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Title: The Livestock Improvement Scheme in the Eastern Cape: experiences of small farmers in Elliot.

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DECLARATION

I, the undersigned, declare that the work contained in this thesis is my original work and specific acknowledgement has been made for the work of other authors used in the study. This thesis is hereby submitted for the Degree of Masters in Development Studies at the Nelson Mandela Metropolitan University. I declare that this work has not been submitted to any other institution of higher learning.

Z. Nompekela (Miss)

March 2016
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This thesis would not have been completed without the support of a number of people. Firstly, I would like to express my sincere gratitude to my supervisor Dr Teresa Connor for her guidance, advice and support throughout my study. I’m also grateful to the smallholder beef cattle farmers of Elliot for their co-operation and willingness to participate in the study.

Thirdly, thanks to all my family members and friends who have been very understanding and patient with us during the year of study, as I could not attend to some of their business due to work load; their love and prayers supported me to live and finalise this research project. Lastly, I thank God Almighty for the courage and wisdom he had granted me.

May the Lord protect and bless you all!
ABSTRACT

This study was motivated by the realisation that the Eastern Cape Province is a leading producer of cattle, but few to none of those cattle makes it to auction markets. The study was conducted in the Elliot area, selected as an area with a high number of Land Redistribution for Agricultural Development farms, as well as private farms and communal farmers. Most of these farmers battled to sell their cattle to the auctions or abattoirs.

The objective of the study was therefore to investigate challenges facing smallholder beef cattle farmers and those factors which prevented them to access auction markets to sell their cattle in the Elliot area. The second was to assess the effectiveness of the Livestock Improvement Scheme in support of smallholder beef cattle farmers in terms of the outcome and achievements of training these individuals to become successful farmers. The last was to find out how beef cattle farmers benefited from the scheme.

Both semi-structured interviews and an open-ended questionnaire were used to collect data. A sample size of 10 farmers (eight farmers from LRAD/private and two from communal farmers) was selected, and observation was done on the auctions and abattoirs available in Elliot.

The study found that smallholder cattle farmers struggle to sell their stock through formal and informal markets, as they are faced with marketing constraints. Such marketing constraints are lack of marketing information, drought, poor condition of cattle, lack of infrastructure, shortage of land for grazing, price takers, stock theft, transaction costs, problems with cattle identification, and lack of physical access to markets. The study has also made recommendations on how smallholder cattle farmers of Elliot can be developed to procure markets to sell their stock.
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<th>ACR</th>
<th>Agricultural Research Council</th>
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<td>DAFF</td>
<td>Department of Agriculture, Forestry and Fisheries</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>LIS</td>
<td>Livestock Improvement Scheme</td>
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<tr>
<td>LRAD</td>
<td>Land Redistribution for Agricultural Development</td>
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<td>NDA</td>
<td>National Development Agency</td>
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<td>NEPRO</td>
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CHAPTER ONE.

INTRODUCTION AND BACKGROUND

1.1 Introduction

This chapter provides the background to the study, stating the research problem, research questions and objectives of the study. It also provides a short overview of the chapters contained in this research paper.

1.2 The rationale and background to the study

Shackleton and Chimonyo (1999) and Dove, (2006) state that livestock, especially cattle in the Eastern Cape Province is a priority sub-sector of agriculture which contributes significantly to rural livelihood sustainability and food security. Literature confirms (Collins-Luswet, 2000; Muchenje, Dzama, Chimonyo, Raats, and Strydom (2008) that most farmers keep cattle for a number of reasons such as cultural purposes - including lobola (bride-wealth) special ceremonial gatherings such as marriage feasts, weddings, funerals, circumcision, and are also used as a symbol of wealth. Coetzee, Montshwe and Jooste (2005) argues that cattle can also be used as source of survival and well-being, where people depend on cattle for milk, meat, hides, horns and income. Shackleton et al., (1999) as well as Bayer, Alcock, and Gilles 2004) indicate that cattle also provide dung for manure, fuel and floor/seal and draught power for cultivation of crops and transport of goods in communal areas. Moreover, cattle are an inflation-free form of banking for resource-poor people and can be sold to meet family needs such as school fees, medical bills, village taxes and household expenses.

Muller (2003) has mentioned that the Eastern Cape Province has great potential for livestock production, as it is a leading producer of cattle, but few to none of those cattle makes it to auction markets. The main problem for farmers not being able to access markets was the lack of information and skills necessary for farming for economic participation and gain. For example, it has been reported that the majority of communal farmers in the Eastern Cape are elderly people who own cattle for the above reasons (Muller, 2003).
However, there has not been an expectation of generating income from cattle production, rather ownership of cattle is associated with wealth storage and savings, draught power, manure and milk production and customary ritual purposes. Cattle are therefore sold only occasionally, depending on the financial needs (such as paying school fees for children or buying veterinary services for their cattle) of a household, and it is usually an older animal that is traded (Chimonyo, Kusina, Hamudikuwanda, and Nyoni., 1999; Dovie 2006; Simela, Montshwe, Mahanjana, and Tshuwa 2006).

Thus, this has resulted in the establishment of a livestock improvement scheme by the National Department of Agriculture, Forestry and Fisheries (DAFF), together with the Agricultural Research Council (ARC) in the Eastern Cape Province. However, the Livestock Improvement Scheme was seen as a good tool to support, develop farmers and help in breaking through many barriers (mentioned above) that are hindering beef cattle production. Firstly, the aim of the scheme was develop, change farming practices significantly and increase the economic benefits to smallholder farmers of owning cattle and changing the understanding of farmers to realise increased gains from the cattle industry. Secondly, the aim was to train beef cattle farmers on management practices such as the importance of identifying cattle with branding and ear tags, the importance of keeping records (for production and sales), performance testing (through taking weights from birth up to 18 months) and training on marketing issues, particularly market requirements (Livestock Development Strategy, 2006).

However, other than lack of access to markets there were also barriers hindering beef cattle farmers such as diseases, poor land conditions and lack of keeping proper records (production and sales) which would help them to indicate profitability. Tick-borne diseases are very common in Elliot and spread between animals by the bite of infected ticks, which results in causing heavy losses of animals, abortion to pregnant animals, appetite loss, and cattle becoming weak in the body. The natural ‘veld’ is reported to be the main source of feed for the cattle and this is the results that many farmers cannot afford to buy supplements. So all these factors have a negative impact for the farmers in accessing the markets, as they are required to sell cattle of good quality and free of diseases (Muchenje, et al 2008).
1.3 Significance of the study

The research study has been conducted in the Elliot area. Elliot is one of the areas where there are a number of LRAD farms - those bought by the Department of Rural Development and Land Reform for use by emerging black farmers. However, there are also private farms, which were bought by the farmers themselves. Lastly, there are also communal farms, for those people who reside on land distributed through a traditional chief. This area has been chosen because black cattle farmers of Elliot battled to sell their cattle because they were not classified, not in good condition to be sold due to some diseases and farmers lacked information on what the auction market requirements are (Bayer et al, 2004).

Elliot is a small town situated in the Sakhisizwe local Municipality in the Eastern Cape Province and is a farming area made of 156 farms, ranging from small holdings to communal farms of over 1,000 ha in size. Ownership structures of these farms vary from large Community Property Associations, Closed Corporations, Trusts, family groups and individual owners. Elliot is excellent in natural resources, such as climate, soil and water; more than 7,000 ha of arable land, of which 1,000 ha is being used. It is an area with a high number of livestock, totalling 7,500 cattle, 16,000 sheep and 2,600 goats, but effective production is less than half the potential. The farms around Elliot have created approximately 300 job opportunities for the jobless people (NDA, 2008).

This thesis intends to explore factors that affect the development of cattle farmers, particularly why people do not market their stock at the auctions or to the abattoirs in Elliot. Further it evaluates how effective the livestock improvement scheme is in supporting farmers. In addition, the study examines how the current practises of farmers, who are keeping cattle for cultural purposes and wealth, can be improved. The livestock Stock Improvement Scheme among the smallholder farmers seems to be ineffective in supporting them to market their cattle. No studies have been done and recorded as to the success of the Livestock Improvement Scheme in this area and hence this report will, in the end, look at strategies which can help the smallholder farmers to access markets to sell their stock.
1.4 Statement of the problem

It has been reported that smallholder cattle farmers of Elliot are in a difficult position in terms of accessing markets to sell their stock, although the market opportunities do exist. Therefore, this study was conducted to investigate why the farmers lack access to markets and what could be the factors hindering them. Muchenje et al. (2008) mentions that in Southern Africa, livestock practices today remain little understood, poorly researched and poorly theorised. Further, Eastern Cape Province has been observed that it is a leading producer of cattle, but few to none of those cattle make it to the markets. This was partly due to the fact that beef cattle smallholder farmers tend to keep cattle for various reasons such as for cultural purposes (ceremonies), paying lobola (bride-wealth) draught power, symbol of pride other than for income generation. All the above reasons make farmers unwilling to sell their stock. Thus, it was observed that farmers value quantity over quality, especially the communal farmers. Therefore, these diverse views needed to be changed and partners need to work hand-in-hand with farmers to support them in order to consider farming as a business with the greatest potential for increasing domestic food security and reducing hunger especially in the eastern Cape communal areas.

1.5 Research questions

The report seeks to investigate the effectiveness of the Livestock Improvement Scheme in supporting smallholder cattle farmers in the Elliot area within the Eastern Cape. The following are the key research questions:

- How can smallholder cattle farmers in Elliot be developed to procure markets to sell their stock?
- What is the effectiveness of the livestock Improvement Scheme in supporting emerging beef farmers?
- What are the major challenges that farmers of Elliot are currently facing with regard to stock?
- What are the farmers’ perceptions about the cattle Livestock Improvement Scheme?
Are the farmers themselves willing to produce for the market? If not what are main reasons that make farmers lack willingness to involve themselves in the formal marketing of cattle?

What are the cultural or livelihood factors that affect people and cattle production in the Elliot area?

1.6 Objectives of the study

The research study was centred on the belief that smallholder farmers of Elliot keep cattle for cultural purposes and as a symbol of pride. Even those farming for commercial purposes have a problem with selling their stock to the auctions. Therefore, this research seeks to achieve the following objectives:

- To investigate challenges facing smallholder beef cattle famers to access auction markets to sell their cattle in the Elliot area.
- To assess what is the effectiveness of the scheme in support of emerging beef farmer in terms of the outcome and achievements done through training.
- To find out how beef cattle farmers benefited from the Scheme.
- To determine the social, economic and environmental factor hindering beef production.

1.7 Outline of the research study

The study is composed of five chapters. The first three chapters of the study introduce and contextualise the study. The last two chapters form the main core of the research project and not only discuss the findings, but provide answers to the research questions of the study.

Chapter one: Introduction to the study

Chapter one gives a brief background of the history of cattle production in South Africa, highlighting some of the factors hindering smallholder cattle farmers in accessing the markets to sell their stock. It has further gives the background to and rationale of the study, statement of the problem, research questions and objectives of the study.
Chapter Two: Literature review

Chapter two offers theoretical framework to the study, whereby a review of literature related to the livestock improvement scheme so as to give an in-depth understanding of the concept has been provided. A history of cattle production and role of cattle in improving the livelihoods of the smallholder farmers in the Eastern Cape province is provided; the role played by the Livestock Improvement Scheme in supporting farmers were is also reviewed.

Chapter Three: Research Methodology

Chapter three describes the village understudy and elaborates on its locality and history. It also provides the methodology used to conduct the study and extract data.

Chapter Four: Findings

Chapter four presents, interprets and analyses data and sifts it for findings based on the research questions alluded to in the first chapter of the study. It basically gives out the findings of the research and links them to related literature so as to reach plausible conclusions.

Chapter Five: Conclusion

Chapter five contains the conclusions drawn from the findings of the study and recommendations.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter explores the history of cattle production on the smallholder farms and communal areas of the Eastern Cape Province. It provides a historical overview of cattle production and indicates the importance of cattle in rural people’s lives in terms of the implications for socio-economic conditions and local livelihoods, as well as ownership. The chapter further explores marketing channels of livestock in the Eastern Cape, the role of cattle production in improving rural livelihoods and poverty alleviation, and the role of training in facilitating skills and knowledge.

The chapter continues to review the extent to which the Livestock Improvement Scheme has addressed the challenges hindering beef cattle smallholder farmers. Such factors relate to lack of knowledge about market requirements, poor record keeping, diseases, poor veld and cattle conditions, and these are all discussed in this chapter. In terms of research goals, this theoretical review was piloted in order to determine the requisite of investigating the challenges facing smallholder farmers resulting from their lack of market access to livestock and meat sales. The study examines what strategies could be implemented to improve these challenges for smallholder farmers in Elliot area.

2.2 History and role of cattle in South Africa

In South Africa, livestock production has been seen as a very important agricultural sub-sector which includes cattle, sheep, goats, game, poultry and aquaculture. However, although the study does highlight the capacity and potential of other livestock sub-sectors, the scope of this research study is only limited to cattle production. Cattle production as a livestock sub-sector contributes about 25 – 30 per cent to the total agricultural output in South Africa per annum. However, cattle productivity is declining due to diseases such as tick-borne diseases, lack of feed resources, and poor breeding and marketing management (Coetzee, et al 2005:15). Coetzee et al. (2005:15) further argue that cattle production is a tradition within
Eastern Cape rural systems and is one of the central agricultural enterprises to improve household food security and address poverty alleviation in communal farming areas of the Eastern Cape.

Reviewed literature (Coetzee, et al. 2005:18) confirms that the Eastern Cape is a leading province with one of the largest populations of cattle compared to other regions in South Africa. He further argues that people keep cattle for a number of reasons, such as cultural purposes; for lobola (bride-wealth), special ceremonial gatherings such as marriage feasts, weddings, funerals, circumcision, and cattle are also used as a symbol of wealth. Coetzee et al. (2005) argue that cattle can also be used as source of survival and well-being, where people depend on cattle for milk, meat, hides, horns and income. Shackleton et al. (1999:21) and Bayer et al. (2004:35) indicate that cattle also provide dung for manure, fuel and floor/seal and draught power for cultivation of crops and transport of goods in communal areas. Moreover, cattle are an inflation-free form of banking for resource-poor people and can be sold to meet family needs such as school fees, medical bills, village taxes and household expenses.

In Zimbabwe, for example, it was found that the socio-cultural functions of cattle include their use as bride price and to settle disputes (as fines) in communal areas (Chimonyo et al., 1999:19) and this also applies to South Africa. Cattle are reserved for special ceremonial gatherings such as marriage feasts, weddings, funeral and circumcision (Bayer et al., 2004:35). The other purpose that cattle serve is particularly important because they signify to the members of the umzi (homestead in isiXhosa), especially those who are employed in town, that they are expected to contribute to ‘building’ their rural homes. In this respect, this ‘home building’ role of cattle is also evident in their use in a range of slaughter rituals. These rituals are aimed at securing the ancestral blessings deemed necessary for the well-being of the family (Ainslie, 2005:205).

Despite the contribution of cattle to the socio-economic livelihoods of rural households, improving cattle production and numbers is affected by several factors - which include social, economic, biological, and political and management issues (Mupawaenda, Chawatama, and Muvavarirwa, 2008:11). According to Stroebel (2004:14), several constraints affect the efficient marketing of cattle in the Eastern
Cape Province of South Africa, mainly the poor marketing infrastructure, lack of marketing, herd size, high transaction costs and low purchasing power of buyers. This implies that marketing of cattle is probably one of the most complex policy issues to be addressed to enhance sustainable smallholder agriculture (Jooste, 2001).

2.3 Marketing of cattle in the Eastern Cape Province

Schalkwyk (2012: 13) state that, to ensure that smallholder producers of cattle production are effectively integrated into the mainstream of national economies, especially in developing countries, markets need to be created. Markets play a role in providing the opportunity for cattle production to contribute to poverty reduction through the cash income generated from sales on cattle. In the Eastern Cape, there are a number of channels through which cattle are marketed and these are broadly divided into two categories, namely the informal and formal markets. The former consists of individuals buying livestock for different reasons which include slaughter, as an investment or for social functions such as funerals, customary celebrations, weddings and religious celebrations. The latter consists of selling directly to butcheries, auctions and abattoirs.

Schalkwyk (2012:13) point out that many developing countries claim that the role of smallholder farmers is to meet the demands of consumers and end-users in terms of quantity and quality, while markets drive the production. However, how effectively markets actually function cannot be defined. They indicate that even in South Africa, there is a need to address the role of markets, since the restructuring of the agriculture sector and land reform has not meant a reduction in land shortage. There is a clear indication that much poverty arises from farmers not being able to sell produce at a profit. Unlocking markets for smallholder farmers is therefore considered a crucial developmental necessity (Schalkwyk, 2012:13).

In terms of market access, Jooste (2001:58) indicates that the transition of the small scale sector towards commercial production will ultimately be determined by its access to markets. Small-holder farmers in the Eastern Cape often say that one reason they cannot improve their living standards is that they face difficulties of accessing markets where they can obtain agricultural inputs and consumer goods.
and sell the produce that they grow (Heinemann, 2002). A major reason is lack of access to profitable markets. However, small-holders are often forced to sell to the buyer of convenience at whatever price that the buyer dictates (IITA, 2001).

According to Stroebel (2004:10), there are several constraints affecting the efficient marketing of cattle in the Eastern Cape Province of South Africa. These are poor record keeping, poor cattle conditions, diseases (tick-borne), lack of marketing, herd size, lack of knowledge regarding marketing requirements, and low purchasing power of buyers. This implies that marketing of cattle is probably one of the most complex policy issues to be addressed for enhancing sustainable smallholder agriculture (Jooste, 2001:58).

Moreover, the literature (Jooste, 2001) confirms that due to lack of sufficient volumes of cattle to attract buyers to their farms, smallholder farmers are placed in a difficult market position. Nkosi and Kirsten (1993) argue that a number of markets do exist in the Eastern Cape, but smallholder farmers prefer to sell through informal market channels, such as private sales or speculators. In many cases these marketing channels do have a disadvantage of low purchasing power, however, which means that beef producers get relatively low prices for their animals. Benson, Miller, and Lichtenwalner (2001), indicate that the challenge can be resolved by making use of marketing channels that offer best/better cattle prices, hence increasing returns for farmers. In order to achieve this, training has to be provided to smallholder farmers about seasonal cattle prices, and the right selling time, as well as the channels available, cattle breeds and the age of cattle that give the highest returns.

2.4 Major marketing constraints faced by smallholder farmers

2.4.1 Disease

According to Devendra, Thomas, Jabbar, and Zerbini (2000) diseases are a major limitation to the improvement of the cattle production industry in South Africa. Animal health issues are barriers to trade in cattle and their products as specific diseases reduce production and increase mortality (Duvel and Stephanus 2000; Mwacharo and Drucker, 2005). Animal diseases are crucial constraints because unhealthy cattle cannot be sold or meat traded over borders or between provinces. The animals of
poor farmers are particularly susceptible to diseases because of the expense, absence or unsuitability of animal health and production inputs. Diseases such as anthrax, foot and mouth, back-leg and contagious abortion are indicated as the main disease problems among beef cattle producers. These are mostly tick-borne diseases.

The outbreak of these diseases in the Eastern Cape is a threat particularly to the consumers and the farmers, as relatively few cattle survive. Disease also marginalises farmers from higher-price cattle markets and restricts their capacity for value-added trade. Diseases create multiple impacts by reducing calving, increasing mortalities in calves, increased veterinary care (which is costly), decreased herd size and decreased draught efficiency (Swallow, 2000). In the Elliot area common diseases are mainly tick-borne, consisting of gall-sickness, red-water and heart-water. Such diseases usually occur in rainy areas and spread between animals by the bite of infected ticks that result in heavy losses of animals, abortion to pregnant animals, appetite loss, and weakness in the body. Certain breeds of animals adapt well to certain environmental conditions, particularly Nguni cattle, as they are indigenous and resistant to disease (Muchenje et al., 2008:38).

As mentioned previously, Nguni types are not always suitable for meat production as they are small and may be inbred. These types of cattle are better when used in combination with other breeds (such as Bonsmara, Beef-master and Boran) to upgrade local stock and to prevent disease in this area. Poor veld conditions are another barrier to livestock improvement, as cattle depend on natural grazing, because many people cannot afford supplements.

2.4.2 Poor record keeping

Recording keeping is simply a collection of relevant information that can help a farmer to take good decisions and to keep track of activities, production and important events on a farm. However, reviewed literature (Lyimo, Mtenga, Kimambo, Hvelplund, Laswai, Weisbjerg., 2004:10) has indicated that keeping records is a problem as many of the farms are owned by older people who are illiterate. The livestock scheme has provided training that is supposed to facilitate skills for these
farmers. This training will play a role in keeping proper records and thus improving the sellability of cattle to markets.

Farm records should include crucial information such as herd dynamics; cattle mortality control mechanisms, general cattle production management and cattle marketing activities amongst others (Lyimo et al., 2004:10).

2.4.3 Lack of marketing information and problems with cattle identification

Lack of marketing information is a third main constraint to livestock expansion in the Eastern Cape Province, as cattle are sometimes owned by people who do not have access to information. Thus, Bailey et al., (1999:38) suggest workshops and training need to be conducted to provide smallholder farmers with information regarding prevailing production techniques and market conditions, type of products needed, quality, quantity, price and market opportunities. Smallholder farmers thus need to know the value of their cattle – in terms of meat, sales and breeding (Bailey et al., 1999:38).

Nowadays communication is provided through the use of telephone and cellular phone network facilities, as most people (even in rural areas) do have access to using cellular networks. Smallholder farmers can be informed in terms of new production techniques, market prices, trends and auction sale dates. Radio and personal communication are also still used as another source of information. However, access by smallholder farmers to radios, television and the internet is still limited, as more of them are in remote areas. In many cases such information would be irrelevant to the majority of smallholder farmers using their local language (isixhosa, isiZulu and Sesotho), as most media is broadcast and written in Afrikaans and English. Moreover, limited interaction of rural farmers with extension officers due to poor road networks and resources, also results in poor transfer of knowledge, skills and information (Coetzee et al., 2005).

A third problem that can be identified is challenges surrounding cattle identification. The Livestock Identification Act makes livestock branding and marking compulsory because it combats stock theft and makes it easier to recover stolen livestock.
Many small farmers, however, do not brand or mark their animals (USAID, 2003:66). This is mostly because the high cost of registering a unique brand, and the cost of branding equipment discourage many small farmers. Another reason that prevents branding is that stray animals on roads cause accidents, and owners may want to avoid the possibility of claims against them. Lastly, there is a lack of facilities to brand or mark animals. All of these have caused many farmers to be turned away from auction sales.

2.4.4 Lack of infrastructure

A fourth problem that prevents development of cattle owners in the Eastern Cape is a lack of marketing facilities, as mentioned previously. Marketing involves both physical infrastructure (communication, transport and roads) and institutional infrastructure (market information, security and animal disease control) (Mahabile, Lyne, Panin., 2002). Most smallholder farmers are located in remote areas that are isolated from major markets, where there is serious lack of both physical and institutional infrastructure and the roads are in very poor condition (NDA, 2005:5). For formal markets to reach such areas, it is very difficult, and if people do reach markets it results in high transactional costs (especially transport), reducing the price that auction buyers are prepared to pay for the cattle (Musemwa, Chagwiza, Sikuka, Frase, Chimonyo and Mzileni 2007:35).

In South Africa, lack of marketing facilities such as sale pens and loading ramps are some of the numerous factors that impose a serious constraint on smallholder farmers’ ability to market their cattle (NERPO, 2004). On the contrary, Fidzani (1993:15) reports that poor infrastructure does not influence cattle marketing since in most cases buyers provide their own loading and transport services. Comparatively, NERPO (2004:15), states that apart from the distance to formal markets, the poor state of road networks in South African communal areas imposes a serious constraint. It affects farmers’ ability to attract many buyers in their areas since bad road network systems are associated with very high transport costs.

There is thus a need for local governments, community members and stakeholders to collaborate in constructing and maintaining community infrastructures. The
involvement of community members can instill some sense of ownership and responsibility and enable them to maintain their infrastructure.

2.4.5 Lack of marketing herd size

A fifth problem that affects smallholders is that these farmers fail to attract buyers in their communities. This is due to a number of reasons, including lack of marketable livestock numbers and poor condition of livestock. According to Stevens and Jabara (1988:32), livestock numbers in small-holder farms and communal areas are generally low per producer and the average weight of animals are generally low compared to those of the commercial farming sector (Van den Bos, 2004; Dzimba and Matone, 2005). This is the result of animal disease, poor quality and inadequate feed, slow adoption of technology and diminishing plant and animal biodiversity (World Bank, 1998: 89). Lack of marketable livestock numbers and poor condition of livestock therefore result in buyers not coming to purchase at auctions or sales. The last problem that can be identified is poor grazing quality. According to Coetzee et al (2005:15), poor veld conditions are caused by overgrazing and lack of knowledge about rotational grazing.

In sum, all of these factors have a very negative impact for the farmers in accessing markets, as they are required to sell cattle of good quality and free of diseases (Muchenje et al., 2008:99). The poor condition of cattle – as well as old animals, has resulted in few buyers for herds of cattle, and this is frequently cited as a major reason for small scale farmers’ inability to access markets - speculators and auctioneers say that they cannot pay competitive prices for cattle that are in a poor condition (Muchenje et al., 2008). This leads to low prices, especially during dry spells.

2.5 The Livestock Improvement Scheme

This Livestock Improvement Scheme was initiated in 2005 by the National Department of Agriculture, Forestry and fisheries (DAFF) in collaboration with the Agricultural Research Council (ARC) in the Eastern Cape Province. This was created partly in response to the value of cattle in general, but also to address some of the abovementioned constraints. To most of South Africans, especially African
men, lack of cattle ownership is regarded as socially unacceptable (Muchenje, 2008:98). Under current conditions, where the cost of living is high all over the world, it becomes clear that the way in which the Africans have been farming needs to be revisited so that they can earn a decent income (living) from their cattle farming activities.

The establishment of the Livestock Improvement Scheme reflects the fact that the Eastern Cape is a leading province with high number of cattle, but they provide little or no contribution to the country’s GDP. Most cattle are owned by communal farmers in the old Transkei and Ciskei, who have a very poor resource base. Smallholders have little use of modern technology, a mostly undeveloped infrastructure, weak institutional support and low production levels, as well as lack of information necessary for farming for market economic participation and gain. Many of these challenges have been accredited to a strong legacy of the apartheid regime such as forced resettlement and betterment planning during the 1950s and 1960s.

The scheme has various aims. The first was to develop, change farming practices significantly and increase the economic benefits to smallholder farmers – it aimed to change the understanding of farmers about livestock farming so that they would be able to realise increased gains from the cattle industry. Secondly the Scheme aimed at the commercialisation of certain smallholder and communal farmers, to make them independent from donors and government funds in the long term, and enable smallholders to sell their cattle throughout the entire beef value chain. This includes feedlots, auctions, abattoirs and butcheries. Thirdly, the aim was to train beef cattle farmers about management practices, such as the importance of identifying cattle with branding and ear tags, keeping records (for production and sales), performance testing (through taking weights from birth up to 18 months) and training to improve access to marketing issues (Livestock Development Strategy, 2006: 13).

2.6 Role of training in improving skills and knowledge

Cattle in the Eastern Cape provide little or no contribution to the country’s GDP. Therefore, it was imperative for the Livestock Improvement Scheme to facilitate training to empower smallholder farmers through improving their knowledge and skills level. As indicated earlier, there is a great need for smallholder farmers to
understand the formal marketing process and be able to negotiate effectively with buyers. Such training has been conducted by having training days for smallholders, held by the Department of Rural Development, National Marketing Council and Agricultural Research Council. During September 2014 this included trips to commercial auctions and; abattoirs. A range of issues, such as grading and classification of meat, market systems and pricing were covered by the Department. One of the main issues was the importance of better herd profile balancing and increasing herd sizes so that smallholders can operate more efficiently. The training also emphasised the value of selling animals at a younger age than has traditionally been done (Livestock Development Strategy, 2006:13).

2.7 Summary

This chapter has indicated how cattle feature in the overall socio-economic history and livelihood scheme in the Eastern Cape. Cattle keeping is a tradition within the Eastern Cape rural systems and is one of the central agricultural enterprises that improve household food security in communal areas. This discussion has also highlighted major constraints hindering beef cattle farmers in accessing markets, including diseases, lack of marketing information, poor record keeping, poor cattle condition and lack of selling high volumes of cattle to formal markets. These factors have resulted for a very difficult position of farmers in their desire to access markets. Therefore, the solution seems to lie in addressing the neglected issue of cattle marketing, which can improve the viability of cattle production in the communal areas if overcome. This is precisely the goal of the government's Livestock Improvement Scheme in supporting farmers in the Elliot area.

This chapter has shown that smallholder cattle farmers in the Eastern Cape face many challenges that need to be addressed if this sub-sector is to play its rightful role in economic development of the Province. The next chapter will focus on reviewing the research methods used in collecting and analysing data from smallholder farmers in the Elliot area. The discussion will show how this study was conducted using the specific research tools for fieldwork and data collection.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter reviews the research methods used in collecting and analysing data from the smallholder farmers in the Elliot area. It is anticipated to show how the study was conducted using specific research tools. It starts by describing the study area, and then explains the research paradigm, methodology, design, sampling technique and the sample size from which data has been extracted. The methods of data analysis, a clear description of ethical considerations and how entry into the area was gained, will be provided.

3.2 The Study Area

The research study was conducted in the Elliot area. As mentioned, Elliot is one of the areas where there are a number of LRAD farms, as well as private farms (mostly owned by white farmers) as well as communal farms. This area has been chosen because black cattle farmers of Elliot battled to sell their cattle because they were not classified, not in good condition to be sold due to disease and farmers also lacked information on what the market requirements were for cattle sales (Bayer et al., 2004:7).

Elliot is a small town situated in the Sakhisizwe local Municipality in the Eastern Cape Province and is a farming area made of 156 farms, ranging from small holdings to communal farms of over 1,000 ha in size. Ownership structures of these farms vary from large Community Property Associations, Closed Corporations, Trusts, family groups and individual owners. Elliot is excellent in natural resources, such as climate, soil and water; more than 7,000 ha arable land, of which 1,000 ha is being used. It is an area with high numbers of livestock. 7,500 cattle, 16,000 sheep and 2,600 goats, but effective production is less than half the potential. The farms around Elliot have created approximately 300 job opportunities to jobless people by employing them as farm workers (Ikhephu Co-Op Report, 2012:12).
3.3 Research Paradigms

This study has utilised both the interpretive and descriptive paradigm to examine the effectiveness of the Livestock Improvement Scheme in supporting smallholder beef cattle farmers of the Elliot area. A paradigm is defined as a cluster of beliefs and dictates which scientists in a particular discipline use to influence what should be studied, how research should be done, and how results should be interpreted (Bryman, 1988:4).

Neuman(1997:18) states that descriptive studies most often involve quantitative research techniques or a combination of qualitative and quantitative methods. Descriptive research is conclusive in nature, because it gathers quantifiable information that can be used for statistical inferences on target audience through data analysis. This paradigm has been used as a method to reveal and measure the strength of a target group’s opinion, attitude, or behaviour with regard to a given subject. But another common use of descriptive research would be a survey of demographic traits in a certain group (age, income, marital status, and gender). This information could then be studied at face value, measuring trends over time, or for more advanced data analysis like drawing correlations, segmentation, benchmarking and other statistical techniques.

Based on the research study, the researcher has used the descriptive process to describe the level of beef cattle farming in the Elliot area, through describing how farmers are involved in beef cattle farming, and what their experiences, opinions and socio-economic backgrounds may be. Demographic characteristics such as identifying factors that could influence the farmers marketing strategies – including the availability and state of marketing infrastructure, the number of cattle, experience, household characteristics, cattle marketing and transaction costs were extracted from data.

The interpretive paradigm emphasises that the researcher should be fully involved in the research under study and must be close to the participants being studied. This paradigm will provide opportunity for the researcher to question and probe smallholder beef cattle farmers about their general feelings, concerns, milestones and their hopes in beef cattle farming. Thus, the interpretive paradigms’ main focus
is on collecting information from interviews with farmers about their perceptions of smallholder beef farming as well as the perceived effectiveness of the Livestock Improvement Scheme (Maaren, 1981:22).

3.4 **Research Methodology and Design**

According Collis and Hussey (2003:113) research design is defined as the science of planning procedures for conducting studies to get the most valid findings. Determining the research design provides a researcher with detailed planning which assists in providing guidance and focus for the research. Welman and Kruger (2001:46) further argue that research design is the plan according to which the researcher will obtain research participants and collect information from them and make their findings known.

The strength of the study’s findings is based on the methodology, the instrument and the approach used. The research design provides the overall structure for the procedures the researcher follows, the data to be collected and the analysis the researcher conducts (Leedy and Ormrod, 2005). This study had the basic portions: to evaluate the challenges facing smallholders farmers of Elliot; to assess the effectiveness of the scheme in support emerging beef cattle farmers in terms of the outcome and achievements of training, and to find out how beef cattle farmers benefited from the Livestock Stock Scheme. The research methods in terms of achieving the objectives of this study were based on mixed methods of qualitative and quantitative methods. The research is basically a descriptive and interpretive account of the effectiveness of Livestock Improvement Scheme (LIS) through narrative explanations of how the Scheme supports smallholder farmers. Moreover, what makes this research both qualitative and quantitative is that interviews and questionnaires were exploratory in enabling an in-depth explanation of issues raised regarding their experiences, feelings and what people think about LIS.

The qualitative research method normally relies more on verbal data than on numeric data and such data will be collected through the use of interviews. Quantitative research method relies on numeric data and will be obtained through the use of semi-structured questionnaires. In these questionnaires (see appendix 1) the questions revolve around the following: access to formal markets, reasons for
cattle keeping, challenges facing cattle, breed preferences, and land ownership etcetera. The following elements, namely population, sampling, data collection methods, as well as ethical considerations will be discussed (Creswell, 2008:10). Qualitative research methods was also used and data concerning the views of cattle farmers on how they perceive the importance of the Livestock Improvement Scheme in supporting them, and how training has helped in facilitating skills, was collected.

3.4.1 Populations to be studied and sampling

This research was based on a study of smallholder cattle farmers in Elliot area. The targeted number of black farmers interviewed was ten (two from communal land and eight males from LRAD/private land). Observations were done in auctions and abattoirs. All farmers were men, and their age ranged from 40 - 60 years old.

Sampling involved selecting a group of people, events, behaviours or other elements with which the study was conducted. For this research, probability sampling applied as livestock keepers and buyers were selected based on their wide experience and knowledge in livestock requirements and standards. Farmers were interviewed with the objective of gathering information on their experiences of smallholder marketing information needs. The primary focus was on collecting information from people who kept cattle on communal and private land. Communal farmers numbers two, while eight interviews were conducted with farmers on LRAD/private land.

3.5 Data Collection Tools

Bryman and Bell (2007) say that primary data is information that the researcher gathers on his/her own; for example by using interviews and questionnaires, while secondary data is the data from literature, documents and articles collected by other researchers. The tools used here provide the researcher with both quantitative and qualitative information on the subject under investigation. Data collection was collected over a one-month period. Data collection tools were interviews and semi-structured questionnaires.
Data collection points focused on the following:

Firstly, observation was done at cattle auctions conducted around the Elliot area, whereby conversation was done with the auctioners regarding what are the requirements that smallholder cattle farmers should be aware of when sending their stock to the auctions. Secondly, cattle dips were attended particularly in Elliot, where data concerning quality of herds was collected, as well as some interviews with animal technicians about possible diseases common in the area, and vaccinations.

3.5.1 Interviews and Questionnaires

The data collection procedure has been primarily through interviews and semi-structured questionnaires. Questionnaires were formulated from the literature reviewed and linked to the research question and designed to complement the interviews. A semi-structured questionnaire for participants was written in English; however the researcher explained each and every question to the participants and allowed them to reply in isiXhosa. All questionnaires were filled in by the interviewer.

In addition, semi-structured interviews were held with the targeted population stated above and conducted at their respective farming locations. Semi-structured interviews were face-face communication enabling clarification of questions and probing of respondents for accurate answers in the survey (Babbie and Mouton, 2001:34). In general, the procedure followed when conducting the interviews was aimed at facilitating the gathering of ideas, viewpoints, opinions, suggestions and comments from the farmers on the effectiveness of the Scheme in supporting them. Moreover, special care was taken during the interview sessions to ensure that respondents understood the issues.

The researcher has used triangulation, whereby follow-up questions and interviews were conducted with the respondents to clarify issues and to engage in deeper discussions on some of the issues raised. The researcher, however, ensured that only data relevant to the research was sourced, analysed and presented.
Interviews and semi-structured questionnaires collected:

- Information on herd structures (per species, demographic profiles, herd sizes and composition, breed (and their sources) and class), and demography (births, deaths, sales and purchases), herd history and genealogy,
- Reasons for keeping cattle, and for the lack of access to markets,
- Breed preferences and breeding practices,
- Impact of the livestock improvement scheme in supporting farming,
- Training in facilitating skills,
- Perceived importance of diseases affecting livestock
- Livestock keepers’ animal husbandry experience, as well as economic impact of cattle farming,
- Veld management practices (such as ticks, grazing and supplements),
- Management practices within the farm; for example, record keeping (production and sales records),

- Access of the livestock farmers to auctions or marketing channels,
- Measurement of how the respondents perceive the importance of the Livestock Improvement Scheme in supporting them (Muchenje, 2008).

3.6 Data Analysis

Babbie and Mouton (2001:108) argues that data analysis involves the breaking up of data into manageable themes, patterns, trends and relationships with the aim of understanding the various constitutive elements of the data. De Vos and Fouche (1998) elaborates that data analysis means categorising, ordering, manipulating and summarising the data to obtain answers to the research questions.

For the interviews, the researcher took notes on participants’ responses with a view of writing a report afterwards; however in preparation for the analysis the researcher had to repeatedly read the interview transcripts in order to get an overall understanding of the interviews and also become familiar with the data collected during interviews.
Firstly, part of the analysis involved ensuring that all responses were of a good quality. The researcher then analysed the responses of each participant in relation to the questions asked and responses were aligned to the objectives of the study. The interviews and semi-structured questionnaires were conducted both in Xhosa and English but they were to be transcribed in English. All the collected data from each farm/buyers was gathered, analysed and interpreted. The research questions were revisited/reformulated in accordance with the findings arising from the data analysis process (Welman and Kruger, 2001).

3.6.1 Validity and reliability

There are numerous ways and measures that are used to promote validity and reliability in the study. For this study, data triangulation was used and was defined as the use of more than one approach to the investigation of a research question in order to enhance confidence in the ensuing findings. It entails gathering data through several sampling strategies so that slices of data at different times and in different social situations, as well as on a variety of people, are gathered. Therefore, the researcher deployed multiple methods of data collection such as interviews and questionnaires to gather data.

A maximum sample population of ten people was covered to give credibility to the study and the main group of interest needed for this study were included. The fact that most respondents selected were part of in the implementation of Livestock Improvement was a plus for the credibility of findings to be presented here. Evidence was validated as knowledge through the following ways:

- Descriptive validity: an honest account of information sourced from respondents in the Elliot area were reported by the researcher in words and quotes.
- Interpretive validity: interpretive validity was ensured through a comprehensive integration of respondents’ experiences, opinions and thoughts by means of direct quotes, phrases and expressions as understood by the investigator.
Theoretical validity: the theoretical explanations developed in this study were used to determine if they will match the data to be collected from respondents in the Elliot area. Thus, it was to give credibility and validating findings as knowledge.

3.7 Ethical Considerations

As this study utilised human participants, the deliberation of ethics is indispensable for the purpose of ensuring the privacy as well as the security of the participants. However, the researcher applied the following during the course of the study: (i) the aim and objectives of the study as well as the procedures followed with all the participants involved on the research were clarified. Thus participants were given freedom of choice as to whether they wanted to participate or not and were guaranteed that the information would remain confidential and was solely for academic purposes; (ii) It was made clear to them that participating in the study was voluntary, and that should they for some reason want to withdraw from it, they had the right to voluntarily do so at any time; (iii) Participants were given ample time to respond to the questions posed to them to avoid errors and inaccuracies in their answers (iv) Their privacy was respected at all times and everything they shared was treated as confidential and (v) They were informed that they would not be in any way judged or discriminated against (Du Toit, 2002:110).

3.8 Summary

This chapter examined research methodology in which mixed methods (qualitative and quantitative), descriptive and interpretive paradigms were discussed in detail. This study employed a probability sampling and the data collection techniques used by the researcher were semi-structured interviews and open-ended questionnaires. Data analysis and ethical consideration were also tackled in this chapter. The next chapter concerns data analysis and presentation.
CHAPTER FOUR

FINDINGS

4.1 Introduction

This chapter aims to analyse the data obtained through the application of the research methodology that ranged from research interviews, questionnaires observation to document review. The first part of the chapter deals with biographical information of the respondents, while the second part provides an analysis of the results in the form of discussion.

This chapter is presented by means of a discussion of the topics; including the demographic profile of the participants, their farming operations (land owned, arable land and land for grazing, sources of income, reasons for keeping cattle, and feeding systems used by both small-holder farmers). It will further highlight the major challenges in cattle production and how such challenges can be solved, diseases common in the area and how these were controlled. The marketing of cattle will also be discussed; particularly what the market requires from sellers, which cattle marketing channels are used by Elliot farmers, and how farmers can be empowered to procure markets to sell their stock. This chapter will also discuss the overall impact of the livestock Improvement Scheme in supporting farmers, how farmers benefited from the scheme, types of breed, as well as training and management practices.

The literature will act as a means of providing the reader with greater insight into the findings. It should be noted that the discussion will be informed by the objectives of the research study, which is to investigate challenges facing smallholder beef cattle farmers who cannot access auction markets to sell their cattle in the Elliot area. The study is also an assessment of the effectiveness of the scheme in support of emerging beef farmers, finding out how beef cattle farmers benefit from the Scheme, and to determine the social, economic and environmental factors hindering beef production.
Therefore, the main focus of this chapter is to assess the effectiveness of the Livestock improvement scheme in supporting smallholder beef cattle farmers with reference to selected farms. The findings will provide answers to the research questions and aim to achieve the objectives of the study. The researcher will make use of pie charts, tables, and graphs to demonstrate the results.

4.2 Analysis of responses from beneficiaries

4.2.1 Demographic Profile

A total of 10 (ten) people were surveyed through the use of questionnaire and open-ended interviews. All respondents were asked to provide their biographical profile by indicating their age group, marital status, gender, race, occupation and highest level of qualification. Furthermore, all the interviews were held in private settings such as at the farms or homes of the participants, where they could be comfortable talking with the researcher, and enabled participants to raise their concerns about the effectiveness of the Livestock Scheme in supporting smallholder cattle farmers.

**TABLE 1. THE DEMOGRAPHIC PROFILE OF RESPONDENTS**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>LEVELS</th>
<th>NUMBER</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female</td>
<td>2</td>
<td>20%.</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>8</td>
<td>80%</td>
</tr>
<tr>
<td>Age</td>
<td>21 – 29 years</td>
<td>1</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>30–39 years</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>40- 49 years</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>50-59</td>
<td>4</td>
<td>40%</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Single</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Widowed</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>Employment</td>
<td>Self-Employed</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>Employed</td>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Black African</td>
<td>8</td>
<td>80%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>-------</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>2</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>No formal education</td>
<td>0</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Grade 7</td>
<td>1</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Grade 12</td>
<td>5</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Tertiary</td>
<td>4</td>
<td>40%</td>
<td></td>
</tr>
</tbody>
</table>

Both men and women were engaged in cattle farming; however out of 10 people interviewed, men constituted 80 per cent and females constituted only 20 per cent of the sample. Without generalising, it is indicated that cattle ownership/farming in Elliot area is dominated by men. However, this is not surprising given the legacy of associating cattle with men.

The findings as presented in Table 1 above show that the modal age group was between 50-59 years. A total of 40 per cent of the cattle owners interviewed were between 50-59 years, 30 per cent between 40-49 years, 20 per cent between 30-39 years, while the other 10 per cent of the cattle owners was between 21-29 years. These statistics indicate that interest in cattle farming, as it is generally so in agriculture, is mostly shown by the older generation with young people showing little interest.

From the 10 cattle owners interviewed, 50 per cent were married, 30 per cent single and 20 per cent were widowed. Particularly, married couples do give support to each other, for example, they are able to share household/farming activities such as herding of livestock and other farming activities.

Moreover, the majority of cattle owners (80 per cent) were black, with 20 per cent being the white abattoir owners. In terms of qualifications, only 50 per cent had grade 12, while 40 per cent have a tertiary educational diploma in agriculture and 10 per cent with grade 7 education. Education qualification can have an impact on livestock improvement and high levels of education may mean readiness to adopt new technologies to improve cattle farming production. In addition those with high levels of education may be willing to participate in livestock improvement programmes, farmer’s days, workshops and training related to improving cattle farming.
4.2.2 Land ownership and use for both communal and LRAD/private farmers

<table>
<thead>
<tr>
<th></th>
<th>Total average land owned</th>
<th>Total average land arable</th>
<th>Total average land for grazing</th>
<th>Average in years of cattle keeping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communal Farmers</td>
<td>5</td>
<td>146</td>
<td>372</td>
<td>10.9</td>
</tr>
<tr>
<td>LRAD/Private Farmers</td>
<td>518</td>
<td>146</td>
<td>372</td>
<td>10.9</td>
</tr>
</tbody>
</table>

**Figure: 1. Land ownership and use for both communal and LRAD/private farmers**

The bar graph above reveals that all the respondents interviewed were involved into two different types of land - these being LRAD/private farms and communal land. The average total land owned by the LRAD/private farms was 581 ha$^2$ and communal was 4 ha$^2$. This reveals that LRAD/private farmers own much bigger parcels of land than those farming on communal land. The increase in average number of hectares owned is due to the fact that most of these farms were purchased by the Department of Rural Development and Land Reform and were allocated to the farmers based on their number of livestock they claimed they possessed, versus the carrying capacity of the farm.

The communal participants indicated that owning little land was not economically viable for cattle production especially if producing for mainstream markets. They further indicated that small farm size, as in communal areas, could result in overgrazing caused by poor grazing management, and thus poor condition of cattle. However, all the cattle owners interviewed had been in farming for a relatively long period of time, ranging from five to ten years. This is clearly an assurance of general farming experience within the cattle industry.
4.2.3 Sources of income

![Pie chart showing contribution of livestock and crop production to livelihoods]

Figure 2: contribution of livestock and crop production to livelihoods

The household income of the cattle owners interviewed is drawn from two main sources, namely crop production, and livestock. The line graph below shows the percentage contribution of different sources to the total annual household cash inflows for the cattle owners. It has been indicated that livestock (80 per cent) plays an important role in sustaining livelihoods of the cattle owners, while crop production contributes 20 per cent.

4.2.4 Distribution of cattle ownership

![Bar chart showing total herd sizes]

Figure 3: Total herd sizes owned by both farmers
In a population of 10 smallholder cattle farmers interviewed, communal farmers owned total cattle herd of 58, while LRAD/private farmers owned 995. The average for communal farmers was thus 5.8 cows per owner, and for private farmers this was 16.

4.2.5 Reasons for keeping cattle

![Figure 4: Reasons for keeping cattle](image)

In a population of 10 smallholder cattle farmers interviewed, reasons for keeping cattle are depicted by the above pie chart. There are multiple reasons why farmers keep cattle. With reference to figure 4, the main reason why Elliot farmers keep cattle was for income generation. This means that cattle can be sold at a certain negotiable price and an individual gets money.

About 26 per cent of the respondents indicated that they kept cattle for family consumption (provision of milk and meat). In the area, cattle played a very important role in crop production, 9 per cent of the respondents indicated that they used cattle for draught power, or for ploughing fields. The farmers could not afford to purchase or hire tractors for ploughing, so they depended on draught animals for a cheap and most affordable source of power to drive their farm activities. Only 3 per cent of the farmers indicated that cattle were a source of wealth. The other 3 per cent indicated that cattle were for traditional purposes such as ceremonies.
4.3 Challenges faced by cattle owners

This section deals with challenges and solutions as perceived by respondents. There are ten key challenges identified by the respondents, which will be discussed below with possible solutions.

4.3.1 Shortage of land for grazing

One of the most pressing challenge identified by the communal farmers, was the lack of land for grazing. The reason for the problem is that where they are farming there is no boundary fencing dividing the land. Thus lack of land is aggravated by lack of grazing control and proper land administration. Another problem identified resulting in the land shortage was that informal settlements, mainly for residential purposes, were established on the grazing and commonage and fences that divided grazing camps were cut and removed. Thus resulted in ‘a free flow of cattle’, and limited land for grazing, and more stock theft.

Moreover, it was reported that before the advent of democracy, especially in the communal areas, there was rigorous control of grazing by Tribal Authorities, who worked closely with agricultural officers and a ranger. People reported that this did not occur currently.

Some 80 per cent of the cattle owners reported that their cattle graze in grazing paddocks, which are fenced, while 20 per cent of communal farmer’s cattle graze freely. It was observed that in the communal land there were no camps where the cattle can graze. Even when communal farmers do have recognised breeds of cattle such as Bonsmara, it was difficult to control the breeding. The result was that all the cattle dominating in communal land were indigenous breeds of cattle - respondents indicated that if a farmer wanted to change the herd to be Bonsmara (for instance) it would be difficult because cattle graze together and are not camped. One of the reasons for this, was that communal farmers say there were not financial assisted by the state for fencing materials; so that the camps can be fenced. However, even though their grazing systems were different, both communal and LRAD/private farmers used a common source of feed for cattle, this being natural pasture such as grass. Further, it was indicated that their pastures deteriorated in the winter seasons.
and they had to buy supplements to feed the cattle. Communal farmers indicated that buying supplements (such as licks) was very difficult for them as they did not have the funds.

4.3.2 Stock Theft

Stock theft was identified as another pressing challenge smallholder cattle farmers are faced with, especially the communal farmers. Farmer from the communal areas associated cattle theft with the absence of fencing. They said that it was easy for thieves to access cattle during the day when cattle are grazing in communal grazing land.

The other reason contributing to stock theft is that most farmers leave their cattle alone on the mountains especially in winter, making it difficult to know when exactly their cattle were missing. Farmers indicated that they only noticed if cattle went missing when they took them to the dipping tank, which is once a month. These stolen cattle are regularly smuggled across borders to Lesotho, where they are sold to generate income. The solution provided was the presence of a stock inspector.

4.3.3 Drought /Poor veld condition

The findings show that the majority of farmers depend on natural veld to feed their cattle and that farmers experience feed shortages especially in winter. Therefore, poor feed quality is a common challenge for smallholder cattle farmers in Elliot, where grazing lands are becoming degraded. Poor veld conditions were indicated to be caused by overgrazing and due to lack of knowledge concerning the practice of rotational grazing. Further, respondents claimed that previously, they used to practice rotational grazing, where some camps were rested in anticipation of, and preparation for, leaner periods, including winter and drought.

Drought and poor veld have been identified as having a very negative impact on farmers in accessing markets, as they are required to sell cattle of good quality. The farmers provided solutions for the challenge of cattle feed by stating that government should assist them with supplementary cattle feed to improve the condition of their
cattle; and feedlots should be created where farmers could send their cattle to be fattened up.

4.3.4 Ticks

Ticks have been identified to be another major challenge among smallholder farmers. Respondents reported that these ticks cause diseases such as gall-sickness, red-water and heart-water. It was mentioned the diseases would spread between animals by the bite of infected ticks, and resulted in heavy losses of animals, abortion to pregnant animals, appetite loss, and general weakness in the body. Farmers indicated that in the past, the apartheid government used to support farmers with veterinary support such as dipping of cattle for ticks and vaccination.

However, currently many farmers indicated that they were using pour on dip to dip their cattle and was bought by themselves. Although, there were dips available and used to take place every second week of each and every month. They reported, most farmer have refused to use it, because the Department of Agriculture was only providing one type of dip, of which some of the ticks were resistant to be removed as they were used to it. With the pour on, they were able to change type of dip.

The solution provided was that government should provide animal health vaccination programme for farmers as to know when to vaccinate against what disease. Also it was proposed that farmers should collectively contribute a certain amount of money in order for them to buy medication for dipping cattle.

4.3.5 Farmers as price takers

It was reported that smallholder farmers are price takers, meaning that they just generally accept whatever price the abattoir owner is willing to pay for their cattle. They have no say in influencing the price they want to receive from their cattle because they didn’t understand the market requirements. Therefore, it was difficult for them to resist this since the abattoir was their only market channel available in order for them to sell their cattle.
The respondents indicated that if they knew what the market required, it would be better; as they would be more aware of what condition and age- cattle could be sold. Market information is vital as it allows farmers to take informed marketing decisions. Therefore, the solution to the problem identified, was that there is a need for the smallholder farmers to be trained on what the market requires.

The respondents did indicate some degree of understanding and knowing what market needs were, However, the key findings revealed that the majority of farmers were not aware of the quality criteria used by buyers when determining prices for cattle. The solution provided was that accessibility to market information was vital; and that government officials should help and train them on market related issues.

4.3.6 Problem with cattle identification

The respondents claimed that another challenge was that their cattle are not identified through branding. They further indicated that identification via branding is one of the major market requirements taken into consideration when farmers are selling their cattle to the abattoir. According to the Livestock Identification Act, each and every farmer has to apply for a branding certificate and that this certificate, after approved, will contain letters that a farmers should use to brand his/her cattle.

However, the respondents claimed that most of them do not brand their cattle. This was because farmers want to avoid the possibility of claims against them, particularly for those farms located close to the roads and who have stray animals who caused accidents. Branding as one of the key requirement for markets and abattoirs to verify if the cattle being sold belong to that farmer or not.

4.3.7 Lack of infrastructure

It was reported that a lack of infrastructure also prevented people for accessing markets-including a lack of communication, transport and reliable roads. Respondents from the LRAD/private farms indicated that some of their farms were situated in remote areas from market places, and roads are in very poor condition. This has caused farmers to transport their cattle to the market places in order for their cattle to be sold. As result, this has caused increased in transaction costs.
4.3.8 Transaction costs

Transaction cost was reported to be another challenge facing smallholder farmers. Transaction costs increased because farms were in remote areas where there is no road, making it difficult for the buyers to reach their farms and abattoirs. The farmer provided the solution that the formation of cattle marketing groups can lower transaction costs, and thus increase access to information and participation in formal markets.

4.3.9 Lack of physical access to markets

Lastly, lack of physical access to markets was also a main challenge facing farmers. Respondents indicated that in Elliot there is only one market channel available which was the abattoir, so most farmers depend on it. One of the quotes from the respondents is as follows:

“The only market channel we are selling to is the abattoir, however at the same time it’s a challenge as Elliot has about 100 farms and we all depend on it. Sometimes it happens that you wanted to sell 50 weaners (calves) but they won’t buy all of them.”

The solution provided is that one stakeholder cannot improve smallholder cattle marketing but joint interventions by various stakeholders such as non-governmental agencies and private sectors may play a major role on improving the current situation on formal marketing of cattle by smallholder farmers.

4.4 Marketing requirements and breed preferences

The Elliot farmers have shown that they had different preferences for breed types. Some 80 per cent of the respondents preferred exotic breeds such as Bonsmara and Brahman and these were the most dominant on their farms. The reason behind these preferences was that breeds such as Bonsmara and Brahman were seen as good breeds with a large body frame, meant for meat, and also reached the weaning stage earlier than local Nguni breeds. 20 per cent of respondents preferred local cattle breeds such as indigenous cattle and Nguni. These have small body frames, and make a noise when they are being slaughtered for rituals, which was highly
desirable. Nguni also have the ability to grow and reproduce under low input systems; they adapt well in local conditions; and they can withstand spells.

The main marketing channels for farmers were abattoirs, private sales, and speculators. Each individual farmer had some reasons in relation to the choice of the marketing channel. The majority of the respondents (80 per cent) sold their cattle through the abattoir, which was easily accessible and reliable. Even though there were some disadvantages such as transport costs. As mentioned, some cattle could be rejected as the abattoir has to fill a specific amount of animals, or cattle were below a certain weight, had no branding or was too old.

Only 20 per cent of the respondents sold their cattle through private sales and speculators and they indicated that they are satisfied with the use of these channels. There were no delays in payments, the buyers just pay on the spot and they usually determine the price. The respondents indicated that most of the cattle sold through these channel are mainly for functions such as traditional ceremonies, funerals and weddings. Moreover, the respondents indicated that private selling was the simplest form of marketing cattle since the buyer just comes and buy from the seller's kraal. No transport costs were therefore incurred.

80 per cent who were selling their through abattoir indicated they were satisfied, because they were able to sell more than ten cattle at once; even though market requirement were not understood. They further indicated that cattle were sold based on formal market requirements such as breed, age, identification, price per kilogram, and weight of the cattle.

### 4.4.1 Breed

The auction and abattoir buyers indicated that breed type is one of the market requirements they take into consideration when buying cattle from the farmers. They indicated market price differs per type of breed; the price for Bonsmara cattle, for example, was not the same as for Brahman. They further reported that some farmers from the Elliot area do still farm with non-descript or indigenous breeds, hence such breeds. This was a huge barrier to farmers in obtaining a good price.
The below are most dominating, known and loved breeds by beef cattle farmers. The respondents from the LRAD/private farms reported that they choose to farm with Bonsmara and Brahman because of their features such as high fertility, successful adaptation to most environments, ease of calving and ability to thrive in hot, dry regions. Further, it was indicated that with Bonsmara and Brahman they didn’t usually have to buy supplementary feed during drought.

1. Bonsmara Breed

2. Brahman Breed

4.4.2 Age

In terms of age, it was reported that as cattle grows older they lose value; therefore the price of an animal was determine by the price per kilogram (kg). For instance, it was observed that the price per kilogram of weaners (calves at 7 month of age) was more expensive that older cattle because of the quality of the meat. The price of weaners ranged from R21.00 per kilogram and this had to be multiplied by the weight of the weaner calf. Below is a picture of a group of weaners that were sold at the abattoir by farmers from the LRAD/private farm.

For older cattle, the price per kilogram was lower and usually ranged from R9.50, which was to be multiplied by the weight of that animal.
The following table and pictures were from a stock sale at Andrews’ abattoir in Elliot. It shows how the price of a weaner and old cattle was determined.

**TABLE: 2 WHAT DETERMINE THE PRICE OF A CATTLE**

<table>
<thead>
<tr>
<th>Cattle type</th>
<th>Kilogram per type of cattle</th>
<th>Live weight</th>
<th>Price of cattle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weaner</td>
<td>R21.00</td>
<td>210</td>
<td>Price per kilogram multiplied by live weight: R21.00 X 210. Price of a weaner calf =4410</td>
</tr>
<tr>
<td>Old Cattle</td>
<td>R9.50</td>
<td>400</td>
<td>Price per kilogram multiplied by live weight: R9.50 x 400 Price of an old cattle =3800</td>
</tr>
</tbody>
</table>

Therefore, it was observed that weaners are ones that have high price in the market compared to the old cattle. Below is a picture (1) of seven months weaners that were in a process of being sold at Andrew’s abattoir in Elliot.

![Seven months weaners](Picture1.jpg)

Picture 1: Seven months weaners
4.4.3 Identification through branding

As mentioned previously, Identification through branding was also an important market requirement because the buyers needed a valid proof that the cattle were owned by the seller and that cattle were not from other areas. Cattle identification was identified as a legal requirement in South Africa, and it was observed from auctions sales that the majority of farmers do not comply with this legal requirement—whether in the form of branding or ear tagging. This has a direct cost implication in terms of participation in the mainstream markets (Department of Animal Health and Production 2007).

There are some reasons why farmers do not brand their animals. Many were reluctant to register a unique brand because of the costs (R100) of registration and branding equipment; owners were also reluctant to register their stock in the event of legal claims being lodged against them because of a traffic accident.

4.4.4 Strategies for improving cattle marketing

Respondents in Elliot have mentioned some strategies which can play a role in developing the smallholder cattle farmers of Elliot. As observed, the majority of smallholder farmers do not really understand the market requirements. Therefore, it was suggested that smallholder farmers need to have exposure to the formal markets and trained by Agricultural Research Council on markets related issues.

Another strategy suggested by farmers was the formation of small farmers’ groups or associations, and respondents claimed that this could have the potential to increase their participation in formal markets. This was reported by David, Reardon, and Hopkins (2005) because it was going to lower transactions costs and access to information could be increased.

David further argues that the market and bargaining power that a farmer can receive in a small group of between two to five farmers is obviously less than that from a larger group. By aggregating into larger associations such as inter-group associations, small scale farmers have the potential to achieve even greater economies of scale in accessing services, information, infrastructure and markets.
As far as transporting cattle is concerned, costs can be easily cut if these groups use the same transport to the market. By transporting in bulk they stand a better chance of getting good discounts from service providers.

Respondents from the communal land suggested that they should at least sell in groups, to prevent issues of a buyer coming to buy a few cattle from one farmer, rather than coming to a group of farmers with large numbers of animals. However, they further reported that the auction/abattoir buyers prefer buying in large numbers.

The respondents reported that if the government can at least organise auctions sales twice a month, this could also increase the number of farmers having access to sell their stock. Moreover, establishment of feedlots reported to be another strategy to develop the smallholder cattle farmers of Elliot.

Furthermore, it was also reported that attention must be given to improvement of infrastructure and formulation of new and amendment of current marketing policies as well as institutional reforms to ease constraints on market involvement. Respondents have also mentioned that some of the farmers do not have access simply because of poor auction pens.

They also mentioned that decentralisation of livestock markets and the wider dissemination of well updated information to small scale farmers by the government and other stakeholders involved in agriculture can play a role in improving small scale farmers' access to formal cattle markets. The provision of market information will strengthen farmers' negotiating ability during transactions with auction/abattoir buyers.

An adoption of a market orientated production programme, involving the timely mating and weaning of herds, could vastly improve cattle marketing. If buyers are able to provide a product characteristic in terms of quantity, quality etcetera, the extension service can be able to advise farmers based on the market demands. Well informed extension staff can play an important role at livestock auctions by advising individual farmers on issues pertaining to procedures, language used and the bidding system at auctions. The frustrations often expressed by farmers and
auctioneers can be overcome to a large extent, thus creating an enabling environment for all participants.

4.5 **Role of Livestock Improvement Scheme (LIS) in supporting smallholder cattle farmers**

Marketing was indicated as among major challenges affecting the farmers in the Elliot area. Their willingness to sell in formal market was diminished by number of challenges among those being transport, lack of marketing information and farmers were price taking. However, the livestock Improvement Scheme had a significant impact in supporting and developing the farmers through training. Majority of the farmers have adopted the formal marketing channels. Moreover; this could significantly increase the number of animals recorded in the surrounding abattoirs, hence the accuracy of the livestock numbers slaughtered will be improved.

Moreover, the Scheme has achieved it main aims which were; to enable farmers to understand the structure, operation and requirements of formal red meat markets; providing initiatives to develop marketing channels that will increase their participation in formal red meat markets; providing practical training on management practices such branding, ear tagging, dehorning and weighing of calves from birth to 18 months of age; and to providing practical assistance to align the age, health and breeding of animals.

4.6 **Farmers’ perceptions about the Scheme**

The respondents reported that the Livestock Improvement Scheme was a good programme which could change their livelihoods for the better. Another perception about the Scheme was that it should be manned by people who were willing to work closely with them so as to solve problems farmers are faced with, and who are able to monitor and evaluate improvement among the cattle owners.

It was observed that communal farmers are resistant to change, and have little understanding that with their cattle, they could be able to generate income. However, they indicated that they see their cattle as a source of wealth in cases of emergency (to send a child to school or to buy veterinary services for common diseases at that
Further it was observed that they are still farming using the old way (have no vision). The following was a quote from respondents:

“It might be a good programme, but as communal farmers we are farming to be recognised within the area, for our forefathers’ names not to be erased and be able to use the cattle for draught purposes”

4.7 Why this is an important intervention?

It was reported that there are far more smallholder cattle owners in what were the ‘Bantustans’ under apartheid than in the former ‘white rural areas’ and that cattle production is the most important source of income from agriculture in most of the former Bantustans. Yet research carried out by the Agricultural Research Council (ARC) in 2000-2001 showed that farmers in the Eastern Cape earn far less income from their cattle assets than commercial farmer.

It was an important intervention, because farmers reported to be farming using the old technology, and most of them especially the communal farmers are still resistant to change; and not knowing that with what they have(cattle production) they can generate income. Therefore, the Scheme has been a good intervention among the farmers; for example they were trained on management practices such as keeping records, cattle identification with branding, taking calves’ weights from birth up to the weaning(checking their growth) and training conducted on market related issues such quality criteria used in the formal markets. Thus, the Scheme is trying its best to develop the farmers and manage their stock and be able to earn higher prices. The Scheme also assists farmers to translate market information into the improvement and expansion of their livestock asset base.

4.8 Discussions

This section dealt with the objectives and research questions of the study. Each year government provide livestock and farms to the people. Such people were never checked if they do have background in farming, cattle they possessed and never trained on how to manage those cattle. This is very likely to result from lack of farming experience and skills. Therefore, even though smallholder cattle farmers
found themselves in a difficult position in accessing the market; understanding and knowing what the market requires was important.

The study found that cattle in Elliot were highly valued for social, economic and traditional reasons. There willingness to produce for the market was hindered by number barriers such as few formal markets available, lack of marketing information, stock theft, drought, diseases, and poor conditions of cattle. Moreover, farmers especially the communal farmers were also not eager to use the formal market whenever they sell their cattle due to lack of trust in traders, low price offered to them, low herd size they have and multi-purpose use of their cattle. While LRAD/private farmers were willing to sell through formal markets. However, this study found that communal and LRAD/private farmers have differences as to where they prefer to sell their cattle.

Therefore, the livestock stock programme had a significant impact in developing the smallholder cattle farmers. Their training on market related issues and practical on cattle identification with branding and tags, as to fight against stock theft had a huge impact. As farmers began to meet some of the market requirements and were able to generate more income from the stock for their livelihoods.

4.9 Summary

This chapter focused on the presentation, analysis and discussion of findings as they related to demographic characteristics, reasons for cattle keeping, average total herd sizes owned by both farmers, role of the scheme in supporting smallholder cattle farmers and why it was an important intervention. The scheme has made a significant impact in developing farmers as could be noted by increase in formal market participation, production and better understanding on what the markets requires.
CHAPTER FIVE

CONCLUSION, SUMMARY AND RECOMMENDATIONS

5.1 Introduction
This chapter will present a summary of the findings as well as recommendations on the empirical findings presented in the preceding chapter. However, the study has endeavoured to answer the research questions posed in Chapter 1. These were:

1. How can emerging beef farmers in Elliot be developed to source markets to sell their stock?
2. What is the effectiveness of the Livestock Improvement Scheme in supporting emerging beef farmers?
3. What are the major challenges that farmers of Elliot are currently facing with regard to stock?
4. What are the farmers’ perceptions about the cattle Improvement Scheme?
5. Are the farmers themselves willing to produce for the market? If not what are main reasons that make farmers lack willingness to involve themselves in the formal marketing of cattle?

5.2 Summary of the main results
This chapter has made observation that LRAD/private farmers and communal farmers have differences especially in participating to the formal markers. Communal farmers reported to be those people farming on a communal land where there are no camps, their cattle were grazing freely. While LRAD farmers reported to be those people who got the farms through Department of rural development and land reform. They lease the farms for a period of three to five years.

LRAD was a programme within the Department of Rural Development and Land Reform, introduced in 2001 to provide the previously disadvantaged black people with land to farm. LRAD programme reported to have an effect among the smallholder holder cattle farmers, as they were placed on the farms without trained on cattle farming. All the respondents interviewed reported that in order for a farm to succeed in its operations business skills were important. Lack on training and skills
reported to be contributing to the dysfunctional farms; as some of farmers given the farms had no farming background. While, private farmers are the ones that bought farms themselves.

Both the study and literature reported that cattle keeping among the famers differ. Among the communal farmers ownership of cattle was associated with wealth storage and savings, draught power, manure and milk production and customary ritual purposes (Chimonyo et al., 1999; Dovie et al., 2006; Simela et al., 2006).

Further, it was revealed that communal farmers cannot take part into the formal marketing channel. It was clear that communal farmers are so cultural embedded in cattle keeping. Marketing of cattle among them occur occasionally, and preferred to market through local/informal marketing channels such a private sales and speculators; due to the following reasons: no delays in payments no transport costs involved and its them who determine the price. Conversely, to them the use of the formal market channel was the last resort that is undertaken when an emergent cash household need arises and when a local buyer is not available to buy cattle from a farmer that is selling one.

LRAD/private farmers reported that they prefer to sell through formal markets such as auctions and abattoirs. Although farmers were willing to produce for the market, there were other main reasons that make farmers lack willingness to involve themselves in the formal marketing of cattle. For instance, communal farmers did not want to participate in the formal market because they own low numbers of cattle, and low price offered to their cattle and multipurpose reasons that cattle play in farmers’ livelihoods was the second reason for not willing to participate in the formal market.

Although the LRAD/private farmers participated, they are faced with major market constraints such as lack of marketing information, lack cattle identification with branding and ear tags, lack infrastructure (as most of farms were in located remote areas, where there is no road and making it difficult for the buyers to reach them), drought, diseases, poor condition of cattle Furthermore, it was indicated that selling through formal markets had the following advantages: farmers were able to sell cattle in large volumes(Coetzee et al, 2005 ). Further Coetzee et al, (2005) revealed
that marketing channels for smallholder cattle farmers do exist, however understanding and knowing what the market wants is important.

Moreover, it was reported that LIS has an impact in developing smallholder cattle farmers, however there were also strategies identified that could help such as formation of farmers association so that farmers could sell in groups, establishment of feedlots as to fatten up the cattle poor in condition, training as to expose farmers to market related issues, government should also organise auction sales twice a month, because it was indicated that abattoir was the only market channel available in Elliot.

5.3 Conclusion

Marketing was indicated as being among the major challenges affecting the farmers in the Elliot area. Their willingness to sell in formal market was diminished by number of challenges among those being transport, lack of marketing information and farmers were price taking. LIS had a significant impact in developing the farmers through training. Majority of the farmers have adopted the formal marketing channels. This could significantly increase the number of animals recorded in the surrounding abattoirs, hence the accuracy of the livestock numbers slaughtered will be improved.

5.4 Recommendations

The findings revealed in the previous chapter that there are considerable challenges facing the smallholder cattle farmers of Elliot area. However, those challenges are key limitations to the development of small farmers and accomplishing of the Livestock Improvement Scheme’s objectives.

Such challenges are practical in nature and need to be addressed; through a joint effort by the government, small scale farmers, and auctioneers/private speculators. The following are the recommendations that should be taken into consideration.

- It is recommended that training of smallholder cattle farmers in managerial and marketing practices are done to enable farmers to produce cattle of the
quality required by the market and to allow farmers to understand how the market operates and how prices are determined.

- Due to the high rate of stock theft, patrols should be provided and cattle must kept in the kraals so as to note when they went missing.

- The poor condition of the cattle among the small farmers needs to be improved through the establishment of feedlots to fatten and finish up the cattle.

- Elliot has been indicated to be area with tick infestation, therefore farmers should practice an animal health vaccination programme all year round.

- The officials from various relevant government and private sectors should organise auction sales often and be able to convince the farmers to sell in groups to meet the auctioneers’/ buyers’ objectives.

- There is a greater need for the improvement of institutional arrangements in order to increase the supply of cattle from the smallholder farmers to the market. However, such improvements should include the provision of essential facilities and services at market outlets, the inspection of cattle prior to marketing, the tarring of roads, and strict regulations on cattle delivery.
REFERENCE LIST


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Annexure A. Interviews and Questionnaires

SECTION A

Interview questions for Beef Cattle Keepers

1. Biographical Data

1.1. Sex M [ ] F [ ]

1.2. Marital status    Married [ ] Single [ ] Divorced [ ] Widowed [ ]

1.3 Age   21-29 [ ] 30-39 [ ] 40-49 [ ] 50-59 [ ] +6 [ ]

1.4 To which ethnic origin group do you mostly belong: Black African [ ] White [ ] Coloured [ ] Indian [ ] Other specify [ ]

1.5. Highest level of education. No formal education [ ] Grade 7 [ ] Grade 12 [ ] Tertiary [ ]

1.6 What is your main occupation? .................................................................

1.7. What is your religion? Christianity [ ] Traditional [ ] Muslim [ ] Other (specify)

1.8 How much land do you own (ha).................................................................?

1.9 How much land is arable (ha).................................................................?

1.10. How much land is used for grazing (ha)....................................................?

1.11. Is grazing communal? Yes [ ] No [ ]

1.12. What type of livestock species do you keep? (Rank 1 as the most important species)

<table>
<thead>
<tr>
<th>Class</th>
<th>Cattle</th>
<th>Goats</th>
<th>Sheep</th>
<th>Chicken</th>
<th>Other(specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

54
1.13 What are your sources of income? (Tick first column as appropriate and rank 1 as the most important income)

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount Raised</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Livestock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salary/Wages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHER(SPECIFY)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION B

2. Cattle composition and gender roles

2.1 What is the composition of your cattle herd? Calves (<7 months) ☐ Heifers ☐ Steers ☐ Cows ☐ Oxen ☐ Bulls ☐

2.2 How did you acquire your cattle? Inherited ☐ Given ☐ Bought ☐ Others (specify)........

2.3 Why do you keep cattle? (Tick one or more) (Rank 1 as the most common use)

<table>
<thead>
<tr>
<th>Use</th>
<th>Rank</th>
<th>Use</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat</td>
<td></td>
<td>Sales</td>
<td></td>
</tr>
<tr>
<td>Milk</td>
<td></td>
<td>Status</td>
<td></td>
</tr>
<tr>
<td>Draught</td>
<td></td>
<td>Power Dowry</td>
<td></td>
</tr>
<tr>
<td>Manure</td>
<td></td>
<td>Ceremonies</td>
<td></td>
</tr>
<tr>
<td>Skin</td>
<td></td>
<td>Other(Specify)</td>
<td></td>
</tr>
</tbody>
</table>
6. For how long have you been keeping cattle? <5years □ 5-10years □ >10years □

**SECTION C**

4. Cattle Management

4.1 What type of feeding system do you use?

Herding □ Paddock □ Stalling □ Yard □ Free grazing □ other (specify) .......

4.2 What are the sources of feed for your cattle? (Tick 1 or more)  Veld Pastures □

Conserved feed □ Crop residues □ Bought-in feed □ other (specify) .......

4.3 How do you evaluate the condition of the veld? ..............

4.4 How do you describe the condition of your grazing lands?

<table>
<thead>
<tr>
<th>Condition</th>
<th>Tick</th>
<th>Condition</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely deteriorating- very poor</td>
<td></td>
<td>Good- plenty of grass</td>
<td></td>
</tr>
<tr>
<td>condition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>little grass</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deteriorating- poor condition but some</td>
<td></td>
<td>Very good- improving</td>
<td></td>
</tr>
<tr>
<td>grass</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fair- reasonable amount of grass</td>
<td></td>
<td>I don’t know</td>
<td></td>
</tr>
</tbody>
</table>

4.5 What are the reasons that have led to the current state of rangelands? (Tick 1 or more)

Poor grazing management □ Fire □ Poor soil □ Low rainfall □ Bush encroachment □
4.6 What problems do you face in cattle production? And rank them according to their order of importance………………………………………………………………………………

4.7 What are the possible solutions to the problems you have mentioned above?
………………………………………………………………………………………………

4.8 What is the general body condition of the animals? Very poor □ Poor □ Good □ Excellent □

SECTION D

3. Disease management – tick control (Dipping, Pour on)

3.1 Which diseases are the most common in the area……………………………………….?

3.2 How do farmers manage disease and how prevalent is different diseases in their herd……………………………………………………………………………………………...

SECTION E

4. Marketing of Cattle

4.1 How many cattle did you sell in the past 12 months?
………………………………………………………………………………………………

Calves (<7 months) □ Heifers □ Steers □ Cows □ Oxen □ Bulls □

4.2 What were your reasons for selling?

Age □ Culling □ Emergencies □ Cash □ Other (specify □ ) ...............
4.3. Which channels did you use to sell your cattle? (Rank 1 as the most used channel)

<table>
<thead>
<tr>
<th>Marketing channel</th>
<th>Rank</th>
<th>Who determines the price</th>
<th>Rank</th>
<th>Number</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auctions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abattoirs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butcheries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Sales</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speculators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.4 Give reasons for the most highly ranked channel..................................................?

4.5 What form of marketing do you prefer? .................................................................?

4.6 What time of the year do you normally sell your cattle?  Rainy season □
Winter □ Dry season □ all year round □ In times of emergency □ Other □
(Specify)

4.7 What are the reasons for selling cattle at time....................................................

4.8 How long does it normally take to find a buyer?  <1week □  <1month□
>6months □

4.9 In what form do you prefer to sell your cattle?  Live □ Meat cuts □ Other □
(specific)  ........
SECTION F

1. How can smallholder beef cattle farmers in Elliot be developed to procure markets to sell their stock…………………………………………………………………………….?

2. What is the impact of Livestock Improvement Scheme in supporting smallholder beef cattle farmers…………………………………………………………………………….?

3. How was the Scheme implemented…………………………………………………………?

4. How smallholder beef cattle farmers were benefiting from the scheme………………?

5. What are the farmers’ perceptions about cattle Improvement Scheme…………………?

6. What are the reasons for keeping cattle and for the lack of access to markets………?

7. What breeds of your preferences and breeding practices……………………………..

8. What kind of training do in facilitating skills……………………………………………..?

9. What are perceived importance of diseases affecting livestock……………………..?

10. What is the Livestock keepers’ animal husbandry experience, as well as economic impact of cattle farming………………………………………………………………………..?

11. What are the management practices within the farm e.g. record keeping (production and sales records…………………………………………………………………..?

12. What is your access to auctions or marketing channels……………………………..?

13. What are the major challenges that farmers of Elliot are currently facing with regard to stock…………………………………………………………………………….

14. Are the farmers themselves willing to produce for the market? If not what are main reasons that make farmers to lack willingness to involve themselves in the formal marketing of cattle…………………………………………………………………..?
15. What are the cultural or livelihood factors that affect people and cattle production in the Elliot area?

16. What are the marketing channels available for the smallholder farmers?

10. What are the market requirements for the smallholder beef cattle farmers wanting to participate in the market?

11. In your view, were the objectives of the Scheme achieved?

Thank you for your participation
14 Carlisle St
Mount Croix
Port Elizabeth
6001
18 November 2015
082 723 5408

TO WHOM IT MAY CONCERN

EDITING OF TREATISE: Nompekela, Zikhona (Miss) (s212324195)

This serves to confirm that I edited Ms Nompekela’a Master’s Development Studies treatise.

Yours faithfully

[Signature]

Ms I Kemp
B. A. (Hons English); MBA (Cum Laude)
Annexure C: Permission to submit final copies

PERMISSION TO SUBMIT FINAL COPIES
OF TREATISE/DISSERTATION/THESIS TO THE EXAMINATION OFFICE

Please type or complete in black ink

FACULTY: Business & Economic Science
SCHOOL/DEPARTMENT: Development Studies

I, (surname and initials of supervisor) Teresa K. Connor,
and (surname and initials of co-supervisor) —,
the supervisor and co-supervisor respectively for (surname and initials of
candidate) Z. Nompeleka
(student number) 212324195 a candidate for the (full description of qualification)
MA Dev. Studies.

The Livestock Improvement Scheme in
the Eastern Cape: Experiences of Small Farmers in Elliot

It is hereby certified that the proposed amendments to the treatise/dissertation/thesis have been
effected and that permission is granted to the candidate to submit the final bound copies of
his/her treatise/dissertation/thesis to the examination office.

[Signature] Supervisor
Date: 2016/03/09

And

[Signature] Co-supervisor
Date: 

62
Annexure D: Ethics form

ETHICS CLEARANCE FOR TREATISES/DISSERTATIONS/THESIS

Please type or complete in black ink

FACULTY: BUSINESS AND ECONOMIC SCIENCE

SCHOOL/DEPARTMENT: DEVELOPMENT STUDIES

I, (surname and initials of supervisor) DR TERESA CONOR

The supervisor for (surname and initials of candidate) ZIKHONA NOMPEKELA (student number) 212324195

A candidate for the degree of M.A IN DEVELOPMENT STUDIES


EFFECTIVENESS OF LIVESTOCK IMPROVEMENT SCHEME IN SUPPORTING EMERGING BEEF CATTLE FARMERS IN ELLIOT

Considered the following ethics criteria (please tick the appropriate block):

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is there any risk of harm, embarrassment of offence, however slight or temporary, to the participant, third parties or to the communities at large?</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>2. Is the study based on a research population defined as 'vulnerable' in terms of age, physical characteristics and/or disease status?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>2.1 Are subjects/participants/respondents of your study:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Children under the age of 18?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(b) NMMU staff?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(c) NMMU students?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(d) The elderly/persons over the age of 60?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(e) A sample from an institution (e.g. hospital/school)?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(f) Handicapped (e.g. mentally or physically)?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>3. Does the data that will be collected require consent of an institutional authority for this study? (An institutional authority refers to an organisation that is established by government to protect vulnerable</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td><strong>people)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1 Are you intending to access participant data from an existing, stored repository (e.g. school, institutional or university records)?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>4. Will the participant’s privacy, anonymity or confidentiality be compromised?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>4.1 Are you administering a questionnaire/survey that:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Collects sensitive/identifiable data from participants?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(b) Does not guarantee the anonymity of the participant?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(c) Does not guarantee the confidentiality of the participant and the data?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(d) Will offer an incentive to respondents to participate, i.e. a lucky draw or any other prize?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(e) Will create doubt whether sample control measures are in place?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>(f) Will be distributed electronically via email (and requesting an email response)?</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

**Note:**
- If your questionnaire **DOES NOT** request respondents’ identification, is distributed electronically and you request respondents to return it manually (print out and deliver/mail); **AND** respondent anonymity can be guaranteed, your answer will be NO.
- If your questionnaire **DOES NOT** request respondents’ identification, is distributed via an email link and works through a web response system (e.g. the university survey system); **AND** respondent anonymity can be guaranteed, your answer will be NO.

*Please note that if ANY of the questions above have been answered in the affirmative (YES) the student will need to complete the full ethics clearance form (REC-H application) and submit it with the relevant documentation to the Faculty RECH (Ethics) representative.*

I hereby certify that the student has given his/her research ethical consideration and full ethics approval is not required.

**SUPERVISOR(S)**

**HEAD OF DEPARTMENT**

**STUDENT(S)**

**DATE**

**DATE**

**DATE**

**DATE**

30/03/2015