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THE NATURE OF AGRICULTURAL INFORMATION NEEDS OF SMALL SCALE FARMERS IN AFRICA: THE NIGERIAN EXPERIENCE

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ABSTRACT

Agricultural development though receiving support from donors and government has not been successful in Nigeria. The failure can be attributed to the treatment of agricultural information with little or no concern. There is need to build agricultural information into agricultural development programmes If the new strategy is to work, new approaches should be taken to information dissemination and management that grow out of a clear understanding of what the farmers information needs are. The nature of small scale farming and information needs of small scale farmers are identified. An assessment is made of how agricultural information is presently disseminated. The channels for diffusing such information are mentioned and the problems encountered and strengths are discussed. Improvements to the present system are suggested, one of which is the use of traditional media.

INTRODUCTION

Over the years, deliberate though ineffective efforts have been made by donors and African countries to bring about agricultural development without much to show for it. A World Bank study of six major countries (with 40 per cent of Africa's population) documented "the relatively small role that donor assistance has played" in the growth of agriculture (Lipton and Paarlberg, 1990). Part of the failure can be attributed to the treatment of information delivery with little concern by most African governments. As often happens, agricultural information is seldom integrated with other development programmes to address the numerous problems that face farmers. Even though information is an essential ingredient in agricultural development programmes, African small scale farmers' nature of information need

has received less attention compared with the attention given to the information needs of those who contribute little to national product. Like Abayode (1987) points out, the information is exclusively focused on policy makers, researchers, and those who manage policy decisions with scant attention paid to the information needs of the targeted beneficiaries of policy decision. Aina (1989) in the same vein observes that the non-provision of agricultural information is a key factor that has greatly limited agricultural development in developing countries.

If the approaches to agricultural development programmes are to work, African governments need to take new approaches to information dissemination and management that grow out from a clear understanding of what farmers information needs are.

This paper is devoted to the identification of the nature of small scale farming, the exploration of small scale farmers' information needs and the possible approaches to satisfying these needs especially in Nigeria.

SMALL SCALE FARMING

Olayide (1980) classified Nigerian farmers into small scale, medium scale and large scale. Judged by international standards where all farms less than 10.00 hectares are classed as small, 94.37 per cent of all farm holdings in Nigeria (or a total of 28.13 million holdings) must be classified as small-scale farms while the remaining 5.63 per cent (or 1.678 million holdings) must be classified as medium scale. A small scale farmer therefore is one whose unit of holdings is less than 10 hectares. His uniqueness is his efficiency in the utilization of basic production resources available to him and the significant and important contribution he makes to national product (99 per cent of all output of most crops grown in Nigeria) notwithstanding his relatively fragile resource base. The small scale farmer has succeeded to a large extent in harnessing his indigenous knowledge to achieve some level of efficiency. He has however not been able to achieve optimum production because of his inability to efficiently husband the full potentials of land, capital, water and management resources.

INFORMATION NEEDS OF SMALL SCALE FARMERS

No one can categorically claim to know all the information needs of farmers especially in an information dependent sector like agriculture where there are new and rather complex problems facing farmers everyday. Studies carried out by Gregorio and Sison (1989) indicate that it is not safe to make such a claim especially as there are many differences in agricultural information needs within a country as between countries. It is however safe to assert that the information

needs of Nigerian small scale farmers revolve round the resolution of such farm problems as pest hazards, lack of input, weed control, soil infertility, water moisture insufficiency, soil erosion, labour insufficiency, farm credit, animal disease, post harvest preservation, etc. Most of these information needs influence the upkeep of farm animals and crops. The information needs of small scale farmers may be grouped into five headings:
1. Agricultural Inputs. 2. Extension Education
3. Agricultural Technology. 4. Agricultural credit. 5. Marketing.

1. Agricultural Inputs

Modern farm inputs are needed to raise the low level of production efficiency on small scale farms in Nigeria. These inputs may include fertilizers, improved variety of seeds and breeds of animals, plant protection chemicals and animal health drugs, agricultural equipment and machinery and water. A small scale farmer who for example decides to cultivate hybrid maize that will need information on sources of his seeds, suitable soil and weather condition for planting, choice of fertilizer for proper plant yield, source of herbicide, ways of dealing with possible plant diseases that affect maize, when to harvest, etc. It is when the above information is made available and properly disseminated that the small scale farmer can strive to improve on his low production capacity.

2. Extension Education

The general lack of awareness among Nigerian small scale farmers can be attributed to their high level of illiteracy. This contributes to their low level of adoption of agricultural production technology. For farmers to be in a position to effectively utilize information on agricultural technology, they need extension education. Extension education is defined by Williams (1981) as that which assists the farmers through educational procedures in improving their levels of living. Like Obinne (1991) points out, extension education is crucial in understanding the value and use of innovations. Abel - Ella and Holberg (1981), Osuji (1983) and Akintola (1986) in their studies, found that education can and does create an awareness and need for seeking more useful sources of information on relevant improved technologies for improving farm size. The benefits of education to small scale farmers are succinctly given by Farland and Parkinson (1991) in these words:

> "Education is needed to provide such benefits as accumulation of knowledge, the application of knowledge, the ability to calculate, the opportunity to place sellers and buyers on equal footing,... and the ability to participate in institutions conducive to improved farming practices (such as cooperatives) ..."

This is functional education. It is best imparted when the farmer and extentionist are placed on equal footing in an atmosphere that is production oriented and participatory as described by Oakley (1994). Extension education enables the small scale farmer to find solution to his numerous farm problems.

3. Agricultural Technology

The agricultural technology information needs of small scale farmers are those that are cost saving, labour saving, labour enhancing and labour enlarging and at a minimum possible expenditure of energy. They are those that according to Olayide (1980), can grapple with the minimization of drudgery or irksomeness from farm chores. Such information needs revolve round production technology that involves cultivating, fertilizing, pest control, weeding, harvesting, etc. This sort of information at the moment is ineffectively being diffused by an inadequate number of extension workers (1:3000), other farmers, government organs, and agricultural equipment dealers. The impact is yet to be felt.

4. Agricultural Credit

Agricultural credit as defined by Abe (1981) encompasses all loans and advances granted borrowers to finance and service production activities relating to agriculture, fisheries and forestry, and also for processing, marketing, storage and distribution of products resulting from these activities. Unfortunately, small scale farmers who ought to be primary beneficiaries of such credit facilities are often unaware of these facilities in Nigeria. To reap the benefit of agricultural credit, small scale farmers need information relating to sources of credit facilities i.e., names of credit institutions, types of credit, loadable amount, terms of loans e.g. interest rates and mode of repayment. Information regarding agricultural credit that get to the farmers at the moment pass through channels like friends, relations, neighbours, broadcasting media, government officials, commercial and agricultural credit banks. In order to ensure that such information gets to the grassroots, such grassroot organs that have great potentials for information dissemination - like village heads, school teachers and local government officials should be used because of their personal touch with farmers in the rural areas. Some selfish farmers who have knowledge of credit facilities unfortunately hide such information from fellow farmers.

5. Marketing.

All business activities involved in the movement of commodities from production to consumption is marketing. The market information needs of small scale farmers are

those that enable them make rational and relevant decisions regarding marketing. They include as Schubert (1993) and Lee (1993) point out:

i. Information on product planning. This is information on what crop varieties to grow with marketability of such varieties as an important deciding factor.
ii. Information on current prices.
iii. Information on forecast of market trends. This type of information assists farmers in planning their production and finding markets for their produce.
iv. Information on sales timing. Such information enables farmers stagger harvesting and quantity for marketing.
v. Information on improved marketing practices. It includes information on improved harvesting methods e.g. demonstration at farmers fields, local and wholesale markets by extension workers.
vi. Information on group marketing. This enables small scale farmers to have organised sales of marketable surplus and bulk transport of produce.

In Nigeria, agricultural market information needs of small scale farmers are provided by Ministry of Agriculture through the field level of extension workers and by the broadcasting media. Unfortunately, most of those foistered with market information function in Nigeria are still far from performing the functions because they are trained for the job. For agricultural market information to be useful to small scale farmers, such information must be relevant, meaningful, reliable and promptly available.

AGRICULTURAL INFORMATION DISSEMINATION

Within the past two decades, there has been a burst of research activities in the area of agriculture in Nigerian universities and agricultural research centers doted round the country. These researchers have found and recommended far reaching agricultural innovations capable of boosting Nigeria's agricultural production and economic development. Unfortunately, most of these innovations do not reach the farmers' fields. Like Wharton (1983) rightly observes, we have not been very successful in technology diffusion especially in Nigeria. This is partly because the media of information dissemination in use are not quite effective.

Some form of deliberate institutional and governmental organs have been put in place in Nigeria to ensure that farmers get to know and adopt agricultural

innovations relevant to their situations. Notable among such organs are the Agricultural Extension and Research Liaison Services (AERLS), the extension services of Agricultural Development projects (ADPs), Ministries of Agriculture at both State and Federal levels, Media Forum for Agriculture, Cooperative Extension Centres (CEC) of universities and public enlightenment units of the 18 agricultural research centres. These bodies serve as facilitator of agricultural messages by acting as communication departments. They use channels like leaflets, newsletters, posters, exhibits, visual aids, radio and television programmes in diffusing agricultural information. Radio and television programmes are popular even though the broadcasting media are owned and controlled by the government. This control is not without the attendant problem of dictating the choice of programmes and when a programme should be broadcast.

Extension workers are veritable agents in the mission of agricultural information dissemination in Nigeria. They get the farmers into the right frame of mind and attitude conducive to acceptance of technological change. Besides the use of extension workers, other channels like rural development field staff, school teachers, private sector agribusiness people, subject matter specialists (SMS) and communication experts of the CEC of University of Agriculture and the print media are used. These channels are not without their strengths and weaknesses.

PROBLEMS OF AGRICULTURAL INFORMATION DISSEMINATION

There are some limiting factors and apparent constraints in agricultural information dissemination in Nigeria. The limiting factors are discussed by Awa (1990) in his studies and they include:

> "Status differences between extension agents and their clients, agents inadequate knowledge of communication process, that is "how communication works", lack of interagency cooperation both in programme planning and in implementation and extensions general lack of interest in traditional media."

The constraints may be grouped into six headings:

1. Use of electronic media.
2. Use of print media.
3. Inadequate extension problems.
4. Poor implementation of programmes.
5. Paucity of extension workers.
6. Inadequate knowledge by extension workers.

1. Use of electronic media

In Nigeria, the use of electronic media is limited by poor reception quality and coverage. Broadcasts are often targeted at urban dwellers to the disadvantage of the supposed beneficiaries - the rural dwellers. Quite often, the messages are not tailored to the information needs of rural populations. Even when the information is relevant, it is broadcast at the wrong time and does not get to the rural audience.

2. Use of the print media

The print media which includes leaflets and newsletters as message carriers are of limited use in reaching illiterate farmers. Technical languages used in communicating information are incomprehensible to farmers. Gefu (1993) laments this situation and says that "very often the knowledge base of communities is not taken into consideration in the planning, implementation and evaluation of development - oriented programmes in developing economies."

3. Inadequate extension programmes

Most of the existing programmes are conceived without well thought out plans and are prepared in a hurry without the farmer whose attitudes are to be changed making any input. Some of those programmes are written and broadcast in English instead of the local language. Even when the local language is used, it is often in the three Nigerian major languages - Hausa, Ibo and Yoruba especially when it is a Federal Government sponsored broadcast or programme. A majority of the local audience who do not own radios and television sets, have no opportunity of hearing the broadcast.

4. Poor implementation of programmes

Well intentioned agricultural programmes can be marred by poor implementation and too much bureacracy: For example, at the CEC of the University of Agriculture Makurdi (UAM), a competent corps of subject specialists is on ground but is handicapped in its job by lack of funds and facilities like visual aids equipment, logistic support and communication channels. As a result, the Centre has not been able to make enough desired impact on the immediate university community.

5. Paucity of extension workers

The present ratio of 1:3000 extension worker to farmers in Nigeria is inadequate for effective agricultural information dissemination especially to a mainly illiterate audience. This problem is compounded by the paucity of women in extension especially in an environment where cultural and religious taboos make it impossible for male extension workers to reach women farmers who outnumber male small scale farmers.

6. Inadequate knowledge by extension workers

Many people in extension work in Nigeria are still ill prepared for extension communication job. This is because the emphasis in their training is more on technical proficiency rather than on rhetorical and persuasive skills. As many of them are neither proficient in English language nor in the local language and do not have enough knowledge on how communication works, they find it difficult to make themselves relevant in the farmers' fields.

RECOMMENDATIONS

Specialist information service agencies like Schubert's agricultural market information services can be used in Nigeria to disseminate agricultural information.

Much emphasis has in the past been placed on the use of the broadcasting and print media in agricultural information diffusion. The slow rate of adoption of agricultural innovation shows that these channels have not been very effective. The broadcasting media according to Ugboajah (1979) have failed to establish an interdependence between the traditions of the villages and the new technology and as a result their effectiveness have been minimal. There is therefore the need to employ a multi-media approach with emphasis on traditional media.

Awa, Ugboajah, Obinne (1992) and Ojo (1993) among others have carried out studies in indigenous knowledge, extension and communication. Awa observes that one feature distinguishing traditional media is the opportunity they offer for close physical and psychological contact between message sources and receivers. It makes it possible for small scale farmers and extension agents to practice "grassroots participatory extension system" that is likely to work. Nigeria is blessed with untapped indigenous communication systems which when properly harnessed would bring about a free flow of agricultural communication without "noise" to the grassroots. To be able to do this, the essentially community - oriented nature of the African countries must be recognised. Ugboajah therefore advocates the use of town crier as an effective and credible communicator because of the town crier's thorough grounding in the tradition of the village. Agriculture no doubt has its own complex vocabulary which mainly those with the subject background understand. Agricultural communication also requires a special skill. There is no doubt too that Nigerian farmers have always used their indigenous vocabulary in diffusing indigenous agricultural knowledge. Such knowledge systems can be adopted to communicate and transform traditional agricultural systems scientifically. The more relevant the message to cultural norms, the greater is the degree of understanding and convictions. The

already established traditional way villagers receive information should be used.

Like the town crier who occupies an important position in defusing of messages to rural audiences in Nigeria, successful farmers should be used in agricultural communication work. Agricultural messages from such farmers are likely to be taken as credible and authoritative. Politicians, especially men and women of repute who are "sons and daughters of the soil" and known for their oratory and power of persuasion should be used in this noble mission of agricultural conversion.

More time should be devoted to the study of indigenous communication systems by those with more modern means of communication. The two systems should be blended with the aim of improving on the modern systems that has so far achieved only limited success in rural Nigeria.

CONCLUSION

The electronic and print media have not been effective in communicating agricultural information to rural Nigeria. The country has a wealth of indigenous knowledge of communication which if properly adapted is likely to be more [illegible] than modern info[illegible] media. If new and emerging agricultural technologies are to be effectively diffused, there is need to build "communication infrastructure that is sensitive to indigenous knowledge and thus more attuned to the (agricultural) information needs and cultural assumptions of rural populations." There is this need to start from the known (indigenous knowledge) to the unknown (modern means of communication). Thereafter, the two systems of communication should be blended for a more purposeful and acceptable agricultural information dissemination especially in rural Nigeria.

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