The diversity of smallholder wool production and its marketing aspects: A case study at Xume, Eastern Cape, South Africa

by

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DECLARATION

I, Busisiwe Nkonki, declare that the thesis submitted for the degree M.Inst.Agrar. (Agricultural Economics) to the University of Pretoria contains my own independent work and has not been submitted for any degree at any other university.

Signature .....
Date ... 19/07/07 ...

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ABSTRACT

Small-scale wool production at Xume is marked by diversity in technical features and marketing aspects. This study presents the typology case study conducted at Xume, a rural area of Tsomo in the Intsika Yethu Local Municipality. The objective of the study is to identify traits of the diverse wool production and marketing conditions and to make recommendations regarding development support in areas that need it. The overall goal of the study, as part of the LandCare Programme, is to generate knowledge on wool production by the people of Xume, their practices and conditions that might increase their sources of income.

A household classification tree was constructed to differentiate wool producers into those that reared sheep with the purpose of generating income (significant and non-significant) and those that kept sheep with no purpose of generating income. From the classification tree a typology was generated. The typology yielded three types of wool producers namely, sheep keepers, woolgrowers and commercial woolgrowers. Descriptive statistics were used to explain each type and to see the extent of variability among types. Gross margins indicated that the enterprises had a potential and success was possible for the commercial woolgrowers.

Results indicate the following:

- sustainability of resource use is the key to successful wool production at Xume.
- community involvement is vital in sustaining resource use.

- veterinary control is also important in wool production.
- wool quality accompanied by skills training is also an important aspect that needs to be given attention after the sustainability of resource use is established.
- development initiatives should consider complexity, dynamism, and diversity of farming situation at Xume by continuously reviewing rules and regulations set by the community as part of social capital.
- wool production and marketing can create financial stability at Xume through creating jobs.
- lastly, it is very important that typology be reviewed regularly in order to accommodate changes and developments that take place over time.

TABLE OF CONTENTS

CONTENTS **PAGE**

LIST OF TABLES

LIST OF FIGURES

ACRONYMS

A/A	Administrative Area
AgriBEE	Agricultural Black Economic Empowerment
ANC	African National Congress
AU	Animal unit
BKB	Boere Korporasie Beperk
CLARA	Communal Land Rights Act
CMW	Cape Mohair and Wool
DALA	Department of Agriculture and Land Affairs
DPLG	Department of Provincial and Local Government
ECSECC	Eastern Cape Socio-Economic Consultative Council
EU	European Union
GDP	Gross Domestic Product
GM	Gross Margin
HDI	Historically Disadvantaged Individuals
LRAD	Land Redistribution and Agricultural Development Programme
MAFISA	Micro Agricultural Finance Institutional Scheme of South Africa
Ms Excel	Microsoft Excel
NAMC	National Agricultural Marketing Council
NDA	National Department of Agriculture
NGO	Non Governmental Organisation
NWGA	National Wool Growers Association
PTO	Permission To Occupy
SACU	South African Customs Union
SADC	Southern African Development Community
SALGA	Settlement Land Acquisition Grant
SAWAMBA	South African Wool And Mohair Buyers Association
USA	United States of America
VAT	Value Added Tax

CHAPTER 1

INTRODUCTION

1.1 Background and context

South Africa is currently undergoing economic and political transformations that address past imbalances. Past imbalances of importance in the context of this study are land ownership, agricultural marketing specifically related to smallholder participation in value-added chains, biased trade policies and state support to agriculture. These imbalances impacted negatively on agricultural production and marketing. Uncertain property rights and free rider problems associated with communal land ownership have lowered investment in agriculture for many producers (Ortmann and Machete, 2003). The Marketing Boards controlled marketing for local farmers. Quantitative restrictions, specific duties, price controls, import and export permits and other regulations also created imbalances because they favoured large-scale commercial farmers.

Large proportions of rural families had no access to land in the Eastern Cape. Access to land was limited to Permission to Occupy (PTO) system. The PTO system was a form of leasehold whereby one would occupy communal land in custody of a traditional leader. One had the right to use the communal land for residential, arable and grazing purposes but would not sell or use it as a collateral. Communal land is land, which is or is to be occupied or used by members of a community subject to rules or customs of that community (Department of Land Affairs, 2004). The PTO system was removed from legislation in 1996 and a new tenure system for communal land has been designed through the Communal Land Rights Act No. 11 of 2004, passed by the Department of Land Affairs after a total of 50 workshops at national, provincial and community levels. The Act seeks to enable communities previously excluded from benefits of land ownership to hold formal titles to their land. It further seeks to provide for a systematic and democratic administration of communal land in which traditional leaders, local and national government, actively participate and support communities in the administration of their land and tenure rights. Moreover it provides for transfer and registration of communal land and rights in and to land. Very few people have title deeds that confirm ownership of the land. The most common production systems are commonage, which is a system of land use that includes permission to occupy land for crop and livestock

production, particularly with regard to grazing land.

The land reform programme which is in progress has a collective aim of ensuring a transfer of ownership of at least 30 per cent of all agricultural land over a period of 15 years to previously disadvantaged groups (Agriculture and Land Affairs Portfolio Committee, 2000 in Ortmann and Machete, 2003). The Land Reform instruments are land restitution, land tenure and land redistribution.

The land restitution was effected by the introduction of The Restitution of Land Rights Act, 22 of 1994 and was done through the Land Claims Court, whereby affected people were invited to submit land claims and the cut-off date was December 1998. For land tenure reform an Interim Protection of Informal Land Rights Act 31 of 1996 was passed to protect homeland residents against abuses and corruption on land allocation by traditional leaders, while a new Land Rights Bill was being developed. The aim was to transfer land ownership from the state to people living on the land. (Lyne and Darroch, 2003).

Land redistribution, which is the third form of land reform programme, is about reducing unequal access to land. The programme takes two forms, which are Settlement Land Acquisition Grant (SLAG) programme and Land Redistribution for Agricultural Development (LRAD) programme. According to the SLAG programme the poor and landless South Africans had to apply for a cash grant to purchase and develop land. As for LRAD its beneficiaries did not have to be poor to qualify for a grant. However there has been criticism on the LRAD programme. The criticism was that it focussed on the exclusion of poor rural majority, seeking land primarily for residential purposes rather than for agricultural purposes (Lyne and Darroch, 2003).

This process of delivery is undertaken in all the nine provinces of the country, which in turn is done at district level. The Department of Land affairs presented a paper in the Land Summit held in July 2005 and the following progress on land reform was reported:

- Over 3 million hectares of land had been distributed since 1994 of which 2.1 million hectares was for agricultural use and another 1 million was for residential and other purposes.

- More than 300 000 people had benefited from redistribution and tenure programmes (NDA, 2005).

Transformation is also taking place in marketing of agricultural products. South Africa deregulated domestic markets in 1996 and engaged in a process of trade liberalisation. In this process quantitative restrictions, specific duties, price controls, import and export permits and other regulations were replaced by tariffs after South Africa became a signatory to the Marrakech Agreement in 1994. South Africa is also a member of a number of multilateral and bi-lateral trade agreements such as South African Customs Union (SACU), Southern African Development Community (SADC), free trade protocol and the Southern African-Zimbabwe bilateral agreement. The South Africa's separate bilateral agreement with the European Union (EU) is the most influential (Development Report, 2005). In 1997 direct export subsidies, which farmers had received under the General Export Incentive Scheme, were discontinued.

Government is also developing programmes to open up marketing opportunities for smallholder farmers. According to Machete *et al.*, 1997 in Ortmann and Machete 2003, strengthening of linkages between smallholder and commercial farmers on the one hand, and farm/non-farm linkages will further enhance participation in value-added chains on the other hand.

Support to agriculture in general has declined dramatically. All the subsidies and support programme available to commercial farmers were terminated implying thus they are now unavailable to support small-scale and emerging farmers. Unlike the large-scale farmers, the small-scale farmers are at a disadvantage because they still need state support. The deregulation of markets since mid 1990s has created pressures on local producers to produce good quality products. With no government subsidies in place small-scale local farmers are struggling to produce good quality products that meet the required standards and also to find markets to sell (Nyamande-Pitso, 2001 in Makhura and Mokoena, 2003). Roads, telecommunications, and financial services to facilitate marketing of wool are poor. On the other hand producers in the EU and USA enjoy high levels of subsidies and protection and they have better quality products than the local producers.

Lastly, transformation involves restructuring of institutions such as Land Bank, and Development Bank of Southern Africa. Provincialisation of the Department of Agriculture to support the development priorities of the new government is also part of transformation. Within the Department AgriBEE framework was launched in July 2004 with an objective of implementing initiatives that mainstream historically disadvantaged individuals (HDIs) in all levels of agricultural activity. Some of its focuses are land ownership, skills development, enterprise development and corporate social investment.

1.2 The local context: Rural Eastern Cape

1.2.1 Socio-economic factors

The Eastern Cape is currently the second poorest province of the nine provinces of South Africa with 68, 4 per cent of its 4,710 million inhabitants classified as poor (ECSECC, 2004).

Unemployment is quite common and it has resulted in urban migration. Up to 80 per cent of household incomes in the former homelands come from migrant earnings and pensions (Mbongwa, *et al.*, 1996). At Xume sources of income are mainly pensions and remittances from the working members of the households (usually the father/husband and sometimes the first born sons). "Against these odds, some farming activities take place and wool production forms a significant activity in the area" (Perret, 2000).

The closure of mines and industries, retrenchments and downsizing due to technological advancements has lowered the standard of livelihoods for the rural people in the Eastern Cape, particularly in the community of Xume. This situation forced people to seek other livelihoods by mostly migrating to cities.

1.2.2 Agriculture

The Eastern Cape Province has a dualistic agricultural sector which includes a well-developed large-scale commercial agriculture and a small-scale mostly (subsistence) agriculture. The latter is mostly located in former homeland areas of Transkei and Ciskei. There is a lack of resources and ability to use the existing natural resources efficiently. Small-scale farmers have underdeveloped farming practices and agricultural output is low. According to Perret (2000), farming activities are scarce and underdeveloped with

no or occasional crops growing activities, and low or no yields. The households have money supply shortages all year round.

Agriculture is practised on marginal lands, which suffer from overpopulation, overgrazing, soil erosion, denudation and a general decline in productivity. The marginal lands have been providing a good supply of cheap migrant labour for industrialists (Mbongwa *et al.*, 1996). This has resulted in a shortage of labour for farming in the rural areas of the Eastern Cape, including Xume. The major agricultural activity at Xume is wool production as most households keep sheep. The area could be suitable for wool production had it been not for constraints such as occasional drought spells, poor or no veld management, and other management practices that the farmers do not practise.

Stock is kept on communal land and this raises problems of stocking rates. Each individual wool producer does not limit his stock on grazing land in order for the other wool producers to benefit their stocks. Stocks overgraze the veld and cause soil degradation. This is because of mistrust that exists among the individual farmers. This mistrust causes unequal access and usage of the grazing land.

Access to capital has been limited to those that have collaterals in order to practise farming. There has also been inadequate institutional support in terms of provision of credit and farming inputs, marketing and pricing policy as well as suitable farming techniques. The government is working on that through financial institutions that are in place which are Uvimba and Micro Agricultural Finance Institutional Scheme of South Africa.

Uvimba is a financial scheme that was established in 2000 in the Eastern Cape. Its purpose is to serve a broad range of financial assistance to rural, farming communities and entrepreneurs in production, processing and marketing as recommended by the Strauss Commission. The Strauss Commission is a commission that was appointed in 1995 to investigate needs and aspirations of rural people including an assessment of the potential demand for rural finance. MAFISA was established in 2005 and is a first state owned scheme to provide micro retail agricultural services on a large scale, cost effective and sustainable basis. It covers the nine provinces and the beneficiaries are the landless,

small landholders, food garden producers and rural micro enterprises.

1.2.3 Wool production

The Eastern Cape has been and is still the province with the highest number of sheep and the highest amount of wool production. The sheep thrive in the Eastern Cape especially the Dohne Merino, which is known for its good quality wool (Cape Wools, 2004). Cape Wools (2005) provided wool production figures comparing the Eastern Cape to other provinces for 2003/2004. The Eastern Cape produced 89 631 bales of greasy mass wool and this is the largest figure when compared to the other provinces (Table 1.1).

TABLE 1.1: Wool production by province for 2003/2004

Province	Amount of wool (in bales)
Eastern Cape	89 631
Northern Cape	37 197
Western Cape	50 950
Free State	66 174
Mpumalanga	17 881
KwaZulu –Natal	7 265

Source: Cape Wools, Port Elizabeth (2005)

One Bale is equivalent to 149,7kg calculated from total greasy mass.

With the Eastern Cape having the highest number of sheep, this suggests that the province has the best potential for wool production when compared to other provinces. The number of sheep in the Eastern Cape for 2003/2004 is 6 560 928, and it far outnumbers the number for the other provinces (Cape Wools, 2005). In addition, Merino sheep and other sheep of the Eastern Cape are higher in number than Merino sheep and other sheep of other provinces (Table 1.2).

TABLE 1.2: Sheep numbers by province for 2003/2004

Province	Sheep number	Merino sheep number
Mpumalanga	1 654 499	1 269 247
Western Cape	2 379 542	1 825 463
Northern Cape	2 666 930	2 045 933
Free State	3 737 980	2 867 588
Eastern Cape	6 560 928	5 033 210
KwaZulu-Natal	741 936	569 200

Source: Cape Wools, Port Elizabeth (2005)

1.2.4 Wool marketing

According to the National Department of Agriculture (NDA) (2005), Eastern Cape has the highest percentage wool of national clip that is exported compared to other provinces. This is indicated in Table 1.3.

TABLE 1.3: Percentage wool of national clip (2004/2005)

Province	Percentage wool of national clip
Eastern Cape	29,4
Free State	21,1
Western Cape	17,2
Northern Cape	11,9
Mpumalanga	5,6

Source: National Department of Agriculture, (2005)

The export destinations are Italy, Germany, Czech Republic, the United Kingdom, China/Hong Kong, Portugal and exporting is done through South African Wool and Mohair Buyers Association (SAWAMBA). SAWAMBA is an association that facilitates export of wool and it serves registered members. However until recently small-scale farmers have been lacking a selling outlet for their wool at Xume. They sold their wool at give away prices to speculators. Because they had no selling outlet they received low income from sale of wool. Currently they use the shearing shed as a marketing outlet from a nearby community, which was been provided by the Department of Agriculture in 2000. Boere Korporasie Beperk (BKB), Sinethemba (a local NGO) and Cape Mohair and Wool (CMW) buy the wool from the farmers at Xume. The National Wool Growers

Association in agreement with the Department of Agriculture provides training in shearing, sorting, baling, marking of bales and keeping records.

1.3 Research problem and rationale for the case study

This case study is the second phase of the two-fold approach on livelihood systems at Xume (Figure 1.1). The target group consists of three types that keep sheep out of the six types identified in the first survey by Perret *et al.* (1999). The first phase was about understanding the diversity of livelihoods in the area of case study. The sample size was 81 households. Six types of households were identified from the sample. The first three types were non-farming types and the second three were farming types. The major farming activity that was identified was wool production.

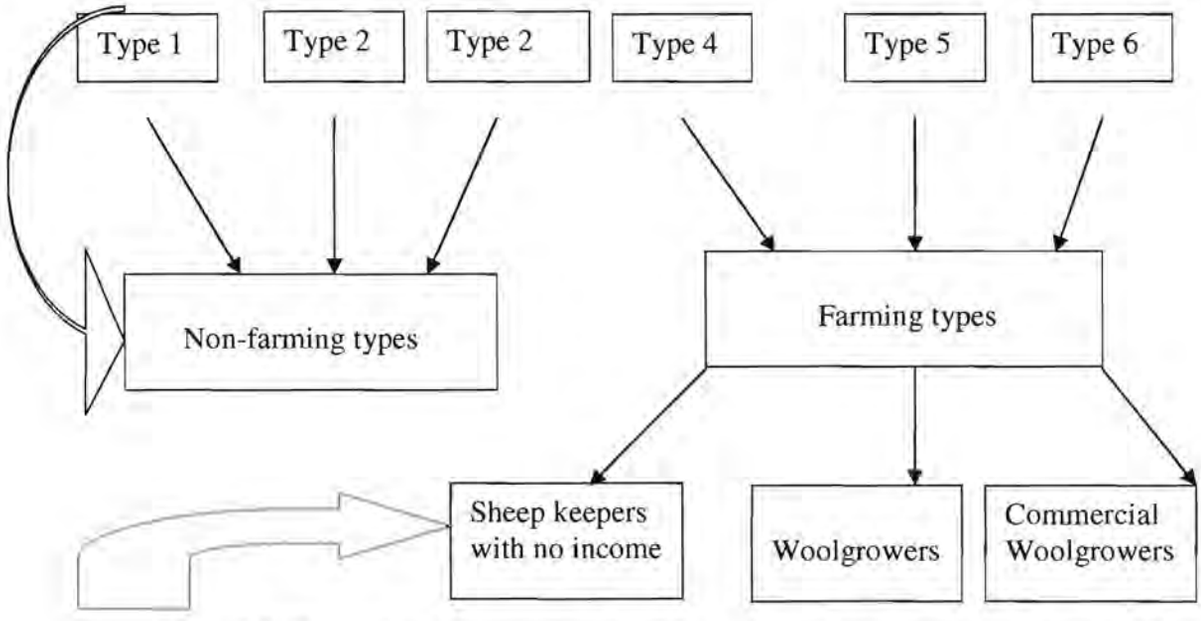
The first three types of households were identified as non-farming types because they kept very few livestock (cattle, sheep, goats, chickens and pigs) for self-consumption and storage of wealth. They also sold wool occasionally to speculators. They performed some crop production in their gardens and on arable pieces of land for self-consumption. They were categorised into very poor single female-headed households (Type 1), non-farming single pensioners-headed households (Type 2) and adults-headed households with external activities and external sources of income (Type 3).

Type 1 had no expenditure on farming activities. Type 2 and 3 had an expenditure that ranged from R285 to R300 per household per year on average for farming activities (Perret *et al.* 2000). Type 1 did not generate any income from farming activities. Type 2 generated very low income was from farming activities (figures are not indicated in the results). Type 3 generated less than R100 income per household per year from farming activities. For these reasons these first three types of households were categorised as non-farming types.

The second three types were identified as farming types of households because they kept a significant number of livestock compared to the first three types, especially sheep. They also spent around R550 to R770 per household per year on average for farming activities (Perret *et al.* 2000). Income received from farming activities varied from R180

per household per year to R2 200 per household per year on average. Figure 1.1 provides a picture of the two-fold survey that took place at Xume in the years 1999 and 2002.

Phase 1-Differentiation from a livelihood perspective in 1999



Phase 2-Differentiated from a production and marketing perspective in 2002

Figure 1.1: The two phases of the survey on rural livelihoods.

Wool production and its marketing in the rural Eastern Cape are diverse, complex and dynamic and for this reason, decision-making on policies regarding the situation cannot be easy to do in order to address the situation. The rationale therefore for this case study is to contribute to a better understanding of the wool farming and its marketing aspects which are often diverse, complex, dynamic and unknown so that agricultural development policies match such situations. The case study has been conducted to unveil the traits of rural livelihoods at Xume while decision-makers and policy-makers sometimes overlook the diversity, dynamics, complexity, opportunities and constraints thereof. It further investigates the possibilities and conditions of making a living on wool production and its marketing at Xume.

1.4 The research goals

The goal of the research is to identify those who produce and market wool. It focuses at how they produce and market wool. Constraints and problems that the wool producers encounter are identified. The research is also aimed at identifying areas where wool producers may need support with training, technical advice, extension and transfer of technology.

1.5 Specific objectives

The objectives of this case study are to:

- complement the first livelihoods study by looking specifically at the technical features that discriminate the three farming types of the six household types identified in the first phase of the two-fold approach.;
- identify the traits of each type, wool production features and marketing aspects and
- make recommendations regarding the development support that can be suitable for each type

1.6 Typology methodology

A typology is a tool that will be used to analyse the situation of the three types of households at Xume that produce wool specifically. It originates from France and does not have much literature because it is new in South Africa. According to King (2000), in the last 50 years farm typologies have provided France with a tool in analysing technical issues in agriculture such as developing a range of relevant solutions by adjusting to their needs and means of different types of farm, and planning development operations.

According to Bradley and Ntshona (1997) and Landais (1998) in King (2002), the term typology designates firstly the procedures that lead to the building up of types, designed to help analysis on a complex reality and to order objects which, although different, are of one kind and secondly, the systems of types themselves resulting from procedures. The rural farming situations are usually complex and difficult to understand. According to Perret (1999), typology is a procedure that leads to the building of types designed to help analysis of a complex reality and to order objects which although different, are of one kind (households for instance).

The decision-makers can make use of recommendations from the typology in agricultural development projects. Perret (1999) confirmed this when he wrote that typologies could give the decision-making at regional levels an image or vision of local agricultural activities. Planners can then use this typology to describe and classify categories of households and/or farms with common needs and requirements with regards to policy, programmes and project interventions (Laurent *et al.* 1998). It is a useful decision-making tool in the management of a development programme. The results are usually more precise than results of other research tools. According to Perrot and Landais (1993), typology provides a useful picture of local and regional farming activity for decision-makers on guiding development projects. They play an essential role in providing advice to producers.

Because this case study looks at the diversity of socio-economic features of wool production at Xume, the typology tool becomes necessary to use. According to Whatmore (1994) in King (2002), a typology has been used in rural sociology primarily to distinguish between social and economic characteristics of farming. According to Perret (2003) typology techniques have been implemented in order to address the diversity of rural livelihoods and to accompany planning of actions by the LandCare project. The results of different community typology schemes undertaken have been gathered and synthesized. Furthermore this typology is aimed at matching the frame and objectives of the LandCare Programme.

1.7 Trajectories

Possible trajectories which Xume households may develop into are discussed. Because rural livelihoods systems and styles change from time to time it is necessary to look at possible trajectories of Xume wool producers. Trajectories show possible new farming situations that the wool producers may possibly develop into over time. According to Mettrick (1993) in Perret (1999), when production systems are studied they must be placed on an evolutionary trajectory. He wrote that trajectories show why farms with apparently similar initial circumstances develop in different ways.

According to Perrot and Landais (1993), typologies incorporate the evolutionary trajectories of farms. Farms that are homogeneous in terms of types of production are grouped together and are resituated within a number of "trajectories". The trajectories recap the evolution stages of the farms in the area and the mechanisms of the evolution being identified through enquiry.

1.8 Outline of the study

Chapter 2 reviews wool marketing history and the wool industry of South Africa. It also shows how small-scale wool producers channel wool from the 'farm gate' in the former Transkei to consumers and this channelling is compared to that of large-scale commercial farmers. Furthermore it discusses wool price cycles and the contribution of wool production to small-scale woolgrowers' livelihoods. Specific problems encountered by the small-scale wool producers in producing and marketing wool are also discussed.

Chapter 3 presents the research methodology and explains tools used in data analysis. Chapter 4 presents results. Chapter 5 presents a discussion of the research findings. Chapter 6 presents conclusions and recommendations to the different types of wool producers. It further discusses shortfalls of the study and suggests further areas of research.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter first reviews the wool marketing history in South Africa, the wool industry, marketing aspects and wool channelling of large-scale farmers compared to that of small-scale farmers. It then reviews price trends of wool for the past 10 years and the contribution of wool production to rural livelihoods at Xume. Lastly, it discusses problems experienced by small-scale farmers in producing and marketing wool.

2.2 The wool marketing history

Wool marketing in South Africa has been characterized by a complex pattern of regulations and institutional interventions. Before the Great Depression of the 1930s wool marketing was free from any form of institutional intervention. It was a free market system of private sales and auctions. The Great Depression depressed the prices and this caused agricultural groups to call the government to intervene and introduce an orderly marketing system. The government had to intervene in the form of fixing prices on a permanent basis and ratification to protect domestic farmers from competitive international farmers. It also intervened in the form of introducing state farms for modernisation, research and education, as well as producer-dominated control boards.

The Great Depression also paved a way for stronger lobby groups in agriculture with popular support, which led to the promulgation of the Marketing Act of 1937 (Bayley, 2000 in Doyer, 2002). The Marketing Act promulgated that agricultural products be marketed through five Marketing Boards. Marketing Boards governed production and marketing of agricultural products countrywide, including wool. They also controlled exports, as they were the sole exporters of agricultural products. According to Van Schalkwyk *et al.* (2003), the main aims of the boards were to stabilise prices and to reduce price spreads between producers and consumers.

The Marketing Act placed conditions and prohibitions on the import and export of agricultural commodities. It also placed conditions and prohibitions on the sale of

commodities by farmers or purchase of a commodity by a trader and a processor. These conditions were made effective by the control boards. According to Vink and Kirsten (2000) in Doyer (2002), the Marketing Act of 1937 was structured to be the most important instrument for state involvement in agriculture. In 1939 the Co-operatives Societies Act No.29 was introduced with the opinion that monopolistic tendencies prevail in the trade of agricultural products.

In 1996 Marketing Act 47 abolished the Marketing Boards and provided for the establishment of National Agricultural Marketing Council (NAMC) in 1999, which advises the Minister of Agriculture on marketing matters. The assets of the Marketing Boards were transferred to industry units, which now provide services such as market information, export advice and product development. These industry units include industry forums (representing directly affected groups), trusts (for asset management), section 21 companies (for industry functions) and producers' organisations that deal with factors affecting producers. Now wool is free of any government intervention. Currently there is very little state intervention in the marketing of agricultural products. Producers sell their wool privately and on auction.

2.3 The wool industry in South Africa

Currently, the wool industry is composed of organisations, associations, buyers and processors, traders and brokers as well as the Wool Testing Bureau. These associations and organisations involve mostly commercial farmers. The organisations are the National Woolgrowers Association situated in Port Elizabeth and Wool South Africa in Somerset East. These organisations provide advisory services, training and development. The associations are Cape Wools and the South African Wool and Mohair Exchange and are both situated in Port Elizabeth. These associations have been mandated by the Department of Agriculture to provide market information and statistics for wool production to researchers, farmers and other interested persons or organisations.

The wool traders and brokers are BKB, Bruce, Lappersome and Saunders, Cape Mohair and Wool, all situated in Port Elizabeth, Eastern Cape. They buy and sell raw wool from farm organisations or from individual farmers and later sell it to processors. There are

also wool buyers and processors in Port Elizabeth and in Durban. These organisations buy raw wool from farmers, process it and sell it worldwide (NDA, 2001).

Lastly, the Wool Testing Bureau is situated in Port Elizabeth, Eastern Cape. It is responsible for screening traces of contamination in wool by vegetable matter content. If the wool is contaminated, appropriate measures are automatically taken to rectify the matter. It also tests fibre diameter.

The wool industry in South Africa is not stable. An example is when wool production increased slightly from 45, 4 million in 2003/04 to 46, 5 million in 2004/05. Because of the strong Rand and poor pipeline business conditions in wool production, the 2004/2005 wool season proved to be a difficult one for all stakeholders" (NDA, 2005).

2.4 Wool channeling

The commercial farmers are the largest suppliers of wool in South Africa (D'Haese *et al.* 2003). Wool channeling for small-scale farmers in the former Transkei of the Eastern Cape differs from that of commercial farmers. D'Haese *et al.* (2003) identified three options for wool channels that exist for small-scale farmers as follows:

- the small-scale farmers may organise their own shearing and sell directly to brokers.
- alternatively, they may shear the sheep themselves at their homes and sell individually to local traders or to brokers who buy unsorted wool at the farm gate; local traders are often local business people who pay low prices to wool producers. Local traders and brokers take the wool to processors and make profits from selling it.
- thirdly, members of an association may shear their wool in the community shearing shed, pack the wool collectively, and then sell it to brokers through the shearing shed. The brokers then pay the farmers through the shearing committees, according to wool grades. Small-scale woolgrowers who do not operate through shearing shed have limited marketing opportunity. Their marketing route ends at local traders and occasionally at brokers. Figure 2.1 indicates wool channels that small-scale and large-scale woolgrowers follow.

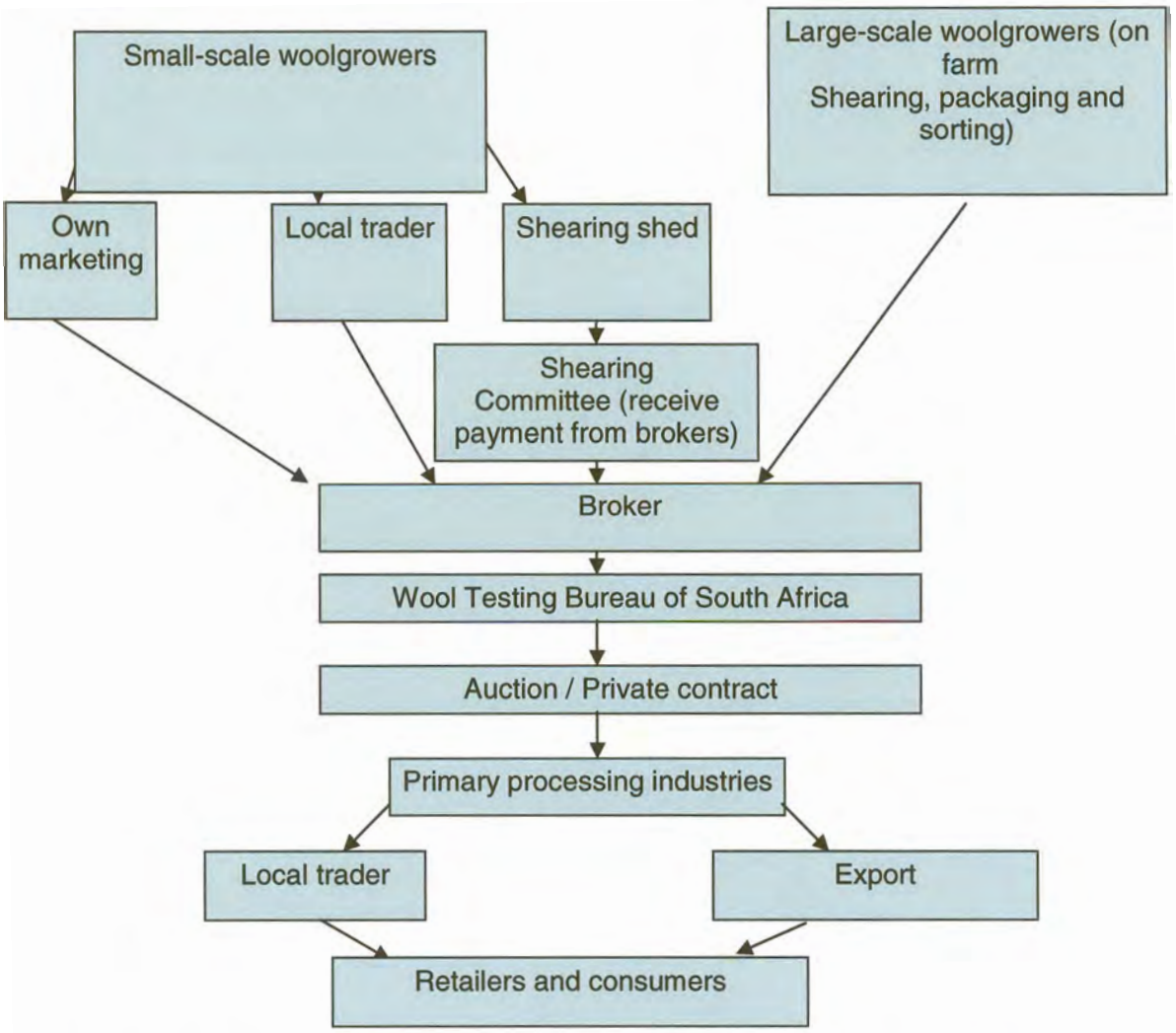


Figure 2.1: Wool channeling for small-scale and large-scale woolgrowers in the former Transkei, Eastern Cape. Adapted from: D'Haese (2003).

The large-scale woolgrowers have better marketing channels than the small-scale woolgrowers and thereby fetch better prices for the sale of wool. They hire a shearing team and women to sort the fleece. They pay a shearer for each sheep shorn. The sorting team packs the wool in bales of 120 to 150kg each. They take the wool to brokers and occasionally organise transport to auction in Port Elizabeth, Durban and/or Cape Town.

Brokers sell the wool to processors who process it in mills that are situated in the Durban, Port Elizabeth and Cape Town ports. Processing involves activities such as wool scouring and combing. The Wool Testing Bureau tests the wool on mean fibre diameter, vegetable

matter content and clean yield. For export purposes, wool is compressed to reduce its volume. High-density pressors are used at these three ports. Dumps allow for compressing bales into a third of their original size and this reduces shipping costs. Wool is then exported or transformed locally by spinners and weavers and finally channeled to the consumers through retailers.

2.5 Price of wool in South Africa

There is no fixed price for trading wool. According to NDA (2005), the price of wool is determined by a complex set of factors. These factors include the level of the market in Australia on a given day, exchange rate fluctuations, quantities offered for sale at auctions and the specific demand for different types of wool at different times. The factors further include the extent and timing of contact commitments by local buyers for delivery to the clients and the prevailing economic conditions in wool consuming countries.

Prices for clean wool are higher than prices for greasy wool. The average prices for clean wool during the past 10 years are reflected in Figure 2.2 and they have varied from R16, 60/kg in 1995/06 to R33, 20/kg in 2004/05. The average prices of clean wool for 2002/03 were the best prices for wool producers. They were R54, 40 per kg and on the following year they declined to R38, 80/kg and further down to R33, 20/kg in 2004/2005.

Wool is sold on auctions based on cleanliness, length and colour. The only people that are allowed to take part in auctions are registered members of their respective organisations.

1995/96: R 16.60 /kg
1996/97: R 20.50 /kg
1997/98: R 19.80 /kg
1998/99: R 16.70 /kg
1999/00: R 20.40 /kg
2000/01: R 24.80 /kg
2001/02: R 39.80 /kg
2002/03: R 54.40 /kg
2003/04: R 38.80 /kg
2004/05: R 33.20 /kg

Figure 2.2: Average price for clean wool. Source: Cape Wools (2005)

The average prices of greasy wool for the past 10 years are reflected in Figure 2.3, and they have varied from R10, 14/kg in 1995/06 to R20, 00/kg in 2004/05. The average prices for 2002/03 were the best prices for wool producers. They were R34, 80/kg and on the following years they declined as reflected in Figure 2.3.

1995/96: R 10.14 /kg
1996/97: R 12.70 /kg
1997/98: R 12.30 /kg
1998/99: R 10.50 /kg
1999/00: R 12.50 /kg
2000/01: R 15.60 /kg
2001/02: R 25.20 /kg
2002/03: R 34.80 /kg
2003/04: R 23.60 /kg
2004/05: R 20.00 /kg

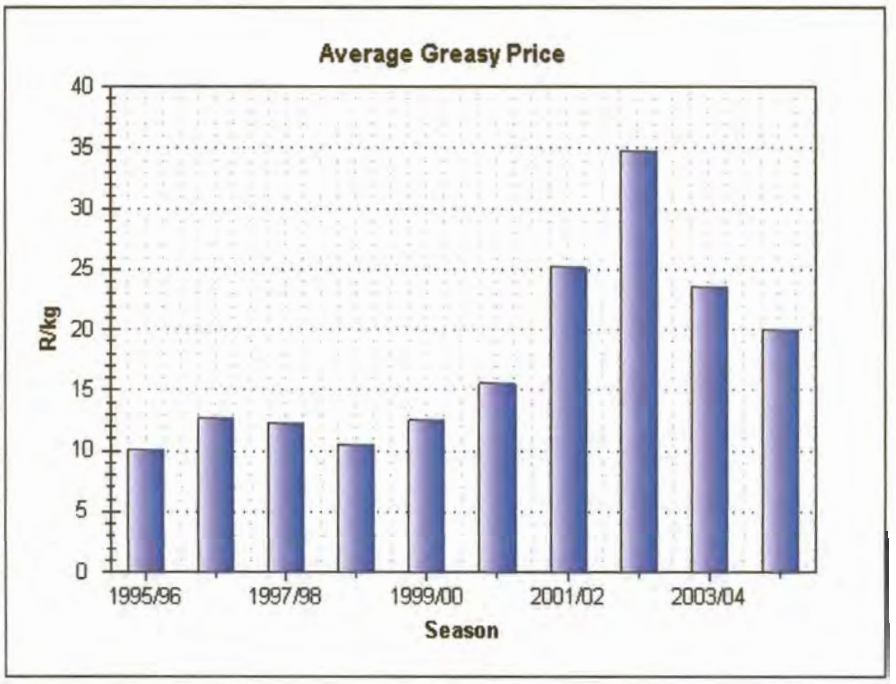


Figure 2.3: Average price for greasy wool. Source: Cape Wools (2005)

As indicated in the two graphs (Figure 2.2 and 2.3), clean wool fetches a better price than greasy wool. The variation in wool prices indicates that prices of wool in South Africa are cyclical.

2.6 Contribution of wool production to small-scale growers' livelihoods

Wool production has not played a significant economic role in the rural livelihoods of Xume. Commercial and communal farmers in the Eastern Cape receive over 169 million rands just for their wool according to Cape Wools SA 2000/01 in King (2002). But the rural farmers of Xume do not get this amount. Wool production is still a very small business to most of the wool producers although it is a primary activity.

A study conducted by Perret on Rural Livelihoods in the Eastern Cape (D'Haese *et al.* 2003) showed that wool production was a primary agricultural activity for the three farming types identified at Xume, although it was the steadiest source of cash. The price for wool is often low and determined by speculators. Income received by the commercial farmer is more than double the income received by the communal farmer (King, 2002).

2.7 Specific problems of wool producers

There are a number of problems as to why the communal farmers do not produce wool up to its optimum potential; these problems are discussed as follows:

2.7.1 Labour shortage

Presently, the majority of rural people have been transformed into migrant wageworkers on large farms, in cities and in secondary industries. Verschuren (2000) in Perret (2000) confirmed that a large proportion in South African mining labour force comes from the former Transkei (currently part of the Eastern Cape). Bembridge (1984) in Perret (2001) underlined the prominence of labour out-migration since the end of the 19th century and its implications on livelihoods and activity systems at household levels in rural areas. According to Perret (2003), more than 90 per cent of household incomes in the former homelands come from migrant earnings and pensions. Furthermore, there are shortages of labour during peak periods in the Eastern Cape, particularly in the case study area.

2.7.2 Poor quality wool

The small-scale farmers generally produce poor quality wool. Poor quality means that wool is short in length and dirty. The shortness of length is probably due to poor feeding and a lack of supplementary feeding to lactating ewes. Wool is dirty because of scab infection, weeds in the wool and dirty kraals (D'Haese *et al.* 2003). Communal grazing enhances the spread of scab infection. A communal grazing system can be described as a system in which all households in a demarcated community share a piece of land for grazing purposes. The poor quality wool reduces incomes received from selling wool because wool producers have to sell at a cheaper price. Wool producers are price-takers and therefore are given a low price for their wool.

2.7.3 Low wool production

According to D'Haese *et al.* (2003), farmers use local breeds instead of the Merino, which is known for its fine wool and high productivity. They further assert that because of a lack of breeding control and because inbreeding is frequent, productivity of the sheep deteriorates. Furthermore, scab infection due to low inoculation and no dipping are the causes for low productivity. Communal grazing results in overgrazing and spread of diseases among animals; this is another factor that contributes to low productivity.

2.7.4 Insufficient knowledge on wool production and marketing

Small-scale farmers lack knowledge about breeding methods and programmes as well as veld and herd management skills. They have insufficient knowledge about sorting, classing and packaging wool that they produce. They are not informed about how to sell and also about the correct time to sell wool. Market information does not get disseminated sufficiently to small-scale farmers. Another problem is that the wool producers do not understand the language that is used in disseminating marketing information.

2.7.5 Poor infrastructure

Roads are poor and this problem affects wool marketing adversely. The brokers that manage to come and buy wool offer low prices for wool in order to compensate for the costs of using their vans on the bad roads. The absence of telephone lines in some of the rural areas slows marketing and networking with other farmers and potential buyers.

Even though cellular phones are becoming a common use, some parts of the rural areas have no network coverage for the use of cellular phones.

There is a shearing shed but at Xume not all sheep owners have access to it because it is far from their homes. It is nearer to the adjoining community. The shearing shed is usually an ideal place to meet potential buyers and that increases chances of selling and fetching a better price for sale of wool. D'Haese *et al.* (2003) believe that building shearing sheds with financial support from commercial wool farmers forms an ideal platform for consolidation of marketing efforts.

2.7.6 Land use

Because grazing land is communal with no clear usage rules, the community does not use it appropriately. There is overgrazing which results in soil degradation and erosion. Community members are not prepared to reduce stock numbers in order to match the carrying capacity of the grazing veld. Having many sheep is a well-recognised status at Xume and in the other rural areas of the Eastern Cape. The farmers with big stock numbers earn more respect from community members than those with few stock numbers or no stock. This mind-set has been in existence for decades and it needs awareness, teaching and training, and the development of locally designed institutions supporting appropriate land use by the community of Xume and other rural areas of the Eastern Cape.

Lack of property rights causes farmers to use the grazing land without investing in fencing and veld management practices such as camp system. As a result, fencing and veld management are rare. Because individuals do not own the grazing land they will not invest in its improvement even if the relevant community decides about access to grazing (Thomson & Lyne, 1995; Moor & Nieuwoudt, 1996, 1998 in D'Haese *et al.* 2003).

According to Lasbennes (1999) communal tenure has led to the damage of resources especially because of overgrazing. Lasbennes goes on to say that communal tenure has led to an uncontrolled open-access situation where each one tries to maximise his short-term profits to the detriment of the natural renewal of the resources. Hardin (1968) refers to this problem as a "Tragedy of the Commons." Another contributing factor is that

livestock roam and graze in arable lands in the absence of fencing. There is mistrust among community farmers on the usage of the veld whereby one farmer cannot reduce stock without knowing if the other farmer will reduce stock.

2.8 Summary and discussion

The complex pattern of regulations and government interventions has not benefited the small-scale wool producers. Although the government has tried to establish an orderly marketing system through marketing acts the system did not go down to the level of farmers in addressing their problems, needs and aspirations.

The wool industry is quite complex. The organisations and associations that comprise it play a vital role in providing information that the role players in wool industry require *i.e.* researchers, farmers, cooperatives and the like. The information that the role players usually require is price cycles, wool production statistics, advisory information for wool production and dates of wool auctions.

In wool channeling commercial wool producers are the major role players in supplying wool. They are well equipped with resources and hence they produce wool of good quality. Clean wool fetches a better price than dirty wool and it is mostly the commercial wool producers that usually have clean wool. Within the current neo-liberal economy of South Africa wool price is not fixed. Wool is sold on auction. Commercial wool producers have better marketing channels than small-scale farmers. The small-scale farmers supply very small wool quantity of wool, which is often of poor quality. This is because they do not have the equipment that the commercial farmers have. It is only the few that operate through the shearing shed and have good quality wool. The specific problems to wool production that the wool producers experience at Xume make a huge contribution to low supply of wool.

Organisations in the wool supply chain have been designed by and for large-commercial farmers. They are well in place and yet they do not help solve small-scale growers' issues, which partly result from weak local institutions. Small-scale farming over communal land and using collective assets (e.g. shearing sheds, dipping tanks) require more than

organizations, it requires collective action, social capital, and locally designed effective set of regulations.

CHAPTER 3

RESEARCH METHODOLOGY AND PRESENTATION OF CASE STUDY

3.1 Introduction

This chapter presents case study area in its different social, economic and physical aspects. It presents the services available at Xume, governance aspects and activities that the community is engaged in. The research tools and procedures used in the case study are discussed. Descriptive statistics and a typology are the method used for analysis.

3.2 Description of the case study area

3.2.1 Location and demographic information

This research is conducted on the western part of the Eastern Cape, which until 1994 was known as the Transkei. The case study takes place at Xume in Tsomo, and is approximately 2000 ha in size (Mgxashe *et al.*, 2000).

Figure 3.1: Location of Tsomo in the Eastern Cape

Source: http://www.saexplorer.co.za/maps/ecape/amatola/amatola_municipality.asp

Eastern Cape is the second largest province of South Africa's nine provinces. It covers 169,955 square kilometres in the South East of the country on the Indian Ocean coast. Previously it consisted of parts of the Cape Province and the homelands of Transkei and

Ciskei. Currently the province consists of 6 district municipalities that in turn consist of 38 local municipalities.

Figure 3.2: Map of the Eastern Cape Province

Source: http://www.saexplorer.co.za/maps/ecape/amatola/amatola_municipality.asp

Xume (in Tsomo) is in the Chris Hani District municipality. Tsomo falls under Intsika Yethu, which is one of the eight local municipalities in the Chris Hani district municipality. Xume is about 40 km north of Cofimvaba and about 5 km off the secondary road from Butterworth to Tsomo. It actually consists of 12 villages (Perret, 1999).

The total population of the Chris Hani district is 822, 891. Intsika Yethu local municipality, under which Xume falls, has a population of 194, 246 of which 194, 078 are Africans (Department of Provincial and Local Government, 2004). This is the structure that was drawn up under new legislation published in year 2000 (Municipal Systems Act no.32 of 2000), in order to establish a new framework of planning, a performance-management system and effective use of resources (DPLG, 2004). It is a new system of decentralizing power. It should enable local communities to voice their opinions and dissatisfaction without following a long endless protocol. Xume has a

population of 2, 488 of which 55% is females (SSA, Bisho in the Eastern Cape Livelihoods Report, 1999).

3.2.2 Infrastructure

Only the main road from Butterworth to Tsomo town (60km) is tarred. Access roads are not tarred and they are in a poor condition. On rainy days they are difficult to access while others are completely inaccessible by transport. There is one dipping tank and one shearing shed at Xume (Nyamela, 30/03/2006, pers.comm.). Fencing is poor and animals roam around and destroy garden produce. Only the commercial farmers and businessmen own telephones as they are the wealthier members of the community (Khanya, 1999). The government has taken some initiatives to reach out to Xume. The Department of Agriculture financed the renovation of the shearing shed at Xume. The National Wool Growers Association put up the shearing shed structure in agreement with the Department of Agriculture. The government also financed the building of a shearing shed in a nearby community, which the community of Xume uses. Dry cow dung is the main source of fuel although there is electricity in the communities where the study took place.

Water supply is a limiting factor for the small-scale farmers of Xume. There are small springs, a perennial stream and small natural dams, and they are not in good condition. (Mgxashe *et al.* 2000). There is an ongoing water provision project called the Ten Year Water Supply, conducted by the Camdekon Consulting Engineers, for the Intsika Yethu municipal area. The new schemes for the project should be complete by the end of 2007.

3.2.3 Geographical situation: Climate and vegetation

Minimum temperatures vary from 10°C to 11°C and maximum temperatures vary from 22°C to 24°C. Annual rainfall ranges from 301 to 900 mm, showing dramatic interannual variation and the occurrence of drought (Dohne Research Station, 2001). Mgxashe *et al.* (2000) identified 16 different grass species at Xume, and seven of them were the most abundant species. *Eragrostis plana* and *Cynodon dactylon* had the highest percentage occurrence (Figure 3.3), the latter with low nutritional quality. These dominating species known as increaser II species occur when the veld is overutilised. The absence of grazing management and regulations increases the chances of overgrazing and an occurrence of these species.

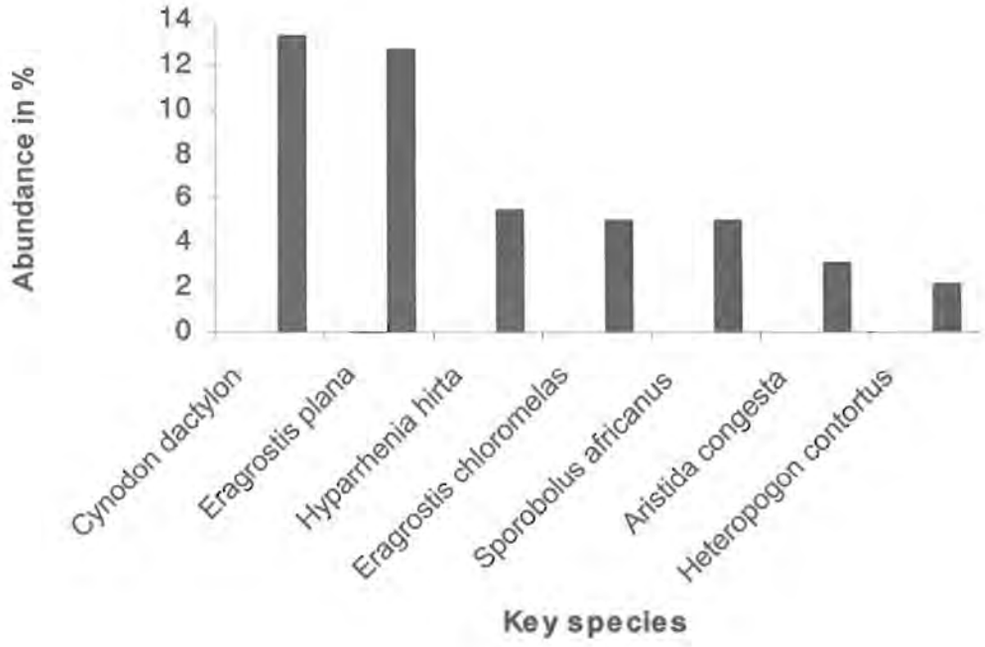


Figure 7. Grass species abundance for seven most occurring species at Xume shown as the total percentage of the 59 samples collected for the area. Source: Mgxashe *et al.* (2000).

3.2.4 Services available at Xume

Xume benefits from few services as most communities in the former homeland areas do. For telecommunication, Telkom is a provider of telephone services both publicly and privately. There is a post office, which also serves for communication. There are two banks in Tsomo town. Transport services consist of buses and local taxis (the latter from an organised taxi association) and are available only to those areas that are not very far from the main road.

The Eastern Cape Department of Agriculture and Land Affairs (DALA) provides extension services yet with low operational budget for that (e.g. lack of departmental vehicles) hence poor and uneven delivery of extension services to farmers. Farmers who live far away from the main road do not receive extension services. It is only those who live near accessible roads that receive extension services. During the time of this study extension officers had a shortage of transport, which was an important requirement for extension services. They had also been restricted on mileages to cover per month and that

prevented them from reaching out to all the extension services needy communities until year 2000. The vehicle subsidy system that has been introduced by the Department of Agriculture in 2000 should improve the situation by allowing extension officers to reach out to the furthest communities with their own vehicles.

Presently extension work is however inadequate for the basic educational technical needs of small-scale farmers and for emerging farmers. This is also due to insufficient resources and a lack of a continuing flow of appropriate information and technology. Information comes mainly via radios and television sets, and yet there are very few households that have television sets. At Xume the wool producers had not benefited any training on woolen sheep production at the time of survey.

3.2.5 Governance at Xume

Traditional leaders and the democratically elected councillors are the governing bodies of Xume. The Xume formerly known as Xume Administrative Area (A/A) is demarcated according to subunits called wards and each ward has a councilor who represents it in the higher tier of local government; later is the District Council, where decisions are made. The community depends mostly on its own organisations such as churches, community schools, women's prayer groups, burial societies, the Xume Farmers Union, the Tsomo Taxi Association, the Xume Bus Association, and traditional leaders (Perret, 1999).

3.2.6 Activities at Xume

According to Perret (1999), there are projects underway at Xume involving different social groups and they enhance the livelihoods of the people of Xume. The projects address sectoral issues such as sewing, gardening, poultry, baking and stock improvement. These projects help communities in securing food and in improving the quality of stock. The different social groups identified are the unemployed, women, widows, out-of-school youth, the farmers, pensioners, civil servants, orphans and the disabled, business people involved in various activities such as building, carpentry, shops, shoe repairs, candle-making and beadwork (Khanya, 1999). The women engage in activities such as burial societies and women's *manyano* (*i.e.* women's prayer meetings).

The youth have a variety of skills such as brick-laying, gardening, plastering and sewing. They earn a living from baby-sitting, cleaning other people's homes and painting. Some depend on their grandparents' pensions for a living. The unemployed raise money from selling piglets and pork on special days such as pension and grant days. Most of the time pigs are raised for consumption. The main vulnerabilities are alcohol abuse, household violence and HIV/ AIDS (Khanya, 1999).

3.3 Research methodology

3.3.1 Sampling procedures

The survey was built upon the previous survey of 1999. The extension officers had a list of names of households from the previous case study conducted. Thirty nine units were purposively selected as samples, and were given reference numbers. The research was conducted in four wards of Xume, and targeted farming households that were identified in 1999 as follows:

TABLE 3.1: List of wards and number of respondents

Ward	Number of households interviewed
Catshile	12
Enyanisweni	14
Kwamnyamandawo	5
Pakama – Siciko	8

3.3.2 Research tools

Structured questionnaires drawn up in English were used as the research tools to collect data. Questionnaires were made simple and local concepts were used to avoid ambiguity. Questionnaires were arranged in blocks of topics and a logical flow of questions was followed. They covered generalities about stock breeding *i.e.* stock numbers, ownership, stock produce, objectives of animal breeding and of purchasing, who made decisions and who carried out different tasks. They also covered technical, social, economic and marketing dimensions. The impact of operation, whether technical, economic or social, was also included in the questionnaires. Table 3.2 provides important dimensions covered by the questionnaires.

TABLE 3.2: Important dimensions covered by questionnaires

Technical dimension	Social dimension	Production economics dimension	Marketing dimension
Was following done and when?	Who made decisions on the following?	Costs connected to sheep keeping and wool production per year	Wool supply chain
Lamb castration and the age of castration	Purchasing of sheep grazing, mating, lambing and lactation	Profits/income generated in sheep and wool production	Buyers of wool
Dosing, dipping, inoculation and provision of supplementary feeding	Production practices (tattooing, dipping, dosing, inoculation, shearing and provision of supplementary feeding).	Costs of hiring labour (part-time and full-time)	Competitors in the marketing of wool
Lambing % per year	What are objectives of purchasing the animals? Keeping of financial and referral documents	Whether the sale of wool was a major source of income or additional income	

3.3.3 Interview procedure

Prior to the visit, the researcher and local extension officers notified the local authority (village headman) about their intention to conduct a survey in the area (at the time of the survey the headmen was the only authority). A meeting with the community and the headman was held at the headman's residence to explain the purpose of the survey. The procedure that was going to be followed was explained to the community. The interviewers explained who they were and whom they worked for. They also explained to the anticipated respondents the purpose of the survey, the importance of their participation and co-operation during the interviews.

The researcher together with extension officers from the Eastern Cape Provincial Departments of Agriculture conducted the interviews. The local extension officers (Tsomo office) who had a better understanding of the area in terms of farming activities, and in particular wool production, also participated. Interviews were conducted face to

face with household heads (either male heads or female heads) in their homes or whoever was at home in the absence of household heads. The sample size ranged from 4 to 12 members living at home or living away from home (with financial or decisional connection with the household).

Two interviewers carried out each interview; one asked questions while the other filled in the questionnaires. The local extension officers and the researcher translated the questions into the local language of the area, isiXhosa while conducting interviews. The maximum time limit for each interview was 90 minutes. This allowed time to get earnest opinions, details and perceptions from the respondents. A copy of questionnaire is provided on Annexure A. The survey took three days and 39 questionnaires were filled from all of the four wards of Xume. Observation of the study area was also carried out to verify some of the responses from the interviewees.

3.3.4 Recording of data and analysis

After collecting the data, the first step was to prepare a codebook in order to assign numerical values to the answers obtained from the respondents. The data from the questionnaires was then given codes and transferred into a spreadsheet (Microsoft Excel, 2000). According to Kumar (1996), it is important that the information obtained should be in the language that the computer would assimilate when a computer will be used to analyse it. In analysing the data the variables that were the most representative of the study (income from wool and number of sheep for each class) were selected.

As a first step typology was used as a tool to identify and group the types of wool producers. "A typology describes the diversity of farm production units within a designated spatial environment" Laurent *et al.* 1998. Perret (1999) defines typology as a tool that can be used to group and analyse activity units according to their main modes of operation and their characteristic. Because of the skewed distribution of farming resources, farming knowledge, markets, skills *etc*, typology analysis can help in identifying areas of concern at micro level.

The types were discriminated by making use of the following characteristics resulting from the first survey in 1999:

- sources of income for the three types; they include farming activities.
- yearly income; yearly farming income per household ranges from R180 to R2200.
- yearly expenditure on farming activities per household; it ranges from R550 to R770.

In this study, wool producers with similar practices and traits are grouped together. This may ease the development programmes required in the area of study. Freeman *et al.* (2000) believe that for on-farm research on technology generation for smaller farming systems (through LandCare Programme) to take place, wool producers have to be characterised into homogeneous target groups. They also believe that with recommendation domain used to classify them into relatively homogeneous groups with similar practices and circumstances; it is likely that the same recommendations will be appropriate.

The second step is the use of descriptive statistics *i.e.* means and standard deviations (Microsoft Excel, 2000) to explain each type of wool producers. Means are used to check where most of the data should fall. Standard deviations ere used to measure variability of measures used within the types (*i.e.* how the types differed from one another in technical features and marketing aspects).

CHAPTER 4

PRESENTATION OF RESULTS

4.1 Introduction

This chapter presents the results on livelihoods and wool production at Xume village. A classification tree is built and from it, types of wool producers are identified. A typology is used to discriminate among the main farming types. Descriptive statistics are presented for each wool producer's type as identified, whereby technical features, economic and marketing aspects of wool production are presented. Lastly, gross margins for the commercial wool enterprises are calculated and compared amongst the commercial woolgrowers.

4.2 Number of sheep

There are more sheep than other livestock at Xume; other livestock were cattle and goats (Figure 4.1).

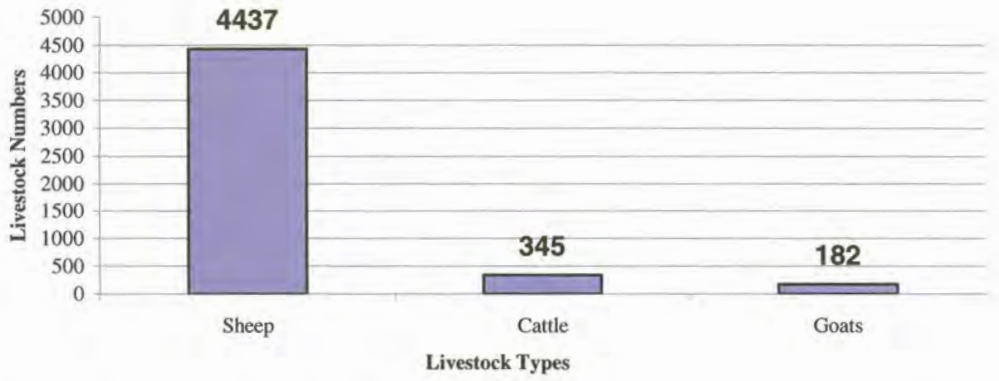


Figure 4.1: Total number of livestock kept by all the interviewed households.

This implies that farmers in the area of study specialise in sheep production. According to Turner and Taylor (1998), specialisation has the following advantages:

- Easier organisation of farming
- Skills and knowledge are built up
- Less capital is required
- More attention to production and marketing is given

- There is effective control over production resource
- Weaknesses are easily detected and rectified

Such specialisation also reflects the socio-cultural and economic importance of keeping sheep as a means to save and to easily meet social duties and traditional feasts.

4.3 Classification tree

A household classification tree (Figure 4.2) was built and it helped in categorising the wool producers into groups. The criteria used was keeping sheep for income generation and keeping sheep with no purposes of generating income.

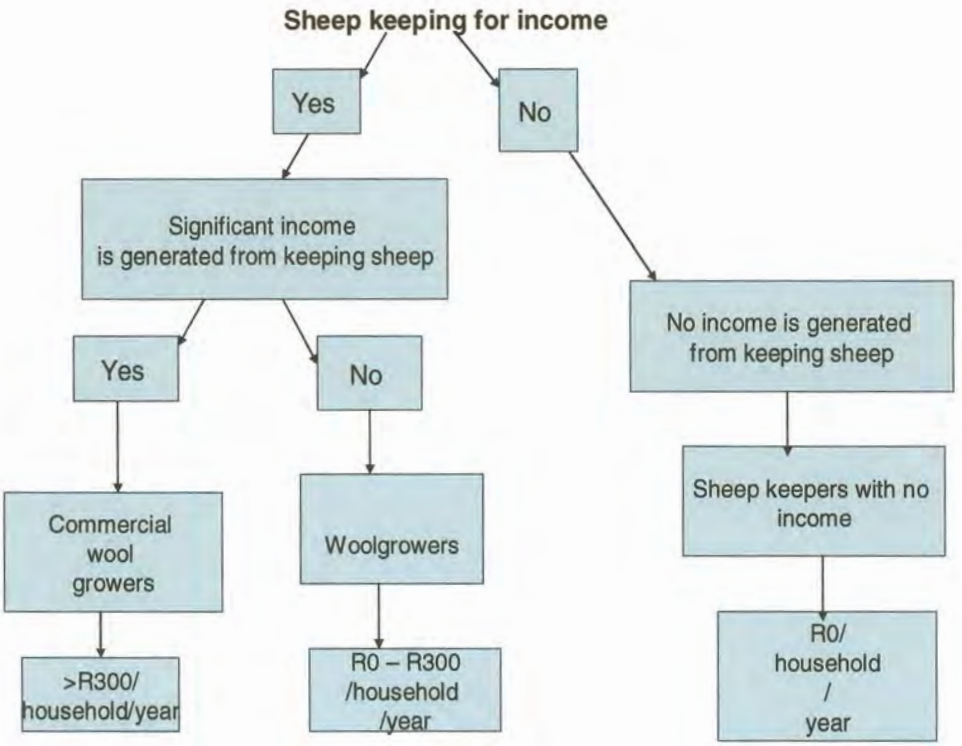


Figure 4.2: Household classification tree.

The wool producers that generate income from selling wool were further checked to establish whether they generate a significant income or not. Significant income means that money earned from selling wool is higher than expenditures incurred in wool production hence a potential contribution to daily household necessities such as taking children to school, savings, and food security for the household. It also means depending mainly on wool production for a living. The income generated is more than R300 per household per year. A non-significant income means earnings that cannot match the

expenditures incurred in wool production. Households are unable to meet veterinary needs of animals and the needs of day-to-day management activities. This income has to be complemented with non-farming of off-farm sources of income such as that from other forms of employment.

Furthermore, certain households do not earn money out of wool sale although they keep sheep. From such classification criteria, three wool producer types were identified and further described in averages and standard deviations (Table 4.1).

Data on income that was generated from keeping sheep and the number of sheep kept, were taken as the two main criteria to identify the diversity of wool production and marketing. The wool producers differ from one another. They are named sheep keepers, woolgrowers and commercial woolgrowers respectively. Significant differences in the various traits discussed confirm the diversity in technical features of wool production and its marketing aspects.

4.4 Typology

Type 1 wool producers with a ratio of 18/39 constitute 46% of the sample and are referred to as sheep keepers, because they do not generate any income from wool production. Instead, they receive income from remittances and welfare. Their overall number of sheep is fewer than that of Types 2 and 3. Under these circumstances wool producers keep sheep for recognition, social status, accumulation of wealth, and for meat consumption on special occasions.

Type 2 wool producers with the ratio of 17/39 constitute 44 % of the sample and are referred to as woolgrowers. Their overall number of sheep is more than that of Type 1 and they produce wool for personal use (such as crafting door mats and mattresses). Excess wool and sheep are sold in order to generate some income. In this category, the sale of wool generates less than R300 per household per year. There is no evidence from data collected, about income earned from selling crafts as these woolgrowers do not rely on income from wool to make a living but mainly on remittances, welfare and part-time jobs. Wool income is a spin-off of producing wool, and a way to cover some of the production costs incurred. This type of producers, keep sheep for status, wealth accrual,

and for subsistence purposes such as meat consumption on special occasions, wool crafting and for selling excess wool.

Type 3 wool producers with a ratio of 4/39 are referred to as commercial woolgrowers. Out of the 39 households interviewed, 10% of households produce wool for commercial purposes. These wool producers have the highest number of sheep compared to the other two types mentioned above. They keep sheep for purposes of wool production and sale. They receive a significant income, which ranges from R1800 to R12 090 per household per year, from sale of wool.

TABLE 4.1: Wool producer types with sheep classes in averages (standard deviations in brackets) and income per household per year.

Wool producer types	Ewes	Rams	Lambs	Wethers	Income /household /year from sale of wool
Type 1 (18/39) Sheep keepers	41.89 (3.6)	6.2 (5.4)	21.9 (1.3)	18.9 (1.8)	No income
Type 2 (17/39) Woolgrowers	44.8 (3.7)	3.1(2.1)	31.2 (3.4)	20.0(3.0)	R0-R300
Type 3 (4/39) Commercial woolgrowers	233 (8.5)	14.0 (3.7)	74.75 (2.4)	62.25 (3.8)	R300-R13000

4.5 Socio-economic characteristics of the three types of wool producers

The different types of wool producers identified in the typology have varying socio-economic characteristics. They vary according to technical features of producing wool, economic and marketing aspects.

4.5.1 Technical features of wool production according to types of wool producers

Provision of supplementary feeding to lactating ewes, dipping, dosing and inoculation activities were determined for each type of wool producers. Table 4.2 provides a number of wool producers that practise these technical features in percentages. The intensity of use of these technical aspects is indicated by denotion of once or twice per year.

TABLE 4.2: Technical features of wool production according to types of wool producers

Practices	Type 1 (n= 18)	Type 2 (n = 17)	Type 2 (n = 4)
Provision of supplementary feeding for lactating ewes	6[a] (33%)	5[a] (29%)	1[a] (25%)
Dipping	13[a] (72%)	15[a] (88%)	4[a] (100%)
Dosing	5[a] (28%) (once/year) 7[a] (39%)(twice/year)	4[a] (23.5%) (once/year) 9[a] (53%) (twice/year)	4[a] (100%) (twice/year)
Inoculation	14[a] (78%)	11[a] (65%)	3[a] (75%)

[a]**Number of producers in relation to the sample**

It is at least 33% of Type 1 sheep keepers that provides supplementary feeding to lactating ewes and 72% that dips their sheep, whilst 28% of them dose their sheep at least once per year. Thirty nine per cent of them dose their sheep twice per year and 78% inoculate their sheep. The strongest technical features about Type 1 are sheep inoculation and dipping.

Of Type 2 woolgrowers, 29% provide supplementary feeding to lactating ewes, 88% of them dip their sheep and 23, 5% dose their sheep at least once a year. Yet, 55% dose their sheep twice a year and 65% inoculate their sheep.

For Type 3 woolgrowers 24% provide supplementary feeding to lactating ewes and all of them (100%) dip their sheep. They also dose their sheep at least twice a year and 75% of them inoculate their sheep.

4.5.2 Economic aspects of wool production for the three types of wool producers

Economic aspects that were identified were veterinary costs incurred per household per year as well as income from sale of wool received per household per year. Record keeping and use of referral documents were also categorised as economic aspects.

(a) Veterinary costs

While there is not much difference in veterinary costs among the three types, Type 3 wool producers spend the most money (on average) in inoculation compared to the other two types. On the other hand, Type 2 producers spend the most money in dosing. In comparison to the two wool producer types, Type 1 spends the least money in both dosing and inoculation. However, Type 1 spends more money in dosing than in inoculation (Table 4.3).

TABLE 4.3: Veterinary costs per household per year for Types 1, 2 and 3 in averages (standard deviations in brackets).

Practices	Type 1	Type 2	Type 3
Inoculation costs	R271.80 (48.87)	R304.29 (73.74)	R533.33 (108.56)
Dosing costs	R326.00 (96.55)	R527.00 (89.80)	R507.50 (95.75)

(b) Income received

Income received per household per year varies with the three types. Type 1 does not receive any income since income generation is not the purpose of keeping sheep. Type 2 woolgrowers receive some income that varies from R6 to R300 per household per year (Figure 4.3).

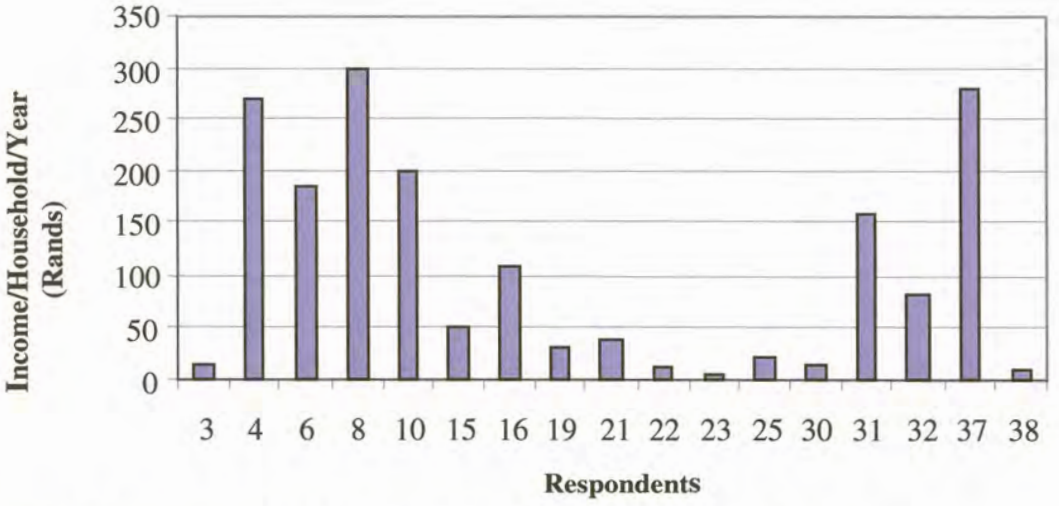


Figure 4.3: Income received by Type 2 woolgrowers from wool sales.

Type 3 (Figure 4.4) woolgrowers receive a significant income from sale wool, which ranges from R1 800 to R12 090 per household per year.

Figure 4.4: Income received by Type 3 commercial woolgrowers from wool sales.

Table 4.4 provides information on the variation of income received from the sale of wool per household per year for each type of wool producer. This is intended to determine the type that generates a reasonable income from sale of wool. Income is expressed in averages and standard deviations.

TABLE 4.4: Income received per household per year from wool sales for Types 1, 2 and 3 wool producers in averages (standard deviations in brackets)

Wool producer types	Income per year (in Rands)
Type 1 (n=18)	No income
Type 2 (n= 17)	99 (10.20)
Type 3 (n = 4)	6 950 (1 531.00)

Type 1 wool producers do not generate any income from selling wool. Instead they produce wool for their personal use. Type 2 woolgrowers receive some income of at least R99 on average per household per year from the sale of wool. Type 3 commercial woolgrowers receive at least R6 950 on average per household per year. This confirms that Type 3 woolgrowers can be regarded as commercial producers.

(c) Record keeping and use of referral documents

Type 3 woolgrowers are more consistent in keeping records and using referral documents than Types 1 and 2 (Figure 4.5). As also shown in Figure 4.5, for Type 2 woolgrowers, a few (6%) keep records for wool production and only 33 % use referral documents. Type 1 neither keeps any records nor makes use of referral documents.

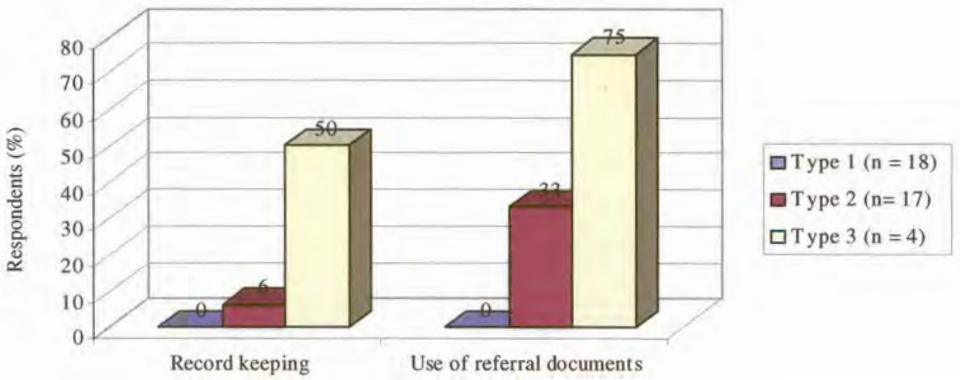


Figure 4.5: Record keeping and use of referral documents.

4.5.3 Marketing aspects of wool for Types 2 and 3 woolgrowers

Marketing aspects deal with who buy wool from Types 2 and 3 wool producers. This serves to check if they receive reasonable prices from sale of wool. As shown in Figure 4.6, 75% of Type 3 woolgrowers sell their wool directly to the broker. Only 41% of Type 2 woolgrowers sell their wool to the broker.

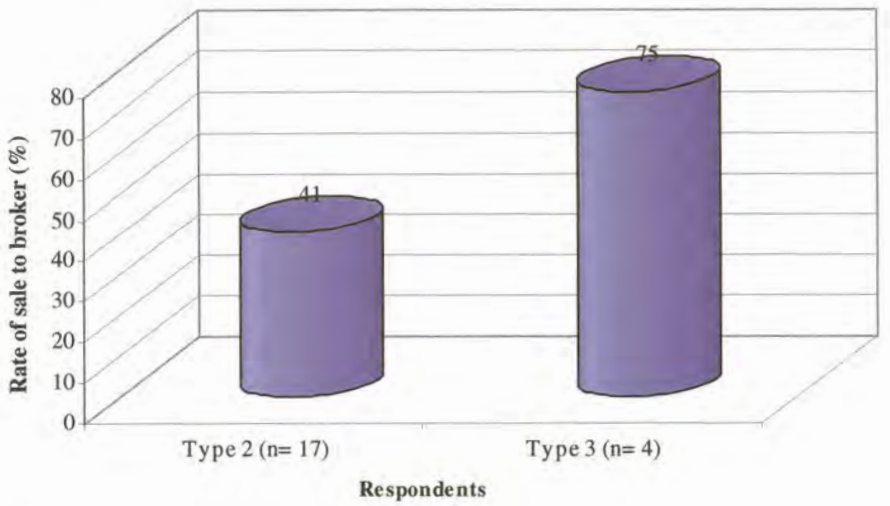


Figure4.6: Marketing aspects of wool for Types 2 and 3 woolgrowers

4.6 Economic analysis: feasibility of enterprises for Type 3 commercial woolgrowers

Gross margins were used to determine the feasibility of the enterprises. Costs of producing and marketing wool per year were subtracted from income generated per year by Type 3. It is important for the woolgrowers at Xume to understand the importance of calculating gross margins per animal unit. Gross margins determine the possibility of success of an enterprise. It is also important to emphasize the importance of taking out directly allocatable variable costs of production in order for the woolgrowers to realise the gross margins for the enterprises.

Gross margins were determined with the use of enterprise budgets (Annexure B). The analysis determined income received by Type 3 per sheep per year. It also determined costs of wool production per sheep per year. To get the total income, income from sheep sales, wool sales and hides sales per year were added for each enterprise. Income per sheep was then calculated by dividing the total income by the number of sheep kept. In order to obtain costs of wool production directly allocatable variable costs, which are dosing, dipping, inoculation, shearing and subscription to farmer's union were calculated.

Transportation costs to the broker in East London (150 km from Tsomo) were also taken into account for the one woolgrower that transported the wool. The rest (three) did not transport the wool. Buyers came to buy from them. There were no indirectly allocatable variable costs such as labour, vehicles, and telephone. Family labour was used and therefore no costs were attached on labour. They had no vehicles and telephones and therefore there were no costs considered in this regard. The gross margins for the four commercial woolgrowers are shown in Table 4.5.

TABLE 4.5: Comparison of gross margins among the four commercial woolgrowers (Type 3)

Respondents	Gross Margin (R)	Gross margin per sheep (R)
Woolgrower 1	6 695.27	10.42
Woolgrower 2	3 546.27	16.34
Woolgrower 3	1 752.00	3.98
Woolgrower 4	2 932.64	14.10

The gross margins indicate that success is possible in farming with wool for these commercial woolgrowers.

CHAPTER 5

DISCUSSION OF RESEARCH FINDINGS

5.1 Introduction

This discussion focuses on findings about the diversity of practices in wool production and marketing. It also identifies possible dynamics of the different household types.

5.2 Findings on the diversity of practices in wool production and marketing

5.2.1 Number of sheep

Given that the number of sheep is more than other livestock at Xume it implies that there are greater chances of financial success if wool producers could devote their attention to wool production. Devotion to wool production would increase human capital and the skill to produce wool. Jules and Ward (2001) believed in the importance of human capital to sustainable solutions for local development problems. The variation in the sheep number indicates the extent of willingness and the different abilities of households to keep sheep in that, the more the number of sheep; the more able are the households to keep sheep.

5.2.2 The Classification tree

The classification tree revealed that the purposes of keeping sheep are not very similar for the wool producers. Some of them keep sheep with no purpose of generating income whereas others keep them with the intention of generating income. Among those that keep sheep to spawn income, only 10% generate significant income of more than R300 per household per year and 44% generate non- significant income of less than or equal to R300 per household per year.

5.2.3 Typology

The majority of wool producers from the sample are non-commercial. It is only a small percentage (10 %) that is commercially inclined. This is because keeping sheep at Xume has been an old traditional system of accumulating assets. D'Haese *et al* (2005) confirmed that sheep farming is not new to farmers in the former Transkei area, who have adapted their farming system to the prevailing natural socio-economic situation. Although they do not regard themselves as commercial wool producers they turn out to be ones because of the number of sheep they own and the amount of wool they produce.

Furthermore, their production profile fits the group of commercial woolgrowers as was determined through typology analysis.

5.2.4 Technical features

There is a variation in the manner in which veterinary services are offered. The wool producers could attribute this to affordability of veterinary services. Being unable to afford veterinary services increases the risk of sheep being prone to scab infection as discovered by D'Haese *et al* (2003). They revealed that scab infection is the cause of poor wool quality.

5.2.5 Economic features

All three types of producers spend money on veterinary services although the amounts they spend vary within the types. Veterinary considerations are important to these wool producers. Although there are costs incurred, income is only realized by Type 3 woolgrowers and to some extent by Type 2. The woolgrowers that receive a significant income form a relatively small percentage (10%) of the sample. The rest (90%) of the wool producers cannot be classified as commercial woolgrowers. Keeping sheep at Xume is a tradition and income generation is a spin-off, of keeping sheep. This is solicited by the fact that, record-keeping and use of referral documents are not important aspects of keeping sheep particularly for Type 2.

Type 3 has 50% of the four woolgrowers that keep records and 75% that make use of referral documents. This may be viewed as a strong point of Type 3 woolgrowers. Keeping records and making use of referral documents is a backbone to successful farming. Keeping records by the Type 3 commercial woolgrowers of Xume will place them at an advantage for various reasons, which can be cited as follows:

- future planning which requires knowledge of past performances;
- analysis of past performance involving examining financial records and also looking at problem areas in order to propose changes and improvements, is needed;
- records provide the means of measuring performance against predetermined standards;
- application for financing from financial institutions can be done with the use of

financial records;

- keeping records will be their memory aid because over time there is a tendency to forget or to modify facts from the past and
- records are a requirement for statutory reasons. The South African government requires VAT and income tax returns to be done by vendors (including farming) and this is not possible without keeping records (Turner and Taylor, 1998).

Type 1wool producers do not generate any income from keeping sheep. Females that head some of the households (because husbands are working far from homes) are not interested in generating income from wool production. Although they practise technical management activities on wool production they do not have the required skills to excel in production. Household heads make decisions on dipping, dosing, inoculation and provision of supplementary feeding whether they are at home or working away from home. They are mostly men/husbands and this appears to hinder housewives from showing their ability to, in this case, produce wool.

Although Type 1 wool producers do not generate any income from wool production there are benefits that they earn such as recognition, social status, wealth accrual, meat consumption and wool crafting. Social status is quite important in the rural areas of the Eastern Cape. It goes with the recognition of the producers as important members of the community. Meat consumption creates vibrancy at Xume because the other community members benefit from the slaughter by at least one household. Meat is shared among community members without having to pay for it. In this manner the spirit of *Ubuntu* (humanity) is shared and maintained. Wool crafting creates something to do for household members who are unemployed as it keeps them occupied during the day. Human capital, which is skills and knowledge, is generated from crafting wool and keeping sheep.

From the economic perspective, keeping sheep by Types 1 and 2 is a loss. Type 1 only gains social status, meat consumption, and wealth accrual from keeping sheep. Originally sheep were kept as a traditional investment. It is only recently that farmers have started to produce wool as cash commodity (D'Haese *et al,* 2005). This type of production is evidence of that tradition.

5.2.6 Marketing aspects

The research results display diversity in the marketing aspects of Types 2 and 3 woolgrowers (Figure 4.6). Marketing aspects that are highlighted are the percentage of woolgrowers who sell directly to the broker (BKB). Type 2 woolgrowers have only 44% of the 17 households that sell directly to BKB broker in East London. Type 3 woolgrowers have 75% of the 4 households that sell directly to BKB. Type 3 woolgrowers receive better prices from wool sales than Type 2. Although Type 3 has 75% of woolgrowers selling directly to the broker, this is a small amount of the sample (*i.e.* 10%). This implies that selling to a broker is not popular among wool producers of Xume.

5.2.7 Economic analysis

Feasibility of the enterprises is important in determining the likelihood of success for wool production. The positive gross margins for Type 3 woolgrowers indicate that there are chances of success in wool production for economic purposes such as generating income and making a living from wool production.

The second type of wool producers (Type 2) identified generates little income (R0 – R300/year) from wool sale, and this income is a spin-off, of wool production. Price formation for wool is random and the wool producers are not informed about current market prices. Risks and uncertainties involved in selling wool forces this type of producers to be just woolgrowers. The problem of lack in transportation for wool results in most of them selling wool to local traders. The prices that they receive therefore are less than the prices received by Type 3 commercial woolgrowers.

5.3 Complexity and dynamism of the farming situation

The farming situation at Xume is complex. There are a number of factors inside and outside farming that influence this complexity. These include;

- Household members that work outside of Xume and do not stay at home on a full-time basis. These people influence development decisions even if they are not at home, because those that remain at home cannot take any agreement to development initiatives made by the community members. It is only the working

household members (usually heads of the family who work outside Xume) that agree or disagree on decisions and they come home once or twice per year. In that manner development slows down.

- Settlements increase and a new strategy for development has to be decided upon. That brings a backlog to development.
- There are also political groups that influence decision-making positively or negatively and this brings another complexity to the farming situation of Xume.

Because of this complexity there is no straight-forward way to explain the farming situation at Xume.

The farming situation is thus dynamic. Factors that can be attributed to dynamism are as follows.

- new settlements at Xume accompanied by migration to cities.
- members of the households that work outside Xume may buy more sheep and that shifts the household from one type to another type.

This dynamism compromises the sustainability of development initiatives because plans decided upon are not adhered to.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter presents interpretations, conclusions and recommendations. Possible trajectories for the three types of wool producers are pointed out. Shortfalls of study are highlighted and further areas of study are suggested. Positive factors that might improve their farming situations are also suggested.

6.2 Conclusions

The sustainability of resource use is the key to successful wool production at Xume and community involvement is vital in ensuring sustainability of resource use. The community members need to change their perceptions and attitudes towards use of grazing land and other natural capital and recognize that technical solutions are not the only answer. They need to be augmented with educating the wool producers on conservation measures. Social capital in the form of conservation societies, common rules, relations of trust should increase sustainability of resource use.

Because of an increase in settlements, more land is taken up for residential purposes. This gradually creates pressure on land use that eventually results in veld degradation. In order to address the problem of veld degradation, the community of Xume should arrive at a common understanding in managing the veld. Wool producers of Xume need to be informed about the dangers of overgrazing. The Communal Land Rights Act, (CLARA) which is part of the new policy framework, is expected to improve the situation at Xume. This act provides for a systematic and democratic administration of communal land. It also provides for community rules that will assist in the use of communal land for grazing purposes. However this is not enough to ensure sustainability of resource use. This calls again for community involvement.

Institutional support through provision of adequate shearing sheds that will serve as marketing outlets, is important for the small-scale farmers. It increases the chances of selling wool for better prices whereas shearing at home reduces trading opportunities and chances and getting better prices from sale of wool.

Veterinary control measures that the government is currently putting in place are also important towards getting good quality wool. Provision of credit and farming inputs, marketing and pricing policy as well as suitable technology should address the problem that small-scale wool producers face.

Development initiatives should consider complexity, dynamism, and diversity of the farming situation at Xume; by continuously reviewing rules and regulations set by the community as part of social capital. Typology also needs to be reviewed regularly because wool producers shift from one type to another type. It is also very important to understand that development is a process. It takes time to be effective and therefore needs commitment and patience among community members.

From this study, it is clear that farmers are not homogeneous. Farmers are diverse in their farming practices and marketing. Identifying the diverse groups of producers regarding their wool production features and marketing aspects is likely to ease the development support process by better targeting each group's needs and circumstances for extension support, training, research, and mentoring. Grouping farmers with similar practices is important because it reduces costs of intervention. Time is also saved. Grouping farmers also helps to easily detect the constraints of production systems that exist in each group without physically visiting the areas of concern. It serves as a map of the production systems; it is easy to read and understand, as it is not complicated.

It can be deduced therefore, that there is no single development plan that can suit the diverse groups of farmers. Each group has to be approached differently to suit relevant needs and the development plans should differ accordingly. Thus the problems that have already been encountered in many development programmes generally could be reduced. This concept could also be a useful discussion tool in the process of developing an effective agricultural policy for small-scale wool producers.

6.3 Recommendations

The following recommendations are based on the findings of this case study. The recommendations for the three different types identified are as follows:

6.3.1 Type 1 - Sheep keepers with no income

Since Type 1 sheep keepers are not commercial as indicated previously they use their sheep for cultural and community-binding festivities and that they derive livelihoods and keep social networks by keeping sheep; they would welcome increased extension services on dipping, dosing and inoculation, which could be done at constant intervals. The social gatherings could have social by-products such as committees that manage natural capital. This type should sell sheep to Type 2 who might be commercial woolgrowers and to Type 3 who could graduate to be entrepreneurs as time goes on.

6.3.2 Type 2 - Woolgrowers

(a) Breeding

For Type 2 producers, co-operative groupings can boost the wool productivity of their sheep. An example is the KwaZulu-Natal woolgrowers who formed co-operative groupings with the aim of breeding fine-wool rams. The groups pooled their money and bought rams that had genes of fine wool and also rams that had a good balance of wool and meat. The aim of this undertaking was to boost the production of wool with finer microns, and this has been successful. The groups also participated in veld-ram clubs, which enabled the breeders to compare their stock with other stock countrywide and improve where necessary (Sandberg, 2001). Type 2 woolgrowers at Xume can also benefit from ram clubs and that will result in improved wool production and increased income for them.

Artificially inseminating the ewes with semen from breeds that have the required traits improves the sheep offspring. In the Eastern Cape, farmers were part of the LandCare Project that involved the Grootfontein Development Institute, the Agricultural Research Council, the National Woolgrowers Association and the extension officers from the Eastern Cape Department of Agriculture. The project involved the introduction of new and better genetic material to improve the quality of livestock in the areas of Queenstown, Dudumashe near Butterworth. Xume also benefited from this when rams were introduced by NWGA in 2005, to improve the wool quality in sheep; and this is hopefully going to increase wool productivity and improve wool quality.

(b) Farmers' days

Another good example is the Herschel farmers in the Eastern Cape who organize farmers' days to keep farmers abreast with new innovations and technological advancements (Coetzee, 2003). This is a good way of improving wool productivity, which this type (Type 2) can adopt and implement in order to generate more income from sale of wool.

6.3.3 Type 3 - Commercial woolgrowers

(a) Training in entrepreneurial skills

The Eastern Cape is a province that produces more wool than the other provinces of the country (Cape Wools, 2004). This is a good opportunity to create financial stability at Xume. These woolgrowers should be trained in entrepreneurial skills such as proper record keeping and making profits; and provided with counselling and technical support. The government has established an enabling environment for emerging entrepreneurs by establishing institutions through the Department of Trade and Industry. One of the institutions established that could provide support from the beginner stages of entrepreneurship is Ntsika Enterprise Promotion Agency. This institution also trains in market access and business linkages, which is a requirement for these woolgrowers. National Wool Growers Association is currently training the local women of Xume in sheep shearing, wool sorting and marking of bales. This is also a good start that is hopefully going to put the commercially oriented wool producers of Xume on the map.

6.4 Possible trajectories

The typology of Xume gives a picture of the wool producer types at a particular period. With time these types might shift from their current types to other types as indicated in Figure 6.1. Type 1 wool producers might remain being Type 1. They keep sheep to accrue wealth and they do not intend to be commercial or entrepreneurs. Type 2 can become commercial woolgrowers because they are more advanced than Type 1 in practicing technical features. They also sell wool to earn extra income. Type 3 can create jobs for the unemployed by becoming entrepreneurs.

Some members from the three types might form types outside the community by becoming new types that are different. Grandchildren who are currently at school could form new types that are different from existing ones when they finish schooling. They

could also take over the households when their grandparents die or become very old because they usually become inheritors (especially the first born grandsons).

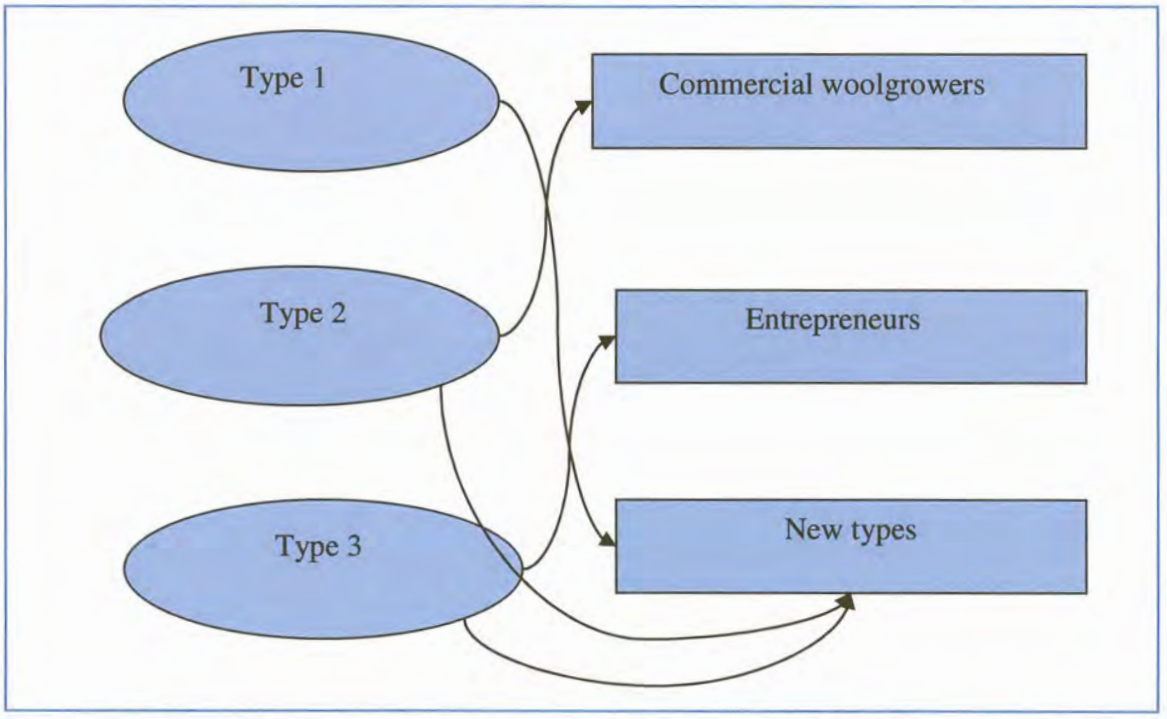


Figure 6.1: Example of possible trajectories for three types of wool producers.

This typology presents a picture of the projected types of wool producers in the households.

6.5 Review of analysis using typology

A typology creates boundaries between types whereas reality shows a more blurred picture with transition situations that do exist between the so-called "types" (Perret, 2004). For instance, the virtual boundaries between types of producers are likely to be more blurred and overlapping. For an example Type 2 and Type 3 abide by socio-cultural norms of the community such as rituals and traditional ceremonies as Type 1 does. Typology presents a better picture of livelihood patterns because it unveils the complexities embedded in the types. The disadvantage of typology is that farmers are presented as static and yet they change from time to time. Households develop and their farming patterns and systems change with time. "A household belonging to one type at a given moment may shift into another type later on" (Laurent *et al.*, 1998). For this reason,

possible trajectories for the types of producers as already discussed above, tend to shift from one type to another over time.

6.6 Shortfalls of the study

The study is falling short of some important aspects that are strong determinants of a working economy for the households. Examples are the costs of wool production for dosing, dipping, inoculation and providing supplementary feeding to lactating ewes. Some respondents did not know these costs. Therefore an estimation of costs was done for Type 3 woolgrowers when gross margins were calculated.

The length of the wool fibre determines the quality of wool. All respondents could not give the size of length of the fibre. This has made this study fall short of information that could determine the quality of wool. 'Buyers of wool' was the only variable that was used to determine the quality of wool and it was not a true reflection of the quality of wool. Furthermore, measurements of wool mass were not accurate because respondents did not know how big a kilogram was. They used physical containers and bags, which the interviewers had to estimate in kilograms and grams.

Because the farmers at Xume hardly kept any records of their production and marketing activities, nothing is accurately measured in terms of yields, prices, costs and profits. The data and information that is analysed are based on what the wool producers said during interviews and also upon their memories.

The sampling was not random and therefore statistical inferences could not be made from this study. The conclusions and recommendations of the study are only applicable to the area of case study. Lastly, the responses from respondents were not consistent.

6.7 Suggested areas of further study

Quality of wool needs to be explored further. Factors that determine quality of wool are fibre fineness, thickness, length and elasticity. Fibre fineness is the mean diameter or thickness and is expressed in microns. Crimps determine the thickness of wool and the more the crimps the thicker the wool. Superfine wool should be at least 18 microns on average. Thickness determines the end use of the wool. Fibre length should at least be

20cm. Elasticity means that a good quality fibre should stretch and return to its original length after release of the tension, and thus, elasticity becomes an important feature in the textile industry (Mkhaliphi, 14/03/2006, pers.comm.).

Investigations on veterinary costs and income generated from wool production also need to be further explored. Record-keeping by wool producers remain vital in order to know the veterinary costs and income generated when making economic analysis.

6.8 Recommendations for the three types of woolgrowers

6.8.1Controlled grazing, rotational grazing and veld resting

Controlled grazing is important in order to get good quality wool. It means applying correct numbers of stock to the correct size of the grazing veld. If correct numbers are not administered by, for example overstocking, the veld condition deteriorates. The sheep, as a result, lose condition and cannot be productive. At Xume, poor or no fencing could be a hazard to practicing rotational grazing. The government is currently providing fencing for grazing veld and the community of Xume needs to co-operate with government in making sure that the fence does not get stolen by other community members.

Resting the veld and rotational grazing is also a good way of increasing productivity of the veld. Rotational grazing allows time for the camps that are grazed to grow again and increase their nutritive status while they are rested. This might not be easy for the woolgrowers at Xume because of the lack of fencing that divides the grazing land into camps. To overcome this problem, sheep farmers should be encouraged to keep their flocks on one side of the communal land so as to allow the veld on the other part to recover as suggested by Moeng (1998) in Gittens, (1998).

6.8.2 Observing the grazing seasons

Woolgrowers need to observe grazing seasons. The nutritive status of the grass decreases in winter because there is very little rainfall and sometimes no rainfall. During this period the grass loses its nutritive status and some supplementary feeding is required to meet the nutritional requirements of the sheep. Planting dry land lucerne is advisable to supplement grass if soils could be suitable, following a soil analysis or available data on soil suitability.

Early spring rains increase the nutritive status of the grass. This is a good time to graze the sheep because they are selective grazers and at this time the grass is sweet and palatable. During the early spring rains the grass is recovering its nutritive status after the dry winter season. But grazing should be organised such that the emerging grass from spring rains is not completely grazed in order to ensure the sustainable use of the grazing land. This can be done by having a set of rules and regulations on the use of grazing land by an organised committee at Xume. According to Communal Land Rights Act no.11 of 2004, a community must make and adopt its community rules that regulate the administration and use of land, and have the rules registered. The rules must be within the framework of the law governing spatial planning and local government. In a research conducted by D'Haese *et al.* (2005) on small-scale woolgrowers in former Transkei, trust among community members is the precondition for economic development and effective government. Jules and Ward (2001) considered that social capital embedded in participatory groups within rural communities has been central to equitable and sustainable solutions to local development problems. They make an example of groups such as grazing societies, water user's group, church groups and other forms of groups that are a basis for sustainable livelihoods.

6.8.3 Making use of wethers

In an experiment conducted in Fraserburg castrated rams (wethers) proved to be more profitable and produced better quality wool than ewes that carried costs of lambing, of feeding the young ones and of increasing their feeding during periods of pregnancy (Moseley, 2003). The results of the experiment indicated that the wool was of better quality and better length compared to that of ewes and that the wethers also showed good growth and superior ability to reach difficult-to-access pasture. There are, however, certain factors that wool producers of Xume need to consider such as adaptability. Buying sheep from one region and raising it in another region may cause the sheep to suffer in the new environment and that will affect their productivity and eventually lead to losing instead of realising profits.

6.8.4 Technical training and provision of information

Wool production is not possible without having a technical knowledge on how to rear them. Application of technical features improves the quality of wool. Because the wool producers of Xume are not educated, does not mean that the education gap cannot be bridged. Training should be offered to these wool producers and they should also be kept abreast of innovations on new technologies, which will suggest ways of improving the wool quality. They should also be informed about current prices by providing them with handouts and pamphlets that are written in their own language. This will help them when they make selling decisions.

6.8.5 Networking

South Africa has established a number of trade relationships with countries in and outside SADC region. The farmers at Xume could benefit from these agreements and earn foreign currency that South Africa needs to improve its economy. The wool producers should also link themselves to the successful woolgrowers in and outside SADC region in order to learn wool production techniques and wool business skills.

6.8.6 Financing

The problem of a lack of capital should be addressed and policies drawn up that favour the disadvantaged rural communities of the province. Currently there is a government supported and funded programme in place launched this in 2005; aimed at a more efficient and effective agricultural finance system serving the needs of small-scale, emerging farmers, enterprises and the poor households. The National Department of Agriculture (NDA) together with the Working group initiated this programme in 2004 and it is called Micro Agricultural Finance Schemes of South Africa (MAFISA). Its vision is to empower the rural working poor, entrepreneurs and farmers to improve their livelihoods. Of its core objectives MAFISA believes that an effective financial system will contribute to empowering emerging farmers who are active within the agricultural sector in the rural and peri-urban areas. So, the producers should be encouraged to take advantage of the existence of such programmes and utilize them to improve their livelihoods.

6.8.7 Groups for bargaining

Marketing of wool is the biggest problem at Xume because most wool producers do not have transport to take wool to potential buyers in order to get a good price. Groups of wool producers can easily bargain for transport in as much as they can easily bargain for prices of inputs for producing wool.

Wool producers at Xume should also deal directly with processors without any intermediary, such as marketing agents, in order to become more involved in the marketing of their wool. This reduces the marketing costs. The wool producers at Xume should exercise quality control to part the standards required by brokers and processors.

6.8.8 Recognition of the potential for rural farmers

The dual economy of agriculture has distorted the potential of rural farmers to attain their full potential in wool production and in farming generally. Their entrepreneurial opportunities have been suppressed by being excluded from the commercial stream. The current agricultural financial services are inadequate in the sense that they cannot service a large segment of the population and they have no closer physical access to financial institutions for personalized client service. The MAFISA initiative aims to remedy the situation because it intends to recognize the importance of small-scale farmers by providing them with accessible, more adequate, relevant and effective financial services. One of MAFISA's desired outcomes is greater productivity in farming and agribusinesses. Hopefully this will bridge the gap that exists between the first economy and the second economy in agriculture.

6.8.9 Proper record keeping

Proper record keeping (especially financial records) should be central in the production and marketing of wool because it is the heart of profit making; this can improve the economy of the case study area, the province and the country as a whole. Small-scale farmers can make a tremendous contribution to the GDP of the country. Delgado (1997) in Ngqangweni (1999) confirms this. According to Delgado (1997), evidence from elsewhere in Africa overwhelmingly demonstrates that small-scale agriculture has been a principal motor of development in rural areas and small-scale agricultural units have achieved higher returns relating to land and capital over time than large-scale operations.

Strategies to improve rural farming should be a major incentive in the formulation of any agricultural policy.

6.8.10 Use of extension services for transferring information

Extension services still remain a very important aspect for the improvement of wool production at Xume. They are the backbone for service delivery. They are the most accessible source of information. Coetzee *et al.* (2005) indicated that extension officers in the Eastern Cape could play a vital role in supplying farmers with information regarding production and marketing. He said although the government has committed itself to providing information, it does not filter to the farmers. This suggests that all the information that is necessary for developing of the small-scale and emerging wool farmers at Xume should be available to extension officers. Coetzee *et al.* (2005), believes that farmers could receive market information in time and at their convenience from the extension officers. This link should also exist between wool producers of Xume and buyers of wool.

6.8.11 Human and social capital are tools for sustainable development

Keeping lots of sheep generates human capital embedded in skills and knowledge on wool production techniques. These skills come as a result of experience in keeping sheep and can be reinforced and supplemented through training.

Collective participation in the local rituals and festivities can generate social capital. Gathering together brings an opportunity for community members to form groups based on trust, common rules and norms in order to manage natural resources (veld and water sources) and physical resources (shearing shed and dipping tank). Empirical evidence on collective groups for natural resource improvement is depicted in India, Australia, Kenya, USA, Brazil, (Jules and Ward, 2001). These local groups were watershed and catchment groups. They played an important role in conserving the use of water. This example could be adopted and used taking cognisance of local environmental conditions.

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ANNEXURE A

TYPOLOGY QUESTIONNAIRE

No 2 Typology AREA

A. GENERAL INFORMATION

DATE:

QUESTION FIELD

NUMBER:

NAME OF INTERVIEWER

Was this household interviewed during the first phase? YES / NO

If no, then please fill in the demographic information with the interviewee

Code	Age	Gender (M/F)	Status	Educational Level	Occupation	Time at Home%

Codes	*1.*	*Head*	*(S) ingle*	*1.*	*Pre-school*	*(F)arnung*
	2.	*Spouse /husband*	*(M)arried*	*2*	*up to std 5*	*(H)ouswife*
	3.	*Child*	*(D)ivorced or separated*	*3*	*std 6-9*	*(E)mployee*
	4	*Grandchild*	*(W)idow*	*4*	*std 10*	*(P)ensioner*
	5	*Father or mother*		*5*	*higher*	*(B)usiness*
	6	*Other*		*6*	*none*	*(N)o occupation*
						(S)tudent

Can be combined (Other)

B. GENERALITIES ABOUT STOCK BREEDING

Warning to interviewers:

There's a difference to be made between animals owned by the household and animals looked

after for another person or household

B1. Which and how many animals do you keep?

Livestock	Number owned	Number looked after	Total
Cattle: Cows heifers			
Bulls			
Calves			
Oxen			
Sheep: Ewes			
Livestock	Number owned	Number looked after	Total
Rams			
Lambs			
Wethers			
Goats: Ewes			
Rams			
Kids			
Kapaters			
Fowls: Adult			
Chicken			
Horses			

B2. YOUR ANIMALS PRODUCE (Tick please)

SHEEP	WOOL	MUTTON	SKINS

CATTLE	MILK	BEEF	SKINS
GOATS	MOHAIR	MEAT	SKIN
POULTRY	EGGS	MEAT	

B3. HOW DID YOU OBTAN THE ANIMALS YOU OWN?

	SHEEP	CATTLE	GOATS	POULTRY
Breeding				
Bought outside community				
Bought inside community				
Inheritance				
Gift by relative				
Other				

Other:

(specify).....

B4. IN CASE OF PURCHASE, WHAT KIND OF ANIMALS WAS PURCHASED? *(Can be combined)*

TYPE SHEEP	Ewes	Rams	Lambs	Wethers
1999				
1998				
1997				

1996				
CATTLE	Cows/heifers	Bulls	Calves	Oxen
1999				
1998				
1997				
1996				
GOATS	Ewes	Rams	Kids	Katapers
1999				
1998				
1997				
1996				
POULTRY	Laying hens	Day old (broilers)	Day Old Laying	Dual purpose
1999				
1998				

B5. WHY, WHAT FOR?

.....

B6, ANY PROBLEMS WITH PURCHASING OF ANIMALS?

.....

B7. WHAT ARE YOUR MAJOR OBJECTIVES WITH ANIMAL BREEDING?

OBJECTIVES	SHEEP	CATTLE	GOATS	POULTRY
Self-consumption				
Sale of animals				

Sale of meat				
Sale of wool				
Accruing wealth, savings, cash reserve				
Transmission to your children/succession				
Major source of income				
OBJECTIVES	SHEEP	CATTLE	GOATS	POULTRY
Self-consumption				
Local status, success as a farmer				
Funeral				
Lobola				
Other				

Several answers can be combined

C1. SHEEP PRODUCTION (Stock Production)

Please indicate the different tasks of sheep breeding and wool production

	WHO	WHAT	WHEN (month)
Management of grazing			
Mating management			
Pregnancy management			
Lambing			

Lactating ewes management			
Management of lambs			
Supplementary feeding			
Tattooing/marketing			
Dosing			
Dipping			
Inoculations			
Slaughtering			
Shearing			
Wool sorting			
Transport of wool			
Sale of wool			
Sale of old ewes			
Sale of weaned lambs			
Sale of ewes			
Sale of rams			

Purchasing of ewes			
Purchasing of rams			
Management of grazing			

C 2. WHO MAKES THE DECISIONS AND WHO CARRIES OUT THE DIFFERENT TASKS?

SHEEP	DECISION	OPERATION	DAYS/YEAR
Management of grazing			
Mating management			
Pregnancy management			
Lambing			

Lactating ewes management			
Supplementary feeding			
Dosing			
Dipping			
Inoculation			
Slaughtering			
Shearing			
Wool sorting			
Wool baling			
Transport of wool			
Sale of wool			
Sale of animals			
Purchase of animals			
Tattooing			

D. SHEEP PRODUCTION

D1 Do you castrate ram lambs? YES / NO

D2 If yes, when and at what age?..

D3. At what age is docking done?

....

D4. Are sheep kraaled / free range? (Tick please)

D5. If yes, what time -

....

D6. What time released in the morning?

....

D7. How long do the lambs remain in the kraal after lambing?

....

D8. Any problem or constraint about mating?

.....

D9. If any, how can it be overcome?

.....

D10. Would you change your mating system to yearly or twice a year?

No change	
Yearly	
Twice a year	

D11. What is the average lambing percentage?

Less than 40%	
Between 40% and 50%	
Between 50% and 60%	
Between 60% and 70%	
More than 70%	

$$\textit{Where lambing percentage} = \frac{\text{Number of lambs born}}{\textit{Number of ewes mated}} \times 100$$

D12. Do you run rams with ewes all year round? YES / NO

D13. Do you castrate your rams? YES / NO

D14. Would you take part in any stock improvement scheme? If so give an example from the list below.

Joining a ram club	
Culling for better livestock performance	
Introduction of new bloodlines	
Other (specify below)	

.....

D15. Percentage of mortality among sheep.

	GROUP A	GROUP B	GROUP C	GROUP D
	Lambing Percentage	Birth until weaning	Weaning until 18 months	Adult, ewes, rams wither
Less than 5%				
Between 5% - 20%				
More than 20%				

D16. Give a reason for these results - GROUP A .....

GROUP B. .....

GROUP C . .....

GROUP D. .....

D17. How can this mortality be reduced?

.....

D18. Do you have losses because of theft? YES / NO

If "YES", to what extent?.....

D19. WOOL PRODUCTION

D20. What is the total amount of wool you produce per year?

.....

Please indicate not only in bags or bales but also in kg

.....

D21. What is the quality of wool you send to the market (colour and length)?

.....

D22. Do you think it can be improved?

Quantity YES / NO

Quality YES / NO

D23. If YES,
how? .....

D. SHEARING

D24. Do you shear your sheep yourself YES / NO

If NO, who?
.....

Why?
.....

D25. Where are your sheep shorn?
.....

D26. Do you usually shear your sheep every 6, 8, 10 or 12 months? " .....
months
Compared with the yearly labour schedule provided in C1.

D27. What is the average amount of wool being shorn per sheep per year? (All shearing combined)

Less than 1 kg	
1 to 1.5 kg	
1.6 to 2 kg	
2 to 2.5 kg	
2.6 to 3 kg	
More than 3 kg	

Cross check with D21

D28. How many sheep do you shear during each shearing period?

.....

D29. Do you meet any problems or constraints with regard to shearing?

.....

D30. If any, how could it be bypassed?

.....

D31. Do you sort or grade the wool yourself? YES / NO

D32. Do you store it? YES / NO

where?

.....

D33. Do you pack it? (bags/bales) YES/NO

If no who packs?

.....

D34. Do you transport it? YES/NO

By whom and from where to where?

.....

D35. How? (Own bakkie, hired transport,
other).....

D36. What facilities do you use as a wool producer?

a. Shearing shed YES / NO if yes, cost/year
.....

b. Dipping tank YES/NO if yes, cost/year
.....

c. Extension & technical advice YES/NO if yes, cost/year
.....

d. Vet & animal health YES/NO if yes, cost/ year

.....

e. Dipping YES/NO if yes, cost/year

.....

f. Dosing YES/NO if yes, cost/year

... ...

g. Inoculations YES/NO if yes,

cost/year.....

h. Training sessions YES/NO if yes, cost/year .....

i. Formal marketing YES/NO if yes, cost/year.....

D. ANIMAL HEALTH: INOCULATIONS

D37. Do you inoculate your sheep? YES / NO

D38. Against what disease do you inoculate, how many times per year?

Diseases	Inoculation	once/year	twice/year	More
Pulpy Kidney				
Blue Tongue				
Wesselsbron				
Rift Valley Fever				
Epizootic Abortion				
Other				

D39. What is the yearly cost of these inoculations?

.....

D40. Any problem about vaccines and inoculations?

.....

D41. If any, how could it be overcome?

.....

D. ANIMAL HEALTH: DIPPING

D42. Do you dip your sheep? YES / NO

If yes where?.....

D43. Against which parasites do you dip your sheep and how often?

Parasites	Once a Year	Twice a Year	More
Lice/scab/keds			
Ticks			
Red Water			
Heart Water			
Gall sickness			
Others (Specify)			

D44. Which products do you use when dipping your sheep?

Dipping: Zipdip, Cooperzon, tick oil, other (specify) .....

Pour-on remedy: Paurecide, Deadline Ectoline, Cypor, other

(Specify) .....

Dual-purpose inoculations (external/internal parasites) .....

D45. What is the yearly cost of dipping?

.....

D46. Any problem about dipping?

.....

D47. If any, how could it be overcome?

.....

D. DOSING:

D48. Do you dose your sheep against internal parasites? YES/ NO

D49. Against which internal parasites do you dose and how often?

Parasites	Once a year	When	Twice a year	When	More (Specify)
Roundworm					
Tapeworm					
Liver Fluke					
Conical Fluke					
Nasal Worm					
Other (Specify)					

D50. Which products do you use when dosing your sheep?

.....

D51. What is the yearly cost of dosing?

.....

D52. Any problem about dosing?

.....

D53. If any, can it be overcome?

.....

D. SUPPLEMENTARY FEEDING:

D54. Do you give the lactating ewes supplementary feeding? YES / NO

WHY?

.....

D55. If you supplement, what kind of feed do you use as supplementary feed?

Chocolate Maize	Yes/No	Quantity per ewe per day

Maize		
Lucerne		
Feed Pellets		
Rested Veld		
Licks		
Salt		
Other (specify)		

D56. For how long after lambing do you give supplementary feeding? .....

D57. What is the yearly cost of supplementary feeding? .....

D58. Any problem about supplementary feeding? .....

D59. If any, how can it be overcome? .....

D60. Synthesis of costs connected to sheep keeping and wool production (rand/year)

Purchase of animals	
Services, advice, training	
Veterinary interventions	
Subscription to Farmers Association	

Shearing	
Transportation of animals/wool	
Vaccines & inoculations	
Dipping & dipping products	
Dosing products	
Flushing and supplementary food	
Other (Specify)	

D61. Synthesis of profits/income connected to animals (rand/year)

	Sheep	Goats	Cattle
Sale of Animals			
Sale of Skin/Hides			
Sale of wool			

D62. Number of animals slaughtered for self-consumption: .....

D63. Do you yourself use the skin of the sheep? YES/ NO

D64 If YES, how may per year? .....

D65. Do you transport animals for other farmers? YES / NO

D66. If YES, do they pay you for that (cash, kind or barter)? Mark the relevant one

....

D67. If YES, how many times per year? (AVERAGE).....

E GOAT PRODUCTION

E1 Are goats kraaled or free range?

E2 At what time are they released in the morning and afternoon?

.....

E3 Do your rams run with flock throughout the year? YES / NO?

E4 Would you change your mating system to yearly or twice a year?

No change	
Yearly	
Twice a year	

If not interested, give reason.....

E6 What is the average lambing percentage?

Less than 40%	
Between 40% and 50%	
Between 50% and 60%	
Between 60% and 70%	
More than 70%	

Where lambing percentage = Number of lambs born

*Number of ewes mated * 100*

E7 Do you prepare your skins in any special way? YES / No

F CATTLE PRODUCTION

F1 How many calves were born since last August?.....

F2 Does your bull run with your cows all year round? YES / No

F3 What is the age of the first calving? .....

F4 What is the average calving percentage?

Less than 40%	
Between 40% and 50%	
Between 50% and 60%	
Between 60%	

and 70%	
More than 70%	

Where calving percentage = Number of calves born / Number of cows mated * 100

F5 Do you castrate your bull calves YES / NO

If so, at what age?………………………………………………………………

F6 Are your cattle kraaled?/ free range (*Tick please)*

If kraaled what time afternoon?………………………………………………

If kraaled at what time are they released in the morning? ………………………

F7 How long does the calf remain with its mother after birth?………………………

F8 Do you milk the cows? YES / NO

F9 For how long is the calf kraaled all the time?………………………………………

G. POULTRY PRODUCTION

G1. What type of food is given to the layers? ………………………………………………

G2. What type of food is given to the broilers? ………………………………………………

H. GRAZING AND DAILY MANAGEMENT OF ALL ANIMALS KEPT

H1. Do they graze on the communal grazing area? YES / NO

H2. How do you manage grazing (movement of the flocks)?

a. Permanently (daily) YES / NO If yes, who?
………………………………………………………

b. Monthly? YES / NO If yes,
who? ………………………………………………

c. In Summer YES / NO if yes,
who? ………………………………………………

d. In Winter YES / NO If yes,
who? ………………………………………………

e. When rain comes? YES / NO if yes,
who? ………………………………………………

f. Free movement/not controlled? YES / NO if yes,

who? .....

H3. Do you manage different camps? YES / NO How many? .....

H4. Which problems or constraints do you meet in relation to grazing

.....

H5. How would you describe the condition of the grazing?

Deteriorating - Very Poor Condition /Little Grass	
Deteriorating - Poor condition, but some Grass	
Fair - Reasonable Amount of Grass	
Good - Plenty Grass	
Very Good – Improving	

H6. Would you reduce your stock?

If better price where obtained	
If all had the same number of animals	
If feeding cost became too high	
Any other reason	

Other

(*Specify*)

.....

H7. If not interested, give reason

.....

H8. Do you consider fencing and watering points or the lack of constraints? YES / NO

If yes explain why

.....

H9. Which other problem or constraints do you experience with grazing?

.....

H10. Do you keep your flock separated?

From other animals	
From friends	
From family	
or together	
From the community	
or other	

Other

Specify

.....

I TATTOOING/BRANDING/TAGGING

11. Do you tattoo, brand mark your sheep? YES /NO

12. Do you tattoo, brand mark your cattle? YES/NO

13. Do you tattoo, brand mark your goats? YES /NO

14. How do you mark (permanently, not branding with pain marking)?

.....

15. WHY?

.....

16. Who marks?

.....

17. Do you experience any problems or constraints with tattooing? YES / NO

18. If any, how could it be overcome?

.....

J. MARKETING

J1. To whom do you sell your wool?

Brokers (Auction system)	
Speculators	
Direct Marketing	
Other	

Other: *(Specify)*

.....

J2. What is the price paid for wool? Per kg or bag/bale

.....

J3. How were the prices formed?

Bargaining	
Contract	
Auction	
Given price (no bargaining)	

J4. If you bargain what is the most important criterion (for wool)?

Quality	
Length	
Colour	
Clean yield	
Quantity	
Distance to market	

Other (Specify) .....

J5. How much do you earn when you sell per year?

R.....

(*Cross check D21*)

J6. Do you consider this income as

A major income for your household	
an additional income	
a side-effect of stock farming	

Cross check with B7, please

J7. Do you meet any problem or constraint about marketing YES /NO

J8. If any, how could it be bypassed?

.....

J9. Do you encounter competition in the marketing or selling of your products? YES / NO

If yes, from who?

White producers	
Local black producers	
Hawkers	
Others	

Other: *Specify*

.....

K. LABOUR

K1. Do you employ full time workers? YES / NO

Part time? YES / NO

If yes how many full time workers do you employ?

No .....

Part time?

No.....

Full time: How many men ..... woman..... and school children (School) .....

K2. What type of work do they do?

.....

K3. How do you pay full-time workers?

In cash	
In kind	
Both	
Other	

Other:

(*Specify*).....

K4. If in kind, in what form is the remuneration?

Daily food	
Monthly ration of meat	
Number of bags after harvest	
Other	

Other:

(Specify).....

K5. How do you pay part-time workers?

In cash	

In kind	
Both	
Other	

Other:

(Specify).....

K6. If in kind, in what form are the remunerations?

Daily food	
Monthly ration of meat	
Number of bags after harvest	
Other	

Other *(Specify)*

.....

K7. On what basis are wages calculated?

Full time

Daily wages/day e.g., R10.00	
Weekly wages	
Monthly wages	
Piecework	
Other	

Other

(Specify) .....

K8. What are your reasons for entering farming as an occupation?

To make a living	
Interested in farming	

To attempt a commercial venture	
To serve the community	
Other	

Other (*specify*).....

K9. Do you keep financial farming records relating to the following?

Cost of farming	
Income from farming	
Production figures	
Labour records	
Other	

Other

(*Specify*) .....

K10. If yes, evaluation of records *(confirm by observation)*

Through, neat records	
Some records (rough, incomplete)	
Only some idea about record-keeping	

K11. Do you have any plans for further development of your farming? YES / NO

If yes, please specify

.....

K12. Do you have any books, leaflets, pamphlets, *etc.* to refer to in your farming? YES / NO

K13. When experiencing problems with stock keeping, who do you ask for advice?

Your father or mother	
Your brother or sister	

Other relatives (specify)	
Neighbour or members of the community	
Extension officer or Vet Officer	
Other (specify)	

ANNEXURE B

Enterprise budgets for Type 2 woolgrowers

Woolgrower 1					
				Total Income/Cost	Income /Cost per sheep
Gross income				**12 579.91**	**19.59**
	Quantity	Price (R/kg)	Mass (kg)	Total	
Sheep sales	1	6.67	60	400.00	
Wool sales 308 Ewes 0 Rams 216 lambs 118 Wethers	Kg/sheep 4.5 5.0 1.0 3.5	 6.00 0 6.00 6.00	 1 386 0 216 413	 8 316 0 1 296 2 478	
Ski/hides sales	9	3.33	27	89.91	
Total costs				**5 884.64**	**9.17**
Directly allocated costs: Inoculation	642			800.00	1.25
Dosing @1ml/50kg	642	2.92/ml		1 874.64	2.92
Shearing@R5.00/AU	642	5.00/sheep		3 210.00	5.00
Subscription	Nil				
Transportation costs	Nil				
Gross margin Gross margin /sheep			**6 695.27** **10.42**		

Woolgrower 2					
				Total Income/Cost	Income /Cost per AU
Gross income				**6 189.91**	**28.52**
	Quantity	Price (R/kg)	Mass (kg)	Total	
Sheep sales	1	6.67	60	400.00	
Wool sales	kg/animal				
200 Ewes	4.5	6.00	200 Ewes	5 400	27.00
2 Rams	5.0	6.00	2 Rams	60	30.00
5 Lambs	1.0	6.00	5 Lambs	30	12.00
10 Wethers	3.5	6.00	10Wethers	210	21.00
Ski/hides sales		3.33	3	89.91	9.99
Total directly allocated variable costs				**2 643.64**	**12.18**
Directly allocated variable costs:					
Inoculation	217			400.00	1.84
Dosing @1ml/50kg	217	2.92/ml		633.64	2.92
Shearing@R5.00/AU	217	@5/AU		1 085.00	5.00
Subscription	Nil				
Transportation costs		R3.50/km		525.00	2.42
Gross margin		**3 546.27**			
Gross margin /sheep		**16.34**			

Woolgrower 3					
				Total Income	Income /Cost per AU
Gross income				**6 520.00**	**14.82**
	Quantity	Price (R/kg)	Mass (kg)		
Sheep sales	1	6.67	60	400.00	400.00
Total Wool Sales 45 Ewes 14 Rams 60 Lambs 6 Wethers	**Kg/sheep** 4.5 5.0 1.0 3.5	**6.00** 6.00 6.00 6.00	**300kg** 202 70 0 28	**1800.00** 1 212.00 420.00 0 168.00	**13.64**
Ski/hides sales	12	3.33	36	119.88	10.00
Total costs					
Directly allocated costs: Inoculation	440			800.00	1.81
Dosing @1ml/50kg	440	2.92/ml	60	1 248.80	2.83
Shearing@R5.00/sheep	440		60	2 200.00	5.00
Subscription				120.00	0.27
Sheep purchase	1			400.00	
Gross margin **1 752.00** Gross margin per sheep **3.98**					

Woolgrower 4					
				Total Income /Cost	Income /Cost per AU
Gross income				**5 449.93**	**26.20**
	Quantity	Price (R/kg)	Mass (kg)	Total	
Sheep sales	1	6.67	60	400.00	
Wool sales 108 Ewes 26 Rams 18 Lambs 56 Wethers	**208 (kg/sheep)** 4.5 5.0 1.0 3.5	**6.00** 6.00 6.00 6.00	**830.00** 486 130 18 196	**4980.00** 2 916 780 108 1 176	23.94
Ski/hides sales	7	3.33	21	69.93	9.99
Total allocatable variable costs				**2 047.36**	
Directly allocated variable costs Inoculation	 208			 400.00	 1.92
Dosing @1ml/50kg	208	2.92/ml		607.36	5.85
Shearing@R5.00/AU	208	0.083	60	1 040.00	5.00
Subscription	Nil				
Transportation costs	nil				
Gross margin Gross margin per sheep	**2 932.64** **14.10**				