

A note on reviving cotton production in eastern Uganda: the animal traction perspective

by

Alex Nyugo and John Olupot

Smallholder Cotton Rehabilitation Project, Ministry of Agriculture, PO Box 102, Entebbe, Uganda

Introduction

The use of animal traction in Teso zone dates back to the introduction of the cotton industry in the area in 1909. Before the civil strife in the 1980s the cattle population was about 355,000. This was reduced to about 18,000 by the turmoil. Since animal traction was the major means of land opening, this had a negative effect on agricultural production in the area. The cotton industry was affected worst. After the use of animal traction for over half a century, the technology had become part of the farming system. The use of this technology was not confined to men, but extended to young people and women.

Animal traction was used mainly for land opening and transport using sledges. A few farmers were attempting to weed their cotton, maize, groundnuts and beans planted in rows. There were also some attempts to use mouldboard plows for groundnut lifting. An assortment of animal-drawn equipment was received from the USA, South Africa, India and the UK. This equipment was tested in the Serere Agricultural and Animal Research Institute (SAARI), but their take-up by farmers was low for socio-economic reasons, for example the preparation of a fine seedbed for row-cropping was considered time-consuming, since farmers could not afford to hire extra labour.

Another factor that hindered the development of animal traction technology was the introduction of tractor hire services in the 1960s. By 1990, a total of 3,021 tractors were imported into the country, 136 of them into Teso. However, this scheme was short-lived since farmers could not afford the hire costs and there was a lack of technical know-how in the area of maintenance. The farm holdings which averaged 2.5 ha per family were too small to justify the ownership and use of tractors. Due to high hire charges for tractors, the farmers returned

to the use of animal traction and hence the scheme collapsed. Teso continued to lead in the use of animal traction in Uganda until the 1980s when civil strife set in, resulting in massive depletion of the working herd and equipment.

The revival strategy

To revive the cotton industry in the Teso farming system and boost national production which fell from the annual average of 360,000 bales to 11,000 bales in the 1980s, the government of Uganda recognised the importance of promoting animal traction alongside the revival of cotton production.

This was made more important by the fact that Teso was the centre of the SATU cotton breeding and multiplication centre. Hence in 1993 a 'smallholders cotton rehabilitation project' was conceived and launched with funding from the International Fund for Agricultural Development (IFAD). This project has a large component for promoting animal traction, especially credit to facilitate purchase of animals and equipment by farmers on 'soft' terms. SAARI received support to enable it to test and develop equipment and produce extension packages for farmer use.

The strategy adopted to produce quick results in reviving animal traction technology includes:

- organising farmers into animal traction credit groups to enable them to acquire loans for animal traction
- establishing Livestock Animal Traction Extension teams in each district to facilitate farmer training
- establishment of animal traction training centres for testing new technologies and training of staff, artisans, farmers and their animals
- encouraging the development of prototypes by SAARI for fabrication by the Soroti

Agricultural Implements and Machinery Manufacturing Company for farmer use.

The project is gaining ground as can be seen from the following indicators:

a majority of farmers who benefited from credit gave priority to procurement of oxen and ox equipment and the purchases were made as soon as the loan was received

many groups were formed for credit provision and extension services. This group approach has also assisted in fast loan recovery: 53% of matured loans have been recovered so far women's participation in all project activities is now 37–40% against the project target of 30%. This has been enhanced by rapid formation of women's groups

many farmers benefited from intensive training on-farm and at training centres the cropped area under cotton has increased with the cropping area index moving from 33% to 103%

farmers have been able to comply with the optimum planting date of cotton, increasing their yields from 400 kg/ha to 800–900 kg/ha there has been a reduction in peak labour requirements

farmers have moved from subsistence farming to limited semi-commercial farming

the food security situation and the social status in the area have improved greatly Serere Agricultural and Animal Research Institute has developed the SAARI master plow and the SAARI versatile weeder. These are being fabricated for on-farm testing before large-scale production starts

Soroti Agricultural Implements and Machinery Manufacturing Company has achieved record sales, especially of ox plows.

This is mainly due to the credit available for these inputs.

Challenges ahead

The following challenges need to be met:

there is need to emphasise local manufacture of durable traction equipment rather than the current import of weak implements

the promotion of rural blacksmiths and artisans is important in sustaining the supply and repair of fast-wearing parts

there is a need to develop a planter suitable for local conditions. At present most of the planters used in the region are not suitable the cattle used for traction (East African Zebu) are small and cannot provide the required tractive power. There is a need to develop a breeding programme to improve on their size and strength

credit is a critical factor in sustaining steady agricultural production. There is therefore a need to identify workable financial intermediation for the rural areas

though the National Agricultural Research Organisation has been established, research that is orientated to solving farmers' problems should be encouraged

the formation of an animal traction network for Uganda is overdue.

Conclusion

The role animal traction has played in reviving cotton production in the Eastern block of Uganda is an indication of its importance in the national economy. If the challenges discussed above are addressed positively, then animal traction will play its rightful role in the economic and social development of the region.