



Information: pivotal of improved agricultural productivity and development in Nigeria

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ABSTRACT

This study assessed the role of agricultural information dissemination and utilization in sustainable and improved agricultural productivity and development in Nigeria. Agricultural information dissemination and utilization is viewed as a transfer of messages by various media resources, systems and users. This is normally done through four channels; the individual, interpersonal, organization and the social system. This study was carried out by means of quantitative method which involved the design and administration of questionnaires to 480 rural farmers in Nigeria. Findings from the study revealed that major sources of agricultural information to rural farmers was media (radio, television and newspapers) with very rare contact with extension workers who were ordinarily in the best position to exchange agricultural information with rural farmers. The findings further showed that there are acute missing link between agricultural reformative information and sustainable farming in Nigeria. The study recommends the need for government increased efforts in Agricultural information dissemination to transforming the economy through continued investment in agricultural productivity and development.

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Introduction

In most agricultural communities in Nigeria, agricultural development often requires the provision of facilities and services other than food production, good roads, a clean water supply, electricity supply, health facilities and the provision of schools within the villages. Because of the role of agriculture in economic growth and development, the subsistence of agricultural productivity among rural farmers has become a major debate among professionals. Idowu (2006) reported that the subsistence system of agricultural production in Nigeria is characterized by low farm incomes, low capacity to satisfy food and fibre needs of the country as well as inadequate nutrition on a per capita basis.

Agricultural development can be described as the process, which brings out what is dormant in the cause of transformation to a more advanced or a more highly organized state. Sustainable agricultural development, according to the Food and Agriculture Organization of the United Nations (FAO) is "the management and conservation of natural resource and the orientation of technological and institutional changes in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations" (FAO, 1992, p. 2).

Objectives of food security include but not limited to poverty alleviation, self-reliance, removing inequalities, regional disparities, and high productivity, technical progress and agricultural growth. Lack of access to economic resources, especially finance, by the numerous sparsely located small-scale farmers across Nigeria, continues to inhibit food security, agricultural growth and development. Nevertheless, the overall liberalization of agriculture would result in higher investment, food security and growth in agriculture induced by favourable terms of trade.

According to Ladele, Omotesho, and Toluwase (1991), Agricultural Development Programs (ADPs) have an extension component using the Training and visitation system as the major service approach in a country. Since ADP has nationwide application, its extension is germane to bridge the gap between the findings in research and the growing information and knowledge needs of the farmers. The enormous research output during the past years has brought about framework to study and understand the processes of information innovation, dissemination and knowledge utilization of agricultural information. Agricultural information dissemination and utilization is viewed as a transfer of messages by various media between resources systems and users. This is normally done through four channels, the individual, the interpersonal; and the organization and the social system, the perspective identifying and Adoption; Social Interaction: Transactional Medias; Information sources: the problem solving processes and the various linkages in the entire framework of the system.

Strategies of agricultural development can be grouped into (1) Extensive agriculture (2) Intensive agriculture (3) Scientific knowledge based technical change like green revolution, Soil testing labs, Irrigation, the government expenditure requires for Agricultural Research Watersheds, rural electrification, integrated fertilizer, rural professional literacy.

The new information age offers opportunities for economic, social, environmental and agricultural development program through the eradication of agricultural problems and health hazard. In the context of agricultural production, diffusion of reformative agricultural research information and indigenous know-how, show-how and do-how are needed for sustainable agriculture of an economy.

In Nigeria the major agents of diffusing agricultural information are the information specialist, the extension workers

and the mass media. Mass media is essential because they possesses the knowledge and skill of both entertainment and advertisement which has the potential to unfold basic policies in the implementation of policy issues. It is envisaged that apart from the excellent extension activities, the information specialist could directly interact with their creative talents in divers forms through the knowledge and skill by way of explaining or introducing lab-information to adopters, desk information, consultancy services formal and informal approaches, model representation through computerized simulation models, print media such as rural technology guides directories, audio-visual methods e.t.c by motivational studies of the rural farmers. The moment the concept of rural technology comes to mind, the scene of a village appears to the front correlating the presumption of a low level technology and the picture of unskilled illiterate poor farmers.

Nigeria though the largest black economy has taken a longer time to solving the nation's problem of foodsecurity. This calls for critical examination and the adoption of an approach to avoid declaring the small scale farmers as "endangered species". This has in recent times led to the utilization of locally available knowledge and technology to revolutionised rural and urban development through the appointment of professional in agaric industry and various supports for agricultural development programs. This study is not providing an overview of the wide variety of agriculture-related contents and services delivery in Nigeria, but critically assessed the influence of revolution in agricultural industry and how this has affected the farmers in the rural communities. The main focus of this research is to identify the missing link in the dissemination of agricultural information to farmers in rural communities in Nigeria well as the frequency of contact with agricultural extension workers. This study will provide policy direction on the utilization of agricultural information for sustainable development.

Methodology

The paper is a survey study that relies solely on primary data which was collected through the use of a structured questionnaire and oral interview guide to elicit information from 480 rural farmers in Nigeria. The instrument was face-validated by experts. Data analysis was done by means of simple percentage distribution with the aid of Statistical Package for Social Sciences (SPSS) version 20 edition.

Results and Discussion

Table 1 presents the respondents' sociodemographic profile. It revealed that agriculture in Nigeria is predominantly carried out by man 66.7% when compared with the level of involvement of their female counterparts 33.3%. Moreover, it is note mentioning that the highest number of these farmers 58.3% were in the middle ages (41-60 years). This may be one reason for low turnout of agriculture produce in the past because these age bracket are relatively old and likely have limited energy as compared with those in younger age groups. Likewise, majority of the respondent 62.5% passed through primary school, 16.7% others had no formal education, 12.5% had secondary education while 8.53% graduated from various tertiary institutions. The implication of lack of education by 16% could impede willingness to embrace new methods that are not presented in indigenous languages. Table 2 revealed that majority of the respondents 84.4% acquired agricultural information through personal observation, 84.4% others claimed through transistor radio server and 4.17% gathered some useful information through newspaper, television, demonstration, office call, informal contact, farm or home visit.

Table 3 showed that about 95% claimed they have never had any encounter with extension workers while 5% did had an encounter with extension workers in their course of farming. Furthermore, about 87.5% acknowledge they have never enjoyed any guidance or advice from any Extension Workers and have never link them with sources of farm inputs, credit facilities, modern method of farm practices thereby resulting in low productivity. Additionally, about 69.4% agreed that extension workers have never organized seminar or workshop for them in the past ten years while 30.6% agreed that the extension agents seldom organized workshop or seminar.

In sum, it can be inferred from this study that the intermediary roles of extension workers have been grossly inadequate and has left a wide gap between the agricultural reformative and the adopters (the farmers). These gaps include information, communication, incentive, and resources as well as technical and planning gaps. This crack has resulted in low agricultural productivity, low income realizable and low standard of living for rural farmers as well as the general public at large. Furthermore, though agricultural research functions include strategic research, technology generation, technology testing, technology integration and technology production components of technology flow. More research activities in the areas of food production and agricultural development will be needed to enhance agricultural information system for sustainable development. Similarly, though the extension function includes technology testing, technology integration, technology production and technology dissemination, the first three components are generally neglected. This results in linkage problems, specifically at technology testing, technology integration and technology production stages.

Table 1: Sociodemographic characteristics of farmers in the study areas

Variables	Classification	Number (n = 480)	Percentage
Sex	Male	321	66.7
	Female	159	33.3
Age	21 – 40	140	29.7
	41 – 60	280	58.3
	61 – 80	60	12.5
Education	No formal education	80	16.7
	Primary schools	300	62.5
	Secondary schools	60	12.5
	Tertiary institution	40	8.5

Source: filed survey

Table 2: Sources of Agricultural Information

Information sources (n = 480)	Percentage
Farm & home visit by extension workers	4.17
Co-farmers observation	84.4
Demonstration	4.17
Workshops	4.17
Television	4.17
Newspaper	4.17
Radio	74.6

Table 3: Linkages between extension workers and rural farmers

Variables (n = 480)	Never	Seldom
Frequency of contact with extension workers on effectiveness of extension services.	94.6	5.4
Extension workers perform their intermediary roles in linking farmers with modern farm input, credit facilities, modern method of agriculture and research finding.	87.7	12.3
Extension workers acting as agents of education through seminar workshop.	69.4	30.6

Table 4: Methods of acquiring agricultural information

Methods (n = 480)	Percentage
Farm & home visit by extension workers	4.17
Co-farmers observation	84.4
Demonstration	4.17
Workshops	4.17
Television	4.17
Newspaper	4.17
Radio	74.6

Conclusion

Policy direction on the management of agricultural information between extension workers and farmers will involve the contributions of information professionals, agricultural extension workers and researchers in agro-information industry. The starting point of this relationship will be various “Village” and strategy should be directed towards meeting the basic information needs on new research information, and new method of cultivation as well as material needs such as finance, food, clothing and shelter of people in the rural and urban cities. Agricultural research and extension services share complementary functions to achieve the common objective of increasing agricultural production. Hence, the linkage between research and extension institutions need to be strengthened especially in transferring feedback from farmers to researchers. In such instances, the development of suitable technology can play a significant role, because the potential for increasing production still exists.

Policy-makers and research and extension managers have the great responsibility of designing organizational structures that are conducive to strengthening the linkages between research, extension and the adopter/the local farmers. Meanwhile, research and extension managers can also take steps individually to improve linkages. Such mechanisms include: decentralization of research activities; evaluation of performance

of researchers based on the applicability of their research and extent of their participation in the linkage activities; increasing individual incentives for collaborative activities with extension personnel; staffing extension liaison positions; taking the initiative in creating inter-agency committees; preparing annual plans in consultation with the extension service and promoting.

Lastly, it is important the government double her efforts to transform the economy and continuously explore realistic methodologies to address the problems of farmers and agriculture for sustainable development.

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