

Transportation by women, and their access to animal-drawn carts in Zimbabwe

by

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Abstract

The magnitude of rural household transport activities, particularly by women, is highlighted. One way to alleviate women's transport tasks is by increasing their access to more efficient means of transport, such as animal-drawn carts.

Some findings from research on gender aspects of ownership and use of livestock and animal-drawn carts in Zimbabwe are presented and analysed. Female-headed households are much less likely to own livestock than female-managed or male-headed households. Cart ownership is much more common among male-headed households. Many female-managed households own livestock and these are considered a target group for assistance in cart acquisition.

Within households, women are generally at a disadvantage in terms of access to carts, but cart ownership is, on balance, beneficial to women. Carts can allow some of women's transport tasks, such as firewood collection, to be delegated to young men and boys. Households owning carts and large drums often delegate water collection to boys.

Introduction

The transport element of rural household activities is frequently not made explicit. Once transport is perceived as the movement of people and goods, irrespective of the mode of transport employed, it becomes a much more important aspect of development. In considering transport activities at the rural household level, one of the main findings from recent surveys is the extent to which transport is undertaken within the village compared with travel outside the village. When this hitherto largely unmeasured element of transport activity was recorded, the very considerable amounts of time and energy being expended on transport activities came to light. Of particular note is the high proportion of the time and effort of women expended in transport activities. This is high both in absolute terms and relative to the transport work of other household members.

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Surveys in Ghana and Tanzania

Transport

Several surveys have been carried out by Intermediate Technology Transport (IT Transport, UK) to determine the characteristics of transport in rural households in Africa. Figures from studies in Tanzania (Barwell and Malmberg-Calvo, 1988) and in Ghana (Howe and Zille, 1988) indicate the magnitude of household time and effort spent on transport. The "tonne-km"—the effort involved in moving a one-tonne load over a distance of one kilometre—was used as a measure of effort.

In Ghana, the average household spent about 4800 hours in time and 2600 tonne-km in effort per year. In Makete, Tanzania, the corresponding figures were nearly 2600 hours and about 90 tonne-km. The much higher figures for the Ghana survey were partly attributable to the larger household size in Ghana (more than twice that found in the Tanzanian survey) and to the greater cultivation and marketing of cash crops. A remarkably high proportion of time and effort (about three-quarters of the total) was expended on transport tasks within the village.

Most rural transport involves the movement of small loads over short distances. In the Tanzanian study, the three domestic activities of water and firewood collection and taking maize to the grinding mill accounted for almost 90% of the tonne-km transported by the household. They represent nearly 50% of the total household time spent in transport activities. Water accounted for 70% of the tonnage carried. Seasonal activities, such as the transportation of harvested crops, may also require significant household effort.

Women as load bearers

The IT Transport surveys (Barwell and Malmberg-Calvo, 1988; Howe and Zille, 1988) also analysed the transport activities carried out by different members of households. The Tanzanian study showed that women undertake the major proportion of rural transport, particularly the load-bearing. In terms of time they are responsible for nearly 70% of

for nearly 70% of transport and in terms of effort nearly 85%. An average female in Makete spends nearly 1600 hours a year (averaging over four hours a day) on transport alone. In the Ghana study the average female spent about 1000 hours a year on transport. Figure 1 gives the daily transport workload of household members in the study in Makete, Tanzania.

Women perform other transport activities and express a need for closer and easier access to such facilities as health centres. However, the largest proportion of their annual time and effort spent in transport activities is involved in water and firewood collection, and taking maize to the grinding mill. In the Makete survey these tasks were all done by headloading. Spending an average of more than four hours a day on transport tasks which involve the equivalent of carrying approximately 180 kg a distance of 1 km is a significant use of time and energy. This might well constrain women from using their labour more productively and improving their welfare and that of their households. The physical strain of headloading might also have a detrimental effect on women's health. There is therefore a strong case for trying to alleviate the transport burden of women (Doran, 1989) and one way is through improved forms of transport.

UNIFEM survey in Zimbabwe

The United Nations Development Fund for Women (UNIFEM) perceives the lack of access to efficient means of transport to be a major constraint for African rural women. This constraint prevents them from realising their economic potential and being released from labour-intensive tasks that have poor remuneration.

UNIFEM commissioned a study to determine the gender aspects of ownership, use and hire of transport devices, particularly animal-drawn carts, in rural Zimbabwe (Gaidzanwa, 1990). This study focused on households in communal and "model A" resettlement schemes. It covered all five agro-ecological zones (designated within Zimbabwe

Figure 1: Daily transport workload of household members in Makete, Tanzania

Source: Barwell and Malmberg-Calvo (1988)

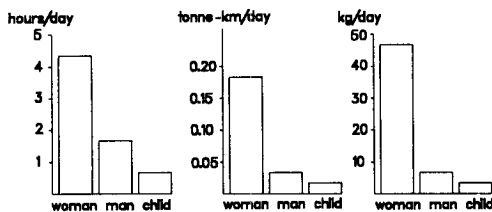


Photo: Jo Doran

Women's group benefiting from cart transport

as zones 1–5, with zone 5 having the least rainfall). Respondents from 129 households in 12 villages were interviewed. Households were categorised in three ways:

Female-headed households were those which were run and represented by a widow or a divorced or single woman without the mediation of a husband, father or male relative in the routine, day-to-day activities of that household.

Female-managed households were those which were managed on a day-to-day basis by a woman on behalf of a labour migrant who was the final decision maker on important issues pertaining to that household.

Male-headed households were those where a man was present and was the final decision maker in the important issues pertaining to the household.

Respondents were asked, among other details, about their transportation assets, their transportation tasks on and off the farm and their livestock used for transportation purposes. The ownership of cattle and donkeys was also analysed since it was one of the factors which might affect the acquisition of animal-drawn carts and other animal power transport technologies.

Women and livestock ownership

The UNIFEM survey (Gaidzanwa, 1990) indicated that most (83%) of the households surveyed owned large livestock (Table 1). In the drier areas (zones 4 and 5), households tended to own donkeys rather than oxen and cows. Donkeys are cheaper than cattle and are harder in areas of low rainfall.

As might be expected, the majority of livestock-owning households were male-headed. Among the livestock-owning households run by women, a much higher proportion of female-managed households than female-headed ones owned livestock. This difference might be explained by such factors as wage remittances to female-managed households and their higher general level of access to resources.

Table 1: Household types in relation to ownership of large livestock

Agro-ecological zone	Households without livestock				Households with livestock			
	Female-headed	Female-managed	Male-headed	Total	Female-headed	Female-managed	Male-headed	Total
1	1	–	–	1	–	6	–	6
2	2	2	3	7	4	11	8	23
3	1	–	1	2	1	3	34	38
4	1	–	–	1	7	4	5	16
5	2	1	8	11	3	4	17	24
Total	7	3	12	22	15	28	64	107

Livestock ownership, or lack of ownership, is not necessarily an indicator of a household's animal transport capability. Some households which own livestock may not be able to use them for work if the animals are too young or too old, or if they are cows near the date of calving. Some households which own livestock might have only one cow or ox in which case they would still need to borrow or hire one or more animals from neighbours or relatives. On the other hand, households which do not own large livestock may still have access to such animals. Such households are likely to invest in livestock for plowing and transport purposes before investing in a cart, particularly since cattle are seen as a symbol of wealth.

Cart ownership

Ownership of animal-drawn carts was also analysed according to type of household (Table 2). Almost 45% of households owned carts, ownership being heavily skewed towards male-headed households. Cart ownership was highest in households headed by elderly men who were, or had been, involved in wage labour. The wages of such people were often used to purchase carts. With both livestock and cart ownership it is generally the households of widows and younger households which tended to be more disadvantaged.

The two aspects of livestock and cart ownership are brought together in Table 3. While most of the male-headed, livestock-owning households also owned carts, very few female-headed or female-managed households did. The disparity between female-managed and female-headed households was again apparent. Some households owning animals but not carts had access to hired or borrowed carts. However, their access was probably not total; they would not have had first call on the carts at periods of high demand, such as harvest.

Transport scarcity

A number of other observations of the survey can be highlighted. In the drier agro-ecological zones, the transport tasks of water and firewood collection are more onerous since the sources are further away. In the higher rainfall zones, greater amounts of agricultural produce need to be transported.

Motor vehicles are the preferred means of transporting crop surpluses to depots and markets. Because of the scarcity of lorries and other motor transport, animal-drawn carts are often used to transport produce beyond what is considered their normal range. This may have an adverse effect on the animals, and carts that are deployed away from

Table 2: Ownership of animal-drawn carts by household type and agro-ecological zone

Agro-ecological zone	Total households	Households without carts			Households with carts		
		Female-headed	Female-managed	Male-headed	Female-headed	Female-managed	Male-headed
1	7	1	6	–	–	–	–
2	29	6	12	–	–	–	11
3	40	2	–	15	1	3	19
4	17	8	3	–	–	1	5
5	36	4	5	9	1	–	17
Total	129	21	26	24	2	4	52

Source: Gaidzanwa (1990)

Table 3: Ownership of large livestock and animal-drawn carts by household type

Type of household	Percentage of total	Percentage of type of household owning		Percentage of livestock-owning households also owning carts
		Livestock	Cart(s)	
Female-headed	18	67	9	13
Female-managed	23	92	13	14
Male-headed	59	84	68	81
All types	100	83	45	54

Source: Gaidzanwa (1990)

households are not available for tasks such as firewood and water collection.

Women's access to carts

Women are in a disadvantaged position in using carts for transport tasks for which they have responsibility. This is because the carts are generally seen as male property and their use is dependent on access to animals which are generally owned by men. In the survey, it was noted that households having fewer than five oxen or donkeys were less willing to use the animals for water or firewood collection, even if a cart was owned. Households had to choose between conserving the energy of their animals or that of their women; in many cases the choice favoured the animals. Similarly, during peak agricultural seasons, women often resort to headloading water, firewood and maize as the carts are being used by men to carry manure or produce.

Some implications

One important observation of the survey was that cart ownership can lead to delegation of duties

Use of donkey carts and drums has allowed children to assist with water collection in north-east Zimbabwe

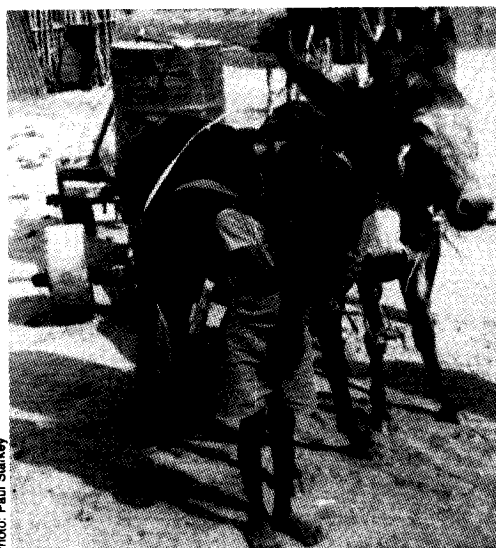


Photo: Paul Stankey

within households. In households which own carts, women's traditional transport tasks and load carrying may be done by some other household members. In households owning carts, older women tended to delegate the tasks of water and firewood collection to young men and boys, especially if the household also owned large drums for water collection and storage. Factors such as water drums, animal ownership and the presence of boys or young men in the household should be noted when promoting or analysing cart use and ownership.

Carts are most likely to be acquired by households owning suitable animals. Two-thirds of the female-headed households already own large livestock, as do the great majority of female-managed households. These groups seem most likely to want to purchase carts, and would make a suitable target group for organisations wishing to promote animal-drawn carts. Credit availability for such women should be addressed.

In some cases, carts can have a detrimental impact on women. For example, women may lose control of certain income if men use carts to transport produce that was formerly headloaded to market by women. However, almost all the women interviewed in the UNIFEM survey felt that, on balance, animal-drawn carts were of benefit to them.

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