

Improving management of draft animals in Zambia

by

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Abstract

Although animal draft power is widely used in some areas of Zambia, its spread to other areas is constrained by poor management and nutrition, a shortage of draft animals, and inadequate extension and veterinary services. This paper suggests measures for the expansion of the use of animal traction, especially in non-cattle-keeping areas. Proposals include reviewing the communal land tenure system to facilitate the adoption of improved husbandry methods, strengthening extension and veterinary services, using cows as draft animals, giving farmers access to credit to procure animals and the inputs necessary for good management, and providing training facilities for farmers and animals.

Introduction

The use of oxen for cultivation was introduced into parts of Southern and Eastern Provinces of Zambia 60–70 years ago by missionaries and European settlers. Over the years it has spread slowly to the central, western and north-western areas of the country where cattle are traditionally kept.

In the mid-1970s, when fuel prices increased, it became clear that the use of mechanical power for smallholders was generally uneconomic. Thus, in recent years, draft animals have become increasingly important in Zambian agriculture, particularly in the southern part of the country. In the north, where cattle are scarce, cultivation is still largely done with hand tools.

Animals used for draft power

Oxen are the main animals used for draft power in Zambia. The use of female cattle for draft purposes is not yet widespread, perhaps due to a general belief that oxen are the only sort of cattle which can be worked. It is, however, becoming increasingly common to see female cattle being used, especially for transportation in rural areas.

Donkeys are used for transport in some southern and western parts of Zambia. There is little experience in the management of donkeys in the country, although they are generally known to be hardier than cattle. Extension services have yet to develop extension packages for donkey husbandry suitable for use in Zambia. In 1967, after noting the

usefulness of donkeys in the smallholder agriculture of neighbouring countries, the government decided to import a number of donkeys and to distribute them as free gifts to poor farmers in areas where cattle were not normally kept. Nothing was heard or seen of the donkeys after two years. However, from the experience gained from other parts of the country, it is evident that donkeys can play a vital role in supplementing the use of oxen in the rural areas, and a more systematic approach to importation and distribution of donkeys is being planned. The breeding of mules may also be attempted. Horses are mainly used for sporting activities by European commercial farmers.

Animal population and distribution

Cattle are predominantly indigenous local breeds—Tonga and Barotse (Sanga type) and Ngoni (zebu)—and are concentrated in Southern, Western, Central and Eastern Provinces, with isolated “pockets” in Northern Province.

Since 1964, the cattle population has been increasing steadily, especially in the traditional sector. In 1964, there were 1 069 000 cattle in this sector: by 1971 there were 1 444 000 and by now there may be about 2.2 million. This increase can be attributed partly to the government’s animal health programmes.

The donkey population is not very high and is concentrated in Southern, Western and Central Provinces. Latest estimates indicate that there are 1400 donkeys in the country.

Constraints to animal draft expansion

Animal management

Cattle management is based on commercial and traditional systems. The commercial sector’s system is based on modern husbandry methods and management is consistent with commercial means of production.

Major constraints are experienced in the traditional sector where rearing is done communally and proper management cannot always be ensured. There is a lack of systematic breeding and inbreeding can be a

problem. The breeding season is generally not restricted and unproductive animals are not systematically culled, mainly because herds tend to be owned by several different people.

The traditional sector also suffers from inadequate health services. Despite efforts by government animal health services, it is difficult to extend veterinary supervision to every corner of the country. Moreover, the existence of tsetse flies in almost one third of the country, reduces the area where cattle can be reared successfully. In Eastern and Southern Provinces, tick-borne East Coast Fever and Corridor disease, respectively, play a major role in reducing cattle productivity.

The traditional sector is characterised by poor animal nutrition. In the dry season, grazing becomes increasingly scarce and poor, a situation made worse by overgrazing and indiscriminate bush fires that reduce the natural grazing areas.

Shortage of draft animals

In areas where cattle are traditionally kept people attach a high value to young work oxen and are reluctant to sell them. It is therefore difficult to rely on these areas as sources of draft animals, and non-cattle owners have to depend on other sources such as commercial and state farms. However, the state farms are failing to meet the demand, and commercial farms charge prices that are prohibitive for small-scale farmers. Even cattle rearing areas are experiencing a shortage of oxen, and already recourse is being made to the use of donkeys.

Inadequate extension services

Experience has shown that extension workers from the Department of Agriculture generally spend more time on crop extension than on the livestock sector. Perhaps this is because the extension workers get greater support to perform crop extension functions,

but whatever the reason, the livestock sector is not receiving an adequate extension service.

Measures toward improvements

Good management is a prerequisite for the better performance of draft animals. Draft cattle can generally be managed like other cattle, but special attention should be paid to ensuring that the animals are in good condition just before the growing season.

The adoption of improved methods of cattle husbandry is usually difficult under communal grazing systems. It is important that the land tenure system be reviewed to facilitate changes.

Particular efforts should be put into introducing animal draft power into cattle-deficient areas in the north of the country. Such efforts might include:

- strengthening extension services to upgrade farmers' knowledge of breeding, nutrition and disease prevention
- encouraging farmers in non-cattle-keeping areas to breed their own cattle instead of repeatedly purchasing replacement draft animals or relying on government agencies to procure them
- encouraging farmers to use female cattle as draft animals so the same animal can provide traction power, reproduction, milk and beef. This would help to alleviate the animal supply problem but considerably improved management and adequate nutrition will be necessary if cows are to perform all their functions satisfactorily
- giving farmers access to credit facilities to enable them acquire animals and the inputs necessary to ensure satisfactory management
- facilitating the supply of veterinary drugs and services
- providing facilities for training of farmers and animals.