

Design and implementation of a communication strategy for agricultural research in Uganda – Experiences and Lessons Learnt

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Abstract

Effective and planned communication is paramount at all stages in the production, testing, adaptation and delivery of agricultural services, whether a physical technology or a management practice. This paper reports experiences and lessons learnt in the development and implementation of a communications strategy for the Uganda National Agricultural Research Organisation's Client-oriented Agricultural Research and Dissemination Project. End-users information and media preferences and needs were assessed, and scientists' and intermediary-users' communications practises and abilities reviewed and strengthened in a series of workshops and surveys. Lessons and issues for the institutionalisation of effective communications and dissemination in a service-oriented farmer-demanded paradigm are developed.

Key words: Agricultural services, client oriented, end- users information

Introduction

Effective and planned communication is paramount at all stages in the production, testing, adaptation and delivery of agricultural services, whether physical technologies or management practices (Farrington and Edwards, 1993; Mulhall *et al.*, 2001; Gundel *et al.*, 2001; Norrish *et al.*, 2001; Saywell & Cotton, 1999; Garforth and Usher, 1997). Successful communication requires a well defined and implemented strategy based on an understanding of the communication context in which services are to be provided (Norrish *et al.*, 2001). 70% of Uganda's farmers are defined as smallholders (PMA, 2000), and smallholder agriculture has several key attributes that condition the types of agricultural services needed (Tripp, 2001; Chambers, 1997), and must be taken into consideration in planning communications and dissemination:

- Large number of independent, small-scale, competing decision-makers;
- Wide range of conditions, options, constraints and opportunities;
- Widely dispersed with poor infrastructure hampering access to product and input markets and information.

This paper reports experiences and lessons learnt in the development and implementation of a communications strategy for the Uganda National Agricultural Research Organisation's Client-oriented Agricultural Research & Dissemination Project. This project was established in 2000, to pilot competitive agricultural technology funds as mechanisms to promote and strengthen client-oriented approaches to research and dissemination, and to develop regional capacity for client-oriented research. The principal

components of the strategy as presented elsewhere (Mulhall *et al.*, 2001; Imairit-Oumo, 2002) were;

- Surveys of farmers and intermediaries information networks;
- Review of scientists' and intermediary-users' communications practises and abilities;
- Capacity-building for scientists & intermediaries;
- Individual support to agricultural technology fund-supported projects; and
- Institutionalising improved packaging and dissemination of research outputs

The principal findings, lessons learnt and implications for effective communications and dissemination of each of these stages are described below.

Materials and methods

Surveys of farmers and intermediaries information networks

Two surveys were carried out – one in 2000 to provide an overview of the types of information produced and available to farmers in the Teso region, and organisations involved in the production and dissemination of such information; and another in 2003 to examine farmers' information networks more closely in the light of the new government initiative to establish farmer-demand driven agricultural advisory services (Mulhall *et al.*, 2001; Turrall *et al.*, 2002; Bagnall-Oakley *et al.*, 2003). Key findings and issues from both of these surveys are reported here.

The overview study in 2000 surveyed ten randomly selected intermediary (local non-government and government) organisations in each of the seven districts of

Teso; and ten men and ten women farmers in one remote¹, one semi-remote and one urban sub-county in each district. Data collection tools were semi-structured interviews and actor linkage maps for the intermediary organisations (Pretty et al., 1995, Salomon and Engel, 1997), and structured questionnaires, time-lines and pair-wise matrix ranking for the farmers (Mulhall et al., 2001).

Two farmer groups in two sub-counties each of Soroti and Lira districts, averaging 70 farmers per group with 35% women, participated in reviews of their agricultural information networks in 2003 (Bagnall-Oakeley et al., 2003). The reviews were facilitated using wealth ranking, information network diagrams, time-lines, linkage analysis matrices, and strengths and weaknesses matrices (Pretty et al., 1995; Salomon & Engel, 1997; Bagnall-Oakeley et al., 2003).

Results and discussion

Surveys of farmers and intermediaries information networks

Table 1 indicates a complex network of information exchange between intermediary organisations in the region, ranging from local farmer groups, other international and local NGOs, local government extension workers, to international agencies working in the region or accessed through the internet. The high frequency of contacts with the local and national agricultural research organisation suggests fairly active information-seeking behaviour by most of the intermediaries. Overall, the intermediary organisations interviewed placed most reliance on the national agricultural research system, other NGOs and the local public extension workers, suggesting greater information-seeking behaviour and greater “horizontal” linkages between the intermediary organisations than observed in neighbouring Kenya (den Bigelaar, 1995; Rees et al., 2000). Linkages between other intermediaries and churches, church-based development organisations, and private sector organisations were much less, similar to observations from Kenya.

Verbal interactions through visits, seminars, workshops, and farmer-to-farmer exchanges were by far the most commonly media used by the intermediaries. Very few of the intermediaries interviewed re-packaged information into other forms, or had the skills or resources to do so (Turall et al., 2002).

The most frequent source of agricultural information for farmers was based around their social networks (Table 2) – easily accessible family, neighbours and friends. Outside of this network, the local extension worker was the most commonly cited source of information, with non-government intermediary organisations cited as locally important in some areas, similar to observations from Kenya (den Bigelaar, 1995; Rees et al., 2000). In remote areas, contact with government and NGO sources of information could be as infrequent as once per year or even longer (Table 2). Local markets and “middlemen” were also cited as important sources of information by farmers in urban areas, but less so

in remote areas - 29% of groups in remote areas mentioned local markets as a source of agricultural information, compared to over 50% in semi-rural and urban areas. Churches and schools were more important as information sources in remote areas, compared to more urban settings.

Reviews of farmers’ information networks by wealth-disaggregated farmer groups in Soroti and Lira districts emphasised the lower access of poorer compared to wealthier farmers to government and non-government extension workers, agri-business sources and to print media (Bagnall Oakeley et al., 2003). Access to radio-broadcast information was similar across the different wealth categories, although the uncertain reliability, difficulties in knowing when broadcasts will occur, and choices of enterprises to be discussed made according to sponsors’ interests rather than users’ needs were cited as weaknesses of this particular media.

Current and future media preferences expressed by the farmer groups differed for different types of agricultural information – awareness, technical and marketing⁴ (Bagnall-Oakeley et al. 2003; Figure 1). The principle current media for *awareness* information were radio, extension workers, and local leaders. Men gave higher weight to radio and extension than women did, suggesting unequal access to these media between men and women. Men also indicated newspapers as quite important. Farmer-farmer contacts, churches, other print media and markets were also mentioned by both genders. Both men and women farmers’ recommendations for improved communications of *awareness information* emphasised radio and extension workers, and also mentioned greater use of print materials and newspapers, study tours, workshops and the use of the emerging mobile phone network (only men mentioned study tours as a useful media for communicating awareness information, whereas only women mentioned workshops).

The main media by which men and women farmers received *technical information* were extension, demonstrations and FM radio. Neighbours, family, local leaders, other print media and markets were also mentioned. Farmer recommendations for improved communication of *technical information* emphasised the use of several different types of media: print media (especially recommended by women), extension workers, and demonstrations, as well as workshops and study tours.

Little marketing information was currently available to farmers, and a considerable demand for this was expressed. The main media by which men & women farmers receive such marketing information as is available were radio, extension workers and newspapers (all of these were rated more highly by men than women), as well as local leaders, neighbours, newspapers and markets. Farmer recommendations for improved communication of *marketing information* emphasised radio, extension, local leaders and family. Newspapers, other print media, markets and the emerging mobile phone network were also suggested.

Table 1. Importance of different organisations as sources of agricultural information, according to 38 intermediary organisations in 4 districts (derived from the number of times a linkage was shown in the linkage maps; Turrall *et al.*, 2002)

Organisation	Important	Sometimes Useful
SAARI/ other NARO	33	12
Farmer groups	20	0
INGOs	17	8
NGOs/ CBOs	16	5
Local government extension workers	15	2
District Farm Institutes	7	3
Universities/ colleges	5	3
International agencies	4	8
National public extension & agencies	2	3
Local government	1	1
Churches & Church Development Organisations	0	2

Table 2 Farmers' sources of agricultural information in remote, semi-remote and close to built-up areas (from Mulhall *et al.*, 2001)

Frequency	Remote areas	Semi-remote areas	Near to trading centres and urban areas
Frequent (daily) access and exchange of information about agriculture	<ul style="list-style-type: none"> • Parents • Neighbouring farmers 	<ul style="list-style-type: none"> • Parents • Neighbouring farmers 	<ul style="list-style-type: none"> • Parents • Neighbouring farmers • Radio • Local markets
Regular (weekly) access and exchange of information about agriculture	<ul style="list-style-type: none"> • Local markets • Churches 	<ul style="list-style-type: none"> • Traders and middlemen • Churches • Local markets 	<ul style="list-style-type: none"> • FEW's • Churches • District Farmers Assn • Local newspaper • Local NGO's
Infrequent (monthly) access and exchange of information of agriculture	<ul style="list-style-type: none"> • Traders and middlemen • Local newspaper 	<ul style="list-style-type: none"> • FEW's • Local NGOs • District Farmers Assn • Local newspaper 	
Rare (yearly or longer) access and exchange of information about agriculture	<ul style="list-style-type: none"> • FEW's • Local NGOs • District Farmers Assn 		

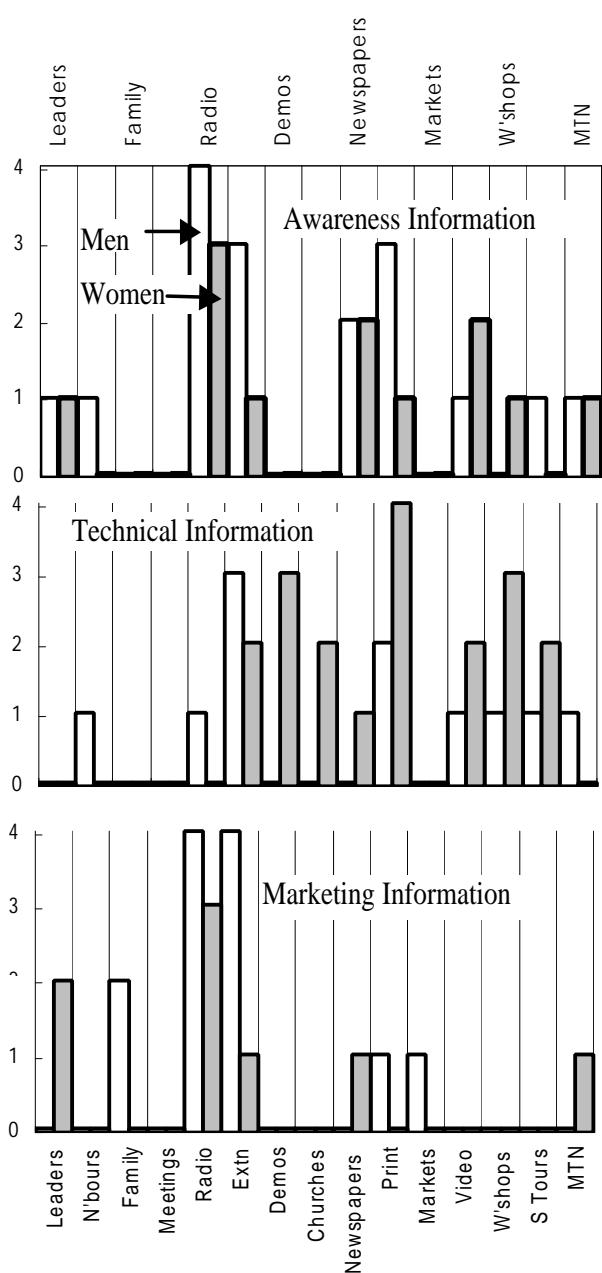
Review of scientists' and intermediary-users' communications practises and abilities

The reviews of farmer information networks above elaborates on farmers' expressed needs for information in a variety of media – verbal and face-to-face with extension workers, study tours, *etc.*, supported by print materials for long-term reference, and radio for awareness. In a series of workshops, both intermediary organisations and researchers identified the main reasons for not providing such services as inadequate funding and skills available for dissemination activities and in particular for the writing, production, reproduction, and distribution of dissemination materials and for repackaging information (Mulhall *et al.*, 2001).

Capacity-building for scientists & intermediaries

A series of workshops were held with NARO staff and intermediaries in 2003, to (a) provide training in the design and layout of print information materials, and an introduction to radio and video scripting; and (b) produce print materials based on farmer participatory research projects supported by the COARD project and others. Ninety print information materials were produced, and several key lessons/issues were observed during the workshops:

- Information based on farmer participatory research alone was not always sufficient in itself, and had to be supplemented by supporting information from elsewhere. Whilst the participatory research carried out may have addressed mutually agreed issues; its wider applicability to



other regions and stakeholders would have been strengthened if a checklist of technology descriptors had been available.

- Reviews of information materials already produced by some projects revealed occasional technical mistakes. This strongly indicated the need for some quality assurance mechanism – both to protect the reputation of the organisation(s) producing the information, and so that users could be sure that the information was technically correct.

- Pre-testing information materials with other stakeholders that had not been involved in the particular research project was invaluable in ensuring clarity and effectiveness of the message being developed.

Institutionalising improved packaging and dissemination of research outputs

The issues raised above highlight the need to strengthen and harmonise procedures for transforming the outputs of research projects into information and media useful for farmers and other end-users, and that can be demanded by them.

The considerable number of agencies involved in the production and sharing of information (Table 1) highlights the need for some coordination of packaging and dissemination of research outputs. As Uganda's national agricultural research and dissemination systems embrace the principles of farmer-demand for services (both technology and development), there is clearly a need to harmonise the demand and the supply sides of information dissemination and communications (NAADS, 2003). Just as most research services should be based on farmer-demand, the production of information materials on particular technologies, and the media in which they are produced should also be based on farmer-demand to the extent possible. Uganda's revised extension services envisages contracted-out extension workers actively seeking out information from the national research system and elsewhere; and this information should be readily available at strategic points in a form useful for the extension worker to re-package into forms useful for the farmers that have hired the extension worker to provide information (NAADS, 2003). Key points for institutionalising the packaging and dissemination of research outputs in a farmer-driven paradigm that have emerged from the experiences and lessons learnt reported here include:

- The skills of most intermediaries wishing to provide information services to farmers in the finding and re-packaging of information for their clients are generally quite weak, and considerable effort will be needed to up-grade these.

- Information describing technologies should cover all aspects of the technology, and a set of check-lists would greatly assist researchers and participatory research projects in ensuring that they collect adequately comprehensive data-sets that will facilitate the dissemination of their research outputs.

- Research organisations and projects need some quality assurance mechanism to make sure that the information they provide does not have technical mistakes. Similarly, there should be a mechanism(s) by which service providers and farmers can assure themselves that the information they access is correct and appropriate for their farming environment⁵.

- There may be an interim short-term need to provide information materials in "farmer-friendly" forms, until intermediary organisations can up-grade their skills to do this themselves.

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