

# **PRODUCTION CONSTRAINTS AND PERCEIVED MARKETING PROBLEMS OF STOCK FARMERS IN SOME DISTRICTS OF THE NORTHERN COMMUNAL AREAS OF NAMIBIA**

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## **ABSTRACT**

*In an endeavour to improve the livestock production and particularly the marketing of livestock in the Northern Communal Areas of Namibia, this study analyses the perception of livestock farmers in this regard. The low off-take percentage is the most serious production constraint, but marketing, although a constraint, is not one of the most serious problems. Different traders and marketing outlets are compared in relation to livestock farmers' preferences, which are less determined by commercial considerations than by the sporadic need of acquiring additional cash when required. The perceptions tend to vary very significantly between the various districts, which is an indication of their adjustability through interventions.*

## **1. INTRODUCTION**

The saying that farms do not have problems, but only farmers, emphasises the fact that problems only exist in the eye of the beholder. Therefore problems, whether they are of a production or marketing nature, need to be analysed and assessed from the perspective of the farmer.

Although we live in the same world and receive similar impressions of it through our senses, we interpret our experiences differently (Van den Ban & Hawkins, 1988:59). Perceptions are, therefore, by nature subjective and so are those of the stock farmers. Irrespective of whether outsiders agree with them or not or whether they believe them to be well founded or not, they are the reality that matters and they are, together with needs, the key dimensions regarding behaviour and behaviour change. The implication of this is that any intervention or provision of a better service must be based on and take cognisance of the client's perceptions through which most behaviour

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determinants become manifested in decision-making and behaviour (Düvel, 1991).

Livestock farmers in the Northern Communal Areas of Namibia are disadvantaged from a production and especially from a livestock marketing point of view, because of the Veterinary Cordon Fence that runs from Palgrave Point on the West Coast of the country through Ochivelo to the Namibia-Botswana border in the north-eastern Omaheke (Van der Linden, 1992). Meat and livestock cannot pass freely over the Veterinary Cordon Fence into the southern foot-and-mouth-free zone, which makes the marketing of cattle more difficult. The lack of infrastructure is also a problem that has affected trade in livestock in these areas since the 1850s (Siiskonen, 1990)

This research was part of an extensive investigation into the marketing of livestock in the Northern Communal areas of Namibia (Ministry of Agriculture, Water and Rural Development, 2000) but aimed more specifically at the farmers' perceptions of livestock marketing.

## **2. THE RESEARCH PROCEDURE**

In order to obtain quantitative indicators with as much representation as possible, but within the context of existing resource limitations, a compromise approach was decided upon, namely focusing on districts serving as a type of case studies. These districts were selected from the north-eastern, the north central, and the north-western parts of the northern communal areas of Namibia. However, due to logistical problems the survey in Opuwo, supposed to represent the north west, had to be abandoned.

The selection of the districts was done in consultation with government institutions and local development organisations or their agents and on the basis of accessibility, size of the community and representativeness. Mukwe was selected in the north-east as it was assumed to represent both the Kavango and Caprivi regions. In the densely populated north central areas three constituencies (districts) were selected in the regions of Omusati, Oshana, Ohangwena where pilot projects under the Sustainable Animal and Range Development Program (SARDEP) are underway. Table 1 provides an overview of particulars of the survey areas.

**Table 1: An overview of the survey districts, their localities, the approximate population and the sample sizes used**

Locality	North Central		North East	
Region	Omusati	Oshana	Ohangwena	Kavango
District	Uukwaluudhi	Uuvudhiya	Okongo	Mukwe
Farmer population	150-200	150-200	150-200	300
Sample %	10-13	10-13	8-11	20
Sample size	20	20	16	50

### 3. STOCK PRODUCTION EFFICIENCY

In the planning and provision for the stock marketing the production efficiency is important and will have to be taken cognisance of. Calving percentage, calf mortality, and off-take percentage were analysed as an indication of the livestock farming efficiency.

#### 3.1 Calving percentage and calf mortality

Data regarding calving percentage is often questioned as far as reliability is concerned, because of the tendency among farmers not to divulge this information accurately. The fact that field staff rather than the researchers conducted the fieldwork of the survey also does not necessarily contribute to the confidence in these data. The calving and mortality rate percentages were calculated from herd composition figures. Such calculations have been found to be much more accurate than percentages directly provided as the average calving percentages and mortality rates.

**Table 2: Average calving percentages and calf mortality rates of respondents in different survey districts**

District	Calving percentage	Calf mortality rate (%)
Uukwaluudhi	82	64
Uuvudhiya	66	36
Mukwe	68.7	4.7
Okongo	68	15.1
<b>Total</b>	<b>71</b>	<b>23.6</b>

Although there is tremendous variation between individuals regarding their calving percentage (Table 2), the average of 71 is comparable with many commercial production areas, and as such does not seem to represent the biggest production problem. A much bigger problem, with immediate

economic implications, is the high mortality rate. Only Mukwe has an acceptable calf mortality rate of 4.7 percent. Especially the high mortality rates of 64 and 36 percent in Uukwaluudhi and Uuvudhiya districts respectively must be a reason for serious concern.

Of the total calf deaths, 49 percent are attributable to diseases, 36 percent to drought and 4 percent to other reasons like poisoning, etc. Loss through theft is another concern in that 12.5 percent of all calf losses are due to it.

As far as stock theft in general is concerned, the respondents lost an average of 3 head during the last year, which represents an average herd percentage of between 5 and 10 percent. This is significant, but as Table 3 indicates, generalisations cannot be made due to very significant differences between the districts.

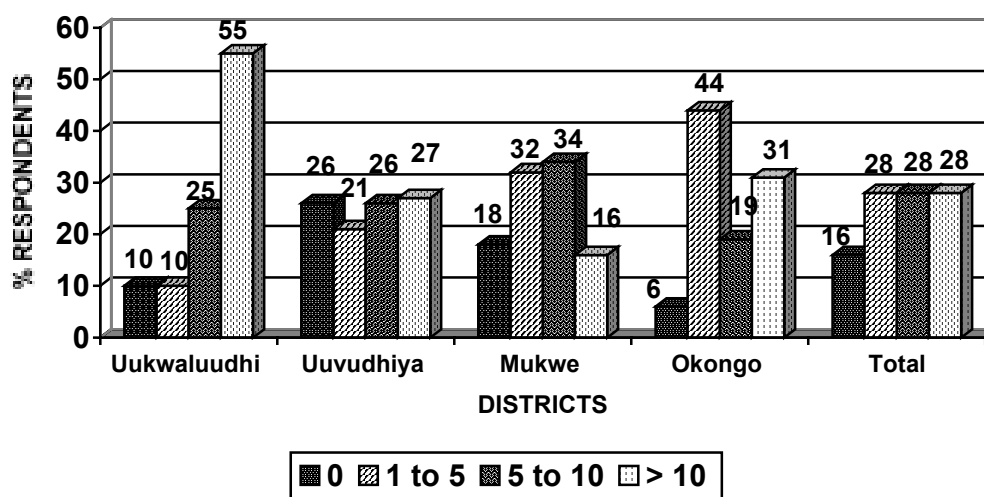
**Table 3: Average stock theft and percentage respondents reporting stock theft over a period of one year**

District	Average stock theft numbers per respondent	Percentage respondents reporting thefts per year
Uukwaluudhi	6.20	80.0
Uuvudhiya	1.65	10.5
Mukwe	2.76	10.0
Okongo	1.87	43.8
<b>Total</b>	<b>3.10</b>	<b>28.3</b>

According to the number of respondents that experienced stock theft in the year preceding the survey, stock theft is a very big problem in Uukwaluudhi where stock were stolen from 80 percent of all farmers, amounting to an average of 6.2 head for all respondents in Uukwaluudhi. Even in Okongo as many as 43.8 percent of the respondents experienced stock theft; most of them small numbers. In Uuvudhiya and Mukwe theft is much less of a problem. Here the average stock theft numbers per respondent are somewhat misleading. In Uuvudhiya one of the two respondents experiencing theft, lost 26 head of cattle and in Mukwe one farmer lost 100 goats. Of all the stolen livestock, 52,6 percent were goats, and 26.4 percent cattle. Calves amounted to 14.5 percent and sheep to 6.5 percent. However, when considering the number of stock stolen in relation to the number of stock owned, the biggest risk regarding losses due to theft is with sheep, followed by goats and then calves and other cattle.

### 3.2 Off take

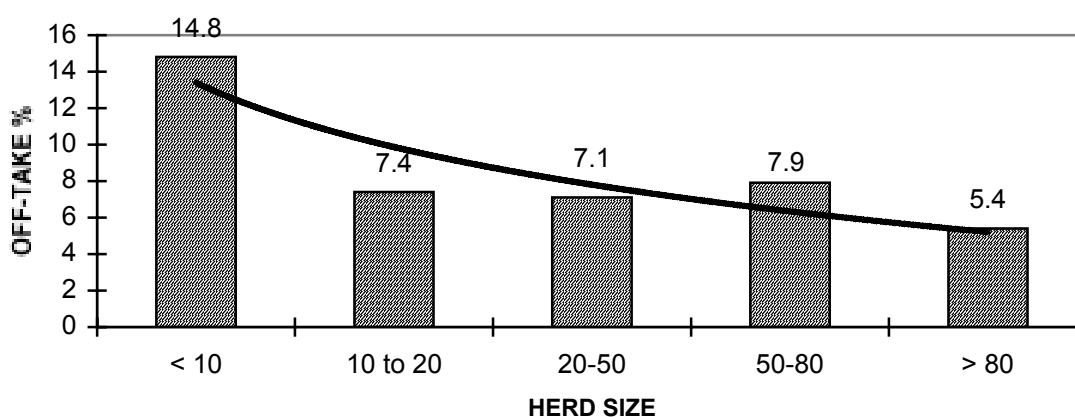
The off-take percentage is generally regarded as a good indicator of efficiency. An overview of the off-take percentages as they apply in the different districts is given in Figure 1.



**Figure 1:** The percentage distribution of respondents according to percentage off-take of cattle in different districts

The low off-take is reflected in the fact that only 28 percent of the respondents have an off-take of more than 10 percent, while 44 percent have an off-take of less than 5 percent. The average off-take of cattle for all respondents is 7.3 percent. Uukwaluudhi has a significantly higher off-take than the other districts in that 55 percent have a higher off-take than 10 percent. The average for Uukwaluudhi is 10,2 percent compared to the other three districts, which vary between 6.6 and 6.8 percent. It appears as if the higher off-take percentage in Uukwaluudhi is achieved because relatively fewer oxen are sold. In Uukwaluudhi 50 percent of the cattle sold, were oxen, while in Uuvudhiya, Mukwe, and Okaongo the percentages oxen sold were 84.2, 76.1 and 80.0 percent respectively.

Somewhat against expectations is the observation that the off-take in larger herds is not necessarily higher. In fact, indications are that stock farmers with larger herds tend to have a lower off-take percentage. Manifestations of this are the average off-take percentages shown in Figure 2 and the significant negative correlation between herd size and percentage off-take ( $r = -0.27$ ;  $p = .005$ ), which implies that the bigger the herd size, the lower the percentage off-take tends to be.



**Figure 2: The relationship between herd size and off-take percentage**

The low off-take percentages could be attributed to the fact that farmers try to build up their herds after there has been a slight decline (approximately 10 percent) over the last 5 years due to droughts and diseases. Although the current numbers already exceed the recommended stocking rate (Behnke, 1998), the aspirations regarding livestock numbers exceed the original and current numbers by as much as 300 percent. The average current herd size is 51.2 while the average level to which respondents want to increase their herd size number is 159. These figures appear to be unrealistic and thus suspect, but when asked by what number the current stock numbers of the area could be increased, the average figure given was 316 percent higher than the current numbers.

From this it is clear that a tremendous challenge lies ahead in terms of disillusioning farmers regarding carrying capacities or the limited potential of natural resources. Some reason for optimism in this regard is the fact that respondents in all districts, with the exception of Okongo, believe that the condition of veld (rangeland) has retrogressed considerably since 1994. As Figure 3 indicates, this retrogression has on average decreased from a 66.5 index percentage to 31.4. If stock farmers can be convinced that this change is not only due to natural causes like drought, etc. they may be persuaded to adapt their management practices.

#### 4. PERCEPTIONS REGARDING LIVESTOCK MARKETING

Much has already been undertaken to improve the markets for the disadvantaged stock farmers of northern Namibia, but the reality of the situation is determined less by intentions and objective facts than by the perception of those involved, namely the livestock farmers themselves.

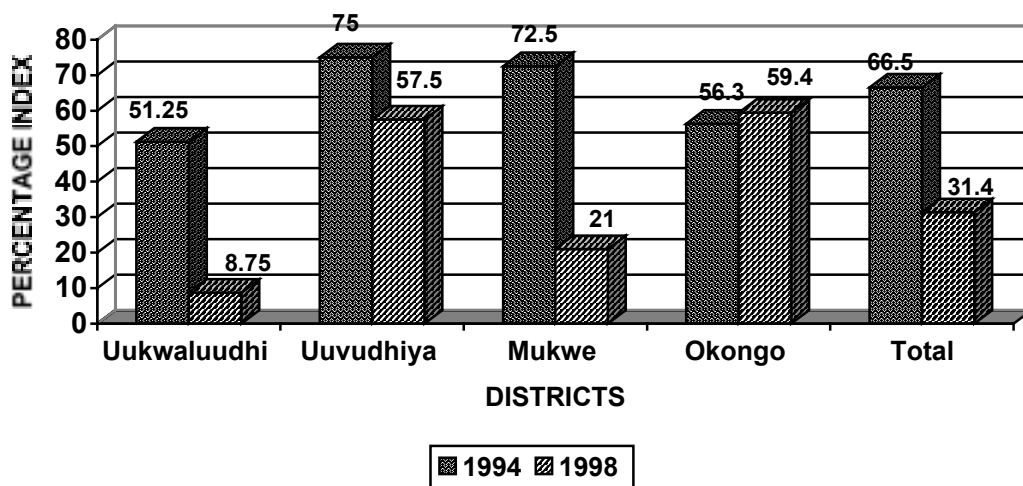


Figure 3: A comparison of assessment ratings (calculated as percentage index) of veld condition in 1998 and 1994 by respondents in the different districts

#### 4.1 Perceived marketing efficiency

Respondents were asked to give an assessment of the marketing of cattle on a five-point scale varying from one (very poor) to five (very good). These responses are summarised in Figure 4.

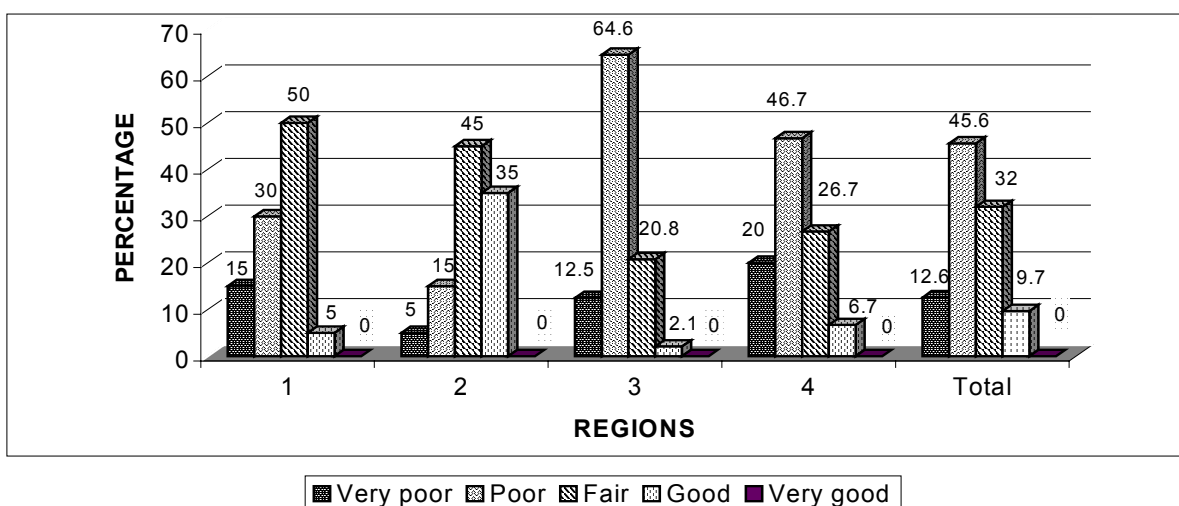
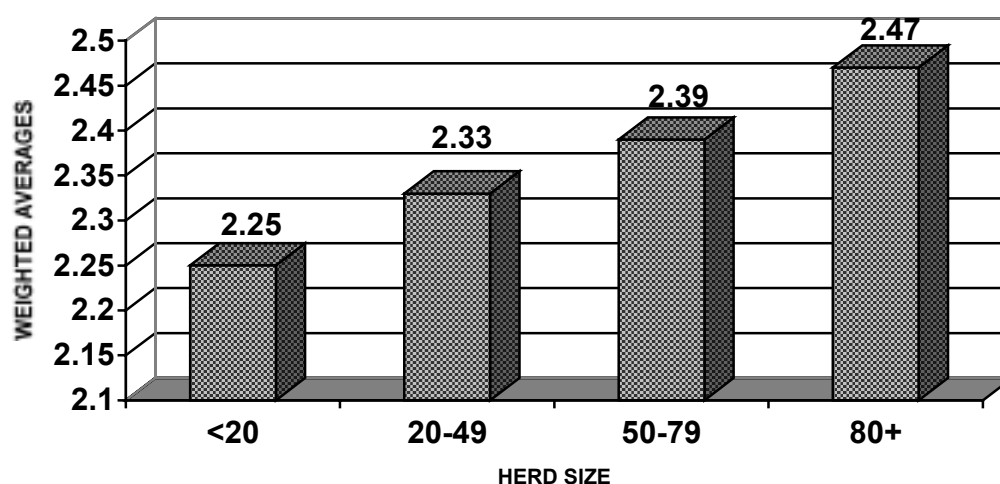


Figure 4: The assessments of stock marketing by respondents in four regions of Northern Namibia

None of the respondents assessed the marketing of stock in their region to be very good, and only 9.7 rated it as good. As many as 58.2 of the respondents believe the marketing to be poor or very poor.

The rather gloomy perception regarding the marketing is particular pronounced in Mukwe and Okongo, where the percentage respondents rating the marketing as poor and very poor is 77.1 and 86.7 percent respectively. There is a slight tendency for the smaller stock farmers to be somewhat more dissatisfied with the marketing. This tendency, although not statistically significant ( $r = 0.12$ ;  $p = .25$ ), is illustrated in Figure 5 using average assessments.



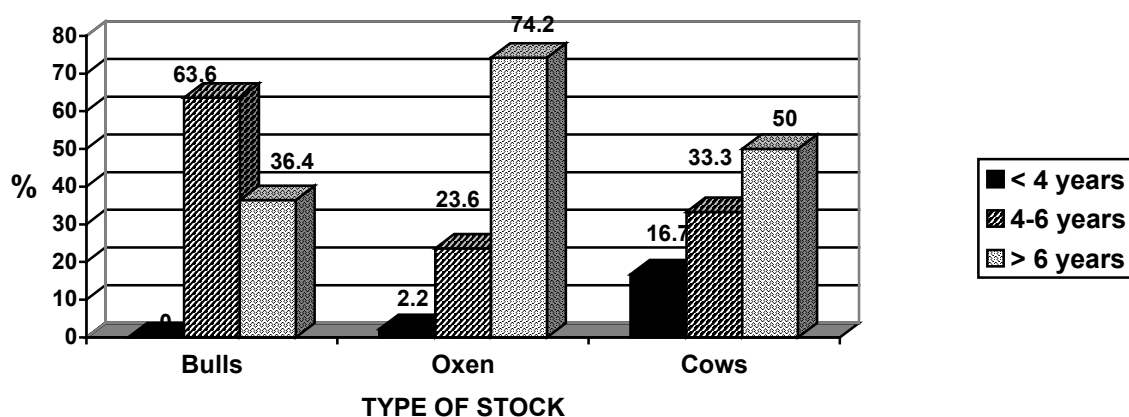
**Figure 5: The relationship between respondents' herd size and their assessments of stock marketing in their districts**

#### 4.2 Selling preference

The type of cattle offered for sale seems to be largely a function of the type of cattle that livestock farmers are prepared to sell. 84 percent prefer selling oxen, while 10.4 favour bulls and 5.7 percent cows. These percentages correspond more or less with the most recent sale figures of respondents, according to which 82 percent of those who sold cattle, did, in fact, sell oxen. More important from an understanding of marketing behaviour point of view, is the preference regarding the age at which animals are sold.

The findings (Fig. 6) show a clear preference among stock farmers to sell cattle when they are more than six years old. This applies particularly to oxen, which are the main type of stock marketed, but also to female animals. Only





**Figure 6: Stock farmers' preference regarding the selling age of different types of stock**

in the case of bulls do the majority of respondents (63.6 percent) prefer to sell at an age of between 4 – 6 years. These preferences, which are probably a major contributing factor to the low off-take percentage, apply to all the regions investigated. Only in Mukwe is the percentage respondents preferring a selling age of more than 6 years relatively low, namely 33.3 percent as opposed to the average of 80 percent in the other three regions. In this region the off-take percentage is, in fact, significantly higher than in the other three regions. The percentage farmers having an off-take percentage of more than 6 percent is 60 in Mukwe as compared to the average of 24.4 in the remaining regions. Mukwe is also characterised by bigger herd sizes. The average herd size is 105 as compared to 78, 46 and 98 for the Regions 2, 3 and 4 respectively. The possibilities that these differences could be attributed to differences in herd size is unlikely in view of the fact that there is a significant negative relationship between herd size and percentage off-take ( $r = -0.2$ ;  $p = .03$ ).

#### 4.3 Preference regarding marketing outlets

For stock farmers there are several marketing alternatives. Respondents' preferences regarding these alternatives are summarised in Figure 7.

The general picture based on respondents first priority of marketing channels indicates that 33 percent of the respondents mentioned Informal traders as their first choice, while Meatco is a close second with 30.1 percent of the nominations. There are, however, indications that the preferences vary significantly between the different regions.

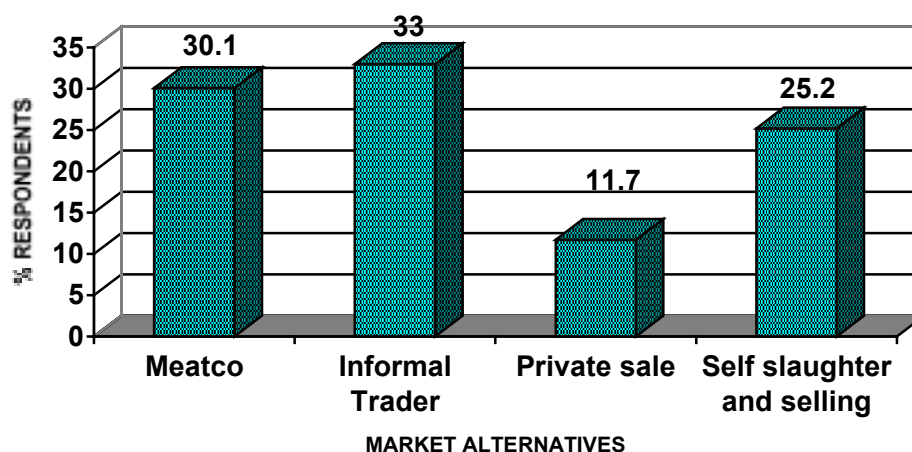


Figure 7: Percentage distribution of respondents according to their first choice marketing priority

#### 4.4 Sale prices

The marketing preference is bound to be influenced by the price that stock farmers are offered or are expected to receive. In an attempt to assess respondents' perception or opinion regarding comparative sale prices, they were asked to consider the price they received for the last animal they sold, and then to provide the price they would have expected from the various marketing outlets. Differences were then calculated as a percentage of the price expected or received from Meatco. (Figure 8).

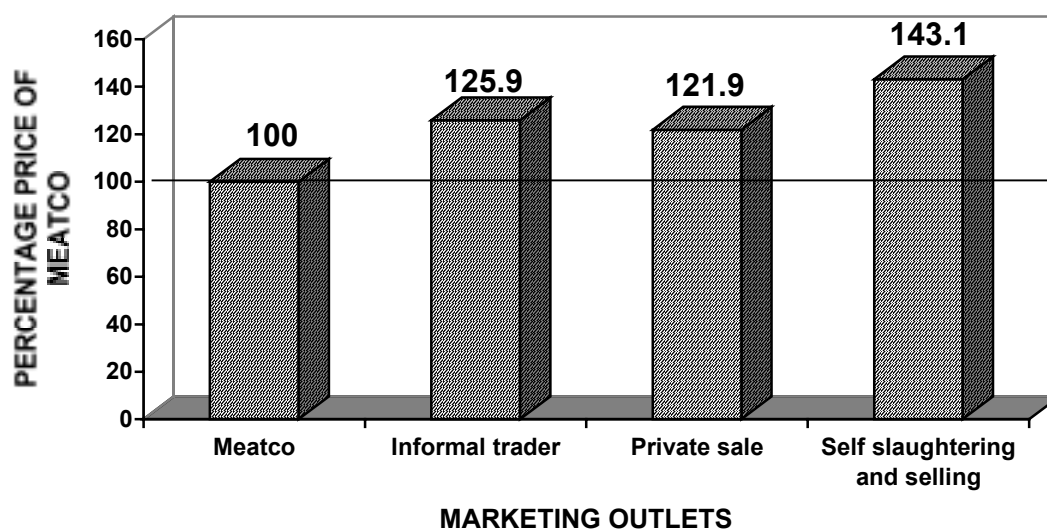
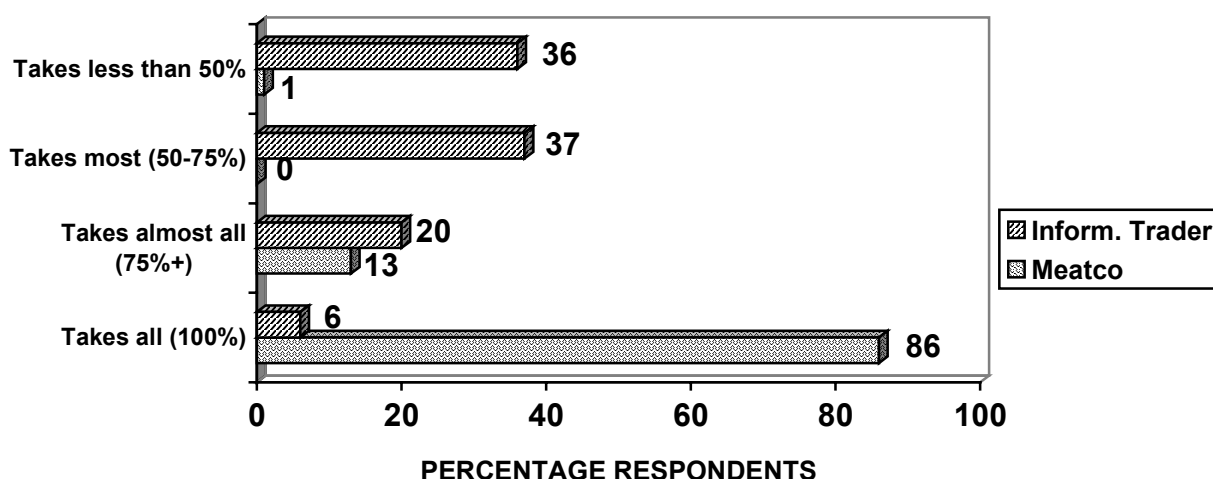


Figure 8: Respondents' mean estimations of the price differences (expressed as a percentage of Meatco) expected from different market outlets

According to the findings in Figure 8, respondents in general believe that Meatco offers the lowest prices for cattle. Prices from Informal traders are estimated to be on average about 25.6 percent higher than those offered by Meatco. In the case of private sales the higher estimated average is 21.9, whilst the highest income (43.1 percent more than Meatco) can be achieved through self slaughtering and selling. Again the findings show highly significant differences between the various regions.

#### 4.5 Perceived absorption capacity of traders

Although there is a clear preference to sell cattle to neighbouring farmers, there is obviously a limitation to the absorption capacity of this marketing outlet. Whether and to what degree this is also perceived to be the case with Meatco and Informal traders, is shown in Figure 9.



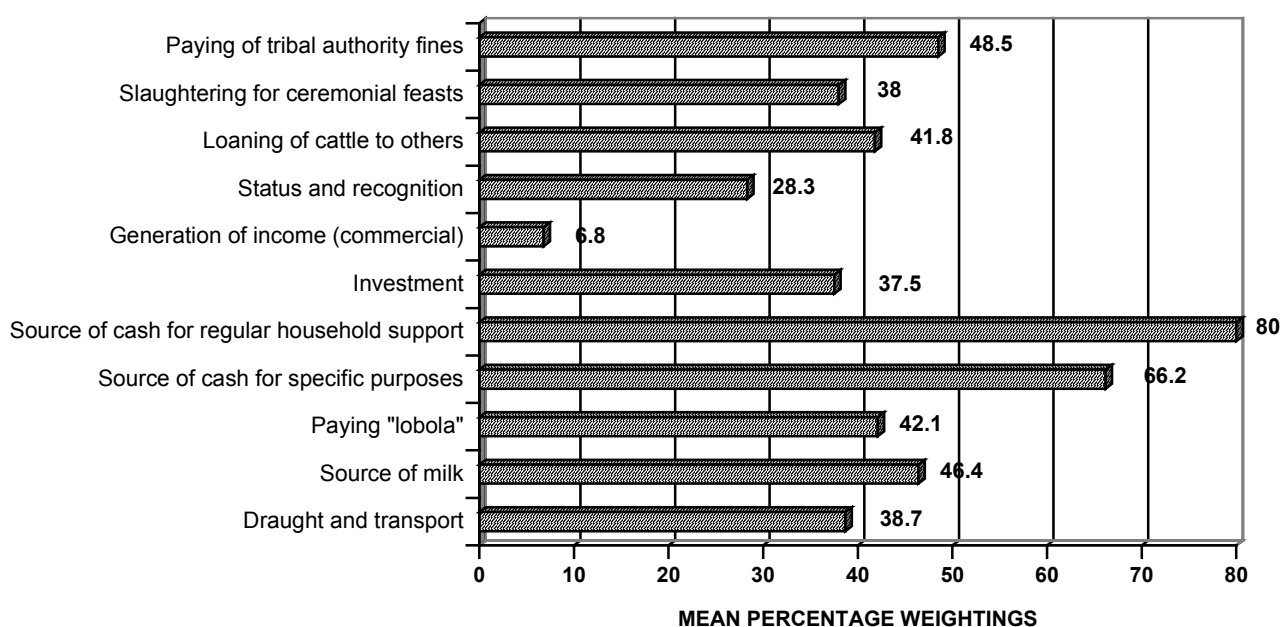
**Figure 9: Respondents' perception of the absorption capacity of the two major marketing channels**

Only 6 percent of the respondents believe that Informal traders can take all the cattle offered for sale, while as many as 36 percent believe that the Informal traders cannot even absorb 50 percent of the cattle produced or offered for sale. One would expect that the farmers with bigger herds would be more conscious of the limited absorption capacity of the informal traders. This is, however, not the case. In fact they are less concerned about it, than the smaller stock farmers, which may be partly attributable to the relatively lower off-take percentage of the bigger stock farmer.

The limited absorption capacity of the Informal traders could become a more serious concern if the production and marketing potential was fully realised.

In the districts surveyed the average off-take is a mere 5.8 percent. In Mukwe the off-take is somewhat better at 9,1 percent, but in Okongo it is as low as 3.8 percent. The off-take percentages for Uukwaluudhi and Uuvudhiya are 5.2 and 6.4 respectively.

The low off-take can presumably be attributed to the use or purpose for which cattle are being kept. Fig. 10 summarises the responses obtained by when asking respondents to name the reasons why they keep cattle and subsequently to list the five most important reasons in order of priority.



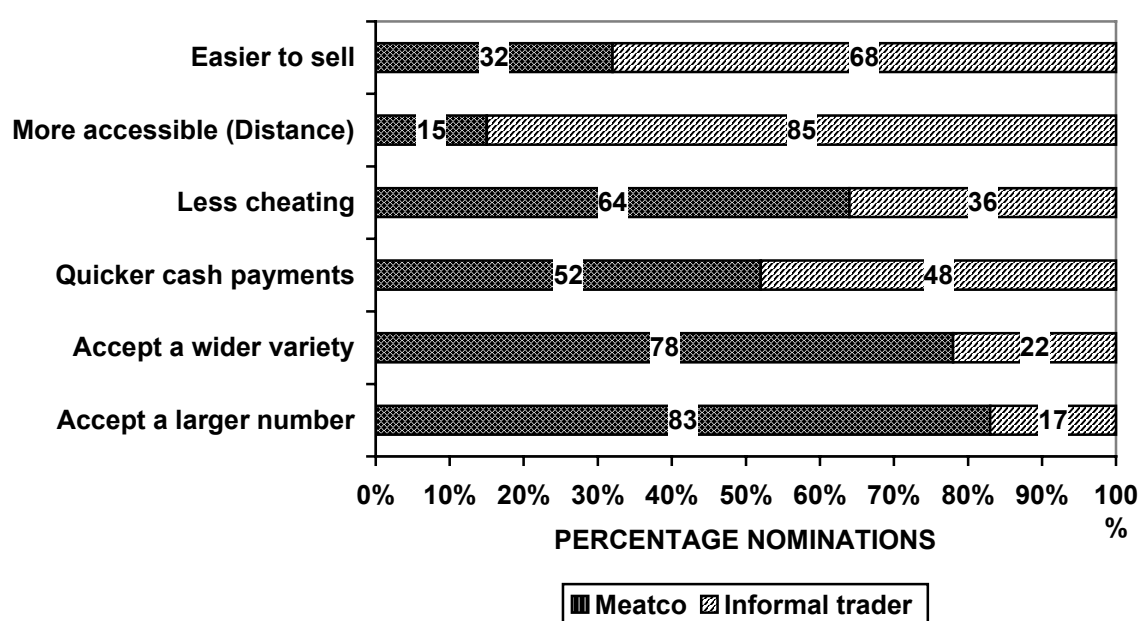
**Figure 10: The importance rating by respondents of the reasons for keeping livestock**

The most outstanding reasons for keeping cattle are cash related, namely as a source of cash for regular household support (72%), and for specific extraordinary purposes (66.2%). The third most important reason, although somewhat lower in rank order, is for paying tribal authority fines (48,5%). Of slightly less importance is as a source of milk (46.4%) followed by the reason of paying for *Lobola* (46.4%) and loaning of cattle to other (41.8%). Other reasonable important purposes are draught and transport (38.7%), slaughtering of cattle for ceremonial purposes (38%) and investment (37.5%). The low rank order of commercial income generation (16.8%) is noteworthy.

This and most of the reasons mentioned support or explain the relative low off-take.

#### 4.6 Other perceptions regarding Meatco and Informal Traders

Although Meatco in general appears to be the least favoured trading partner, a comparison between it and the other major trading partners, namely the Informal traders, could give further insight into their respective strengths and weaknesses. Respondents were asked to rate Meatco and Informal traders in respect of different marketing characteristics. The comparative findings are summarised in Figure 11.



**Figure 11: The comparative rating of Meatco and Informal Traders by respondents in respect of different marketing attributes**

From these findings (Figure 11) it is evident that Meatco is perceived to accept a larger number of cattle as well as a wider variety of cattle in terms of quality. Respectively 83 and 78 percent of the respondents rate Meatco higher in these regards. 64 percent also believe that they are less cheated by Meatco than by Informal traders. As mentioned earlier, this latter opinion is based on the view that Meatco weigh the animals and have written guidelines on which pricing is based. Respondents having the opposing view, namely that Meatco "cheats" more than the Informal traders appears to be based mainly on the fact that Meatco is not prepared to negotiate.

As far as quick cash payments are concerned, the two are rated very similarly. Informal traders have the clear edge regarding the accessibility (distance to selling point) and ease of selling is concerned. These are important and critical advantages since, as shown in Fig. 10, the sporadic selling of cattle to provide for extra cash in times of need is the most important purpose for keeping cattle.

## 5. THE IMPORTANCE OF MARKETING PROBLEMS

The constraints identified regarding the marketing of livestock appear to justify the research done, particularly since the analysed perceptions can contribute towards improving the marketing situation. However, it is important to see these problems in the correct perspective by comparing them with other problems or needs of the livestock farmers.

Table 4 summarises the most important stock farming problems as perceived by the respondents in the various districts.

**Table 4: The most important stock farming problems according to the respondents in different survey districts**

Problem	% Respondents per district				Total
	Uukwaluudhi	Uuvudhiya	Mukwe	Okongo	
Disease	85	35	24	44	41
Lack of grazing (overgrazing)	0	30	48	43.8	35
Scarcity of water (stock concentration)	10	90	22	25	33
Drought	80	20	10	56	32
Lack of money for farming inputs	80	0	2	0	16
Theft	20	5	18	13	15
Poor markets	0	5	6	12	6
Veld fires	0	5	8	0	5

The four most important problems, namely stock diseases (41%), lack of grazing due to overgrazing (35%) scarcity of stock watering points (33%) and drought (32%) are all directly concerned with stock production and are shared by at least one-third of all respondents. In contrast to these, the marketing related problems are perceived to be much less important (nominated by only 6 percent of the respondents), which places the seriousness of the marketing problems into perspective. What is noteworthy is the significant difference

between districts as far as problems are concerned; for example diseases in Uukwaluudhi (85%), lack of grazing Mukwe (48%), scarcity of stock watering points in Uuvudhiya (90%), drought in Uukwaluudhi (80%), etc.

## 6. CONCLUSION

The findings lead to the conclusion that marketing problems are overemphasised, as is evident from the fact that only 5 percent of the respondents mentioned marketing as a problem in response to an open-ended question, as opposed to livestock diseases (55%) drought (52%) and scarcity of watering points (43%).

Ultimately it seems that the main emphasis should be on improved sustainable production. In this regard reproduction efficiency does not appear to be the most serious problem, since the average calving percentage is 71 percent. Mortality, especially the high mortality of calves, is a serious problem undermining production. As far as sustainability is concerned, serious attention will have to be given to stocking rates. Due to various circumstances the cattle numbers decreased somewhat over the last few years, but the fact that stock farmers on average want to increase their stock numbers by about 300 percent is an indication of the tremendous persuasion challenge. A focus on raising the low off-take could not only increase the profitability, but also relieve the grazing pressure, but even this is bound to encounter formidable resistance. Although the average herd size is over 70, only 17 percent of the respondents have commercial aspirations as far as their livestock farming is concerned. Creating incentives for commercial livestock production (e.g. alternative investment possibilities) is a major challenge and may even be a precondition for the adoption of improved livestock production practices.

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