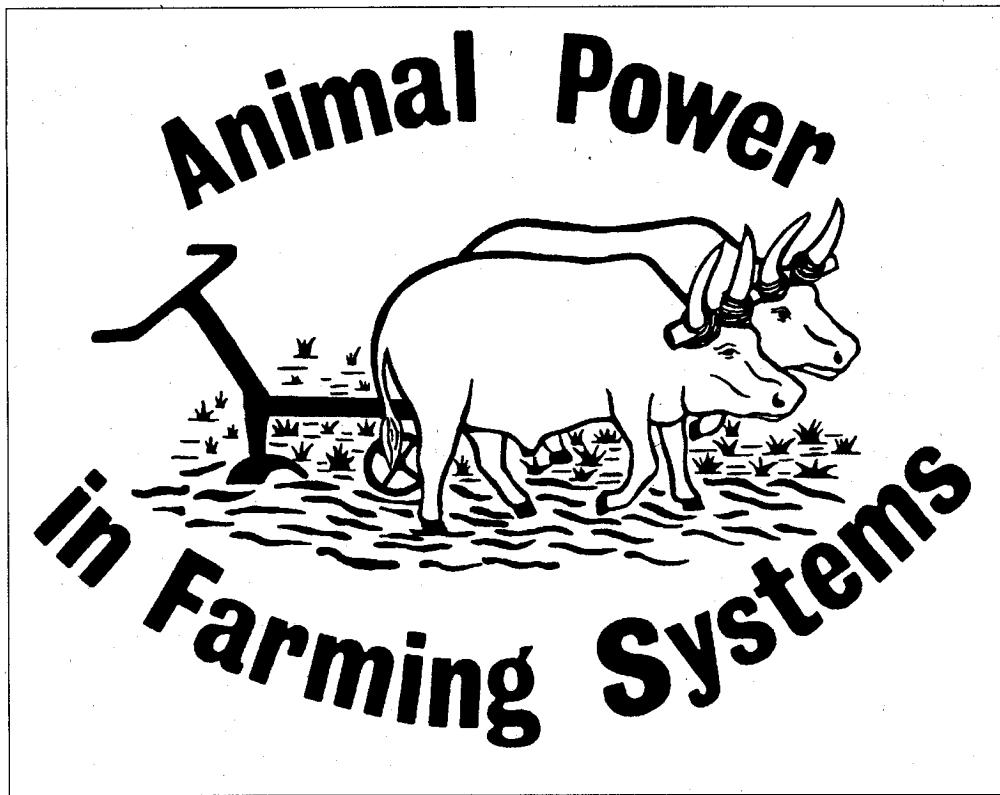


## Part 1

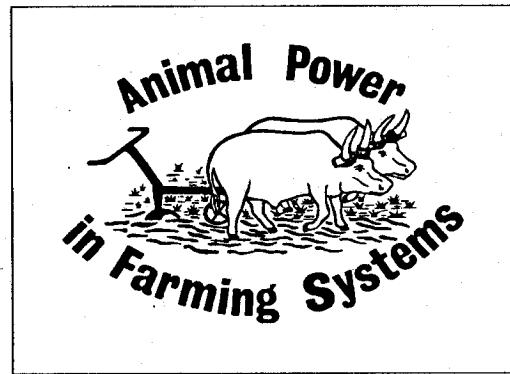


**Report of the Networkshop**

*Title photograph (opposite)*

*Networkshop field visit group having discussions with farmers at the village of Waridala*

*(Photo: Ministry of Agriculture, Natural Resources and Forestry, Freetown)*



## Introduction to the Networkshop





# Background to the Network and Workshop

## Start of the present initiatives

In late 1984 contact was made between the office of the United States Agency for International Development (USAID) in Togo and the Farming Systems Support Project (FSSP) of the University of Florida. FSSP, funded by USAID, was charged with stimulating a farming systems approach to research and development in West Africa and elsewhere. In Togo, the USAID-funded Projet Culture Attelée (PCA) (Kara-Savanes) wished to use a farming systems approach to develop animal traction. It was therefore agreed that FSSP would organize, and PCA/USAID would host, a West African workshop on animal traction. It was felt that animal traction was an area requiring greater exchange of experiences (networking) and that through this, and a farming systems approach to research and development, there could be more effective integration of livestock into West African cropping systems.

## First Animal Traction Workshop

In March 1985 a workshop was held in Kara, Togo, with the theme of "Animal Traction in a Farming Systems Perspective". This workshop was the first significant attempt to facilitate direct information exchange between different animal traction programmes in West Africa. Since the workshop was designed to stimulate the development of a Network, it was referred to as a "networkshop". The workshop was run by an FSSP resource team, with logistical support from USAID and the host project. There were 30 participants, the majority of whom were either Togolese or expatriates working in West Africa. African nationals came from projects in The Gambia, Côte d'Ivoire, Senegal and Sierra Leone. The international or donor organizations represented were USAID and the International Development Research

Centre (IDRC) of Canada. The low representation of African and international organizations was attributed to limited planning time and lack of knowledge of just how to start contacting the various animal traction programmes in West Africa.

Activities included the presentation of national programmes, field visits and group discussions on the key topics identified by participants. The main recommendations of the workshop were:

- Nomination of a steering committee comprising African nationals from The Gambia, Côte d'Ivoire, Senegal, Sierra Leone and Togo, together with an expatriate Technical Adviser. The committee was charged with deciding the venue and the theme for a proposed follow-up networkshop.
- Encouragement of greater exchange of information and experience relating to animal traction. Specific suggestions included liaison between the animal traction programmes of Sierra Leone and Togo, and between the West Africa programmes and the International Rice Research Institute (IRRI) Farming Systems Network in Asia.

## Follow-up to the First Animal Traction Workshop

In July 1985, FSSP funded a Sierra Leonean from the Sierra Leone Work Oxen Project to undertake a study visit to the various animal traction programmes in Togo. The report of this visit was circulated in both English and French.

In August 1985, FSSP funded two members of the steering committee to participate in the IRRI networking tour of Nepal and Indonesia. The report of the implications of this visit for

West African animal traction programmes was published in English (1986) and French (1987).

In November 1985 the steering committee met in Senegambia. The programme included field visits in Senegal and The Gambia. The meeting was attended by observers from the Food and Agriculture Organization (FAO), FSSP, the International Institute of Tropical Agriculture (IITA), ILCA and USAID (Niger). The meeting decided on the venue, themes, programme and methodology of the 1986 Network workshop to which these proceedings relate.

In March 1986, the workshop secretariat, comprising the Head of the Sierra Leone Work Oxen Project, a representative of FSSP and the Steering Committee Technical Adviser, met in Freetown to discuss proposed workshop arrangements with the local authorities and USAID. Following this meeting, in April 1986,

letters of notification and invitation were sent out to members of the committee, the authorities responsible for animal traction research and development in West African countries, to relevant international research centres and to organizations in Europe and North America supporting work on animal traction.

In August 1986, the proceedings of the first (1985) animal traction workshop were published in English (work was continuing on the French translation of these proceedings).

In September 1986, the Second West Africa Animal Traction Workshop was held in Sierra Leone, with the title of "Animal Power in Farming Systems". In the following sections, the activities and conclusions of this workshop are presented, and in the second part of the proceedings there are edited versions of many of the papers prepared.

# Networkshop programme and methodology

by

**Paul Starkey**

*Technical Adviser, Networkshop Committee*

## Background

The networkshop programme is discussed in some detail here as it incorporated methodological features designed to stimulate interaction that were new to some participants. The networkshop differed from a conventional workshop in its flexibility and its emphasis on small group discussions rather than individual presentations. The networkshop had its roots in the first animal traction networkshop held in Togo in 1985 and the outline of the programme was determined by the Networkshop Committee at its meeting in The Gambia in November 1985. The overall aim was to provide a framework for constructive discussion and information exchange. The draft programme was structured in a logical and progressive way yet was intended to be sufficiently flexible to be adapted to the specific needs of the actual participants, whose professional responsibilities and interests were impossible to prejudge at the planning stage. The provisional programme was circulated with the initial announcement letters, together with explanatory notes. The framework of the programme was adhered to as the basis for the workshop, but adjustments were made (following consensus approval) to respond to identified needs for change.

## Introductory session

The networkshop was opened by a government minister responsible for Agriculture and Natural Resources, with words of welcome and encouragement from The Director of Agriculture and from a representative of the United States Embassy.

Two keynote addresses were then given. The first by Dunstan Spencer discussed farming systems research and extension from the perspective of animal traction initiatives. The second by Paul Starkey provided an overview of animal traction in Africa, and developed the networkshop theme of farm level implications of the introduction, intensification and diversification of animal traction in West Africa.

The third introductory session comprised brief "capsule" reports from each of the West African countries represented. The various country delegations nominated one of their members to give, in just 15 minutes, an overview of animal traction in their countries, with emphasis on farm-level problems and solutions. The objective was to obtain at an early stage in the workshop an impression of the diversity of experiences, the commonalities of problems, and the potential for learning from each other's experiences. This session had been scheduled for the first afternoon, but due to the delayed arrival of some participants it was decided to postpone the session. Thus the free time scheduled for the fourth afternoon was brought forward to the first day, and the capsule reports were given after the field visit. It was generally felt that this change was unfortunate in terms of logical sequences, but that it was a necessary compromise resulting from an unexpected airline problem. The delay in presenting the capsule reports may explain the comparative lack of enthusiasm for this session expressed in the final evaluation.

Also included in the planned introductory activities was an opening reception. This was generously hosted by the British High Com-

missioner who welcomed participants in both English and French, thus strengthening the workshop's aim of minimizing the language barriers that have historically impaired communications in West Africa. While not structured, the reception provided an important opportunity for informal discussion and information exchange.

The final introductory session was held at the beginning of the second day, by which time all delayed participants had arrived. This comprised an open session of informal introductions and networking announcements. All participants had the opportunity of briefly introducing themselves. Participants were encouraged to use this opportunity to highlight topics on which they desired information, areas in which they could offer useful experience, and the subjects they were most interested in debating during the informal discussions of the week. Representatives of aid agencies and research centres had the opportunity of briefly describing the work of their organizations and the potential that existed for future cooperation. These extended introductions and announcements allowed participants to clearly identify those institutions and people with whom they wished to make personal contact during the informal sessions.

## **The Sierra Leone Work Oxen Project and field visits**

The host project was given an opportunity to present its work and experiences, and the Project Coordinator, Bai Kanu, did so in conjunction with a video film produced by the organization CEDUST (Centre de Documentation Universitaire Scientifique et Technique) in neighbouring Guinea.

The details of the field visits and their specific objectives were then given. It was stressed that the visits were designed to allow the participants to talk with farmers, and were primarily intended to be stimuli for broadly-based discussions. They should not be seen simply as



*Bai Kanu, Coordinator of the Sierra Leone Work Oxen Project*

local demonstrations. It was known that many problems would be observed during the visits, problems of animal husbandry, crop husbandry, extension advice, and social constraints such as theft. The host project had seen some of these problems during early planning stages and had considered changing difficult villages or making amends. In the end, the organizers had decided quite specifically that no changes or improvements should be made just because of the networkshop, for the problems arising were typical of many of the constraints found not only in Sierra Leone, but throughout West Africa. The objective was not to simply evaluate the strong and weak points of the Work Oxen Project, but rather to use the visits and discussions with farmers as a basis for understanding in greater depth the general issues involved in animal traction utilization at village level, which could then be brought forward into the thematic group discussions.

A total of eight villages had been selected, in order to allow detailed discussions between the farmers and small groups of about eight participants. The particular features of each village were described during the plenary sessions, so that participants could choose a village that was of specific interest to them. Villages differed in ethnic group, length of animal traction experience, crop mixes, individual or

group ownership and the gender of the main owners/users. While there were a few informal guidelines encouraging the mixing of nationalities and disciplines and clarifying the primary language for group discussions, in practice all participants were able to select a village of their own choosing. Group discussion leaders and rapporteurs were selected from within each group.

Following an overnight stay in Makeni, the eight groups visited their villages in the early morning, and saw farmer-managed demonstration plots and the use of N'Dama oxen for swamp plowing, upland rice weeding, groundnut lifting and, in some villages, ridging and transport. Following the demonstrations, detailed discussions were held in the villages to ascertain farmers' perceptions of the advantages and disadvantages of animal traction in their farming systems. The demonstrations had provided a context and a technical stimulus for the discussions, but with small numbers of people in each group, it was easy for the questions and answers to progress from the various operations being evaluated by the farmers to more fundamental issues. The discussions were followed by typical village hospitality in the form of generous meals.

The various groups re-assembled at Rolako, the technical headquarters of the Work Oxen Project, where they viewed the workshop where plows and other implements were fabricated. At Rolako, demonstrations were given of prototype animal-powered pumps and grinding mills, recently installed under a GTZ/GATE (German Appropriate Technology Exchange) technical cooperation agreement. Their construction had been specially brought forward in time for the networkshop, to balance the dominant field visit themes of *introduction* and *intensification* of animal power with the potential for the *diversification* of animal power through innovative designs.

Back in Freetown, the groups continued their village discussions and then summarized the



*Informal discussions during coffee breaks were an important aspect of the Workshop*

main observations and lessons from each village visit in a plenary session. Groups noted both successes and failures (positive or negative lessons) and attempted to not only identify the major constraints, but also to cite possible solutions. It was generally felt that the depth of discussions and recommendations was profound. Each group identified specific technical points (covering equipment, animal husbandry, crop husbandry, social interactions, economics and research methodology) but went on to look at the wider implications of animal traction in the farming systems. In different ways, each group concluded that a holistic vision of agricultural development was required, and that a *single technology* approach (even if multidisciplinary) was as problematic as trying to understand the intricacies of a farming system using only the perspectives of a *single discipline*. The very positive nature of the many observations and the criticisms were such that it was observed that it was like a development worker's dream, with 70 consultants from numerous different countries and organizations working constructively together on a single instructive case study and evaluation. This feeling appears to have been reflected in the participants' evaluation of the Networkshop, for most rated the field visit and the ensuing discussions as one of the most useful of the week's activities.

## Thematic presentations and discussion groups

At its meeting in The Gambia in 1985, the steering committee had identified four dominant sub-themes for the workshop:

- Animal power equipment at the farm level.
- Animal utilization and management at farm level.
- Economic implications of animal power at the small farm level and village level finance.
- Social implications of animal power at the farm level.

Prior to the workshop all participants had been asked to prepare a brief paper based on their own experience, outlining key farm-level problems (and where practical proven solutions) in any one of these sub-themes. It was understood that only selected papers would be presented during the networkshop and that other papers would be circulated only in their written form to stimulate exchanges and discussion. It was also made clear that any plenary presentations would be brief, and would either be in the form of "capsule" reports relating to the countries or would be designed to stimulate discussion immediately prior to dividing into small thematic discussion groups. It had been requested that papers or abstracts be submitted in advance, and about one half of the participants had done so. About one third of the participants brought their papers with them. Only a few participants had not been able to prepare anything, and this was mainly due to last minute decisions to attend, or the fact that they had considered themselves to be observers.

One morning (Tuesday) was set aside for presentations relating to the proposed discussion themes, and eight papers were selected. The basis for the selection was the relevance of the individual papers to the workshop themes and a desire to maintain a balance between the various disciplines, geographical areas and



*Workshop plenary session*

organizations represented. The selected presentations included: a perspective on the technological choices available to farmers from the representative of FAO; contrasting methods of animal traction equipment research and development from scientists from ICRISAT, ILCA and NIAE (now called AFRC-Engineering); an overview of constraints to animal traction in the humid zone presented by an ILCA veterinarian; a discussion of research methodology and implications for small farmer economics presented by a USAID agriculturalist; and relevant case histories from Mali, Togo and Nigeria.

The limited time available (half an hour per presentation) necessitated concise deliveries and only a short period for discussion. In some ways this was frustrating, but it allowed much ground to be covered, and it had been an aim of the workshop to have as much time in small discussion groups as was feasible. Among the points raised during the session were the serious constraints caused by animal nutrition in the semi-arid zone and diseases in the more humid zones. The importance of economic profitability was stressed, together with the observation that farmers (and consumers in most countries) often override economic sense with personal preferences for status and convenience. A thought-provoking vision was provided of a technological shelf laden with so many equipment options that selection, rather

than invention, was required. Discussion was particularly stimulated by the clear contrast between a description of an ILCA research programme based on low-cost modifications to the traditional wooden *maresha* plow, and that of an ICRISAT programme developing more productive, but more expensive, cropping systems based on animal-drawn wheeled toolcarriers. Interest in the topics was high, and discussion during coffee breaks and at lunch time was very animated.

Although possible areas for in-depth discussions had been pre-selected, the actual subjects were not decided until after the field visits and the presentations. As a result six areas of interest and concern clearly emerged as requiring detailed discussion. Two of these topics (equipment and socio-economic aspects) were similar to the suggested sub-themes, but four of them were more specific as participants felt more discussion was required on soil conservation, research methodologies, animal health and farmer training. Participants were allowed to choose their own groups, from which were selected chairmen and rapporteurs. To facilitate in-depth discussion, the groups then selected their language for discussion, with two English language groups, two French language groups, one bilingual and one with simultaneous translation. One or two participants then moved from the group of their first subject preference to one that allowed them to use their preferred language. The chosen subjects of the discussion groups were:

- Soil conservation and tillage: the role of animal traction in establishing permanent cropping systems.
- The selection and development of animal-drawn equipment.
- Animal management and health.
- Research and evaluation methodologies for animal traction programmes.
- Social and economic aspects of animal traction use.
- Farmer needs for extension and training.



*The Workshop brought together technical specialists from many agencies including GTZ, ICRISAT, SATEC, USAID and CEEMAT*

The discussion groups met on Tuesday afternoon and the first half of Wednesday morning, and presented their reports to a plenary session on Wednesday afternoon. Forty minutes were allowed for each group to summarize its discussions and recommendations (with the help of flip charts), and for general discussion of the issues raised. The thematic discussions, as reported and discussed, tended to be more discipline-orientated than those relating to the farm visits. It was felt there was a need to review and discuss in some depth the various experiences within the various technical domains and come up with firm ideas for future directions to follow within these subjects. Although there was not always agreement on the technical merits of different options, there was generally a broad consensus on the methodologies to be adopted.

### **Final discussion, recommendations and evaluation**

The last morning (Thursday) started with plenary discussions, but compared with the small group discussions, the final plenary session started quite slowly, and although some interesting points were raised, there was a certain feeling that many issues had already been discussed. It was clear that the majority of parti-

pants wished to pass onto more concrete recommendations, and so the final session, relating to the future of the Network, started early. Many ideas had been expressed during previous sessions on desirable networking activities, and several of these were put forward as follow-up proposals. It was unanimously agreed that initiatives should include exchange visits between programmes in different countries, and more information exchange, possibly involving the production of a Newsletter. Specific liaison was required between the various manufacturers of equipment in the region. Some formal establishment of the Network was considered desirable (but not without its problems) and the need for some form of secretariat was clear. Without any clear source of funds it was difficult to make concrete proposals, and several organizations including ILCA, ICRISAT, IDRC and FAO were reviewing their programmes and discussing various options for supporting animal traction networking activities. It was therefore considered most appropriate to give very strong support to the principle of networking, without making specific constitutional or organizational proposals. Rather a new Steering Committee was elected to plan and organize the next networkshop, and was charged with discussing and investigating future options, and reporting these at the next networkshop.

Before the session closed evaluation forms were distributed to all participants. These

allowed people to ascribe values from 1-5 (poor to excellent) for many of the elements of the networkshop, including presentations, activities and the logistical services. In addition people were asked to make their own comments on favourable or unfavourable aspects of the networkshop, and suggestions for improvements. The disadvantage of asking people to fill in evaluation forms at the end of the last session was that participants had not had the time to reflect on the whole networkshop. However the great advantage was that everyone present completed and returned the forms immediately, allowing a good impression to be gained as to how participants viewed the networkshop.

Following closing remarks from the committee members, FSSP representatives and the host project, the networkshop was closed. There was an opportunity for some sightseeing and shopping in Freetown on this, the final afternoon. In the evening a final reception was hosted by the French Embassy and USAID, at which tee-shirts emblazoned with the workshop logo, and "gara" clothes given by one of the village associations were worn with pride!

The dates of the programme had been planned in conjunction with airline timetables, so that by finishing on a Thursday the great majority of participants were able to travel home on one of the flights leaving on Friday.

*Title photograph (opposite)*

*A networkshop field visit group at Karina Village, learning of the experiences of a farmer who had been evaluating the use of animal-drawn seeders and weeders for upland rice production.*