CATTLE MARKETING IN NORTHERN NAMIBIA:
A STUDY THROUGH A COMMODITY CHAIN ANALYSIS
APPROACH

A NEPRU Research Report

Laurent LIAGRE

with contributions by

Wolfgang WERNER
Anna ERASTUS SACCHARIA
Hoster BEBI

November 1998
NEPRU RESEARCH REPORT NO. nn
NEPRU produces:

- Books
- Research Reports
- Working Papers
- Briefing Papers
- Travel and Meeting Reports
- Occasional Papers

Please turn to the back pages for a list of publications.

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, including photocopying, recording and storage in a retrieval system, without the written permission of the copyright holder except in accordance with the copyright legislation in force in the Republic of Namibia.

© Copyright 1999 by the Namibian Economic Policy Research Unit.

NEPRU Research Report ISSN 1026-9231

First published in 1999 by the Namibian Economic Policy Research Unit,
P. O. Box 40219 Ausspannplatz, Windhoek, Namibia
Acknowledgements

Relevant words.

Disclaimer

The opinions presented are those of the authors and should not be regarded as the views of the <client>. 
**Table of contents**

1. INTRODUCTION ........................................................................................................... 19

2. THE NAMIBIAN BEEF SECTOR CONTEXT ................................................................. 21

3. THE PRODUCTION AND MARKETING OF CATTLE IN THE NORTH CENTRAL AREAS AND NORTH KUNENE REGION ......................................................... 27
   3.1. Definition of the study.............................................................................................. 1
   3.2. The regions studied ............................................................................................... 27
   3.3. The three sub-chains: the processing of meat from the producer to the consumer 28
       3.3.1. The small scale producers' sub-chain ......................................................... 28
       3.3.2. The small-scale producers and private middle-men sub chain .......... 29
       3.3.3. The industrial sub-chain ............................................................................. 29
       3.3.4. The breeding animal supply channel ....................................................... 31

4. THE SPATIAL SET UP OF THE CATTLE FLOWS .................................................. 34
   4.1. The cattle flows supplying the small-scale butchering and breeding animal sub-chains ........................................................................................................... 34
       4.1.1. Geographic organisation of the Angolan flows:.................................... 34
       4.1.2. Organisation of the Namibian flows: ......................................................... 35
   4.2. The cattle flows supplying the industrial sub-chain ......................................... 36

5. THE ACTORS: PRODUCERS, INTERMEDIARIES AND BUTCHERS .................. 39
   5.1. The producers ........................................................................................................ 39
       5.1.1. In Angola ..................................................................................................... 39
       5.1.2. In Namibia .................................................................................................. 40
   5.2. The cattle traders or middle-men ......................................................................... 45
       5.2.1. The actors involved in cattle flows from Angola .................................... 45
       5.2.2. The actors involved in the Namibian cattle flows ................................. 46
       5.2.3. Quantitative aspects concerning the cattle traders' activity in Ombalantu market in 1997 .............................................................. 53
   5.3. The butchers .......................................................................................................... 58
       5.3.1. Cattle slaughtering in the rural areas ......................................................... 58
       5.3.2. Butchers in small towns (Oshikango, Ohangwena and Eenhana) ...... 59
       5.3.3. Butcheries and butchers in Oshakati and Ondangwa ....................... 60
   5.4. Synthesis: the chain diagram .............................................................................. 65

6. OVERVIEW OF MEATCO PROCUREMENT IN THE NCA ............................... 67

7. THE OPEN MARKETS OF OMBALANTU AND OSHAKATI .............................. 71
   7.1.7171 Organisation of the open markets ............................................................. 71
   7.2. The Ombalantu market ...................................................................................... 72
       7.2.1. The main results of the Viallet's study ..................................................... 72
7.2.1. Total number of cattle exchanged in Ombalantu between 1993 and 1997 .................................................. 73
7.2.2. Origin and destination of the cattle exchanged in Ombalantu .................. 76
7.2.3. Type and technical destination of the cattle exchanged in Ombalantu ................................................. 82
7.3. The Oshakati Market ........................................................................ 85
7.3.1. Origin and destination of the cattle exchanged in the Oshakati market ................................................................. 85
7.3.2. Type and technical destination of the cattle exchanged in the Oshakati market .................................................. 87
8. SUMMARY ......................................................................................... 90
8.1. The position of Namibian producers in cattle marketing in NCR and Kunene regions ......................................................... 90
8.1.1. The dominance of the Angolan cattle supply .................................. 90
8.1.2. The low importance of the cattle coming from NCR ...................... 91
8.1.3. The low importance of cattle coming from Kunene ................. 92
8.2. Proposals to develop local channels in supplying the cattle demand .... 93
8.2.1. The promotion of the agents’ marketing organisation .................. 94
8.2.2. Reinforcement of producers’ information ........................................ 95
8.2.3. The development of financial tools ................................................. 95
9. CONCLUSION .................................................................................. 96

Error! Bookmark not defined.List of tables

Table 1: Functional Analysis table. The beef meat sub-sector in the Kunene and Northern central regions: from the farmers to the consumers ...... 33

Table 2: Population density and cattle numbers in the Angolan provinces bordering Northern Namibia................................................................. 40

Table 3: Population density, holding number and cattle number in the NCA (except Caprivi) .......................................................... 41

Table 4: Industrial sub chain off-take in 1996 ........................................ 44

Table 9: Number of cattle sellers in the Ombalantu market in 1997 according to number of cattle sold in the year, and supplying areas ............... 55

Table 11: Number of cattle buyers in the Ombalantu market in 1997 according to number of cattle bought and their destination .................. 56

Table 12: Destination of the cattle by type of buyers ......................... 57

Table 13: Informal Cuts and prices found in the markets ....................... 60

Table 14: MEATCO cattle procurement per region .................................. 69
Table 15: MEATCO cattle procurement via the self / private quarantine system .... 70
Table 16: Number of cattle by origin in the Ombalantu market ..................................... 76
Table 17: Place of origin of the cattle exchanged in the Ombalantu market .......... 80
Table 18: Place of destination of the cattle exchanged in the Ombalantu market
(my copy does not have grid lines everywhere) .................................................. 80
Table 19: Share of the type of cattle exchanged in Ombalantu in 1996 and
1997 .................................................................................................................. 83
Table 20: Technical destination of cattle according to place destination in 1997 .... 84
Table 21: Technical use of the cattle sold in Oshakati market according to the
town destination between June 95 and July 97. ........................................... 88
List of figures

Figure 1: Map of the spatial set up of the activities of the beef sub sector .......... 38

Figure 2: Number of exchanged cattle per type of cattle seller/ buyer in Ombalantu in 1997 ......................................................... 58

Figure 3: Chain diagram of beef marketing in the North Central Region, Okavango and North Kunene ............................................ 66

Figure 4: Meatco procurement in the NCA between 1993 and 1997 ...................... 67

Figure 5: Cattle exchanges per year in Ombalantu compared to Meatco procurements in 1993-1997 ..................................................... 75

Figure 6: Cattle exchanges per quarter in Ombalantu compared to Meatco procurements in the NCA in 1993-1997 .................................. 76

Figure 7: Angolan and Namibian origin of the cattle in 1993-1997 in Ombalantu market ................................................................. 78

Figure 8: Regions of origin and destination of cattle exchanged in Ombalantu ...... 79

Figure 9: Crossing (meaning?) of the origin and the destination of the cattle exchanged in Ombalantu in 1996 and 1997 ............................ 81

Figure 10: Type of cattle per geographic origin and destination in 1997 in Ombalantu market ............................................................ 83

Figure 11: Characteristics of the technical destination of the cattle exchanged in Ombalantu in 1997 .................................................... 85
Figure 12: Origin and destination of the cattle exchanged in the Oshakati market between June 95 and July 96 ............................................................... 86

Figure 13: Distribution of the type of cattle sold in Oshakati market between June 95 and July 96 ........................................................................... 87

Figure 14: Characteristics of the technical destination of the cattle exchanged in Oshakati market .................................................................. 88

Error! Bookmark not defined..
List of abbreviations

CBPP  Contagious Bovine Pleuropneumonia
DVS   Directorate of Veterinary Services
EU    European Union
FMD   Foot and Mouth Disease
FNDC  First National Development Corporation
KO    Killing Out
NAU   Namibia Agricultural Union
NCA   Northern Communal Areas
NCR   Northern Central Regions
NNFU  Namibia National Farmers Union
NNRDP Northern Namibia Rural Development Project
NOLIDE Northern Regions Livestock Development Project
RSA   Republic of South Africa
SACU  Southern African Customs Union
SADC  Southern African Development Community
SARDEP Sustainable Animal and Range Development Programme
VCF   Veterinary Cordon Fence
PREFACE

This study was conducted within the framework of preparatory activities aimed at establishing a “Regional Network on Agricultural Policy” in Southern Africa.

The programme, funded by French Co-operation, aims to promote regional dialogue on agricultural policy, through three main activities:

The first activity would consist of improving the understanding of common points and interactions between agricultural production and trade within the region by creating corresponding field information. This must be done in order to give policy makers the opportunity to implement coherent agricultural development measures in line with the role players’ interests, and based on knowledge of their specific situations.

The second activity would consist of setting up training processes targeting disadvantaged operators’ groups (small farmers’ organisations, small scale processors and so on). Researchers and policy makers, in order to improve the participation of stakeholders in the agricultural politico-economic debate.

The third activity would consist of creating a regional centre on agricultural policy and trade. This platform would comprise a periodic regional follow-up of various data, as for example a follow-up of economic policies for the agricultural sector, consumption prices of the main food products (notably, cereals and meat), the registered cross-border trade flows, and the trade agreements in the region and with other countries.

The present study on cattle marketing, illustrating the kind of production information that could be significant, falls within the framework of the first activity. The adopted research method, using commodity chain and micro-economic analysis from production to consumption level, specifically focuses on the characterisation of cattle flows, and an understanding of the actors’ strategies.

Special thanks are due to the French organisation IRAM (Institut de Recherches et d’Applications des Méthodes de Développement) which, through the presence of Mr Laurent LIAGRE at NEPRU, provided technical support to the study and has been actively involved in the carrying out of the study.
EXECUTIVE SUMMARY

1. Introduction

Prior to the implementation of any policy measures or development projects aimed at improving the participation of Namibian stakeholders in the beef market, it is essential to understand the breeding and marketing of cattle in northern Namibia. The marketing of beef is partly determined by the South African meat market and the Angolan cattle production.

In this context, the present study aims to examine the organisation of the flow of cattle in the North Central regions (Omusati, Oshana, Ohangwena, Oshikoto) and northern Kunene\(^1\), which reveals the importance of the cattle flows from Angola.

The field work was organised into two parts. The first consisted of compiling a database of cattle exchanges on the Ombalantu and Oshakati livestock markets by examining the record books existing in these markets. The second part consisted of interviewing traders and butchers involved in cattle production and marketing. The resulting information enabled the development of a profile of these actors, according to their organisations and their strategies.

2. The Namibian beef sector context

3. The production and marketing of cattle in the North Central areas and North Kunene region: definition of the study

Cattle channels supplying the towns of Ombalantu, Oshakati and Ondangwa were surveyed, namely cattle flows organised by private traders coming mainly from Angola, but also from the North Central areas in Namibia. Cattle flows from the Kunene, mainly organised by Meatco, were also studied.

The geographical areas covered by the study are the North Central Regions (Ohangwena, Omusati, Oshana, Oshikoto) and the North Kunene region. For practical reasons, the work was mainly centred around the Oshakati, Ondangwa, Oshikango and Ombalantu markets and their surrounding areas, as well as the Opuwo area.

Four types of beef commodity sub-chains can be identified in these regions, according to the actors and the type of product marketed:

The *small-scale producers' sub-chain* includes meat production for own consumption, or consumption at a very local level in the rural areas. This sub-chain is characterised by small-scale slaughtering and meat carving processes.

\(^1\) The spelling "Kunene" refers to the Kunene region in Namibia, while the spelling "Cunene" refers to the Cunene Province in Angola.
done by the local butchers or the farmers themselves. There is no intermediate intervention in the sub-chain.

The *small-scale producers' and private middle-men sub-chain* includes short to medium distance marketing channels, from fifty to several hundred kms. They start from various Namibian and Angolan production areas and supply the urban centres of Oshakati and Ondangwa with meat. Middle-men operate the cattle transfers between the origin and final destination. This sub-chain is characterised by small-scale slaughtering and meat-carving carried out by urban butchers.

The *industrial sub-chain* is the long distance marketing channel, connecting the northern Namibian and Angolan production areas, where the cattle are collected with the meat markets in South Africa (Cape Town region). This sub-chain is characterised by a collective organisation and a slaughtering and meat processing industrial system which is operated under strict animal health controls. Meatco operates these functions in Namibia, and has a dominant position in the sub-chain.

The *channel supplying breeding animals*: at the upstream level of all these sub-chains, it should be pointed out that breeding animals (bulls, calves, heifers) are also exchanged between Namibian farmers.

4. **The spatial set up of cattle flows**

- Two official border posts where Angolan cattle are imported into Namibia are located in Caloheque and Onamacunde in Angola. A network of Angolan middle-men collect the cattle in Angola from farms or small local markets and trek them to "cattle regrouping markets". Then a second type of middle-man, either Namibian or Angolan, takes charge of the animals, crossing the border gates and trekking them to Namibian markets. The supply flow from Caloheque to Ombalantu, in Namibia is an important one.

It is worth mentioning the existence of some short cross-border flows between Angola and Namibia, which are difficult to estimate, but probably quantitatively significant. They concern the local cattle movement for grazing or for simply buying purposes.

- The Ombalantu market can be considered the main regional "cattle regrouping market". It is located about 70 km from Caloheque, 80 km from Onamacunde and 90 km from Oshakati. This market regroups the main cattle flows from Angola, which are the most important, and secondly, the cattle flows from Namibia, of which the most significant are from the North Central Region.

The destination for the cattle sold in this market covers a number of places in the Omusati and the Oshana regions, particularly those for breeding purposes. The main destinations of the cattle are the urban zones of Oshakati and Ondangwa, for breeding but mostly for slaughtering cattle.
• It would appear that an important flow coming from the Okongo, Oshiveloe or Mangetti areas is supplying the North Central Regions with slaughtering and breeding cattle. The middle-men are usually the breeders themselves, who build their own cattle paddocks along the roads, mainly in Ondangwa, where they sell the cattle brought from their farms.

• Meatco, as mentioned above, organises the procurement of cattle for the industrial chain. "Buying days" are organised once a week in various places covering the Okavango, NCR and northern Kunene regions, which are reached on foot by the farmers.

5. The actors: producers, wholesalers and butchers

5.1. The producers

Little information on the Angolan producers in Huila, Cunene and Namibe provinces is available. The large numbers of cattle and the farming systems in these provinces allow for the supply to various cattle markets in the northern regions of Namibia. However, the existence of a long distance flow from the northern province of Huila needs to be documented.

In Namibia, the high imbalance in terms of population, number of holdings, and number of cattle between the North Central Region on the one hand, and Okavango and Kunene region on the other is counterbalanced by the highest number of cattle per holding in these two last regions. This feature illustrates the capacity of these regions to produce surplus, mostly in the Kunene Region.

A tentative typology according to the number of livestock owned by the farm-holders, and their possible strategies of cattle marketing may be proposed for the Namibian situation as follows:

• The small producers, owning only small ruminants, which are not part of the cattle marketing

• The small to medium scale cattle breeders, mainly represented in the North Central Regions. These are crop farmers who are also engaged in livestock breeding. They market their cattle only under economic or climatic constraints, mostly selling cattle at the end of their productive life. Regarding market opportunities, the choice between Meatco, the local market or urban centres is usually determined by a variety of factors such as price, geographic position, climatic conditions and the degree of urgency regarding their financial status.

• The large producers, owning 100 heads or more. The group can be sub-divided:

  - The cattle breeders in Kunene operating under a semi-pastoralist system. Due to climatic constraints and their geographic isolation, they frequently sell cattle, mainly to Meatco.
- The Ovambos producers in the North Central Regions operating under a transhumance system (cattle posts in the eastern North Central Regions and western Kavango) together with agriculture. It is assumed that they market their cattle both via Meatco and in the urban centres, adapting their sales to the price variations in both markets.

- The “modern” cattle breeders are, as Viallet (1995) pointed out, an emerging group of farmers. Their farms are mainly located in southern Ohangwena (Okongo) or southern Okavango (Mangetti, Oshivel, etc.). They employ several workers and usually own several hundred genetically improved cattle (Brahman, Afrikaan). The animals are kept on large fenced farms. These producers have a market-oriented strategy, supplying both industrial and small-scale butchering channels, some of them having their own distribution channel up to Oshakati and Ondangwa.

5. 2. The cattle traders or middle men

- The Angolan cattle wholesalers and collectors operate the long- to medium-distance channels, collecting cattle in northern Angola, either at the farms or at the local markets, and supplying the border markets of Caloheque or Onamacunde.

- The cross-border middle men, are sometimes Namibian, but mainly Angolan, buy the cattle in Caloheque or Onamacunde, and trek them to the local Namibian markets. The Angolan middle-men usually return to Angola before the Christmas period to collect cattle directly from the farms in order to supply northern Namibian markets during this specific period.

- The Namibian collectors go directly to the farms, particularly in Kunene, which are their main sources of cattle. These types of trader are not very significant in terms of numbers, or in terms of volume of activity.

- The small traders are quite numerous in the Ombalantu market. They usually buy between 5 and 20 cattle per year, and do cattle business according to their financial needs. Often they are involved in cattle trading as a secondary activity.

- The cattle wholesalers are specialised cattle traders. They mainly buy their cattle from Angolan middle-men, from the collectors in the Namibian markets and from the farmers in the Kunene region or the Mangetti, Okongo and Oshivel areas. They may also attend Meatco buying days in order to buy cattle for sale in the urban butcheries' channel. They have significant financial resources, transport and usually have several employees such as cattle escorters, trade agents and butchers.

- The “modern” cattle breeders / traders are large-scale cattle producers also engaged in cattle trading. They are located in the extensive productions areas of Mangetti, Oshivel and Okongo. They sell the cattle produced on their own farms, but also buy cattle, in Kaokoland or Angola in the case of those located in the
Okongo area. Some of them may also go south of the VCF to buy cattle from commercial farmers. Their main outlet is Meatco, but as seen previously, they have started to develop their own system of marketing, setting up their own cattle pens in the urban centres.

The database concerning the exchange of cattle in the Ombalantu market gives an overview of the number of cattle agents acting in these regions and their characteristics. In 1997, 2,580 cattle sellers met 3,750 cattle buyers in the Ombalantu market. A rather small group of 353 persons are members of both groups, being at the same time sellers and buyers of cattle.

- Angola is the largest supplier of cattle. Sixty-eight percent of cattle sellers brought their cattle from Angola, 23% from Namibia, and 9% brought them from Angola and Namibia. Concerning the destination of cattle, 81% of the cattle buyers declared that the cattle they bought were sent to rural areas. But the more significant the buyer is in terms of volume of activity, the more he is involved in the supply of the Oshana region, and in consequence, in the supply of the urban centres.

- Cattle sellers, are traders selling 10 head of cattle or less during the year and represent 89% of the total number of sellers, but only 30% of the total cattle sold in the year. Agents selling more than 50 cattle during the year represent 2% of the total number of sellers, but 45% of the total cattle sold in the year. For the buyers, agents buying 10 cattle or less during the year represent 92%, while they buy 51% of the total cattle exchanged. On the other hand, buyers purchasing more than 50 cattle a year represent 1% of the total number of buyers, and 23% of the total cattle exchanged in the year.

5. 3. The butchers

The general features of the organisation of small scale butcheries in rural and urban zones include the following:

(i) a wide diversity of types of butcheries;
(ii) a wide diversity of types of butchers; and
(iii) the number of butcheries, in the sense of physical places, is smaller than the number of butchers.

In general, access to butcheries lies within the control of the tribal authorities, the municipalities or Namibian Development Corporation.

A wide diversity of butcheries exists in the urban centres of Ondangwa and Oshakati, ranging from established ones in the omatala markets to butcheries under trees. At the same time, the butchers themselves differ according to their volume of activity and how they are organised, ranging from butcher women operating in the omatala market of Oshakati or Ondangwa who are also cattle traders, to the occasional butcher slaughtering one animal under a tree.
Butchers face problems such as a lack of transport and storage equipment, funding to buy cattle and often poor sanitary standards of the meat products.

6. **Overview of Meatco procurement in the NCA**

In the regions studied, total Meatco procurement decreased dramatically from 23,000 in 1994 to 14,100 head in 1997. The high number of cattle procured in 1994-1995 by Meatco was due to high prices, as well as a severe drought which forced producers to sell their cattle. It is likely that a large number of cattle bought by Meatco in Oshakati during this period came from Angola via the Ombalantu market. The decrease in procurement in 1996 and 1997 was mainly due to the depreciation in Meatco prices, as a result of the liberalisation of the South African meat market. At the same time, with open markets becoming increasingly significant, Meatco decreased its purchases in the NCR in 1997, while the rate of acquisition remained stable in northern Kunene.

7. **The open markets of Ombalantu and Oshakati**

7. 1. **Organisation of the open markets**

The two major markets in the regions studied are Ombalantu and Oshakati. Oilon open market in Ondangwa is an important but minor market. A certain number of small regrouping livestock markets exist in the North, and notably along the borders, such as those in Ruacana, Epalela, or Eenhana. All these markets engage in exchanges of cattle and small ruminants. Generally, these markets fall under the control of the local tribal authorities, from whom each farmer and middle-man has to obtain permission to do business in these markets. The Oshakati and Ondangwa markets fall under the control of their respective municipalities.

A formal system of livestock exchange records was implemented in 1993-94 in almost all of these markets by the tribal authorities. For each animal sold, this system records the origin and destination of the cattle, a description, and the names of the seller and the buyer. The collection and computerisation of such information facilitated the building of a database on cattle exchanges on the Ombalantu market. Vialet (1995) collected data for the period of June 1993 to May 1995, while the period June 1995 to December 1997 was covered by the present study.

7. 2. **The Ombalantu market**

7. 2. 1. **Activity**

The number of cattle traded at the Ombalantu market totalled 30,800 head in 1994, 20,300 in 1995, 14,000 in 1996 and 17,800 in 1997. The volume of activity in the Ombalantu market is as important as the Meatco procurement in the NCA during the same period.

During the 1994-95 period, the Ombalantu market satisfied local demand for breeding and slaughtering animals, and was also supplying Meatco. In 1996 and
1997, the Ombalantu market supplied primarily the local breeding and slaughtering cattle market, while its supply to Meatco decreased.

The significant increase in cattle traded in 1997 requires further investigation. It is possible that it corresponds to the Meatco price increase of that period. It can also be assumed that there was a possible increase in 1997 in the demand for breeding cattle in the region in parallel with a permanent demand for meat from the urban centres.

7. 2. 2. Origin and destination of the cattle

Cattle from Angola are dominant in the Ombalantu market. They represent between 71% and 87% of the total cattle exchanged during the period under investigation. The Caloheque cattle market plays a major role in the organisation of the Angolan supply of the Ombalantu market. The second region of origin is the Omusati region, where Ombalantu and Epalela are dominant as places of origin.

An analysis of cattle destinations shows a more diversified situation, where the Omusati and Oshana regions are the main outlets for the dispatching market. In the Omusati region, cattle sold go to a multitude of places and villages around Ombalantu, and about 30% stay close to the Ombalantu area. The cattle going to the Oshana region are mainly forwarded to the urban centres of Oshakati and Ondangwa.

7. 2. 3. Type and use of the exchanged cattle

Oxen are the main group of cattle exchanged in Ombalantu, followed by cows, heifers and bulls. Oxen and cows together represent almost 90% of the cattle exchanged in the market.

For 1997, the destination of 14,739 of the 17,814 total cattle exchanged in Ombalantu is known: 56% were sold for breeding purposes, and 44% bought for slaughtering purposes. About 55% of the oxen, 25% of the cows and 10% of the bulls sold in the Ombalantu market were for slaughter, while the number of the heifers for slaughter was insignificant.

Cattle of all types going to the urban centres of Ondangwa and Oshakati are destined primarily for the slaughtering sector. The majority of the cattle remaining in the rural areas or in Ombalantu are kept for breeding purposes.

7. 3. The Oshakati market

The figures for Oshakati cover the period June 1995 to July 1996. Despite the fact that the figures are incomplete in terms of total number of cattle exchanged, they are nonetheless representative in terms of trends.

Direct observation and interviews show that Oshakati market is smaller in terms of activity than Ombalantu. The origin of cattle is much more diverse than it is in
Ombalantu: in Oshakati, about 78% of the cattle come directly from the Oshana (42%) and Omusati (36%) regions. These supply channels are short-distance channels, with the sellers coming from the immediate surroundings. Only 6% come from the Kunene region. Even if this rate is higher than in Ombalantu, it is still relatively low. All these flows mainly supply the Oshana region, particularly the urban centres. The Oshakati market appears to be more oriented to the sale of breeding cattle than the Ombalantu market. In particular, the heifers are more important in percentage terms than in Ombalantu.

9. Summary

9.1. The absence of local producers in the open markets in northern Namibia.

Observable local demand for breeding and slaughtering cattle in the Ombalantu market is equal to or greater than Meatco procurement in the NCA. The analysis of the origin of the cattle trade in the open markets indicates the importance of the Angolan flows in the supply of the northern market. Correspondingly, it reveals the weakness of the Namibian producers in the supply of these markets. The question is then: why are Namibian regions underrepresented in local channels?

The importance of Angolan cattle in the supply of the northern Namibian markets can be explained by the following four points:

- the cattle production system operating in the Namibe and Cunene Provinces in Angola generates a significant cattle surplus;

- there is an important consumption basin in North Central Namibia, polarising the cattle flows from Angola;

- the lack of infrastructure and general insecurity isolate southern Angolan provinces from Lubango and particularly from Luanda. Under these conditions, it is considerably easier for Angolan producers and traders to sell their cattle in northern Namibia; and

- the weakness of the Angolan economy and the segmentation of the national economical space result in shortages of basic products in the Cunene and Namibe provinces. These products are widely available in northern Namibia. This situation is favourable to those actors specialising in cross-border trading. Large scale Angolan cattle traders buy products such as sugar, cereals, alcohol, shoes, blankets and building materials with the money obtained from the cattle they have sold in Namibia, in order to resell these in Angola.

The situation in Namibia is slightly different. Numbers of cattle marketed in local markets are limited due to the farming system (multi-cropping in association with livestock husbandry), resulting in much lower levels of surplus cattle. Consequently, NCR producers sell their cattle only under climatic or socio-economic pressure.
In northern Kunene region, the semi-pastoralist farming system obliges producers to sell limited numbers of cattle every year in order to buy cereals or manufactured goods. Meatco is the only actor operating in this isolated region and on account of its financial and logistical power provided a secure outlet.

This isolation is the result of long distances between production areas and the main open markets of the NCR, and creates a number of constraints which prevent the producers from trading their animals easily in Ombalantu or Oshakati. These include misreading the market, difficult logistics of cattle transfers, low capacity of the producers to negotiate good prices, inability to offer young cattle adapted to demand or to sell cattle according to their immediate needs.

For the cattle buyers, the dispersion of cattle available for purchase in northern Kunene means that they will travel to this sub-region only if they are certain of finding sufficient cattle to make the trip worthwhile financially, and if they have sufficient financial resources to buy these animals and to organise the transfer. This situation in Kunene explains why buyers generally travel to Kunene only when there is a shortage of cattle in Ombalantu.

9.2. Proposals for developing local channels in the supply of the cattle demand

Three levels of action are proposed in order to promote the participation of local producers in the local channels.

- The promotion of an agents' marketing organisation: in order to facilitate the functioning of local channels, it is necessary to improve the organisation of producers, cattle traders and butchers and to develop the use of trade contracts between these groups of actors. These trade contracts would allow the producers to solve their logistical difficulties, to better organise their cattle sales over the year, and to secure the supply of downstream actors.

- The reinforcement of information relevant to the producers: a knowledge of market trends concerning cattle prices, as well as knowledge of the demand in terms of quantity and types of animal, would place the producers in a better position to negotiate cattle prices, and also to adapt cattle production to demand in terms of numbers and types. In concrete terms, the objective should be the establishment of a cattle market information system operating in Ombalantu, and eventually in Oshakati, covering an analysis of supply and demand and follow up of prices and types of cattle exchanged.

- The development of financial tools: a credit system adapted to the needs and situations of each category of actors would develop their marketing activity. In particular, this should aim to facilitate cattle purchases on the part of traders, but also the acquisition of storage facilities by the butcher women. Concerning the producers, a small scale savings and credit system would facilitate the planning of cattle sales at prime marketing periods.
10. Conclusion: complementary investigations

All these proposals constitute avenues that could usefully be explored. They have to be seen more as concepts than as concrete and definitive technical actions. Thus, complementary investigations need to be undertaken:

- more needs to be known about the marketing strategy of cattle producers, in particular in the Kunene region, but also in the NCR;

- the urban demand for meat in the NCR has to be assessed;

- in the Mangetti and Oshivelvo areas, extensive production systems are in place, and the extent to which they supply meat to the urban centres needs to be more fully understood;

- assessments of the costs involved along all the various sub-chains still need to be undertaken; and

- it is necessary to know in greater depth the cattle supply organisation and price formation of the Angolan channel in order to assess its competitiveness in the face of proposals to develop local channels.
INTRODUCTION

Currently, the agricultural sector is increasingly linked to the liberalisation of the international economy. At the same time, internal deregulation modifies national agricultural contexts. Although the consequences of these developments may not be obvious today, there can be no doubt that the process is underway and that within several years, it will be a reality for most of the economic players.

The research tools of the agricultural sector need to be adapted to these changes. Any policy measures aiming to improve the competitiveness of an agricultural product should be defined with reference to a body of information and analysis characterising the relations between the corresponding commodity chain and the national, regional and international contexts, the internal structure of this chain and how it functions, and finally an assessment of its technico-economic performance.

The cattle livestock situation in the north of Namibia highlights a concrete example of such a case: the characteristics of cattle production and marketing in this region respond to numerous factors which are far from being linked to the national context. Namibia cannot offer a significant market to its producers, in the south or the north, and the main outlet for the communal producers of the north - through Meatco as an intermediary - is the South African market, which has become increasingly dependent on the international market since the economic opening of the borders of this country. On the other hand, the cattle breeding system of the majority of farmers in the north can be characterised by a very low level of flexibility in terms of increased production, and therefore generates a low production surplus level. In this context, production in southern Angolan seems to play a major role in determining the northern supply and demand balance, especially when prices on the South African market are high. This very brief description of the northern cattle breeding context indicates the importance of a sound understanding of it before undertaking any policy measures or development projects aimed at improving the participation of Namibian stakeholders in the beef market.

Due to time constraints, the present study does not pretend to analyse exhaustively the various issues presented in the second paragraph. But it aims to facilitate an understanding of the organisation of cattle flows in the North Central Regions (Omusati, Oshana, Ohangwena, Oshikoto) and North Kunene. It will take into consideration the identification of production and consumption areas, the regional dimension as cattle supply Angolan provinces and the meat South-African markets, characteristics of the channels which link them (short/long channels, industrial/small-scale technologies, and so on), the various types of stakeholders in operation and their strategies, and other natural and socio-economics parameters which determine the volume of activity of the beef trade.

The questions will be to assess the importance of parameters geographically external to the studied regions influencing affecting the studied region. Through an assessment of the local cattle marketing sector, attempts will be made to highlight
the role of producers in this sector. Some tentative proposals in order to improve this position will be presented at the end.

- Methodology of the study

The field work was organised into two parts.

The first consisted of the creation of a database of the cattle exchanges in the Ombalantu and Oshakati livestock markets, using the record books that exist in these markets. Four enumerators\(^2\) were employed for three months to copy a statistically representative sample of records of cattle exchanges. They were also responsible for computerising the data.

The second part, led by two persons during a period of approximately two months, consisted of interviewing\(^3\) the traders and butchers involved in cattle production and marketing. The objective of these interviews was to collect information on the structure of activities, the organisation of cattle purchases and sales, and the constraints faced in these activities, as well as the perception of the interviewees of their economic environment. The resulting information enabled the establishment of a profile of these actors according to their organisation and strategies.

Owing to time constraints, very few investigations at the level of farmers were carried out. Neither was it possible to gather information related to cattle prices on the open market, which would have required follow-up on these markets over a considerably longer period. The supply channels and price formation in Angola should also be investigated. Such information could have generated a more comprehensive analysis of cattle production and marketing in the North, and in particular, the strategies of the farmers regarding market conjuncture.

Given the limited available information about the functioning of cattle marketing in these regions, we found important to present the collected information in large extent.

- Organisation of the report

The report is divided into 6 main chapters. Following a summarised overview of the international, regional and national beef context, the report will present:

- an exploration of the various sub-chains existing in the North Central areas and Kunene North;

- a description of the spatial set up of the various supply channels;

\(^2\) Ms Etuhole NASHIMA, Mr Gideon NUUYANGO, Mr Martin SHIKONGO, Mr Pius SHIKONGO

\(^3\) Non directive interviews
- a presentation of the private actors operating in this sub-sector, as well as their strategies;

- an overview of Meatco's activities in NCA and Kunene North,

- a review of cattle marketing trends in these regions through an analysis of the Ombalantu and Oshakati markets,

- a general synthesis with some concrete proposals targeting the local cattle marketing channels development.

Special mention should be made of the study on the Ombalantu market effected by Viallet in 1994 (1995), which gave rise to the idea of compiling the cattle market database.

2. The Namibian beef sector context

The agricultural sector plays an important role in the Namibian economy, both in terms of direct and indirect contributions to the economy. In 1998 agriculture contributed 7.5% to GDP. However, with a multiplier effect of roughly 1.8, the overall contribution to the economy rose to an estimated 14% (Venter 1998: 2). Although its contribution to GDP is relatively low at below 10% on average, the sector provides a livelihood to approximately 70% of the population, either in terms of farming or wage labour. It is also a major contributor to Namibia's exports, having accounted for 18.1% of total exports in 1998 (Ibid.).

The agricultural sector in Namibia continues to be characterised by a dualistic structure. On the one hand, roughly 44% of the land area is owned under freehold title by approximately 4200 farmers, and consists of 6,300 surveyed farms. It is commonly referred to as the commercial farming sector on account of the fact that this sub-sector is producing primarily for the market. It is the biggest employer in the private sector, with a labour force estimated in 1998 at 35,000. At an average household size of 6.6 people, commercial agriculture thus provides a livelihood to approximately 161,000 people (Ibid.).

The other sub-sector is commonly referred to as the communal farming sector and comprises about 41% of Namibia's land area. The description of this sub-sector as communal reflects the fact that land cannot be owned under freehold title. Instead, land rights are obtained and exercised under various customary land tenure systems. The present study was conducted entirely in the northern-central communal areas of Ohangwena, Oshikoto, Omusati, Oshana and northern Kunene regions.

While many farmers in the communal areas are producing for the market, the vast majority are subsistence farmers. An estimated 40% of households in the country depend on subsistence farming as their main source of income. For many others it
is an important source of additional income to augment cash wages, remittances or pensions (RoN 1995:3).

The monetary output of the two sub-sectors differs significantly. The contribution of the commercial sub-sector to GDP is on average double that of the communal sector (RoN 1998: 13). A worrying trend is that the communal areas are showing low and declining levels of productivity. The main reasons for this have to be sought in a lack of access to appropriate production technologies and farm inputs. In addition, poor infrastructure and inadequate or non-existent access to credit and markets exacerbates this situation (RoN 1995: 2).

Livestock in general and cattle in particular, is playing a major role in the Namibian agricultural economy. In 1998, the meat industry contributed 80% of total agricultural income (Venter 1998:3). About 75% of the entire land area is used for extensive livestock ranching (Lange et al 1998: 555). The national cattle herd has not changed significantly over the last decade and amounted to around 2 million head in 1998. However, the herd on commercial farms has decreased by 32% since 1991 (Venter 1998:5). Approximately 37% of the national cattle herd of 2,158,215 in 1998 was located in the commercial farming sector, with 63% or 1,352,688 head of cattle grazing in communal areas (Meat Board 1999: 5). Despite a higher proportion of the national cattle herd being in the communal areas, almost all marketed livestock is produced by the commercial farming sector. In 1996, only 4% of marketed livestock originated in the communal areas (Lange et al 1998: 557). It must be assumed that these figures do not include the informal trade in cattle.

This seems to confirm the observation that communal farming generally and cattle farming in particular is not primarily aimed at marketing cattle. In most communal areas and specifically mixed farming areas in the north-central and north-eastern regions, cattle perform a variety of important, non-market functions. The ability to farm, for example, is influenced by access to draught cattle and manure for example. Moreover, cattle play an important role in maintaining social relationships among people. But they also serve as a source of food and a store of wealth which can be used to generate cash when this is needed to pay school fees, for example (KPMG Peat Marwick 1993: 11).

An important but often ignored factor influencing the ability of communal farmers to market cattle on a regular basis is the distribution of cattle. Diagnostic survey data obtained in the early 1990s suggests that in the north-central regions the average cattle herd size per owner was between 12 and 15 head, with a mean of 5.3 per household. These averages conceal the fact that an estimated 51% of households did not own any cattle at all. On the assumption that regular off-take requires a minimum herd size of 20 cattle, only 20% of herds were large enough to market regularly. In the Cuvelai areas of north-central region, this figure was less than 10%. In this part of the north-central regions herd sizes tended to be smaller than in areas away from the Cuvelai (FAO/IFAD 1992, Annex 1: 7)
The importance of cattle farming and beef in particular in much of Namibia must be ascribed to a large extent to the fact that only 8% of the country receives an average annual rainfall of more than 500mm, the minimum amount required for rainfed cropping, while 55% receives less than 300 mm per annum (Brown 1993: 91). Extensive livestock farming thus constitutes the only viable agricultural activity in 90% of the country. However, pre-independence policies have contributed directly towards making beef the major product in the commercial farming areas. Until the late 1950s, for example, Namibia had a vibrant, small scale dairy industry, producing an annual average of 9 million lbs. of butter between 1935 and 1958. As small scale dairying did not require capital intensive outlays, electricity or sophisticated technical inputs, farmers in the communal areas did not find it difficult to be integrated into this industry (Wellmer 1998: 37).

The South African state gradually discouraged a diversified agricultural sector. Through a variety of policy instruments, most notably subsidies, it manipulated the structure of farming in Namibia. After 1955 cattle exports to South Africa increased dramatically (Ibid.: 38). The thrust of these subsidies were directed mainly at the large scale commercial farming sector. Subsidies took on three main forms:

- Concessionary finance: During the 1980s, the Agricultural Credit Board and the Land Bank provided commercial farmers with loans at subsidised interest rates (Moll 1994: 3-5).

- Direct subsidies: The central Department of Agriculture as well as the Administration for Whites granted direct subsidies in the form of cash, *inter alia*, for grazing relief, bush encroachment, soil conservation and boreholes. In addition, grants and loans were given to the karakul and meat industry and a loan to SWAMEAT corporation, the predecessor of Meatco (Moll 1994: 6). The latter received two loans of R 15 million and R17.8 million in 1986 at an interest rate of 4% and 0.0025% respectively (Moll 1994: 29).

- Veterinary services: These services continue to be provided free of charge by the government and include stock inspections and vaccinations. Prior to Independence, it was estimated that 47% of these efforts were expended on the commercial farming sector and 54% on the ‘communal’ sector (Moll 1994: 7).

Several changes to the direct subsidy system had already begun in the 1980s. Drought relief, for example, was gradually changed from grants to loans (Moll 1994: 6). However, it was not until after Independence that concerted efforts were made to provide more support to communal farmers. The *National Agricultural Policy* acknowledges that output price fixing, guaranteed prices and price controls created market distortions which may have improved the incomes of commercial farmers, but ‘have adversely affected the conditions of communal farmers’ (RoN 1995:25). In addition, the *Policy* noted that ‘the marketing needs of the communal farming sector have been neglected’ and that government ‘intends to redress the situation’ (Ibid.).
With regard to livestock farming, the *National Agricultural Policy* proposes amongst other things, that ‘Government will encourage more responsive livestock production and health research, extension and training services’ in the communal areas. In addition, it commits government to provide financial support and incentives to promote livestock diversification (RoN 1995:14).

Although approved only in 1995, the *Policy* formalised in many ways what the new government had begun to implement soon after Independence. On a general level, subsidies to commercial farmers were gradually reduced, including those for bush encroachment, soil conservation and boreholes (Moll 1994: 6). With regard to drought subsidies, the *National Drought Policy and Strategy* adopted in 1998 proposes to ‘shift the responsibility for managing drought from the Government to the farmer’ and to ‘move away from regular assistance to large numbers of farmers to measures that support on-farm management of risk’ (RoN 1998: 9).

Concerning the livestock sector, government began soon after Independence to develop and implement various programmes to improve the productivity of cattle herds in the comunal areas in order to increase the take-off and volume of meat available for local and export markets (Wellmer 1998: 57). The new development strategy included such measures as opening up new marketing channels for communal farmers and improving animal health and range management practices. In 1992 the *Sustainable Animal and Range Development Programme* (SARDEP) was started in the Ministry of Agriculture, Water and Rural Development. The programme began in the southern and eastern regions of the country but soon expanded into the north-central and western parts.

At the same time preparations began for a large scale livestock development programme in the northern communal areas (see FAO/IFAD 1992). This resulted in the implementation of the *Northern Regions Livestock Development Project* in the mid-1990s.

In 1992 Cabinet decided that Meatco should take over the procurement and marketing of cattle in the norther communal areas from the Namibia Development Corporation, the successor to the First National Development Corporation. Cattle marketed in the NCAs were to be paid for in terms of a uniform national live weight pricing and grading structure (Wellmer 1998: 57). Moreover, government obtained financial support from the European Union to improve the quarantine facilities in the NCAs in 1995, while it invested N$ 28 million over a five year period to rehabilitate and upgrade the abattoirs in Oshakati and Katima Mulilo (Ibid.).

**Key institutions in the livestock sector**

The livestock sector in Namibia is served reasonably well with marketing, veterinary and support institutions. While these have been established to serve primarily commercial farmers, most of these have made attempts after independence to become more representative of Namibia’s farmers.
conclude this from Keulder & Werner; Wellmer, etc.

(i) The Meat Board of Namibia

The Meat Control Board of South West Africa was established in 1935 with the primary aim to regulate livestock supplies to South Africa under the direction of the South African Meat Board, which was established about one year earlier. The early functions of the Meat Control Board was to co-ordinate export permits and railway transport 'to ensure equal access to South African markets for all producers in Namibia' (Meat Board 1995: 5). In 1962 these powers were extended to enable the Board to control the export of livestock, impose levies on slaughtered livestock, regulate the sale and grading of slaughter stock and control the meat trade generally. In 1978, the Meat Producers Association (see below) decided at a Special Congress to impose levies on slaughter stock in order to obtain funds for a stabilisation fund to benefit the industry. In the 1990s this fund was used to finance projects designed to stabilise the industry. As an example, N$ 750,000 were used in 1992 from this fund to boost exports of processed meat from the northern communal areas (RoN 1995: section 2.2.3)

The Meat Board of Namibia was established in 1981 in terms of the Meat Industry Act (Act No. 12 of 1981). Several amendments were made to the Act since then. The main functions of the Meat Board include the following:

- to facilitate the marketing of livestock, meat and meat products in Namibia and elsewhere to the best advantage of the meat producers of Namibia;
- to strive for the promotion and management of the meat industry in an orderly, economic and efficient way in the national interest;
- to advance the meat industry inter alia in carcass classification, meat hygiene, product promotion, border control and market information (Meat Board 1995: 4)

The Meat Board of Namibia plays a central role in setting on-the hoof and carcass prices. These prices are determined by the Meat Board on the basis of South African market prices. The following formula is used to set the national meat price:

- 47% of the average price per grade at Maitland (Cape Town);
- 36% of the average prices per grade at City Deep (Johannesburg); and
- 17% of the average price per grade at Cato Ridge (Durban) (Keulder et al 1997: 7).

The Meat Board is responsible for grading animals at buying points and abattoirs respectively. They visit buying points on auction days in the NCAs and grade animals according to a simplified grading scale used in all NCAs. Finally, it ensures that prices paid by Meatco and the deductions it makes are in accordance with

---

4 The following section is based on Meat Board of Namibia (1995) unless otherwise stated.
agreed rates. Deductions have to be approved by the Meat Board before Meatco is permitted to implement them (Ibid.).

(ii) Meatco

Up to 1992 the marketing of livestock in the Northern Communal Areas was handled by the First National Development Corporation (FNDC). In terms of decisions taken in 1992, Meatco assumed responsibility for the formal marketing activities in the NCAs, including the operation of three abattoirs in Katima Mulilo, Rundu and Oshakati. At the same time, a uniform liveweight pricing and grading structure was introduced in Namibia. Up to 1992 prices in the NCAs were lower than in the areas south of the Veterinary Cordon Fence (VCF). Since that date, the Meat Board determines weekly producer prices for carcasses on the basis of meat auction prices at three principal markets in the Republic of South Africa (RoN 1995).

Meat Producers' Association established in 1964 as the commodity arm of the SWA Agricultural Union (Rawlinson, 1994: 160).

(iii) Directorate of Veterinary Services

(iv) AGRA
3. The production and marketing of cattle in the North Central areas and North Kunene region: definition of the study

At this point, it could be helpful to offer the following clarifying definitions:

- The commodity chain is the succession of actors undertaking technical functions aimed at turning an initial raw material into a specific output for local consumption or for export (Fabre, 1994). For example, the beef commodity chain.

- The sub-chain is the application of the previous definition to the production of a commodity according to a specific process. In the case of this study, a distinction is made between small-scale sub-chains, including the small scale producers sub-chain and the small-scale producers and private middle-men sub chain, and industrial sub-chains.

- The commodity channels correspond to the circulation of goods supplying the sub-chains, according to the activity of a specific group of agents. In the study, there is for example the Angolan middle-men channel or the cattle-supply channel of Meatco.

- The flows correspond to the geographic and quantitative characteristics of the circulation of the goods (for example, the cattle flows coming from Angola).

3.1. The regions studied

One of the main objectives at the outset of the study was to explore the cattle trade channels, mainly held by private local traders and to analyse the connections which exist with the channel dominated by Meatco.

Since Oshakati and Ondangwa are primarily cattle-and meat-marketing areas of the North Central Regions, the decision was taken to survey the supply channels connected to them, namely the cattle flows organised by the private traders coming mainly from Angola, but also from north central Namibia. The cattle flows from Kunene Region, which are mainly organised by Meatco, were also studied.

The geographical areas covered by the study are the North Central Regions (Oshangwena, Omuøati, Oshana, Oshikoto) and the North Kunene region. Since the western part of the Okavango (Mangetti area) is an important cattle production area supplying Meatco and the urban markets of Ondangwa and Oshakati it was integrated into the study. In order for the study to be exhaustive, the Namibe,
Cunene and Huila Angolan regions should also have been included, but for obvious practical reasons, it was not possible to undertake the survey in these regions.

We put forward the hypothesis that there is no connection between the marketing channels existing in the Caprivi region and the Eastern Okavango, and the regions covered in this study.

The theoretical definition of the areas studied from North Kunene to the Mangetti area does not correspond to the work done in the field, for logistical reasons as well as time constraints. In practice, the work was mainly centred around the Oshakati, Ondangwa, Oshikango and Ombalantu markets and their surroundings, as well as the Opuwo area.

Apart from the Viallet study (1995), little has been done to document the existence and organisation of cattle marketing in the north. The data provided by Meatco are frequently imprecise. This study, given the limits regarding time, and human and financial resources allocated, does not claim to address all the existing questions. However, it aims to give as detailed a picture of the situation as possible, and to highlight questions on how the position of the local agents in the cattle commodity chain in the North can be improved.

3.2. The three sub-chains: the processing of meat from the producer to the consumer

Three types of beef commodity sub-chains can be identified in the region, according to the production and final consumption areas, as well as the meat processing techniques involved. The characteristics of the various role players and their functions ("who is doing what?") in the processing of beef from the producer to the consumer at each stage of the commodity chain is summarised in the functional analysis table (Table 111111).

3.2.1. The small scale producers' sub-chain

The small scale producers' sub-chain is characterised by production for own consumption, or consumption at the local level. The marketing channels from the farms to the places of consumption are consequently very short. No middle-men intervene in this channel. Farmers, especially in the NCR, sell cattle locally as a result of drought, because they need cash, or in the case of social events. They either slaughter the animals directly on the farm, or sell them to butchers at the nearest local market.

This sub-chain is characterised by small-scale slaughtering and meat carving activities, done by local butchers or the farmers themselves. At the meat consumption stage, the butchers sell fresh meat but can also prepare the meat (by cooking it) for direct consumption at the local market. The meat which is not sold after two days is usually processed into biltong.
3.2.2. The small-scale producers and private middle-men sub chain

The small-scale producers and private middle-men sub chain is characterised by short to medium distance marketing channel, ranging from fifty to several hundred kms. Channels start from various Namibian and Angolan production areas and supply the urban consumption centres of Oshakati and Ondangwa.

Producers and several middle-men intervene in the organisation of the supply channels of this sub chain, in the following ways:

- the producer can bring his livestock to the closest urban market, either on foot, especially if the market is not too far, or by use of motorised transport. No middle-man is involved.

- if the distance between the farm and these markets is too great, one or two middle-men usually intervene to trek the cattle from the farm or from the small local livestock regrouping markets to the urban markets;

- in the case of cattle coming from Angola, various operations are involved such as: collecting the cattle in Angola, crossing the border and trekking the animals to the urban centres, which implies that several Angolan and Namibian middle-men intervene between the farmers and the urban markets.

The slaughtering, meat carving and retailing levels of this channel present a certain diversity, but two main types of butchers can be characterised: the butchers working in the cattle markets of Oshakati and Ondangwa, and those located in the towns’ streets.

The final products at this retailing stage are mainly fresh cuts, but also cooked cuts and biltong as in the case of the small scale producers sub-chain.

3.2.3. The industrial sub-chain

The industrial sub-chain comprises the long distance marketing channel, connecting the northern Namibian production areas, where the cattle are collected, with the consumption markets in South Africa (Cape Town region), and in Namibia, south of the Veterinary Cordon Fence. Procurement of cattle in this sub-chain is handled by a commercial farmer. The same organisation slaughters and processes the meat along industrial lines and under strict animal health regulations and controls. In 1982, the Namibian Government entered into an agreement with Meatco, a parastatal, which was given the responsibility of procuring and processing beef in the NCAs. As a result, it maintains a dominant position in the sub-chain.
3.2.3.1. The animal health control system

Owing to the presence of Foot and Mouth Disease and Contagious Bovine Pleuropneumonia in Northern Namibia, any cattle movement or the transportation of unprocessed meat from north of the Veterinary Cordon Fence to the south was forbidden. In 1992, therefore, the Meatco abattoir in Oshakati was producing canned meat only, the sole meat product allowed for export.

In July 1993, South Africa gave Meatco permission to export frozen meat to South Africa. However, a precondition of this was that the abattoir in Oshakati was upgraded and quarantine camps built in close co-operation with the Directorate of Veterinary Services. Ever since then, slaughtering and meat processing have been subject to animal health controls imposed by South Africa. The control system entails 3 weeks of quarantine for live cattle before slaughtering, and 3 weeks' storage of chilled meat before transportation. The quarantine camps fall under the supervision of the Directorate of Veterinary Services, but are managed on a day to day basis by Meatco.

3.2.3.2. Actors and organisation of the industrial sub-chain

Cattle production

While all cattle for the industrial sub-chain are procured in Namibia, a large portion of these cattle originate from Angola. These cattle reach Namibia via a channel from Angola, which is organised by a succession of middle-men.

Procurement, quarantine and transport to the abattoir

Meatco, as the main cattle collector in Namibia and as the only processor, is the key player in the organisation of this sub-chain. It collects the cattle via a system of 'buying days' organised in the northern Namibian regions, slaughters the cattle, operates the meat carving in the Oshakati abattoir and markets the deboned meat.

Initially, Meatco was the only agency procuring cattle from farmers for slaughter in the Oshakati abattoir. This process included the quarantining of cattle as mentioned above. Very often, Meatco operates in co-operation with local farmers' associations. The latter inform local farmers about the Meatco buying programme (dates, locations), and organise the preliminary gathering and registration of the animals. During these buying days, Meatco\(^5\) is normally the only official buyer.

---

\(^5\) Meatco has assured producers that it will buy any cattle presented to it. The reason for this is that given the lack of transport infrastructure, producers cannot afford to trek their cattle up to the selling point with the risk that the animal may be refused by Meatco. When animals are in poor condition (because of disease or drought), Meatco and the farmers usually negotiate a purchase price which is below the current national market.
present. An agent of the Meatboard\(^6\) is responsible for the grading of the animals in order to determine the price of the cattle on the hoof.

In 1994, other players such as farmers and cattle middle-men started to organise their own transport and private quarantine in the official camps with the objective of selling their cattle to Meatco on the basis of carcass price.

At present, the government and Meatco would like to transfer the procurement of cattle to the private sector. An important reason for this is that the procurement of cattle does not form part of Meatco’s core function, which is the slaughtering and marketing of beef. In addition, procurement in areas with little transport infrastructure is costly. As an incentive, Meatco pays a bonus of N$ 0,4/carcass kg if the quarantining and the transport have been organised privately. The company is also trying to promote the feedlot system in the quarantine camps in order to improve the quality of the animals at the slaughtering stage (Bennison et al, 1996).

**Slaughtering**

Meatco, the only player with the capacity to fulfil the requirements, is currently the only actor authorised to slaughter cattle for export. It manages the quarantining of cattle under the supervision of the Directorate of Veterinary Services.

**Processing and marketing**

In Namibia and South Africa, Meatco sells the meat to industrial processors and private butcheries, which provide their respective markets with commodities ready for consumption (delicatessen or fresh meat). The Namibian market represents approximately 5% of the Oshakati abattoir output, and is composed of a group of about 20 operators. The most important among these are Hartief Continental Meat Products and Windhoek Schlachterei. The rest of the abattoir output is exported to South Africa, mainly to Cape Town. A small quantity of fresh meat cuts is sold in Oshakati in the supermarkets and private butcheries.

3.2.4. **The breeding animal supply channel**

It must be pointed out that at the upstream level of all these sub-chains, breeding animals (bulls, calves, heifers) are also bought by Namibian farmers. A high demand for breeding stock exists in the NCR, which is satisfied to a large extent by an important supply flow coming from Angola. This in turn results in a significant monetary transfer.

\(^6\) The Meatboard is a parastatal institution. Its main functions are to regulate the meat market in Namibia by establishing the live and carcass price system, to facilitate new export market opportunities and to promote the production and consumption of red meat in the country.
Some of the players are only involved in specific sub-chains, such as rural butchers in the small scale producers sub-chain, or Meatco in the industrial sub-chain. Others, such as the producers and middle-men, participate in all sub-chains, including the breeding animal supply channel.

A number of different factors, including monetary needs, agro-ecological conditions, political and market context, geographical position and infrastructure level, determine the nature of their individual strategies, and consequently the organisation and the volume of these sub-chains.
Table 1: Functional Analysis table. The beef meat sub-sector in the Kunene and Northern central regions: from the farmers to the consumers

1. The small scale processing sub chains (producers sub chain / producers and middle men sub chain)

<table>
<thead>
<tr>
<th>Phase</th>
<th>Function</th>
<th>Agent</th>
<th>Commodity or product</th>
</tr>
</thead>
</table>
| Upstream | Supply of breeding animals | • Angolan farmers  
• Namibian farmers | • Calves, heifers, cows, bulls |
| Production | Cattle breeding | • Angolan farmers  
• Namibian farmers:  
- Multi-cropping or extensive farming system farms | • Oxen, cows  
(+ Bulls, calves) |
| Collection and transport | Collection and transportation from the farms to the slaughtering places: rural butcheries, urban slaughtering markets and butcheries. | • Farmers  
• Private Angolan and Namibian middle men | • Animals convoyed from the farms to the slaughtering places in rural areas  
• Animals convoyed from the farms to the slaughtering places in urban markets |
| Slaughtering | Cattle slaughtering and meat carving | • Small scale butchers in rural areas  
• Small scale butchers in urban areas  
(+ Farmers) | • Cuts:  
- sold directly to the local consumers  
- cooked for the local consumption markets |
| Processing | Small scale processing | • Small scale rural and urban butchers  
(+ Farmers) | • Cooked cuts and biltong |
| Marketing | Retail marketing | • Small scale rural and urban butchers  
(+ Farmers) | • Marketed cuts and biltong, and cooked cuts locally |

2. The industrial processing sub chain

<table>
<thead>
<tr>
<th>Phase</th>
<th>Function</th>
<th>Agent</th>
<th>Commodity or product</th>
</tr>
</thead>
</table>
| Upstream | Breeding animals supply | • Angolan farmers  
• Namibian farmers | • Calves, heifers, cows, bulls |
| Production | Cattle production | • Angolan farmers  
• Namibian farmers:  
- Multi-cropping or extensive farming system farms | • Oxen, cows  
(+ Bulls, calves) |
| Collection and transport | Collection and transportation from the farms to the Meatco abattoir | • Farmers  
• Cattle farmers association  
• Private Namibian middle men  
• Meatco + Meatboard agent | • Animals convoyed from the farms to the Meatco abattoir in Oshakati after quarantine |
| Cattle Quarantining | 21 days livestock quarantine management before slaughtering at Meatco abattoir | • Meatco, or private quarantiners under the supervision of the Directorate of the Veterinary Services | • Cattle authorised to be slaughtered |
| Slaughtering | Cattle slaughtering, meat carving, 21 days meat quarantine  
+ cuts whole sale marketing | • Meatco, under the control of the Directorate of the Veterinary Services | • Chilled deboned cuts for the national market  
• Frozen deboned cuts for the South African market |
| Processing | Industrial processing | • Industrial Namibian processors and butcheries (Hartief, Schleicherei )  
• Industrial South African processors and butcheries | • Industrially packed cuts  
• Delicatessen |
| Marketing | Retail marketing | • Private butcheries and supermarkets | • Locally marketed packaged cuts and delicatessen or in Southern Namibia  
• Marketed packaged cuts and delicatessen in RSA |
4. The spatial set up of the cattle flows

The information presented in this section is based on numerous interviews with key persons and traders as well as the results of a study conducted by D. Viallet (1995) and an analysis of the Ombalantu and Oshakati market record books.

4.1. The cattle flows supplying the small-scale butchering and breeding animal sub-chains

4.1.1. Geographic organisation of the Angolan flows:

- The Caloheque and Onamacunde markets

Two official border posts allowing the importation of Angolan cattle into Namibia are located in Caloheque and Onamacunde in Angola. Because of their location, these two towns are "cattle regrouping markets", in the sense that a network of Angolan middle-men collect the Angolan cattle from farmers or small local markets up to 200 km north of the Namibian border and drive them to these markets. Then a second type of middle-man, sometimes Namibian, but commonly Angolan, takes charge of the animals. He is responsible for taking the animals across the official border paying the required taxes and having the animals vaccinated before trekking them to the Namibian markets.

An important supply flow exists from Caloheque to Ombalantu in Namibia (see below). The Caloheque market is known to be considerably more active than that of Onamacunde. The latter apparently supplies the Ombalantu and Oshikango markets as well as the urban zones of Oshakati and Ondangwa. Time constraints precluded a detailed study of the flows coming to Namibia from Onamacunde. An extrapolation based on the flows of the first quarter in 1996 suggests that this market turned over 6 000 heads of cattle and 12 000 heads of goats per year (Bonis Charandle, 1996).

- Capillary flows

In addition to these flows which are satisfying the demand for breeding and slaughtering cattle in northern Namibia, it is necessary to point out the existence of short-distance cross-border flows between Angola and Namibia. These involve cattle movements for grazing purposes or simply for buying purposes and do not cross any official border posts. It is impossible to quantify them, but according to Meatco representatives, these local flows are likely to be significant. It can also be assumed that these capillary flows supply the small regrouping markets along the border, such as for example Epaleza, Eenhana and Elundu. Officially illegal, it seems however difficult for the police to control these flows along the border.

- Angolan flows in Northern Kunene
Some long or medium distance flows coming from Angola may also supply the Kunene region. It can be assumed that the Opuwo cattle market as well as some other small local markets play an effective role in the organisation of Angolan flows. Further investigations are necessary to confirm and to analyse these flows.

Generally, the cattle which travel from one market to another, for example, from Angola to Namibia, reach their destination on foot.

4.1.2. Organisation of the Namibian flows

- Ombalantu

The Ombalantu market can be considered as a "cattle regrouping market". Located about 70 km from Caloheque, 80 km from Onamacunde and 90 km from Oshakati, this market regroups the main cattle flows from Angola, which are the most significant, and secondly, cattle flows mainly from the North Central Region of Namibia.

Because of its regrouping function and its volume of activity, the Ombalantu market is the most important goat and cattle market of the region. During the period covered by the present study (1993-1997), the number of cattle exchanged per year ranged between 14 000 and 30 000.

The cattle coming from Namibia are brought to the Ombalantu market directly by the farmers themselves, if they live close enough to the market, or by middle-men coming from smaller regrouping markets, such as Epalela or Ruacana, or from small villages.

The Ombalantu market is also a "cattle dispatching market", in the sense that the geographic destination of the cattle sold in this market covers a multitude of places in the Omusati and Oshana regions, particularly in the case of cattle bought for breeding purposes. One of the main destinations of the cattle for breeding and slaughtering is the urban zones of Oshakati and Ondangwa.

- Oshakati and Ondangwa

The organisation of cattle sales in these urban zones has got multiple features. Some of the cattle are bought in the Oshakati and Ondangwa markets by the surrounding farmers for breeding purposes. Some of the slaughtering animals are killed directly in the Omatala\(^7\) markets of Oshakati or Ondangwa, while others are sent directly from Ombalantu to the butcheries under trees or along the streets.

---

\(^7\) The Omatala markets are the retailing markets, in Oshakati and Ondangwa, these markets stock a wide range of products: video tapes, clothes, shoes, food products. A small scale cattle slaughtering place is located closed to these two urban markets, and the meat is sold in the Omatala markets by the butchers.
The Oshakati and Ondangwa markets, because of this dual cattle selling and slaughtering activity, can be described as "dispatching and consumption markets".

- **Cattle flows from Okongo, Oshivel or Mangetti**

It appears that an important flow from the Okongo, Oshivel or Mangetti areas is supplying the North Central Regions with breeding, but mainly slaughtering cattle. The middle-men are usually the breeders themselves. They build their own cattle paddocks along the roads, mainly in Ondangwa, where they sell the cattle they bring from their farms.

Cattle are normally driven on foot from one place to the other. An exception are the cattle coming from Mangetti or Oshivel, since many farmers farm on a commercial basis. Indigenous cattle breeds have been largely replaced by other breeds such as Afrikaaner or Brahman, which are not fit to trek hence these animals are then taken by truck or 4x4 pick-up.

### 4.2. The cattle flows supplying the industrial sub-chain

Meatco, as mentioned previously, organises the procurement of cattle for the industrial chain. "Buying days" are organised once a week in various places covering the Okavango, NCR and Northern Kunene regions. At the end of a buying day, the cattle are taken to the quarantine camps. At present, four quarantine camps are operational at Mangetti, Oshivel, Khawanib and Omutambo Maowe. A fifth camp is being constructed at Okongo. (see Figure 111111).

In the NCA, excepted Caprivi region, the total number of cattle procured decreased dramatically from 23 000 in 1994 to 14 100 in 1997. This is mainly a result of the Meatco price depreciation from 1996. As a consequence, Meatco purchases in the NCR decreased in 1997, while the collection remained stable in North Kunene. In the later region, farmers are obliged to sell cattle every year because of their production system mainly based on livestock breeding.

The importance of the Angolan flows to Meatco procurement in the North Central Regions was been demonstrated for the year 1994 (Viallet, 1995). During that year, a large number of cattle came from Angola via Ombalantu market, and were sold on the hoof to Meatco in Oshakati, or bought by private quarantiners. Meatco transported the cattle to the Oshivel quarantine camp. At present, this supply channel is not as important, but the opening of a quarantine camp in Okongo on the border will probably encourage cattle exchanges coming from Angola.

As the situation stands, the possibility of a flow from Angola to the Kunene Region through the local cattle markets and aiming to supply Meatco cannot be excluded. However, further investigations at the local level are necessary.

---

* See Producers' typology, paragraph 5.1.2.2.2-p.42, and Meatco procurement, paragraph 6-p.67.
This picture of the organisation of the cattle flows, a synthesis of the numerous interviews with farmers, cattle traders and Meatco, is of course incomplete. In particular, the lack of knowledge concerning the significance of capillary flows is obvious. We must highlight the fact that very few traders indicated these flows as important in the cattle exchanges in the region, but it remains unclear whether this is an accurate reflection of reality or an attempt to hide illegal cattle movements.

Similarly, the organisation of Angolan cattle flows to Namibia's borders remains largely unknown. In particular, the balance between the long distance supply channels and the short distance channels is difficult to appreciate.

The following section will proceed with an analysis of these flows through the presentation of the actors operating in the sector, a description of Meatco's operations in the studied regions and a tentative estimation of the flows circulating in the main regional cattle market of Ombalantu.
Figure 1: Map of the spatial set up of the activities of the beef sub sector

Key

- Meatco
  - Cattle: Medium / long distance / cross border
  - Cuts: Namibian short to medium distance
- Cattle Markets:
  - Minor Regrouping
  - Major Regrouping
  - Regrouping / Dispatching
  - Dispatching / Consumption
- Other:
  - Quarantine facility
  - Quarantine facility (under construction)
  - International Boundary
  - Veterinary Cordon Fence

Scale (Approx.) 1:3,500,000 (1cm = 35km)
5. The actors: producers, intermediaries and butchers

The purpose of this section is to present a profile of the different actors involved in the operation of the various sub-chains: producers, middle-men and butchers. An analysis of the Ombalantu market records allowed for a quantitative description of the cattle buyers and sellers, who were active in this specific market in 1997.

A sample of interviewed people during the study has been included in order to reflect the views of the various actors in the sub-chains. In that sense the following presentation does not aim to give a picture statistically representative of the situation.

The study did not reveal details of the costs and incomes generated by the activity at each level. However, a basic set of data collected during the interviews on this topic is presented in Annex 4.

5.1. The producers

A summary of the main features of the different groups of producers in the North Central regions and in North Kunene is presented. This is based on a short bibliographical review and some farmers' interviews that were conducted during the course of the study.

5.1.1. In Angola

Little information on the situation of the Angolan producers is available.

Table 2 summarises some demographic and livestock characteristics of the production areas north of the Namibian border.

The three provinces of Huila, Cunene and Namibe regroup 70% of the Angolan cattle destined for Namibian markets. The farming systems in these three regions range from multi-cropping with maize as the main crop, together with livestock breeding in the North to pastoralism (Namibe province) or transhumance (Cunene province) systems with millet cropping in the South. The transhumance period goes from January to July, and distances up to 150 km can be covered. The border areas along the Kunene river are important grazing areas and seems to be an intense zone of cattle exchange between the two countries through capillary flows and official exchanges (Bonis Charanche, 1996).

Table 2 shows the high number of cattle per holding, which suggests that these regions are cattle surplus production areas and are able to supply channels that exist in the northern regions of Namibia.
Table 2: Population density and cattle numbers in the Angolan provinces bordering Northern Namibia

<table>
<thead>
<tr>
<th>Angolan Provinces</th>
<th>Huila</th>
<th>Cunene</th>
<th>Namibe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>1 105 000</td>
<td>374 000</td>
<td>101 000</td>
</tr>
<tr>
<td>Area in km²</td>
<td>92 000</td>
<td>77 500</td>
<td>55 000</td>
</tr>
<tr>
<td>Inhabitant/km²</td>
<td>12</td>
<td>4,8</td>
<td>1,8</td>
</tr>
<tr>
<td>Head of Cattle</td>
<td>1 300 000</td>
<td>900 000</td>
<td>300 000</td>
</tr>
<tr>
<td>Cattle/inhabitant</td>
<td>1,2</td>
<td>2,4</td>
<td>3</td>
</tr>
<tr>
<td>Cattle/holding</td>
<td>15-20</td>
<td>60-80</td>
<td>100</td>
</tr>
</tbody>
</table>


5.1.2. In Namibia

5.1.2.1. Climate, population, herd

- The NOLIDEP appraisal report presents the main features of the climate in the Northern Communal Areas, ranging from desert conditions in the western part of Kunene to sub humid in the Caprivi. The North Central Regions have a semi-arid rainfall pattern, with a rainy season lasting between 5 to 7 months (October to April), depending on the area. The average annual rainfall of about 400 mm is characterised by significant spatial and annual variability. These extreme variations affect of course the water availability and determine the agricultural and breeding activities (NOLIDEP, 1996).

- The importance in terms of population, number of holdings, and number of cattle in the North Central Region in comparison to the Okavango and Kunene regions, must not hide the highest number of cattle per holding in the latter two regions. At the macro-economic level and without referring to the cattle ownership structure in these two regions, this feature illustrates their capacity to market cattle, mostly in the Kunene region.
Table 3: Population density, holding numbers and cattle numbers in the NCA (except Caprivi)

<table>
<thead>
<tr>
<th></th>
<th>Kunene</th>
<th>Ohangwena</th>
<th>Omusati</th>
<th>Oshana</th>
<th>Oshikoto</th>
<th>Okavango</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>64 017</td>
<td>179 634</td>
<td>189 919</td>
<td>134 884</td>
<td>126 745</td>
<td>116 830</td>
</tr>
<tr>
<td>Area in km²</td>
<td>144 255</td>
<td>10 582</td>
<td>13 638</td>
<td>5 291</td>
<td>26 607</td>
<td>43 418</td>
</tr>
<tr>
<td>Inhabitant/km²</td>
<td>0.44</td>
<td>17</td>
<td>13.9</td>
<td>25.3</td>
<td>4.8</td>
<td>2.7</td>
</tr>
<tr>
<td>Number of Holdings</td>
<td>3 954</td>
<td>32 866</td>
<td>20 855</td>
<td>18 613</td>
<td>10 731</td>
<td>8 769</td>
</tr>
<tr>
<td>Number of Cattle</td>
<td>188 927</td>
<td>480 781</td>
<td></td>
<td></td>
<td></td>
<td>98 775</td>
</tr>
<tr>
<td>Cattle/habitant</td>
<td>3</td>
<td>0.8</td>
<td></td>
<td></td>
<td></td>
<td>0.8</td>
</tr>
<tr>
<td>Cattle/holding</td>
<td>47.8</td>
<td>5.8</td>
<td></td>
<td></td>
<td></td>
<td>11.3</td>
</tr>
</tbody>
</table>


5.1.2.2. General characteristics of the cattle farming systems

5.1.2.2.1. North Central Regions

- Cropping based on mahangu (millet) and sorghum production together with livestock breeding is dominant in the North Central Regions. During drought periods, a portion of the cattle located on farms are sent to cattle posts in the eastern part of the Oshikoto and Ohangwena regions. This transhumance period takes place between July and October, with variations according to area. At the end of this period, the cattle come back for the ploughing period.

- Several studies have demonstrated that the distribution of the livestock assets is highly unequal among farmers. Among a sample of 60 farms in three NCR villages, Deniau found that 18 did not own cattle, while 5 farm-holders owned 59% of the entire cattle population (Deniau, 1997). Grimm (1994)\(^\text{\textsuperscript{8}}\) broadly supported these findings. Of 100 farmers analysed by Grimm, 5% owned more than 100 cattle, while 36% owned 90% of the total cattle of the whole group and 35% did not have any cattle.

---

\(^{8}\) Quoted in Viallet, 1995: 45
• Deniau (1997)\textsuperscript{10} presents a summary of the products and roles of cattle. It is clear from this summary that cattle not only provide meat, but that milk and manure are direct products of cattle, which are important to many farmers. Furthermore, the possession and donation of cattle within the framework of social relationships have an important function in terms of prestige. Lastly, cattle are the traditional means of saving money. Despite the fact that commercial banks offer more attractive interest rates on savings accounts (10 to 15%) than the profitability of cattle farming (estimated by Deniau at 6%), the low incidence of banks in the rural areas probably explains why cattle still perform this important function.

• Deniau (1997) draws attention to the low level of cattle sales among the farmers in his sample. The off-take rate for the total number of cattle in the period 1995-1997 was 6%. Of these cattle:

* 25% were sold directly. These were mainly old animals, sold on the open markets in the villages to the local butchers, collectors or wholesalers, at the farm level, or in Oshakati, depending of their accessibility from the farm. The sale to Meatco seems to be very low.

* 31% were exchanged to fulfil social obligations such as a donation to a family member or as a wedding present.

* 44% were slaughtered on the farms by the owners for immediate consumption on festive occasions such as weddings or over the Christmas period. Meat is also sold in order to cover financial necessities (food, etc.).

Cattle sales are dependent on the availability of grazing after a rainy season, and the level of the food reserves of households. Pressure on grazing is generally most marked in the third quarter of the year, and is one of the main reasons for the presence of cattle on the markets at that time of year.

5.1.2.2.2. Kunene

• The NOLIDEP appraisal report gives an overview of the very distinct situation in Kunene, where the human population is very dispersed, as indicated by the number of inhabitants per km\textsuperscript{2} (Table 3). The two main ethnic groups living in this region have distinct settlement patterns. The semi-Nomadic Himba live mainly in the northern half of Kaokoland, moving their livestock to locations with water and grazing depending on the season. The Herero are sedentary, living around boreholes and natural water points leading in most cases to severe local overgrazing (NOLIDEP, 1996).

• The western Kunene region is characterised mainly by a pastoralist system. Cattle have an important function of saving and prestige, particularly among the Himba people, but since very little cropping is possible except along the rivers or close to the

\textsuperscript{10} For a discussion of the multiple uses of livestock and livestock products see e. g. KPMG 1993: 11f.
water points, the selling of some cattle every year is a necessity to ensure the purchase of cereals, some of the households cultivating no crops at all depending even on drought relief (NOLIDEP, 1996).

The level of cattle marketing through the Meatco channel, assuming the cattle have been bred locally, is quite important and considerably more developed than in the North Central Regions as the off-take suggests in Table 4.
Table 4: Industrial sub chain off-take in 1996

<table>
<thead>
<tr>
<th></th>
<th>Kunene (without Khorixas)</th>
<th>Northern Central Regions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total head of cattle (1)</td>
<td>157 426</td>
<td>480 781</td>
</tr>
<tr>
<td>Cattle sold through Meatco channel (2)</td>
<td>9 223</td>
<td>7 448</td>
</tr>
<tr>
<td>Industrial sub chain off-take</td>
<td>5,8%</td>
<td>1,5%</td>
</tr>
</tbody>
</table>

Source: (1) Meatco; (2) Meatboard, 1997

5.1.2.3. A tentative livestock producers typology

Taking into consideration that no specific survey has been done during our study at the producers level, a tentative profile according to the number of livestock owned by the farm-holders and their marketing strategy is proposed. No objective criteria has been adopted, which limits the relevancy:

- Small producers owning only small ruminants, who do not take part in the cattle marketing;

- Small to medium cattle breeders, mainly represented in the North Central Regions. They are crop farmers also engaged in livestock breeding. They may have other economic activities, the most common being the ownership of a cuca shop. In general they market their cattle only in situations of economic or climatic necessity. It is assumed that their marketing strategy (Meatco, local market, or urban centres) is determined by a combination of factors, such as size of herd, Meatco prices, geographic position, local and urban demand, climatic conditions and the degree of urgency of their financial needs. They sell cattle, mainly at the end of their productive lives with the aim to maximise their residual value. Obviously, this group merits in-depth study in order to determine better the sub-groups and to analyse the correlation between size of herds and marketing organisation.

- Large herd owners. The herd size of these farmers is about 100 head or more. There are two categories in this group:

  - Cattle breeders in Kunene operating under a semi-nomadic or transhumance system. As was previously shown, owing to climatic constraints, they frequently sell their cattle to Meatco. Given the fact that no survey has been done, distinctions among the producers on their cattle sale strategies cannot be firmly specified. However, according to the interviews, it seems that on the one hand, Hereros, involved in the market system (need money for school fees, petrol for their vehicles, etc.) sell cattle mainly to Meatco, which is the only actor present in the region and is in a position to buy cattle without quantitative limits. On the other hand, the semi-
nomadic Himba are more reluctant to sell their cattle, except in times of drought, or for social reasons (wedding, funerals).

- Ovambo producers in the North Central Regions operating under a transhumant system (cattle posts in eastern North Central Regions and western Kavango) together with agriculture. They market their cattle both via Meatco or in the urban centres, adapting their sale to price variations on both markets. However, it is assumed that access to markets, slaughter facilities and condition of pastures are even more important determinants in selling cattle and in the choice of the marketing channel. As an example, in the event where the producers have a significant number of cattle to sell, Meatco remains the main commercial partner and is in a position to buy all the cattle. In contrast to the Kunene farmers, these cattle breeders are very often engaged in other economic activities (cuca shop, bottle store, etc.).

"Modern" cattle breeders are emerging commercial farmers, as pointed out by Viallet (1995). Their farms are mainly located in eastern Ohangwena, southern Okavango (Mangetti) or Oshikoto (Oshivel) They are generally affiliated to the NNFU and are very active in issues such as those relating to the VCF, or land tenure. Employing several workers, they often own several hundred genetically improved cattle (Brahman, Afrikaner) bought from commercial farmers south of the VCF. The animals are kept on large private fenced farms, divided into grazing camps with private boreholes. Their animals are separated according to sex. This is the group of producers with the most market-orientated strategy. They have various marketing strategies and supply both industrial and small-scale butcher channels, some with their own distribution channel to Oshakati and Ondangwa via private butcheries. When they sell the cattle to Meatco, they usually manage their own quarantine. Most of them own 4x4 pick ups, and sometimes one or two trucks. Many are involved in other economic activities (e.g. civil service, groceries’ trade, food and bottle stores, mechanics, etc.).

5.2. **The cattle traders or middle-men**

In this report, the generic term "middle-man" groups all the intermediate agents operating between the producers and the butchers/butchery levels. In order to simplify the presentation, we can distinguish between middle-men involved in cattle flows from Angola, and those involved in the organisation of cattle flows within Namibia. The different actors may have various strategies, resulting from the adaptation of their own working and financial constraints to the global environment. Below is a presentation of the middle-men, most of who have diversified economic activities. All of them are farmers and own their own cattle.

5.2.1. **The actors involved in cattle flows from Angola**

We make the distinction between the cattle wholesalers working together with collectors, and the cross-border middle-men.
5.2.1.1. **Cattle wholesalers and collectors**

Cattle wholesalers collect cattle on farms or local markets in Angola, directly or with the help of collectors. Sometimes the purchase zones are located several hundred kilometres from the border. These traders are thus involved in long-to medium-distance marketing channels, supplying the Angolan border markets of Caloheque or Onamacunde. They seldom take cattle across the border. This is done by other middle-men specialised in this function.

The marketing organisation of the wholesalers is dictated by the local economic imbalance existing on each side of the border, which influences the direction and importance of the exchange flows: poor infrastructures, insecurity and a disorganised beef market north of the border, and developed infrastructures, beef demand, strong currency and availability of goods south of the border.

By way of illustration, Viallet reports that in 1995 he met a group of six West African cattle traders in Onamacunde. They were involved in cattle trading in southern Angola, mainly because the situation in northern Angola lacked infrastructure and experienced a high level of insecurity. They obtained cattle by buying in the markets around Lubango, or through barter exchanges with farmers. Once they had purchased 20-25 cattle, they transported them to the border markets by truck, where they sold them within a week, on average. With the money obtained, they would load their trucks with sugar, which would then be sold in Lubango (Viallet, 1995).

This example, corresponding to a high Meatco price period\(^{11}\), may be less significant at present. But apart from the fact that the cattle price is less attractive on the Namibian side, the other parameters are still relevant. Particularly, the possibility for cattle traders to reinvest their funds by buying goods in Namibia to be sold in Angola is an important determinant in the organisation of the cross border cattle exchanges.

5.2.1.2. **The cross-border middle men**

The cross border middle men constitute another type of intermediary. Although most of them are not specialised in that sole function, their main feature is that they buy cattle on the Angolan side and trek them to local Namibian markets of Oshikongo, Epalela, Ombalantu or even Oshakati. The animals are kept in the markets up to the time of sale.

Significant costs are incurred in order to cross the border. Middle men have to obtain permission from the Angolan veterinary services and pay N$10 per head of adult cattle, and N$50 for reproductive animals. At the Namibian borders, they pay N$26.40 per head regardless of the age or sex of the animal. Vaccination is free of charge.

\(^{11}\) According to Viallet, at that time, an important share of cattle coming from Angola, bought by Namibian intermediaries, was sold to Meatco (see below).
These Angolan and Namibian agents are based on both sides of the border. They buy cattle in the Angolan markets throughout the year. In Onamacunde they buy the cattle which have been brought by the Angolan wholesalers mentioned above. The Angolan cross-border middle-men also buy cattle for themselves in the smaller markets or directly from farms in Angola.

A few months before Christmas, the Angolan middle-men seem to be most active and they often return to Angola in order to collect cattle directly from the farmers to supply the northern Namibian market (see Box 1). Occasionally, this commercial transaction requires a certain degree of organisation. The middle-men often undertake this business in their home areas, where they are well known, and frequently buy goods in Namibia (such as sugar, alcohol, blankets) and negotiate with Angolan farmers to buy the cattle in kind.

**Box 1: Beef and cattle demand in the northern Namibian market during the Christmas period**

Cattle marketing on the open markets during the last quarter of the year is linked to a specific demand. On the one hand, meat consumption increases during the Christmas period, and on the other, more money circulates in the region at this time of year. Workers and employees in the south of Namibia with farms in the north often send money to their relatives or go to the north themselves in order to buy cattle for breeding purposes, taking advantage of the good grazing situation at this time of year as a result of good rains.

However, the producers may not wish to sell their cattle for precisely the same reason, which is that of good grazing conditions. In fact, in many cases, cattle are recovering from the former dry season. Thus cattle in good condition for breeding or slaughtering are scarce. As a result, cattle prices at this time of year increase significantly in the open markets.

In fact, competition from people employed in the south is so high during this period that Meatco does not organise "buying days" in November or December, and the same can be said for some of the local middle-men, who withdrew from the markets.

Some cross-border middle-men, especially the Namibian nationals, said they also buy cattle from the small markets on the Namibian side of the border.

These middle-men often work with close relatives or in some cases with employees with whom they share the benefits. Each person is responsible for a specific function at each step of the process: cattle collection at farm level or the Angolan market, border crossing, sale in the Namibian markets, guarding of the cattle around the markets.

**Box 2: Interview of Mr SELAPHI, a cross border middle-man**

Mr SELAPHI is an Angolan who works with two Angolan friends. He buys cattle, both from communal farmers in Ombalantu market and in Angola. Concerning the cattle purchased in Ombalantu market, he resells them in the same place, sometimes on the same day. He explains that some farmers, arriving early in the morning, do not know the market prices, and are eager to sell their cattle as quickly as
possible. Once the cattle are bought by the middle men, these latter control the market and are in position to sell at higher prices.

When there are no cattle, he goes to buy them at the Caloheque market. A brother of his specialises in collecting the cattle in Angola. Several times a year he goes back with his friends to Epeupeu, his home in Angola. Before leaving Namibia, they buy sugar, maize meal and wine to exchange with cattle in Angola. When they have gathered enough cattle, they bring them back to Namibia, coming with their own food. They organise their return to Namibia before Christmas. They do not necessarily go to Epeupeu; it depends on the cattle they can buy along the way. If they do not find what they want, they go on to their village, where they are well known, and buy the cattle from the farmers.

They buy all types of cattle, without preference to sex. They either pay in cash or kind. The price in Angola for a cow is one 25 kg bag of sugar and 24 bottles of wine. If they pay in cash, the price is usually very low, lower than the price in Namibia.

Apart from the cross-border middle-men involved occasionally in the Namibian cattle flows, other categories of agents, based on their functions in the cattle market activity, operate in these flows, such as collectors, small traders, wholesalers and modern cattle breeders or traders.

5.2.1.3. The collectors

Cattle collectors collect directly from the farmers, who are their main source of cattle. This type of cattle trade does not seem to be significant either in terms of numbers of collectors involved or volume of activity.

- **Purchase:** This group of collectors buy both breeding and slaughtering cattle indiscriminately. They generally have two regions from where they collect. It appears that they all have contacts in the Kunene region, where they buy cattle from Himba or Herero. The exchange of cattle with goods is very common, and the exchange of an ox with two cows is also a current practice.

Apart from Kunene Region, the other area where they buy cattle depends on where they come from or where they live in the Oshana or Omusati regions. In these places, they take advantage of the fact they are known by the local producers. They usually buy the animals one by one and the purchases are invariably done on a cash basis for the simple reason that when the farmers sell cattle from their farms, it is primarily because they need money urgently.

The collectors may also attend Meatco buying days in order to buy the best cattle for slaughtering, with which they stand a chance of making some profit by selling to the small-scale butchery sub-chain. Their attendance is dependant upon their having
enough money during the corresponding period, and on the sale being not too far away from the urban centres.

It is difficult to ascertain with certainty at this stage whether the collectors work together with wholesalers, who provide them with credit in order to buy cattle in the villages, or if they are in fact independent. It would appear to indicate that the local cattle trading channels, especially between the Kunene region and the urban centres, are poorly organised, and operated by a limited number of cattle collectors and wholesalers who are relatively independent of each other.

- **Sale:** If the animals bought are in poor condition, the collectors keep them to fatten them on their farms. If they think it is possible to make an immediate profit, they sell them. They always try to have cattle ready for the Christmas period. Usually, they resell the cattle in the markets of their villages, though some also sell their cattle in the big urban markets, which requires more organisation in terms of employees and food and for the animals.

<table>
<thead>
<tr>
<th>Box 3: Interview of Messrs SHIPENA, TJIMBANDA and MANDUME, cattle collectors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Messrs SHIPENA, TJIMBANDA and MANDUME</strong> are cattle collectors who were interviewed in Epalela.</td>
</tr>
<tr>
<td>These three traders sell cattle and goats. They go mainly to the border area, though sometimes also to Koakola-Otavi or Etanga. There is no market in these places, so they visit the farmers directly, particularly the Himba. They go with a donkey laden with bags of maize meal and beer, and take a little money. The Himba exchange the cattle in kind. It is 12 walking days from Epalela to reach these places. They also go to Caloheque, where they pay for the cattle in cash, but they prefer northern Kunene Region because of the taxes they have to pay at the borders. They also mentioned it is difficult to import cattle illegally from Angola because the police patrol the borders.</td>
</tr>
<tr>
<td>They visit the northern Kunene Region throughout the year, and can stay a whole month just to find cattle. During the dry season, they use to prospect along the Kunene river, where they expect to meet Himba. The collectors return to Epalela if there are no more goods to exchange, no more money, or if they have sufficient cattle. The best period for buying cattle is during the dry season or droughts. Blankets, maize meal, beer and white wine are bought in order to barter for cattle to Himba.</td>
</tr>
<tr>
<td>These collectors resell their cattle mainly in Epalela, but if there are no buyers, they go to Ombalantu or Oshakati where they plan to stay a week. If after two weeks they still have cattle, they return to their place, as the cattle lose their value after two weeks, and it is expensive to stay in Oshakati.</td>
</tr>
</tbody>
</table>

---

\(^{12}\) When the cattle traders attend the Meatco buying days, they used to inspect the animals which have been brought by the producers in order to sell them and to spot the more interesting cattle for butchery purposes. For such cattle, they propose to buying it from the producer, fixing the price by adding extra money, usually around N$ 50, to the price Meatco will offer for the same cattle, according to their grading system.
5.2.1.4. The small traders

These middle-men are quite numerous in the Ombalantu market, and it is difficult at this stage to provide a clear description of them. They usually buy between 5 and 20 cattle per year, according to their financial resources. Some of them are involved in cattle trading as a secondary activity. E.g. the senior chef at the Ombalantu Hospital.

They buy the animals mainly in Ombalantu, or occasionally visit smaller markets and the Caloheque market. This type of trader does not visit the producers on their farms, unless if they have been informed by the farmers that they have some cattle to sell. They buy breeding and slaughtering cattle.

Their strategy is to buy cattle and fatten them at their own grazing area or cattle post, before reselling them a few months later, for example at Christmas time at the Ombalantu market, or at the place where they live. Sometimes, their knowledge of market prices and their physical presence at the place allow them to speculate, buying an animal early in the morning from a farmer at a low price, and reselling it the same day at a better price to a wholesaler from Oshakati.

5.2.1.5. The wholesalers

Cattle wholesalers are defined by the fact that they buy their cattle from the middle-men from Angola, from collectors in the Namibian markets and from the farmers in Kunene region or the Mangetti, Okongo and Oshivelvo areas. They may also attend Meatco buying days in order to buy the cattle for slaughtering.

It can be said that this type of trader does not waste time visiting the farmers one by one. When they go to buy cattle in Mangetti or Kunene, they have usually been informed by the farmers that a significant number of cattle will be on sale. On occasion, private auctions are even organised by the farmers, to which they invite the wholesalers.

This group is very active, has significant financial resources, and most are equipped with 4x4 pick up trucks, which give them considerable mobility for reaching selling points with their cattle escorters as soon as they are informed by farmers that cattle are on sale. They also use these vehicles to carry cattle, given the limited capacity, but most of the time, the cattle are trekked up to the market places in the NCR.

They have adapted their cattle purchase strategies to the areas they visit:

- When they buy at the Ombalantu market, they purchase slaughtering and breeding cattle indiscriminately;

- By contrast, when they buy cattle in Kunene, they avoid buying young animals which are incapable of walking to the markets of Ombalantu or Oshakati, except if they have motorised transport. Furthermore, the value of cattle which have trekked long distances to the markets is less than that of cattle coming from the areas surrounding Ombalantu or Oshakati. In that sense, it is better to buy adults with high value added, such as oxen or bulls.
- When buying cattle at Meatco buying days, their only concern is with slaughtering oxen.

These traders sell their cattle in the urban centres of Oshakati and Ondangwa. Very often, they have their own butchery in town. This could be either a butchery located in the Omatako market and run by butcher women working for them or a private butchery located in some other places in town.

These wholesalers often have a significant number of employees: a cattle escorter to trek the cattle to the market, a herd boy to keep and feed them there, and buying/selling agents.

**Box 4: Interview of Mr SIMEON, a cattle wholesaler**

Mr SIMEON is a cattle and goat wholesaler based in Oshakati, who started his business in 1987. He has 2 employees: one cattle escorter and one trade agent. He owns a 4x4 Toyota, though he does not use it for cattle transport, but only for visiting the various places where he could buy animals.

He is unsure exactly how many cattle he bought last year, but usually makes 4 trips a month from February to October, with 5 cattle per trip. This would mean that roughly 180 cattle are purchased per year. From November to January, he is busy ploughing on the farm, and says that in this period, animals for sale are scarce.

He buys cattle at the different markets of Ombalantu, Epala and Ruacana. The main providers are the traders who come from Angola, but also the Namibian collectors. He prefers to buy cattle from the Angolan traders, because their prices are lower than those of the Namibian collectors. According to him, Angolan cattle are cheaper because they travel a long way, so the "ondando" - the value of the cattle - cannot be high. The main selection criteria is the meat and fat. He buys all types of animal as long as they have "meat".

He buys cattle from the farmers if there are no cattle at the Ombalantu market. He goes to Kaokoland to attend Meatco’s buying days, especially around Opuwo. He also buys cattle directly from the farms, but only in the Mangeti area and if he knows the farmers have some to sell. Generally, the farmers group themselves, and inform him. He says he does not have a special relationship with the farmers, but the farmers know him, they are used to working together, and that in itself develops confidence. They travel together by car with other cattle traders, and the cattle trek back in one group under the surveillance of the cattle escorters.

He generally buys the cattle himself; although he occasionally sends his trader to buy the cattle. He prefers to negotiate himself (his trader agent works for him in Oshakati). The seller gives the price, then according to his own estimation of the food and the transport costs, he makes an offer. He gave the following example: if he went to Kaokoland with N$ 5000, he would use that money to buy the cattle and cover costs. Upon his return to Oshakati market, he would want to earn N$ 1000 on top of the initial N$ 5000. He negotiates the price per unit.

He sells the cattle in the Oshakati market. His clients are, in order of importance, the urban butcheries (butcher women) and communal farmers (the calves for breeding). When he negotiates the selling price,
he has to include the employees' salaries. He normally sells the cattle for cash, except with some butcher
women he knows well in the market, to whom it is possible to offer credit.

The employees are paid according to the number of cattle per trip. The salary for one escorter from
Keokoland to Oshakati is N$ 50 per head. The trader is paid according to the sale price: if the animal is
sold for N$ 600, then the salary will be N$ 50. If less, his earnings will be less accordingly. There is a
problem if the animal remains for a long time in the market, the prices decrease and he loses money. In
this case, he is obliged to buy cattle food, especially during a drought period. Sometimes, he is obliged to
sell the remaining cattle to Meatco.

5.2.2.4 The “modern” cattle breeders - traders

This group is composed of commercial cattle producers located in the extensive
production areas of Mangetti, Oshivel and Okongo. Not all of them are engaged in
cattle trade. They have considerable financial resources, and most are engaged in
non-agricultural business activities such as workshops, retailing of building materials,
food and liquor and the civil service.

They sell the cattle bred on their farms, but also buy cattle, often in northern Kunene
Region. Those farming in the Okongo area also buy cattle in Angola. Some may also
go south of the VCF to buy cattle on commercial farms.

Their main outlet is Meatco, though as noted previously, some of them have started to
develop their own system of marketing by setting up cattle pens in the urban centres in
order to sell to butchers or farmers. One reason for this is that the condition of the
animals is better at the time of sale, if they have been properly fed. Some have their
own butchers.

It is interesting to note that it is difficult to sell the cattle produced by the Mangetti
farmers to the butcher women of Oshakati. There are several reasons for this: the
cattle are generally improved and in very good condition. Consequently, the amount of
meat produced by these animals is of a higher quality than with the local breeds. It is
difficult to sell all the cuts within the time the meat stays fresh, particularly since the
butcher women do not own storage equipment. Furthermore, since the quality is high,
the sales price is often too high for the butchers to afford to buy the animals. Lastly,
the Mangetti farmers, unlike the butcher women are not interested in selling the cattle
on a unit basis so they prefer to sell to Meatco.

The butcher women indicated that during the Christmas period they buy Mangetti
cattle. The beef demand is high and the condition of the Mangetti cattle at the
beginning of the rainy season is such that prices are negotiable.
5.2.1.7. **Farmers who quarantine their cattle**

It has been pointed out by different observers (Viallet, 1995; Meatco representatives) that a specific group of 2 to 3 intermediaries appeared in 1994, when the Meatco prices were high. They were active up until early 1996 when they stopped because the Meatco price decreased. They would buy cattle in the livestock markets (Ombalantu or Oshakati) or directly from sellers, several metres from the Meatco abattoir in Oshakati or from other intermediaries coming to sell the animals to Meatco. After transporting the purchased cattle to the Oshiveló camp to organise a private quarantine, the cattle were then sent back to the abattoirs to be sold to Meatco and to be paid according to the carcass price (Viallet, 1995).

The number of private farmers who quarantine their cattle is increasing in the Kunene region. According to Meatco this concerns mainly cattle on a unit basis, or very small groups of 1 to 3 animals.

5.2.2. **Quantitative aspects concerning the cattle traders’ activity in Ombalantu market in 1997**

It is not possible to quantify the number of middle-men in Angola and the North Central Regions of Namibia. However, the database concerning the exchange of cattle in the Ombalantu market, which is the main market of the region, gives an idea of the number of agents acting in these regions and some quantitative characteristics about their cattle marketing activity.

The information provided in this section covers 1997. It is the result of the analysis of the database concerning the Ombalantu market activity. This database has been built during the study (see 7.1.2 & 7.2.1 and annexes 1 & 3). The sum of the cattle exchanged per cattle agent allows us to know how many people were present in the Ombalantu market in 1997, and the geographic origin of the animals that were exchanged.

For the analysis, a classification of these agents per number of cattle exchanged in the year has been done. The categories for the agent groups are limited to 10, 20, 50, 100 and over 100 cattle sold or purchased per year. This is a quantitative analysis, in the sense that the characteristics of these agent groups do not correspond to those of the cattle middle-men presented in the previous paragraph.

In 1997, 2 580 cattle sellers met 3 750 cattle buyers in the Ombalantu market. A small group of 353 persons are members of both groups. These persons exchanged a total amount of 17 815 cattle.

5.2.2.1. **Characteristics of the cattle sellers**

The figures presented below are presented in Table 99999Table and Figure 3222222Figure.

- **Number of cattle sellers and volume of exchange**
Table 99999:  Table 101010109Table 1111111111110Out of the 2 580 cattle sellers, 2 312 (89%) sold fewer than 10 cattle during the year. Out of the 17 815 sold cattle, cattle sellers sold 5 454 (31%) of the total number of cattle sold.

Agents selling between 10 and 50 cattle in the year are 208 persons, and they sold 4 333 (24%) of the total number of cattle sold.

Of the total people selling cattle in 1997, 60 agents (2%) sold more than 50 cattle, but sold 8 028 cattle or 45% of the total cattle sold.

The cattle sellers distribution per volume of activity can be simplified roughly in three groups. The first is the small operators who are the 2 312 agents selling fewer than 10 cattle. This group corresponds to farmers, occasional cattle sellers or those just starting out in the business. The second is the intermediate group of agents selling between 11 and 50 cattle and amounting to 208 persons can be termed the intermediate middle-men, or small cattle traders. The third is the 60 agents selling more than 50 cattle per year, who can be classed as medium to large wholesalers.

The small operators group is most probably not very organised and correspond to short distance marketing channels, while the longer channels are organised by the bigger sellers.

- **Geographic origin of the cattle sellers**

The majority (1 762 sellers or 68%) brought cattle from Angola, 599 sellers (23%) from Namibia, and 219 sellers (9%) from Angola and Namibia.

Two observations can be made:

One, that 108 sellers (49%) who brought cattle from both countries sold more than 10 cattle a year. By comparison, there are 129 cattle sellers (7%) supplying cattle only from Angola and 32 cattle sellers (5%) supplying cattle only from Namibia.

Two, of the 60 cattle sellers who sold more than 50 cattle per year, very few (4 buyers) bought their cattle only in Namibia, 18 buy them only from Angola, while majority of 38 buyers bought cattle in both countries.

Consequently, cattle sellers handle a large number of cattle, either coming from Angola or from their contacts in both Angola and Namibia. Very few large-scale cattle sellers work only in Namibia.
Table 9: Number of cattle sellers in the Ombalantu market in 1997 according to number of cattle sold in the year, and supplying areas

<table>
<thead>
<tr>
<th>Type of seller by number of cattle sold in 1997</th>
<th>Supply of Cattle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Only from Angola</td>
</tr>
<tr>
<td>1-10 cattle</td>
<td>1634</td>
</tr>
<tr>
<td>11-20 cattle</td>
<td>73</td>
</tr>
<tr>
<td>21-50 cattle</td>
<td>37</td>
</tr>
<tr>
<td>51-100 cattle</td>
<td>10</td>
</tr>
<tr>
<td>100 cattle and more</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>1762</td>
</tr>
</tbody>
</table>

Source: NEPRU database

5.2.2.2. Characteristics of the cattle buyers

The figures presented below are presented in Table 111111111110-igure 322222

- Number of cattle buyers and volume of exchange

Out of the 3750 cattle buyers, 3472 (92%) bought fewer than 10 cattle during 1997. Out of the 17815 cattle purchased, the buyers bought 9038 (51%) of the total cattle purchased.

Two hundred and thirty seven agents bought between 10 and 50 cattle during the year and this represented 4711(26%) of the total cattle purchased.

Of the total buyers of cattle in 1997, only 41 agents (1%) bought more than 50 cattle. They purchased 4066 cattle or 23% of the total cattle purchased.

As seen previously with the cattle sellers, it is premature to relate these groups based on a quantitative criteria with the above typology. The hypothesis that can be made is that the first group that bought less than 10 cattle corresponds to farmers or occasional cattle traders. The 41 agents buying more than 50 cattle per year, can be classed as medium to large wholesalers.

There is a concentration of supply in the hands of 60 middle-men, although the big traders (41) who bought cattle are fewer. The question is, whether this exchange concentration among middle-men allows them to control cattle prices in the Ombalantu market.
However, this does not seem likely, for the following reasons: (i) these traders are probably too numerous to reach any agreement on prices; (ii) the number of sale operations in 1997 was 12,081, for a total of 17,815 exchanged cattle in the market, that is to say an average of 1.47 cattle bought per exchange. Such atomisation of the sales would make it difficult to influence the price; and (iii) the prices in the industrial slaughtering sub-chain are determined by the final price imposed by Meatco at the end of the chain. If part of the cattle on the Ombalantu market are targeted for sale to Meatco, the price cannot be controlled by the Angolan wholesalers, but by the buyers.

However, in order to strengthen the analysis, it is necessary to organise a price follow-up, which will enable better knowledge on the impact of the climate, the demand variation, the technical use of the cattle (industrial or small scale slaughtering, breeding) and the role of agent in the determination of prices.

- **Geographic destination of the cattle buyers**

The majority (82%) of three cattle buyers declared that the cattle they bought were sent to rural areas. Only 12% indicated that the cattle they bought were sent to the urban areas of Oshakati and Ondangwa, while 6% mentioned that they sent their cattle to both destinations.

The same observations for the geographic origin of the cattle sellers can be made for the buyers:

On the one hand, out of the 104 cattle buyers (44%) who bought cattle in order to send them to both urban and non urban areas, they sold more than 10 cattle a year. By comparison, they are only 71 buyers (16%) who sent their cattle only to urban areas and 103 buyers (3%) sent them only to non urban areas.

On the other hand, among the 41 cattle buyers, who sold more than 50 cattle sold per year, half of them sent their cattle to both urban and non urban areas.

Consequently, it appears that very few important cattle buyers work in only one single type of area.

**Table 11:** Number of cattle buyers in the Ombalantu market in 1997 according to number of cattle bought and their destination

<table>
<thead>
<tr>
<th>Number of cattle purchased in 1997</th>
<th>Type of buyer by destination of the cattle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>to urban areas only</td>
</tr>
<tr>
<td>1-10 cattle</td>
<td>384</td>
</tr>
<tr>
<td>11-20 cattle</td>
<td>34</td>
</tr>
</tbody>
</table>
The cattle marketing in Northern Namibia

<table>
<thead>
<tr>
<th></th>
<th>21-50 cattle</th>
<th>51-100 cattle</th>
<th>100 cattle and more</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30</td>
<td>23</td>
<td>31</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>9</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>455</td>
<td>3059</td>
<td>236</td>
<td>3750</td>
</tr>
</tbody>
</table>

Source: NEPRU database

- The table below reveals that the more important the buyer in terms of quantity bought, the more involved he is in supplying the Oshana region. In contrast, the majority of the small cattle buyers sent their cattle to the Omusati region. We can extrapolate this observation by saying that the large cattle buyers are involved in the supply of cattle to the urban centres of Oshakati and Ondangwa, whereas the small ones are involved in the supply of cattle to the rural areas Table 121212121211(Table 12).

**Table 12: Destination of the cattle by type of buyers**

<table>
<thead>
<tr>
<th>Destination of the cattle</th>
<th>1-10</th>
<th>11-20</th>
<th>21-50</th>
<th>51-100</th>
<th>over 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omusati</td>
<td>58%</td>
<td>41%</td>
<td>27%</td>
<td>9%</td>
<td>18%</td>
</tr>
<tr>
<td>Oshana</td>
<td>22%</td>
<td>46%</td>
<td>64%</td>
<td>79%</td>
<td>69%</td>
</tr>
<tr>
<td>Other destinations</td>
<td>20%</td>
<td>13%</td>
<td>9%</td>
<td>12%</td>
<td>14%</td>
</tr>
<tr>
<td>Total cattle</td>
<td>9038</td>
<td>2198</td>
<td>2513</td>
<td>2034</td>
<td>2032</td>
</tr>
</tbody>
</table>

Source: NEPRU database

Figure 2 presents the number of cattle exchanged per type of agents.

**Figure 2: Number of exchanged cattle per type of cattle seller/buyer in Ombalantu in 1997**
5.2.3. The Butchers

A general feature of the organisation of the small-scale butcheries in rural and urban zones is that there are (i) diverse types of butcheries, (ii) diverse types of butchers; and (iii) a number of butcheries, in terms of physical location which is less than the number of butchers in operation.

5.2.3. Cattle slaughtering in the rural areas

Producers slaughter animals for two reasons: they may slaughter cattle to celebrate a social event (e.g. a wedding or funeral). The meat is then eaten immediately. They
also slaughter livestock to meet their financial obligations. This slaughtering takes place in the homesteads or in small-scale butcheries. In both cases, butchers have to obtain authorisation from the traditional headmen to slaughter animals in public. Before the slaughtering process, the neighbours are informed.

One problem is that the demand for beef in remote areas is not significant enough to be assured of its sale. The low human density and the low money circulation makes it difficult to sell a whole carcass in a few days. That is why rural butchers prefer to buy goats, which they sell cooked in places where there are cuca shops in the villages.

In cases of financial constraints, farmers have to ensure that they get to a sufficiently active market in terms of trading to ensure that they sell their animals, either for consumption or breeding purposes.

5.2.4. Butchers in small towns (Oshikango, Ohangwena and Eenhana)

5.2.4.1. General description

Every small town or village has its butcheries. Headmen wield considerable power in the development of butcheries in these areas. In most instances, they identify selling points either under a tree or they can also erect a metallic shed. The former, known as omwoongo, is a common tree which is used as a slaughtering and selling point.

The butchers are required to meet certain conditions laid down by traditional leaders. As the demand for selling points is far greater than their availability, prospective butchers are on a waiting list. Once it is their turn, they will be given access to a selling point for two days. They then have to pay registration fees and a piece of meat, usually a rib, to the headman. Registration fees in small villages vary from N$ 2 to N$6 per day, depending on the quality of the infrastructure.

During registration, butchers are expected to providing this information on the origin of the cattle, their colour, sex and previous owner. The motivation for registration is mainly to control livestock theft.

5.2.4.2. Cattle purchase

In Oshikango, the majority of slaughtered cattle is purchased from the surrounding areas in Namibia, with only a small fraction coming from Angola. In fact, many farmers in these border areas buy young animals from Angola at low prices, fatten them and sell the same cattle to butchers at a higher price. However, other butchers also explained that tariffs at the border are high and dissuasive.

In Eenhana, some of the butchers explained that Angolan cattle are cheap and that they have specific suppliers whom they pay in kind.
5.2.4.3. Sale organisation

Butcheries in small towns often lack infrastructure such as cutting tables, storage, meat-hooks etc. The majority of butchers hire fridges from private businesses to store unsold meat. The hiring cost ranges from N$5-15 for two days, depending on the number of cuts or fillets to be stored. Some butchers prefer to keep unsold meat at home in traditional bowls, to avoid the extra expense. It was indicated that meat preparation and storage happens under poor hygienic conditions.

The pricing system is such that cuts can have fixed prices commonly accepted by the butchers and their customers, as shown in Table 13 or the portions can be prepared without a scale and be estimated by the butcher. For example, a portion of fillet ranges from N$ 2 to N$ 10.

Table 13: Cuts and prices found in the markets:

<table>
<thead>
<tr>
<th>Name of cuts as provided:</th>
<th>Price per cut - N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omushila - tail head</td>
<td>55</td>
</tr>
<tr>
<td>Omufipa - tendon</td>
<td>80</td>
</tr>
<tr>
<td>Ofingo-neck</td>
<td>90</td>
</tr>
<tr>
<td>Epepe-shoulder or brisket</td>
<td>95</td>
</tr>
<tr>
<td>Eemat - ribs</td>
<td>125</td>
</tr>
<tr>
<td>Oshooko - hindquarters</td>
<td>200</td>
</tr>
<tr>
<td>Oshilama - forequarters</td>
<td>300</td>
</tr>
<tr>
<td>Head and feet</td>
<td>55</td>
</tr>
<tr>
<td>Intestines</td>
<td>90</td>
</tr>
</tbody>
</table>

Source: NEPRU survey Table 13

5.2.5. Butcheries and butchers in Oshakati and Ondangwa

A wide diversity of butcheries exists in the urban centres of Ondangwa and Oshakati, from the ones established in the Omatala markets to the butcheries existing under metallic sheds or trees. At the same time, different types of butchers, depending on the volume of activity and how they are organised, are operated. The purpose of this section is to describe the complex organisation of meat retailing in these towns.

5.2.5.1. Butcheries and butchers at the Omatala markets of Oshakati and Ondangwa

5.2.5.1.1. Description and management of the markets

The Omatala markets of Oshakati and Ondangwa are retailing markets located in the town centres, close to the cattle markets. Under large sheds, sellers trade small quantities of products, ranging from cereals to music or video tapes for immediate consumption.
A certain number of stalls are reserved for butcheries, where the butchers retail the meat per cut (fillet, tail,) or per portion (for example, N$10 of fillet). The infrastructure is very rudimentary, with no running water, fridges, tables or meat-hooks to prepare or display the products.

In Oshakati, this market is under the supervision of NDC, to whom the retailers have to pay a monthly fee to be authorised to sell their products. For example, the butchers renting a stall pay N$10 per month.

In Ondangwa, the market, known as Oluno Open Market, is under the control of the Town Council. However, butchers do not pay fees for renting the stalls, as is the case in Oshakati with NDC, but pay a N$25 membership to the Ondangwa Town Council.

In both towns, all butchers are expected to register with the municipal Health Inspector and to attend a training course on hygiene and related matters. They pay a N$2 fee and are issued with a certificate of fitness after a one-month training course. The certificate is valid for one year, and is renewable.

To control the slaughtering, buying and selling of livestock, the municipalities employ a registrar to monitor the activities at the markets. The registrar is responsible for ensuring that all livestock slaughtered, bought or sold is registered. The identity of the owner, origin of livestock, colour, sex, and future use of the animal are then recorded. The butcher pays a fee of N$2 upon each registration.

A general feature of these butcheries in the Omatala markets is that all the butchers are women. There are more than 80 butchers at Oshakati Omatala, and about 40 at Oluno (Ondangwa) market. The following section describes the different types of women butchers active in these Omatala.

5.2.5.1.2. The butcher women in the Omatala

We can differentiate between three types of butcher women who are active in the Omatala.

- **Butcher women who are also cattle traders**

These butcher women collect their cattle from Ombalantu and the small cattle markets, visit farmers in Kaokoland, Margetti, etc. and they also attend Meatco buying days. They then sell them in Oshakati. Few of them have their own transport, so they usually travel together to share costs. To buy cattle in this way requires significant financial resources.

At Omatala markets, they have their own stalls from which they sell their meat. In addition, all of them have several selling points under trees, usually close to the shopping centres.

They employ a large number of people: meat sellers, a slaughtering person and cattle escorters. The slaughterer is responsible for butchering cattle and cutting meat, and in
all cases prefers to be paid with the hide and a piece of meat. The cattle escorters go with the cattle on foot from the various purchasing areas. They are also responsible for herding the cattle in the Omatala market.

The meat sellers working for a butcher woman can be classified under three categories:

- The first category of meat sellers are those who are given a whole animal to sell by the butcher woman. They usually share a stall in the Omatala market with the butcher woman who employs them, and sometimes have their own selling points in town. Butcher women are dependent on these employees, as they cannot be in the Omatala market at all times, due to the fact that they are also cattle traders travelling in the region.

- The second category of meat sellers are those to whom cuts are given on credit, at an interest rate determined by the number of cuts taken by the seller. These agents have to do business under trees, close to the shopping centres.

- The last category consists of the occasional sellers, who are employed on a day-to-day basis during peak demand periods. These are employed when old age pensions or salaries are paid, or on occasions such as Independence day, Cassinga day or Heroes day.

Regarding problems experienced, the majority of the women complain of the lack of adequate storage facilities and unhygienic working conditions, and the lack of equipment (cutting table, roofs leaking during rainy or windy periods, no fridge, etc.). If the meat is kept for more than two days in the market, prices decrease rapidly. They use other people's fridges or containers, paying N$15 for a full bowl and N$25 for big cuts. If the meat stays too long in the market, it is processed it into a kind of biltong. Meat is dried and spiced in a traditional way, hung in the sun for a week, and sold in a bunch for N$10.

Inadequate capital, especially during the Christmas period, also constitutes a serious problem. Some butchers have cash-flow problems because meat sellers do not pay for the cuts they are given in time, and farmers do not offer credit.

- **Independent butcher women buying cattle only for slaughter in the main regional cattle markets**

This second type of butcher women can be characterised by the fact that they only buy slaughtering cattle in the main regional markets of Ombalantu, Oshakati and Ondangwa. They are not cattle traders, largely because of the transport problem, and because they do not have the financial resources to buy cattle by travelling in the region. Most of them are known by the cattle traders, and they have established a trust relationship which allows them to buy cattle on credit.

They have their own stalls from which they sell their meat at Omatala markets. They employ two categories of employees: the slaughterer, and the meat sellers under trees
or in mobile places, who have similar functions to the employees of the first type of butcher women. This type do not usually employ cattle escorters, but negotiate with regular cattle traders to make use of their cattle escorters.

- **Butcher women working for cattle traders**

The majority of butcher women belong to this group. They are employed by cattle traders to sell meat for them. Working for cattle traders is viewed as a starting point for those entering the business without capital to buy cattle. They sell meat at *Omatata* markets, on stalls owned by the traders. They also manage meat sellers employed by the cattle trader.

Unlike with the other types of butcher women, this group benefits from storage facilities provided by the cattle trader for whom they work.

---

**Box 5: Butcher women informal association**

*All the butcher women working in the *Omatata* market at Oshakati are governed by an informal executive committee. The committee is required to establish contact with any organisation in order to promote the interests of the butcher women and their activities: NGO-credit providers, financial institutions, Municipality, etc. This committee has two major sources of finance, consisting of membership fees on the one hand and the profits made from the meat sold (a certain percentage determined by the women). The membership revenues, which are rather small, have been predominantly used for members’ deaths (buying coffins etc.), while the other source should be used to fund the improvement of selling conditions, such as buying cold storage facilities. This last point is subject to discussion among the butcher women because apparently no investment has been done up to now.*

---

5.2.5.2.  **Butcheries and butchers under the trees**

In Oshakati alone, roughly 10 butcheries are in operation under trees, alongside the road, while in Ondangwa very few butchers operate in this way.

Butcheries under trees operate under the leadership of community leaders called *mwene who shitopolwa*. Leaders have the ultimate authority to grant permission to people who want to slaughter and sell meat under trees, and to register them. Butchers are allowed to utilise the allocated space for a two-day time period. It is also important to mention that butchers under trees consist of both sexes, unlike at *Omatata* markets. An interesting point is that sometimes the community leader is employed by the butcher to sell meat under trees.

Butchers doing business under trees are also registered at the municipalities of Oshakati or Ondangwa, with similar registration requirements than for the butchers at
the Omatala market. In addition, butchers pay a slaughtering fee of N$2 to the headman, as well as a portion of rib. Some butchers may have several cattle to slaughter and keep them at the leader's kraal while awaiting their turn. Keeping cattle at a leader's kraal costs N$10.

These butchers buy their cattle from various markets in the region, preferring to go directly to the farms where the cattle are cheaper or to Ombalantu. During the second day, if there is still a lot of meat to be sold, then a casual meat seller is employed to finish selling the meat within the prescribed time. The casual meat sellers usually move around with a trolley and sell the meat, and are paid N$40 regardless of how much meat they sell. An additional activity is that these butchers sell cooked meat, for which a cook may be employed.

5.2.5.3. Butcheries and butchers under metallic shed

In Oshakati, there are between 15 and 28 metallic shed butcheries in four informal settlements - Oneshila, Okandjengedi, Evuluuko and Uupindi. These butchers perform the tasks of slaughtering, cooking and selling of meat. Under the metallic shed, there are two types of butchers: those who sell on a permanent basis, and those who have to wait in line for a two-day rental.

To do business, a butcher has to register with the leader just as is the case for those operating under trees. The registration requirements are the same as those for the butcheries under trees.

There are two types of butchers:

- those who occupy their own permanent sheds. These butchers are found mostly at Oneshila, Uwapindi and Oshakati. They buy cattle mainly from Ombalantu, or Mangetti. These butchers employ 1 or 2 meat sellers, whom they supply with meat on credit. The meat sellers seek their own selling points, normally close to shopping centres. Similarly, they also employ a cook, who is paid N$40 per day. A person is also recruited to do the slaughtering.

- those who usually come from the rural areas with their cattle and are only allowed to sell meat within a two-day period under the control of the local leader.

5.2.5.4. Independent meat and cut sellers

These butchers are women. They are independent in the sense that they buy the cuts on a cash basis (or sometimes on credit) from the butcher women at the Omatala market. The majority of them are located under trees and close to the local shopping centre. They are not involved in any slaughtering activity, and usually work alone.

These butchers are more active during the festive periods and when salaries are paid. It must be pointed out that their meat supply depends on the butcher women in the Omatala since they have no financial leverage to buy cattle in the markets.
5.4 Synthesis: the chain diagram

The following diagram (Figure 433333) summarises the position of each of the actors from the production to the consumption level, and the type of cattle or meat exchanges existing between each of them. Distinctions according to the type of exchanged products is made between: cattle for breeding purposes, cattle for slaughtering purposes, and meat. The thickness of the arrows showing the connections between the actors indicates the importance of the exchange in terms of quantity.

At the upstream level, Angolan farmers play a role in the supply of breeding cattle either directly or via the middle men channel to Namibian farmers, mainly from the North Central and North Kunene regions. It is likely that a flow of breeding cattle from the commercial farms south of the VCF (Gobabis) supplies the farms in the Mangetti area (not appearing in the diagram). In other respects, the Namibian farmers exchange cattle for breeding purpose between themselves, or via the middle men channel.

At the production level, a distinction can be made among the producers, according to their farming system: multi-cropping farming systems together with livestock breeding in the North Central Region, pastoralism in the Kunene region, and extensive ranching in the Mangetti, Oshivelo or Okongo areas.

Three main options are possible for the farmers to sell their cattle for slaughtering: the Meatco channel, the urban channel via middle men, and the local channel including the supply of the local markets and own consumption.

In 1997, the main outlets for Namibian farmers from the North Central Regions are the local rural markets and the urban markets via middle men. The Meatco option loses its importance because of its lack of price attractiveness.

On the contrary, the farmers from Kunene who lack access to the regional markets supply the Meatco channel, which is the main one reaching their region. The farmers from the extensive areas of Mangetti, Oshivelo or Okongo, who produce several cattle per year need a regular buyer to market their production and Meatco plays this role. However, the farmers of these areas also supply the urban market.

At the industrial level, meat packed by Meatco supplies the Namibian market via industrial processors, and is exported to South Africa, which constitutes the major outlet channel.
Figure 4: Chain diagram of beef marketing in the North Central Region, Okavango and North Kunene

Legend:
- — Cattle sold for breeding purposes
- — Cattle sold for slaughtering purposes
- — Fresh cuts
- — Industrially processed cuts (chilled / frozen) or delicatessen
- — Cattle sold for breeding or slaughtering purposes
Overview of Meatco procurement in the NCA

From 1993 to 1997, Meatco procurement in the NCA\textsuperscript{15} can be divided into three periods. Figure Figure 4444The year, 1993 was characterised by low collection levels. From 1994, a considerable increase in procurement can be observed, lasting up to the third quarter of 1995. From September 1995, procurement levels started to decrease, reaching an exceptionally low level in 1997. Figure Figure 4444Figure 5 below provides a graphic illustration of these observations.

![Graph](chart.png)

Source: NEPRU, from Meatco and Meatboard data: the carcass price at the abattoirs located south of the Veterinary Cordon Fence were provided by the Meatboard. The carcass price at the Oshakati abattoir located north of Veterinary Cordon Fence and the live price data in the North were provided by Meatco, on a weekly basis from 1994 to 1997. The monthly prices in the graph correspond to the average of all prices of the grade and fat level grid of each first week of the month.

Table 14: Total Meatco procurement for NCA

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Head of cattle</td>
<td>15 607</td>
<td>26 797</td>
<td>22 581</td>
<td>18 523</td>
<td>13 003</td>
</tr>
</tbody>
</table>

\textsuperscript{15} The existing data on Meatco procurement in the North Central Regions, Kunene and Okavango are only on a yearly basis. The only existing monthly data concern the total NCA, including the Caprivi region. Table 151513 shows that the gap between this NCA total and the estimation of the total of the three regions of North Central, Kunene and Okavango is small enough to allow us to draw a parallel between the two figures.
Beef prices are determined by the following factors (Bennison et al, 1998):

- Meatboard establishes a national weekly beef price grid, based on the carcass meat market in South Africa, and the grade and carcass weight of the animal.

- This carcass price is lower north of the Veterinary Cordon Fence than in the rest of Namibia, to compensate for transport costs to southern markets.

- The live weight price in the North is determined by the grade and the live weight of the cattle. It is based on the carcass price, from which Meatco deducts: (i) the direct cost incurred by the cattle producer for transport and quarantine, (ii) the different levies which have to be paid to the Meatboard, Veterinary services, the farmers’ organisation, or for the transport insurance, (iii) the loss of grade and weight during the quarantine, by imposing a killing out rate of 40%. For example, during the first week of January 1990, the B2 grade carcass price for a 300 kg animal was N$ 8,13/kg, while the live price was N$ 2,58/kg.

- The first period corresponds to the period when Meatco was not able to export to RSA. The live carcass price was not attractive for the producers.

- The second period carcass exports to the RSA were possible. As a consequence, prices north of the VCF were henceforth linked to the RSA meat market index. Carcass prices started to increase significantly from N$ 4,84/kg in January 1994 to a peak of N$ 7,82/kg in September 1994, remaining high up to July 1995 (N$ 7,03/kg). The ‘on the hoof’ price was N$ 1,94/kg in January 1994, and increased to N$ 2,28/kg in June of that year. It peaked at N$ 3,07/kg in September 1994, the highest price of the period (1994-1997).

This price trend attracted a lot of cattle sellers, middle-men or farmers from Angola or Namib. However, improved price levels alone do not fully account for the increase in procurement. The severe drought of 1994, forced many farmers to sell cattle. In an attempt to relieve pressures on the poor pastures, government sought to encourage farmers to sell their cattle by offering a subsidy of 130 per large stock unit sold to Meatco. In order to absorb the increased supply of cattle, Meatco, whose policy is to buy any cattle offered by producers (see footnote 5, p. 25), organised two buying sessions per week in 1994.

- The third period can be divided in two phases:

  - The first shows a severe carcass price decrease, north of the VCF from N$ 7,03/kg in July 1995 to N$ 5,60/kg in July 1996, while the ‘on the hoof’ price during the same period fell from N$ 2,53/kg to N$ 1,32/kg. This, added to the possibility that farmers may not have had any surplus cattle to market after the drought, explains the decrease in Meatco procurement during that period.

  - During the second phase, north of the VCF carcass prices increased from July 1996 to reach N$ 7,43/kg in December 1997 while ‘on the hoof’ prices reached N$ 1,82/kg. Despite this general improvement in price levels, Meatco cattle procurement continued to decrease in 1997. It must be pointed out here that the calculation system of the price on the hoof changed in the beginning of 1995.
to the detriment of producers. This modification explains why the carcass price increase starting in the second half of 1996 was more important than for the "on the hoof" price.

Despite the fact that Meatco prices are not as attractive as they were in 1994-95, complementary reasons may explain the continued decrease in Meatco procurement.

First, it seems that Meatco had difficulties competing with the emergence of the small-scale sub-chain supplying the urban areas of Oshakati and Ondangwa. For this reason, Meatco was forced to reduce its cattle purchases in the North Central Regions, and to concentrate on the Kunene region. In this region, cattle breeding is the only economic activity possible for the farmers, owing to climatic conditions. The relative geographic isolation from any urban centres and the logistic strength of Meatco allowed the company to go on working in this region (Table 15).

Secondly, farmers in the NCR had additional sources of agricultural income, viz. mahangu, therefore there was more flexibility in how to obtain cash. Hence, during the period of Meatco prices depreciation, they have much less interest to sell their cattle. Table 15 See Table 15.

Lastly, in 1996, the opening of an abattoir in Cahama in the Kunene Province of Angola, about 120 km north of Calocheque could have explained the decrease in Meatco procurement (Bonis Charancle, 1998; and according to Meatco information). The carcass price offered by the new abattoir was US$1/kg. It was not possible to verify this information or to know if it was effectively the price in the 1997 period. But such an attractive price without any quarantine cost deduction could explain the reduction of cattle flow from Angola for slaughtering purposes, and the difficulties for Meatco to continue purchasing cattle in the North Central Region. Unfortunately, attempts to obtain information from sources in Angola failed, so it is not possible to discuss this important development in any further detail.

<table>
<thead>
<tr>
<th>Table 15: MEATCO procurement of cattle per region from 1994-97</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Region</strong></td>
</tr>
<tr>
<td>KUNENE</td>
</tr>
<tr>
<td>NORTHERN CENTRAL REGIONS</td>
</tr>
<tr>
<td>OKAVANGO</td>
</tr>
<tr>
<td>TOTAL PROCUREMENT 3 REGIONS</td>
</tr>
</tbody>
</table>

Source: Meatco estimation.

Note: This table used 2 sources of data, both provided by Meatco. The first presents the slaughtering in the NCA per region, the second presents the NCA procurements per buying point in the North Central, Kunene and Okavango regions (see 10 In 1995, the transport deduction on the price on the hoof was about N$70/head, and in 1997 it reached N$130/head. The same year, the different fees and levies for Meatboard and the Veterinary inspectors also increased. The insurance rate increased from 2% to 4%. Lastly, a handling fee of N$50 was introduced.
Annex 2). The total per year and per region indicated in the above table corresponds to the highest value of the two sources. They do not include cattle coming from private quarantines.

Apart from these reasons, three observations can be made on the Meatco procurement curve (Fig. 4).

- Almost no cattle were collected during the months of October to December of each year. This period is one of stiff competition between farmers and private middle-men trying to meet the high local demand for breeding and slaughtering cattle. Consequently, Meatco chose to reduce its volume of collection during that period.

- A peak in cattle collection can be observed during June to July. This marks the onset of the dry season and hence cattle breeders encounter difficulties in finding grazing areas and water for their livestock. In addition and depending on the harvest, many households may start to face problems regarding food supply and may be obliged to sell cattle.

- As previously mentioned, 3 private farmers who quarantined their cattle were very active in 1994 and 1995 (Viallet, 1995). According to Meatco, the cattle collection peak observed in July 1995 is a direct result of their presence in the North Central Regions during the drought period. In 1997, the increase in the Kunene Region figures in this type of channel was mainly due to the farmers who started quarantining their own animals (Table 16).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>KUNENE</td>
<td>nd</td>
<td>100</td>
<td>300</td>
<td>1400</td>
</tr>
<tr>
<td>NORTH CENTRAL</td>
<td>nd</td>
<td>5896</td>
<td>3719</td>
<td>150</td>
</tr>
<tr>
<td>REGIONS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OKAVANGO</td>
<td>nd</td>
<td>250</td>
<td>nd</td>
<td>73</td>
</tr>
<tr>
<td>TOTAL</td>
<td>nd</td>
<td>6245</td>
<td>4019</td>
<td>2613</td>
</tr>
</tbody>
</table>

Source: Meatco estimation.

Notes: According to Meatco, the procurement via the quarantine system should be added to the total procurement presented in Table 15. However, by doing so, the resulting total is sometimes greater than the total NCA procurement. Despite this, Table 16 is included in the report for additional information.

- It is worth noting that the majority of cattle bought by Meatco were of grade C quality (older than 2 years). Shikongo's study (1997) shows that in 1996, 66% of Meatco purchases in Oshana region were of grade C quality, 60.9% in Omusati region, 45.2% in Oshikoto and 51.2% in Oshiwambo. It is known that the farmers usually consider Meatco as the best option for them to sell old cattle in poor condition, given the fact that Meatco guarantees the purchase of any cattle presented during its buying days.

These different elements reveal that Meatco, important as it may be as an actor, competes with difficult with other actors operating in the region. The development of the open markets and the evolution of the Angolan cattle market have obliged Meatco to re-orientate its collection activities in Kaokoland. It would
seem that it is only under drastic climatic conditions that Meatco increases its collection rate in the North, taking advantage of the fact that producers are forced to reduce the cattle herd size to cope with the grazing problem.

The following chapter presents in detail the functioning of the cattle market of Ombalantu, and briefly, the main features of that of Oshakati.

7. The open markets of Ombalantu and Oshakati

7.1 Presentation of the markets

7.1.1 Background

Prior to July 1993, the open markets were not very developed in terms of turnover. During the independence war, the First National Development Corporation (FNDC) operated the Oshakati abattoir. It purchased cattle from commercial farmers, south of the VCF to supply the army with meat. The volume of activity was about 2500 to 5000 cattle per year. This situation, combined with the war, limited the movement of people and cattle hence, it explains the weak development of these markets up to independence. After independence, the abattoir was transferred to the Namibian Development Corporation (NDC), and finally to Meatco in 1992.

It was only after the agreement of July 1993 which permitted the Meatco abattoir of Oshakati to export meat to South Africa that the open market activity started to increase. But the hypothesis of the role of Meatco and its marketing channels to RSA and attracting Angolan farmers and middle men in the Ombalantu market, is not the only explanation to the development of this market. At the same time, it can be assumed that the end of the war facilitated cattle circulation on the one hand, and on the other, that the economic development of the urban and rural areas increased the demand for cattle, both for breeding and slaughtering purposes.

7.1.2 Organisation of the open markets

Although it was not possible to make an exhaustive list of all the livestock markets in the region, farmers and middle-men pointed out that the two major markets in the regions studied are those of Ombalantu and Oshakati, and after these, the market of Ondangwa (Oluno open market). But as seen previously, a certain number of small regrouping livestock markets exist in the North, and notably along the borders, as in Ruacana, Epalela, or Eenhana. At all these markets the exchange of cattle and small ruminants (mainly goats) takes place.

Generally, these markets are under the control of the local tribal authorities and each farmer or middle-men has to request permission to operate in the markets. The Oshakati and Ondangwa markets are under the control of the Municipalities. In the rural areas, they take place every Monday, Thursday and Saturday. In Oshakati and Ondangwa, they take place every day, except Sundays. The two border markets of Caloheque and Onamacunde are open every day.
Once the activity of these markets became significant, almost all of them established formal registries around 1993-94. This record system exists also in the urban markets, though these are controlled by the Municipalities.

For each animal sold, the following elements are recorded (see Annexes 1 & 3):

- the name of the seller
- the geographical origin and destination of the animal, as well as its description (sex, colour)
- the name of the buyer,
- the technical destination of the animal (breeding or slaughtering).

According to the local authorities, this system assists in tackling the problem of stock theft, which is a problem in these border regions. All farmers and middle-men have to obtain authorisation from the local tribal authority to move with their cattle. This system means a record can be kept of the transaction which can be referred to in the case of any dispute.

Another function of this system is to legitimise the imposition of a tax or levy, which has to be paid to the tribal authorities by the livestock supplier, or the Municipality at the time of recording. In Ombalantu, recording fees are N$1 for a head of cattle to be slaughtered, and N$2,5 for breeding cattle. In Oshaka the record costs N$2, whether the animal is to be slaughtered or for breeding purposes.

Meatco is not permitted by the tribal authorities to attend market days at any market it does not. This situation has opened the field for the development of middle-men. It avoids competition for slaughtered animals between Meatco and the small-scale butchering sector. But this situation allows the middle men to sell to both sub-chains according to the price levels of each one of them.

In cases where animals are first exchanged in the Ombalantu market before being sold to Meatco, they can then be bought by Meatco as cattle of Namibian origin, regardless of whether they originally came from Angola or not. This is important in view of the fact that Meatco is not permitted to buy cattle from Angola (Viallet, 1995).

7.2. The Ombalantu market

7.2.1. The main results of the Viallet study

In his report, Viallet (1995) presents the following information on the livestock exchanged at the Ombalantu market:

- June to December 1993: 10 000 cattle and 4 000 small ruminants;
- January to December 1994: 30 800 cattle and 12 600 small ruminants;
- January to May 1995: 8 100 cattle and 2 500 small ruminants.
Throughout this period, the variation in the total number of cattle exchanged followed Meatco price trends. However, looking at the origin of the cattle, it appears that about 80% of the cattle came from Angola, the figures on these Angolan flows closely following the Meatco price variations, while the number of cattle coming from Namibia remained stable, seeming to be much less affected by this price variation.

In the period 1994 to 1995, 50% of the cattle went to Oshakati. The percentage includes cattle sold by middle men to Meatco in Oshakati. In that case the cattle, bought in Ombalantu, are sent to the Oshivelo quarantine camp before being slaughtered in the Oshakati abattoir. Another 16% were sold locally in Ombalantu, while the remaining 34% were sold in the surrounding areas.

Yield highlights the fact that the Ombalantu market has a central position in the supply of three sub-chains: slaughter cattle to Meatco and the urban centres, and breeding animals to the farmers in the NLAR.

7.1.1. Total number of cattle exchanged in Ombalantu between 1993 and 1997

The database built during the course of the study is based on the cattle-sale record books of the Ombalantu market. It regroups the information produced in 1995 by Viallet (1995) for the period, June 1993 to May 1995, and the data produced by NEPRU's study for the period, June 1995 to December 1997. However, the volume of cattle exchanged during the period, September 1995 to February 1996 is estimated according to the trends for the period, 1993-1997 since no data exists (see Annex 1 & 3).

7.2.1.1. Yearly evolution

Figure 65Figure 54Figure 44Figure 34Figure 24Figure 14 Figures 4 and 5 below trace the number of cattle traded in the Ombalantu market between June 1993 and December 1997 (see Annex 3) compared with the yearly procurement by Meatco in the NCA during the same period. It becomes obvious that the volume of activity in the Ombalantu market is as important as the Meatco procurement in the NCA, in terms of total number of cattle traded.

The question thus arises whether the Ombalantu market operates as a direct supplier to Meatco. The annual data available on Meatco procurement in the North Central Regions (1995-1997 period) show that there is no consistent correlation between Meatco procurement and the Ombalantu market activity. From 1994 to 1995, the trend of the cattle exchanges in Ombalantu activity follows that of Meatco's procurement, unlike the exchanges in 1996 and especially in 1997 where activity in Ombalantu was higher than the Meatco procurement. In as much as the Ombalantu market responds to Meatco's price or the Meatco Procurement, the 1993 data are complete from January to December.
attractiveness, linked, as it is, to the South African market, it should be borne in mind that the volume
Meatco procurement and trading in Ombalantu is also determined by the same external factors, namely
climatic conditions.

It is worth recalling that two other types of flows exist in Ombalantu, aside from the supply of the industri
sub-chain. One of them is the supply of breeding cattle for the local farmers, and the second, the supply
of the small-scale butchery supplying the urban areas. From that perspective, one can roughly characterise two phases during the studied period:

- During the 1994-95 period, the Ombalantu market was supplying the local demand for breeding
and slaughtering animals, but was also to a large extent supplying Meatco.

The positive response of farmers to the Meatco price up to the middle of 1995, as well as the
exceptional drought situation in 1994, explain this situation. According to Meatco, in 1994, 70% of the
8927 cattle bought by the corporation in the NCR were bought at the Oshakati buying point. In 1995, 76% of the 7000 cattle bought by Meatco in the NCR were also bought at the Oshakati buying point and to these figures roughly 5900 cattle can be added that were also sold to Meatco in the North Central Regions during the same year through the private quarantine channel (see Table 161616161614Table 16 and Annex 2).

Interviews and Meatco's information indicates that the majority of these cattle, including the ones coming from the private quarantine channels, were initially bought from the Ombalantu market.

- During 1996 and 1997, the Ombalantu market was mainly supplying the local breeding and
slaughtering cattle demand, while its participation in the Meatco procurement decreased.

In 1996, Meatco still bought 55% of the cattle procured in the North Central Regions in Oshakati, but
the total number was reduced to fewer than 3000 heads (see Annex 2). Cattle bought through the
private quarantine channel also decreased, falling to 3700 heads (see Table 161616161614Table 16).
In 1997, these figures continued to decrease.

The decrease in Meatco collection of about 6000 cattle in the North Central Regions between 1996 and 1997 correlates with a similar decrease in the number of cattle exchanged in Ombalantu during the same period.

What is surprising is that trade volumes in Ombalantu increased from 14000 cattle in 1996 to 8000 cattle in 1997. Reasons for this dramatic increase in 1997 needs further investigation. In the absence of corresponding price trends for Ombalantu, it is difficult to explain this situation. Does the increase correspond to the low Meatco price increase of this period or is it the result of an increase in demand in the region for breeding cattle in conjunction with a permanent demand in meat from the urban centres? The question remains open.

---

15 The figures concerning the private quarantine channel for 1994 are not available.

16 The cattle exchange increase from 1996 to 1997 may be also a consequence of the estimation of the cattle exchanged January and February 1996.
Figure 6: Cattle exchanges per year in Ombalantu compared to Meatco procurements in 1993 to 1997


7.2.1.2. Seasonal trends

Apart from the first quarter of the year, which presents the lowest level of cattle exchanges, there are almost no seasonal trends in the Ombalantu market. The first quarter of the year usually corresponds to the middle of the rainy season, pastures are available and there is no need for producers to sell cattle. In addition, the meat demand is low. After the expenditures encountered during the Christmas period, certain costs have to be covered such as school fees which reduces general expenditures, and meat purchases in particular.

The first quarter, corresponding to the middle to the end of the rainy season, is usually a critical period regarding the food situation and many people wait for the next harvest. Do cattle sales play a role in this transition period, do they preferably sell goats, do they have access to any type of credit system or social mechanism to be able to cope with the situation? The few cattle sales during this period in Ombalantu seem to show that the first option plays a minor role during that period. But it is only a hypothesis, which requires more information on budget management on the farms during the year in order to be confirmed.
After the first quarter, the cattle exchange activity starts to increase, but there is no significant difference between the three last quarters. In the absence of more detailed investigations, it is difficult to explain the absence of marked seasonal trends.

Figure 7: Cattle exchanges per quarter in Ombalantu compared to Meatco procurements in the NCA in 1993-1997


7.2.2. Origin and destination of the cattle exchanged in Ombalantu

The records of the cattle exchanges in the Ombalantu market reflect the geographic origin and destination of the animals. The geographic organisation of these flows into the Ombalantu market have been analyzed (see annexes 1 & 3).

7.2.2.1. The importance of Angolan cattle in the Ombalantu market: general trend

- Angolan cattle are widely exchanged in the Ombalantu market. They represent between 71% and 87% of the total cattle exchanged during the period (Table 17). The years 1993 and 1995, corresponding to high Meatco prices, indicate that cattle from Angola are widely exchanged.

<table>
<thead>
<tr>
<th>Table 17: Number of cattle by origin in the Ombalantu market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Week/Year</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>6/93-12/94</td>
</tr>
<tr>
<td>1995</td>
</tr>
<tr>
<td>1996</td>
</tr>
</tbody>
</table>


The number of Namibian cattle in the Ombalantu market activity is

Figure 877777 erratic during the period June 1993 to December 1994 and indicates significant variations, with monthly exchanges ranging between 120 and 1170 heads (Table 17). These important fluctuations would appear to be a response to the drought experienced during this period rather than a real response to the Meatco price increase. In 1994, when the price was the highest, the sale of cattle coming from Namibia was the lowest of the period, except during the last quarter of 1994.

From January 1995 to January 1997, the number of cattle coming from Namibia remained consistently low, ranging between 76 and 350 cattle exchanged per month.

During 1997, the number of Namibian cattle increased steadily, reaching a level of about 700 head by December. As seen previously, the interpretation of this increase is not clear; the Meatco price improvement and the development of the local market could both explain this situation.

Contrary to the Namibian cattle situation, the number of cattle coming from Angola was predominant throughout the period, and especially in 1994 and 1995. During the period June 1993 to December 1994, the monthly number of Angolan cattle was between 400 and 3390 heads; between January 1995 and December 1996, it was between 413 and 1668 heads per month, and in 1997, it ranged from 403 to 1570 head per month.

It is worth noting that the proportion of Namibian cattle increased in the last quarter of each year and was the case in 1993, 1994 and 1997. The extent of this variation was fairly limited, but could express an adaptation on the part of Namibian producers to the specific Christmas period demand of this quarter of the year. This would need to be confirmed.
The situation throughout the period demonstrates that the development of markets benefits Angola farmers to a greater extent than it does the Namibian farmers. However, caution is necessary, in the sense that obviously Namibian producers aiming to sell their cattle to Meatco will go directly to Oshakati in order to sell them, rather than selling them in Ombalantu to a middle-man.

In that sense, we can say that the main characteristic of the Ombalantu market is to regroup the cattle coming from Angola, and not from Namibia.

Figure 8: Number of cattle purchased (N$ per head) from Angola and Namibia in Ombalantu market (1993-97)

Source: 1993 - 1994: Viallet, 1995; 1995 - 1997: NEPRU database; Meatco; Data for the period September 95 - February 96 are missing. (see annexes 1 and 2)
7.2.2.2. Origin and destination of the cattle exchange in the Ombalantu market

The importance of the cattle coming from Angola in the Ombalantu market has been noted. This section aims to present the organisation of the cattle flows in Ombalantu, according to their origin and their destination.

Figure 9: Origin and destination of cattle exchanged in Ombalantu


Origin:

The second region of origin is the Omusati region, which is not surprising, since that is where Ombalantu is located. An interesting point is that few cattle come from other Namibian regions. In particular, only a small flow of cattle per year come from Kunene. This situation is surprising in view of the production system in this region and the economic necessity for the Kunene producers to sell their cattle. We have seen that the importance of cattle does not think that it is stylistically clever to begin a section with anaphor. Some introductory text should precede the figure of the cattle coming from Angola in the Ombalantu market has been noted. This paragraph section aims to present the organisation of the cattle flows in Ombalantu, according to their origin and their destination.

Figure 98888

The Caloheque cattle market plays a major role in the organisation of the supply of the Ombalantu market (Table 18). These flows coming from Caloheque may correspond to medium to long distance marketing channels in northern Angola, involving numerous middle-men.

The figures concerning the Omusati region show the importance of Ombalantu and Epalela as places of origin:

Concerning the Ombalantu origin, a share of these cattle are sold by local farmers. One can assume that a further significant portion of these cattle are bought and resold in the same market, sometimes the same day, during the following week, or where possible after a grazing or fattening period. The ability of the middle-men to buy cattle at low prices and bearing in mind the higher price they expect to sell them for later on, plays a major role in this type of transaction.
- Concerning the Epalela border, where the majority of the cattle traded come through from Angola and significance in the supply of Ombalantu reinforces the total share of cattle of Angolan origin in the total cattle exchanged in this market.

Table 18: Origin of the cattle exchanged in the Ombalantu market

<table>
<thead>
<tr>
<th></th>
<th>1996</th>
<th>1997</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Angolan origin</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caliocheque market</td>
<td>51%</td>
<td>65%</td>
</tr>
<tr>
<td>Other Angolan origins</td>
<td>49%</td>
<td>35%</td>
</tr>
<tr>
<td><strong>Total cattle from Angola</strong></td>
<td>7 840</td>
<td>12 554</td>
</tr>
<tr>
<td><strong>Omusati origin</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ombalantu</td>
<td>52%</td>
<td>64%</td>
</tr>
<tr>
<td>Epalela</td>
<td>35%</td>
<td>29%</td>
</tr>
<tr>
<td>Other origin</td>
<td>13%</td>
<td>7%</td>
</tr>
<tr>
<td><strong>Total cattle from Omusati</strong></td>
<td>2 425</td>
<td>4 594</td>
</tr>
</tbody>
</table>

Source: NEPRU database. 1996 includes only the March - December period. (I do not know where e-trans dismembered the table, but my copy does not have grid lines everywhere)

• **Destination:**

An analysis of the cattle destination shows a more diversified situation, in which the Omusati and Oshikoto regions are the main outlets for the dispatching market.

Small flows were present in 1996 and 1997 going to Ohangwena and Oshikoto regions. It is all interesting to note that there was a small cattle flow back to Angola suggesting that these cattle had been bought by Angolan farmers (Table 19).

In the Omusati region, a detailed examination of the destination revealed that the cattle go to a multitude of places and villages around Ombalantu. Still, about 30% of the cattle going to the Omusati region stay within the Ombalantu area, and some of these cattle are probably bought and resold (Table 19).

The cattle going to the Oshana and Oshikoto regions are mainly forwarded to the urban centres of Oshakati and Ondangwa (Table 19).

Table 19: Destination of the cattle exchanged in the Ombalantu market

<table>
<thead>
<tr>
<th></th>
<th>1996</th>
<th>1997</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Angolan destination</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caliocheque</td>
<td>26%</td>
<td>17%</td>
</tr>
<tr>
<td>Other destinations</td>
<td>74%</td>
<td>83%</td>
</tr>
<tr>
<td><strong>Total cattle going to Angola</strong></td>
<td>720</td>
<td>756</td>
</tr>
<tr>
<td><strong>Omusati destination</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ombalantu</td>
<td>34%</td>
<td>29%</td>
</tr>
<tr>
<td>Other destination</td>
<td>66%</td>
<td>71%</td>
</tr>
<tr>
<td><strong>Total cattle going to Omusati</strong></td>
<td>4005</td>
<td>7123</td>
</tr>
<tr>
<td>Oshana destination</td>
<td>28%</td>
<td>31%</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Ondangwa</td>
<td>64%</td>
<td>49%</td>
</tr>
<tr>
<td>Other destination</td>
<td>7%</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Total cattle going to Oshana</strong></td>
<td>5625</td>
<td>8302</td>
</tr>
</tbody>
</table>

Source: NEPRU database. 1996 includes only the March - December period.

Detailed data available for 1996 and 1997 clearly shows that the origin and the destination of cattle follows a stable pattern (Figure 9).

In 1997, 17 800 cattle were exchanged in the Ombalantu market, of which:

- 33% or 5 874 cattle came from Angola and went to the Oshana region,
- 28% or 4 984 cattle came from Angola and went to the Omusati region,
- 11% or 1 958 cattle came from the Omusati region and went to the Oshana region, and
- 12% or 2 136 cattle came from Omusati and went back to the Omusati region.

This structure was more or less the same in 1996, the difference with 1997 having been that the share of the cattle coming from Angola was smaller, as it also was for the total number exchanged in the market during the year.

Figure 10: Cross of the origin and the destination of the cattle exchanged in Ombalantu in 1996 and 1997
Source: NEPRU database.

Notes: The cattle flows for which the geographic origin and destination are unknown (because of the January and February 1996's estimation and the missing data in the record books) are not represented on this figure. They correspond to 24% of the total in 1996 and 3% of the total in 1997.

7.2.3. Type and use of cattle exchanged in Ombalantu

The records of the cattle in the Ombalantu market reflect the types of cattle exchanged. Four categories of animals are used by the local authorities: bull, ox, cow and heifer. The bulls include male calves, whi$me$ the heifers include all females which have not yet given birth.

They also state the use of the cattle exchanged in Ombalantu. For each class of animal the buyer has to declare whether it is going to be slaughtered, or if he plans to keep it on his farm for rearing or breeding. The classification and analysis of this information allows the presentation of the following results (database is to be found in annexes 1 & 3).

7.2.3.1. The types of cattle exchanged in the Ombalantu market

• Types of cattle:

The types of cattle exchanged in the Ombalantu market seem to have remained stable between 1996 and 1997.

Oxen are the predominant group, followed by cows, heifers and bulls. Oxen and cows together represent almost 90% of the cattle exchanged in the market.

However, the increase in the volume of the total cattle exchanged in 1997 appears to have shifted the balance slightly in favour of cows, which rose from 2380 animals sold in 1996 to 4630 animals in 1997. It could correspond to the Meatco price increase, the farmers were willing to take advantage of this opportunity to sell old animals. This hypothesis would require confirmation. It suggests that Angol
and/or Namibian farmers primarily sell those animals which are to be slaughtered, and keep the heifers and bulls in the herd.

Table 20: Share of the type of cattle exchanged in Ombalantu in 1996 and 1997

<table>
<thead>
<tr>
<th></th>
<th>1996</th>
<th>1997</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total cattle exchanged</td>
<td>14 005</td>
<td>17 814</td>
</tr>
<tr>
<td>Oxen</td>
<td>70%</td>
<td>62%</td>
</tr>
<tr>
<td>Cows</td>
<td>17%</td>
<td>26%</td>
</tr>
<tr>
<td>Bulls</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Heifers</td>
<td>11%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Source: NEPRU database (January and February 96 are not included in the percentage)

Type of cattle by geographic origin and destination:

There are no significant differences in the cattle types brought to the Ombalantu market, whether they come from Angola or Namibia (Figure 11). However, according to the results of the interviews, it was mentioned that if the cattle are coming a long distance by foot, they will be mainly adult males, in the sense that the calves are not fit for this type of travel.

There is not a significant difference in the cattle destination: all types of cattle are sent to Angola, Oshana, Oshana or anywhere else in the same proportions. However, the share of oxen was slightly more significant for the Oshana region for 1997, corresponding to the supply of slaughtering cattle of Oshakati and Okahandja (Figure 11).

Figure 11: Type of cattle by origin and destination in the Ombalantu market in 1997

Source: NEPRU database

7.2.3.2. The use of the cattle exchanged in the Ombalantu market

The analysis enables the following observations to be made:
The majority of cattle are sold for breeding purposes:

For 1997, the destination for 14,739 of the 17,814 total cattle exchanged in Ombalantu is known: 56% were sold for breeding purposes, and 44% were bought for slaughtering purposes. About 55% of oxen, 25% of the cows and 10% of the bulls sold in the Ombalantu market were slaughtered. The number of heifers which were slaughtered was insignificant (Figure 12111111111111Figure 11). Bulls and heifers are usually considered to be animals for breeding purposes, but a large number of cows and oxen are also sold for breeding or rearing purposes.

Cattle which are declared to be slaughtered are mostly sent to Oshana region:

Oshana region is the main slaughtering destination: more than 80% of the oxen and 40% of the cows as well as 35% of the bulls destined to the region are slaughtered. Oxen and cows are also slaughtered in the Okahandja regions, but in smaller numbers.

Most of the cattle flows to the urban centres of Ondangwa and Oshakati, are destined for slaughter regardless of cattle type. On the other hand, the majority of the cattle remaining in the rural areas of Ombalantu were kept for breeding purposes Table 212121212119(Table 12)).

Box 7: Details of the use of the cattle according to their destination

Among the cattle bought in Ombalantu in 1997 and for which the use and the destination are known:

- Among the 57 sold bulls which were sent to Oshakati, 26% were slaughtered. They represented only 7 of the 341 bulls which were sent to rural areas,

- Among the 2,362 oxen which were sent to Oshakati, 88% were slaughtered. They represented 41% of the 4,243 oxen which were sent to rural areas,

- Among the 708 cows which were sent to Oshakati, 53% were slaughtered, while they represented 1% of the 2,148 cows which were sent to rural areas,

- Among the 148 heifers which were sent to Oshakati, 2% were slaughtered, while they represented 0.9 of the 657 heifers which were sent to rural areas.

Table 21: Destination of cattle according to the place in 1997

<table>
<thead>
<tr>
<th>Destination of cattle</th>
<th>Rural areas</th>
<th>Ombalantu</th>
<th>Ondangwa</th>
<th>Oshakati</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breeding purposes</td>
<td>70%</td>
<td>70%</td>
<td>46%</td>
<td>25%</td>
<td>56%</td>
</tr>
<tr>
<td>Slaughtering purposes</td>
<td>30%</td>
<td>30%</td>
<td>54%</td>
<td>75%</td>
<td>44%</td>
</tr>
<tr>
<td>Cattle with known destination</td>
<td>7389</td>
<td>1802</td>
<td>2270</td>
<td>3278</td>
<td>14,739</td>
</tr>
<tr>
<td>Total exchanged cattle</td>
<td>8764</td>
<td>2389</td>
<td>2587</td>
<td>4073</td>
<td>17,814</td>
</tr>
</tbody>
</table>

Source: NEPRU database.
7.3 The Oshakati Market

The data collected for the Oshakati market only covers the period, June 1995 to July 1996. Too many books were missing for the period after July 1996 to obtain representative results.

Despite the fact that there were continuous market days, data series are available for the period, June 1995 to July 1996, but it is unclear whether the daily records were collected. However, analysis of the data during this period may be representative in terms of trends for the geographic origin and destination, the type and destination of the cattle, they are not reliable in terms of total numbers of cattle.

Furthermore, a comparison with the Ombalantu market is not possible for the period, September 1995 to June 1996 corresponds to an estimate for the Ombalantu market, and no data exist on the above parameters during that time.

7.3.1. Origin and destination of the cattle exchanged in the Oshakati market

Direct observation and interviews show that Oshakati market is smaller in terms of activity than Ombalantu.

The total number of cattle sold in Oshakati between June 1995 and May 1996 was 2117 head (the period up to July 1996 totals 2348 heads, of which 639 heads constitute an estimate of the missing days).

The origin of these cattle is much more diverse than in the case of Ombalantu, where cattle coming from Angola and Omusati predominated (Figure 1312121212 Figure 12).

In Oshakati, roughly 78% of the cattle came directly from the Oshana and Omusati regions (42% and 36% respectively). These supply channels constitute short distance marketing channels, with sellers ming from the immediate surroundings.
- Only 8% came from Kunene region. This rate is higher than in Ombalantu, but it is still very low. However, it reflects the fact that producers from Kunene prefer coming to Oshakati to benefit from better prices than in Ombalantu.

- Another 11% of the cattle sold at the Oshakati market came straight from Angola. The sellers tried to get a better price in town. In addition, the chance to buy goods unavailable in their areas before returning after having sold their cattle, might have been a further factor to explain their presence in the Oshakati market.

All these flows are supplying mainly the Oshana region, particularly the urban centres. Of the 1,709 head of cattle for which the destination is known, 1,333 stayed in the Oshana region, 533 remained in Oshakati and 226 went to Ondangwa.

**Figure 13:** Origin and destination of the cattle exchanged in the Oshakati market between July 1995 and July 1996

Source: NEPRU database
2. Type and Destination of the cattle exchanged in the Oshakati market

7.3.2.1. Type of cattle exchanged in the Oshakati market

Among the 2,348 heads of cattle sold in Oshakati during the period, information on the type of cattle is known for 1,640 heads. Oxen represent 54%, while cows are 14%, the heifers 24% and the bulls 8% (Figure 14.1313131313131313) (Figure 14).

This structure is quite different to that of Ombalantu, where in 1996 and 1997 oxen constituted more than 62%, and heifers and bulls together less than 13%.

An explanation for this situation can be found with an analysis on the use of the cattle (Figure 14). Figure 1313131313131313

Figure 14: Distribution of the type of cattle sold in Oshakati market (June 1995–July 1996)

Source: NEPRU database

7.3.2.2. Use of the cattle exchanged in the Oshakati market

For 1,233 of the 2,348 head of cattle marketed, the destination is known: in the Oshakati market, 62% were sold for breeding and 38% for slaughtering purposes. In Ombalantu, these rates were respectively 56% and 44% in 1997 (Table 2222222222222220Figure 1514141414141414141414141414(Table 22 and Figure 15).

These percentages show that Oshakati market is more oriented to the sale of breeding cattle than the Ombalantu market. As we have seen in the previous paragraph, heifers are more important in terms of percentage than in Ombalantu.

However, this observation is counterbalanced by the following analysis: some of the cattle slaughtered in Oshakati, coming for example from Ombalantu, were bought by intermediary butchers to go directly to
their butcheries under trees or in the streets, by-passing an extra intermediary step in the Oshakati market. In other words, all the cattle slaughtered in Oshakati do not necessarily pass through the Omaheke market.

- The destinations per type of cattle in Oshakati are the same as in Ombalantu: oxen and cows are the predominant group for slaughtering, while the heifers and the bulls are used for breeding. Figure 151414141414 (Figure 15).

- The geographic destination of animals sold for slaughtering purposes (cows and oxen) is mainly within the Oshana region. Figure 151414141414 (Figure 15).

- Of the cattle for which the town destination is known, the majority of the remaining cattle in Oshakati are slaughtered whereas the cattle which are sent to rural areas and Ondangwa are kept for breeding purposes. Table 222222222222 (Table 22).

Table 22: Use of the cattle sold in Oshakati market according to the towns (June 1995-June 1997).

<table>
<thead>
<tr>
<th></th>
<th>Rural areas</th>
<th>Ondangwa</th>
<th>Oshakati</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breeding purposes</td>
<td>88%</td>
<td>89%</td>
<td>15%</td>
<td>62%</td>
</tr>
<tr>
<td>Slaughtering purposes</td>
<td>12%</td>
<td>11%</td>
<td>85%</td>
<td>38%</td>
</tr>
<tr>
<td>Total exchanged cattle with town destination known</td>
<td>627</td>
<td>167</td>
<td>439</td>
<td>1233</td>
</tr>
</tbody>
</table>

Source: NEPRU database

Figure 15: Characteristics of the destination of the cattle exchanged in Oshakati market
The compilation of the database highlights the significance of the recent development of the open markets, relative to the Meatco level of cattle procurement, especially in the case of Ombalantu. It confirms the dominance of the Angolan cattle in the supply of the northern markets, and comparatively the weakness of the Namibian supply, particularly from Kaokoland. Compared to the industrial sub-chain where the only final product is meat, and prices are determined at the end of the chain by the South African consumers, in the open markets, where the supply of oxen is dominant, two types of products are offered: breeding cattle (draft power, reproduction, increased herd) whose prices are determined by the Namibian producers, and slaughtering cattle, whose prices are determined by the local consumers.

Lastly, it is worth underlining the existence of a record system, organised by the actors themselves, symptomatic of their capacity for self-organisation.

The following section synthesises the various levels of information previously presented through an analysis which aims to propose actions in order to improve the position of local agents in the cattle commodity chain in the North.
isolated to some extent from Lubango, and still more so from Luanda. Under these conditions, it is much easier for regional producers and traders to trade with the north of Namibia.

At the same time, the weakness of the Angolan economy and the fragmentation of the national economy result in shortages of basic products. On the Namibian side, the Oshakati - Ondangwa - Oshikango triangle appears to have been in a constant state of growth since independence. Many new shops have appeared and remained, supplying all kinds of products, mostly imported from South Africa. Increasing local demand is one of the reasons for this economical phenomenon, but it is the Angolan demand from the other side of the border (and also possibly from the urban centres of Luanda and Lubango), which really explains this economic boom. Concerning cattle traders from Angola, Viallet's report (1995) and the interviews conducted by NEPRU show that the flow of goods from Namibia to Angola corresponds to the cattle flow from Angola. The Angolan traders, with the money they make from cattle sales, buy basic products such as sugar, cereals, alcohol, shoes, blankets and building materials, in order to resell them in Angola. The organisation and the importance of this cross border trade is still not clearly understood, but it is the single most significant explanation for the cattle flows in the area.

These factors determine the existence and the orientation of cattle flows from Angola to Namibia. The unanswered question remains in the misreading of the share of the short-distance marketing flows from the Angolan to the Namibian side of the border, and the long-distance marketing flows from further north in Angola, operated by big cattle traders working with a network of collectors and cross-border middle men.

The other question is also the lack of information on the costs involved in the production and transfer of animals to the border. These issues need to be investigated, as they would throw some light on the competitiveness of these channels, compared to the Namibian ones (see Annex 4).

8.1.2. The low importance of the cattle coming from NCR

The cattle-trade strategy of Namibian producers in the NCR is not very well known. The multi-cropping system in association with husbandry does not create a significant cattle surplus production level. On the one hand, the minority of producers who have a concentrated number of animals in their possession seem to adhere to a strategy of capitalisation and strengthening of their social position, which is not related to the productive function.

In accordance with this strategy, these producers are likely to sell their cattle only in times of drought or socio-economic stress and then mostly at the local level. The location of these producers determines their access to urban markets, where it is assumed they could obtain a better price than in the local market.

In the same way, their location determines their negotiating power with cattle wholesalers or butchers. A producer bringing one cow to sell in the Ombalantu market is more or less obliged to accept the price proposed by the buyer, simply because he could not afford to return home with it, or because he wants to return before nightfall. The lack of knowledge of current prices in the cattle markets is also obviously to the detriment of the producers.
8.1.3. The low importance of cattle coming from Kunene

The position of the producers in Kunene is slightly different. As was stated above the production system forces producers to sell cattle every year in order to buy cereals or manufactured goods. Consequently, this region constitutes a stable surplus production area, where cattle are exchanged every year.

However, up to now, it is mainly Meatco who operates in this region, because of its financial and logistical power, added to the security of an outlet for its purchases.

The interviews and the analysis of the market database reveal that the presence of producers from Kunene in the NCR open markets is marginal, as is the activity in this region of the cattle middle-men.

- With regard to producers, the principal problem of long distances between the production areas and the main open markets of the NCR remains. This situation creates a number of constraints which imply the producers in trading their animals easily in Ombalantu or Oshakati.

These constraints stem from:

♦ misreading the market: because of the distance, the producers can misread the current prices and demand in the urban centres of the NCR;

♦ logistical difficulties in reaching these markets and organising the cattle transfers: any cattle transfer from Kunene to the NCR open markets implies a number of trekking days (e.g. a week from Opuwo to Ombalantu). This means employing cattle escorts and organising cattle feeding en route and in the markets. Moreover, there are the risks of cattle theft, exhaustion for the animals, and the possibility of injuries, severe weight loss or even death.

♦ weaknesses of the negotiating power of the producers. The long cattle trek affects their prices:

- the producers cannot afford to return home with the animals, and consequently are more obliged to accept the price offered by the buyers;

- the value of a cattle on sale at the markets depreciates day by day, and obliges the producers to sell their cattle quickly;

- trekking cattle reduces their sale price, because buyers consider they have been weakened by the trip.

♦ The problem of the adaptation to the demand: the long trek and consequent low feeding level does not allow the driving of young breeding animals, and effectively excludes Kunene producers from the breeding cattle market.

♦ The long distance also means that cattle cannot easily be moved during a drought period without access to motorised transport. This is problematic for the producers, for whom Meatco is then the only option during those periods.

- Regarding the cattle buyers, the wide dispersion of cattle available for purchase resulting from the low human density means that cattle buyers are not attracted to the Kunene region. They will travel to the area only if they are certain they will find sufficient cattle to make the trip worthwhile. This is only the case...
8. Synthesis

8.1. The position of Namibian producers in cattle marketing in NCR and Kunene regions

In general, observers consider the industrial sub-chain channel to be the main outlet for Namibian producers. This is partly the result of a lack of knowledge concerning their marketing strategy.

However, the data of the Ombalantu market reveals a different picture:

- The activity observable in Ombalantu is equivalent or superior to the Meatco procurement: in 1997, 800 heads of cattle were exchanged in Ombalantu, compared to 13,000 collected by Meatco in total NCA.

- This activity met two forms of demand: in 1997, 56% of the exchanged cattle were used for breed or rearing purposes, and 44% of the exchanged cattle were to be slaughtered, providing evidence the existing market for young animals.

- An analysis of the origin of the cattle revealed the importance of the Angolan flows in the supply of cattle in the northern market. Conversely, it revealed the weakness of the Namibian produce supplying these markets.

This begs the question as to why farmers in northern Namibia play a subordinate role in supplying local channels?

8.1.1. The dominance of the Angolan cattle supply

The dominant role played by Angolan cattle in the supply of the northern Namibian markets can be explained as follows:

- The cattle production system operating in the Namibe and Cunene Provinces in Angola is based on transhumance and semi-nomadism, featured by large herds per holding. The apparent necessity for the producers to sell cattle every year for economic reasons, particularly in Namibe where a pure semi-nomadic system is predominant, makes a large number of cattle available for trading every year.

- Close to this production area on the Namibian side of the border is an important consumption base, and this naturally organises the cattle exchanges in that direction. The demand for cattle exists at several levels: (i) Namibian producers from the NCR look for cattle in order to increase their herds, (ii) a permanent meat demand, which is increasing in the urban area of Oshakati and Ondangwa when one considers the demographic rate and the economic development in this region, and (iii) there is a specific outlet through Meatco to the South African meat market.

- The effects on Angola of the continuing civil war have destroyed existing infrastructure, and brought about a general sense of insecurity. This situation fragments the national economy, and makes exchange of goods between regions difficult. In particular, the frontier provinces with Namibia may...
When they know there is a Meatco buying day in Kunene, or if the producers have organised their own cattle grouping in order to set up an auction sale.

These are not the only obstacles to cattle trading in Kunene. Just as it is necessary to buy a number of cattle to make the trip profitable, it is also necessary to have at one's disposal sufficient financial resources to buy these animals and to organise the transfer logistically.

Moreover, the traders have to face similar logistical constraints as those faced by the producers, which are described above: logistical difficulties to organise the trip, price depreciation for cattle having walked long distances and difficulties to trek young animals.

A shortage of cattle in Ombalantu.

8.2. Proposals to develop local channels in supplying the cattle demand

Taking the local demand into account, the proposal would be to develop the connections between local production and demand.

The low presence of Kunene producers in the NCR markets is mainly due to the constraints described above. The development of information on these markets, and more generally, actions that would improve the actors' position in the sub chain, such as the promotion of actors' associations and credit systems, should increase their share of activity in the cattle sector.

There are at least three issues at stake in performing such activities:

- First, a higher degree of inclusion of local actors in the northern sub-chains would open up new market opportunities, generating more income by attaining better prices in the open markets by decreasing the power of intermediaries, or by improving their cattle sale activity.

- Secondly, there is no guarantee that the future strategy of Meatco as a private operator will proceed as it has in the past in terms of its activities in the NCA. Representatives of Meatco have stated that the activity of cattle collection in the North is not the real function of Meatco, and it generates a severe deficit when the collection level is insufficient (see Annex 4). It can be assumed that in the future, Meatco will slow down its collection activities as far as is possible. The proposal to develop a higher degree of inclusion of producers in the local market does not mean that the Meatco position is subscribed to, but rather any action aimed at developing independence and strengthening the position of disadvantaged players is worthy of promotion.

- Lastly, another aspect is that new cattle markets could appear in the future, in both the medium- and long-term, beyond Namibia's borders, such as for example in Zambia or the Democratic Republic of Congo. These new markets would most probably be free of any health restrictions or requirements, and would be the occasion of important competition from Angolan or Namibian actors from the commercial sector. From this perspective, it is important to develop the capacity of northern Namibian actors to take part in these new markets.
8.2.1. The promotion of the agents' marketing organisation

The remoteness of the Kunene producers from the open cattle markets and the atomisation of the cattle supply in the region from the middlemen's point of view makes it difficult for the producers to participate in the cattle trade in the NCR.

In order to improve linkages between producers, cattle traders and butchers the cattle trade activity will need to be better organised.

The organisation of actors into groups would require the establishment and implementation of certain rules concerning the definition of certain activities, the internal functioning in terms of responsibility and transparency, the determination of fees in order to generate financial independence, the establishment of an accounting system with an adequate supervision system, and so on. It should obviously entail long-term interactive process integrating the lessons of failures and successes.

Concerning cattle producers, the activities which would motivate and encourage the formation of groups should cover the improvement of animal health husbandry, animal production, rangeland management and cattle marketing. Some work has been done in these fields within the framework of NOLIDEP and SARDEP, which have already started to support the creation of producers' associations, especially in Kunene. In the marketing field, the activities focused upon have been the building of auctions properly managed by producers' associations.

It appears that specific work could be done in that direction by reinforcing the links between the producers, cattle traders and butchers active in the local channels.

In this study, three specific groups of actors have been identified: the wholesalers, the small middlemen and the butcher women. These actors face constraints in the development of their activities: financial resources, logistical support, and storage facilities. Regarding the downstream agents, they are more specialised in cattle and meat marketing, and for this reason these groups could be targeted by actions aiming to promote their organisation around the issue of facilitating cattle marketing.

The organisation of actors' groups among the producers, the intermediaries and butcher women could emerge from the establishment of cattle supply contracts between producers and these downstream agents. These contracts would focus on the delivery of a certain number of cattle by the producers to the traders or butchers. They would stipulate the number of cattle concerned, the type of cattle (heifers, calves, bulls, oxen), the delivery time, and the cost of the transaction.

For the producers, the advantage of this type of contract would be to allow them access to distant cattle markets, to sell more than one cow at a time, and to sell cattle at a good price prior to the dry season. Moreover, the grouping of several producers to sell cattle to a group of traders or butchers would mean they could share transfer costs to the NCR, making transport by cattle truck feasible. The use of a truck would also mean that young animals such as calves or heifers and cattle for breeding purposes could be transported at prices unaffected by the trekking. In short, this set of actions should lead the producers to develop a cattle marketing strategy, which is dictated less by the satisfaction of immediate needs, more by a speculative approach to an attractive market. Caution should be exercised before saying that this system can improve cattle volumes that are marketed. In this regard, the point which needs to be analysed more in depth is to know better the farmers' price responsiveness and their capacity to mark on a consistent basis.
For the downstream agents, and especially for the small intermediaries and butcher women who are constrained by transport and finances, the benefit would lie in having the security to buy cattle regularly without having to travel in the region every time there was a shortage in the NCR cattle market.

Of course, as with any commercial activity, there would be the risk that the contracts would not be respected or honoured. These risks should be seen as part of a learning process in the framework of a long term evolution, through which the actors would come to know each other whilst learning ways in which their activity could become more professional. The recognition of their credibility and the building of client loyalty should be the last step of this process.

As an initial approach, it would seem that the development of such a process between producers in Kunene and the butcher women active in Oshakati would be the most straightforward to establish, on account of the fact that both groups of actors are already organised in an association. An incentive exists in that it could generate extra financial revenues for the producers if the middle-man intermediaries do not participate in this channel (See Annex 4).

8.2.2. Reinforcement of producers’ information

Of course, a marketing contract between producers and downstream agents is not the only condition enabling the producers to improve their position in the commodity chain. A knowledge of market trends concerning cattle prices and demand in terms of quantity and type of animal would place the producers in a better position for negotiating cattle prices, and also for adapting cattle supply to the demand in terms of quantity and type. Increased knowledge of the cattle market on the part of producers would enable them to plan their long term production and marketing strategies better.

A cattle market information system operating in Ombalantu and eventually in Oshakati should be developed. Such a system already exists, developed by the actors themselves, however, its function is not to inform the different actors, but it constitutes a useful base upon which to develop a more comprehensive system, integrating a follow up of price and a more precise description of the age of the cattle. The creation of price information would probably necessitate the introduction of a scale giving price per kg.

Once the information is created, the data and their analysis will be diffused on a large scale towards the producers in the corresponding region.

An ongoing training process on the functioning of the meat market targeting the various actors would be complementary to the information production.

8.2.3. The development of financial tools

The lack of monetary resources is a factor that was frequently referred to during the course of the study by the downstream agents, who emphasised that this constraint limits their capacity for movement and purchasing. The development of a credit system adapted to the needs and situation of each type of actor would develop their marketing activity. In particular, it should concern the issue of cattle purchases for the middle-men, as well as the acquisition of storage facilities by the butcher women.
Concerning producers, a small-scale savings and credit system would facilitate the planning of calf sales at the best marketing periods. It is known that generally, the producers sell their cattle for satisfaction of immediate needs. To create financial systems which would make it possible for producers to sell their animals when prices are good rather than in response to a short term needs and bank proceeds until they are needed, would improve their position in the commodity chain. This would appear to be conducive to a real improvement in cattle marketing. In Kunene, for example, instead of selling cattle in the dry season when the producers need money, but prices are low, they could programme the sales for Christmas time, and keep the money in the local bank.

Of course, a specific analysis studying the connection between the savings strategies of producers and cattle marketing would be necessary before any further action in this area.

9. CONCLUSION

This study initially aimed to compile data concerning cattle and beef marketing in the NCR and Kunene from an analysis of the actors' strategies in the local, national and international contexts.

- **The importance of parameters geographically external to the studied regions is confirmed.**

On the one hand we have the industrial sub-chain, operated by Meatco, linked to the South African market, which is itself strongly influenced by the international meat market since the opening of borders of this country. On the other hand, the Ombalantu database from 1993 to 1997 confirms marked trend - already pointed out by Viallet (1995), which is the dominance of Angolan cattle in meet supply of the northern Namibian region.

- **The cattle marketing sector in the region is significantly emerging**

These elements must not hide the characteristics of a local cattle and beef sector, which features following main points:

- The existence of local demand for meat, mainly in the urban centres of Oshakati and Ondangwa which has encouraged the development of a sub-chain of small-scale producers and middle-men;

- The existence of demand from the NCR producers for breeding cattle, such that the level of calf exchanged for rearing and breeding is comparable to that resulting from the slaughtered cattle, operated by the same actors as the small-scale producers and middle-men sub-chain;

- A total volume of trade for this Ombalantu market is equivalent to or greater than the Meatco procurement in the entire NCA (Caprivi region included).

It is worth underlining that the different cattle sub-chains presently existing in the studied regions have been evolving since 1992. They have experienced a rapid growth and are still growing:

- The future of Meatco's strategy, connected to the international meat market, will most likely evolve in direction whereby the transfer of collection and quarantine functions to other operators will be promoted.
It can be assumed that the urban meat demand will increase steadily as a function of the urban demographic growth rate and the economic development of the regions.

The breeding cattle demand will probably remain more stable than the meat demand, but will be dictated by climatic events.

With these new markets, new types of actors taking charge of production, marketing and slaughtering functions will continue to appear.

- **But what is the benefit of the producers in this process?**

However, given the importance of Angolan cattle flows in these regions, the question is to what extent these new markets will profit local development, and in particular, local producers. This question is important in the context of the implementation of agricultural development measures in line with their interests. For example, it seems that Meatco’s development in the North, the result of a political decision, profited Angolan actors more than it did Namibians, especially during the period 1993 - 1995.

Today, Meatco collection is limited, virtually exclusively to the Kunene region, but the level of organisation for marketing the producers’ cattle in this region is quite low. As a result, they largely depend upon Meatco’s strategies and decisions, and their presence in the open markets is marginal. Moreover, due to the supply dispersion in Kunene, the cattle traders buy cattle in this region only if there is a shortage in the NCR cattle markets.

Concerning the NCR cattle producers, the question appears to be more problematic: their savings system in cattle and social strategies appear to be contradictory to any market-orientated production system. The assumption is commonly accepted by observers, but still needs to be documented in more detail.

- **Proposals for a higher degree of inclusion of local actors in the cattle sub-chains.**

Several actions should be implemented in order to improve the inclusion of Namibian producers in the local sub-chain. Such actions should adopt a wide approach, promoting the organisation of various local actors’ groups from production right through to the market, aiming to develop credible and reliable business dealings. From this perspective and in order to promote the success of these actions, the choice of actors’ groups to be supported must be targeted, according to the economic importance of cattle and meat production and marketing in their activity. From that point of view, the first exploratory actions could concern the producers in Kunene and the butcher women in Oshakati and Ondangwa.

In order to develop the inclusion of local actors in the regional sub-chains, additional actions should be implemented as well. The establishment of a cattle market information system, operating in the main regional markets and producing data on cattle prices and flows, should be developed. The dispatching of such information at the level of producers would improve their price negotiation power with other actors’ groups. Complementing this, it would be of equal importance to accompany this with training processes concerned with the functioning of the cattle and meat markets in Namibia. With time, an increased knowledge of the cattle market on the part of producers would allow them to better plan their production and marketing strategies in the long term.

Lastly, the development of various financial tools adapted according to the needs of the different actors’ groups would facilitate the growth of cattle-marketing activity. It should concern primarily cattle purchases.
by traders, but also the acquisition of storage facilities by the butcher women. Specific savings and credit facilities should be implemented for the producers, allowing them to better plan their cattle marketing.

- **Complementary investigations**

All these proposals constitute avenues which need to be explored. They should be seen more as concepts than concrete and definitive technical actions. Before any further development, it appears that complementary investigations have to be undertaken:

- The producers' marketing strategy, especially in the Kunene, but also in the NCR, needs to be understood in more detail. Their cattle marketing capacity, their responsiveness to prices, the choice of marketing sub-chains, the type of cattle, strategies in the face of the climatic and socio-economic uncertainty, savings practices via cattle accumulation. All these elements would need to be better understood.

- In the context of the promotion of local channels, a greater knowledge of the urban meat demand in the NCR is necessary: an estimation of the urban population, meat consumption patterns, consumer preferences, the dynamic of the meat demand and current prices.

- The significance of the extensive production system operating in the Mangetti and Oshivelo areas, the supply of meat to the urban centres needs to be explored. This would concern the type of productivity (or cattle breeds), the cost of production, the organisation and the period of the marketing.

- More generally, an assessment of the costs involved throughout the various sub-chains still needs to be conducted. By combining this information with a price follow up, this would give an idea of the productivity and cost competitiveness of each of them.

- The domination of Angolan cattle in the supply of the local market requires a more precise assessment of the cattle supply organisation and the price formation of this channel. The low share of Namibian cattle in the northern market is obviously not the only result of producers' organisational difficulties, but also probably concerns economic performances which are inferior to the Angolan channels. A rigorous evaluation of the Angolan competitiveness, in the global sense of the term - costs of production of transfer, adaptation to the demand and efficiency of organisation - is perhaps the most important aspect to take into consideration in the preparation of any programme aiming to promote northern Namibian cattle producers in the supply of the local sub-chains.
Bibliography


Deniau, L., Mukulu, O., Lynambo, H. and Blanc, F. (1997) "Livestock Production in Omusati and Ohangwena Regions, Namibia", mimeo


Fabre, P. (1994), Note de méthodologie générale sur l'analyse des filières: Utilisation de l'analyse de filière pour l'analyse économique des politiques. FAO/ Rome


List of Annexes

nex 1: List of persons met


nex 3: Meatco cattle collection in the Northern Communal areas

nex 4: Basic data concerning the Ombalantu market activity between 1993 and 1997

nex 5: Expenditures and outcomes for different sub chains
ANNEX 1

LIST OF PERSONS MET

Mr. AUALA, Chairperson, Omahangu Farmers Co-operative

Mr. François BLANC, Regional Co-ordinator, Northern Regions Livestock Development Project

Mr. Thierry DAUPLAIS, Rural Development Adviser, Ministry of Agriculture, Water Rural Development

Mr. Manie GROBLER, Northern Communal Areas Manager, Meatco

Mr. Didier HELMSTETTER, Project Co-ordinator, Northern Namibia Rural Development Project

Mrs. KAKOLOLO, Health Department, Municipality of Oshakati

Mr. John LE ROUX, Operations Manager, Meatboard

Mr. Elias LEOPOLDT, Regional Manager, Meatco

Dr. Bula MACODI, Veterinarian, Meatco abattoir in Oshakati

Mr. MUCULU, Headman of Umbalantu

Mr. MUPIA, Chairperson, Kaokoland Farmers Union; Mayor of Opuwo.

Mr. Jean-François NOSMAS, Technical Adviser, Namibian National Farmers Union

Dr. Roger PASKINS, Directorate of Veterinary Services

Mr. Christophe RIGOURD, Junior Agronomist, Northern Namibia Rural Development Project

Mr. Robert KAVETU, Katuhane Farmers Association, Opuwo

Mr. Bent ROUTHKEGEL, Director, Directorate of Planning

Mr. SHIHEPO, Chairperson, Namibian National Farmers Union

Mr. Paul J. STRYDOM, General Manager, Meatboard

Mr. Philippe TALAVERA, Junior Veterinarian, Northern Namibia Rural Development Project

Mr. TJIKIZAPI, Technician in Kaokoland, Northern Regions Livestock Development Project, Opuwo

Mr. Roelie VENTER, Namibian Agricultural Union
Mr. Paul VLERMUIS, General Manager, Namibian National Farmers Union

Farmers, cattle traders, butchers in activity in the following areas:

- Eenana (NCR)
- Epalela (NCR)
- Kaoko Otavi (Kaokoland)
- Ondangwa (NCR)
- Onesi (NCR)
- Opuwo (Kaokoland)
- Oshakati (NCR)
- Oshikango (NCR)
- Uutapi (NCR)
ANNEX 1


1. Preliminary

The existence of books recording livestock sales in the traditional markets offers the possibility of building a database on these exchanges.

Concerning the Ombalantu market, the initial idea was to regroup the information collected by Viallet in 1995, for the period June 1993 - May 1995, and to add the information collected by the NEPRU survey from this period up to the end of 1997. A similar approach would facilitate the compilation of a similar database for the Oshakati market.

These two bodies of information could be analysed and compared in the light of the Meatco cafè; procurement and prices of the same period.

Unfortunately, a number of missing books, especially in the Oshakati market, hindered the development of the work up to this level.

2. OMBALANTU

2. 1. Viallet's database:

A print-out of the number of cattle exchanged by origin and destination was available for the July 93 - June 95 period.

The data recording for this corresponding period, according to Viallet's report, was done according to the following sampling rate:

- June 93 - December 93: 20%
- January 94 - May 94: 5%
- June - May 95: 10%

2. 2. NEPRU's database

- The headman of Ombalantu agreed to give us free access to these books in order to copy them. For this purpose, enumerators were employed to do this work for two months (copying books and entering data).

For each cattle sale, the information collected concerns the following elements:

- the date of the transaction, the name of the seller, the geographic origin of the animal, the type of cattle (bull, ox, cow, heifer), its technical destination (breeding / rearing or slaughtering purposes), and the geographic destination of the cattle.

- For 1995, only the books of June, July and August were available. Too many books for the period September 95 - February 96 were missing to enable the compilation of a database which would be representative for these three months.
From March 96 to December 97, all the books were available.

The data sampling was done according to the following:

- 1995 period: 100% of the books available were copied (only the pages concerning the cattle exchanges).

- 1996: 20% of the pages of the available books were copied (every 5 pages and only the pages concerning the cattle exchanges).

- 1997: 100% of the books were copied (only the pages concerning the cattle exchanges).

The database of 1995 only covers the total flows. 1996 and 1997 are the most representative in terms of geographic origin and destination of the cattle. 1997 generated a precise analysis concerning the actors present in this market.

A verification was carried out on the data concerning 1995 and 1996. One estimates that the market is active for 15.5 working days per month. Then, an adjustment was made when the number of days per month in the database was fewer than this, and according to the cattle exchanged average per day.

Concerning the missing months (From September 95 to February 96), a rough estimation was made, based on the monthly percentages of the 1994 and 1997 cattle exchanges.

3. DATA ANALYSIS

The data were entered in Excel application. The corresponding file occupies more than 12 MO. The total number of data lines is 15,571, of which 1997 represents 12,080 lines.

Simple data analysis were conducted using the "pivot table" tool, after codification of certain parameters, of which the most important were season, type of traders according to volume of activity, regions of origin and destination of cattle.

The following hypothesis was adopted for the analysis:

The identity of the seller or buyer, allowing the aggregation of the number of cattle exchanges per person, is based on the initial and surname. It is impossible to differentiate between two persons with the same initial and surname.

Despite the fact that it is not always clear if the origin and destination refer to the person or the animals, we systematically adopted the point of view that all geographic information concerns the animals. In this sense, we respect the information given by the persons in charge of the recording in the Ombalantu market.
Cattle exchange in Ombalantu market between 1993 and 1997 - Sources of data

- Estimation
- VIALLET's database
- NEPRU's database

June 93 - Dec 94: 5,034 units
Mar 95 - Sep 95: 3,031 units
Feb 96 - Sep 97: 5,350 units
<table>
<thead>
<tr>
<th>Line</th>
<th>Date</th>
<th>Sn</th>
<th>Surname</th>
<th>Origin</th>
<th>Region</th>
<th>Borough</th>
<th>District</th>
<th>Province</th>
<th>Cattle No</th>
<th>Owner</th>
<th>Origin</th>
<th>Province</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>04-01-97</td>
<td>A</td>
<td>Kamalene</td>
<td>Omulondo</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Mukulu</td>
<td>OB Ondjela</td>
<td>MU</td>
</tr>
<tr>
<td>2</td>
<td>04-01-97</td>
<td>B</td>
<td>Marius</td>
<td>Xangongo</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Langa</td>
<td>Onanani</td>
<td>SHA</td>
</tr>
<tr>
<td>3</td>
<td>04-01-97</td>
<td>F</td>
<td>Naufila</td>
<td>CQ</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Hango</td>
<td>Elulungu</td>
<td>MU</td>
</tr>
<tr>
<td>4</td>
<td>04-01-97</td>
<td>F</td>
<td>Naufila</td>
<td>CQ</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Andjene</td>
<td>Ongono</td>
<td>MU</td>
</tr>
<tr>
<td>5</td>
<td>04-01-97</td>
<td>E</td>
<td>Pedro</td>
<td>Ekambra</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Lukas</td>
<td>Ikkukuk</td>
<td>MU</td>
</tr>
<tr>
<td>6</td>
<td>04-01-97</td>
<td>E</td>
<td>Pedro</td>
<td>Ekambra</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Aluhi</td>
<td>Onahlemba</td>
<td>AG</td>
</tr>
<tr>
<td>7</td>
<td>04-01-97</td>
<td>K</td>
<td>Fikigo</td>
<td>Onumibhi</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Shinguito</td>
<td>Onahlemba</td>
<td>AG</td>
</tr>
<tr>
<td>8</td>
<td>04-01-97</td>
<td>K</td>
<td>Kalambo</td>
<td>EP</td>
<td>MU</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Teodolou</td>
<td>Ondjenga Ombandja</td>
<td>AG</td>
</tr>
<tr>
<td>9</td>
<td>04-01-97</td>
<td>M</td>
<td>Kanivete</td>
<td>Santa</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Teodolou</td>
<td>Ondjenga Ombandja</td>
<td>AG</td>
</tr>
<tr>
<td>10</td>
<td>04-01-97</td>
<td>M</td>
<td>Movishwa</td>
<td>EP</td>
<td>MU</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Teodolou</td>
<td>Ondjenga Ombandja</td>
<td>AG</td>
</tr>
<tr>
<td>11</td>
<td>04-01-97</td>
<td>M</td>
<td>Movishwa</td>
<td>EP</td>
<td>MU</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Teodolou</td>
<td>Ondjenga Ombandja</td>
<td>AG</td>
</tr>
<tr>
<td>12</td>
<td>04-01-97</td>
<td>N</td>
<td>Paulus</td>
<td>Xangongo</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Paulus</td>
<td>Xangongo</td>
<td>AG</td>
</tr>
<tr>
<td>13</td>
<td>04-01-97</td>
<td>P</td>
<td>Alfosa</td>
<td>Omutona</td>
<td>AG</td>
<td>2</td>
<td>2</td>
<td>MU</td>
<td>L</td>
<td>Nkantul</td>
<td>Ikkukuk</td>
<td>MU</td>
</tr>
<tr>
<td>14</td>
<td>04-01-97</td>
<td>P</td>
<td>Kalambo</td>
<td>EP</td>
<td>MU</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Lukas</td>
<td>Ikkukuk</td>
<td>MU</td>
</tr>
<tr>
<td>15</td>
<td>04-01-97</td>
<td>P</td>
<td>Mundila</td>
<td>CQ</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Nkakale</td>
<td>Ommulundu</td>
<td>MU</td>
</tr>
<tr>
<td>16</td>
<td>04-01-97</td>
<td>S</td>
<td>Shrumbila</td>
<td>CQ</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Nkakale</td>
<td>Ommulundu</td>
<td>MU</td>
</tr>
<tr>
<td>17</td>
<td>04-01-97</td>
<td>V</td>
<td>Benhard</td>
<td>OB Onahlemba</td>
<td>MU</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Teodolou</td>
<td>Ondjenga Ombandja</td>
<td>AG</td>
</tr>
<tr>
<td>18</td>
<td>04-01-97</td>
<td>W</td>
<td>Mukolo</td>
<td>Obulungu</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Teodolou</td>
<td>Ondjenga Ombandja</td>
<td>AG</td>
</tr>
<tr>
<td>19</td>
<td>04-01-97</td>
<td>W</td>
<td>Mukolo</td>
<td>Obulungu</td>
<td>AG</td>
<td>2</td>
<td>2</td>
<td>MU</td>
<td>L</td>
<td>Teodolou</td>
<td>Ondjenga Ombandja</td>
<td>AG</td>
</tr>
<tr>
<td>20</td>
<td>05-01-97</td>
<td>M</td>
<td>Mjasinfo</td>
<td>Mjas Info</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Alpanda</td>
<td>OB Onahlemba</td>
<td>MU</td>
</tr>
<tr>
<td>21</td>
<td>05-01-97</td>
<td>A</td>
<td>Simon</td>
<td>OB Olunwango</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Khamilo</td>
<td>OB Okapuku</td>
<td>MU</td>
</tr>
<tr>
<td>22</td>
<td>05-01-97</td>
<td>A</td>
<td>Simon</td>
<td>OB Olunwango</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Khamilo</td>
<td>OB Okapuku</td>
<td>MU</td>
</tr>
<tr>
<td>23</td>
<td>05-01-97</td>
<td>E</td>
<td>Nausiya</td>
<td>OB Cutapi</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Jostoe</td>
<td>Onamitza Ongandjera</td>
<td>MU</td>
</tr>
<tr>
<td>24</td>
<td>05-01-97</td>
<td>E</td>
<td>Nausiya</td>
<td>OB Cutapi</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Teofelus</td>
<td>Ondjana</td>
<td>SHA</td>
</tr>
<tr>
<td>25</td>
<td>05-01-97</td>
<td>F</td>
<td>Naufila</td>
<td>CQ</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Inondo</td>
<td>Onduka Oukwulu</td>
<td>MU</td>
</tr>
<tr>
<td>26</td>
<td>05-01-97</td>
<td>F</td>
<td>Naufila</td>
<td>CQ</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Uppinde</td>
<td>Oshundu Oukwul</td>
<td>MU</td>
</tr>
<tr>
<td>27</td>
<td>05-01-97</td>
<td>K</td>
<td>Manuel</td>
<td>CQ</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Uppinde</td>
<td>Oshunluu</td>
<td>MU</td>
</tr>
<tr>
<td>28</td>
<td>05-01-97</td>
<td>N</td>
<td>Paulus</td>
<td>Xangongo</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Shimui</td>
<td>Obafu</td>
<td>MU</td>
</tr>
<tr>
<td>29</td>
<td>05-01-97</td>
<td>N</td>
<td>Shimui</td>
<td>Obafu</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Shimui</td>
<td>Obafu</td>
<td>MU</td>
</tr>
<tr>
<td>30</td>
<td>05-01-97</td>
<td>P</td>
<td>Matius</td>
<td>CQ</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Hikswa</td>
<td>Ondjanci</td>
<td>SHA</td>
</tr>
<tr>
<td>31</td>
<td>05-01-97</td>
<td>P</td>
<td>Matius</td>
<td>CQ</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Uppinde</td>
<td>Oshunluu</td>
<td>MU</td>
</tr>
<tr>
<td>32</td>
<td>05-01-97</td>
<td>P</td>
<td>Mundilia</td>
<td>CQ</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Shimui</td>
<td>Obafu</td>
<td>MU</td>
</tr>
<tr>
<td>33</td>
<td>05-01-97</td>
<td>P</td>
<td>Mundilia</td>
<td>CQ</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Namabha</td>
<td>Ongwa</td>
<td>HA</td>
</tr>
<tr>
<td>34</td>
<td>05-01-97</td>
<td>S</td>
<td>Kaluvango</td>
<td>CQ</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Kaandjaliwa</td>
<td>OK Uppinde</td>
<td>SHA</td>
</tr>
<tr>
<td>35</td>
<td>05-01-97</td>
<td>S</td>
<td>Kaluvango</td>
<td>OB Ondjaka</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Teofelus</td>
<td>Ondjana</td>
<td>SHA</td>
</tr>
<tr>
<td>36</td>
<td>05-01-97</td>
<td>A</td>
<td>Celseo</td>
<td>CQ</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Mwongo</td>
<td>OK Ondjana</td>
<td>SHA</td>
</tr>
<tr>
<td>37</td>
<td>05-01-97</td>
<td>A</td>
<td>Celseo</td>
<td>CQ</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Verndonbomo</td>
<td>Ondjana</td>
<td>SHA</td>
</tr>
<tr>
<td>38</td>
<td>05-01-97</td>
<td>D</td>
<td>Sibatite</td>
<td>OB Ondjanana</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Gideon</td>
<td>OK Ondjana</td>
<td>SHA</td>
</tr>
<tr>
<td>39</td>
<td>05-01-97</td>
<td>D</td>
<td>Sibatite</td>
<td>OB Ondjanana</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Elias</td>
<td>Ondjana Ongandjera</td>
<td>MU</td>
</tr>
<tr>
<td>40</td>
<td>05-01-97</td>
<td>F</td>
<td>Jose</td>
<td>CQ</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Verndonbomo</td>
<td>Ondjana</td>
<td>SHA</td>
</tr>
<tr>
<td>41</td>
<td>05-01-97</td>
<td>F</td>
<td>Jose</td>
<td>CQ</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Verndonbomo</td>
<td>Ondjana</td>
<td>SHA</td>
</tr>
<tr>
<td>42</td>
<td>05-01-97</td>
<td>F</td>
<td>Pipanua</td>
<td>CQ</td>
<td>AG</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Verndonbomo</td>
<td>Ondjana</td>
<td>SHA</td>
</tr>
<tr>
<td>43</td>
<td>05-01-97</td>
<td>G</td>
<td>Daniel</td>
<td>EP</td>
<td>MU</td>
<td>1</td>
<td>1</td>
<td>MU</td>
<td>L</td>
<td>Erasitus</td>
<td>OB Okapanda</td>
<td>MU</td>
</tr>
</tbody>
</table>
**ANNEX 2**

**MEATCO CATTLE COLLECTION IN THE NORTHERN COMMUNAL AREAS**

Three types of data were provided by Meatco: the first table presents the NCA procurements by buying points (except Caprivi region), the second, the slaughtering in the NCR by region and type of collection (buying days or private quarantine). The last table gives the total procurement in the NCA. One can notice that a certain incoherence appears in the data: for the two first tables, the addition of the total collect per region and/or per type of collection is sometimes different from the total collect in the NCA presented in the table 3.

**1. NORTHERN COMMUNAL AREAS PROCUREMENT PER BUYING POINTS 1995-1997 (except CAPRIVI region)**

<table>
<thead>
<tr>
<th>PLACE</th>
<th>1995</th>
<th>1996</th>
<th>1997</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KAOKOLAND</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sesfontein</td>
<td>333</td>
<td>221</td>
<td>120</td>
<td>674</td>
</tr>
<tr>
<td>Otuanie / Otjomatembba</td>
<td>-</td>
<td>502</td>
<td>324</td>
<td>826</td>
</tr>
<tr>
<td>Otjivedo</td>
<td>-</td>
<td>216</td>
<td>-</td>
<td>216</td>
</tr>
<tr>
<td>Kaoko-Otavi / Etanga</td>
<td>-</td>
<td>666</td>
<td>1273</td>
<td>1959</td>
</tr>
<tr>
<td>Opuwa</td>
<td>2276</td>
<td>2374</td>
<td>501</td>
<td>5151</td>
</tr>
<tr>
<td>Ombombo</td>
<td>1845</td>
<td>2405</td>
<td>2348</td>
<td>6598</td>
</tr>
<tr>
<td>Otjikuare</td>
<td>1051</td>
<td>376</td>
<td>1004</td>
<td>2431</td>
</tr>
<tr>
<td>Omakange</td>
<td>-</td>
<td>846</td>
<td>-</td>
<td>846</td>
</tr>
<tr>
<td>Okankwati</td>
<td>161</td>
<td>838</td>
<td>587</td>
<td>1586</td>
</tr>
<tr>
<td>Otjekwera</td>
<td>569</td>
<td>90</td>
<td>-</td>
<td>659</td>
</tr>
<tr>
<td>Otjondakwa</td>
<td>-</td>
<td>459</td>
<td>1311</td>
<td>1770</td>
</tr>
<tr>
<td>Kaoko Otavi</td>
<td>-</td>
<td>280</td>
<td>-</td>
<td>280</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>6235</td>
<td>8923</td>
<td>7838</td>
<td></td>
</tr>
</tbody>
</table>

| **North Central regions**    |      |      |      |       |
| Okanjera                     | -    | 130  | 28   | 158   |
| Ruacana                      | -    | 81   | -    | 81    |
| Onesie                       | 349  | 24   | 481  | 854   |
| Mangeti West                 | 749  | 420  | -    | 1169  |
| Oshakati                     | 5354 | 1542 | -    | 6896  |
| Okongo                       | 548  | 289  | -    | 837   |
| Otjivedo                     | -    | 11   | -    | 11    |
| Amuapa                       | -    | 24   | -    | 24    |
| Onakali                      | -    | 61   | -    | 61    |
| Onanke                       | -    | 6    | -    | 6     |
| Opona / Omapale              | -    | 203  | -    | 203   |
| **TOTAL**                    | 7000 | 2791 | 509  | 10300 |

3781 1236
### OKAVANGO

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rundu</td>
<td>3848</td>
<td>238</td>
<td>nd</td>
</tr>
<tr>
<td></td>
<td>Kavango East</td>
<td>149</td>
<td>-</td>
<td>nd</td>
</tr>
<tr>
<td></td>
<td>Kavango West</td>
<td>101</td>
<td>317</td>
<td>nd</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>4098</td>
<td>555</td>
<td>nd</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>17333</td>
<td>12269</td>
<td>8347</td>
<td></td>
</tr>
</tbody>
</table>

Source: Meatco. These figures do not include the procurement done through the private quarantine system.

They are incomplete, but feature the main trends.

### 2. ORIGIN OF THE CATTLE SLAUGHTERED BY MEATCO PER REGION AND PER TYPE OF COLLECTION

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Type of collect</th>
<th>CAPRIVI</th>
<th>KAOKO</th>
<th>OVAMBO</th>
<th>KAVANG</th>
<th>TOTAL</th>
<th>Gd Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>Buying days</td>
<td>nd</td>
<td>nd</td>
<td>nd</td>
<td>nd</td>
<td>16211</td>
<td>16211</td>
</tr>
<tr>
<td></td>
<td></td>
<td>nd</td>
<td>nd</td>
<td>nd</td>
<td>nd</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Priv.</td>
<td>nd</td>
<td>nd</td>
<td>nd</td>
<td>nd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td>Buying days</td>
<td>nd</td>
<td>nd</td>
<td>nd</td>
<td>nd</td>
<td>15606</td>
<td>15606</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3870</td>
<td>11000</td>
<td>12797</td>
<td>3000</td>
<td>26797</td>
<td>26797</td>
</tr>
<tr>
<td></td>
<td>Priv.</td>
<td>nd</td>
<td>nd</td>
<td>nd</td>
<td>nd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>Buying days</td>
<td>5200</td>
<td>6508</td>
<td>6922</td>
<td>4653</td>
<td>23283</td>
<td>29529</td>
</tr>
<tr>
<td></td>
<td></td>
<td>nd</td>
<td>100</td>
<td>5896</td>
<td>250</td>
<td>6346</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Priv.</td>
<td>5227</td>
<td>6925</td>
<td>3729</td>
<td>3753</td>
<td>19634</td>
<td>23653</td>
</tr>
<tr>
<td>1996</td>
<td>Buying days</td>
<td>4407</td>
<td>3321</td>
<td>2263</td>
<td>1432</td>
<td>11423</td>
<td>14136</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1090</td>
<td>1400</td>
<td>150</td>
<td>73</td>
<td>2713</td>
<td></td>
</tr>
</tbody>
</table>

Source: Meatco. These figures are incomplete, but feature the main trends.

### 3. MONTHLY CATTLE PROCUREMENT IN THE NORTHERN COMMUNAL AREAS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 6:</td>
<td>1632</td>
<td>2106</td>
<td>3741</td>
<td>2043</td>
<td>1764</td>
</tr>
<tr>
<td>February</td>
<td>1999</td>
<td>1034</td>
<td>2257</td>
<td>1081</td>
<td>1222</td>
</tr>
<tr>
<td>March</td>
<td>481</td>
<td>595</td>
<td>1211</td>
<td>2388</td>
<td>984</td>
</tr>
<tr>
<td>April</td>
<td>887</td>
<td>1476</td>
<td>1160</td>
<td>1700</td>
<td>1580</td>
</tr>
<tr>
<td>May</td>
<td>1972</td>
<td>1265</td>
<td>2744</td>
<td>1551</td>
<td>652</td>
</tr>
<tr>
<td>June</td>
<td>975</td>
<td>2740</td>
<td>1802</td>
<td>1272</td>
<td>1281</td>
</tr>
<tr>
<td>July</td>
<td>1998</td>
<td>4126</td>
<td>4827</td>
<td>1160</td>
<td>1019</td>
</tr>
<tr>
<td>August</td>
<td>2351</td>
<td>3471</td>
<td>2573</td>
<td>2348</td>
<td>1158</td>
</tr>
<tr>
<td>September</td>
<td>1164</td>
<td>2733</td>
<td>2342</td>
<td>1834</td>
<td>1206</td>
</tr>
<tr>
<td>October</td>
<td>1493</td>
<td>3063</td>
<td>898</td>
<td>1444</td>
<td>981</td>
</tr>
<tr>
<td>November</td>
<td>181</td>
<td>1723</td>
<td>714</td>
<td>1356</td>
<td>766</td>
</tr>
<tr>
<td>December</td>
<td>0</td>
<td>830</td>
<td>10</td>
<td>625</td>
<td>306</td>
</tr>
<tr>
<td>TOTAL</td>
<td>15607</td>
<td>26797</td>
<td>22581</td>
<td>18523</td>
<td>13003</td>
</tr>
</tbody>
</table>

Source: Meatco. These figures do not include the procurement done through the private quarantine system.
ANNEX 3

BASIC DATA ON OMBALANNU MARKET ACTIVITY BETWEEN 1993 AND 1997

- Table 1: Geographic origin of the cattle trade in Ombalantu market between June 1993 and December 1997

- Table 2: Geographic destination of the cattle trade in Ombalantu market between June 1993 and December 1997

- Table 3: Type of cattle trade per origin in Ombalantu market in 1996 and 1997

- Table 4: Type of cattle trade per destination in Ombalantu market in 1996 and 1997

- Table 5: Use of cattle according to origin and type in Ombalantu market in 1997

- Table 6: Use of cattle according to the destination and the type in Ombalantu market in 1997
| Year/Month | Heads of cattle per region or origin | Angola | Omusati | Kavango | Other | % Gi total without MD* | % Gi total with MD* | % Gi total | % Gi total | % Gi total | % Gi total | % Gi total | % Gi total | % Gi total | % Gi total | % Gi total | % Gi total | % Gi total | % Gi total | % Gi total | % Gi total | % Gi total | % Gi total | % Gi total | % Gi total | % Gi total |
|------------|-------------------------------------|--------|---------|---------|-------|-----------------------|-------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 1993       | 8-9                               | 650    | 75%     | 1170    | 129% | 0.0%                  | 0.0%              | 2.5%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       |
|            | 10-11                             | 751    | 8.3%    | 942     | 11.2% | 0.0%                  | 0.0%              | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       |
|            | 12-13                             | 475    | 6.2%    | 570     | 7.3%  | 0.0%                  | 0.0%              | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       |
|            | 14-15                             | 615    | 7.6%    | 165     | 1.8%  | 0.0%                  | 0.0%              | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       |
|            | Total                              | 517    | 8.5%    | 3654    | 57.0% | 0.3%                  | 0.0%              | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       | 0.0%       |

---

Table 1: Geographic origin of the cattle trade in Ombalantu market between June 1993 and December, 1997.
<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Angola</th>
<th>% Gd total</th>
<th>% Gd total</th>
<th>Oshana</th>
<th>% Gd total</th>
<th>% Gd total</th>
<th>Kunene</th>
<th>% Gd total</th>
<th>Total</th>
<th>% Gd total</th>
<th>% Gd total</th>
<th>Missing Data</th>
<th>Gd Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>420</td>
<td>420</td>
</tr>
<tr>
<td>1996</td>
<td>1</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>420</td>
<td>420</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>420</td>
<td>420</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>420</td>
<td>420</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>420</td>
<td>420</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>420</td>
<td>420</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>420</td>
<td>420</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>420</td>
<td>420</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>420</td>
<td>420</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>420</td>
<td>420</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>420</td>
<td>420</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>420</td>
<td>420</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>420</td>
<td>420</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>420</td>
<td>420</td>
</tr>
</tbody>
</table>


MD* = Missing data
The cattle marketing in Northern Namibia

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Oshana % G'd total without MD</th>
<th>Oturu % G'd total without MD</th>
<th>Okahandja % G'd total without MD</th>
<th>Ongwediva % G'd total without MD</th>
<th>Kunene % G'd total without MD</th>
<th>Angola % G'd total without MD</th>
<th>Oturu Total % G'd total without MD</th>
<th>Oshana Total % G'd total without MD</th>
<th>Missing Data</th>
<th>Oturu Total % G'd total without MD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>6</td>
<td>45</td>
<td>630</td>
<td>6.5%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>421</td>
<td>1334</td>
<td>14.7%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>880</td>
<td>1000</td>
<td>11.0%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>140</td>
<td>1121</td>
<td>12.3%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>796</td>
<td>574</td>
<td>6.3%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>426</td>
<td>571</td>
<td>6.3%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>330</td>
<td>440</td>
<td>4.8%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>3337</td>
<td>33.5%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1994</td>
<td>1</td>
<td>440</td>
<td>600</td>
<td>1.0%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>300</td>
<td>360</td>
<td>1.2%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1800</td>
<td>620</td>
<td>2.0%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>940</td>
<td>1020</td>
<td>3.3%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>780</td>
<td>620</td>
<td>2.0%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>1520</td>
<td>1560</td>
<td>4.5%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>1510</td>
<td>1200</td>
<td>3.9%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>2740</td>
<td>800</td>
<td>2.9%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>1740</td>
<td>1520</td>
<td>4.8%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>2010</td>
<td>1460</td>
<td>4.7%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>1670</td>
<td>922</td>
<td>3.0%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>2325</td>
<td>1261</td>
<td>4.1%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>17751</td>
<td>18.5%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1995</td>
<td>1</td>
<td>400</td>
<td>540</td>
<td>20.5%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>972</td>
<td>324</td>
<td>10.4%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1560</td>
<td>480</td>
<td>15.4%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>956</td>
<td>480</td>
<td>15.4%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1520</td>
<td>294</td>
<td>8.5%</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>475</td>
<td>236</td>
<td>9.5%</td>
<td>21</td>
<td>0.7%</td>
<td>18</td>
<td>0.6%</td>
<td>3</td>
<td>0.1%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>240</td>
<td>182</td>
<td>5.8%</td>
<td>12</td>
<td>0.4%</td>
<td>6</td>
<td>0.2%</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>651</td>
<td>832</td>
<td>26.7%</td>
<td>36</td>
<td>1.2%</td>
<td>76</td>
<td>2.9%</td>
<td>6</td>
<td>0.2%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>0</td>
<td>0.0%</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>1415</td>
<td>48.4%</td>
<td>1310</td>
<td>42.1%</td>
<td>69</td>
<td>2.2%</td>
<td>102</td>
<td>3.3%</td>
<td>9</td>
</tr>
</tbody>
</table>

Table 2: Geographic destination of the cattle trade in Ombalantu market between June 1993 and December 1997.
<table>
<thead>
<tr>
<th>Year</th>
<th>% of Total</th>
<th>% of Total</th>
<th>% of Total</th>
<th>% of Total</th>
<th>% of Total</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>with MD</td>
<td>without MD</td>
<td>with MD</td>
<td>without MD</td>
<td>with MD</td>
<td>without MD</td>
</tr>
<tr>
<td>1998</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1999</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>


MC = Missing data
### Table 3: Type of cattle trade per origin in Ombalantu market in 1996 and 1997

<table>
<thead>
<tr>
<th>Month</th>
<th>Angola</th>
<th>Ombudu</th>
<th>Ohangwena</th>
<th>Kunene</th>
<th>Missing Data*</th>
<th>Total without “other cattle”</th>
<th>Other cattle*</th>
<th>Grand total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S°</td>
<td>C°</td>
<td>C°</td>
<td>H°</td>
<td>Total</td>
<td>S°</td>
<td>C°</td>
<td>C°</td>
</tr>
<tr>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>205</td>
<td>65</td>
<td>50</td>
<td>400</td>
<td>5</td>
<td>55</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
<td>460</td>
<td>105</td>
<td>150</td>
<td>745</td>
<td>5</td>
<td>155</td>
<td>105</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>540</td>
<td>195</td>
<td>96</td>
<td>930</td>
<td>0</td>
<td>200</td>
<td>60</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>725</td>
<td>215</td>
<td>80</td>
<td>900</td>
<td>10</td>
<td>185</td>
<td>70</td>
</tr>
<tr>
<td>7</td>
<td>20</td>
<td>600</td>
<td>155</td>
<td>125</td>
<td>950</td>
<td>10</td>
<td>205</td>
<td>25</td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>600</td>
<td>120</td>
<td>20</td>
<td>745</td>
<td>0</td>
<td>230</td>
<td>40</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>610</td>
<td>175</td>
<td>85</td>
<td>880</td>
<td>36</td>
<td>180</td>
<td>30</td>
</tr>
<tr>
<td>10</td>
<td>25</td>
<td>615</td>
<td>115</td>
<td>115</td>
<td>725</td>
<td>0</td>
<td>270</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>20</td>
<td>600</td>
<td>90</td>
<td>115</td>
<td>825</td>
<td>0</td>
<td>150</td>
<td>60</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
<td>270</td>
<td>110</td>
<td>115</td>
<td>625</td>
<td>0</td>
<td>115</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>110</td>
<td>3555</td>
<td>1345</td>
<td>940</td>
<td>790</td>
<td>70</td>
<td>1720</td>
<td>375</td>
</tr>
<tr>
<td>%year</td>
<td>1%</td>
<td>69%</td>
<td>17%</td>
<td>12%</td>
<td>100%</td>
<td>5%</td>
<td>83%</td>
<td>8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Month</th>
<th>Angola</th>
<th>Ombudu</th>
<th>Ohangwena</th>
<th>Kunene</th>
<th>Missing Data*</th>
<th>Total without “other cattle”</th>
<th>Other cattle*</th>
<th>Grand total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S°</td>
<td>C°</td>
<td>C°</td>
<td>H°</td>
<td>Total</td>
<td>S°</td>
<td>C°</td>
<td>C°</td>
</tr>
<tr>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>210</td>
<td>130</td>
<td>28</td>
<td>368</td>
<td>5</td>
<td>72</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>276</td>
<td>87</td>
<td>97</td>
<td>492</td>
<td>7</td>
<td>135</td>
<td>44</td>
</tr>
<tr>
<td>5</td>
<td>30</td>
<td>576</td>
<td>200</td>
<td>60</td>
<td>881</td>
<td>14</td>
<td>220</td>
<td>75</td>
</tr>
<tr>
<td>6</td>
<td>44</td>
<td>709</td>
<td>237</td>
<td>175</td>
<td>1185</td>
<td>18</td>
<td>229</td>
<td>75</td>
</tr>
<tr>
<td>7</td>
<td>80</td>
<td>800</td>
<td>320</td>
<td>210</td>
<td>1410</td>
<td>36</td>
<td>222</td>
<td>54</td>
</tr>
<tr>
<td>8</td>
<td>61</td>
<td>610</td>
<td>307</td>
<td>92</td>
<td>1070</td>
<td>21</td>
<td>180</td>
<td>73</td>
</tr>
<tr>
<td>9</td>
<td>15</td>
<td>583</td>
<td>113</td>
<td>58</td>
<td>862</td>
<td>2</td>
<td>230</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>53</td>
<td>940</td>
<td>504</td>
<td>73</td>
<td>1570</td>
<td>11</td>
<td>256</td>
<td>134</td>
</tr>
<tr>
<td>11</td>
<td>40</td>
<td>820</td>
<td>423</td>
<td>139</td>
<td>1363</td>
<td>11</td>
<td>244</td>
<td>92</td>
</tr>
<tr>
<td>12</td>
<td>14</td>
<td>807</td>
<td>256</td>
<td>198</td>
<td>655</td>
<td>3</td>
<td>208</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>442</td>
<td>7453</td>
<td>3349</td>
<td>1069</td>
<td>12216</td>
<td>177</td>
<td>2903</td>
<td>1007</td>
</tr>
<tr>
<td>%year</td>
<td>4%</td>
<td>61%</td>
<td>27%</td>
<td>9%</td>
<td>100%</td>
<td>4%</td>
<td>65%</td>
<td>22%</td>
</tr>
</tbody>
</table>

Source: NEPRU’s database. (*): B = Bulls, O = Oxen, C = Cows, H = Heifers; Missing data = unknown origin; Other cattle* = unknown type
Table 4: Type of cattle trade per destination in Ombalantu market in 1996 and 1997

<table>
<thead>
<tr>
<th>Month</th>
<th>Geographic Destination</th>
<th>B'</th>
<th>C'</th>
<th>H'</th>
<th>Total</th>
<th>B</th>
<th>O</th>
<th>C</th>
<th>H</th>
<th>Total</th>
<th>B</th>
<th>O</th>
<th>C</th>
<th>H</th>
<th>Total</th>
<th>B</th>
<th>O</th>
<th>C</th>
<th>H</th>
<th>Total</th>
<th>B</th>
<th>O</th>
<th>C</th>
<th>H</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Crassili</td>
<td>4</td>
<td>116</td>
<td>85</td>
<td>16</td>
<td>26</td>
<td>5</td>
<td>123</td>
<td>48</td>
<td>12</td>
<td>197</td>
<td>3</td>
<td>25</td>
<td>3</td>
<td>5</td>
<td>55</td>
<td>2</td>
<td>35</td>
<td>26</td>
<td>5</td>
<td>53</td>
<td>3</td>
<td>25</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Ouanda</td>
<td>7</td>
<td>133</td>
<td>44</td>
<td>23</td>
<td>26</td>
<td>6</td>
<td>155</td>
<td>72</td>
<td>49</td>
<td>230</td>
<td>4</td>
<td>42</td>
<td>29</td>
<td>49</td>
<td>137</td>
<td>7</td>
<td>132</td>
<td>44</td>
<td>23</td>
<td>230</td>
<td>4</td>
<td>42</td>
<td>29</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>Other Namsa</td>
<td>16</td>
<td>51</td>
<td>59</td>
<td>10</td>
<td>70</td>
<td>15</td>
<td>55</td>
<td>90</td>
<td>55</td>
<td>145</td>
<td>10</td>
<td>20</td>
<td>15</td>
<td>10</td>
<td>45</td>
<td>10</td>
<td>20</td>
<td>15</td>
<td>10</td>
<td>45</td>
<td>10</td>
<td>20</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Angola</td>
<td>3</td>
<td>116</td>
<td>85</td>
<td>16</td>
<td>26</td>
<td>5</td>
<td>123</td>
<td>48</td>
<td>12</td>
<td>197</td>
<td>3</td>
<td>25</td>
<td>3</td>
<td>5</td>
<td>55</td>
<td>2</td>
<td>35</td>
<td>26</td>
<td>5</td>
<td>53</td>
<td>3</td>
<td>25</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>8</td>
<td>104</td>
<td>74</td>
<td>50</td>
<td>162</td>
<td>15</td>
<td>119</td>
<td>100</td>
<td>74</td>
<td>219</td>
<td>20</td>
<td>220</td>
<td>10</td>
<td>220</td>
<td>300</td>
<td>20</td>
<td>220</td>
<td>10</td>
<td>220</td>
<td>300</td>
<td>20</td>
<td>220</td>
<td>10</td>
<td>220</td>
</tr>
<tr>
<td></td>
<td>Other cattle*</td>
<td>6</td>
<td>116</td>
<td>85</td>
<td>16</td>
<td>26</td>
<td>5</td>
<td>123</td>
<td>48</td>
<td>12</td>
<td>197</td>
<td>3</td>
<td>25</td>
<td>3</td>
<td>5</td>
<td>55</td>
<td>2</td>
<td>35</td>
<td>26</td>
<td>5</td>
<td>53</td>
<td>3</td>
<td>25</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: NEPRU's database. (*) - B = Bulls, O = Oxen, C = Cows, H = Heifers; Missing data = unknown destination; Other cattle* = unknown type

%year: 2% 57% 17% 14% 100% 1% 74% 14% 19% 100% 3% 50% 30% 13% 100% 0% 64% 18% 13% 100% 0% 64% 18% 13% 100% 0% 64% 18% 13% 100%
Table 5: Use of cattle according to origin and type in Ombalantu market in 1997

<table>
<thead>
<tr>
<th>Data</th>
<th>Region of origin</th>
<th>Angola</th>
<th>Omusati</th>
<th>Oshana</th>
<th>Kunene</th>
<th>Missing data</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulls</td>
<td>Breeding</td>
<td>442</td>
<td>177</td>
<td>100%</td>
<td>3</td>
<td>100%</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Slaughtering</td>
<td>360</td>
<td>144</td>
<td>81%</td>
<td>1</td>
<td>33%</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>53</td>
<td>18</td>
<td>10%</td>
<td>1</td>
<td>33%</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>29</td>
<td>15</td>
<td>8%</td>
<td>1</td>
<td>33%</td>
<td>0</td>
</tr>
<tr>
<td>Oxen</td>
<td>Breeding</td>
<td>7483</td>
<td>2903</td>
<td>100%</td>
<td>56</td>
<td>100%</td>
<td>249</td>
</tr>
<tr>
<td></td>
<td>Slaughtering</td>
<td>2559</td>
<td>1029</td>
<td>35%</td>
<td>1</td>
<td>2%</td>
<td>98</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>3705</td>
<td>1403</td>
<td>48%</td>
<td>33</td>
<td>59%</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1219</td>
<td>471</td>
<td>15%</td>
<td>22</td>
<td>36%</td>
<td>41</td>
</tr>
<tr>
<td>Cows</td>
<td>Breeding</td>
<td>3344</td>
<td>1037</td>
<td>100%</td>
<td>11</td>
<td>100%</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>Slaughtering</td>
<td>2114</td>
<td>728</td>
<td>70%</td>
<td>0</td>
<td>0%</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>809</td>
<td>190</td>
<td>10%</td>
<td>7</td>
<td>64%</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>421</td>
<td>119</td>
<td>11%</td>
<td>4</td>
<td>36%</td>
<td>5</td>
</tr>
<tr>
<td>Heifers</td>
<td>Breeding</td>
<td>1049</td>
<td>354</td>
<td>100%</td>
<td>12</td>
<td>100%</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Slaughtering</td>
<td>852</td>
<td>299</td>
<td>84%</td>
<td>7</td>
<td>58%</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>9</td>
<td>3</td>
<td>1%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>178</td>
<td>52</td>
<td>15%</td>
<td>5</td>
<td>42%</td>
<td>1</td>
</tr>
<tr>
<td>Total cattle</td>
<td>Breeding</td>
<td>12318</td>
<td>4471</td>
<td>100%</td>
<td>82</td>
<td>100%</td>
<td>367</td>
</tr>
<tr>
<td></td>
<td>Slaughtering</td>
<td>6895</td>
<td>2200</td>
<td>49%</td>
<td>9</td>
<td>11%</td>
<td>185</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>4576</td>
<td>1514</td>
<td>38%</td>
<td>41</td>
<td>50%</td>
<td>125</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1847</td>
<td>657</td>
<td>15%</td>
<td>32</td>
<td>39%</td>
<td>47</td>
</tr>
<tr>
<td>Other missing data</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>392</td>
</tr>
<tr>
<td>Grand total</td>
<td></td>
<td>12318</td>
<td>4471</td>
<td>82</td>
<td>357</td>
<td>586</td>
<td>17814</td>
</tr>
</tbody>
</table>

Source: NEPRU's database.

Table 6: Use of cattle according to the destination and the type in Ombalantu market in 1997

<table>
<thead>
<tr>
<th>Data</th>
<th>Region of destination</th>
<th>Omusati</th>
<th>Oshana</th>
<th>Other Namibia</th>
<th>Angola</th>
<th>Missing data</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulls</td>
<td>Breeding</td>
<td>341</td>
<td>198</td>
<td>100%</td>
<td>83</td>
<td>100%</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Slaughtering</td>
<td>317</td>
<td>117</td>
<td>59%</td>
<td>81</td>
<td>98%</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>11</td>
<td>61</td>
<td>31%</td>
<td>1</td>
<td>1%</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>43</td>
<td>20</td>
<td>10%</td>
<td>1</td>
<td>1%</td>
<td>5</td>
</tr>
<tr>
<td>Oxen</td>
<td>Breeding</td>
<td>4279</td>
<td>5229</td>
<td>100%</td>
<td>814</td>
<td>100%</td>
<td>353</td>
</tr>
<tr>
<td></td>
<td>Slaughtering</td>
<td>2251</td>
<td>765</td>
<td>15%</td>
<td>578</td>
<td>71%</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>1506</td>
<td>3549</td>
<td>68%</td>
<td>125</td>
<td>15%</td>
<td>118</td>
</tr>
<tr>
<td></td>
<td></td>
<td>522</td>
<td>915</td>
<td>17%</td>
<td>111</td>
<td>14%</td>
<td>175</td>
</tr>
<tr>
<td>Cows</td>
<td>Breeding</td>
<td>1977</td>
<td>1738</td>
<td>100%</td>
<td>587</td>
<td>100%</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>Slaughtering</td>
<td>1624</td>
<td>728</td>
<td>42%</td>
<td>477</td>
<td>81%</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>189</td>
<td>738</td>
<td>42%</td>
<td>51</td>
<td>9%</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>154</td>
<td>274</td>
<td>16%</td>
<td>59</td>
<td>10%</td>
<td>47</td>
</tr>
<tr>
<td>Heifers</td>
<td>Breeding</td>
<td>672</td>
<td>450</td>
<td>100%</td>
<td>262</td>
<td>100%</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Slaughtering</td>
<td>991</td>
<td>328</td>
<td>73%</td>
<td>246</td>
<td>95%</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>2</td>
<td>10</td>
<td>2%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>79</td>
<td>112</td>
<td>25%</td>
<td>14</td>
<td>5%</td>
<td>26</td>
</tr>
<tr>
<td>Total cattle</td>
<td>Breeding</td>
<td>7259</td>
<td>7615</td>
<td>100%</td>
<td>1748</td>
<td>100%</td>
<td>611</td>
</tr>
<tr>
<td></td>
<td>Slaughtering</td>
<td>4783</td>
<td>1936</td>
<td>25%</td>
<td>1364</td>
<td>79%</td>
<td>199</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>1718</td>
<td>4358</td>
<td>57%</td>
<td>177</td>
<td>10%</td>
<td>159</td>
</tr>
<tr>
<td></td>
<td></td>
<td>788</td>
<td>1321</td>
<td>17%</td>
<td>185</td>
<td>11%</td>
<td>253</td>
</tr>
<tr>
<td>Other missing data</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>392</td>
</tr>
<tr>
<td>Grand total</td>
<td></td>
<td>7266</td>
<td>7615</td>
<td>1748</td>
<td>511</td>
<td>573</td>
<td>17814</td>
</tr>
</tbody>
</table>

Source: NEPRU's database.
ANNEX 4

EXPENDITURES AND OUTCOMES FOR DIFFERENT SUB CHAINS

For financial and economic assessments, commodity chains can be considered as chains of enterprises (e.g., individual producers such as cattle producers, middle-men, butchers, Meatco). From the standpoint of each actor or enterprise, material inflows of goods and services are inputs, and outflows are outputs. On the accounting side, the former are referred to as expenses and the latter as revenues (Fabre, 1994).

In order to be able to proceed with a financial and economic assessment, actual market prices and economic values must be estimated and all types of financial transfers between actors or enterprises must be identified: i.e., prices of the commodity itself (at every stage of the sub-chain), costs of inputs, costs for processing, transport, marketing and storage, taxes, duties (Fabre, 1994).

We present below the operating account for each actor in the case of three examples of sub-chains:

- the **small-scale Namibian producer and intermediary sub chain**: a producer from Kaokoland sells a cow to a middle-man in Opuwo, who is going to sell it to a butcher woman operating in Oshakati. The butcher woman retails meat in the Oshakati Omatale with the help of a meat seller operating in the streets.

- the **small scale Angolan producer and intermediary sub chain**: a producer from Angola sells a cow to a middle-man in Caloheque, who is going to sell it to a Namibian middle-man in Ombalantu. This cattle trader sells it to a butcher woman operating in Oshakati. The butcher woman retails meat in the Oshakati Omatale with the help of a meat seller operating in the streets.

- the **industrial sub-chain**: a producer sells a cow to Meatco on a buying day. Meatco slaughters it and sells the deboned meat on the South African market.

The presentation respects the following rules. For each actor, we make the distinction between the inputs which are totally transformed (or "destroyed") by the production process: they are referred to as **Intermediate goods and services**.

The **Output value** is the value (price) of the cattle sold at each step of the sub chain. This includes the various costs paid by the actor to produce the cattle, plus the margin he will make at the sale.

The difference between **Output value** and **Intermediate goods and services** represents the value the actor or the enterprise have added to the initial value of the consumed inputs during the period: salary, taxes and levies, insurances, margins... This is the definition of the **Value added**.

During the study, we collected the different costs involved at each step of the sub-chains. However, it was impossible to survey the current cattle prices.
Consequently, the various cattle sale prices adopted below at each level are fixed according to our interviews, taking into account the price differential between each level. However it remains an arbitrary selection, and it must be clear that this determines the margin per cattle for each agent. We deduct from that price the various costs generated by the marketing activity between the butcher and the producer, allowing us to establish at each step of the sub-chain the value of the intermediate goods and services, and the value added with the margin added by each agent.

A relevant follow-up of the prices in the different markets should allow for a precise analysis of the share of the margins all along the chain between the actors, and for a study of the competitiveness of each sub-chain.

1. Small scale sub chains

1. 1. Channel Angola-Oshakati

In our interviews, we adopted the following conventions:

- Angolan producer: The cattle price paid in cash or in kind to the Angolan producer is N$ 500. This cattle has been sold by the producer at the Caloheque market to the Angolan middle-man. We do not take into account any production costs paid eventually by the producer during the life of the cattle (veterinary costs, feeding costs, etc.).

- Angolan middle-man: The Angolan middle-man oversees the cattle travelling from Caloheque to Ombalantu, (the cattle are convoyed in groups of 5 heads or more). He has to pay the Caloheque market levy which is apparently much higher than in the Namibian open markets (N$ 40 / cattle), the duty at the Angolan custom (N$20 / cattle), the duty at Namibian customs (N$ 26,40 / cattle), and the Ombalantu market record tax (N$ 2,5 / cattle). The cattle escorter is paid N$ 20 / cattle for the convoying between Caloheque and Ombalantu. The middle-man employs a herd boy permanently in Ombalantu who looks after the cattle on sale. He is usually paid between N$ 100 and N$ 150 per month.

With a sale price of 1100 in Ombalantu, the margin for the Angolan middle-man would be N$ 338,1 per cattle.

- Namibian middle-man: The Namibian middle-man buys the cattle in Ombalantu and transfers it to Oshakati market. This activity involves fuel costs linked to human transport. The salary for the cattle trekking from Ombalantu to Oshakati is N$ 15 / cattle. There are some feeding costs for the cattle on sale in Oshakati market, plus the salary of the herd boy employed to look after the cattle in the market. The record tax at Oshakati is N$ 2 / cattle.

If the sale price to the butcher woman is N$ 1500 for the cattle, then the margin for the middle man is N$ 314.

- Butcher woman: The slaughtering and the carving is done by a private slaughter boy paid N$ 35, at a piecework rate. The storage of the meat in a fridge for one night costs
approximatively N$ 65. The butcher woman employs a person selling the meat in the streets, paid N$ 50 per day for the two days.

If the total revenue of the meat sales are N$ 2000, then the margin for the butcher woman will be N$ 300.

### Channel Angola-Oshakati

<table>
<thead>
<tr>
<th>Angolan producer</th>
<th>Value added</th>
<th>650</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sale cattle price</td>
<td>650</td>
</tr>
<tr>
<td></td>
<td><strong>Output value</strong></td>
<td><strong>650</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Angolan middle man</th>
<th>Intermediate goods and service</th>
<th>650</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Calohque - Ombalkantu)</td>
<td>Cattle purchase (from producer)</td>
<td>650</td>
</tr>
<tr>
<td></td>
<td><strong>Value added</strong></td>
<td><strong>450</strong></td>
</tr>
<tr>
<td></td>
<td>Calohque market levy</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Angolan Custom</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Namibian Custom</td>
<td>26.4</td>
</tr>
<tr>
<td></td>
<td>Ombalkantu taxes</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Cattle escorter salary (from producer to Ombalkantu)</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Herd boy in Ombalkantu market</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Margin</td>
<td>338.1</td>
</tr>
<tr>
<td></td>
<td><strong>Output value</strong></td>
<td><strong>1100</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Namibian middle man</th>
<th>Intermediate goods and service</th>
<th>1166</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Ombalkantu-Oshakati)</td>
<td>Cattle purchase in Ombalkantu</td>
<td>1100</td>
</tr>
<tr>
<td></td>
<td>Feeding costs at the Oshakati market (grass balls)</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Fuel cost (Ombalkantu - Oshakati)</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td><strong>Value added</strong></td>
<td><strong>334</strong></td>
</tr>
<tr>
<td></td>
<td>Oshakati taxes</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Cattle escorter salary (from Ombalkantu to Oshakati)</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Herd boy in Oshakati market</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Margin</td>
<td>314</td>
</tr>
<tr>
<td></td>
<td><strong>Output value</strong></td>
<td><strong>1500</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Butcher woman</th>
<th>Intermediate goods and service</th>
<th>1601</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Oshakati)</td>
<td>Purchase cattle in Oshakati</td>
<td>1500</td>
</tr>
<tr>
<td></td>
<td>Slaughtering and carving payment</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Stall renting</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Cold storage</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td><strong>Value added</strong></td>
<td><strong>399</strong></td>
</tr>
<tr>
<td></td>
<td>Meat seller salary</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Margin</td>
<td>299</td>
</tr>
<tr>
<td></td>
<td><strong>Output value</strong></td>
<td><strong>2000</strong></td>
</tr>
</tbody>
</table>
1. 2 The Kunene-Oshakati Channel

The calculation of the different costs and margins at each step of the sub-chain is done as previously. We consider that the cattle is bought from the producer by the middle-man in Opuno at N$ 900. The convoying of the cattle from Opuno to Oshakati involves various costs of fuel and food, plus payment of a cattle escortor (N$ 50 / cattle). In Oshakati, the costs are the same as previously.

The calculations for the butcher woman are the same as in the previous case.

<table>
<thead>
<tr>
<th>Kunene-Oshakati Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Namibian producer</strong></td>
</tr>
<tr>
<td><strong>(Opuno)</strong></td>
</tr>
<tr>
<td><strong>Value added</strong></td>
</tr>
<tr>
<td>Sale cattle price</td>
</tr>
<tr>
<td><strong>Total incomes</strong></td>
</tr>
<tr>
<td><strong>Namibian middle man</strong></td>
</tr>
<tr>
<td><strong>(Opuno-Oshakati)</strong></td>
</tr>
<tr>
<td><strong>Intermediate goods and service</strong></td>
</tr>
<tr>
<td>Cattle purchase in Opuno (from producer)</td>
</tr>
<tr>
<td>Feeding costs between Opuno and Oshakati*</td>
</tr>
<tr>
<td>Feeding costs at the Oshakati market*</td>
</tr>
<tr>
<td>Fuel cost (Opuno - Oshakati)</td>
</tr>
<tr>
<td><strong>Value added</strong></td>
</tr>
<tr>
<td>Cattle escortor salary (trekking from Opuno to Oshakati)</td>
</tr>
<tr>
<td>Oshakati taxes</td>
</tr>
<tr>
<td>Herd boy in Oshakati market</td>
</tr>
<tr>
<td>Margin</td>
</tr>
<tr>
<td><strong>Output value</strong></td>
</tr>
<tr>
<td><strong>Butcher woman</strong></td>
</tr>
<tr>
<td><strong>(Oshakati)</strong></td>
</tr>
<tr>
<td><strong>Intermediate goods and service</strong></td>
</tr>
<tr>
<td>Cattle purchase in Oshakati</td>
</tr>
<tr>
<td>Slaughtering and cutting payment</td>
</tr>
<tr>
<td>Stall renting</td>
</tr>
<tr>
<td>Cold storage</td>
</tr>
<tr>
<td><strong>Value added</strong></td>
</tr>
<tr>
<td>Meat seller salary</td>
</tr>
<tr>
<td>Margin</td>
</tr>
<tr>
<td><strong>Output value</strong></td>
</tr>
</tbody>
</table>

* grass balls

*Commentaries:* We note that buying the cattle in Kaokoland or Angola affects the margin made by the Namibian middle-man. What would be useful in this regard would be to have a better understanding of the Angolan price system and the organisation of the Angolan supply channel.

From the perspective of the establishment of cattle-marketing contracts, the promotion of direct commercial links between the producers in Opuno and the butcher women in Oshakati would release the margin deducted by the middle-man, and could thence be shared between the producers and the butchers.
2. Industrial sub chain

- According to Meatco, the costs for the Oshakati abattoir from 1995 to 1997 were as indicated below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of slaughtered cattle</th>
<th>Procurement cost per animal (N$)</th>
<th>Abattoir cost per animal (N$)</th>
<th>Marketing cost per animal (N$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>24,239</td>
<td>78,63</td>
<td>238,31</td>
<td>54</td>
</tr>
<tr>
<td>1996</td>
<td>18,426</td>
<td>108,59</td>
<td>282,24</td>
<td>57</td>
</tr>
<tr>
<td>1997</td>
<td>9,629</td>
<td>423,70</td>
<td>515,33</td>
<td>60</td>
</tr>
</tbody>
</table>

**Procurement costs:** these include the collection, quarantine and transport to the abattoir, as well as the taxes, levies, insurance paid to Meatboard, and the farmers’ Union;

**Abattoir costs:** 50% of the abattoir costs are salaries, 10% are taxes, and the rest, the intermediate goods and services.

**Marketing costs:** these are the deboned meat marketing costs, either in Namibia south of the VCF, or in South Africa.

- We present two cases according to distinct Killing Out rate at the abattoir.

The price paid to the producer corresponds to the Meatboard grid published in the first week of January 1997. The Meatco costs correspond to the 1997 situation.

The low level of collection in 1997 profoundly affected the financial results presented below, explaining the negative margin in both K. O. cases. With the 1995 figures, the margins would be about N$ 290 to N$ 400.

Our study did not enable us to confirm or refute any of these functioning costs, but if they are a true reflection, we can assume that Meatco will change its strategy in the North at some point in the future.
### Channel Meatco-Oshakati

#### Quarantine by Meatco

<table>
<thead>
<tr>
<th>1997 Prices</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle of 300 kg graded B2 - w.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price corresponding to the first week of January of 1997</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live weight price:</td>
<td>N$ 2,58 /kg</td>
<td></td>
</tr>
<tr>
<td>Carcass price:</td>
<td>N$ 8,13 /kg</td>
<td></td>
</tr>
<tr>
<td>Deboned meat price:</td>
<td>$N 9,75 kg</td>
<td></td>
</tr>
<tr>
<td>By-products:</td>
<td>$N 120,45</td>
<td></td>
</tr>
</tbody>
</table>

#### Slaughtering parameters:

| Number of cattle slaughtered at Oshakati | 9,629 heads |
| Killing out: | KO = 40% | KO = 45% |
| Carcass weight | 120 kg | 135 kg |
| Deboned meat weight (Bone rate: 24%) | 91.2 kg | 102.6 kg |

<table>
<thead>
<tr>
<th>Namibian producer</th>
<th>Value added</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle purchase (NCA field price)</td>
<td>774.00</td>
<td>774.00</td>
</tr>
<tr>
<td><strong>Output value</strong></td>
<td><strong>774.00</strong></td>
<td><strong>774.00</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Meatco</th>
<th>Intermediate goods and service</th>
<th>1040.13</th>
<th>1040.13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle price</td>
<td>774.00</td>
<td>774.00</td>
<td></td>
</tr>
<tr>
<td>Transport &amp; quarantine</td>
<td>308.9</td>
<td>308.9</td>
<td></td>
</tr>
<tr>
<td>Handling and grading costs</td>
<td>57.85</td>
<td>57.85</td>
<td></td>
</tr>
<tr>
<td>Abattoir intermediate goods</td>
<td>206.13</td>
<td>206.13</td>
<td></td>
</tr>
<tr>
<td>Marketing costs</td>
<td>60.00</td>
<td>60.00</td>
<td></td>
</tr>
<tr>
<td><strong>Value added</strong></td>
<td><strong>309.16</strong></td>
<td><strong>309.16</strong></td>
<td></td>
</tr>
<tr>
<td>Commission Farmer's union (1,5% field price)</td>
<td>11.61</td>
<td>11.61</td>
<td></td>
</tr>
<tr>
<td>Inspection fees</td>
<td>4.33</td>
<td>4.33</td>
<td></td>
</tr>
<tr>
<td>Meatboard levies</td>
<td>10.05</td>
<td>10.05</td>
<td></td>
</tr>
<tr>
<td>Transport insurance (4% field price)</td>
<td>30.96</td>
<td>30.96</td>
<td></td>
</tr>
<tr>
<td>Abattoir Salaries</td>
<td>257.66</td>
<td>257.66</td>
<td></td>
</tr>
<tr>
<td>Abattoirs Taxes</td>
<td>51.50</td>
<td>51.50</td>
<td></td>
</tr>
<tr>
<td>Margin</td>
<td>-339.64</td>
<td>-228.49</td>
<td></td>
</tr>
<tr>
<td><strong>Output value</strong></td>
<td><strong>1009.65</strong></td>
<td><strong>1120.80</strong></td>
<td></td>
</tr>
</tbody>
</table>