THE CHALLENGES OF NIGERIAN AGRICULTURAL EXTENSION IN THE 21ST CENTURY

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ABSTRACT

Meaningful agricultural development in any society largely hinges on the Extension System in place. The developed economics such as the United States of America have evolved, over time, highly workable extension systems. In spite of this, extension is seen as a dynamic process which requires regular modifications in order to make it relevant in a constantly changing technological world. In Nigeria, much of our extension activities are borrowed from alien technologies, and there are lots of deficiencies. There is need to get Extension going in order to attempt to catch up in the next century.

INTRODUCTION

Recognizable public agricultural extension practice started in Nigeria in 1893. For the next sixty years extension services in Nigeria were aimed at producing export commodities. The scope of extension expanded and decentralized following the coming into force of a federal constitution in 1954.

From independence in 1960 up to the late 1980's agricultural extension practice received some attention from the international development agencies such as USAID and the World Bank. The national government also initiated many schemes and programmes aimed at achieving some extension objectives.

Over time agricultural extension in Nigeria has witnessed many challenges, reorganizations of policies and programmes aimed at enhancing extension performance and improving agricultural production. According to Madukwe (1995) there are changes in the number of institutions promoting extension programmes, farmer groups are emerging and increasing their demands on the extension service, knowledge of suitable and environmentally safe agricultural practices are changing in content and direction. In addition, extension budgets, the emergence of agricultural extension as a priority in political

debates and the use of electronic media in extension are issues that challenge agricultural extension in the 21st century. Also, extension must contend with challenges in areas such as changing demographic structure in rural and urban areas; new and emerging technologies typified by bio-technology; qualification, training and conditions of service of extension staff, extension work in Nigeria; and the recognition of the usefulness of indigenous knowledge.

The overall purpose of this paper was, therefore, to highlight critical issues that would challenge agricultural extension practice in Nigeria in the 21st century.

Challenging Issues for Agricultural Extension in Nigeria in the 21st Century

A Legal Framework

After about a century of agricultural extension practice, Nigeria is one of the very few countries in the world without a legal frame-work for her extension activities.

The lack of a legal framework has allowed

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extension to swallow all kinds of pills in the hope that they will bring relief. Provision of a legal framework as of the type available in successful extension systems of other countries around the world will define the number of institutions to be involved, the manner of entry or withdrawal, the administrative location of extension, the qualification and function of extension personnel, discipline, training, finance, welfare and conditions of service for staff.

A legal base in the form of a legislative act should be provided for the practice of agricultural extension in the 21st century. This is a challenge extension policy makers and administrators should work towards.

Plurality of Extension Institutions

Increasing number of institutions are getting involved with extension work in Nigeria. In a pluralized extension system, an effective machinery for coordinating the different institutions is necessary to avoid sending conflicting agricultural information and, indeed, confusing the farmer.

There is need for an "Agricultural Extension Board" (Williams, 1995). The board should be charged with policy determination, planning, implementation, monitoring and evaluation of extension programmes. The board will also deal with issues relating to the appointment, disciple and development of staff and provision of infrastructural facilities that will make for more effective extension performance. The establishment of the board will remove public extension from the bureaucratic bottleneck of the civil service.

Meeting with the challenges of multiple institutions brings to focus that of the location of extension and indeed the coordinating board. Lessons form successful extension systems the world over and the result of research in Nigeria (Olayide and Ogunfiditimi, 1980; Madukwe, 1996) support the relocation of the coordinating function to the Universities. The advantages of adopting the university as a base for extension include the depoliticization of the extension administrative machinery, provision of an enhanced image of the extension profession, the unification of extension practice, thus removing

duplication and waste, and involving the Universities formally in national extension programming.

To effectively coordinate and take advantage of the benefits of a pluralistic extension set-up, we strongly recommend that the ADP should be made fully autonomous and accountable to an extension board located within the Faculty of Agriculture of a university in each state. With full autonomy for the ADP, the federal, state and local governments can contribute funds and extension programmes for execution by the ADP. Through the ADP the increasing and successful extension activities of NGOs, religious organizations, private profit and private non-profit agencies could be better coordinated for the benefits of the farmer.

Sustainable Funding of Extension Practice

Poor and irregular budgetary allocations have been identified as constraint hindering the effective performance of agricultural extension in Nigeria (Obibuaku and Madukwe 1992; Madukwe, 1995). This problem is compounded partly due to the fact that the issue of extension finance and budget is relatively less researched and poorly understood in Nigeria.

More recently the country experienced better funding of extension under the World Bankassisted ADP extension system. The role of the federal, state and local governments in financing public extension beyond the period of external assistance and into the 21st century much be addressed. The expectation is that with a tighter budge in the next century, extension must reexamine the need for and indeed the economics of free extension service to her farmers as is presently the case. There will be need for increased emphasis on cost recovery or the adoption of a full commercial approach (William 1996).

Appropriate and Environmentally Friendly Agro-Technology

This is a pre-condition for success in any extension set-up. To develop appropriate agrotechnologies that are environmentally friendly for the 21st century, researchers in universities and

research institutes should derive their research issues from the farmers' field problems. To achieve this, they must be linked with the extension system. The implication is that in the 21st century relevance and appropriateness of any research to farmers' field problem will be major criteria for judging the research.

Environmental issues such as desertification, drought, soil erosion and degradation and the adverse effect of agrochemicals are affecting the farmers. Extension will face the challenge of the effect of recommended production practices on the environment and assist the individual farmer to cope with the changing environmental issues. Extension's expected contributions in these issues have also been addressed by Anyanwu (1998).

Qualification and Capability of Extension Personnel

Studies have implicated the low and unsuitable qualification of personnel working in the Nigerian extension service as affecting the effectiveness of the service (Chuta 1992). Majority of our field extension staff are generalists with sub-university qualification such as the Ordinary National Diploma (OND); and the Higher National Diploma (HND) as their highest academic qualification. The extension content of their curricula and indeed their capability for extension work is open to question (Madukwe and Obibuaku, 1991). More recently, bachelor degree holders have been recruited as extension agents. However available records indicate that some of the degree holders have no training even in agriculture as their appointments were politically based. Again, most of the staff occupying very sensitive administrative positions in extension organization in the country today have little or no training in basic extension principles and extension administration.

A good university degree in extension with a strong technological background and rural experience should be the only acceptable qualification for recruiting extension staff in the next century. There should be no substitute for a qualification in agricultural extension, no matter how technologically qualified an intending staff may be.

Specialized Training in Agricultural Extension

Specialized training in agricultural extension compared to training in other areas of agriculture in Nigeria has a relatively recent start. As a result, most of the facilities for effective training of extension staff are lacking. The lack of training facilities is largely attributable to unawareness, ignorance of the need for these facilities on the part of university administrators and academics in the other areas of agriculture. For example, very few universities have programmes in agricultural communication and information technology.

The present undergraduate programme in agricultural extension should be re-designed to expose students to the realities of farmers' condition before graduation. The postgraduate programme of our tertiary institutions should be expanded to retrain most of the existing staff and provide specialist training in different areas of agricultural extension and special areas of agriculture to ensure the availability of capable subject matter specialist (SMS). Thus, in the 21st century, postgraduate programmes should be mounted in the areas of soil extension, crop extension, animal extension, economic extension, etc.

In addition, the research capabilities of some of the field extension workers and academics in Nigeria need to be strengthened particularly in the areas of research design and analysis (Jibowo, 1995). Special short training programmes on modern techniques in agricultural extension research should be mounted for younger academics in our tertiary institutions. This is necessary as more extension workers and academics will be called to participate in the design of field experiments and or interpret information emanating from such research.

Staff Welfare and Conditions of Service

A critical issue that has bedeviled agricultural extension practice in the last four decades is the poor conditions of service of extension workers. Staff turn-over rate has remained high and those left behind have tried to survive economically by doing anything except

extension. Salaries and allowances are low compared to the job input and comparable jobs elsewhere. Transport allowances are perpetually in arrears and the system has no career structure for staff who are mainly unscheduled and, therefore, are contract staff.

To retain competent extension staff in the 21st century, an enticing welfare package and condition of service tailored to the job description and job specification of agricultural extension should be in place and jealously protected.

Extension Content and Methods

Agricultural technology research is breaking new grounds, mainly in the areas of biotechnology, that address farmers' practical problems. Again some content areas such as marketing and agro-forestry which before now were not emphasized are assuming some central position in extension due to global changes. Networking, a new approach in sustainable rural development which involves extension, is an area which continues to gain in popularity elsewhere.

Current thinking tends to emphasize the identification of new methods rather than merely examining and refining existing dominant paradigms (Engel, 1995).

These shifts in emphasis in extension content and methods will become the order of the day at the turn of the century. Agricultural extension must embrace the challenge of catching-up and coping with these emerging technologies if extension will remain relevant.

Similarly, the nature of these emerging technologies will challenge existing extension teaching methods because they may not be amenable to the traditional extension teaching methods in which most of our extension personnel were trained. Appropriate new extension teaching methods (See Madukwe, 1997) should be developed and learned by extension personnel to effectively transfer these emerging technologies to farmers.

Changing Demographic Structure and Farmer Groups

The demographic structure is changing in our rural and urban centers. The thesis that our rural farming areas are dominated by very old farmers due to out-migration of young and able bodied farmers can no longer hold water. The average age of farmers in the rural areas is on the decline, while the average literacy level of the rural farmers is on the increase (Anyanwu *et al.*, 1994). The demographic changes also show an increase of farm activities in urban and peri-urban areas of the country. Again, an increasing number of those that farm in rural locations are urban dwellers.

Madukwe (1995) reported increase in farmer groups. The groups are making specific demands from the extension workers which their pre-service training could not provide.

The challenge of these demographic changes and groupings will require higher skills (technical and teaching) from our extension administrators and agents on how to involve these new breeds of farmers and farmer groups in planning and implementing extension programmes.

Extension and Indigenous Knowledge (IK) Systems

Several studies and field observations have continued to highlight the need to accept the hitherto unrecognized contributions of indigenous knowledge in our agricultural production systems (see for instance, Rolling and Pretty, 1997; Anyanwu, 1998; Igodan and Adekunle, 1993). Indigenous knowledge has therefore, remained underused by development mangers including extension. Nigeria is a pluroethnic society with varying cultural characteristics which also impinge upon the respective farming behaviours. Extension in the 21st century must recognize these variations and, more importantly, recognize the apparent and potential contributions of IK in sustainable agricultural development in Nigeria. Extension, in particular, ought to identify, study and develop, along with the farmers, methodologies for incorporating IK into Nigeria's farming systems.

Agricultural Extension and the Polity

Provision of agricultural extension service is gradually becoming an important issue in the nation's political debates. As the country moves towards a stable democratic political process the

farmers and the public are getting more interested and are demanding for efficiency and accountability in the execution of extension programmes. Contrary to the politically unknown or unexposed extension personnel of today, the extension staff of the future must have the competence to respond to the political demands of the society. The challenge includes meeting the needs of a new breed of farmers who are more politically aware and tying votes to their agricultural extension needs. This is important because, demands for extension resources must be presented to the political machinery in such a way that it gets a comparative share of the nation's resources. Before now, extension in Nigeria appeared to lack the will to sell herself to the political powers in the country.

Emphasis on Gender and Youth Programmes

Despite the prominent role women and youth play in agricultural production, they have received relatively inadequate attention from the country's extension service. There will, therefore, be need to train and recruit more females as extension agents and administrators to implement the various extension programmes that will be put in place, specifically for women. More importantly, agricultural extension activities in the 21st century should be based on a continuous analysis of gender and youth roles in agriculture.

Changes in Information Technology

Revolution in information technology has reduced the world to a global village and has transformed the way in which services that deal with information are provided. Elsewhere, the existing practice is the use of electronic media such as personal computers and telephone lines linked through information networks to agro-data base for extension delivery.

This is one challenge the Nigerian extension service should face at the turn of the century. The skill required to use electronic media for information processing, storage and retrieval, selecting computers hardware and software, developing and supporting computer operations, using management information system to improve personnel, programme and financial management.

improving internal communications and working with mass media is a pre-requisite for any prospective extension work in Nigeria in the 21st century.

REFERENCES

- Anyanwu, A. C. (1998). "Agricultural extension and environmentally sustainable land management". Lead paper presented at the 4th Annual National Conference of the Agricultural Extension Society of Nigeria, Makurdi, (In Press).
- Anyanwu, A. C., Olowu T. A., and Igunnu, J. B. (1994). "Audience survey for radio listening groups in Plateau, Imo and Osun States." A research report prepared for Project NIR/87/014, FAD, Rome.
- Chuta, R. C. (1992). "Comparative assessment of the training needs of senior agricultural extension administrators in Borono and Imo States of Nigeria. Ph.D. Thesis. Department of Agricultural Extension, University of Nigeria, p. 212.
- Engel, P. G. 11. (1995). Networking for sustainability: Towards a new paradigm for extension. In Agricultural Extension in Africa. Proceeding of CTA International Workshop, Yaounde, Cameroon.
- Igodan, C. O. and Adekunle, O. (1993). "Utilization of indigenous knowledge in agricultural production: The role of national agricultural research system." In Olomola, A. S. and Nwosu, A. C. (eds.) Perspectives on food security in Nigeria The Nigerian Rural Sociological Association.
- Jibowo, A. A. (1995). "Major challenges of the Nigerian agricultural extension" Proceeding of the Inaugural Conference of the Agricultural Extension Society of Nigeria. February 28 -- March 4 1994, ARMTI, Ilorin, pp. 9-16.
- Madukwe, M. C. (1995). "Issues in Nigeria's agricultural extension services and their training implications for tertiary educational institutions" *Proceeding of the Inaugural Conference of the Agricultural*

- Extension Society of Nigeria February 28 March 4, 1994, ARMTI, Ilorin. pp. 167-172.
- Madukwe, M. C. (1996). "An analysis of the agricultural knowledge system for the transfer of science and technology in Nigeria" Journal of Agriculture Technology and Education. 1: 53-56.
- Madukwe, M. C. (1997). "Categorization of target groups as an agricultural extension survival policy: A case study of the yam minisett technology in south eastern Nigeria" Journal of Agricultural Extension. 1: 1-18.
- Madukwe, M. C. and Obibuaku, L. O. (1991). "Effects of personal factors on the effectiveness of extension supervisors" Nigerian Journal of Agricultural Extension. 6 (1 and 2): 34-39.
- Obibuaku, L. O. and Madukwe, M. C. (1992). "Institutional framework for transfer of agricultural technology to resource-poor farmers in Nigeria" *Journal of Extension Systems* 8(1 and 2): 103-113.
- Olayide, S. O. and Ogunfiditimi, T. J. D. (1998). "Agricultural extension and Nigerian small farmers" In: Olayide, S. O., E. A. Eweka and V. E. Bello-Osagie (eds). Nigerian Small Farmers: Problems and Prospects in Integrated Rural Development.
- Rolling, N. and Pretty, J. N. (1997). "Extension's role in sustainable agricultural development". In" Swanson, B. E., Bentz, R. P. and Sofranko, A. J. (eds.). Improving Agricultural Extension. A Reference Manual. FAO, Rome.
- Williams, S. K. T. (1995). "Issues and priorities of agricultural extension in Nigeria in the 21st century". Proceeding of the Inaugural Conference of the Agricultural Extension Society if Nigeria, pp. 7 12.