this action agrees with

Dorward et al. (2002) who identify the need to develop, try out, and evaluate different innovative institutional arrangements that address small-scale farmers' problems.

However, Kelly (2012) cautions that the crafting of policies that reach, fix and stimulate market access at the level where business takes place between small-scale farmers and processors, traders, transporters and retailers is critical but a major challenge for governments. Baker (2011) notes that reinforcing and upgrading the crafted policies with industry policy frameworks that address value-chain collaboration and guide competitiveness is imperative, even though this presents an additional challenge to most policymakers. To this end, FAO (2010) emphasises that national commodity value-chain policies, strategies and platforms must respond to this need. In addition, Dorwards et al. (2002) stress the need for policy formulation to be innovative and imaginative through learning from and building on historical and current institutional innovations.

Establishment of business information centres and support provide an excellent platform for information-sharing and collaboration among farmers and the markets for their products; however, there is a risk associated with the capturing and dictating by individual personalities or groups of the dialogue agenda (Kelly, 2012).For example, small-scale farmers may rarely have a significant voice in value chain dialogues because they lack strong associations to represent their interests. In addition, Kelly (2012) explains that value chain platforms may be over-participatory to the extent that they may address main actors' agendas without placing considerable attention on prioritising strategies. This will result in failure to attend to essential constraints, priorities for competitiveness, funding opportunities and support interventions.

Dorwards et al. (2012) points out that macroeconomic policies, particularly those meant to protect disadvantaged groups have the potential to hamper the efforts of small-scale farmers to take advantage of market opportunities. For example, in 2008, support for strengthening rice producers' buyer linkages in West Africa was considered timely with the onset of the food crisis, when the prices for wheat and rice went up significantly within a short space of time (Baker, 2011). However, farmers who were set to benefit from these price increases failed to do so because governments set minimum prices and lowered import duties in an effort to protect consumers. In other words, well-intentioned policy changes may offer little respite and may be counterproductive for business operators who could benefit from the price movement.

Against this background, FAO (2010) cautions that to ensure that food chain-specific support does not result in interventions that alter market conditions significantly, policy makers need to exercise more care. For instance, interventions must be based on reliable analysis and public-private dialogue which objectively identify critical factors for improved competitiveness.

2.5.4 Supporting small-scale competitive advantage

Baker (2011) posited that government has to assess whether downstream actors are convinced of small-scale farmers' competitive advantage in supplying a product prior to investing in value chains that are small-scale-based. In fact, actors in the market have to be convinced that the risks of doing business with small-scale farmers can be adequately covered by the net value of the final transaction. For instance, Miller and Jones (2011) observe that buyers need to be assured that the farmers are capable of meeting quality standards specified by the market, will consistently supply agreed quantities, will not engage in side marketing and will not perceive the buyers as exploiters.

Furthermore, Miller and Jones (2011) concedes that the more willing buyers are to accept the risks of dealing with small-scale farmers, the stronger the small-scale competitive advantage. Hence, it is imperative to note that in supporting the development of small-scale based value chains, there is need to fully understand and manage buyers' risks in order to increase the procurement of small-scale farmers' produce by the buyers. To this end, Miller and Jones (2011) emphasise that government in its endeavours to support small-scale farmers, need to focus more on the sourcing decisions made by buyers rather than on the accruing market opportunities for the small-scale farmers.

Buyers' evaluation of risks associated with doing business with small-scale farmers is based on land tenure, agro-ecological knowledge, and skills relative to the crops' characteristics, proximity to markets, membership of a farmer organisation, local infrastructure and transport as well as local and national business enabling environments (Dorwards et al.,2012) Baker (2011) notes that because of a high probability of side-selling of inputs and contracted produce, a decisive factor in doing business with small-scale farmers is the level of credit, inputs and technical assistance required by farmers, and the impact of diversification of these resources away from famers' core business.

Governments can enhance small-scale farmers' competitive advantage by eliminating constraints to accessing finance, inputs and technical assistance to make it easy for the farmers to compete in modern and profitable markets (FAO, 2010). In fact, government can boost financial institutions' confidence in small-scale farmers through the provision of guaranteed collateral, agricultural inputs and market services. In the view of Miller and Jones (2011), market services can include collective bargaining power of the farmers, feasible diversification strategies, appropriate strategies for targeting of markets, sound business plans and the capacity to manage both business and financial operations.

Staatz (2011) posited that issues pertaining to financing of small-scale farmers can only be tackled effectively if they are viewed from a value-chain perspective rather than through punctual and isolated provision of subsidised agricultural inputs, equipment, revolving funds and grants. To this end, governments can promote good practice that considers non-financial alternatives before direct financial support is availed to the farmers in the value chain. Similarly, Miller and Jones (2011) agree that public support to small-scale farmers can include brokering linkages with microfinance institutes, facilitating neutral dialogue that bring together financial providers, value chain clients and technical assistance to the farmers. In this way, the facilitating linkages with exporters and market outlets have the potential to provide the requisite confidence to lenders. Furthermore, Staatz (2011) indicates that governments need to foster and support small-scale farmers through a combination of institutional strengthening and the creation of local conditions that allow investors to mobilise resources needed for micro-agribusiness enterprises.

2.6 Institutional innovations and strategic value addition for sustained value capture

Given the growing interest in value-added commodities, governments need to assist small-scale farmers to adopt mechanised technologies so that the farmers earn higher returns that are typically captured by upstream actors in the agri-business value chains (FAO, 2010). Christen and Anderson (2013) indicate that value addition or investments in high-value processing of agricultural products can be applied to raw produce without changing the produce's physical form through the introduction of activities that include cleaning, grading and labelling. Christen and Anderson (2013) pointed out that governments must pay attention to the fact that

positioning logistical, marketing and quality control systems that entail strategic preparation and collaboration between farmers and value-chain partners, adds worth to agricultural products.

However, Staatz (2011) cautions that subsidised farming investments made in mechanisation, tractors or processing equipment which promote the adoption of capital-intensive, labour displacing technologies where labour is abundant and cheap, may lead to value subtraction. In other words, Staatz (2011) warns governments to be watchful of value subtraction which occurs when end buyers of the farm products are not prepared to pay a higher price that more than compensates for the cost of the investments in value addition for the products. When such a situation occurs, the small-scale farmers are not motivated to continue with their operations business effectively.

Christen and Anderson (2013) also notes that, supporting investments in agro-processing technologies that results in additional income-generating and value-addition activities for small-scale farmers may add very little in terms of competitiveness. However, the investments may result in the diversion of the farmers' resources and attention away from improving their core business of crop production and marketing. In this regard, Christen and Anderson (2013) cites as an example, the palm-oil sector in Cameroon in which farmer groups were struggling to compete on the basis of their core business. A feasibility study carried out revealed that after the farmers took on medium-scale processing units to capitalise on the processed oil's higher price, returns on investment were higher if they sold their raw product directly to industry for processing (FAO, 2010). This was so because wholesale markets were not prepared to pay a higher and compensatory price for the processed palm oil.

The United Nations Industrial Development Organization. [UNIDO] (2011) espouses that the conversion of raw agricultural materials into higher-value products depends on investments in new agro-food technologies, value-chain systems and capacities that are put in place to reduce transaction costs. In this regard the World Bank (2014) posits a capacity building programme is needed to avert the risk of failure exacerbated by the farmers' need for additional and reiterative training. For example, the small-scale farmers need training in the running and management of the new technology, in agri-business and marketing skills, required to enable them to survive and interact within a new value chain. In other words, to ensure that the high

cost of capital investments in agri-processing are capitalised on, the support provided must demonstrate the importance of delivering complementary and reiterative capacity building in a range of skills that match the new technology acquisition, the new target market and value chain (World Bank, 2014).

2.7 Small-scale organisational models for improved bargaining power and value-chain governance

Under the aegis of government programmes, small-scale farmers can be incorporated into value chains that are market-oriented where their impact and sustainability are most likely to be maximised (FAO, 2012). For example, Neven (2012) holds that the farmers can observe the welfare-enhancing effects of market participation from others actors in the agri-industry and transition to more market-oriented farming. To this end, Neven (2012) argues that if the farmers are to participate and benefit from well-coordinated value chains, government support must consider the significance of farmer organisational models. For example, government can assist the farmers to start from a situation where they participate in some form of informal or formally organised market structure.

Depending on the local context, commodity and market structure, government could deploy a number of small-scale organisational models (Kelly, 2012). According to Kelly, small-scale farmers' organisational models include traditional marketing cooperatives that are vertically integrated into value chains, farmer associations mandated to bargain on behalf of members, registered producers' groups and informal farmer groups. Furthermore, this author states that, in the absence of effective small-scale farmer groups, external players may organise individual farmers into out grower schemes or local traders associations. To this end, Neven (2012) observes that the driver models in which small-scale farmers' associations could be linked to the market are either producer-driven, buyer-driven or intermediary driven.

While producer-driven models are motivated and owned by small-scale producers based on collective action for increased participation in markets, buyer-driven models involve larger entities organising farmers into suppliers of farm produce to the entities (Neven, 2012). Buyer-driven models may include the provision of inputs through contract farming and technical advice based on the buyers' needs. In addition, Neven (2012) posits that intermediate models

which are commonly led by NGOs, involve the provision of technical assistance and support to identify and improve small-scale market linkages.

Generally, this implies that traditional farmer associations offer small-scale farmers space to cooperatively envisage the demands of modern agriculture and coordinate activities related to mass buying of inputs, joint marketing, negotiating credit and contracts, as well as lobbying policy makers. Against this background Cook and Burress (2011) note that, successful collective action could address key limitations associated with high transaction costs, entry to higher-value markets, access to business development services and finance. Importantly, successful combined action could lead to renegotiation of power relations in the value chain in favour of the small-scale farmers.

However, a series of dysfunctional market characteristics are present in small-scale market integration strategies that generally have the potential to prevent upstream players from benefiting from apparent strengths (Neven,2012). In the same vein, Kelly (2012) propounds that it is unrealistic and non-viable to expect a level playing field when implementing market integration strategies. For instance, an overtly skewed lack of relative bargaining power for any player in the value chain impedes the progress of the concerned actor and unfavourably impacts on partners on either side of the trading base, thus negatively affecting the overall functioning of the entire value chain (Neven, 2012)

Kelly (2012) cites the case of the rice sector in West Africa as a good example of what may happen when market integration strategies are implemented. According to Kelly (2012), circumstances showed that the skewed bargaining power of one actor, the women par-boilers, impeded the overall progress and competitiveness of the entire chain. In this regard, in Burkina Faso, women par-boilers and a major buyer for rice producers secured a market for large volumes of parboiled rice. However, they lacked access to credit to augment their orders from small-scale producers because of significantly less bargaining power than the rice producers' association.

Cook and Burress (2011) emphasise that in implementing integrated marketing strategies, governments must remember that combined action is fundamental in improving relative bargaining power and overall chain alignment and efficiency for value chains made up of

fragmented actors of either buyers or sellers. Hence, FAO (2012) purports that government support to small-scale-buyer linkage initiatives that address fragmentation and collective capacity of buyers is important for the overall effectiveness of the value chain and small-scale inclusion. For instance, government support to a cassava small-scale linkage case in Malawi demonstrates small-scale benefits that accrued from trading with processors that were collectively organised around an association which provided services for market linkages, product promotion and lobbying (FAO, 2012).

Through working together agri-processors or buyers are able to inform small-scale suppliers of their requirements as well as arrange collection points. In this regard, Neven (2012) contends that cooperative action of buyers results in improved small-scale confidence in a market outlet, leads to improved production planning, and significantly compensates for the diseconomies of scale from unorganised small-scale farmers. The IFC (2013) notes that promotion of small-scale group set-ups based on members' needs and local marketing requirements of cotton by the Kenya government, contributed significantly to an improvement in small-scale ginnery relations.

Cook and Burress (2011) concede that institutional innovations grounded in the realities of the local context add considerable value to the role of small-scale groups in value chains. Hence, bearing in mind the fact that the organisational form that minimises ownership costs has the greatest probability of survival; the state could enable collective action by dismantling overly bureaucratic legal rules of institutional organisation (Aliber, 2013).In other words, the state must allow groups ample space to design their own membership and organisational rules that ensure coherence with the local cultural context and marketing needs of the targeted commodities.

2.7.1 Strategic support to small-scale farmers in South Africa

South Africa's agricultural support strategies started in the 1990s with the Broadening Access to Agriculture Thrust (BATAT). This included farmer support and production loans, together with the Farmer Settlement Programme (FSP) or the Livelihoods Development Support responsible for post-settlement agricultural support to land reform beneficiaries (Hall and Aliber, 2013). However, the Department of Agriculture, Forestry and Fisheries (DAFF) (2010)

points out that because BATAT and FSP comprehensively lacked the approach to transform or provide a conducive environment for small-scale farmers to improve productivity and grow into commercial entities, the Comprehensive Agricultural Support Programme (CASP) was established in 2004.

2.7 The Comprehensive Agricultural Support Programme (CASP)

Even though CASP is not the only form of agricultural support in South Africa, it is the most significant capital budget line potentially available to small-scale farmers (Hall & Aliber, 2013). Against this background, the National Department of Agriculture (NDA) (2010) indicates that CASP was aimed at increasing the provision of support services to enhance agricultural development of beneficiaries of the land and other agrarian reform programmes (Hall & Aliber, 2013).Conceived as a conditional grant, CASP guidelines required that 30% of the grant be used for addressing a wide variety of needs of those who already had some access to land, like people who were already living and farming at small-scale in communal areas of former Bantustans (Hall & Aliber, 2013).

2.8.1 Strengths and opportunities in CASP implementation

There is a very conducive constitutional and policy framework in South Africa that supports land reform and which allow small-scale farmers to secure land ownership and rights (Aliber, 2013). The Constitution provides a directive for tenure reform, restitution and redistribution that allows for the expropriation of land through negotiated acquisition or purchase in the market. In addition, Development Enterprise (2013) reveals that, agricultural policy reforms of the 1990s eliminated all the privileges and subsidies that had been directed at commercial farmers by the apartheid regime, thereby in principle creating a level playing field for all types of farmers. Accordingly, Kirsten, Lubambo and Ndlovu (2014) hold that the constitutional and policy framework is one of the most favourable in the world for successfully and rapidly implementing land reform.

2.8.2 Weaknesses and threats inherent in CASP implementation

The National Department of Agriculture (NDA) (2010) reveals that CASP has six key areas for which funds are made available namely ,on- and off-farm infrastructure, information and knowledge management, training and capacity building, technical and advisory services, financing mechanisms and marketing and business development. Aliber and Cousins (2013) posit that the allocation of funds to provinces under CASP grants vary widely according to the number of land and agrarian reform beneficiaries, the ruralness of the province, the size of agricultural land and arable land, and population size. Apart from that, Hall and Aliber (2013) espouse that while in practice CASP forms part of a broad endeavour to provide farmer support, the most considerable component of farmer support to be derived by farmers under this initiative is extension services.

It has been noted with great concern that CASP is not comprehensive in its reach and in the types of support provided due to substantial barriers, such as a lack of clear and consistent prioritisation of beneficiaries across provinces and the absence of a clear rationale for prioritising one type of applicant over another (Hall & Aliber, 2013). Regardless of the fact that, at its inception, there were six pillars or areas of focus for provision of support under the programme, in practice forthcoming support is almost exclusively restricted to on-farm infrastructure, while other components are not adequately explained to the small-scale farmers who are the intended beneficiaries. For instance, CASP has only delivered infrastructure such as fencing, boreholes, watering points, irrigation infrastructure, livestock handling facilities, and structures such as packing sheds, leaving the more comprehensive needs of the small-scale farmers unattended to (Hall & Aliber, 2013).

Against this background, Hall and Aliber (2013) conclude that South Africa is presented with an impasse in as far as CASP is concerned because increasing the programme's budgets will achieve little because its vision is;:

- excessively oriented to supporting individual farmers,
- excessively channelled into land reform projects (which need a dramatic design overhaul, in the absence of which CASP support to them will continue to be a case of 'throwing good money after bad'), and

- ❖ dependent on an extension service that is itself equipped to serve only few small-scale farmers and cannot feasibly be up-scaled.

The implementation of CASP is also characterised by fragmented planning, a backlog of projects awaiting funds, separate approval mechanisms for land acquisition and agricultural support, complicated procurement procedures, and inadequate capacity and access to information among potential beneficiaries and officials administering the programme (Business Enterprises, 2013). For example, two major sources of impediments bedevilling the implementation of CASP are programme administration and programme access. Firstly, Business Enterprises states that prolonged and intrusive planning and budgeting processes compounded by cumbersome procurement processes, mitigate against prompt and timeous service delivery. Secondly, most of the present beneficiaries of the programme are not centrally involved in the application process but agriculture or land affairs staff members do that on their behalf.

Existent in the implementation of CASP are variable practices across provinces in the country in terms of prioritising usage of funds from the grant. For instance, Hall and Aliber (2013) observe that CASP expenditures are in favour of land reform projects and beneficiaries in some provinces; in some of the other provinces this claim is strongly challenged. Hence, it is critical that a general appreciation of who the proposed beneficiaries of CASP arebeclearly defined and that this definition be entrenched in the programme to prevent CASP from addressing needs that should actually be dealt with through broader provincial farmer support budgets.

Furthermore, the equation of CASP with infrastructure, the lack of secure tenure in communal areas on which to put up the infrastructure, and the political priority attached to improving the perceived performance of land reform projects are some of the main reasons why CASP funding basically excludes small-scale farmers in communal areas (Cousins and Aliber, 2013). For instance, Cousins and Aliber indicate that due to lack of assurance about the land rights of beneficiaries, agricultural officials find it difficult to support farmers in these areas. This is so because without land rights, small-scale farmers will still not have the right to own and control the infrastructure created with the CASP funds allocated to them.

Finally, Lahiff and Li (2012) suggest that there is a tendency to disburse large sums to a few projects and that people in some provinces leave CASP open to abuse in the form of political patronage and corruption. Hence, the World Bank (2014) warns that in the absence of any rationing mechanism or limit on allocations, CASP will continue to fail to leverage resources in major commercial projects (where beneficiaries may be able to contribute some of their own capital and to access loans), while neglecting modest needs among the majority of small-scale farmers. Hence, given the limited funds available to small-scale farmers, the major criticism of CASP is not only one of equity, but one of leveraging resources.

2.9 Conclusion

This chapter provided an overview of small-scale farming including a detailed analysis of the various challenges being faced by small holder farmers in the rural areas not only of KwaZulu-Natal province. The challenges being faced by small holder farmers in the rural areas were discussed and analysed from both a South African perspective but from also from a continental and global perspective. Methods of crop cultivation being utilised by small holder farmers in the rural areas were discussed and analysed. The section further discussed the various intervention strategies for small-scale farmers globally, continentally and nationally. An analysis of the nature of CASP grants provided to small-scale farmers in KwaZulu-Natal was undertaken including a discussion of the contribution of CASP towards enhancing access to markets by the small-scale farmers of KwaZulu-Natal. The nature and impact of government initiated intervention strategies such as the Comprehensive Agricultural Support Programme (CASP) including the strengths and opportunities in CASP implementation was discussed in this chapter. Scholarly views on the effective strategies for enhancing the contribution of CASP towards improved production among small-scale farmers was undertaken in this study.

3. RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter describes the research methodology and research design that were used to accomplish the research objectives. A brief background of the purpose of the research is provided, followed by the research setting, research paradigms and traditions, and an explanation of the research design. Thereafter the research methodology is explained, including the selection of the target population for the research, highlighting the sampling methods and sample size for the research. The chapter concludes with a discussion of data collection methods, tools and instruments used to collect data, data analysis, validity, reliability and trustworthiness, ethical issues and a detailed research schedule. The research adopted a purely qualitative phenomenological descriptive research approach.

3.2 Research Purpose

This research carried out an examination of the challenges faced by small-scale farmers in KwaZulu-Natal and analysed analyse the nature of CASP grants provided to small- scale Farmers in Kwazulu-Natal. For the purposes of this research, a qualitative research methodology was used as a research strategy for collecting and analysing data in order to assess the impact of the comprehensive agriculture support programme on the small-scale farmers in KwaZulu-Natal. The rationale for choosing a qualitative research approach was premised on two main reasons. Firstly, qualitative research methodology produces detailed descriptions, analyses information about the impact of the comprehensive agriculture support programme on the small-scale farmers in KwaZulu-Natal better than a quantitative approach. Secondly, limitations of time and costs necessitated a qualitative research approach mainly because it deals with smaller samples. The qualitative research approach was therefore preferred since it was the best approach to examine the impact of the comprehensive agriculture support programme on the small-scale farmers.

3.3 Research setting

The research setting is the area where the researcher intends to conduct the study that is suitable and feasible (Creswell, 2013). The research was carried out at the Department of Agriculture in KwaZulu-Natal.

3.4 Research philosophy

The quantitative and qualitative research methodologies are the two main approaches used in research. Quantitative research philosophy is positivist in nature it deals primarily with numbers and is mainly deductive because it tests relationships between variables. Johnson and Christensen (2010) posited that the main thrust of a positivist research philosophy is to establish the objective truth (reality) about a theoretical framework with a view to either vindicate or disprove the theory so as to come up with a single and universal truth (Creswell, 2013). In contrast to a quantitative research methodology, Johnson and Christensen (2010) explained the the qualitative phenomenological research philosophy as mainly concerned about getting an understanding of human-lived experiences as well as their views and perceptions about certain issues in a detailed manner. The current research adopted a qualitative phenomenological research philosophy because it allowed for the collection of detailed information through the use of open-ended research questions which enabled respondents to elaborate their responses in greater detail.

3.5 Research design

The research design is a set of pre-planned logical systematic procedures which enables the researcher to obtain research evidence to determine the degree to which a theoretical hypothesis (or set of hypotheses) is/are correct. According to Welman et al. (2013) a research design ‘‘is a strategic framework for action that serves as a bridge between research question and the execution of the research’’ Kothari (2012) opined that a research design is a “formal plan of how the researcher intends to conduct the research” According to Sekaran (2013) a research design allows the researcher to conduct the research in such a way that he/she achieves the objectives which the study was intended to achieve. Welman et al. (2013) name four main

types of research designs namely: cross-sectional research design, experimental research design, non-experimental research design and case study research design.

According to Burns and Grove (2011) a research design allows the researcher to conduct the research in such a way that he/she achieves the objectives of which the study was intended to achieve. Plooy-Cilliers, Davis and Bezuidenhout (2014) further explain that a research design is a structure that holds the research together and enables the researcher to address pertinent research questions in ways that are appropriate, efficient and effective. Research designs may also be classified in terms of their purpose. According to Welman, Kruger and Mitchell (2011) the main research designs are:

- Causal-comparative research;
- Correlational research;
- Explanatory research;
- Descriptive research; and
- Exploratory research (source).

A qualitative descriptive research design was chosen for this research. According to Plooy-Cilliers, Davis and Benzuidenhout (2014) the purpose of a descriptive research design is to describe as accurately as possible the characteristics of phenomena as well as relationships between variables or relationships between phenomena. This research adopted a descriptive research design for the purposes of describing the characteristics of the CASP as it is rolled out to small-scale farmers and its relationships in terms of the impact it is making on the productivity of small-scale farmers. Thus in this case the relationships between the two variables namely CASP and Impact on small-scale farmers was looked at. According to Kumar (2011) a descriptive research design aims at giving detailed descriptions about a situation, a problem or phenomenon, emanating from research findings. Thus a descriptive research design was chosen to provide detailed descriptions about the impact of CASP on small-scale famers with a view to identify successes and failures so as to inform government decision making bodies.

3.6 Population and sampling method

Population and sampling includes an assessment of the target population, accessible population and sampling methodology all of which will be discussed below. The sample population includes fourteen (14) one senior management at the Department of Agriculture in charge of the CASP programme.

3.6.1 Target population

The target population is the group or individuals that the researcher intends to perform research on or to understand. Population is a group of elements or cases whether individuals, objects or events that conform to specific criteria to which we intend to generalise the results of the research (McMillan & Schumacher, 2006). The target population is the entire aggregation of respondents that meet the designated set of criteria (Burns & Grove, 1997). The target population comprised of existing senior managerial staff at the Department of Agriculture in KwaZulu-Natal province.

3.6.2 Accessible population

Accessible population are elements chosen to be included in a sample based on a list of characteristics (Landerneau, 2013). This refers to the actual number of items or respondents that could be selected for study given the available resources like money and time (Landerneau, 2013). Sometimes due to limited time and resources it is not possible to study everything and everyone in the sample. The Accessible population for this research were the twenty-five existing senior managerial staff at the Department of Agriculture in KwaZulu-Natal p.

3.6.3 Sample size

Sample size refers to the number of individual sources from which data are collected in a survey (Landerneau, 2013). The sample size refers to the number of elements in a sample (Rensburg, 2010). Saunders et al, (2012) define a sample as “a percentage of the population that is chosen to be representative of the whole population. A sample is a representative segment of a larger population (Bryman, 2012). The sample size represents the number of respondents selected

from the overall population that are used in the research (Bryman, 2012).The sample size is significant in determining the accuracy and reliability of a survey's findings. This sample size was quantified by choosing a sample size that exceeded 30% of the sample population of senior managers. Thus a sample of ten (10) senior managerial staff out of the population of twenty-five was selected for interviews.

3.6.4 Sampling method

Sampling is the science of selecting a few items out of population for research purposes with intention that the findings from the few items or elements will represent the characteristics, perceptions, opinions or otherwise of the whole unsampled population (Saunders, Lewis & Thornhill, 2013). Sekaran (2015) further pointed out that "sampling is the process of selecting a subset of people or social phenomena to be studied from the larger universe to which they belong". A sample from the population was extracted from the sampling frame. The process of choosing a percentage of the population that is representative of the entire population is termed sampling. There are two main categories of sampling; these are probability and non-probability sampling. Probability sampling entails an element of random selection of respondents whilst non-probability sampling selects respondents in a non-random way. The sampling frame simply involved all senior managerial staff at the Department of Agriculture in the KwaZulu-Natal Province. Selection of respondents was carried out using both purposive sampling.

The researcher used purposive sampling to select respondents to interview. Creswell et al. (2013) point out that purposive sampling is a technique widely used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited resources. Purposive sampling is undertaken when a researcher has a target group in mind of which he/she is reasonably certain to obtain adequate and relevant information from (Creswell, 2013).The study was mindful about issues of availability and willingness to participate on the part of respondents, as well as the ability to communicate experiences and opinions in an articulate, expressive, and reflective manner (Kothari, 2012).

The rationale for selecting purposive sampling method lay in the fact that only a few people are knowledgeable about the impact of the comprehensive rural agriculture support programme in KwaZulu-Natal.In selecting respondents consideration was given to the inclusion and exclusion criteria. The inclusion criteria was based on the fact that only those managers who

were directly involved in the implementation of CASP issues were the ones who had intimate knowledge about the nature and impact of CASP on small holder farmers as well as knowledge about the challenges being faced by CASP.Thus the inclusion criteria was further based on the principle that those persons who were directly involved in the running of the programme in order to give valid opinions on the topic. The exclusion criteria was based on excluding managerial employees not directly involved in the running of the program. This made it imperative to purposively select senior managerial staff. Thus the researcher requested the organisational organogram of the Department of Agriculture at Headquarters and identified the senior management in the department. This target group was approached and the research objectives outlined and consent forms for participating in the research given for their signature and voluntary participation. Upon obtaining the consent form this target group, the research instrument was given to the respondents to fill out.

In this case purpose sampling was appropriate because credible information about the impact of the comprehensive agriculture support programme in KwaZulu-Natal could only be obtained from the senior managerial staff overseeing the programme and receiving regular feedback and reports from areas that are benefitting from the assistance rendered to rural farmers. According to Welman et al., (2013) and Landerneau (2013) convenience sampling involves selecting respondents closest to the researcher as a way of saving time and financial resources. The justification for employing purposive sampling lay in the fact that only senior managerial staff in charge of the CASP support programme for farmers were knowledgeable about the challenges faced by small-scale farmers, the nature of the programme supports and the impact it was having – because they receive reports covering the whole province and are in charge of processing the information they collect.

3.7 Data collection

According to Wilson (2010:34), there is a record of several research strategies associated with qualitative research design. These strategies include participant observation, focus group discussions, unstructured in-depth interviews, grounded theory, participatory research, action research, ethnography, and examining secondary data sources like published texts and journals. The research strategies adopted for this research were mainly semi-structured interviews that derived questions from the interview guide. The interview guide contained a few closed questions with the bulk of the questions being open-ended in nature. Open-ended questions

allowed the participants the latitude to explain themselves in their own words. It also allowed them to further elaborate on their responses enabling the researcher to get a deep and detailed understanding of the research phenomena.

3.8 Pilot study

Ten respondents were selected using purposive and convenience sampling and took part in the pilot study. The idea behind a pilot study was to pre-test the interview guide in order to identify potential problem areas that may be sensitive, biased, or identifying ambiguities, relevance of the questionnaire or any other grey areas that the interview guide may need to address before the final interview guide was distributed to final respondents. The pilot study helped the researcher to identify some patterns of nonverbal behaviour that might signal some discomfort from the way the questions have been structured so that timely corrective action could be undertaken before the actual study. One notable flaw that existed in the research instrument was the inclusion of questions that required identification of race. This was found to be insensitive and such questions were removed. Another correction pertained to the removal of questions that were repeated and others that were asking the same thing. In line with the recommendations of Welman et al. (2009) the respondents who participated in the pilot study were not included in the actual interview.

3.9 Data Analysis

Collected data was coded into different categories for example, economic, social and political challenges being faced by small-scale farmers in KwaZulu-Natal. The other codes involved types of support extended to small-scale farmers in the province, such as monetary support, educational support, logistical support, marketing support and other forms of support. Lastly codes were created for the impact of the comprehensive agriculture support programme, such as financial, social, economic and political impact. The codes were descriptive and interpretative in nature. The study also analysed the data through identifying common or recurring themes. The researcher carried out a descriptive analysis of data obtained from the study pertaining to the challenges, types of support and impact of the comprehensive agriculture support programme. The coded data was analysed with NVIVO software. The collected data was analysed through a thematic analysis where by dominant themes were

identified and respondents' views triangulated with the literature review to determine the extent of compatibilities.

3.10 Limitations of the study

While every effort was made to minimise limitations, there were some unavoidable limitations to the study. The research was limited in terms of time and resources to carry out multiple data collection and testing. This may have limited the amount of information collected and may have restricted the scope and depth of the findings. Since some oral responses were personally recorded by the researcher from some respondents especially during focus group discussions, some misreporting and misinterpretation may have occurred, though greater care was exercised to minimise this through tape recording discussions for repeat referencing. The interview guide was administered to respondents twice to measure the reliability of the responses. Since a smaller sample was interviewed, the research findings may in some cases not be generalisable to the impact that CASP has on small-scale farmers in the KwaZulu-Natal Province. Resource limitations like time and costs were addressed through conducting focus group discussions at a public school which was provided free of charge. In terms of time the group discussions were conducted on a non-working day when respondents were not busy.

3.11 Delimitation of the study

The study covered the impact of the comprehensive agriculture support programme for small-scale farmers in KwaZulu-Natal.

3.12 Elimination of bias

Elimination of bias is one of the most important considerations that a researcher must take into account when undertaking research. For the purposes of eliminating bias, the interview guide avoided questions that required respondents to identify themselves by race or ethnic group because this was deemed discriminatory and irrelevant. The research instrument also avoided using language that suggested or reinforced stereotypes. There were no attempts whatsoever to make assumptions.

3.13 Ethical clearance

Ethical approval for this research was sought from the University of KwaZulu-Natal (Ethics Committee) and the gate keeper's letter from the Department of Agriculture Rural Development in the KwaZulu-Natal Province. These are the ethical considerations that the researcher upheld:

- Confidentiality and Anonymity

Confidentiality of respondent's information was safeguarded by making sure that the completed interview guides were securely locked and keys kept solely by the researcher. The researcher ensured the anonymity of respondents by making sure that the interview guides did not require personal details of respondents such as contact numbers, physical addresses or names.

- Informed consent

Prior to conducting the actual interviews respondents were appraised of the research objectives and were made to sign consent forms to act as proof of their voluntary participation. The respondents were told of their right to withdraw from the interviewing processes as/when they felt it necessary.

- No harm to participants

The interview guides were distributed to respondents inside the safe environment of walk-in centres where there is tight security provided by the Department of Agriculture.

- Management of information

Management of information refers to collection and the management of information from one source or more sources, including both electronic and physical information. Management of information entails organising, retrieving, acquiring, securing and maintaining information. The more sensitive the information, the more careful the manner in which the information will be gathered; the researcher and all concerned will treat the information extremely confidential during the research process.

3.14 Conclusion

This chapter discussed the research methods, the rationale for choosing a descriptive analytical research design, the chosen research philosophy and the research strategy appropriate for a

qualitative research approach. In addition, data analysis methods were discussed. Items such as the research instrument, reliability, and validity of research data, pre-testing and ethical considerations were also examined. The next chapter will present and discuss the findings of the data obtained from the study.

4. DATA PRESENTATION, INTERPRETATION AND ANALYSIS

4.1 Introduction

The previous chapter presented the research methodology which, among other things, included research design, research strategies and philosophy. Data collection and analysis from which the findings are derived were also discussed. This chapter presents the analysis of the collected data and the subsequent findings . The findings are discussed and interpreted in conjunction with the literature review presented in chapter 2.

The findings presented in this chapter fulfil the main objectives of this research namely:

- To examine the challenges faced by small-scale farmers in KwaZulu-Natal.
- To analyse the nature of CASP grants extended to small-scale farmers in KwaZulu-Natal.
- To investigate the contribution of CASP towards enhancing access to markets by the small-scale farmers of KwaZulu-Natal.
- The impact of CASP grants on the sustainability of small-scale farmers in KwaZulu-Natal.
- To recommend effective strategies for enhancing the contribution of CASP towards improved production among small-scale farmers.

Semi-structured interviews were conducted with ten senior managers at the Department of Agriculture in KwaZulu-Natal. The collected data were sorted and classified into themes which form the basis of the presentation of these findings. The research instrument, namely the interview guide, contained pre-compiled questions which were aligned to the research questions and objectives. Respondents were assigned alphabetic codes which ranged from AA up to respondent JJ in line with the spirit of maintaining confidentiality and anonymity. These codes will sometimes be referred to when linking the findings to direct quotations from respondents.

In general, the findings mainly point to lack of adequate financial resources and technical knowledge as the main prohibitive challenges facing small-scale farmers in KwaZulu-Natal.

Regarding the second objective to determine the nature of CASP, the findings point to being recipients of government provided inputs, access to markets and cheap credit. Furthermore, the findings point to a positive impact on the production of agricultural volumes and an incremental effect on incomes from sale of agricultural produce. Intensive training and increased access to credit and established markets came out prominently as strategies that most respondents felt would further improve the achievement of CASP objectives.

4.2 Findings on the challenges faced by small-scale farmers in KwaZulu-Natal province

The first objective of this study examined the challenges faced by small-scale farmers in KwaZulu-Natal. The findings on this objective fulfils the research question on "What are the challenges faced by small-scale farmers in KwaZulu-Natal province?

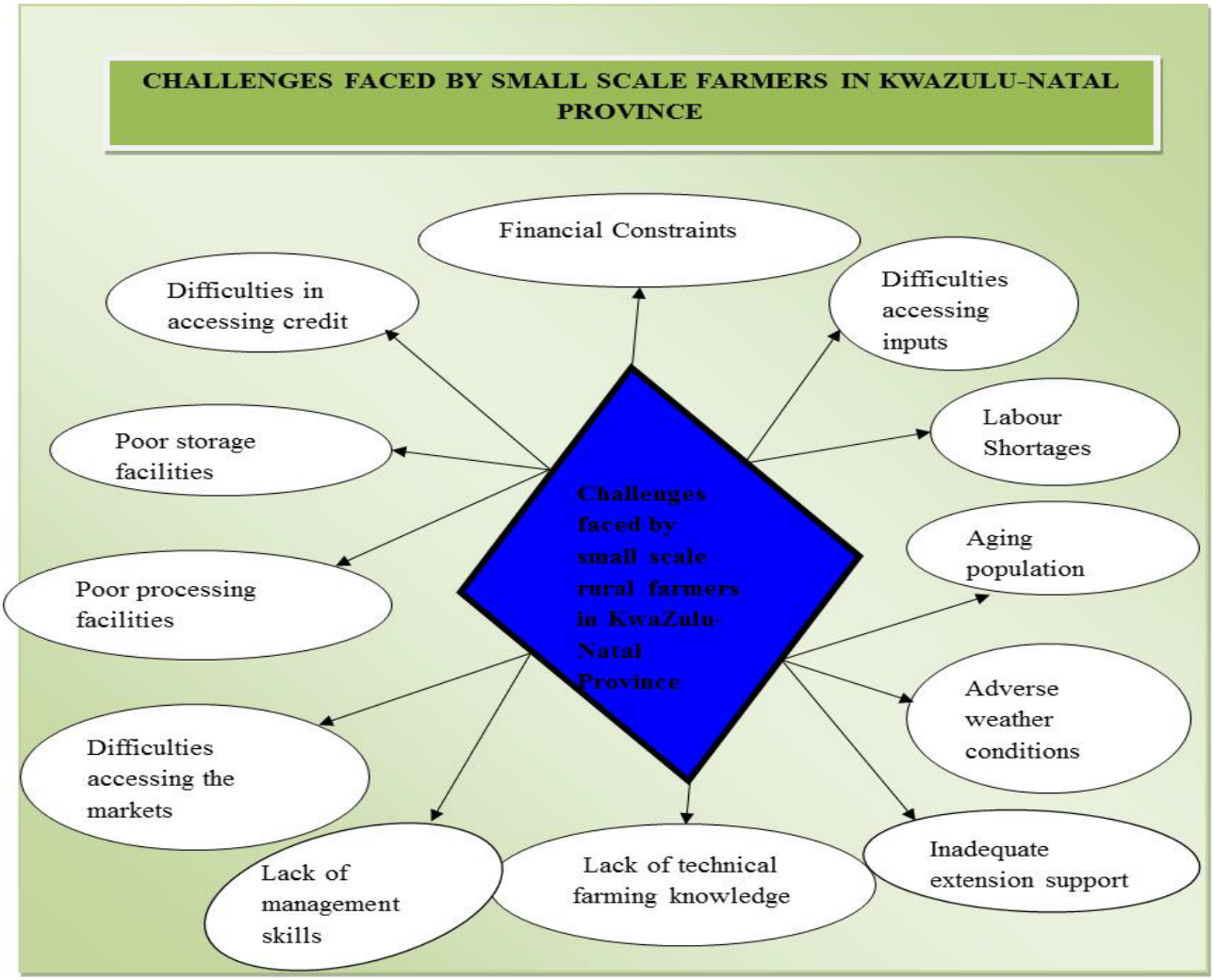

Figure 4.1 Findings on challenges faced by small-scale farmers in KwaZulu-Natal

Figure 4.1 shows that before the formulation and implementation of CASP the small-scale farmers of KwaZulu-Natal were facing several challenges. Chief among these challenges was the issue of financial constraints. Each of the challenges highlighted will be discussed and analysed below.

4.2.1 Poverty and financial constraints

Most respondents confirmed receiving reports in almost all the farming districts of the province that poor agricultural yields were due to a chronic shortage of funds. This finding is corroborated by views expressed from the following respondents;

Respondent AA: "Small-scale farmers are generally poor people who cannot afford to buy basic farming implements or inputs"

Respondent BB: "The big challenge small-scale farmers of KwaZulu-Natal province is lack of adequate financial resources"

Respondent DD "The big challenge is money; the rural people do not have enough money to finance farming activities"

Respondent EE "Money is a serious challenge in rural areas"

Respondent FF "Most rural farmers are poor and have no money to even feed themselves and virtually little to invest into farming"

This finding is in conformity with sentiments expressed by Jari (2009) who made the observation that small-scale farmers are generally poor to the extent that they cannot afford to purchase all the necessary inputs and implements that are needed for farming. Furthermore, this finding concurs with assertions by Van Rooyen *et al.* (1987), who posited that most rural farmers in South Africa suffer from a serious lack of money and that poverty is their greatest challenge. Similar assertions to views expressed by respondent FF were made by Reardon *et al*. (1999) who indicated that the rural or small-scales farmers cannot afford to even save or invest for the future. Furthermore, the research indicated that the farmers mainly concentrate on subsistence farming which is on a small-scale and the produce is only for family consumption at the expense of profitable commercial farming.

4.2.2 Lack of technical knowledge

Another challenge that emerged from the interviews was that the small-scale farmers in KwaZulu-Natal had serious deficiencies in terms of possessing the requisite technical modern-day knowledge required to carry out successful farming. This can be interpreted to mean that though small-scale farmers in the rural areas rely on traditional knowledge that has been passed from generation to generation, the knowledge they possess is not adequate to confront the challenges of modern-day agricultural challenges like new strains of crop diseases or animal diseases. This finding is supported by the following interview excerpts:

Respondent CC: "small-scale rural farmers of KwaZulu-Natal province are illiterate and uneducated; they can't even read the instructions on seed packages or on how to apply chemicals."

Respondent DD: "they are technically savvy and often misses it on applying modern-day farming techniques"

Respondent EE: "these farmers are techno phobic emanating from lack of education and skills required for modern-day farming methods"

Respondent II: "They lack knowledge and skills to carry out successful farming"

The finding on lack of technical knowledge resonates with assertions posited by Ray (2012) to the effect that rural farmers are incapacitated by lower illiteracy levels, lack of education, lack of knowledge, lack of new skills and methods of farming, all of which lead to poor farming methods and low yields.

4.2.3 Difficulties in accessing lucrative markets

The findings also identified another challenge namely difficulties in accessing lucrative markets, i.e. fruit and vegetable chain stores, supermarket chains, hotels, hospitals, universities, boarding schools, prison services and other large-scale buyers of agricultural products. There were views that small-scale farmers are being dwarfed out by large-scale commercial farmers in terms of accessing the aforementioned lucrative markets as the interview excerpts below demonstrate:

Respondent AA: Access to real rich markets is a big hindrance to the success of small-scale rural farmers"

Respondents BB: "Small-scale rural farmers only rely on neighbours or people within the locality to buy their produce but the prices are often low and they always give away some of their valuable products"
Respondent FF: "Small-scale rural farmers face formidable competition and high barriers to entry into lucrative markets with a high buying power".
Respondent GG: "Poverty and inability to afford paying for transport to city markets for the purposes of selling their products is a serious challenge"
Respondent II: "Due to lack of technical knowledge small-scale rural farmers have challenges producing quality products leading to some formal markets having negative perceptions about the quality of their products"

Since the farmers are not knowledgeable as pointed out by respondent ll, it is very difficult for rural farmers to secure or establish markets where they can supply and sell their produce. The comments pointed out by research respondents resonates with assertions by Baloyi, (2010), which indicated that it is difficult for small-scale farmers to transport their products to the markets. They also face stiff competition from the white commercial farmers who supply quality products at the right place, right time and on a large scale. This finding further resonates with Bromberge and Antonie (1993) and Hall (2007), who posited that small-scale rural farmers are still faced by several challenges in entering better paying markets for their produce. Additionally, this finding from respondents is in agreement with Bienabe and Vermeulen, IFC (2013) who indicated that small-scale farmers do not have either physical or economic access to profitable markets for their produce because of physical isolation caused by distance and poor road networks.

4.2.4 Lack of storage and proper storage facilities

The findings from respondents also manifested that small-scale rural farmers do not have proper storage and processing facilities, leading to some of their produce rotting before they reach the markets, thus resulting in losses as the interview excerpts below demonstrates:
Respondent BB: "small-scale rural farmers lack finance to put in place proper storage and processing facilities that's why their produce often rot earlier leading to them being prematurely thrown away"

Respondent HH: "these farmers do not have both the financial and technical capacity to preserve their perishable agricultural products in a state that is acceptable to the markets they desire to penetrate, that's why their products are often perceived as being of a poor quality"
Respondent JJ: "small-scale rural farmers of the province often lose out on money due to the fact the traditional methods of harvesting and processing their products often result in poor quality products shunned away by the lucrative markets"

The research findings clearly confirm to assertions by Baloyi (2010) which states that lack of access to post-harvest storage and processing facilities hinders entrance by small-scale farmers into profitable agricultural markets. In fact, buyers of agricultural products place significant emphasis on quality, so much so that access to storage and processing facilities will accord small-scale farmers with flexibility in selling their products and bargaining power during price negotiations. This finding also resonates with Kirsten and Sartorius (2002) who maintain that in South Africa agricultural yields produced by small-scale farmers are lost after harvest because of reduced quality, spoilage and lack of access to a market.

4.2.5 Lack of access credit facilities

Almost all respondents pointed out that the small-scale rural farmers were being shunned by numerous credit providers, notably commercial banks and micro-financial institutions. The reason might be that they lack collateral to act as a form of security against which banks might be assured of recovering their money. Selected excerpts from some respondents are mentioned below:
Respondent AA: "No one is willing to offer credit to small-scale rural farmers"
Respondent BB: "Lack of collateral like title deeds to their land is the reason why they cannot get credit from anyone"
Respondent DD: "Most of them don't have bank accounts and security that's why banks do not give them loans"
Respondent HH: "Access to loans is a great challenge"

Collective comments mentioned above by research respondents are similar to findings from the research conducted by The Group on Sustainable Agriculture and Food Systems (TGSGFS, 2013) which came to the conclusion that lack of credit facilities will always make it impossible

for small-scale farmers to thrive and overcome the poverty traps related to small holdings and poor soils. Furthermore, the small-scale farmers do not have proper documentation, collateral and records of their farming operations – this discourages banks and credit firms to issue loans to the farmers. Hall (2007) similarly asserted that lack of access to credit facilities by small-scale rural farmers is a severe challenge as it affects their ability to purchase the much needed farming inputs. This finding from respondents on lack of access to credit facilities for small-scale rural farmers also resonates with assertions by IFAD (2011) that financial institutions are reluctant to extend loans to these farmers because they are only recoverable after the harvest and sale of their crops; the loan period which could be as long as a year seems unprofitable to bankers.

4.2.6 Difficulties accessing inputs

The findings from respondents also confirmed that the small-scale rural farmers of KwaZulu-Natal were experiencing difficulties in accessing inputs. This might be due to the fact that some rural areas are very remote and inaccessible. Some respondents maintained that difficulties in accessing inputs were largely connected to financial challenges. Selected excerpts from some respondents are mentioned below:

Respondent CC: "Accessing inputs is a big problem for the small-scale rural farmers of KwaZulu-Natal"

Respondent FF: "Inputs for farming inputs are not that easy to get for rural small-scale farmers because of financial challenges"

Respondent II: "Rural farmers do not have enough inputs because of lack of external support and funds"

The findings concur with Ray et al. (2012) who assert that small-scale rural farmers are challenged when it comes to the issue of accessing farming inputs due to financial constraints.

4.2.7 Adverse weather conditions

Adverse weather conditions were also cited as another challenge that small-scale rural farmers of KwaZulu-Natal are grappling with. This is evidenced by some selected interview excerpts below:

Respondent BB: "Recurring droughts have been negatively affecting rural small-scale farmers because their poverty makes it hard for them to have irrigation facilities in place

Respondent CC: "Harsh weather conditions are affecting farm yields for rural small-scale farmers"

Respondent CC: "Violent winds, droughts, in some cases floods, frosts all affects farm productivity for rural small-scale farmers"

As discussed by respondent BB and CC, the recent 2015 and 2016 drought season has greatly affected rural small-scale farmers. The harsh weather conditions have made it difficult for the farmers to produces good harvests. Yields were so poor that it was difficult for people to survive in the rural areas. The IFC (2013) echoed these sentiments stating that the unpredictable rainy seasons have drastically reduced small-scale farmers' confidence in planting crops at the traditional time. Droughts or floods lead to low crop yields while changes in temperatures and humidity result in the prevalence of both crop and animal pests and diseases. Dalberg (2012) made similar assertions that the dropping of water tables beyond the reach of small-scale farmers who use ground water for irrigation, made it difficult for the farmers to earn a living from their farming activities.

4.2.8 Labour shortages

The findings also pointed to an acute shortage of farm labour, mainly caused by migration of the young people into urban areas leaving behind an aging population. Some respondents pointed out the following:

Respondent AA: "Young people shun farm work in rural areas; they want office work in the towns causing a labour shortage"

Respondent BB: "Rural farm work is shunned by many thus very few people are still willing to work in the fields in rural areas"

Respondent CC: "Only the elderly and aged generations are available to work on the farms but they are no longer strong to be productive enough"

Respondent II: "Labour shortages are very acute in the rural areas because of the low wages"

Respondent GG: "People to work in the farms are very scarce so that the area under crop cultivation is getting smaller because of labour shortages"

Some of the respondents indicated that labour shortages have also resulted in a decline in the production of rural farmers of KwaZulu-Natal. Young people leave rural areas as they witness the low wages offered, compared to office employment in urban areas. This finding is in conformity with assertions by TGSGFS (2013), which indicated that there has been a sharp increase in rural-urban migration, especially among the active or young generation. To add on, the future trends of increased urbanisation and diminishing rural labour sources clearly indicates that small-scale farming will cease to exist in the near future.

4.2.9 Lack of adequate support systems

The findings further pointed to an acute shortage of agricultural extension workers providing advisory and other support services to the rural small-scale farmers. Some respondents pointed out the following:

Respondent CC: "Some rural farming areas still do not have an agricultural extension worker helping them"

Respondent EE: "There is high staff turnover among agricultural extension workers and replacements are taking too long, leaving some rural farmers without professionals to help them"

Respondent DD: "Agricultural extension workers are not enough to give the whole province enough coverage with their services"

As illustrated by the respondents, South Africa does not have enough extension workers to service the entire country therefore, small-scale farmers mostly rely on their old and traditional farming methods, which may not work due to the ever-changing weather patterns. This finding resonates with assertions by Kelly (2013) and Dorward et al. (2002) who indicated that lack of rural support services by extension workers was a great challenge, leading to poor agricultural yields. The lack of adequate extension workers to assist small-scale rural farmers meant that they often lack the required information and expertise; henceforth they end up planting the wrong crop varieties, ending up with pests and diseases that attack their fields. The net effect of this is losses and increased poverty.

4.3 Findings on the forms of support extended through CASP to small-scale farmers in KwaZulu-Natal

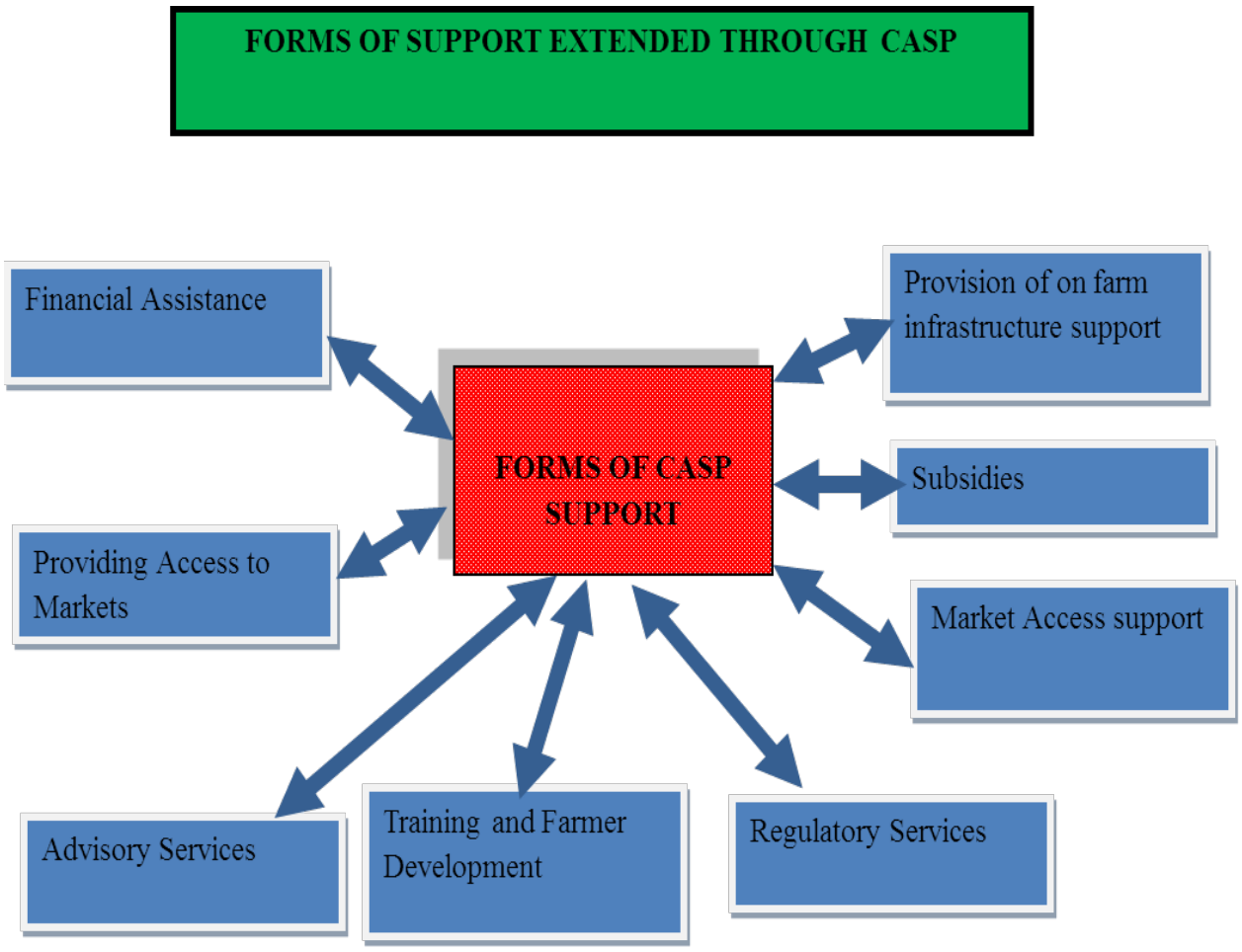

Figure 4.2 Findings on the different forms of support being extended to the small-scale farmers of KwaZulu-Natal through the CASP initiative.

4.3.1 Financial assistance

Almost all respondents pointed out that the CASP programme is providing the small-scale farmers of KwaZulu-Natal with financial assistance through cash grants and loans. The following interview excerpts confirm this finding:

Respondent CC: "CASP is giving registered small-scale farmers loans to buy inputs for farming"

Respondent DD: "The support is in the form of cash grants to enable small-scale farmers to buy farming needs"

Respondent HH: "Small-scale rural farmers who have registered for CASP are eligible for loans and cash grants"

Dorward et al. (2002) confirmed the issuing of grants to small-scale farmers by calling for a review of state interventions in the form of availing financial assistance to small-scale rural farmers since financial institutions are shunning them.

On a positive note, the respondents indicated that CASP is a good programme which is proving to be a necessity for farmers in the rural areas of KwaZulu-Natal. On the other hand, Aliber and Cousins (2013) posit that a possible weakness in the programme is the allocation of funds to provinces which vary widely according to the number of land and agrarian reform beneficiaries, the ruralness of the province, the size of agricultural land and arable land, and population size.

4.3.2 Providing access to markets

The findings displayed in Figure 4.2 suggest that certain respondents believe that CASP is helping small-scale farmers with access to the markets. The following interview excerpts confirm this finding:

Respondent AA: "CASP is also facilitating with transport to the markets"

Respondent CC: "Small-scale rural farmers are being given quotas to sell their produce to nearby government institutions"

Respondent DD: "Government is facilitating rural farmers to sell their produce to government assisted welfare organisations"

Respondents agree that CASP programme seems to be a good deal for the farmers since some of them are now starting to benefit. A good example is the availability of transport facilities which makes it easy for them to access the markets where they are able sale their farm produce. To add on, the rural farmers sees the programme as a good initiative as they are able to sell their products to government welfare organisations. This finding resonates with Bromberge and Antonie (1993) who posited that in recent years the South African government has, through an extension service, i.e. a 'recovery programme', assisted small-scale rural farmers to obtain improved market access in lucrative rural areas. In agreement with this finding is the recommendation that came from the (IFC 2013) which cited the Evidence Based Approach to

Programme Design (EBAPD) which calls for government state actors to improve small-scale producer groups, supply chain structures and the retail market access as a way to improve the income earning capacity of small-scale farmers.

4.3.3 Providing advisory services

Respondent BB: "CASP is facilitating the deployment of agricultural extension workers to provide advisory services to farmers"
Respondent HH: "Farmers are being given weather updates via sms and whatsapp to help them prepare to deal with upcoming weather conditions so that they know when to cultivate, plant crops, do weeding, spray chemicals and so on"
Respondent II: "Small-scale rural farmers are being given financial advice"
Respondent JJ: "They are being given managerial and financial advice
Assertions by Hall and Aliber (2013) espoused that while in practice, CASP forms part of a broad endeavour to provide farmer support. The most considerable component of farmer support to be derived by farmers under this initiative is extension services to provide knowledge and skills necessary for successful small-scale commercial farming.

Respondents were very much in favour of CASP –, according to their responses CASP is facilitating the deployment of agricultural extension workers to provide advisory services to farmers, managerial and financial advice. However, many authors, including Aliber and Cousins (2013) still condemn the programme. They suggest that there is a need for further scrutiny of this programme so that it benefits the needy and majority, and not only a minority.

4.3.4 Training and farmer development

Respondent EE: "CASP is developing the managerial capacity of small-scale farmers"
Respondent GG: "Farmers are being developed on how to plan and organise their work"
Respondent II: "CASP is organising training workshops to assist rural small-scale farmers in acquiring the necessary knowledge"

The above-mentioned responses corroborate research findings of the Hall & Aliber, (2013) who asserted that the Government of Uganda embarked on a similar initiative to provide

extensive training and farmer development support that resulted in improved yields. The FAO (2010) also made similar assertions by opining that training and development of rural small-scale farmers in Ghana and Tanzania resulted in outdated crop varieties being abandoned in favour of new planting materials; thus research institutions can provide effective interventions through extensive farmer training.

4.3.5 Regulatory services

Some respondents pointed out that CASP is working closely with government departments to regulate how farmers should utilise and account for the loans they get, how to report their outputs. The following interview excerpt confirms this finding:

Respondent DD:"Small-scale rural farmers are required to account for the inputs they get from CASP"

Respondent GG: "CASP requires recipients of government assisted funding and inputs to attend a specified number of workshops per year"

The small-scale farmers agreed that they are requested to account for all the inputs that are provided to them. This is a good measure to ensure establishment and continuity projects. Moreover, they mentioned that farmers will attend specified workshops scheduled during the course of the year. This finding resonates with assertions by IFAD (2011) who observed that the role of government interventions should not only be to provide financial assistance but also to guide farmers to sustainable, improved agricultural practices. The farmers are most likely to succeed through regulating the way they conduct their operations.

FAO (2010) states that, to support small-scale farmers, governments need to emulate the initiatives other countries that have led to the improvement of small-scale farmers' productivity. For example, Cameroon established a one-stop shop for setting up a business, abolishing requirements for business premises and fees; Cape Verde eliminated the needs for municipal inspection; while the Democratic Republic of Congo eliminated the need for a seal of a company (FAO, 2010).

4.3.6 Subsidies

Respondent HH pointed out that CASP is subsidising farmers with inputs to make them cheaper and affordable to the rural farmers

The above findings resonate with assertions of the Development Enterprise (2013) which stated that agricultural policy reforms of the 1990s eliminated all the privileges and subsidies that had been directed at commercial farmers by the apartheid regime, thereby in principle creating a level playing field for all types of farmers.

4.3.7 Provision of on-farm infrastructure support

Respondents BB and HH concurred that rural farmers are being assisted to build low cost grain storage facilities and poultry pens as well as housing for small livestock and cattle
Respondent JJ: "CASP is providing fencing for cattle and goat pens so as to protect them

Although there is provision of infrastructure as stated by respondents, b Hall and Aliber (2013), argued that in practice CASP's forthcoming support is almost exclusively restricted to on-farm infrastructure, with other components not adequately explained to the farmers who are the intended beneficiaries. For example, CASP has only delivered infrastructure such as fencing, boreholes, watering points, irrigation infrastructure, livestock handling facilities, and structures such as packing sheds, leaving the more comprehensive needs of the small-scale farmers unattended.

4.4 Findings on the contribution of CASP towards enhancing access to markets by small-scale farmers of KwaZulu-Natal

Figure 4.3 presents findings on the contribution of CASP towards enhancing access to markets by small-scale farmers of KwaZulu-Natal.

4.4.1 Provision of transport and logistics

Figure 4.3 demonstrates that one of the ways in which CASP is making significant contributions to market access is through the provision of transport and logistics. This finding is confirmed by the following interview excerpts:

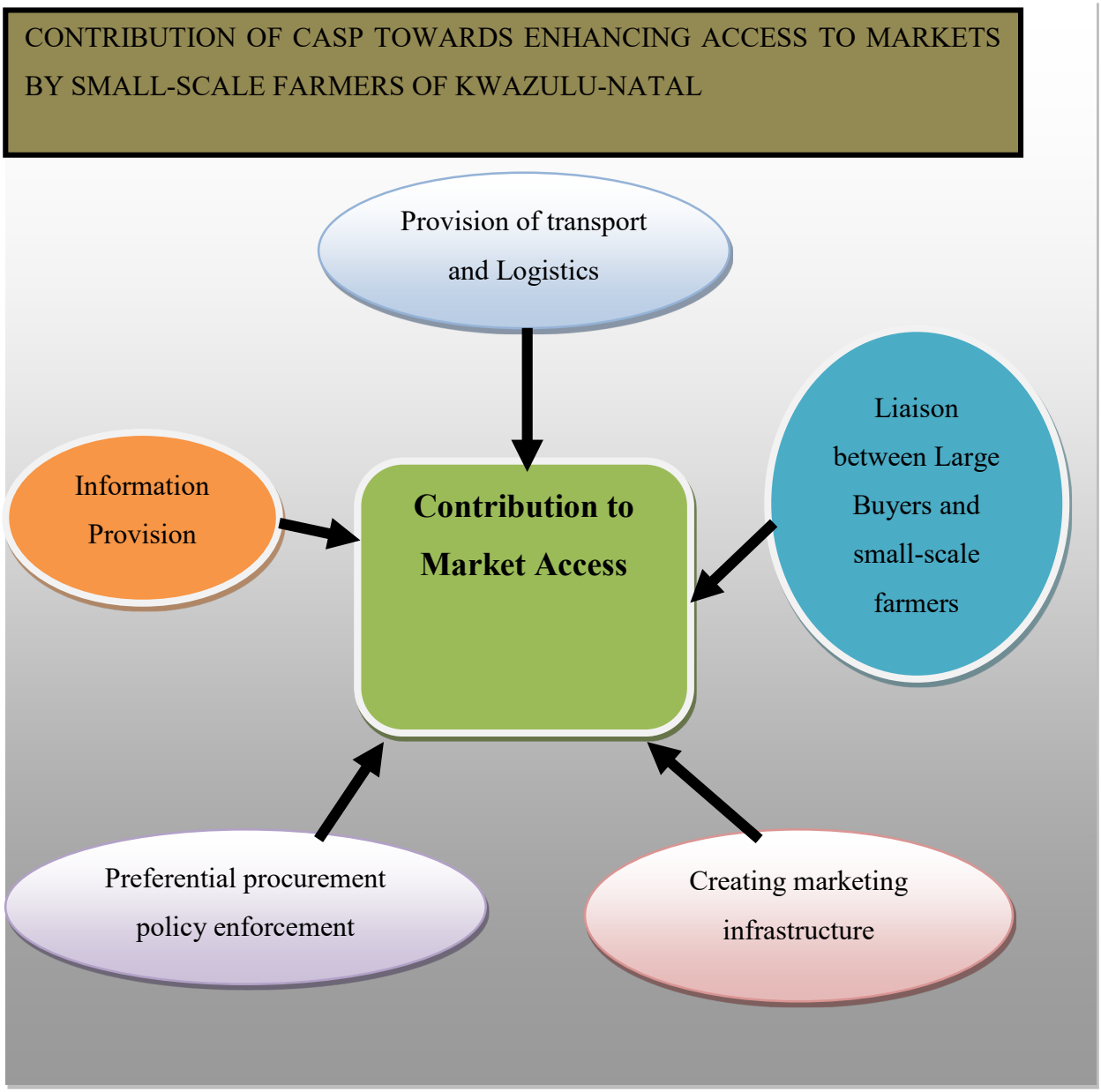

Figure 4.3 Findings on the contribution of CASP towards enhancing access to markets by small-scale farmers of KwaZulu-Natal

Respondent AA: "CASP is also facilitating with transport to the markets"

Respondent CC: "CASP is organising with private transporters to help transport produce belonging to small-scale farmers"

Respondent EE: "CASP is assisting with certification of products from small-scale farmers especially by giving them permits to sell their goods to the markets"

Respondent DD: "CASP is assisting with organising storage facilities at the markets"

This finding demonstrates that CASP is helping to provide transport to small-scale farmers as a way to help them to access the markets.

4.4.2 Information provision

Figure 4.3 demonstrates that another way in which CASP is making significant contributions to market access through information provision. This finding is confirmed by the following interview excerpts:

Respondent BB: "CASP is facilitating the deployment of agricultural extension workers to provide necessary information to farmers about market requirements"

Respondent HH: "Farmers are being given information on how to penetrate certain markets"

Respondent II: "CASP provides both geographic information about the location of the markets and how to access them"

This finding demonstrates that CASP is helping to provide small-scale farmers about the markets so that they get to know where to sell their products.

4.4.3 Preferential procurement policy enforcement

Figure 4.3 demonstrates that CASP is also making significant contributions to market access through preferential procurement policy enforcement. This finding is confirmed by the following interview excerpts:

Respondent CC: "CASP is facilitating government institutions to give preferential treatment to small-scale rural areas when procuring agricultural products"

Respondent HH: "Small-scale rural farmers are being assisted by CASP in terms of being given first priority to supply their goods to certain established markets where government has significant influence

This finding demonstrates that CASP is helping to provide small-scale farmers by directing certain institutions under their control to purchase some of their food requirements from the rural farmers. However, what were not clear from the findings were the mechanisms by which this policy directive was being achieved.

4.4.4 Liaison between large buyers and small-scale farmers

Respondent DD: "CASP is advocating for small-scale rural farmers to organise and establish marketing centres within towns and in peripheral areas and advertise for large buyers to come and buy"
Respondent EE: "CASP has approached large-scale supermarket chains to give supply quotas to the Nongoma small-scale Rural Farmers Association
This finding demonstrates that CASP is helping to act as a liaison between large buyers and small-scale rural farmers so that they can facilitate purchasing deals which will help the small-scale farmers to secure the markets.

4.4.5 Creation of marketing infrastructure

From the findings it can be established that CASP is helping small-scale rural farmers in KwaZulu-Natal by creating marketing infrastructure for farmers. Figure 4.3 demonstrates that one way by which CASP is making significant contributions to market access is through a preferential procurement policy enforcement. This finding is confirmed by the following interview excerpts:
Respondent BB: "CASP is in the process of building marketing sheds in urban areas where rural farmers can meet and supply their products like the one in Durban"
Respondent DD: "At Port Shepstone marketing sheds have been erected for selling agricultural produce"

This finding demonstrates that CASP is helping small-scale rural farmer by creating marketing infrastructure such as building marketing sheds which rural farmers can use as platforms to sell their produce.

4.5 Findings on the impact of CASP grants on small-scale farmers in KwaZulu-Natal

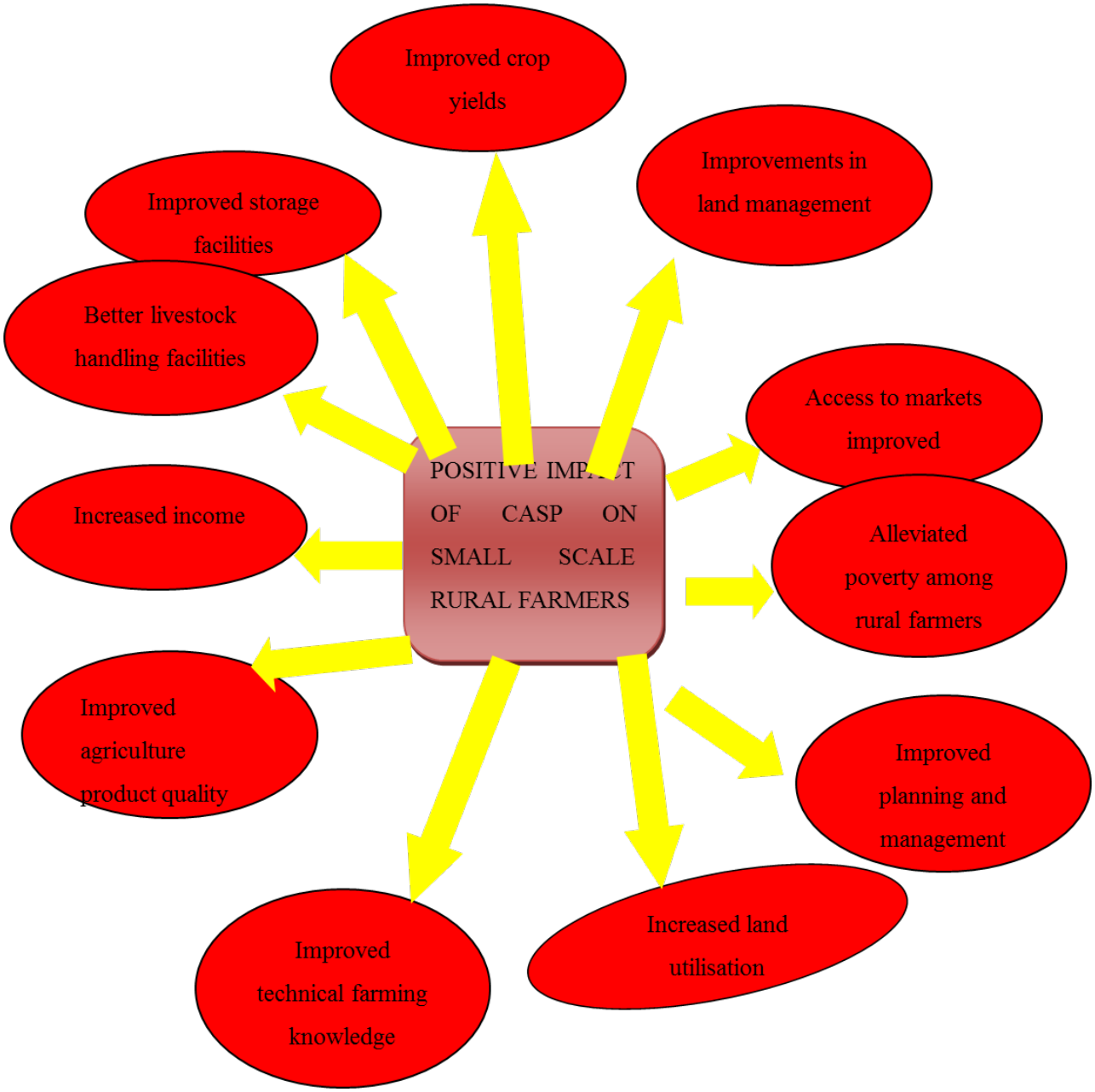

Figure 4.4 Findings on the positive impact of CASP grants on small-scale farmers in KwaZulu-Natal

From the findings presented in Figure 4.4 the CASP initiative brought about several benefits to the small-scale farmers in KwaZulu-Natal.

4.5.1 Improved crop yields

Almost all respondents concurred that in areas where CASP was operational there was an increase in crop yields. The following interview excerpts helps to prove this finding:
Respondent DD: "CASP helped to improve crop yields"
Respondent BB: "Crop yields increased"
Respondent FF: "Yields have gone up markedly"
Respondent II: "There was a marked improvement in yields"
This finding demonstrates that CASP positively impacted on small-scale rural farmers by improving crop yields.

4.5.2 Increased income/poverty alleviation

As shown in figure 4.4 increased income alleviated poverty among small-scale farmers. The following were some the response from the interviewed panel:
Respondent AA: "CASP helped to improve their lives"
Respondent BB: "Crop yields increased their incomes, now they can afford to purchase electronic devices such as cellphones, television and computers"
Respondent CC: "Since yields are above average they can afford to have proper meals during a day"
Respondent FF: "With marked improvement in yields"
This finding demonstrates that CASP positively impacted on small-scale rural farmers by increasing their income levels, hence alleviating poverty among them.

4.5.3 Improved agricultural product quality

This finding is confirmed by the following interview excerpts:
Respondent KK: "CASP helped to improve crop quality"
Respondent JJ: "Crop demand of their farm produce"
Respondent HH: "Yields they now sell at a reasonable profit"
Respondent FF: "There was a marked improvement in yields"
This finding demonstrates that CASP positively impacted on the level of product quality. This might be due to better training and farmer support.

4.5.4 Improved technical farming knowledge

The mentioned-above finding is confirmed by the following interview excerpts:
Respondent JJ: "CASP helped to improve farming methods"
Respondent LL: "Assist in how to use different farming implements"
This finding demonstrates that CASP positively impacted on the level of technical farming knowledge that small-scale rural farmers have. This might help farmers to improve their crop yields.

4.5.5 Increased land utilisation

Some respondents pointed out that CASP assisted in terms of how to manage their land properly. The following were interview excerpts:
Respondent HH: "CASP helped in terms of proper land utilisation"
Respondent OO: "Crop yields increased"
Respondent PP: "Planting of different crops in different seasons"
This finding demonstrates that CASP positively impacted on increasing the area under cultivation which might help increase crop yields.

4.5.6 Improved planning and management

Figure 4.4 demonstrates many ways which CASP made a significant contribution to small-scale farmers. Among others, it assisted the farmers in proper farm management and farming. This finding is confirmed by the following interview excerpts:
Respondent DD: "CASP assisted in proper farm management"
Respondent FF: "Crop proper farm plan"
This finding demonstrates that CASP positively impacted on the ability of small-scale rural farmers to plan and manage their farming operations according to what they have learned from the training and extension services that are provided to rural farmers.

4.5.7 Improvements in land management

This finding is confirmed by the following interview excerpts:
Respondent OO: "CASP helped to improve land management"
Respondent BB: "Crop harvests increased"

This finding demonstrates that CASP positively impacted on land management. This might be due to the training and extension services that are provided to rural farmers.

4.6 Findings on the negative impact of CASP grants on small-scale farmers in KwaZulu-Natal

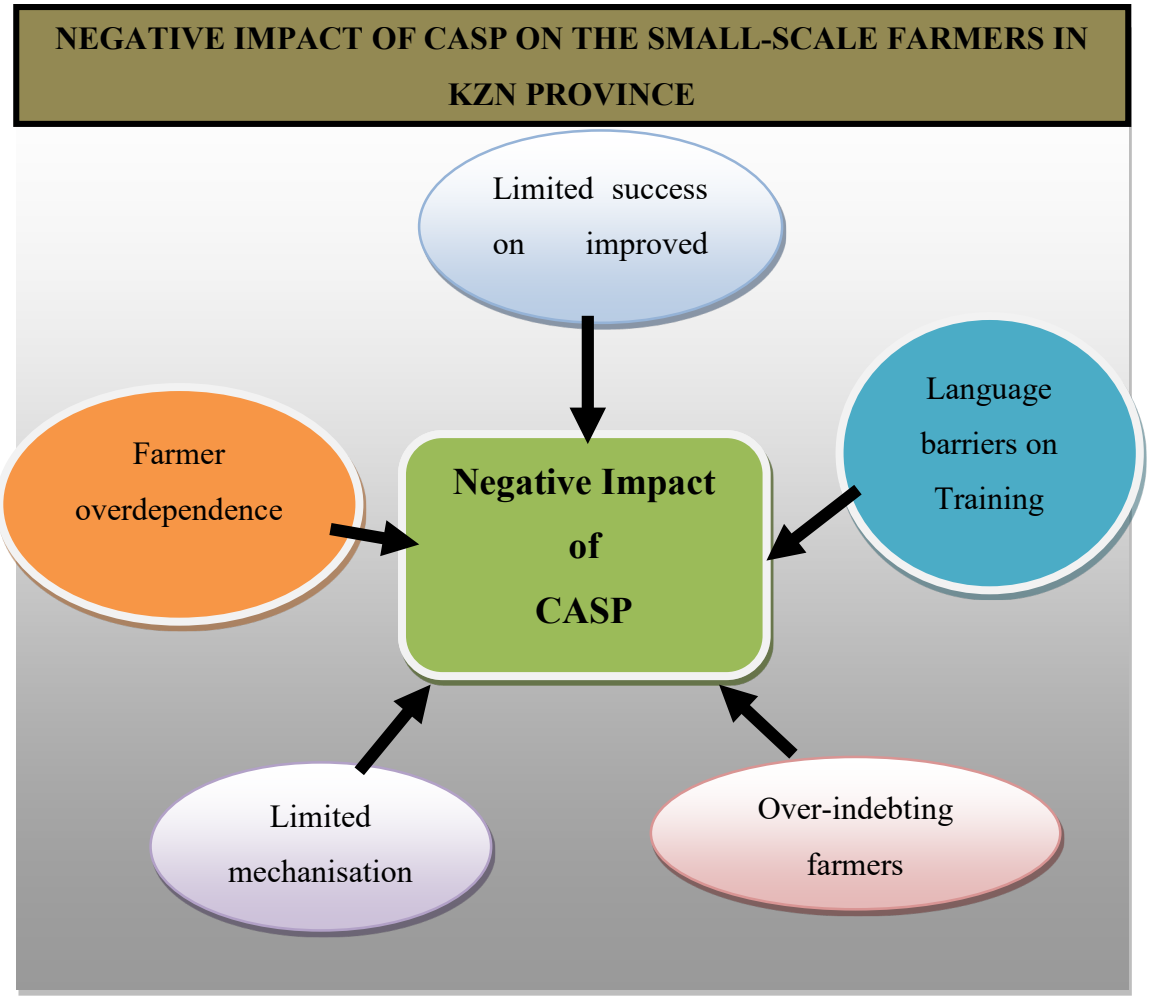

Figure 4.5 Findings on the negative impact of CASP grants on small-scale farmers in KwaZulu-Natal

4.6.1 Limited success on improved yields

These were respondents' response:

Respondent DD: "CASP limited success on yields"

Respondent PP: "It took long for some of the farmers to start seeing the results of the programme"

Respondent GG: "Yields increased but it was at a slower rate than expected in the first seasons

This finding demonstrates that though CASP has improved crop yields, the success has been limited.

4.6.2 Language barriers on training programmes

The interviewees mentioned the following:

Respondent TT: "CASP information was in English"

Respondent SS: "CASP instructions were translated but may not be the same as the original"

Respondent BB: "Received inputs but had instructions in English although most of the farmers were not educated"

Respondent GG: "It took long for other farmers to properly understand the operation and benefits of the program"

This finding demonstrates that CASP training programmes are not being conducted in the languages that the small-scale rural farmers understand.

4.6.3 Over-indebting farmers

This finding is confirmed by the following interview excerpts:

Respondent AA: "CASP would over indebt farmers"

Respondent NN: "Farmers will end up failing to pay their liabilities"

Respondent JJ: "If yields are low a season it becomes difficult to pay back debts"

This finding demonstrates that CASP is lending money and inputs to small-scale rural farmers leading to their indebtedness.

4.6.4 Limited mechanisation

This finding is confirmed by the following interview excerpts:

Respondent KK: "The programme did not supply enough machinery for the farmers to work with"

Respondent QQ: "Mostly the techniques used were manual"

This finding demonstrates that CASP has not yet made progress on mechanising the farming operations of small-scale rural farmers.

4.6.5 Farmer overdependence

The findings also pointed to overdependence of the farmers. Some respondents pointed out the following:

Respondent BB: "Many farmers are now relying on CASP for everything

Respondent ZZ: "No land preparation as some farmers waited for the supply of tractors

Respondent II: "Some farmers could help each other"

This finding demonstrates that CASP is making small-scale farmers over- dependent on government assistance.

4.7 Conclusion

This chapter presented findings on the challenges faced by small-scale farmers in KwaZulu-Natal p, the nature of CASP grants extended to small-scale farmers in the province, the contribution of CASP towards enhancing access to markets by the small-scale farmers, the impact of CASP grants on small-scale farmers in KwaZulu-Natal and the effective strategies for enhancing the contribution of CASP towards improved production among small-scale farmers. In addition, the research findings and respondents' comments were also addressed this chapter 4. Lastly, the chapter interpreted and discussed the research findings. The conclusions and the recommendations of this study are presented in chapter 5.

5. RECOMMENDATIONS AND CONCLUSIONS

5.1 Introduction

In the previous chapter the research results from the study were presented, discussed and the findings interpreted. In this chapter the researcher draws conclusions and examines whether the research aims and objectives were achieved. The findings and conclusions are based on the objectives and serve to answer the research questions. The five research objectives set for the purpose of this study were all satisfied. These objectives were chosen with the aim of ascertaining the challenges faced by small-scale farmers in KwaZulu-Natal and determining the forms of support extended through CASP to these farmers. The other research objectives were to verify the contribution of CASP towards enhancing access to markets and determine the impact of CASP grants on small-scale farmers in the province. The last objective of this research was to make recommendations with regards to effective strategies for enhancing the contribution of CASP towards improved production among small-scale farmers. Based on these findings, conclusions and recommendations are proposed in this chapter. The conclusions are followed by recommendations to the Department of Agriculture in KwaZulu-Natal.

5.2 Findings from the study

This section presents key findings from both the literature and the primary research.

5.2.1 Findings from literature study

Findings per Research Question No.1: What are the challenges faced by small-scale farmers in the Province of KwaZulu-Natal?

From the literature it was established that small-scale farmers were facing several challenges before the advent of CASP. Kirsten and Sartorius (2002) maintained that in South Africa agricultural yields produced by small-scale farmers are lost after harvest because of reduced quality, spoilage and lack of market access for the produce. The famers are mostly faced by a variety of technical and institutional factors which heavily influence the market access Kirsten and Sartorius (2002). Literature submits that small-scale famers in South Africa have not

received the attention required. Bromberge and Antonie (1993), (Baloyi, 2010) and Bienabe and Vermeulen, (2011) point out that small-scale rural farmers are still faced by several challenges such as difficulties entering better paying markets for their produce. Hall (2007) maintains that small-scale farmers are facing challenges related to the lack access to land, markets, communication infrastructure, water, skills development facilities. Flow of information and opportunities still exclude marginalised farmers from making substantial progress in farming across the value chain.

Ray (2012) and Baloyi (2010) espouse that lack of knowledge, low illiteracy, numeracy and skills on how to mitigate social and environmental impacts of farming activities as well as poor farm management skills are some of the challenges affecting small-scale farmers which lead to low productivity and poor crop quality. According to IFAD (2011) small-scale farmers inherit agricultural techniques from their parents and they hardly use external sources of information on current and effective agricultural land management techniques, thus making their methods of crop cultivation a major challenge to productivity.

Khapayi and Celliers (2015) highlight the lack of effective communication, tools and support services from government and agricultural extension officers as some of the challenges affecting small-scale rural farmers. Baloyi (2010) points out that small-scale farmers may gather information about agricultural commodity markets through networking with other actors in the agricultural commodity chain, but that information's accuracy may be doubtful as the actors may exhibit opportunistic behaviour. In other words, the small-scale farmers' ability to efficiently trade their produce and derive maximum benefit from it, is reduced by their lack of correct information about prices, quality requirements and the best timing for selling their produce (Baloyi, 2010). The IFC (2013) notes the lack of title to land as another challenge affecting small-scale rural farmers. Mayo (2012), Salami et al. (2010), Mayo (2012) and the IFC (2013) all realise that because land property rights for small-scale farmers are allocated using traditional and cultural methods, the lack of formal land tenures hampers the capacity of the farmers to use the land as collateral for financing their operations.

The Group on Sustainable Agriculture and Food Systems (TGSGFS) (2013) anticipates that lack of access to markets and financial resources for small-scale farmers will persist, and thus the farmers will fail to overcome the poverty traps related to small holdings and poor soils.

Baloyi (2010) further underscores the fact that in the face of poor access to credit facilities, small-scale farmers are constrained in their operations by high transaction costs caused by poor infrastructure and communication services as well as information inefficiencies. Salami et al. (2012) remark that small-scale farmers lack improved access to both input and output markets which are key prerequisites for the transformation of their operations from subsistence to commercial production. In as far as usage of farming inputs is concerned, IFC (2013) posits there are low application rates of fertilisers for arable crops (30kg per hectare per year as compared to the world average of 100kg per hectare per year) because the farmers lack the requisite knowledge on usage of chemical fertilisers. Furthermore, Dalberg (2012) notes that the dropping of water tables due to adverse weather conditions beyond the reach of small-scale farmers who use ground water for irrigation, is making it difficult for the farmers to earn a living from their farming activities. Salami et al. (2010) opined that small-scale farmers often lack adequate extension service delivery systems due to an inappropriate training and visit extension model that is followed.

Finding per Research Question No.2: What are the forms of support extended through CASP to small-scale farmers in the Province of KwaZulu-Natal?

The IFC (2013) confirms that government support includes farmer aggregation, training and communication, provision of certification and standards, increasing access to inputs and markets and improving farm management skills. Aliber and Cousins (2013) posited that programmes like CASP are in the process of allocating funds to help cushion the expense of inputs and equipment for use in the farming operations. IFAD (2011) and Aliber and Cousins (2013) record that government supported programmes take the form of assistance in programme planning, training material development and training of farmers, provision of inputs, demonstration plots, field staff, vehicles and other logistics, written training materials, information dissemination, third party certification costs, results measurement and management.

Finding per Research Question No.3: What is the contribution of CASP towards enhancing access to markets by small-scale farmers of KwaZulu-Natal?

Kelly (2013) cautions that the crafting of policies that reach, fix and stimulate market access at the level where business takes place between small-scale farmers and processors, traders, transporters and retailers is critical but presents a major challenge to governments.

Furthermore, Baker (2011) notes that reinforcing and upgrading the crafted policies with industry policy frameworks that address value-chain collaboration and guide competitiveness is imperative even though this presents an additional challenge to most policymakers. To this end, FAO (2010) emphasises that national commodity value-chain policies, strategies and platforms must respond to this need. In addition, Dorwards et al. (2002) stress the need for policy formulation to be innovative and imaginative through learning from and building on historical and current institutional innovations.

Finding per Research Question No.4: What is the impact of CASP grants on small-scale farmers in the Province of KwaZulu-Natal?

There is a very conducive constitutional and policy framework in South Africa that supports land reforms, allowing small-scale farmers to secure land ownership and rights (Aliber, 2013). For example, the Constitution provides a directive for tenure reform, restitution and redistribution that allows for the expropriation of land through negotiated acquisition or purchase in the market. In addition, the Development Enterprise (2013) point out that agricultural policy reforms of the 1990s eliminated all the privileges and subsidies that had been directed at commercial farmers by the apartheid regime, thereby in principle creating a level playing field for all types of farmers. Accordingly, Kirsten, Lubambo and Ndlovu (2014) hold that the constitutional and policy framework is one of the most favourable in the world for successfully and rapidly implementing land reform.

5.2.2 Findings from primary study

Finding per Research Question No.1: What are the challenges faced by small-scale farmers in KwaZulu-Natal?

The first research question of this study focused on finding the challenges faced by small-scale farmers in KwaZulu-Natal. From the research findings it was established that small-scale farmers in KwaZulu-Natal province faced several challenges before the inception of CASP, namely:

- Poverty and financial constraints
- Lack of technical knowledge
- Difficulties in accessing lucrative markets
- Lack of storage and proper storage facilities

- Lack of access credit facilities
- Difficulties accessing inputs
- Adverse weather conditions
- Labour shortages
- Lack of an adequate support system

Finding per Research Question No.2: What are the forms of support extended through CASP to small-scale farmers in KwaZulu-Natal?

The second research question of this study endeavoured to establish the forms of support extended through CASP to small-scale farmers in KwaZulu-Natal. The findings established that CASP extended the following forms of assistance to the small-scale rural farmers of KwaZulu-Natal:

- Financial assistance
- Providing access to markets
- Providing advisory services
- Training and farmer development
- Regulatory services
- Subsidies
- Provision of on-farm infrastructure support

Finding per Research Question No.3: What is the contribution of CASP towards enhancing access to markets by small-scale farmers of KwaZulu-Natal?

The third research question of this study focused on finding the contribution of CASP towards enhancing access to markets by small-scale farmers of KwaZulu-Natal:

- Improved crop yields
- Increased income/poverty alleviation
- Improved agricultural product quality
- Improved technical farming knowledge
- Increased land utilisation
- Improved planning and management
- Improvements in land management

Finding per Research Question No.4: What is the impact of CASP grants on small-scale farmers in KwaZulu-Natal?

The fourth research question of this study investigated the impact of CASP grants on small-scale farmers in KwaZulu-Natal. From the findings from the respondents it was established that the findings CASP had both positive and negative effects on the small-scale farmers in the province. The findings from respondents pointed to the following positive effects:

- Improved crop yields
- Increased income/poverty alleviation
- Improved agricultural product quality
- Improved technical farming knowledge
- Increased land utilisation
- Improved planning and management
- Improvements in land management

5.2.2.1 Conclusions on the challenges faced by small-scale farmers in KwaZulu-Natal

Objective 1: To examine the challenges faced by small-scale farmers in KwaZulu-Natal province. The research fulfilled the first objective by finding out that scale farmers in KwaZulu-Natal province are faced with several challenges before the inception of CASP and that some of these challenges still exist in areas where CASP has not yet made inroads. The research makes the following conclusions from the findings on the objective of examining the challenges faced by small-scale farmers in KwaZulu-Natal before CASP was initiated.

Poverty and financial constraints

Poverty and financial constraints faced and still face small-scale farmers in KwaZulu-Natal.

Lack of technical knowledge

Small-scale farmers in KwaZulu-Natal lacked technical knowledge to conduct their farming operations.

Difficulties in accessing lucrative markets

Small-scale farmers in KwaZulu-Natal experienced difficulties in accessing lucrative markets.

Lack of storage and proper storage facilities

A lack of proper storage and proper storage facilities for small-scale farmers in KwaZulu-Natal results in produce spoiling before reaching the market, leading to financial losses.

Lack of access to credit facilities

Small-scale farmers in KwaZulu-Natal experienced difficulties in accessing credit facilities to help finance their operations as banks were reluctant to advance loans to them.

Difficulties accessing inputs

Small-scale farmers in KwaZulu-Natal experienced difficulties in accessing inputs to use in their farming operations.

Adverse weather conditions

Droughts and other adverse weather conditions affected small-scale farmers in KwaZulu-Natal negatively.

Labour shortages

Small-scale farmers in KwaZulu-Natal were negatively affected by labour shortages partly because of the migration of the energetic youths to towns and cities.

Lack of adequate support systems

From the research findings it is concluded that the small-scale farmers in KwaZulu-Natal were affected by the lack of adequate support systems.

5.2.2.2 Conclusions on the forms of support extended through CASP to small-scale farmers in KwaZulu-Natal

Objective 2: To analyse the nature of CASP grants extended to small-scale farmers in KwaZulu-Natal.

The research successfully identified the nature of CASP grants extended to small-scale farmers in KwaZulu-Natal. The identification of the nature of CASP grants extended to small-scale

farmers is a successful fulfillment of the second objective of this study and will help in identifying more support systems to the farmers.

Financial assistance

From the research findings it is concluded that CASP is providing small-scale farmers with financial assistance through cash grants and loans.

Providing access to markets

CASP is assisting small-scale farmers with access to the markets.

Providing advisory services

CASP is supporting small-scale farmers by providing advisory services.

Training and farmer development

CASP is providing small-scale farmers with training and farmer development.

Regulatory services

CASP is providing small-scale farmers with regulatory services and guidance to guide farmers to sustainable, improved agricultural practices which are most likely to succeed through regulating the way they conduct their operations.

Subsidies

CASP is providing small-scale farmers with subsidised agricultural inputs and other forms of support.

Provision of on farm infrastructure support

CASP is providing small-scale farmers with farm infrastructure support such as fencing, boreholes, watering points, irrigation infrastructure, livestock handling facilities and structures such as packing sheds.

5.2.2.3 Conclusions on the contribution of CASP towards enhancing access to markets by small-scale farmers of KwaZulu-Natal

Objective 3: To investigate the contribution of CASP towards enhancing access to markets by the small-scale farmers of KwaZulu-Natal.

The research fulfilled the third objective by examining the contribution of CASP towards enhancing access to markets by the small-scale farmers in KwaZulu-Natal. The research makes the following conclusions from the findings on this objective:

Provision of transport and logistics

CASP is making a significant contribution to market access through the provision of transport and logistics.

Information provision

CASP is making a significant contribution to market access through information provision.

Preferential procurement policy enforcement

CASP is making a significant contribution to market access through preferential procurement policy enforcement.

Liaison between large buyers and small-scale farmers

CASP is supporting small-scale rural farmers in KwaZulu-Natal with liaison between large buyers and the small-scale farmers.

Creation of marketing infrastructure

CASP is supporting small-scale rural farmers in KwaZulu-Natal by creating marketing infrastructure for the farmers.

5.2.2.4 Conclusions on the impact of CASP grants on small-scale farmers in KwaZulu-Natal

Objective 4: The impact of CASP grants on small-scale farmers in KwaZulu-Natal.

From the research findings presented in Fig. 4.4 it is concluded that the CASP initiative brought about several positive effects on the on small-scale farmers in KwaZulu-Natal province.

Improved crop yields

CASP brought about an increase in crop yields.

Increased income/poverty alleviation

CASP increased the incomes of small-scale farmers and alleviated farmers from poverty.

Improved agricultural product quality

CASP helped to improve crop quality.

Improved technical farming knowledge

CASP improved technical farming knowledge.

Increased land utilization

CASP helped to increase land utilisation.

Improved planning and management

CASP improved farm planning and management.

Improvements in land management

CASP improved land management.

5.3 Link between the literature and primary study findings

From the research findings the researcher concludes that there are areas of convergence between reviewed literature and the research findings. Both the reviewed literature and the research findings confirm that small-scale rural farmers throughout most parts of the world face many challenges, including financial constraints, lack of access to credit facilities, lack of faming skills, adverse weather conditions, lack of access to markets, etc. This convergence is corroborated by the fact that both the literature review and research findings point towards governments creating institutions that provide support in the form of assisting small-scale farmers with access to markets, financial aid, input provision, credit advancing, offering farmer training programmes, skills development, and extension and advisory services. The literature review and the research findings concur that the government intervention programmes have positively impacted on farm productivity on the part of small-scale farmers through training, financial and non-financial support.

5.4 Conclusions of the study

This chapter presented the conclusions and demonstrated that the research aims and objectives were achieved. The findings and conclusions were based on the objectives and served to answer the research questions. The chapter fulfilled all five research objectives which were set for the success of this study. This chapter presented the conclusions drawn from the study, i.e. determining the challenges faced by small-scale farmers in KwaZulu-Natal, and determining the forms of support extended through CASP to small-scale farmers in KwaZulu-Natal. The chapter presented the conclusions on the other research objectives which were related to determining the contribution of CASP towards enhancing access to markets by small-scale farmers of KwaZulu-Natal as well as conclusions on the impact of CASP grants on small-scale farmers in the province.

Recommendations of the study

Objective 5: To recommend effective strategies for enhancing the contribution of CASP towards improved production among small-scale farmers.

The final objective of this research was to make recommendations with regards to effective strategies for enhancing the contribution of CASP towards improved production among small-scale farmers. In line with one of the objectives of this study, the author makes the following recommendations:

- CASP needs to provide adequate and comprehensive support to small-scale farmers both quantitatively and qualitatively by increasing the amount of financial assistance and input provision assistance so that the farmers are adequately covered to meet their needs. Past situations where they were provided with certain things but were still lacking in other aspects led to limited success of the programme and should be avoided.

- CASP needs to be flexible enough and desist from a one size-fits-all approach. Flexibility could be achieved by tailoring the assistance package to meet the individual needs of each farmer. For example, some farmers have larger pieces of land than others, hence they would need to be assisted accordingly.

- CASP needs to simplify the language of instructions when training farmers so that they can better understand the training. Due to the high illiteracy rate among rural small-scale farmers the language of instruction should be predominantly in the indigenous languages.

- CASP should explore the possibility of introducing mechanised agriculture so as to reduce the problem associated with shortage of labour. This can be achieved by acquiring funds to buy agricultural machinery for lending to small-scale farmers.

- The senior management at the Department of Agriculture needs to continuously improve the programme so as to improve the benefits.

5.5 Scope for further research

A study of other provinces offering the CASP initiative could highlight trends concerning programme content and challenges being faced and enable a comparative analysis of the challenges and the impact that the programme has on small-scale rural farmers nationally. There are a number of focus areas that this study was unable to examine. However, future studies could consider the following topics that arise from this study:

- Introducing animal husbandry as a form of assistance
- Farmer perceptions of agriculture as a viable commercial concern
- Mechanisms for introducing mechanised agriculture among small-scale rural farmers

5.6 Chapter and overall study conclusion

This chapter presented the conclusions from the study. The central findings from both the literature review and the primary research were presented, together with the main recommendation that the senior management of CASP need to engage in continuous improvement so that the support given to small-scale farmers is comprehensive. Chapter one of the study presented the background to the research, the problem statement related to TVET readiness to offer entrepreneurial courses, the research aim, research questions and objectives.

Furthermore, the chapter highlighted the significance of the study by explaining that the study may help not only senior management in charge of CASP in KwaZulu-Natal but also other provinces to better understand the challenges being faced by small-scale farmers in their provinces and areas that needs further interventions.

Chapter 2 looked mainly at the scholarly views and arguments related to the study objectives. Thus the literature review of this research was moulded around the main research questions and objectives which were mainly to determine the challenges faced by small-scale farmers in the Province of KwaZulu-Natal, analysing the nature of CASP support, assessing the contribution of CASP towards enhancing market access for farmers as well as determining the impact of CASP on small-scale farmers.

Chapter 3 of the study defined and discussed the qualitative phenomenological explanatory descriptive research design which was used in the study. The questionnaire was used as the primary research instrument. Primary data for this study was analysed using thematic analysis and results were depicted on diagrams.

The research findings were presented, interpreted and discussed in chapter 4. The last chapter presented the conclusions and recommendations arising from the findings from chapter 4.

The key findings from the literature review and from primary data were presented in chapter 5. The research concluded by making recommendations to improve the nature of support provided to small-scale rural farmers both quantitatively and qualitatively. Based on the shortcomings identified from the research findings the recommendations offered advice to increase the amounts of cash grants awarded to the farmers, to simplify training instructions and to improve supervision and farmer extension support. It is hoped that further research may be conducted, perhaps from other perspectives not adequately covered by this study.

References

Adeleke, S., Kamara, A. & Brixiova, Z., 2010. *Smallholder Agriculture in East Africa: Trends, Constraints and Opportunities,* Tunis: s.n.

Adelman, I. & Taylor, J., 2003. Agricultural household models: genesis, evolution, and extensions.. *Review of Economics of the household,* pp. 33-58.

Aliber, M. &. C., 2013. Livelihoods after land reform in South Africa. *Journal of Agrarian Change,* pp. 140-165.

Aliber, M. & Hall, R., 2010. . *Development of evidence-based policy around small-scale farming: Report commissioned by the Programme to Support Pro-Poor Policy Development,* Pretoria: Government Printer.

Ashley, C. & Maxwell, S., 2011. Rethinking Rural Development. *Development Policy Review,* 19(4), pp. 385-425.

Ashley, S, Holden, S. & Bazeley, P., 1998. *Strategies for Improving DFID's Impact on Poverty Reduction : A Review of Best Practice in the Livestock Sector.* London: Department for International Development.

Baker, D., 2011. *Agribusiness for development.* [Online]
Available at: www.FAO.org/sustainable-food-value-chain
[Accessed 20 August 2017].

Baloyi, J., 2010. *An analysis of constraints facing small-scale farmers in the Agribusiness value chain.* Pretoria: University of Pretoria.

Bank, W., 2008. *World development,* s.l.: World Bank.

Bank, W., 2014. *Project Completion and Results.* [Online]
Available at: http://www.reading.ac.uk/ssc/.
[Accessed 15 April 2017].

Berg, M., 2001. *Off-farm income, risk, and agricultural production: a case study of smallholders in India's semi-arid tropics'.* s.l.:Wageningen University.

Bie`nabe, E. '. V. H., 2011. Improving small-scales' market participation: insights from a business scheme for maize in Limpopo Province'. *Development South Africa,* 28(4), pp. 493-507.

Binswanger, H. & Rosenzweig, M., 1986. Behavioural and material determinants of production relations in agriculture. *Journal of Development Studies,* 22(3), pp. 503-539.

Bromberg, N. &. A. F., 1993. *Black small farmers in the homeland.* Oxford: Westview Press.

Burns, R. &. A. F., 2011. *Introduction to research methods.* London: Sage.

Chayanov, A., 1923. *Vertov.* [Online]
Available at: https://verton14.files.worldpress.com/2016/08/alexandra_chayanov_the_theory of peasant economy.pdf
[Accessed 26 October 2016].

Christen, P. &. A. J., 2013. *cgap.* [Online]
Available at: www.cgap.org
[Accessed 10 April 2017].

Cook, M. &. B. M., 2011. *Coolective enterpreneurship.* Kansas: University of Missouri.

Cousins, B. &. A. M., 2013. *plaas.* [Online]
Available at: http://www.plaas.org.za/blog/unworkable-land-reform-project-designs-offer-inappropriate-farming-models-rural-dwellers
[Accessed 15 April 2017].

Creswell, J., 2013. *qualitative, and mixed methods approach.* 2nd ed. Sage: Thousand Oaks.

Dalberg, R., 2012. *dalberg.* [Online]
Available at: www.dalberg.com/documents/ catalyzing_small-scale_ag_finance.pdf
[Accessed 15 April 2017].

Delgado, C., 1999. *Sources of growth in small-scale agriculture in Sub-Saharan Africa.* Delhi: Delhi .

Delgado, C. H. G. N. C. S. S. &. E. S., 2010. Agroindustrialization through institutional innovation. *Transaction costs ,* 23(3), pp. 279-288.

Delgado, C. H. J. &. K. V., 1998. *Delgado, C.L., Hopk Agricultural Growth Linkages in SubSaharan Africa, International Food and Policy Institute,Washington DC..* Washington: Washington DC.

Department of Agriculture, F. &. F., 2009. *Farmer register pilot study,* Pretoria: s.n.

Department of Agriculture, F. &. F., 2010. *Strategic Plan 2010/2011,* Pretoria: Govenment printer.

Department of Agriculture, F. &. F., 2015. *Department of Agriculture.* [Online]
Available at: http:// www.nda.agric.za/docs/CASP/casp_progess_report_03-15.pdf
[Accessed 30 October 2016].

Department of Agriculture, F. a. F., 2010. *Integrated Growth and Development Plan.* Pretoria: Government Printer.

Department of Agriculture, F. a. F., 2015. *Intergrated growth and development Plan 2011-2013,* Pretoria: Government Printer.

Department of Agriculture, F. a. F., 2015. *nda.* [Online]
Available at: www,nda.agric.Z
[Accessed 30 October 2015].

Dorward, A. K. J. M. J. &. P. C., 2014. *Institutions for Market or Markets for Institutions, Theory, Praxis and Policy in Institutional Development.* Imperial College ed. London: London.

Dorward, A. K. M. J. &. P. C., 2014. A Policy Agenda for Pro-poor Agricultural Growth. *World Development,* 32(1), pp. 73-89.

Ellis, F., 1991. *Agricultural Policies in Developing countries.* Cambridge: Cambridge University Press.

Ellis, F., 1998. household strategies and rural livelihood diversification. *The Journal of Development Studies,* 35(1), pp. 1-38.

Enterprises, B., 2013. *Implementation, evaluation of the recapitalisation and development programme.* Pretoria: Govenment printers.

FAO, 2., 2002. Cattle and Small Ruminants Production Systems in Sub- Saharan Africa: A Systematic Review. *Food and Agriculture Organization of the United Nations.*

Group, T., 2013. *Sustainable Development Network..* Toronto: Hrcourt.

Hart, T. &. A. M., 2010. Food security definitions, measurements and recent initiatives in South Africa and Southern Africa. Pretoria. *Human Sciences Research Council.*

Hart, T., 2002. *Inequalities in agricultural support for women in South Africa.* [Online]
Available at: http://www.hsrc.ac.za/uploads/pagesContent/5325/InequalitiesLR.pdf
[Accessed 18 August 2017].

Hart, T., 2008. The ignorance of gender in agrarian livelihoods in rural South Africa. *Empowering Women for Gender Eqity,* 78(4), pp. 144-155.

Hart, T., 2011. The significance of African vegetables in ensuring food security for Africa's rural poor. *Agriculture and Human Value,* 28(3), pp. 321-333.

IFAD, 2003. *Promoting market access for the rural poor in order to achieve the Millennium Development Goals Rome.* [Online]
Available at: http://www.ifad.org/gbdocs/gc/26/e/markets.pdf
[Accessed 8 October 2009].

IFAD, 2011. *Conference on new directions for small-scale agriculture.* [Online]
Available at: http://www.ifad.org/events/agriculture/
[Accessed 15 April 2017].

Khapayi, M. &. C., 2015. Issues and constraints for emerging farmers in the Eastern Cape Province, South Africa. *African Journal of Agricultural Research ,* 10(41), pp. 3860-3869.

Kirsten, J. &. S., 2002. Linking agribusiness and small-scale farmers in developing countries: Is there a new role for contract farming.. *Development Southern Africa ,* 19(4), pp. 503-529.

Kirsten, J. &. V. Z., 1998. Defining small-scale farmers in the South African context. 37(4), pp. 551-562.

Kirsten, J. L. &. N., 2014. *Appraisal of 37 land reform projects in North West Province.* Pretoria: University of Pretoria.

Louw, A., Jordaan, D. & Ndanga, L. &. K., 2008. Alternative marketing options Small scale farmers in the wake of changing agri-food suppy chain in South Africa. *Agrekon,* 47(3), pp. 287-308.

Machethe, C., 2014. Factors contributing to poor performance of agricultural. *Agrekon,* 29(4), pp. 305-309.

Poulton, C. & Dorward, A. &. K., 2005. The future of small farms: New directions for services, institutions and intermediation.. *World Development ,* 38(10), pp. 1413-28.

Randela, R. & Alemu, Z. &. G., 2008. Factors enhancing market participation by small-scale cotton farmers. *Agrekon,* 47(4), pp. 451-469.

Reardon, T., Barrett, C. & Kelly, V. &. S., 1999. Policy reforms and sustainable agricultural intensification in Africa.. *Development Policy Review ,* Volume 17, pp. 375-395.

Sen, A., 1966. Peasants and dualism: with or without surplus labour.. *Journal of Political Economy ,* Volume 74, pp. 425-450.

Services, U. R., 2006. *A study on Agricultural Support Services offered by the Private and Public Sector in South Africa,* s.l.: Belgian Technical Cooperation.

Taylor, J. &. A. I., 2003. Integrated Growth and Development Plan. *Government Printer.,* Volume 1, pp. 33-58.

Terblanche, L., 2009. *Milk Producers Organisation.* [Online]
Available at: http:// www.mpo.co.za/downloads/Power%20of%20Groups.pdf
[Accessed 15 August 2016].

Terreblanche, Y., 2002. Towards an improved agricultural extention service as a key role player. *Suid-Afrikaanse Tydskrif vir Landbouvoorligting/South African Journal of Agricultural Extension,* Volume 37, pp. 58-84.

Thorner, D. & Kerblay, B. &. S. R., 1966. *Chayanoy on the theory of peasant economy.* Homewood: Illinois.

Van Rensburg, S., 2010. *Skills Development in the Agricultural Sector: A Multiple Case Study.* Cape Town: Stellenbosch University.

Van Rooyen, J. & Singini, R. &. K., 1987. *Overview of DBSA'S Farmer Support Programme.* Halfway House: s.n.

Welman, C. & Kruger, S. &. M., 2009. *Research methodology.* Oxford Cape Town: University Press.

Wilson.I.M, 2010. *Sampling and qualitative research.* [Online]
Available at: http://www.reading.ac.uk/ssc.
[Accessed 15 April 2017].