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The Role of Agricultural Extension Programs in the Development of the Agricultural Sector in Sierra Leone

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Abstract

Sierra Leone, which has three-quarters of its 72 million hectares of land suitable for crop production on a sustainable basis and is being classed by Food and Agriculture Organization (FAO) as Low-Income Food Deficit Country (LIFDC) has 57.9% of households engaged in agricultural activities to include crop farming, livestock, poultry, fishing, hunting and exploitation of forest products.

A package of statistical tools for social scientists was used in data collection and analysis. The outcomes of these data when these statistical tools were employed reveal that all the most widely accepted extension services do impact positively agricultural output. Among the reported extension programs, general extension is the most paramount. This is due to the many small farm holders as almost all of them practice mixed cropping. The research also surfaced the challenges that are associated with the adoption of these programs. Among the responses, the most cited issue or challenge has to do with finance followed by inconsistence in monitoring and illiteracy. The rationale for this, as revealed by the search result, is that with adequate funding, demonstration materials could not be a problem. Essential teaching and communication materials would not be an issue too; logistics and recruitment and more training of extension workers would not be seen as challenges.

In the survey,the target population included farmers, extension agents and extension researchers, as well as the Agricutral Extension Services Division (AESD)-Ministry of Agricuture, Forestry and Food Security (MAFFS). Qualitative analyses and social sciences' statistical tools were employed in the analysis of data collected. The challenges found were although illiteracy of farmers, problems with monitoring, inadequate funding and demonstration materials, etc; but first of, the results showed a positive relation between awareness about extension programs and their adoption . Further, all those implementing the techniques of extension experience much better yields with quality and now have much better living conditions. For those challenges, it is therefore recommended that access to information should be enhanced, much better communication skill training should be given to extension agents and more funds should be made available to the AESD-MAFFS.

Keywords: Extension services • Productivity • Qualitative analysis • Farmers • Socio-economic • Transformation • Sierra Leone

Introduction

Considering the status of Sierra Leone's agricultural sector, it is no contentious that the role of extension programs to boosting agriculture is crucial. Extension services are the different programs/projects/recommendations, which the extension service makes available to their clientele through the use of extension education process [1-3]. Agricultural extension includes the provision of timely information, the linking of farmers with sources of farming inputs and credit facilities and most importantly, the provision of education services to farmers [4]. The agricultural sector is a key in almost every nation's economy world over. The success stories of several developed nations transpire that their developmental stance was on the basis of firstly to develop their agricultural sector, in which case, extension programs were focal. The adoption of new technologies and improved methods of production in agriculture have catapulted these iconic nations. However, in Sierra Leone, the story is on the contrary. Vividly, the rationales are many; to include inadequate extension agents to transfer new technology to farmers, perception of farmers about costs- benefits of adopting new technology in farming, inaccessibility of most farmers' residential homes, and a lot more.

Generally, in Africa, Sierra Leone in particular, smallholder farmers dominate the agricultural sector and are predominantly engaged in food crop production. The Sierra Leonean economy remains predominantly agrarian. Agriculture continues to employ at least 70 per cent of the national labor force and contributes more than 40 per cent of Gross Domestic Product (GDP)

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[1]. Interestingly, a smallholder farmer, the dominant group in the agricultural sector which is the largest contributor to the economy of Sierra Leone, is the majority in the vicious cycle of poverty and underdevelopment (New Agriculurist). Although the challenges faced by these farmers are numerous, but apparently, the fundamental of all is the inaccessibility to, or unavailability of quality extension programs/services.

Over the last two decades, emphasis has been continually laid on the boosting of agriculture to ensure food security. Strategic documentations – including The Green Revolution, Operation Feed the Nation, National Sustainable Agricultural Development Strategy, The Food Security Policy (FSP), National Rice Development Strategy (NRDS), etc.; were formulated and implemented, as well as the establishment of institutions – Sierra Leone Agricultural Research Institution (SLARI), etc.; which the country could relies on for effective implementation of those programs. Yet, the nation is being ranked as the third hungriest country in the world (GHI, 2015).

According to Comprehensive African Agriculture Development Program (CAADP), The consequences of poor extension service delivery to smallholder farmers has brought in its trail characteristic poor agronomic practices; poor harvest management challenges; inefficient use of inputs; abuse of pesticides; low adaptive capacity for research and technology uptake; and inadequate access to auxiliary information that could help increase agricultural productivity. In view of this, agricultural extension programs, though available, should be improved upon; as well as its accessibility to, acceptance and adoption by farmers should be ensured.

Growth in the agricultural sector is pro poor. A boost in the sector trickles down to other sectors, unlike some sectors such as the mining. The sector does not only tend to feed the nation, but its interaction and correlation with almost every other sector in the economy make it stands conspicuous among them all. Certainly then, usually, the stability of a nation (socially and politically) is achieved only on the basis that the nation possesses a very stable and strong agricultural base.

This fact lies on the premise that one of the primary requirements of a nation is food security. Sierra Leone being the case study has an agricultural sector upon which from time in memorial her people have been dependent,

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and have in several ways tried to boost it. From that inception up-to-date, the objectives have never been achieved. A bulk of the people still goes to bed hungry despite the many policies and programs undertaken.

Basically, the extension sector in the agricultural industry plays crucial role, yet the activities of the majority of farmers in this part of West Africa are just merely of small-to-medium sized family farm growing crops, raising livestock, and producing livestock products like milk; coupled with problems of credit facilities, marketing, budgetary allocation, land tenure system, inconsistent agricultural policies, people's orientation about agriculture and above all agrarian techniques. With institutions such as National Agricultural Research Institute (NARI), National Agricultural Research Coordinating Council (NARCC), National Agricultural Advisory Service (NAAS), Sierra Leone Agricultural Research Institute (SLARI), etc. – bearing the responsibility of informative agricultural extension programs created on food security (its fundamental goal), on the lives of the many small farmers and generally, on national development? These are the issues this paper is going to investigate.

The intendedaims of this paper are:

- To increase and improve upon the available agricultural production techniques.
- To ensure that the diversified and improved system of production further guarantees environmental protection, as well as the wellbeing of the farmers.
- 3. And to stimulate national development.

Specifically, this paper aims at improving the living standard of farmers via the provision of knowledge and help for better farm management and increment in incomes.

Literature Review

Theoretical framework

contended that as principles in any field of knowledge provide the foundation stone of laws and manners of carrying out research and development activities in a systematic way to achieve the desired goals and objectives, the field of agricultural extension is not an exception that following the five principles below would yield the optimal result of extension services [5].

Individuals are at core of a society: This principle sees the full effect of the adoption of extension programs only if farmers targeted are contacted individually. They stated the rationale as such that every farmer has different problem and requires peculiar solution to the problem.

It does not acknowledge the money value of time. It is obvious that, as shown by statistics, the agricultural sector employs about 75% of the population; therefore, contacting each and every farmer in order to determine the method of extension to adopt in a given area is more or less putting the people into starvation, considering the urgency of the need for food availability and sufficiency and besides, this has 'trickling' effects. This is more serious in Sub Saharan African countries like ours.

Also, the system of landownership in our country stands as limitation to this principle. For instance, in the communal landownership, lands are not assigned to members permanently. This means that problems faced by a farmer on a given piece of land might be different by those faced on another piece.

Although the principle at some degree is fine as it attempts to address the challenges of each and every farmer – but however impossible, a better stance could be developing and adopting an extension system with which the rural/farming community would be at social optimum; i.e. following a cardinal approach would not be an optimum solution as following the ordinalists' dictate (such as that of Pareto).

Encouraging and utilizing indigenous talent: According to this

principle, the coined term "indigenous talent" includes the local elders/leaders of a community and the educated youth.

This principle shelters two (2) basic steps that should be acknowledged before taking an extension program, and if so well done, the result would be encouraging. First, the extension officer should contact and take into consideration the elders or leaders of the society and secondly, he should use the participatory approach of youth involvement such that they should be enlightened about the relevance of agricultural extension and the extension program that is going to be adopted in their area.

The principle seems bright in its second segment; however, it does not tell us or does not specify the functions of the elders or leaders in the extension program.

Access of extension services in remote areas: This principle calls for consideration of less privileged and remote areas for the benefit from the adoption of new technology. In this way, extension programs would be sustained and their objectives would be attained. This principle is a "leaving no area behind" principle.

Providing education: This principle sharpens the relevance of educating the rural household/farmer about the significance of adopting extension methods; and the knowledge about extension method is focal. The rationale is that an extension program is more or less science and technology which means a systematized and procedural one. Thus, any mistake would tamper the result/output. As a result of this, the extension agent should be equipped with modern and innovative knowledge so that he could transfer this knowledge well and on time to the farming community. He should also have good communication and teaching qualities.

Implementing the education: of what use is an asset when it is not put into use for its actualization? This is exactly what this principle is all about. Agricultural extension is not just educating the farmers what actually it is and its relevance but also putting into practice what is being learnt. Therefore, as an extension agent, you should buy the trust and confidence of the rural community such that they would put into practice what has been learnt.

Empirical Literature

It is used a proportional stratified sampling method to illustrate how magnificent the missing link is between researchers, extension staff and farmers, using mangrove swamp rice cultivation in Sierra Leone as a case study. In one of their basic research questions, "what major sources of ideas do researchers use for setting their research priorities, and what major sources do farmers use for obtaining farming information and improved mangrove rice varieties?", of the researchers interviewed, 24% submitted that their major source of ideas for setting their work priorities is from their fellow research staff members, 58% reported that their research objectives are determined by their research institute and only 8% perceived farmers as a source of ideas for setting their research agendas [6]. The other group (the extension workers) was just more balanced in their responses. 29% reported fellow extension staff workers as source, anther 29% reported farmers' opinion as a major source and 13% reported other sources.

In view of these data, it is obvious that researchers use a top-bottom approach in devising better methods of farming. This is all the more reason some of these methodologies are not adoptable. In fact, those responsible to reach out to farmers to sell out the new methods and also take record of their constraints are not in touch with the rightful persons (farmers), and this therefore makes farmers to access information only from their fellow farmers and family members.

Concluded therefore that the infrequent contacts among rice researchers, extension staff and farmers do not provide adequate opportunity for feedback of information and as such, it is necessary to modify the current top-down research approach that exists in Sierra Leone so as to encourage more active participation by farmers and extension staff [6,7]. The findings by qualify those of that a top-down approach may ignore multiple sources of knowledge (particularly the target group farmers).

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Citing the studies on the Training and Visit system in Burkina Faso and Kenya on the basis of results showing high returns to extension but later utilized for data errors and limitations, Davies contended that extension impacts are very difficult to show. Many infrastructural variables and other factors affect agricultural performance in complex and contradictory ways and benefits are difficult to quantify. In spite of all these however, in general, extension has been shown to have significant and positive effects on knowledge, adoption and productivity. He rigorously argued that the highest pay-offs to extension occur in developing countries that are catching up with industrialized countries and with farmers who have access to schooling, technology and extension.

Interestingly however, he was able to assess and evaluate the different approaches to agricultural advisory system adopted in several African countries, their failures and/or successes, yet he contended that the impacts of agricultural extension programs are very difficult to show. This is interesting to know.

Nevertheless, he was able to determine very good models which include Farmer Field School (FFS) approach; the Indian ATMA market driven approach; and pluralistic, demand-driven models that incorporate the use of information and communication technologies and when implemented in a flexible, participatory, and sustainable ("smart") way that meets the unique frame conditions and farming systems, can lead to improved extension performance and positive impacts that policymakers are looking for in SSA.

In their discussion paper reviewed 47 studies undertaken in 17 countries plus one international study covering 24 developing countries. In this review, they found out that most studies measured positive impacts of extension. According to them, only 10 studies report estimated returns to investment in extension, and this did report relatively high rates of return and demonstrated that agricultural extension in a number of countries has been a high pay-off public investment [8].

According to them, this pay-off depends on how the adoption and use of extension services and methods are applied. This means that given the modified available technology, management is another factor that influences this pay-off. According to them however, "effective" agricultural extension can close both the technology and management gaps.

"Diffusion of scientific knowledge in the agriculture sector in Africa, particularly in Sub Saharan African (SSA) countries, is dominated by traditional extension service that is slow, linear, hierarchical, and poorly funded." Their argument is based on public-private co-operation, prior consideration of the needs of the farmers by researchers and their institutions and most importantly, translational research which they believe would help bolster the existing knowledge diffusion practice. Explicitly, according to them, the role which the extension service has played in the field of agriculture has been blurred owing to the way the knowledge is being translated [9]. Therefore, the most important task is not to re-create new knowledge, but to acquire and effectively use existing knowledge to fuel further knowledge creation and spur more innovation.

According to it is economic liberalization that has influenced the mode of providing extension services in Africa. The style of decentralization and popular involvement of partners in extension services seem to be new and limited in coverage. The paper therefore recommends a liaison by each African country with every available stakeholder that will enhance availability and use of agricultural extension services due to its research outcome that countries where partnership with various stakeholders such as nongovernmental organizations, farmers cooperatives, private sector service providers; is being practiced seems to enhance availability of extension service to farmers who would have not had the opportunity. As opposed to recommendation of modifying the top-bottom approach, this paper recommends bottom-top approach that is people centered which would enhance popular participation, understanding and recognition of farmers' indigenous knowledge and experience; and so on [10].

Additionally in their examination of the systems of agricultural extension in some West African countries concluded that transnational corporations develop a wide range of new technologies which directly impact on agricultural

production in developed and developing countries. In some of these West African countries, the prevailing agricultural extension agenda do not accommodate these new forms of modified and improved technologies. As a result, sincere reform of such agendas is necessary and as such would ensure efficient and transparent local development planning and management. Therefore, doing so will enhance project sustainability and promote agricultural development [11].

However who thought it helpful to see extension as both a system and set of functions performed by that system to induce voluntary change among rural people mention that although currently about 80% of the world's extension services are publicly funded and delivered by civil servants, and further, government may fund, staff or facilitate extension by establishing conducive regulations and policies for other providers - and it may pursue a range of purposes, yet, some of the generic problems of extension are caused in part by this complexity. Changes and challenges affecting extension are symptomatic of wider forces at work in society. These generic problems inherent in extension functions include: scale of complexity, dependence of extension on the wider policy environment and other agency functions, inability to trace cause and effect, commitment and political support, accountability, liability to public service functions beyond agricultural knowledge and information transfer operating sources and fiscal sustainability, and interaction with knowledge generation [12].

Methodology

Organization of the study

A visit, spanning from 11th to 17th January 2020 was made to Kambia District, one of the country's leading districts in agriculture. The purpose of which was to collect data relating to this work from three groups of people. The groups were such that one cannot attain any objective of such studies without their participation or without them. They include:

- Researchers
- · Extension agents and
- · Farmers themselves

Further, to determine where extension services are sounder, data on preplanting, planting and post-planting activities via extension programs were obtained. Also, comparisons were made between yields where extension programs were adopted and where they were not.

Among the 14 districts in the country, Kambia district found in the North part of the country was selected. The district is 3,100 Km² in area with a population of about 280,000 It is divided into seven chiefdoms including Mambolo, Samu, GbinlehDixing, Magbema, Masungbala, TonkoLimba and Bramia. Agriculture is the main industry in Kambia into which 80% of the whole district's population engages. The district has farmers' organizations and Community-Based organizations (CBOs) that exist in many villages. The most common economic activity is rice cultivation both in lowlands and uplands. The most common livestock is poultry, followed by goat, sheep, cattle, and pigs and they are raised mainly for sale and home consumption [13].

In a bid to meeting the objectives of the research, open-ended questions were developed and used as framework for guiding interviews. These were customized for each group of the interviewees.

Analyses of results were based on the package of social sciences statistical tools. Graphs were drawn from the responses and data collected, i.e., apart from the qualitative analysis, the data were also analyzed using simple, multiple and component bar charts, as well as pie charts. Percentages were primarily introduced to determine the extent of the impact which extension services have played towards the living standard of farmers and the agricultural sector.

Some other methods used in this work were case studies, interviews, focus groupsand participant observations.

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Whenever the researcher does not have control over the subject being studied, case study methodology is recommended. As the name implies, such a study is being focused on a specific happening or event; and as such, case studies are particularistic mentioned that case study approaches are used when the researcher is interested in insight, discovery and interpretation rather than hypothesis testing [14].

In simple terms, an interview is a discussion with purpose. Key informants, persons possessing special knowledge, experience, status, and they are open to share these with the researcher were interviewed in order to acquire an understanding of the research context [15].

For this study, representatives from the categories/groups (farmers, extension workers and researchers) were interviewed. Upon the knowledge that farmers have corporative societies, the researcher therefore interviewed at least three farmers (taking into consideration gender equality) from each group/society. This therefore summed the total farmers interviewed to 350: 200 male and 150 female farmers.

Like one-to-one/face-to-face audio tape recorded interviews with the farmers (upon their consent), 20 extension officers were interviewed, as well as 5 extension researchers. Most of them were from research stations established by the government whilst some interviewees were nongovernmental officials. Transcriptions were stored in a secured area after data analysis.

Focus group discussions were held with farmers including extension workers themselves. Like always, research officials were also involved.

Participation observation, which allows the researcher to verify that people do what they say they do, is a procedure that helps in understanding the life of others and which is usually combined with other methods such as interviews, document collection and surveys.

For the purpose of this research work, I visited the AESD in the MAFFS and reviewed some documents, and had interviews with some officials in the department. I also visited farms, participated in demonstration and toured research stations.

Data analysis and interpretation

The 350 farmers interviewed, 60 mentioned that they have never heard about extension programs, and this represents 17% of the total interviewed. This group of farmers is those whose farmlands/households are almost impossible to access/reach. They could also hardly be reached by phone. 83% reported to have heard about extension programs.

As statistics has shown that the world poorest (over two-thirds) are farmers and they live in remote areas the accessibility of these farmers by extension agents remains a subject matter. The table below shows the different programs and the number of farmers who have had about these extension programs (Table 1).

It is obvious that although 83% of those interviewed do aware and have knowledge about these programs, however, only 242 are participants in and do make use of these programs, and this represents 69.3% (Figure 1).

As seen from (Table 2) of 19.5% of those aware about general extension program, 17.2% participate in it. And this program constitutes the highest percentage of participation of farmers. The result thus shows that general extension program is highly adopted more than the others (Table 3). In a focus group discussion comprising representatives from different farmer group societies, the rationale for the most adaptive program is that it involves identification with broad agricultural and rural development programs. Such a merit is reflected on its general focus on the entire farm and home improvement. I.e. it embraces the general improvement of the farm family. Sub programs such as farm management, home economics, rural youth work, soil conservation, etc.are included under it. The greatest percentage of rural farmers do not cultivate only one type of crop on the same piece of land; and for this reason, the general agricultural extension program best suits the majority.

The bar chart below shows the awareness about extension programs, and participation and adoption of these programs by farmers (Figure 2).

Responding to the question of how they choose extension methodologies, the interviewed extension agents generally mentioned technological applicability, economic feasibility, environmental safety, social & cultural acceptability, and several others as factors influencing the choice of appropriate extension methodologies. These methods are in line with those mentioned by Famuyiwa et al. [15].

Although these programs are best suited to them, these farmers face difficulties in not only adopting them, but also with the extension agents themselves. The problems founded include some of the following:

- ♦ Low subject matter specialists to serve rural farmers' specific problems
- ♦ Farmers low rate of comprehension due to their literate level

Table 1. Extension programs and number of farmers having heard about them.

Program	Frequency	Percentage (%)
General Extension Program (G.E)	68	19.5
Commodity Specialty Program (C.S)	34	9.7
The Project (Pr.)	29	8.3
Train & Visit Program (T & V)	50	14.3
Farming Systems Research Program (F.S.R)	46	13.2
Cost sharing Extension Program (C.S.E)	30	8.6
Participatory Extension Program (P.E)	33	9.4

Table 2. Level of participation and adoption of programs by farmers.

Program	Farmers Perticipation and Adoption		
	Frequency	Percentage (%)	
General Extension Program	60	17.2	
Commodity Specialty Program	30	8.6	
The Project	15	4.3	
Train & Visit Program	45	12.9	
Farming Systems Research Program	40	11.6	
Cost Sharing Extension Program	24	6.9	
Participatory Extension Program	28	8	

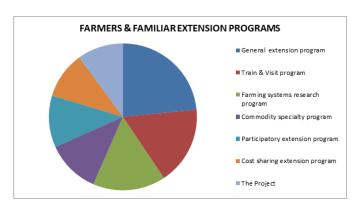


Figure 1. Farmers and familiar extension Programs.

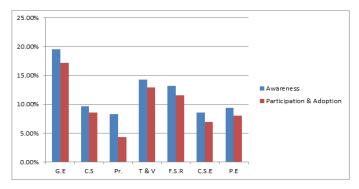


Figure 2. Awareness about extension programs, and participation and adoption of these programs by farmers.

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- ♦ Inadequate technology suitable for rural farmers
- Insufficient essential teaching and communication equipment
- ♦ Low access to land for practical purposes
- Low extension workers to farmers ratio
- Inconsistencies with the monitoring
- ♦ Conflict of interest among farmers (in farmers corporative groups)
- Insufficient demonstration materials.

Categorically, these problems are supervision and communication, motivation and finance related issues.

Responding to the question of how often extension workers meet with them, farmers (78%) revealed that they meet with extension workers 12 times in a farming season. This is somehow encouraging as FAO's recommendation about extension agents' contacts with farmers are expected to be 15 in a farming season.

Meeting with farmers much as often gives them the courage to employ scientific and modified methods of cultivation as any problems faced are quickly contained with by the expert advice given by the extension agents. This was the rationale behind this question.

A 'prominent' question among others which enabled comparison to be made in terms of yield/output with and without extension programs' adoption was asked. Only 0.6% of the respondents said that yields are just better with extension techniques. 4.4% of them reported have better yields with extension techniques, 21% said that yields with extension techniques are far better than those without, and 43.3% of them said that one cannot compare the two yields because the variation is too vast. These responses are given in the table below (Table 3).

The sizes of farmlands were not considered. In other words, their various responses do not depend on respective farmland sizes.

The differences in responses could most likely have resulted from differences in familiarity with or understanding of the techniques (Figure 3). Owing to this, it was found out from AESD-MAFFS that the extension to farmer ratio is 1:2,100 and this ratio obviously does not match with the 1:500-800 United Nations' (UN) extension to farmer ratio [16-18].

Nevertheless, their participation in these programs and implementation of learnt techniques have far away taken them from low yield experience to much better and quality yield/output.

Although the cost of living in the country is very high, the living standard of respondents is better off with extension techniques adoption.

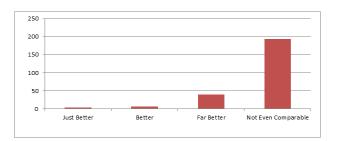


Figure 3. Bar chart showing responses of farmers to comparing between yields with adoption of extension techniques and those without.

Table 3. Comparison between yields with adoption of extension techniques and those without.

Responses	Frequency	Percentage (%)
Just Better	3	0.6
Better	6	4.4
Far Better	40	21
Not Even Comparable	193	43.3

A farmer in Mambolo Chiefdom said that extension programs have helped him and his group to be able to cater for the needs of their children's schooling. Others interviewed in Samu Chiefdom said that their poultries, pens are not far off from reaching international standards and these programs help them establish better homes due to higher sales/income. Almost all others interviewed across the points of administration of the questionnaire and survey reported to now have meals more than once a day. They now have alternative choices of meal and of course, they can now meet their basic needs.

Conclusion and Recommendations

Conclusion

From the survey, it is evident that awareness about extension programs correlates highly with the participation of farmers in those programs. This implies that there are clear evidences, which farmers themselves have seen, about the role which those programs can play to bettering the lives of participants in the field of farming. Therefore, access to information about these programs should be enhanced so that more farmers would become aware and thus participate in the programs and adopt the techniques.

Moreover, the study revealed that there is a shortage of extension agents relative to farmers participating in extension programs. Apart from this challenge, the others highlighted by respondents are also blurring the impact which extension programs could create towards the development of the agriculture sector. It is therefore highly recommended that government should increase funding made available to the AESD-MAFFS so that more extension workers would be recruited. Existing and newly recruited staff should be given much and better training particularly that dealing with communication skill thereby enabling participants to better comprehend the techniques. With more funding, demonstration materials also would be increased. It is also recommended that extension workers should not only be urged to disseminate information about extension techniques but should also frequently monitor how these participants/farmers implement these techniques on their farmlands.

In spite of these difficulties, extension programs have made better the life of every farmer participating in the programs and implementing the techniques-as the conducted survey revealed. With these programs, farming would definitely be seen as a carrier and would be very attractive and lucrative. It is therefore recommended that for a sustainable development, the agricultural sector should take the lead and this is only possible if extension programs are given more priority.

Recommendations

The essence of every research is to bridge the gap exhibiting the problems for which the research was done. This is normally done by suggesting or recommending economic and structural policies which should be in line with the object of the study.

From the evidence presented by this work, access to information about these programs should be enhanced so that more farmers would become better aware about and thus participate in the programs and adopt the techniques. One of the fundamental problems has to do with finance, as the research presented. It is therefore highly recommended that government should increase funding made available to the AESD-MAFFS so that more extension workers would be recruited. Existing and newly recruited staff should be given much and better training particularly that dealing with communication skill thereby enabling participants to better comprehend the techniques. With more funding, demonstration materials also would be increased.

It is also recommended that extension workers should not only be urged to disseminate information about extension techniques but should also frequently monitor how these participants/farmers implement these techniques on their farmlands. It is further recommended that for a sustainable development, the agricultural sector should take the lead and this is only possible if extension programs are given more priority.

Just as all other developing nations have for a very long time been trying to attain food security, past and present government of Sierra Leone have

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been prioritizing the agricultural sector for decades now in a bid to attain food security. Bills have been passed and several policies enacted all in the interest of boosting the agricultural sector. But interestingly, the Maputo's declaration of minimum budgeting has never been met, let alone meeting the set annual growth rate in the agricultural sector.

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