

# Socio-economic and health aspects of donkeys in North-West and Eastern Cape Provinces, South Africa

by

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## Abstract

Several studies were designed to address the gaps in the information concerning the socio-economic role of donkeys in communities in South Africa. One study was undertaken in the North-West Province during 1995 and another in the Eastern Cape during 1996. Methods used included semi-structured interviews and participatory appraisal techniques. Communities included were from semi-rural and rural areas in the North-West Province and rural and urban areas in the Eastern Cape Province. Of 12 disease conditions which were identified by owners in the North-West Province, ticks, wounds and harness sores were considered most important. In the Eastern Cape, ticks and mange were identified as the most common causes of injury and disease. In both provinces, the key issues for the donkey users were identified as security, access to further information and training for the communities in all aspects of donkey use.

## Introduction

In South Africa 300,000 working equids, including donkeys, provide an important alternative to mechanisation in resource-limited communities (Starkey, 1995). However, very little is known about the socio-economics, health, nutrition, breeding or management of these animals (Krecek, Starkey and Joubert, 1994; Cornelius, McCrindle and Krecek, 1995; Krecek, Cornelius and McCrindle, 1995). The aim of the studies reported below was therefore to obtain some of this information. This paper looks primarily at the role of the donkey in the community and the health of working donkeys.

## Materials and methods

### North-West Province

The first study area was in Moretele 1, located approximately 60 km north of Pretoria and in the North-West Province which was part of the former Bophuthatswana homeland (Figure 1). There are an estimated 350,000 inhabitants in the area.



Figure 1: South Africa showing the nine provinces

Three study villages were selected in the Makapanstad district of Moretele 1, namely Tladistad, a semi-rural community, and two rural communities, Transactie and Thulwe.

A questionnaire was designed as a structured interview, rather than as a written questionnaire, to be completed with the donkey owners. Owners were interviewed at the time of the initial meetings set up with the community to introduce the project. The interviewer sat down with each owner in turn (with someone to translate when necessary). Each owner was then asked the questions appearing on the questionnaire, but was not given the selection of answers. Questions were rephrased or translated until the owner fully understood what was being asked. When the owner had answered the question, the interviewer ticked the appropriate answer on the sheet. If the answer given was not in the list, the interviewer wrote the full answer in the margin. Interviews

lasted approximately half an hour per owner. Owners were encouraged to talk about all aspects of their donkeys and frequently gave interesting anecdotes and information not directly included in the questionnaire. These were recorded.

### **Eastern Cape**

The second study was conducted in two neighbouring villages, Ndwayana and Ndlambe, in the Mid Fish River Zone in the Eastern Cape Province, which is part of the former Ciskei homeland. The nearest large town is Grahamstown which lies 45 km south-east of the villages.

Information gathering was based on a range of participatory appraisal (PA) techniques such as direct observation and semi-structured interviews based on a checklist and an ethnoveterinary question list (Grandin and Young, 1994; Kirsopp-Reid, 1994). The semi-structured interview formed the basis from which other techniques developed. It proved useful for both individuals and groups. Conversation was allowed to flow freely while the checklist made it easier for the interpreter, when used, to ensure all topics were covered.

## **Results**

### **North-West Province**

Twenty participants were interviewed between February and October 1995. Of these, 11 came from Transactie, four from Thulwe, and five from Tladistad. Eighty-five percent of the structured interviews were therefore held with people living in rural areas, and 15% with people residing in a semi-rural community. Eighty percent of the owners were male and 20% female, and their average age was 59 years. Their home language was predominantly Tswana (85%), with North Sotho (5%), Tsonga (5%) and Zulu (5%) also being spoken.

A total of 19 donkey owners, who together owned 102 donkeys, and one mule owner, who had two mules, were interviewed. Of the 102 donkeys, 94 (92%) were working donkeys, the remainder were considered by their owners to be too young (usually less than two years old) or too old to work. Both the mules performed work regularly. Although 55% of the owners kept cattle they were not used for any type of work.

### **Eastern Cape**

Between 22nd July and 19th August 1996, 34 participants were interviewed in Ndwayana, 24 in Ndlambe and 25 in Grahamstown. Except for one

widow in Ndlambe all owners were male. All animals, except those too young or too old, were kept for working, either for the owner or to generate income.

### **Role in the community of North-West Province**

Twenty percent of respondents said that they derived their income partially from the traction animals and partially from farming and another 20% said that they were full-time farmers. Out of the eight owners who farmed, seven used donkeys for plowing, three used donkeys to help with planting and one used donkeys for weeding. The remaining owners derived their income either from a pension (20%) or were employed full-time by someone else (5%). One owner (5%) said that he was unemployed or did part-time work.

The donkeys were utilised approximately twice a week on average (50% of owners), but the frequency ranged from every day (15% of owners) to once every two to three months (5%). Owners who had more than two or three donkeys said that they tried to rotate them if they needed donkeys to pull the cart every day. The donkeys performed most work during the plowing season.

Forty percent of the owners travelled short distances (between one and two kilometres) with their donkeys in one day. A further 30% of owners travelled between three and five kilometres per day with their donkeys and 20% of owners reported distances of six to ten kilometres per day. Only a few (10%) owners travelled over 11 km per day with their donkeys. Of these owners, one estimated that he sometimes travelled over 30 km per day with his donkeys.

The donkeys were most commonly used by their owners and 30% of owners never lent their donkeys to anyone else. The other owners allowed mostly family members to borrow their donkeys; children being the most common (35%), followed by spouses (10%). Other family members, including uncles, grandchildren, nephews and sons-in-law accounted for 20% of responses. Five percent of owners said that they hired men to drive their donkeys.

### **Role in the community of Eastern Cape**

In the Eastern Cape study, all owners in the urban area and 10% in the rural area relied on their donkeys as their main source of income and used them daily, except on Sundays. Seventy-nine percent of rural owners used them more than twice a week. All participants used them for carting while only four used them for plowing, one for

ridging and three for cultivating. The usual daily journey was 5–10 km in the rural areas and 20 km in the town. Typical loads were firewood, water, building materials, crop residues, crops and people.

The donkeys were most commonly used by their owners and their male relatives. In rural areas they were the main source of transport and did much to improve the quality of the lives of their owners and other livestock by their work.

Although the donkeys did not enjoy much status they were much appreciated for their work and 47% of participants from Ndwayana said they were worth more than other livestock because of the work they did.

### Health

Although 20% of owners said that their donkeys never got sick, a further 20% said that they did not treat their donkeys if they became sick or were injured. The other respondents mainly treated their donkeys themselves (45%). Other owners made use of the services of an animal health inspector (20%), asked a friend or neighbour who had knowledge of donkeys (15%), or spoke to a traditional healer (5%).

Twenty-five percent of owners questioned said that they never treated their donkeys with any product or remedy. Of the remedies used by those who did treat their donkeys, 35% were commercial remedies bought from a shop or co-operative and 10% were natural or herbal remedies. Owners also described other remedies which they used. These were old motor oil (20%), Jays Fluid (a disinfectant containing carbolic acid) (10%), paraffin/kerosene (5%), salt (5%) and aloe mixed with water (5%).

The cost of these health treatments was on average R 12/month/owner (US\$ 1 ≈ R 5). Other costs associated with the donkeys were fodder (an average of R 11/month/owner) and the implements and harnesses (an average of R 34/month/owner).

The owners reported a variety of disease conditions in their donkeys (Figure 2). The most common conditions noted were ticks (30% of owners), wounds (30% of owners) and harness sores (25%).

In the Eastern Cape, despite the sometimes high levels of reporting of disease conditions and injuries, the general opinion was that donkeys do not suffer from many diseases and are better than cattle at surviving. The main problems were

injuries relating to work and external parasites (Figure 3). The high level of harnessing sores in Ndlambe was related to their harnessing system, which did not have swingles, and the use of rigid materials such as machine belts for harnesses.

All would like better access to veterinary services and more information on disease. The Grahamstown owners had a basic service provided by the Society for the Prevention of Cruelty to Animals at low cost. The rural owners relied on simple remedies such as aloe and old motor oil. The low value of donkeys was one factor in preventing expert help being sought, whereas farmers were prepared to take their cattle to the veterinary services in Grahamstown.

### Discussion

In the North-West Province the questionnaire was well received by the community, and donkey owners appeared to participate openly and honestly in the structured interviews. Initially they were suspicious when they were asked if they would bring their donkeys to the local crush. Most of these owners had lost one or more of their donkeys in the Bophuthatswana donkey massacre in the 1980s. Large numbers of donkeys were shot by government officials. The reasons for this action have never been made clear. When they saw that their donkeys were not going to be harmed their suspicions turned to interest. On the whole, answers were consistent with what the researchers experienced while working in each area over a period of one year.

The profile of the owners interviewed was typical of what was experienced in the three villages, namely a fairly elderly population, mostly retired and often supporting grandchildren. There were very few young men and women in the villages and the heavy labour was performed by old men and women with the help of donkeys.

The owners were initially suspicious of revealing the exact number of donkeys that they owned, but when they realised that it was the researchers' intention to help the donkeys and not shoot them, they were happy to talk about their donkeys; their names, ages, which ones they had bred and which ones had survived the massacre. When asked about which other animals they possessed many owners initially only told us about the cattle, goats and dogs, since they seemed proud to own these species. When asked specifically about the number of chickens they kept they could not give an

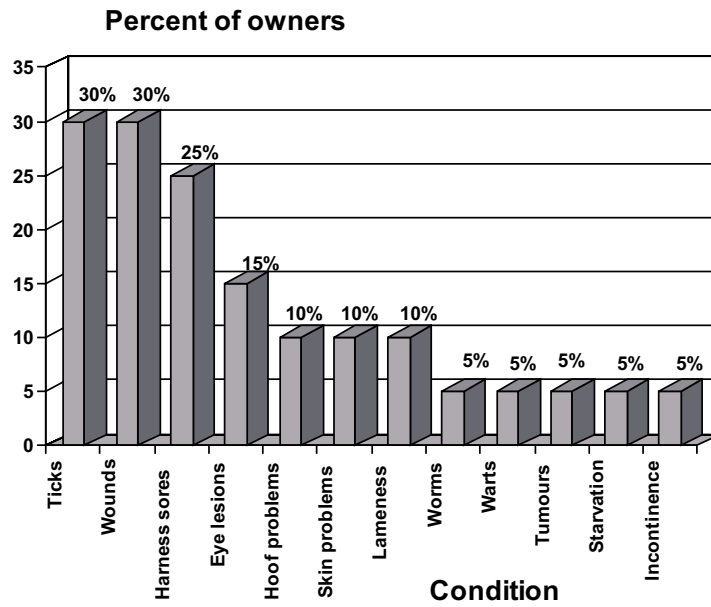


Figure 2: The proportion of owners and the disease conditions which they reported to be present in their donkeys in the North-West Province

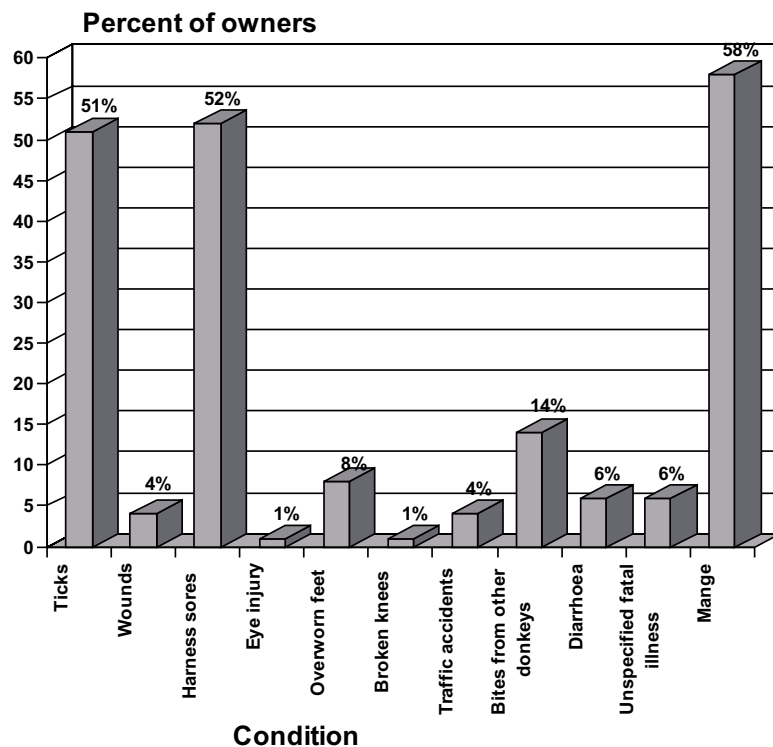


Figure 3: The proportion of owners and the disease conditions which they reported to be present in their donkeys in the Eastern Cape.

This paper is published in: Starkey P and Fielding D (eds), *Donkeys, people and development*. A resource book of the Animal Traction Network for Eastern and Southern Africa (ATNESA). ACP-EU Technical Centre for Agricultural and Rural Cooperation (CTA), Wageningen, The Netherlands, 244p. ISBN 92-9081-219-2. This publication was supported by CTA and Neda, The Netherlands. For details of ATNESA and its resource publications see <http://www.atnesa.org>

answer and they often owned cats but seemed slightly embarrassed to admit this.

In the Eastern Cape there was some initial resistance to participation by the community which could be attributed to two causes; firstly they were suspicious that there was a more sinister motive to the study than information gathering (there had been a government policy of taxing and culling donkeys in the former Ciskei) and secondly, they either felt that the issue was of no real importance, which was disproved by the results, and finally that they would achieve no tangible benefit from their compliance. Research resistance is a serious problem which needs careful consideration before field work is undertaken.

### **Role in the community**

Donkeys play a vital role in these resource-limited communities. The majority of people are either farmers or part-time farmers, or are at least growing crops, and the donkeys provide vital transport and traction for plowing. Transporting water is another vital function that the donkeys perform, especially during the dry season. During the rainy season, when the donkeys are not needed as frequently, some owners turn them out in large communal camps. This also serves to prevent the donkeys from destroying the growing crops. In the rural areas donkeys were under-utilised. This unused capacity for work is a valuable potential resource. It could be employed to bring potential arable land into full use.

### **Health**

The donkey owners were generally of the opinion that donkeys rarely get sick and consequently they did not often treat them. The conditions or diseases which the owners said that their donkeys had had, were all conditions which are easily visible: mange, wounds, harness sores and ticks being the most common. Only one owner was aware that donkeys got worms and no owners mentioned any incidence of infectious diseases. Although the owners admitted that their donkeys sometimes died, they usually blamed it on old age, but could not give the age of the donkeys concerned.

The main health problems were work related injuries accompanied by low nutrition in the urban areas. Changes in harnesses could make a major difference to the level of injury. Disease is only significant if it has a measurable effect on the work output of an animal. Most animals were

managed in a low input, low output system. If work levels were to rise, as would happen if more animals were used for work, then owners perceptions might change as sub-clinical disease became apparent.

### **Key issues**

In both rural and urban areas security was a key issue for all users. There had been a spate of attacks on donkeys in Grahamstown, and these were still occurring, which had resulted in the deaths of 14 animals. The cause appeared to be too many carters chasing too little work. Rural owners complained of thefts and unauthorised use. All owners would like to have more information about donkeys and in the rural areas were concerned that the children were growing up ignorant about how to look after animals properly.

Future research projects could make a valuable contribution to the donkeys and their owners. Further studies to assess the use, potential and constraints of animal traction in the other provinces should be conducted. Information on basic donkey management and health, as well as on traction implements and harnessing needs, should be made available to extension officers and owners in these areas. Provision of basic veterinary services and the education of owners about the correct treatment of their donkeys is also a priority. In response to the shortage of donkeys, a breeding program may be an appropriate step.

### **Conclusions**

These two studies were the first in South Africa to address the need for information concerning the socio-economic profile of donkey owners living in resource-limited areas. Valuable insights into the role of the working donkey in the community and into the management and health of donkeys were gained. This will allow future workers in these areas to plan their projects appropriately. Experience was also gained in the techniques employed in the implementation of the questionnaire. The structured interview was well accepted by the respondents and the answers given were found to be accurate when verified in the subsequent visits to the owners' homes. It is clear from this project that donkeys perform a vital function in resource-limited communities. They are a self-renewing resource and provide an important, affordable alternative to mechanisation in these areas. The donkeys are, on the whole, healthy and well adapted to their surroundings. The health problems which do occur are largely

preventable and attention needs to be given to the education of donkey owners in this regard.

### Acknowledgements

*The authors thank J Lourens, University of Pretoria, for technical assistance, the farmers in the study areas for their co-operation, the staff of the Department of Agriculture, North-West Province, Agricultural Rural Development Research Institute (ARDRI), the Animal Traction Centre and the Faculty of Agriculture, University of Fort Hare, Eastern Cape Province for their assistance as well as the Foundation for Research Development and the University of Pretoria for financial support.*

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*Photograph (opposite): Pack donkey in a market in Nigeria*

*Photo: Paul Starkey*