A survey of donkey use by small-scale farmers in south-east Botswana highlighting gender differences

by

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Abstract

This paper deals with the gender distribution of draft animal use by rural farming households in two districts (Kgatleng and Kweneng) of south-east Botswana. A total of 65 draft-animal-using households in 14 villages were surveyed using a questionnaire, interviews and direct observations of animal-powered activities. Most (86%) respondent farmers used only donkeys for traction, while 5% used only oxen and 9% used both oxen and donkeys. Average number of work animals per household was 9.2 donkeys (range 2–40) and 7.1 oxen (range 6-8). All the respondent farmers used their donkeys for transport (on average twice a week), 32% used them for planting, 8% used them for weeding and 6% used them for threshing millet. The draft animals were engaged in non-field activities for an average of 4 hours/day (range 2–6 hours/day) throughout the year, and in field activities, especially plowing, for an average of 6 hours/day for two months (usually November and December). Donkeys were used to pull carts on average twice a week (range 1–7 times/week), oxen pulled sledges once a week to fetch water or firewood for household use. The average productive life-span of the working donkeys was 6.5 years (range 4–10 years). It is concluded that traction animals, especially donkeys, are important in rural farming systems and that male-headed households have greater access to draft animal power than female-headed households.

Introduction

Botswana has 2,696,100 head of cattle, kept mainly for beef production, and 157,700 donkeys, which are used mainly for draft power (MoA, 1990). Of the cattle population, 219,600 are oxen and of these 186,600 are in the hands of traditional farmers and the remaining 33,000 are owned by commercial farmers. According to government figures (MoA, 1990) 21,150 traditional crop farms use oxen and/or other cattle for draft power, and 11,000 farms use donkeys or mules. Of the 63,300 traditional crop farms in the country, 24,850 (39%) use only tractors to plow their fields, and 2800 (4%) use both animals and tractors. The remaining 35,650 farms (55%) use only draft animal power for plowing. Some 35% of traditional farms own their own source of draft power, 45% hire draft power, 12% borrow power and the remaining 1% are classified as "mafisa", which is animals on loan to a friend or relative for the purposes of milk and/or draft (MoA, 1990).

Batswana men have a tradition of animal ownership which accounts for the high percentage of traditional farms using draft animal power. Animal labour is substituted for human labour in various household maintenance activities, especially fetching water and gathering firewood. Animals are also used to pull carts and sledges for the transport of goods and people.

The objective of this study was to provide information on the present status of draft animal utilisation, by user gender, in Kgatleng and Kweneng Districts of south-east Botswana.

Methodology

A total of 65 randomly selected rural farming households presently using draft animals in two districts (Kgatleng and Kweneng) of Botswana were studied. Data acquisition was by questionnaire, interviews and direct observations of draft animal powered activities in 14 villages from October 1994 to April 1995. The following information was collected:

- types of draft animal power used by households
- number of work animals per household, degree of training of animals, gender of owners and trainers
- gender of head of household in relation to ownership of cattle
- gender responsible for carrying out different draft animal activities

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Table 1: The relationship between gender and draft animal ownership

	Male-headed households	*Female-headed households*
Number of households	51	14
Average number of donkeys (mean ± sd)	10.4±6.1	8.5±4.3
Average number of oxen (mean ± sd)	7.1±0.5	0
Involvement in draft animal training (%)	100	3
Ownership of cattle (%) (including oxen)	92	86
Average frequency of draft animal use/week (mean ± sd)	4.0±2.0	2.0±0.6

frequency of draft animal use for different activities by gender of head of household

transport activities of draft animals by type of destination

ownership of animal-drawn carts and sledges by different household types

frequency of cart repairs and gender carrying out repairs.

Results and discussion

Female-headed households represented 21.5% of the total respondent households in the survey. MoA (1990) stated that 32.3% of traditional farms in Botswana were headed by females, while males accounted for the remaining 67.7% heads of household. Table 1 shows the distribution of draft animal ownership by the gender of the head of household. Most of the respondents (92% of the males and 86% of the females) owned cattle including oxen. This reflects Botswana's livestock tradition. Eighty-six percent of the surveyed households owned and exclusively used donkeys for traction, 4.6% used oxen only, while 9.2% used both oxen and donkeys. Oxen were used for traction only in the male-headed household while all the respondent female headed households used only donkeys for traction. There was no significant difference between the number of donkeys owned by the female headed households and the male-headed households ($P > 0.05$).

Table 1 shows that only 3% of the female household heads were involved in training traction animals while all the male household heads participated in training animals for traction. Training of animals in the female-headed households was done mainly by the respondents' sons. Frequency of use of draft animals was higher in the male-headed households than in the female-headed households.

Table 2 shows the gender involvement in using draft animals for different activities. Only 9.2% of the users of draft animal power for plowing were females, while no women used draft animals for threshing. Females were more involved in using animal power for non-field activities compared to field activities, but males still dominated usage of traction animals for non-field activities such as transport, fetching water, gathering wood. Only males were involved in traction animal commercialisation, which involved collection of firewood and fetching drums of water for other households on a cost for service basis. Four male-headed households (7.8%) used their donkey carts for collection of river sand on a fee-paying basis for rural building construction sites.

A team of draft donkeys was worked for an average of four hours per day for non-field activities throughout the year, whilst they performed field activities, especially plowing, for

Table 2: The relationship between gender and draft animal use

	% of respondent farmers	
Activities	*Male*	*Female*
Field activities		
Plowing	46	9
Planting	28	5
Threshing	6	0
Non-field activities		
Transport	67	33
Fetching water	69	31
Gathering wood	75	25
Collecting thatch	91	9
Hire service	26	0

Table 3: Acquisition and use of donkey carts according to gender of household head

	% of respondent farmers	
	Male-headed households	***Female-headed households***
Number of households	51	14
Ownership of ox-drawn sledges	3	0
Donkey carts		
4-wheeled cart ownership	15	2
2-wheeled cart ownership	65	17
Method of cart acquisition		
Purchase	31	14
Cart purchase from another farmer	23	11
From trader/workshop	8	3
Home made	46	8
State of cart at purchase		
New	8	5
Used	23	9
Source of money for purchase		
Sales of livestock	11	5
Wages	6	0
Barter	14	9
Age of cart (years)		
< 5	39	9
5–10	32	12
11–20	6	0
Condition of cart		
Poor	8	3
Fair	39	8
Good	31	11
Repairs to cart		
By household members	79	15
Hire service	0	6
Transport patterns		
To/from village	31	9
To/from other villages	14	5
To/from lands	79	14

an average of six hours a day for two months of the year. Transport of goods and people was the most frequent draft animal activity, followed by fetching water and gathering firewood. Non-field activities of the traction animals accounted for about three-quarters of the traction hours. Traction donkeys were used for transport throughout the year while cattle were not used widely for transport except for two male-headed households (3.1% of the total respondents) that used ox-drawn sledges to collect firewood and drums of water. Cattle were used principally for plowing. Traction cattle were used only for a short period, usually two to three years, then sold for beef. The average

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productive life span of the work donkeys was 6.5 years with a range of 4–10 years.

Table 3 shows details of ownership, acquisition, and use of donkey carts by the male- and female-headed households surveyed. Ninety-nine percent of the households owned donkey carts, one household owned an ox-drawn sledge and also a donkey cart.

Seventeen percent of the donkey carts were four-wheeled carts while the remaining were two-wheeled carts. Only one of the four-wheeled carts was owned by a female-headed household. Fifty-five percent of the carts were home-made while the remaining 45% were purchased by the respondents. Thirteen percent of the carts were obtained new while 23% were obtained by bartering, especially of livestock, with other farmers. Forty-five percent of the respondent households had obtained their carts between five and ten years prior to the survey while 6% had obtained their carts 11–20 years before the survey. Repairs to carts were done mainly by household members except for four female-headed households, which usually engaged a hire service for cart repairs. The most common use of donkey carts was for trips to and from the lands followed by trips to and from the village by the members of the respondent households. Baker (1988) reported a similar trend in donkey cart usage in Shoshong and Makwate areas of Botswana.

Conclusions

This survey showed that traction animals, especially donkeys, are relevant and important in rural farming systems since they provide renewable and available power for field and non-field activities. The study also revealed that male-headed households had better access to draft animal power than female-headed households.

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