

An Extension Delivery System for Animal Traction Technology in Developing Countries

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Abstract

The emerging importance of animal traction as an alternative option to mechanical traction is highlighted and the need for an effective extension system to transfer the technology stressed. Extension media that could be used to advantage are discussed and strategies for promoting animal traction programmes suggested.

Introduction

The rising cost of farm tractors and the declining purchasing ability of farmers in the developing countries is making animal traction (AT) a worth while option. Apart from being lower in initial and running costs, AT is technically less involving and culturally more compatible with the practices and educational status of a large number of farmers in developing countries. Furthermore, the droppings of the animal could be used as manure while the animal could be sold or slaughtered and used as meat when the farmer no longer feels the need for it. Thus as long as the animal is alive it not only maintains its initial cost, but its value could actually be appreciating.

Successful research into AT technology will lead to nothing if there is no properly conceived and meticulously implemented extension delivery system to disseminate research findings to the 'tractor-less' peasant farmers. It will be unpardonable for the extension units of these countries to be caught napping while research results pour in. There should be an extension package ready to diffuse both the existing technologies and others that may arise.

The Central Task of Extension

Extension is the primary link between the farmer and the factors external to his immediate environment and knowledge. It will be the responsibility of the extension unit to assist the farmers, to learn about and take advantage of new opportunities that can improve their agricultural practices (Arokoyo and Mijindadi 1989). With

reference to AT, extension effort will be required to stimulate the farmers' interest and provide the necessary support to help the farmers reduce the risk of failure that could arise from improper use of the animal and implements.

As farmers' interest grows, the extension officers need to be involved in stimulating the formation of AT cooperatives, establishing of workshops where artisans can construct and repair AT equipment; and in organizing regular training sessions for agricultural and veterinary personnel already or intending to work with farmers using AT.

Extension Methodologies for Animal Traction

The following conventional extension methods will serve for AT:

1. Electronic media, mainly radio and television.
2. Audio-visual aids such as slide projection, overhead projection, video and cinema.
3. Extension publications such as posters, leaflets, guides and bulletins.
4. Conferences, workshops seminars and training.
5. Field demonstrations, agricultural shows and mass rallies.

For the benefit of readers who may not be familiar with the above extension media, their use shall be briefly discussed. Nomenclature of the media may vary from one country to the other.

Radio and Television: These media have the capability of reaching the largest number of people at the same time and can be manipulated to suit the conditions of the target audience. Telecasts are particularly valuable because they can simul-

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taneously transmit the voice and actions of the informer, giving a better understanding and appreciation of the concept being extended. Television suffers the disadvantage of being costlier and less adaptable to rural settings where electricity and service facilities are inadequate. The radio comes in handy in this respect as its initial, running costs and maintenance costs are relatively low.

Audio-Visual Facilities. Audio-visual facilities include slide projectors, over-head projectors, videos and cinema. Slide projection is particularly suitable for teaching purposes because still pictures of events or processes to be discussed can easily be arranged sequentially and used for the teaching exercise. If need be, a part or the whole process can be repeated very easily: a condition that is not so with the cinema.

Extension Publications. Extension publications used at the National Agricultural Extension and Research Liaison Services include: posters, handbills, leaflets, newsletters, guides and bulletins. Posters and handbills are best for brief visual or diagrammatic messages. Leaflets can convey more technical information in sequential form; while both newsletters and bulletins are most useful for more extensive technical information for a literate audience.

Training, Conferences and Workshops. These are fora that bring together specialists and prospective users. The objective is to encourage interaction and exchange of ideas.

Field Demonstrations and Agricultural Shows. As the phrase suggests, field demonstrations and agricultural shows are organised to demonstrate to the farmer in real life the practicality of an advertised idea. Such events also provide the farmer the opportunity to ask questions and make suggestions.

Choice of Extension Method

The extension method chosen will depend on a number of considerations. First is the nature of the message, whether to change attitude, to provide only knowledge or to teach a skill. It will also depend on the audience for which the message is meant, in terms of their educational background, age, religion and culture (Eseigbe 1974).

Before any information is presented, the objectives of the presentation must be stated, since this will give a guide to the choice of media to be used.

The perceived needs of the target audience also dictate whether a single presentation or several

presentations involving the use of different media will be needed.

In choosing extension media, cost is of paramount importance. Sometimes, extension officers allow the degree of sophistication or modernity of an equipment to guide their selection. This could lead to negative results as the audience may get so fascinated by the equipment that they fail to get the information.

In designing audio-visual materials such as poster and transparencies for presentation, due attention should be given to conventional symbols, signs and mode of reading or perception of the target audience. Illiterates for example, do not necessarily look at drawings from left to right, so that a panorama rather than a strip cartoon design is preferable. Audiences who can only read Arabic also read from right to left, so, this must be noted when designing illustrations for this group.

Suggested Strategies for Promoting an Animal Traction Programme

The following conditions will facilitate successful implementation of an AT programme:

- Establish training and input distribution centres at strategic locations to enable regular training of extension officers and farmers and distribution of inputs to farmers. Where possible, mobile outfits should be used to reach as many farmers in as short a time as possible.
- Provide animal-drawn implements at subsidised rates through the Agricultural Development Projects, Ministries of Agriculture and other related government agencies.
- Establish a revolving loan from which the farmers can borrow money to buy animals and implements.
- Government encouragement of entrepreneurs to produce AT equipment.
- Establish both stationary and mobile veterinary clinics to look after the health of the animals.
- Incorporate an AT technology curriculum into the nation's primary and secondary education system.
- Hold AT competitions and shows, generously rewarding participants with outstanding performance.
- Regularly visit AT farmers and give them assistance.

Conclusion

An efficient extension delivery system is necessary for a successful AT technology transfer. The approach to be used should be dictated by the socio-cultural and educational background of the farmers. Provision of facilities that will prolong the active life of draught animals and their implements

will also go a long way towards enhancing the adoption of an AT technology.

It is hoped that both the people and the government will work together to achieve self-sufficiency in food production through a greater use of AT.

Résumé

Cette communication met en relief l'importance croissante de la traction animale considérée en tant qu'option de substitution à la traction motorisée. La nécessité d'instituer un système efficace de vulgarisation est mise en exergue et les organes de vulgarisation auxquels il sera avantageusement fait appel sont passés en revue. Enfin, des stratégies de diffusion des programmes de culture attelée sont proposées.

References

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