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Analysis of Factors Associated with the Privatization and Commercialization (P and C) of Agricultural Extension Services

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I. INTRODUCTION

Worldwide, the public sector plays a dominant role in the provision of agricultural extension services (Lees, 1990). The public extension system is now seen as outdated, top-down, paternalistic, inflexible, subject to bureaucratic inefficiencies, and therefore unable to cope with the dynamic demands of modern agriculture (Rivera, Zijp and Gary, 2000). The failure of public sector extension has been attributed to a number of factors including poorly motivated staff, a preponderance of non-extension duties, inadequate operational funds, lack of relevant technology, poor planning, centralized management and a general absence of accountability in the public sector (Antholt, 1994). In general, public extension services have consistently failed to deal with the site-specific needs and problems of farmers (Ahmad, 1999).

As a result of the relatively poor performance record of the public extension, many countries are

modifying the existing agricultural extension system, so as to meet the current challenges. There is a rapid evolution in the institutional arrangements governing agricultural extension in many parts of the world with a greater emphasis being placed on the P and C of extension services. According to Hassan (2004), the primary reason behind the agricultural extension P and C in several countries was the declining trend in government expenditure for extension. Financial burden have forced governments to make sharp reduction in the budget of public extension programmes (Van den Ban and Hawkins, 1996). Cases vary greatly in scale and in the mechanisms, which governments have used to divest themselves of the burden of financing and providing extension services (Ameur, 1994; Rivera, 1997).

The basic concept of P and C is that farmers have to pay for the services which they receive. This implies that agricultural extension would be run as a profit – oriented enterprise. Whether farmers pay totally or partially, it depends on the extension approach. Farmers may pay full amount or part of the fee. Government or other funding agency could subsidize it partially. Extension provider can be a government or semi-government organisation, private company, non-governmental organisation, and cooperative or farmers organisation. The important point is that the farmer has to bear at least some percentage of the total cost of the extension service and extension service providers are paid for their services. Agencies involved in the P and C depend for their annual budget on consulting fees received from farmers and contractual arrangements with government for the supply of policy information and rural intelligence. According to Hercus (1991), P and C can be a strategy for achieving a positive effect on moving “beyond the farm gate” into an involvement of extension staff in the entire production - processing - transportation - marketing chain. In the same vein, Rivera and Cary (1997) observed that P and C will broaden the focus of extension personnel and make the extension service more responsive to client needs and changing economic and social conditions.

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II. FEATURES OF PRIVATIZATION AND COMMERCIALIZATION OF AGRICULTURAL EXTENSION SERVICES IN DIFFERENT COUNTRIES

Diverse agricultural extension funding and delivery arrangements have been undertaken since the mid-1980s by governments worldwide in the name of "privatization". When agricultural extension is discussed, privatization is used in the broadest sense – of introducing or increasing private sector participation, which does not necessarily imply a transfer of designated state – owned assets to the private sector (Rivera and Cary, 1997). At least three scenarios have been suggested by government and farm organisations with regards to privatization of extension:

1. Public financing by the taxpayer only for the kinds of services of direct concern to the general public;
2. Direct charging for some individuals with direct return (in the form of improved income); and
3. Mixed funding shared between public and private professional association contributions for some services where benefits are shared (Le Gouis, 1991).

These methods of privatization are typical in France, the United Kingdom, and the Netherlands. In France, nearly three- quarters of the total resources for the operation of the system are collected at the farm level through direct payment (voluntary fees from farm

organisations such as cooperatives, compulsory fees levied in the form of taxes on a variety of products or land taxes collected by Chambers of Agriculture). The British system promotes direct payment by users without privatization of extension services. The public agency responsible for research and extension, the Agricultural Development and Advisory Service, is responsible for such tasks and relies on government employees to carry out the work (Van den Ban, 2000).

Under the Dutch system, the transfer of responsibility and funding from the public to the private sector has been limited to about half of the extension staff, with the remaining half still budgeted and managed by the Ministry of Agriculture. Van den Ban and Hawkins (1996) suggested different ways in which farmers can contribute to the cost of services under privatised extension services to include: (a) They can pay a fee for each visit an extension agent makes to their farm, which is, also, the way consulting firms are paid in many other branches of industry; (b) A levy can be charged on certain agricultural products from which agricultural research and extension are financed; (c) Costs can be met from membership fees paid to farmers' association; and (d) The extension service can receive a specific portion of the extra income a farmer earns as a result of advice given by the extension agent. Experiences of different countries with regard to privatization of extension services are presented in Table 1.

Table 1 : Features of privatization and commercialization of agricultural extension services in selected countries

Country	Features
Britain	The Agricultural Development and Advisory Service of the Ministry of Agriculture and Food charges fees for services of direct benefit to the clients
Norway	While the government pays salary, the farmers' circle pays the operational fees (as 50:50 cost sharing agreement).
Mexico	Attempting to shift at least half the cost of extension services to farmers' groups in irrigated areas. It is emphasizing cost cutting through privatization
Korea and Taiwan	The cooperative (government farmer associations or farmer arrangement) structure of extension has been developed in these far eastern countries
Chile	The government provides funds (maximum of 80% of total cost of project) to private technology transfer consultancy firms
New Zealand	Private consultants play an important role in agriculture in this industrialized country
Canada	Commodity groups fund and control their own extension agronomists.
Turkey	Extension cost is shared between farmer groups and the Government through the chambers of Agriculture
Colombia	Municipalities pay for all extension services out of local tax revenue.
China	Farmers' associations contract technical services from public officials who receive bonuses from the clients
Ecuador	Farmers provide labour, land and water, the extension agent provides technical advice and inputs in exchange for a share in the harvest
Costa Rica	The government allocates a certain budget to support several basic extension services by private extension staff.

Sri Lanka	A platform for the identification, organisation, financing and quality control of farmer-driven service delivery
Kenya	The contracting private firms provide extension advice to the contracted farmers

Source : Hassan, S. (2004) *Agricultural Extension Privatization: An analysis of Different financing schemes*. PP. 932-940

The most striking feature in the new forms of financial support for extension is the trend to mixed sources of funding, reflecting strategies to gain access to additional sources of funding. In several developing countries, public/private extension coordination is already established. Alternative patterns indicate a fostering of private corporate initiative, encouraging cooperative ventures by farmers, coordinating public-private extension service, and privatising the public system (Wilson, 1991). The need for improved and expanded extension activities, together with a strengthening philosophical view of less government involvement in national economies has led to a number of strategies for changing the way extension services are delivered.

Rivera and Cary (1997) identified extension privatization strategies that have been practiced to include:

- (1) *Revitalization*: which involves alterations in structure and programmes as in the United States of America
- (2) *Commercialization*: which involves a public agency operating user-pay advisory service as in New Zealand?
- (3) *Cost Recovery*: which entails paying a fee for advise which formerly was free of charge as in Mexico and England;
- (4) *Voucher Systems*: in which public extension delivery systems have been replaced by vouchers distributed by government services for farmers to use in hiring private extension consultants (as in Chile). Coupons attached to agricultural bank loans, committing a certain percentage of the loan for extension services, have been used in Colombia;
- (5) *Gradual privatization*: in which public extension personnel with initial government financial support are transferred to farmer associations. In 1990, the Netherlands utilized the gradual privatization strategy to privatise approximately one-half of its public extension by transferring field extension personnel with initial government financial support to the farmer associations (Le Gouis, 1991). The elements of the extension service responsible for linking research and the privatized extension services, policy preparation, implementation, and promotion and regulatory tasks remained under the aegis of the Ministry of Agriculture. The "privatized" extension service is governed by a board on which farmers' organisations and the government is equally represented (Proost and Roling, 1991).

Other forms of privatization arrangements included: the use of private sector companies,

consulting boards funded by the dairy Other forms of privatization arrangements included: the use of private sector companies, consulting boards and non-governmental organizations. For instance, while in France the Chambers of Agriculture and private sector companies provide extension services, the dairy consindustry deliver extension services to the dairy industry in New Zealand. In other cases, non-governmental organizations have been used to supplement public sector extension services, especially in the area of rural development (Amanor and Farrington, 1991). This arrangement has certain advantages for increasing extension coverage and encouraging farmer participation in technology systems, but it also has certain limitation

Rivera and Cary (1997) observed that where the public sector provides extension, the alternative funding arrangements include:

1. General tax-based public funding for agriculture, including funding of agricultural extension services, that is, the traditional public sector mode of funding extension;
2. Commodity tax-based public funding (through cess or parafiscal tax) for example on agricultural commodity such as cocoa or oil palm;
3. Fee-based public funding, in which fees are charged, usually to large farmers for extension services, and
4. Contract-based commercialization of public services, whereby contract-based arrangements are made between farmers and public sector extension services.

Where the private sector provides extension, the alternative funding arrangements include:

1. Government revenue-based vouchers, provided to farmers who then contract private sector agents for extension information provision;
2. Public credit revenue-based coupon schemes attached to agriculture loans, obligating the farmer-borrower to use a percentage of the loan for extension advising purposes;
3. Membership and fee-based, including commodity tax-based funding, whereby farmers pay membership and service fees, and the private organisation (e.g, chamber of agriculture) also receives funds through a public cess or Para fiscal tax charged on agricultural commodities, which funds are then transferred to the private sector organisation; the private sector then provides the extension services-although public sector officials generally sit on the chamber's governing board;

4. Membership fee plus commercial sponsorship by groups of input suppliers, where farmer groups are provided non advisory, educational extension services by a consortium of privately employed consultants with partial financial support from rural sector commercial sponsors-such groups can operate on a large scale, with coordinated extension objectives; and
5. Privatization, whereby provision and, eventually agent salary payments are shifted to a farmers' association or other private entity.

Commercialization of agricultural extension service (CAES) can be viewed from three main perspectives. First, agricultural extension is considered as a commercial product or service, which is exchanged between two parties over required payment. Simply, one party (the extension service providers) acts as sellers and the other party (farmers) acts as buyers. Secondly, it is applied basic economic theory of supply and demand. In this process, agricultural extension service becomes totally a demand-oriented activity. Third, extension service can also be considered as an input such as fertilizer, improved seeds, agro-chemicals, machinery, amongst others which is essential for the commercially oriented farming. As farmers have to pay for other inputs, they have to pay for extension service also.

P and C of agricultural extension services are influenced by several factors. It is therefore imperative that governments and other stakeholders in extension service delivery become aware of these factors which are crucial in deciding about P and C programmes. It is in view of this fact, that this study was conceived to examine the various factors that pose as challenge to effective P and C programme in agricultural extension.

III. METHODOLOGY

The study was carried out in Delta State, Nigeria. Extension professionals of the Delta State Agricultural Development Programme (DTADP) formed the population from which sample was drawn. Extension professionals of the DTADP is composed of 150 extension agents (EAs), 25 block extension agents (BEAs), 25 block extension supervisors (BESs), 12 subject matter specialists (SMSs), 3 zonal extension officers (ZEOs); 3 zonal managers; 10 directors of sub-programmers; 29 heads of component programmes and 1 programme manager (PM). For the purpose of the study, the PM, ZEOs and ZMs were purposively selected because they were few in number. For the others, 50% proportionate random sample was drawn. This sampling procedure gave rise to a total of 134 extension professionals that were used for the study as shown in Table 2.

Table 2 : Population and sample composition

Category of extension professionals	Total no.	No. sampled
Programme manager (PM)	1	1
Extension agents (EAs)	150	75
Block extension agents (BEAs)	25	13
Block extension supervisors (BESs)	25	13
Subject matter specialists (SMSs)	12	6
Zonal extension officers (ZEOs)	3	3
Zonal managers (ZMs)	3	3
Directors of sub-programmes (DSPs)	10	5
Heads of component programmes (HCPs)	29	15
Total	258	134

Data for the study were collected through the use of validated questionnaire. Content validation of the research instrument was done by team of experts in agricultural extension. Trained assistants in addition to the researcher collected the data for the study. A pilot test was conducted as part of instrument validation and to test for reliability of instrument. To obtain a quantitative measure of factors that are associated with the P and C of agricultural extension service, a list of 21 constraints was drawn through a review of literature. Responses to the level of importance of these constraints were measured on a 4-point Likert-type scale with values of very important=4; important=3; barely important=2; and not important=1. These

responses were then factor analyzed using the principal model with iteration and varimax rotation to ascertain important factors. Variables with coefficient of 0.40 or more were regarded to have high loading.

IV. RESULTS AND DISCUSSION

a) Factors associated with P and C of agricultural extension services

Data in Table 3 show the factor analysis of constraints to privatization and commercialization of agricultural extension services. Based on the item loadings, factor 1 was named "unfavourable economic environment. Factor 2 was named "misgivings about

private agencies”, while factor 3 was named “government administrative and policy inadequacies”. Specific issues highlighting “unfavourable economic environment” as a factor in the implementation of P and C of agricultural extension services include: reluctance on the part of farmers to pay for extension services (0.58), farmers’ poor economic background (0.53), difficulty in attaching monetary value to extension services (0.67), unequal access to farm resources (0.65), exploitation by extension service providers (0.58), and corruption and nepotism among extension staff (0.63).

These constraints are critical to the effective implementation of P and C programme. For instance, poor economic background of the farmers stemmed from the fact that majority of them are engaged in subsistence farming using crude implements with low capital outlay and low yielding species of crops and animals which usually results in low income. Similarly, the difficulty in attaching monetary value to extension services has been identified as a crucial factor in P and C. According to Rivera and Cary (1997), the most obvious shortcoming in extension P and C may be the difficulty of collecting user fees and establishing cost-accounting procedures to set charges at appropriate levels.

Specific issues which amplify “misgivings about private agencies” as a factor in the implementation of P and C of agricultural extension services include: fear of job insecurity (0.75), irresponsiveness of extension service providers to clients’ needs (0.44), tendency to focus more attention on large-scale farmers thereby neglecting the small-scale farmers (0.65) and poor capacity building of extension staff (0.42). Restructuring in privatized and commercialized enterprises usually brings about the fear of layoffs and job losses among the staff. Similarly, the need to make profit and remain in business may force private extension service providers

to focus more attention on the large-scale farmers who are likely to have the resources needed to pay for services. Furthermore, client needs which are not likely to yield profit may be excluded from the services to be provided.

Specific issues highlighting “government administrative and policy inadequacies” as a factor in P and C of agricultural extension services include: administrative and bureaucratic bottlenecks in policy implementation (0.59), political instability (0.60), unfavorable government policies on P and C (0.43), poor linkages between research and extension (0.63), inadequate government legislation to backup P and C programmed (0.64), inadequate government guarantees, regulations and control over extension service providers’ excesses and abuses (0.63), and lack of ready market to sell increased farm output as a result of improved extension services (0.60). Delays in bureaucratic procedures usually slow progress in the implementation of government programmes. This is partly derived from the non-preparation of the government for many of the difficulties encountered in programme implementation (Odii, 2001).

According to Obadan and Ayodele (1998), one of the crucial components of P and C programme is the creation of an appropriate regulatory framework that would promote contestable markets and protect public interest. An effective and efficient regulatory framework, in the form of rules, regulations, guarantees or policies including competitive policy or mechanism for monitoring and enforcing compliance with the rules or policies ensures that the owners of privatized enterprises do not trample upon the rights of workers and clients. Furthermore, there is also the need for any P and C programme in agricultural extension to include a guarantee for ready markets to sell farm outputs. This will help build the confidence of farmers in the programme.

Table 3 : Analysis of factors associated with and C of agricultural extension services

S/N.	Constraints	Factor 1 Unfavourable economic environment	Factor 2 Misgivings about private agencies	Factor 3 Govt. administrative and policy inadequacies
1.	Fear of job insecurity among extension staff	- 0.21	0.75	0.10
2.	Lack of farmers’ interest in extension programmes	0.31	- 1.72E – 02	0.27
3.	High risk and uncertainty in agriculture	0.17	0.29	0.27
4.	Insufficiently trained extension personnel	0.58	4.17	0.20
5.	Reluctance on the part of farmers to pay for extension services	0.58	5.95E – 02	0.34
6.	Administrative and bureaucratic bottlenecks in policy implementation	0.27	0.16	0.59

7.	Farmers' poor economic background	0.53	6.67E – 02	0.01
8.	Difficulty in attaching monetary value to extension services	0.67	1.65E – 02	5.30E – 02
9.	High level of subsistence farming	- 1.12E – 02	0.55	0.43
10.	Political instability	9.57E – 02	5.75E – 02	0.60
11.	Unequal access to farm resources	0.65	0.29	- 3.32E – 02
12.	Exploitation by extension service providers	0.58	2.73	8.90E – 02
13.	Unfavourable govt. policies on privatization and commercialization	7.53E – 02	0.35	0.43
14.	Irresponsiveness of extension service providers to clients' needs	- 8.50E – 02	0.44	0.30
15.	Poor linkages between research and extension	- 0.30	0.20	0.63
16.	Inadequate govt. legislation to backup privatization and commercialization programme	8.47E – 03	0.38	0.64
17.	Inadequate govt. guarantees, regulations and control over extension service providers' excesses and abuses	1.94E – 02	0.31	0.63
18.	Tendency to focus more attention on large-scale farmers thereby neglecting the small-scale farmers	0.21	0.65	6.65E – 02
19.	Corruption and nepotism among extension staff	0.63	0.16	8.57E – 02
20.	Poor capacity building of extension staff	0.35	0.42	- 7.27E – 02
21.	Lack of ready market to sell increased output as a result of improved extension services	0.25	- 4.44E – 02	0.60

V. CONCLUSION

The need for improved and expanded extension activities together with a strengthening philosophical view of less government involvement in national economies has led to the recent emphasis on P and C of agricultural extension services worldwide. P and C do not aim at substituting private sector for public extension services. They essentially aim at a reduction in the role of public sector and an increased role of private initiatives in agricultural extension. Presently, there are different forms of public/private extension coordination in several countries.

Many factors are known to pose as challenge to effective operation of P and C of agricultural extension services. This study identified three main factors that are associated with P and C to include: unfavourable economic environment, misgivings about private agencies and government administrative and policy inadequacies. Specific issues highlighting each of these factors were also identified. These factors are critical to the success of any P and C programme in agricultural

extension. The study therefore recommends that adequate attention should be given to these factors before embarking on any form of P and C arrangement.

REFERENCES RÉFÉRENCES REFERENCIAS

1. Amanor K, and Farrington J 1991 NGOs and agricultural technology development, In: W.M. Rivera and D.J. Gustafson (eds.) *Agricultural Extension: Worldwide Institutional Evolution and Forces for Change*. Amsterdam: Elsevier.
2. Ameer C 1994 Agricultural extension: A step beyond the next step. *World Bank Technical Paper No. 247*: Washington D.C: the World Bank
3. Ahmad M 1999 Comparative analysis of the effectiveness of agricultural extension work by public and private sectors in Punjab PhD Thesis, University of New England, Armidale, NSW
4. Antholt CH 1994 getting ready for the 21st century: Technical change and constitutional modernization in agriculture, *World Bank Technical Paper No. 217*. Washington D.C. The World Bank

5. Hassan S 2004 Agricultural extension privatization: An analysis of different financing schemes. *Proceeding of the 20th Annual Conference of Association for International Agricultural and Extension Education*, Dublin, Ireland: 932 – 940
6. Hercus JM 1991 the commercialization of government agricultural extension services in New Zealand. In: W.M. Rivera and D.J. Gustafson (eds.), *Agricultural Extension: Worldwide Institutional Evolution and Forces for Change*. Amsterdam: Elsevier.
7. Lees JW 1990 *More than Accountability: Evaluating Extension Programmes*, Armidale NSW: The Rural Development Centre, University of New England.
8. Le Gouis M 1991 Alternative financing of agricultural extension: recent trends and implications for the future. In: W.M. Rivera and D.J. Gustafson (eds.), *Agricultural Extension: Worldwide Institutional Evolution and Forces for Change*. Amsterdam: Elsevier
9. Obada MI, and Ayodele SA 1998 *Commercialization and Privatization Policy in Nigeria* Ibadan: NCEMA.
10. Odii MACA 2001 Problems and prospects of privatization of public enterprises in Nigeria, In: Olowu, T.A. (ed.), *Proceedings of the 7th Annual National Conferences of Agricultural Extension Society of Nigeria*, Ilorin: 12 – 18.
11. Proost J and Roling N 1991 Going Dutch in extension, *Interpaks Interchange*, vol. 9 (1): 3 - 4. Rivera, W.M. (1997). Agricultural extension into the next decade, *European Journal of Agricultural Education and Extension*, 4 (1): 29 – 38.
12. Rivera W M, and Cary JW 1997 Privatizing agricultural extension, In: B.E. Swanson, R.P. Bentz and A.J. Sofranko (eds.) *Improving Agricultural Extension – a Reference Manual*, Rome: FAO: 203 –211.
13. Rivera W Zijp W and Gary A 2000 Contracting for extension: Review of emerging practices. Akis Good Practice Note, Agricultural Knowledge Information System (AKIS). Thematic Group, Washington, D.C: World Bank.
14. Rivera W 2001 *Agriculture and Rural Extension Worldwide: Options for Institutional Reform in Developing Countries*. Rome: FAO
15. Van den Ban AW 2000 Different ways of financing agricultural extension. *Agricultural Research and Extension Network* UK: Department for International Development.
16. Van den Ban AW, and Hawkins HS 1996 *Agricultural Extension (2nd Edition)*. Oxford: Blackwell Science Ltd; Publishers.
17. Wilson M 1991 reducing the costs of public extension services: initiatives in Latin America. In: W.M. Rivera and D.J. Gustafson (Ed.). *Agricultural Extension: Worldwide Institutional Evolution and Forces for Change*. Amsterdam: Elsevier.

