

A note on promoting an ox cultivation strategy for Uganda

by

A A Okuni

*Agricultural Engineer, Ministry of Agriculture, Animal Resources and Fisheries
PO Box 236, Tororo, Uganda*

Abstract

There is a need to develop a suitable strategy for animal power in Uganda. The promotion of tractors does not seem appropriate since they are expensive and have many disadvantages. Ox cultivation has many advantages for smallholder farmers. Several of the constraints to animal traction could be solved by government action, including more attention to relevant research, training and extension.

Introduction

Developing countries such as Uganda need to improve the efficiency of their agricultural production. Mechanisation offers a means of achieving this, as an alternative to hand tool technologies which are time-consuming, laborious and offer little scope for opening new land to cultivation. But what is the most appropriate source of power for mechanisation—tractors or draft animals?

Tractor problems

Tractors have several serious disadvantages, including:

- high capital and operational costs, in foreign exchange
- high depreciation of equipment
- lack of supporting infrastructure in most production areas
- farmers' lack of technical knowledge and skills
- shortage of spares for imported machinery
- major operational problems on small fields.

Animal traction

Compared with tractors, animal traction has many advantages:

- oxen and ox-drawn implements are cheaper than tractors and tractor equipment
- oxen appreciate and have a high salvage value
- oxen are more suitable in the small, fragmented fields common in Ugandan farming systems
- livestock are an existing resource in the country, ripe for exploitation

- "fuel" is available locally in the form of arable grazing land

Constraints to animal traction

Ox cultivation technology has been in existence for a long time but it has not yet been fully adopted.

Reasons for this include:

- difficult topography in some areas
- cultural factors and traditions
- tsetse fly in some areas
- farmers' poor economic standing and lack of access to credit facilities
- farmers' lack of technical know-how and training
- complicated land tenure system and fragmented land usage
- lack of properly trained extension staff to promote the programmes.
- lack of local facilities and workshops for making, repairing and maintaining suitable implements and spares.

Possible government action

The government could take action to overcome many of these problems. First steps towards a wider adoption of animal traction technologies might include:

- conducting research into animal traction and small-scale technologies, and extending these technologies to farmers, for example, through mobile ox cultivation workshops
- providing training and demonstrations for farmers and their animals, local blacksmiths, extension staff, etc
- reviving ox cultivation competitions
- identifying workshops for draft animal implement repair programmes
- liaising with scientific institutions and scientists in other countries to keep abreast of current developments in animal traction technology.