AGRICULTURAL EXTENSION FOR THE INVISIBLE ACTORS IN HUNGER DRAMA IN RURAL NIGERIA

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ABSTRACT

It is now an undisputable fact that rural women farmers produce more than half of all the food grown in Nigeria. They are mainly responsibility for providing food for their families as they plant, harvest and fish, gather fuel wood, fetch water, cook as well as process and sell foodstuffs. This paper describes them as invisible actors in the hunger drama because though they feed the nation, they have little or no access to factors of production that boost productivity such as extension services. Indeed, while the dominance of women in rural areas are evident, policy makers, planners and extension officials often behave as if women did not exist, as if the situation and needs of all farmers were the same, whether men or women.

Agricultural extension is one of the main tools for increasing agricultural productivity because it bridges the gap between technical knowledge and farmers practices. Thus, it is fundamental to rural women's ability to feed the nation in a sustainable way.

The main objective of this paper therefore, is to highlight some evidences to support the contention that rural farmers in general and women in particular are not being well served by existing extension systems in Nigeria. The findings are from a pilot survey of women farmers in Abuja, Nigeria.

The results suggest that failure to reach women farmers is part of an overall problem related to lack of support and resources. With about one or two extension workers being assigned to work with as many as 1000 farm families, the need for policy review is obvious. The paper recommends that gender targeting of extension services is crucial to the fight against hunger in rural Nigeria and the ability to feed the nation in a sustainable way. The paper is organized in five sections.

Key Words: Agricultural Extension, Women Farmers, Rural Nigeria.

1.0 INTRODUCTION

With unsatisfactory agricultural productivity and rising poverty, rural women farmers in Nigeria increasingly have to bear with hunger and malnutrition. This is because they are the mainstay of small-scale agriculture, the farm labour force and day-to-day family subsistence. They bare more of the burden of providing food as plant, plough, harvest and fish, gather fuel wood, fetch water, cook, and breastfeed and sell foodstuff, therefore constantly joggling roles like actors in the hunger drama. Yet rural women are faced with a number of constraints, especially since they have more difficulties than men in gaining access to land, credit and extension services. Also, although they are the main actors in feeding their families and fighting hunger and malnutrition they are grossly under equipped to carry out these roles and too little attention is paid to alleviating women's drudgery in rural areas.

In addition, extension services usually focus on cash crops rather than subsistence crops, which are the key to local food security.

Development interventions to improve the economic roles of women have also had limited success. Up until recently, the overriding concern of such interventions for rural women

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remained one of welfare and home economics programmes, mainly through women-specific projects or women's components in multi-purpose projects. In many cases, agricultural development projects have not taken adequate account of women's responsibilities, participation and priorities in their specific local conditions, constraining the achievement of the objectives of the programmes, or leading to negative effects on women and families.

However, in recent years there has been an increasing recognition of the need to integrate women into mainstream development efforts. The economic rationale behind this approach is that the full use of productive potential of human resources (male and female) cannot be realized if women, who make substantial contributions to food output, do not have adequate access to resources, productivity enhancing inputs and services. This approach focuses on gender differences (gender = socially and culturally determined differences between men and women) primarily in division of labour in production, or income-earning activities, and access to and control over resources and assets. Gender analysis also involves the desegregation of women's roles and responsibilities by socioeconomic class, agro-ecological environment and farming system, culture and ethnic group and, for each of these categories, by age and marital status.

Statistically women form a large segment of the agricultural work force, they deserve increased attention of agricultural extension services in Nigeria to boost productivity and reduce hunger. There need for an action-oriented plan to reach the millions of women in agriculture who fill the bread baskets of rural Nigeria. The fight against hunger and malnutrition in the rural areas can only be won

if the situation of women is top priority to policy planners and planning in all areas of development.

Rural women must become visible players in agricultural development and their voice must be heard on an equal level to men's when policies are elaborated. Investing in women farmers is not a matter of charity; it's an economic imperative, in particular in low-income, food-deficit rural areas of Nigeria.

Need and justification for the study:

There are assertions that small farmers in general, and women farmers in particular, are not being well served by the existing extension systems in developing countries. In Nigeria, some extension workers being assigned to work with as many as 1000 farm families, the need for policy review is obvious. The important contributions made by women in agriculture justify the necessity to make the system more equitable. However, there is the need to remember that each country has its own specific problems and that generalizations offer much food for thought, but little basis for action. Therefore specific situations need to be reviewed and perspective action on a country-by country basis needs to be taken. The above background, therefore, provides the necessary basis and justification for this research study

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Objectives of the study:

The main objective of this paper therefore, is to highlight some evidences to support the contention that rural farmers in general and women in particular are not being well served by existing extension systems in Nigeria.

2.0 CONCEPTUAL ISSUES

2.1 Overview of the "extension system" concept

Conceptually, agricultural extension encompasses a range of activities in both public and

private sector, but the exchange of information is still the primary focus of all extension activities. In fact, extension services are defined to include all activities involved in the exchange of information relevant to agricultural production, processing and marketing. Extension helps to accounts mainly for the differential between potential yield and actual yields in farmers fields by accelerating the technology transfer (i.e. to reduce technology gap) and helps farmers become better farm managers thereby reducing organization gap (Egbuna, 2003).

Broadly, there are some extension types namely: public, private and not-for-profit. Farmers for special services may pay public extension staff or they may routinely exchange their services for food, money and other goods. Private sector extension services generally focus on cash crops, or on sale of inputs (seed, chemicals, fertilizer, and machinery). Extension specialists working for private agribusiness firms often serve multiple capacities (e.g. processor/exporter field staff provides production advice to out growers and enforce delivery of output, and input supply firm representatives combine education and marketing). In the private sector, extension activities are often part of a vertically integrated enterprise.

In order to generate benefits in accordance with a certain objective (e.g. increased production, increased sales, and better use of the product, access to a specific type and quality of fruit for export) extension must be a channel through which appropriate technology flows. Individuals who undertake to disseminate information in the agriculture sector frequently combine this with a number of related activities.

- Extension agents - public or private - often link farmers and researchers providing feedback to researchers on indigenous knowledge systems, producer reactions to new innovations, and so on, facilitating the adaptation of research results into appropriate technology for different areas. Extension agents may also participate in adaptive research activities with researchers and farmers.

- Organisation and support of producers' groups or associations is often a function of public extension field staff or NGO field staff. Working with groups makes it easier to meet large numbers of farmers. Private firms, or parastatals, may have field staff who organize farmers into groups to ease supply of inputs and collection of output or as part of an out growers scheme.

- Facilitating access to or distributing inputs is often undertaken by private extension agents; the risk that it may divert extensionists from their main task makes it a controversial function of public extension. However, actual distribution of inputs in addition to advice on how to get inputs is often provided by both private and public agricultural field staff.

3.0 The evolutionary development of agricultral extension in nigeria

The Nigerian national agricultural extension system has evolved over four decades from a rudimentary, export crop-focused service to what can now be described as a professional service even if its effectiveness and efficiency remain just average at best. The evolutionary development of the Nigeria's extension service can be conveniently divided into three major eras viz: ¬

i) The colonial and immediate post independence era: 1893 ¬ 1968;

ii) The "oil boom" era: 1970 - 1979;

iii) The state-wide Agricultural Development Project (ADP) era: 1980 - present.

The main features of the extension strategies/approaches that characterized the three phases are described briefly below.

- The Colonial and Immediate Post-Independence Era: 1893 -1968:

The extension strategies and approaches, which characterized this period included:

a) The Colonial Commodity Extension Approach: The early part of this era - 1893 - 1921 marked the beginning of scientific agriculture in Nigeria and the beginning of direct government involvement in agricultural development. The agricultural policy of the colonial government was primarily focused on encouraging only export crops like cocoa, rubber, palm oil, cotton and ground nut to support the agro-industries in Europe. The extension strategy was clearly a commodity approach with some enforcement component. Extension delivery even at this embryonic stage had the dual but conflicting roles of education and law enforcement;

b) The Ministry of Agriculture approach: This started with the establishment of the agricultural research stations in Samaru (1921), Umudike (1923), and Moor Plantation (1924) along with the Regional Ministries of Agriculture in the North, East and West. The extension approach was diffused, non-focused, combining advocacy and advisory roles with input and credit distribution, and regulatory functions. A major feature of this approach was the compartmentalization of the service into the various sectors - agriculture, forestry, fisheries, livestock etc, with parallel extension services.

c) The Revitalized Commodity Extension Strategy (Post Independence). Again, the emphasis was on selected export crops - cocoa in the old West Region, oil palm in the East, and groundnut in the North. There was an obvious neglect of the food crops to the detriment of the nation;

d) The farm settlement/Farm Institute Leavers' Extension Strategy (1959 - 1965): This was a community development concept to entice young school leavers to farming as a career and to serve as models for concentrated extension service.

• "Oil Boom" Era: 1970 -1979:

The near absence of a dynamic research and an effective extension strategy for food crop production in the earlier era was worsened by the oil boom, which turned out to be an "oil doom" for agriculture. The major extension approaches of the era included:

a) The National Accelerated Food Production Program:

The (NAFPP) was a well conceptualised strategy which incorporated research, extension and input supply (through a network of agro-service centres) and farmers only minimally involved in participatory technology development.

b) Operation Feed the Nation (OFN):

This program was introduced in 1976 as a strategy to substantially increase food production. Unfortunately however, there was nothing in the program that can be identified, as an articulated extension strategy and thus, it died a natural death.

c) The River Basin Development Authority (RBDA) Strategies: Although the RBDAs were established in 1977 for the exploitation of water resources for irrigation. Extension

responsibilities were not assigned to them until about 1984/85, to provide extension services to farmers in their catchments areas. They used the diffused Ministry of Agriculture approach but because of their poor performance, their extension responsibilities were removed;

d) The Green Revolution: This approach was premised on the Asia success story, and was launched in 1979 to replace the OFN with the primary objective to achieve food self-sufficiency for Nigeria in five years. Similar to the Ministry extension strategy, it also placed emphasis on input supply, improvement of infrastructure and provision of price incentives. The strategy/approach failed due to lack of focus and diversification of efforts that could not be sustained;

e) The Pilot (Enclave) Agricultural Development Projects (ADPs):

The ADP extension system was based on the premise that a combination of essential factors comprising of the right technology, effective extension, access to physical production enhancing inputs, adequate market and other infrastructure facilities are essential to get agriculture moving (FACU, 1986). They started out as pilot projects in Funtua, Gombe and Gusau in 1975. Success led to the establishment of the enclave ADPs in six more States. All initially employed Training and Visit (T&V) extension delivery approach. This strategy closed the oil boom era.

The myriad of approaches, which followed one another in quick successions, left the rural populace probably more confused even though there were some noticeable marginal increases in food production in the operational areas of the ADPs.

• The State-wide ADP Era: 1984 - Present:

This phase of the extension service was characterized by the rapid growth of the ADP concept and reached national coverage by 1989 and had full responsibility for extension delivery at the grassroots. Common to all, were an autonomous project management unit, on adaptive research component input delivery system, rural infrastructure component for rural feeder roads and water supply and a systematic extension delivery using basically the Training and Visit Extension approach as propounded by Benor and Baxter and promoted by the World Bank in Nigeria and other developing countries. Apart from the "one-size fits all concept" of the strategy, it has proved to be much regimented, and expensive hence the serious management problems after the withdrawal of the World Bank support to the projects. It has nevertheless helped to professionalize extension delivery in the country.

Although the strategy was crop-biased on introduction, this major defect was corrected in 1989 with the introduction of the Unified Agricultural Extension Service (UAES) which made provision for the inclusion of the other sectors, viz; livestock, fisheries, forestry, natural resource management etc Thus, one village extension agent (VEA) is expected to deliver extension messages in all agricultural disciplines (sub-sectors) to the farmers. This was informed by the need to remove the problems of conflicting messages to the clientele by multiple agents. It was also expected to make the system move cost-effective by eliminating duplication of efforts. This extension strategy remains basically top-down in approach and the farmer also still basically remains a passive receptor of information, which may not necessary meet his needs. The involvement and participation in technology development remains low.

4.0 THE SURVEY

1. Population of the study

The study was carried out in Abuja Nigeria and the selection was based on the assumption that their agricultural extension systems provided more relatively satisfactory extension services to male farmers than those provided to women farmers.

2. Sampling procedure of the study

A purposive-cum-stratified random sampling design was followed for selection of the study areas.

2.2. Selection of respondents

100 women farmers were selected randomly from the lists provided by the extension service. In addition to the above, field extension agents, technical officers/subject-matter specialists (SMS), administrators, supervisors, policymakers and planners were selected irrespective of gender. The main criterion for choice of these respondents was their knowledge of the operation of the agricultural extension service in Nigeria.

3. Instruments for data collection

Four interview-cum-structured questionnaires were designed and used to collect information and data for this study. The first instrument was designed for women farmers as clientele of the agricultural extension system; the second instrument was designed for administrators of extension organizations concerning the current capacity of the agricultural extension service to provide advisory services to women farmers; the third instrument was for field extension agents to judge their attitude towards women farmers as clientele of extension services, identification of type of agricultural extension topic and number of extension activities planned and implemented to deliver extension messages to women farmers, and type of training courses attended by them. It also covered the extension worker's perception of women's participation in extension activities and the identification of problems and constraints of the extension service in reaching women farmers. The fourth instrument was designed to enable extension policymakers, planner, administrators, supervisors and technical officers or subject matter-specialists to judge their attitude towards women farmers as clientele of extension services, and to identify the problems and constraints that they perceived could affect agricultural extension in reaching women farmers.

5. Pre-testing of the instruments

The questionnaire prepared for interviewing women farmers was tested in the nearest farming settlement in the FCT. Ten women farmers were selected for pre-testing in the study area. Necessary modifications were made before proceeding to the field survey.

6. Data collection Techniques.

The data were collected in four phases. In the first phase, women farmers were interviewed, either in groups or individually, using the structured questionnaire. In the second phase, field extension agents were interviewed following the structured questionnaire. In the third phase, data and/or information on how the agricultural extension systems actually influenced the operation of extension work for satisfying the problems and needs of women farmers were collected after reviewing the annual reports and discussions with the related extension administrators of the four study areas/countries. In the fourth phase, information about problems perceived by the policymakers, planners, administrators, supervisors and technical officers or subject-matter-specialists as affecting agricultural extension services' ability to reach women farmers was collected.

7. Analysis of data

Data from questionnaires were coded. A wide variety of data was summarized and categorized in different ways for ease of presentation and comprehension. The data pertaining to age, total number of children, size of landholding, socio-economic status, and attitude of extension personnel towards women farmer as clientele of extension were categorized as follows for interpretation in the present study:

(i) age of the women farmers: data collected pertaining to age revealed that this ranged between 15 and 60. For analysis, the women farmers were categorized into the following three groups: Younger 15 – 30; Middle 30 – 45; older 45 – 60.

(ii) total number of children: the information collected was categorized into the following three groups: Small 1- 3; Average 4 – 6; Large above 6.

(iii) Size of land holding: the data on land holding were first converted into standard acres based on a conversion formula provided by each government land reform act. Then the socio-economic status scale developed by Trivedi (1963) was used to categorize the size of landholding as follows: The size of land was categorized as follows, Less than 3 acres, 3 to 5 acres,

Above 5 acres

(iii) socio-economic status (SES): to measure the socio-economic status of women farmers the scale developed by Trivedi (1963) was used with a few modifications. The total computed scores achieved by each woman farmer was categorized as: Low 6 – 16; Average 17 – 25; High 26 – 35.

(iv) attitude of extension personnel: the tool for measurement of the attitude of extension personnel consisted of 10 statements (5 positive and 5 negative) and the responses were recorded on a five-point scale. The scoring procedure for positive statements was as follows: Strongly Agree 5, Agree 4, Undecided 3, Disagree 2, Strongly Disagree 1.

For negative statements, the scoring procedure was reversed. The scores obtained were categorized into the following three groups: Highly favourable 38 – 50, favourable 24 – 37, less favourable 10 – 23.

Moreover the need, i.e. the difference between existing and desired knowledge, was measured for each item or activity. To assess the existing knowledge, respondents were asked to say whether they 'knew thoroughly', 'knew somewhat', or 'did not know at all'. For desired knowledge, they were asked to mention whether the knowledge was 'most needed', 'somewhat needed', or 'not needed'. These were scored as 2, 1, and 0 respectively (Kaur and Srivastava, 1988).

A further comparison was made of the various variables such as demographic, socio-economic conditions of women farmers, involvement of women farmers in farm and reproductive activities, their participation in making decisions on farm activities, their access to production resources, their gender preferences for extension agents, total female extension personnel, the budget allocation of the extension service and suggestions of extension personnel to improve the extension services.

The problems of women farmers in farm work, their preferential topics to be learned on agricultural extension, their problems in attending extension activities and problems and constraints in affecting extension services to women framers perceived by extension agents and extension personnel were ranked according to number of respondents.

The mean was used to analyze the number of extension activities completed by each extension agent in relation to women farmers, number of training courses attended by field extension agents in the four study areas and women farmers' participation in extension activities as perceived by field extension agents.

5.0 SUMMARY AND RECOMMENDATIONS

The most important findings of the study have been summarised as follows:

A. General characteristics of women farmers as clientele of extension services

The age distribution of the majority (more than 55 %) of the women farmers included in the study fell between two categories, i.e. 15 to 30 and 30 to 45 years. In respect of marital status of women farmers, it was revealed that the largest group of women farmers was married and estimated to be more than 60% of the total. In terms of head of the household, only 15% of the women farmers were considered as household head. The majority of women farmers in all the study area were found to contribute to the labour force regularly for such activities as transplanting, planting, weeding and harvesting. Land preparation, application of pesticides and irrigation were performed less by women farmers, as identified in all the study countries. However, marketing was carried out by more than 34% of the women farmers.

B. Capacity of Agricultural Extension Services to serve Women Farmers

This study has recognised women as fully fledged farmers in Nigeria. The primary extension approach was identified as the T & V extension system. The average field extension agent completed 22 farm and home visits respectively in the last one year, while only 15 extension educational meetings were completed by the average number of extension agents. Women farmers were not included in extension planning and programme development. In terms of research-extension linkages, the administrators ranked their relationship with research as "when need arises". The mode of operation of the monitoring and evaluation system was rated as "weak". Extension coverage, i.e. extension agent to farmer ratio, was found to be low.

In conclusion, the findings presented in this study shows that women farmers are not a homogeneous group..

5.2 Recommendations:

The findings suggest that women farmers should be given every opportunity to participate in the planning of their extension programme and the establishment of its objectives.

The extension service should be more gender-sensitive when organizing extension activities, so that women farmers have full and appropriate access to extension meetings, demonstrations, field days and other activities. A proportion of women farmer participants should be targeted in each extension activity that can specially be beneficial to them.

In the study area since there is a T & V system, women farmers in each village should be selected to act as contact farmers. They should be motivated by extension agents to deliver the extension messages to other women farmers as soon as possible. Meetings should be organized in such a way that women can attend these meetings regularly. Extension agents, when scheduling the time and place of meetings, should always take care that the visits do not conflict with women's other roles in their household.

Extension workers should be trained to encourage those women farmers who are not members of village farmers' groups to take up membership. Moreover, in this case, extension worker should be trained not only in extension methods when working with women farmers, but also in the techniques of group formation and how to develop leadership ability in the women farmers so that they can operate their own groups and encourage active participation of women farmers in the different extension programme activities. Such training of extension agents should emphasize how to work well with women farmers in groups.

There is a need to specifically identify women as an integral part of the agricultural extension policy and develop gender-specific and feminized operational guidelines which will direct the extension activities of women farmers.

Finally, based on this study, it is recommended that regular monitoring and evaluation of extension programmes on a gender-disaggregated basis be supported and practiced by every agricultural extension service.

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